POTENTIAL ACTION ITEM

Washington State
Energy Facility Site Evaluation Council

REVISED AGENDA

MONTHLY MEETING
Wednesday February 15, 2023
1:30 PM

VIRTUAL MEETING ONLY
Click here to join the meeting
Conference number: (253) 372-2181 ID: 56502492#

1. Call to Order ……Kathleen Drew, EFSEC Chair

2. Roll Call ……Andrea Grantham, EFSEC Staff

3. Proposed Agenda ……Kathleen Drew, EFSEC Chair

4. Minutes **Meeting Minutes**……Kathleen Drew, EFSEC Chair

- January 11, 2023 High Top and Ostrea Special Meeting Minutes
- January 18, 2023 Monthly Meeting Minutes

5. Projects

a. Kittitas Valley Wind Project

- Operational Updates……Eric Melbardis, EDP Renewables

b. Wild Horse Wind Power Project

- Operational Updates……Jennifer Galbraith, Puget Sound Energy

c. Chehalis Generation Facility

- Operational Updates……Michael Adams, Chehalis Generation

d. Grays Harbor Energy Center

- Operational Updates……Chris Sherin, Grays Harbor Energy

e. Columbia Generating Station

- Operational Updates……Denis Mehinagic, Energy Northwest
- Project Updates……Amy Moon, EFSEC Staff
- NPDES Permit…… Amy Moon, EFSEC Staff

The Council may consider taking FINAL ACTION on the NPDES Permit for the Columbia Generating Station.

f. WNP – 1/4

- Non-Operational Updates……Denis Mehinagic, Energy Northwest

g. Columbia Solar

- Project Updates……Owen Hurd, Tuusso Energy

h. Horse Heaven Wind Farm

- Project Updates……Amy Moon, EFSEC Staff

i. Goose Prairie Solar

- Project Updates……Sara Randolf, EFSEC Staff

j. Badger Mountain

- Project Updates……Ami Hafkemeyer, EFSEC Staff

k. Whistling Ridge

- Project Updates……Ami Hafkemeyer, EFSEC Staff

l. High Top & Ostrea

- Staff recommendation……Ami Hafkemeyer, EFSEC Staff

EFSEC staff will present information and make a recommendation to the Council as to approval or rejection of the Project's application for site certification. The Council may take FINAL ACTION on their recommendation to the Governor.

m. Wautoma Solar

- Project Updates……Lance Caputo, EFSEC Staff

n. Hop Hill Solar

- Project Updates……John Barnes, EFSEC Staff

o. Carriger Solar

- New Application……Ami Hafkemeyer, EFSEC Staff
- Applicant presentation……Lauren Altick and Tai Wallace, Cypress Creek Renewables

6. **Adjourn**……Kathleen Drew, EFSEC Chair

Note: "FINAL ACTION" means a collective positive or negative decision, or an actual vote by a majority of the members of a governing body when sitting as a body or entity, upon a motion, proposal, resolution, order, or ordinance. RCW 42.30.020

ENERGY FACILITY SITE EVALUATION COUNCIL

High Top and Ostrea

Conditional Use Permit Meeting

January 11, 2023

held via Teams Video Conferencing

Reported by: ANN MARIE G. ALLISON, CCR
Certified Court Reporter #3375

High Top and Ostrea Solar Project
High Top and Ostrea, Conditional Use Permit Meeting - January 11, 2023 Pages 2..5

Page 2

A P P E A R A N C E S

JESS MOSLEH, Cypress Creek Renewables
HEATHER WISE, Cypress Creek Renewables
SUSAN DRUMMOND, Cypress Creek Counsel
AMANDA McKINNEY, Yakima County Commissioner
DALE HILLE, East Valley Fire Chief
LORRE GEFRE, Public
MICHAEL TOBIN, NYCD Manager
MARK HERKE, Yakima County Farm Bureau

Page 3

BE IT REMEMBERED that on Wednesday, January 11, 2023, 5:00 p.m., the following proceedings were held before Ann Marie Allison, Certified Court Reporter residing in Pierce County, Washington.

(All parties present via Teams)

*** MEETING CALLED TO ORDER 5:00 p.m. ***

SPEAKER DREW: Good evening, this is Kathleen Drew, chair of the Washington State Energy Evaluation Site Evaluation Council meeting calling to order our meeting tonight.

On the agenda we have the High Top and Ostrea Project. This is a public meeting to receive comments on that project. We are currently reviewing the application for High Top Ostrea Solar project located in Yakima County, Washington. Since the council has granted the applicant expedited processing, this public comment meeting complies with RCW 80.50.090(5).

This public comment meeting is to receive verbal comments on conditions that could be imposed upon the project to adhere to the conditional use criteria in the Yakima County Code.

We are looking for projects -- excuse me, for comments that directly do relate to those criteria, and with

Page 4

no further ado, I will ask Ms. Owens to call the roll.

SPEAKER OWENS: Department of Commerce.
SPEAKER KELLY: Kate Kelly present.
SPEAKER OWENS: Department of Ecology.
SPEAKER LEVITT: Eli Levitt present.
SPEAKER OWENS: Department of Fish and Wildlife.
SPEAKER LIVINGSTON: Mike Livingston present.
SPEAKER OWENS: Department of Natural Resources.
SPEAKER YOUNG: Lenny Young present.
SPEAKER OWENS: Utilities and Transportation Commission.
SPEAKER BREWSTER: Stacey Brewster present.
SPEAKER OWENS: The assistant attorney general.
SPEAKER THOMPSON: John Thompson present.
SPEAKER OWENS: The administrative law judge.
JUDGE BRADLEY: Laura Bradley present.
SPEAKER OWENS: For EFSEC counsel staff, Sonia Bumpus.
SPEAKER BUMPUS: Sonia Bumpus present
SPEAKER OWENS: Ami Hafkemeyer.
SPEAKER HAFKEMEYER: Ami Hafkemeyer present.

Page 5

SPEAKER OWENS: Andrea Grantham.
SPEAKER GRANTHAM: Andrea Grantham present
SPEAKER OWENS: Stewart Henderson.
SPEAKER HENDERSON: Here.
SPEAKER OWENS: Dave Walker.
SPEAKER WALKER: Dave Walker present.
SPEAKER OWENS: John Barnes.
SPEAKER BARNES: John Barnes present.
SPEAKER OWENS: Osta Davis.
SPEAKER DAVIS: Osta Davis present.
SPEAKER OWENS: And Joanne Snarski.
SPEAKER SNARSKI: Joanne Snarski present.
SPEAKER OWENS: Is anybody from counsel for the environment on the line?
SPEAKER OWENS: Okay. Hearing none, Chair, we have a quorum for the council.
CHAIR DREW: Thank you very much.

At this point I would like to introduce Administrative Law Judge Laura Bradley, who will be facilitating and presiding over this meeting.

Judge Bradley.

JUDGE BRADLEY: Thank you, Chair Drew, and good afternoon, everyone.

So the agenda is posted there for you. First, we will hear a presentation from Cypress Creek Renewables, and

Page 6

so the person making that presentation, please begin with stating your name and spelling it for the record.
Cypress Creek.
SPEAKER MOSLEH: Hello. My name is Jess Mosleh, J-E-S-S, M-O-S-L-E-H.
JUDGE BRADLEY: Thank you. Go ahead, please.
SPEAKER MOSLEH: Hello. Thank you, Madam Chair Drew, Judge Bradley, EFSEC council members and EFSEC staff, stakeholders and other interested parties. Thank you all for your time today.
Next slide, please.
My name is Jess Mosleh, and it's an honor to be back here today representing Cypress Creek Renewables in our EFSEC application for the Ostra and High Top Solar projects. The team is grateful to have had the opportunity to come back and present to you all today.
Next slide, please.
Here is a brief overview of what we'll be presenting to you all today. I will walk you through who the Cypress team is. Our legal counsel, Susan Drummond, will speak to the conditional use criteria for the projects. I'll give you a project update on Ostra Solar, and I'll hand off the rest of the presentation to Heather Wise, who is the new developer on High Top.
Next slide, please.

Page 7

I'd like to re-introduce our team. Tai Wallace is senior development director for transmission skill projects in the west.
I'm really excited to introduce you all to our new High Top developer, Heather Wise. Seija Stratton is our environmental director. Julie Alpert is our senior environmental manager, and Erin Bergquist is our TRC project manager consultant.
Once again, our statement as an organization is powering a sustainable future one project at a time. As I mentioned during our first information meeting and land use hearing, the company takes a lot of pride in our work and we strive to build long-lasting relationships in the community that we work in.
Next slide, please.
Here's an updated slide of Cypress's core competencies, which is similar to what you all saw in the initial information meeting. Cyprus Creek is not only a solar and storage developer, we're a long-time term asset management and owner-operator over noble projects throughout the United States.
In the past eight years, Cypress has developed over ten gigawatts of solar energy projects. We have also financed over three billion dollars of solar projects, in addition to performing asset management and operations

Page 8

maintenance for our own fleet operating assets, as well as third-party operating projects.
Next slide, please.
I will now be handing off the next few slides to Susan Drummond, who will speak to the conditional use criteria for the projects.
SPEAKER DRUMMOND: Thank you. Good evening, I'm Susan Drummond. I represent Cypress Creek. Susan Drummond is spelled, S-U-S-A-N, D-R-U-M-M-O-N-D.
The first slide I'd like to point to are the Yakima County Code criteria. There's no need to read them, as they're here in the packet and, of course, online. But in summary, the criteria essentially require that the project be compatible with surrounding uses, that it meet all local code requirements and that it not present material detriment or injury to surrounding properties.
The project is full of these criteria.
If we could move to the next slide, please.
So I'll just provide a brief flyover of project consistency with the criteria. In terms of community need and benefit to the community, the project is located on vacant, non-irrigated land. It will not adversely impact public infrastructure or environmental resources. It supports the rural economy through tax revenue and lease payments and presents an overall benefit to the community.

Page 9

The project is also consistent with the county's comprehensive plan. It's consistent with goals in the plan which direct the county to consider energy supply alternatives and to diversify the rural agricultural base.
The project is also consistent with rural and agricultural goals. It provides economic support to minimize land conversion risks. And on the site, crop production has been non-existent for over 25 years. The weedy species which dominate the site in previously plowed areas are not well-suited for year-round livestock grazing. And, of course, after the project's commercial life, it would be decommissioned and removed.
If I can have the next slide, please.
The project is also compatible with neighboring land uses. It is north of State Route 24, south of the Yakima Training Center and 20 to 22 miles east of Moxee.
JUDGE BRADLEY: May I interrupt, please?
SPEAKER DRUMMOND: Yes.
JUDGE BRADLEY: You're speaking very quickly, and we do have a court reporter making a transcript. So if you could slow down a little bit, that would be helpful.
SPEAKER DRUMMOND: Thank you. I do have a tendency to do that. Thank you. I will slow down, make it a little easier for the court reporter.
Also, the project is well set back, and that

Page 10

includes at least 300 feet from the Yakima Training Center. In terms of other uses, there is agriculture and grazing to the west, with the nearest residence several miles away. There's grazing to the east, and with residents 850 feet east from Ostrea's boundary and three miles from High Top's boundary.

Transportation is also fully addressed. The State Route 24 approach onto the private access road will be improved for safety and access, and all county and Wash DOT requirements will be met.

The project size is appropriate for the project, and all local code requirements will be met. That includes building codes, fire codes and all other county requirements. And then the county code also provides for conditions to be imposed on the project, and the EFSEC proposal will be fully mitigated and conditioned to address the project's impacts.

So overall, the project meets all of the county code criteria. Thank you.

SPEAKER MOSLEH: Thank you, Susan.

Over the past couple of months, both Ostrea and High Top achieved two monumental milestones in the EFSEC process. First, EFSEC issued a revised mitigated determination of non-significance on October 28th.

There are several conditions that both projects

Page 11

will comply with in order to ensure the projects will mitigate any significant adverse impacts on the environment.

A couple of these mitigations include monitoring for erosion and considering mitigation ratios for habitat impacts such as shrubsteppe habitat and sheep grass. The projects will honor the MDNS and continue to comply with what's appropriate.

Second, land use consistency was approved by counsel on November 8th, which deemed both projects as consistent and in compliance with land use and zoning ordinances. By this order, the council concluded that with property mitigation, the projects could be approved under the conditional use provisions of Yakima County Code Title 19.

Our team is proud to have accomplished these critical milestones in the process, and we will continue to work together and make these projects a success.

Next slide, please.

Here is the Ostrea Solar site plan layout. There were several modifications to the initial site plan to minimize resource impacts. Not only do we consider micro siding during the land process, but we are committed to working with the environment that surrounds the projects.

We understand that there are sensitivities to work around, which is exactly what is demonstrated here. A

Page 12

couple of areas I would like to highlight, that were designed to consider and minimize any potential impact for avoiding sensitive plants and cultural areas identified during the surveys and maintaining wildlife corridors open along the majority of the passing stream channels on both project sites.

This includes maintaining a one-mile wide wildlife corridor between the western and eastern parcels of the Ostrea project. Additionally, the project will fence subsets of panel arrays instead of a singular fence around the entire project footprint, to allow for greater wildlife movement and habitat connectivity.

We are in agreement with the requested mitigation to include re-vegetation with native seed mixes and providing wildlife-friendly fencing.

Next slide, please.

Moving along to the environmental studies completed for Ostrea, for those of you who attended the first information meeting, this is a slide you saw during that presentation. We thought it was important to show you all, once again, the various studies that were completed for the project.

As previously stated, the primary goal of each environmental report was to gain a deep understanding of the land's sensitive areas in order to avoid and help mitigate

Page 13

any impacts on the project -- the project site may have. The results were favorable, and they indicated no major impact on the project location.

Next slide, please.

We wanted to provide you all with a brief Ostrea Solar update and show you where the project is today. As some of you may know, Ostrea is an 80-megawatt project in Yakima County.

Starting off with site control and surveys, while we have over 1,600 acres under site control, we intentionally secured over 1,600 acres with the intent to reduce the acreage, knowing that there would be sensitivities to consider. We secured all easements and completed our topo and ALTA boundary surveys, and our mineral and title curative work is near completion.

In terms of interconnection, we built a strong relationship with the Bonneville Power team and touch base with them regularly and provide updates for them as we move along the EFSEC project and vice versa. We communicate on project updates, and we're working through the interconnection process and Ostrea's technical studies together.

On to EFSEC, you all know where we stand today in terms of the MDNS and land use consistency, which we will continue to work with EFSEC staff and, again, are very

Page 14

thankful to be part of the process to ensure we're doing everything we're able to from our end to make these projects a success.

The geotechnical studies for the project are complete, and we are currently in the process of going out to bid for the engineering and procurement RFP, and we're expecting that release to occur Q1 of 2023.

Thank you all very much for your time today. I will be handing off -- I will be handing over the presentation to Heather Wise, and she will finish it off with High Top Solar updates.

SPEAKER WISE: Thanks, Jess.

Thank you to council and agency members for their time today. I'm Heather Wise, project developer at Cypress Creek and the developer for our High Top Project, which is adjacent to Ostrea in Yakima County.

My name, to be spelled out, is H-E-A-T-H-E-R, W-I-S-E.

Taking a look at the site layout on this slide, this is a proposed 80-megawatt solar project. Cypress Creek does take into thoughtful consideration the impacts of the site design on the existing habitat and surrounding environment of the project itself. This is done through various environmental studies and in consultation with EFSEC staff and agencies over the last year.

Page 15

In general, taking a look at the project site itself, it is former plowed cropland that is dominated by non-native weedy species, as Susan highlighted. This makes it an ideal project site for solar development for High Top.

That being said, the Cypress Creek team has created a site layout that mitigates any impacts to the surrounding land in a few different ways. The first is through wildlife corridors, and we have maintained the wildlife corridors along the channels to the west and east of the solar array.

So you'll notice that the land to the west of the array is open and also to the east is open for wildlife activity. Additionally, there is a wildlife corridor remained between the north and south array, along the transmission line. This was based on direct feedback from the Washington Department of Fish and Wildlife, and we've incorporated this into our design to address that.

Secondly, we're avoiding the shrubsteppe in the north and south areas of the project, as well as the rare plant population in the north area of the project. So those are the gray-shaded areas of the site layout that you'll notice on the screen, areas that we're avoiding for plant species. We're also naturally avoiding the channels to the west and east of the project site.

All of these efforts help demonstrate that Cypress Creek has thoughtfully designed the High Top Project in accordance with guidance from EFSEC council and agencies.

Page 16

We can go to the next slide, please.

This one includes a list of the environmental studies completed for the project that help us better understand and mitigate any impacts the project may have to the site location itself. These studies can be found on the website, as well, for future reference if they're needed, but we wanted to include a list today for reference.

We can move to the next slide.

This is a high-level summary of the project development for High Top to date. As mentioned, this is a proposed 80-megawatt project with a 40-megawatt energy storage system. So this project will have a battery, as well, located on site.

For the site itself, the project footprint will cover 631 acres of the total lease area of 1,500 acres, and we have secured site control for the project. We have an executed interconnection agreement with PacifiCorp as the utility for the project.

We're also continuing to advance our design with our engineering team, and we're in the process of working with EPC contractors to look to commencing construction in the next year as we wrap up development and receive final permitting approval from EFSEC.

Page 17

Please feel free to refer to these slides.

And the last item that I'll note is off take conversations are ongoing for this project and remains a focus to wrap up project development, but please refer to these slides if there are any additional questions.

But that does conclude our presentation today.

If we flip to the next slide, we thank you for your time, and feel free to reach out if there are any questions.

JUDGE BRADLEY: All right. Thank you for your presentations.

I'll just mention quickly; for folks who are attending the meeting, but not actually speaking, please make sure that you've muted your computer or phone, whatever device you're using.

Chair Drew, do you have any questions about the presentation from the applicant?

CHAIR DREW: I do not.

Thank you for the presentation.

Other council members, do you have questions for the applicant?

I don't hear any at this time. Thank you.

JUDGE BRADLEY: Thank you.

So we'll proceed with the EFSEC presentation by the EFSEC staff.

Page 18

SPEAKER HAFKEMEYER: Thank you, Judge Bradley. Welcome, everybody. Thank you all for coming to participate this evening.

My name is Ami Hafkemeyer, and the spelling, for the record, is A-M-I, H-A-F-K-E-M-E-Y-E-R. And I am the director of siting and compliance for the Energy Facility Site Evaluation Council. I'll be giving a brief presentation on our process to date for this project.

The applicant, Cypress Creek Renewables, submitted the application for site certification or ASC to EFSEC on April 7th, 2022. With the application, the applicant also submitted a letter requesting expedited process, in accordance with the Revised Code of Washington or RCW 80.50.080.

On June 1st, EFSEC held the public informational meeting, followed immediately by the land use consistency hearing. Both of these meetings were held virtually.

The applicant referred to appendix A of the ASC in their statement at the land use hearing, which contains certificates of zoning compliance from the Yakima County Planning Office.

On July 19th of the regularly-scheduled monthly council meeting, the applicant requested and the council approved the extension of the expedited processing determination by ten weeks. This determination is stated

Page 19

within Washington Administrative Code or WAC 463-63-050 to be made within 120 days of receipt of the application or such time as is mutually agreed upon by the applicant and the council.

This extension was requested and granted to allow for the completion of the state environmental policy act or SEPA review.

On October 18 the council voted to approve Order 884 determining the proposal to be consistent with local land use ordinances in place at the time of application.

On October 1st, EFSEC issued a SEPA threshold determination of mitigated determination of non-significance, or MDNS, followed by a 14-day public comment period.

On October 28, EFSEC issued the final revised MDNS.

On November 2nd, the council went on a site tour and viewed the High Top and Ostrea sites from a nearby vantage point.

There are two requirements identified within WAC 463-43-030 for a proposal to be eligible for expedited process. The first, that the proposal qualifies for an MDNS. The second, that the proposal be deemed consistent with local land use ordinances.

With the land use consistency determination made

Page 20

by Order 884 and the revised MDNS issued on October 28, the council voted to approve the applicant's expedited process requested by Order 885 on November 15th.

WAC 463-43-080 required that the recommendation to the governor shall be made within 60 days following the granting of expedited processing or such later time as is mutually agreed upon by the applicant and the council.

On November 29th, the council reviewed and approved the request to extend this timeline to February 22nd. This extension would allow for the council to hold and then review public comment received during the conditional use criteria meeting that we are participating in this evening.

Following tonight's meeting, public comment received will be reviewed and the council will vote to make its recommendation to the governor. If the council recommends approval, it prepares a draft site certification agreement, or SCA, that must include conditions to protect state or local governmental or community interests affected by the construction or operation of the facility.

The draft SCA must also include conditions designed to recognize the purpose of applicable state and local laws and ordinances which are preempted to the extent that they regulate the location, construction and operation of energy facilities under EFSEC's jurisdiction. If signed

Page 21

by the governor and the applicant, site certification agreement is binding.

Per RCW 80.50.100, the governor shall, within 60 days of receipt of the council's recommendation, take one of the followings actions:

Approve the application and execute the draft SCA. Reject the application. Or direct the council to reconsider certain aspects of the draft SCA.

That concludes my overview of the project activity to date and my presentation for this evening. Before I conclude, I'd like to remind everybody how they may submit comments for this evening's meeting.

If you'd like to speak this evening, but have not yet signed up, you can call the EFSEC main line at 360-664-1305. You may also email comments to our main inbox at EFSEC -- at EFSEC.wa.gov or E-F-S-E-C at E-F-S-E-C dot W-A dot G-O-V.

Lastly, comments may be submitted to our online comment database at https://comments.EFSEC.wa.gov.

Thank you.

JUDGE BRADLEY: Thank you, Ms. Hafkemeyer.

A point of clarification, the number that you -- the phone number that you cited did not match what you stated as the phone number. So can you confirm what the correct phone number is?

Page 22

SPEAKER HAFKEMEYER: My apologies. The correct phone number is our EFSEC main line, which is available on the screen right now for anybody joining through Microsoft Teams: 360-664-1345.

JUDGE BRADLEY: Thank you.

Chair Drew, any questions before we proceed with public comment?

CHAIR DREW: Are there any questions from council members?

I think we can proceed. Thank you, Judge.

JUDGE BRADLEY: Thank you.

My understanding is that a commissioner from Yakima County is planning to comment, and so we'll begin with that person.

I want to let folks know that we will be limiting comments to five minutes, and we will only allow one opportunity to speak. So it's very important that you focus your comments specifically on the land use criteria and your comments about that.

So I see the commissioner on video. Please state your name and spell it for the record.

SPEAKER McKINNEY: Yes. Amanda McKinney, Yakima County Commissioner. Amanda is A-M-A-N-D-A. McKinney is M-C-K-I-N-N-E-Y.

Good afternoon, madam chair and everyone on the

Page 23

committee. It is a pleasure to have the opportunity to speak with you on behalf of Yakima County. This is my second opportunity to do so on these projects.

I wanted to cover a couple things, which first is the reason for the meeting, the purpose for your four topics that we were to discuss, No. 1, comply with development standards, which is an issue that Yakima County has taken up with this board. Because for layman's terms and any benefit of the public listening, planning departments in Yakima County were reached out to, and it was asked of them whether or not this was disallowed.

And to put it in very simple terms for anyone, we didn't specifically disallow it. And so the logic has been from the state that if it wasn't specifically disallowed, then it would be okay, which, of course, is a very interesting and subjective way to look at things.

So when we saw that things were going forward and that we did not have a code that actually addressed energy projects adequately, which is what we should be doing, we enacted a solar moratorium.

So I want to make sure everyone understands that the solar moratorium enacted by Yakima County still stands today. And the purpose is in good faith for us to look at how we can be a part of the solution that the State of Washington has determined is a way to proceed with green

Page 24

energy projects.

We do not adequately address that in our county codes, and we have simply said that we need to have time so that we can do so.

And I think it's indicative of a conversation that we all know is happening across the state. Our state legislature is taking this up right now. The governor has talked about how he would like to see EFSEC receive additional funding to move forward with projects.

We also know that there's been a call for studying. I know these projects are being considered independently, but it is very clear that with EFSEC's request by the governor to have statewide significance, that this is a project that needs to be studied as a whole. What is the entire intent of the State of Washington to really shift in how we're creating energy sources and updating our energy grid and relying on green energy projects.

Yakima County is not unwilling to be a participant, but we do need to have a plan, and I want to speak to a plan. I just spent eight hours today in the Yakima Basin integrated plan meeting. And this is a group that I had the privilege to recently join, but this group has been going on for years, decades. And the depth and breadth of knowledge of folks in this room, from ecology, from Bureau of Reclamation, there are folks that are far

Page 25

smarter than I when it comes to fish storage.

We have the tribal involvement, and what it really shows is that when you come together, you can actually develop an integrated plan. And you get discourse, but out of it comes something that is called upon by the nation as a way to progress through difficult decisions on how to use our natural resources, acknowledging that no one is ever going to get everything that they want, but there is balance.

And what we are not seeing in this process is balance. An expedited process going forward, when this county ordinance is simply saying, We didn't address this adequately. We want to have time to be a part of a state conversation of how to address this.

So my request to this board is to reject the proposals; is to reject the proposals so the legislature can adequately address what has been asked by the governor for this state and its residents, which is to categorically change the way we look at our ag land. Because as a county commissioner, my job -- I am entrusted to protect the ag land.

And Yakima County has $5 billion annually of income that is earned and generated for the State of Washington. We are feeding the nation. We are incredibly proud of that. So how can we work with this new concept in

Page 26

energy, to make sure that we are not cutting ourselves short for the future food production that we will be called upon to provide for the United States.

Thank you.

JUDGE BRADLEY: Thank you. Can you tell me when the moratorium on solar projects was enacted?

SPEAKER McKINNEY: Yes, ma'am. I believe that was in July. I can get you the specific date.

JUDGE BRADLEY: July of 2022?

SPEAKER McKINNEY: Yes. And I would simply -- and if you need a specific, I can get you a copy, but I'm certain that this board has been provided a copy.

JUDGE BRADLEY: Thank you.

Chair Drew, do you have any questions you want to ask Commissioner McKinney?

CHAIR DREW: No, I'm good. Thank you.

JUDGE BRADLEY: Ms. Owens, can you tell me who else signed up to speak this evening?

SPEAKER OWENS: Would you like the full list or just the next person?

JUDGE BRADLEY: Just the next person, please.

SPEAKER OWENS: Okay. Dale Hille.

JUDGE BRADLEY: Okay. Is Dale Hille with us?

SPEAKER HILLE: Yes, I am. Thank you.

JUDGE BRADLEY: Good afternoon, Mr. Hille.

Page 27

Would you please state your name and spell it for the record, and then you can proceed.

SPEAKER HILLE: Yes. My name is Dale Hille. It's D-A-L-E, H-I-L-L-E. I'm the fire chief of the Yakima County Fire District 4, East Valley Fire Department.

I'm going to read to you a statement which has already been sent to EFSEC's, but I would like to read it at this time.

Yakima County Fire District 4, East Valley Fire Department, provides fire response to the East Valley and the rural areas surrounding it. We provide fire suppression at mile marker 18 on Highway 24, as well as EMS response to mile marker 30.

It is our operational policy, when called to fires outside the mile marker 18 area, that we respond when called, report on scene and provide fire suppression only if we can make a difference in the situation, as an initial response in order to control spread or contain the event.

We support our mutual aid partners that have contractual arrangements in the no-man's land areas, and we'll do what we can to assist the citizens in that part of the county outside of our district boundaries.

The East Valley Fire Department does not take a stand on whether the proposed solar farm should or should not be allowed to be built. As with any construction in a

Page 28

wildland area, there is an inherent risk of fire due to the surrounding ground cover and topography that is uncontrollable.

We do believe that the proposed construction of such a large project in an unprotected area of the county should, at minimum, be required to have contractual fire suppression service, in the event of a fire at this site or one that overruns the area in a wildfire, as well as other construction details to assist in the event of a fire emergency, both during construction and when the project is completed.

Construction of the facility should include access to all sides of the facility through large gates, enough to -- large enough to allow access of firefighting equipment. Roadways need to be constructed wide enough to allow for equipment to pass comfortably through the panel array and make turns at the end or at intersections, as well as allow for any needed operations near the suppression equipment.

Vegetation management must be established and maintained on both inside the perimeter fence of the facility, as well as having a 30-foot buffer around the outside of the facility fence with the same vegetation management.

The perimeter fencing must be kept free of

Page 29

blown-in weeds and debris for all fire protection of the facility. If a water source is located on the property, it would have the ability to be accessed by the fire department if necessary to fill suppression equipment.

All disconnect equipment must be clearly marked for the responders. All battery storage facilities must have an appropriate fire suppression system for the hazards presented. Pre-incident planning will be needed on an annual basis at the site in order to keep the responders up to date on the facility.

The East Valley will entertain entering into a fire suppression contract with the owners/operators of the solar farms if construction is forthcoming. We would also be willing to be a resource during construction, to ensure our equipment and manpower can function effectively in case of emergency at the site. Thank you.

JUDGE BRADLEY: Thank you.

Ms. Owens, our next speaker, please.

SPEAKER OWENS: Lorre Gefre.

JUDGE BRADLEY: Is Lorre Gefre with us?

SPEAKER GEFRE: Yes, I'm here. I'm available to come on -- off of the phone and onto the site on the Internet, so this is better. Yes, I'm here.

JUDGE BRADLEY: All right. Could you please state your name and spell it for the record, and then you

Page 30

may proceed with your comments.
SPEAKER GEFRE: Yes. My name is Lorre Gefre. L-O-R-R-E, G-E-F-R-E.
Did you ask me something else? Forgot.
JUDGE BRADLEY: No. You can proceed.
SPEAKER GEFRE: Okay. First, thank you for the opportunity for allowing me to speak. I have been involved since I knew that this was the governor -- the Inslee-Murray project, and this is all part of it. And I also know Governor Inslee used to reside in this area.
But my main concerns regarding the massive amounts of -- these aren't the only two planned, and I'm not sure the public knows how many are really planned. There are signs on gates that if you know what to look for, you see them. I don't think the public has been forewarned about how this might affect them in the future.
And I agree with Amanda McKinney that -- I just don't think there's been adequate time for people to really realize what's been happening, nor can they plan through the county. And we shouldn't be crushed, as people, because we don't know or we weren't informed enough.
And again, thank you for the time to talk. So my concerns are there is a lot of these that are planned. I don't believe that we even have the amount of sun it takes for all these thousands of acres that are going to be

Page 31

covered up. Not just Ostrea High Top, but the others planned out in this area.
There's a lot of wildlife. There's a lot of wildland. There's a lot of very interesting little creatures that are out here that you won't find anywhere else because it is secluded in a lot of ways and they can survive here.
The ecosystem will be messed up forever once it happens. Also, I've always had a concern about the fire department, that we don't have a fire department. I live out here. I've lived out in this area for 38 years, 40 years. I don't know now. But anyway, I've watched a lot, I've been out in nature a lot, and when you don't have the fire protection, that's scary enough. But I've also read these solar farms can generate their own fires, and it's not recorded.
And I brought this up in meetings with interjects. There's no answer. There's no answer to this. It's just like, put it in and we don't care. We're going to go as we choose.
I also know, from watching in the past, mitigation means nothing. There is no oversight. No one will do anything. Once the door is open, it's open, free for whatever happens.
I've been in politics for quite a while on several

Page 32

things and observed this. And I know state agencies, they do their job. I know Ecology, Wildlife. They're also paid by the state. They can lose funding. I'm very familiar with a lot of this stuff, and I also do not want the newspaper quoting me as wrong this time and saying I'm for these projects. I'm not, because people have not been involved and we -- the county's being left out, public is not aware, and the wildlife is going to be crushed, also.
This is not that far from the firing center. They have their own fires on top of it. Plus, I have read also that you need specially trained firefighters to fight these fires with these solar farms because of the toxins. We've got the batteries, the leakage. How much water's going to be used? Do these things have to be washed off?
We lack water in this area. My well went dry two years ago during the drought. How much water's going to be used for construction?
I have a lot of questions, and I don't feel they've been answered, they're being answered. And again, this has been in a process for a long time, but the public's just starting to realize that this is happening. They do not understand how it's going to affect them in the future.
And again, once more, I'll say fire protection, wildlife, people matter, not -- I don't call this green energy. It looks like it is, but to me it doesn't look

Page 33

green, except in money for a very few.
And again, thank you for your time. I appreciate the time to comment, and I really hope these will stop until things are looked at and in place, like Amanda McKinney said. Thank you very much.
JUDGE BRADLEY: All right. Thank you, Ms. Gefre.
Ms. Owens, do we have any other speakers this evening?
SPEAKER OWENS: Yes. There's one more on the list, Mike Tobin.
JUDGE BRADLEY: Mr. Tobin, are you there?
SPEAKER TOBIN: Yes, I am. Can you hear me?
JUDGE BRADLEY: Yes. Can you state your name and spell it for the record, please?
SPEAKER TOBIN: I will. My name is Michael Tobin. M-I-C-H-A-E-L, T-O-B-I-N. I'm with the North Yakima Conservation District. I'm the district manager.
Thank you. I appreciate the opportunity. I understood we would be talking about items A through B that was in the information that deals with compliance with Yakima County Code and compatibility.
First of all, I'll say, today I am representing the local conservation district and its authorities under RCW 89.08. I'm going to speak a little bit about -- it's

Page 34

quite an impressive fiscal portfolio that Cypress has, and there is a reason for that. And that is a process that's been set forth by this council, through law that has been quoted time and time again at every public meeting that I hear. I feel that that actually is a way to suppress people from participating. That is a personal comment.

This site is and this action has been characterized as being done on vacant, non-irrigated land. That is wrong. That land, many portions of it has been irrigated in the past. The economics of the proposed cropping out there, at the time, was no longer viable, so it changed.

There is available water out there. So much so that investment companies from the East Coast have actually invested in some of the property out there. The Moxee Orchards is one of those examples; just recently purchased land from the current landowner who is providing the lease to Ostra.

High-value crops such as orchard hops, vineyard, other crops like that use water conservation techniques and do not need as much as the previous cropping patterns of the hay lands that were found to be incompatible with the economics out there, but those are emerging. That investment by an investment company is proof of that.

Therefore, this conversion of the solar farm --

Page 35

which it is not a farm, it is an industrial complex -- converts agricultural land to an industrial complex. It's commercial property now. There is no other commercial property. The only allowable commercial assets that could be allowed in that area would be something similar to a controlled atmosphere building.

I also find that this action is also in direct violation and will adversely affect RCW 36.70, those portions related to voluntary stewardship program. Yakima County, along with 28 other counties in the state, have chosen that as an alternative to the Growth Management Act in relationship to agricultural lands.

The purpose of that RCW and that program is to assure compatibility and salvage of agricultural land, economic viability of agriculture in those communities, as well as equally protecting critical areas.

The entire area that is proposed to be constructed upon is listed as critical habitat. It is a critical area. The compatibility of agriculture in critical areas is very, very documentable and done. But when you add chain link fence, you add solar panels, you do not have that compatibility with habitat. There is no other way around it; no form of mitigation can replace it.

If there is embedded somewhere in some document that we cannot see, that is very difficult for the public to

Page 36

find, where mitigation is a cash value for any agency or non-profit to go out and buy other like land, that further erodes the agriculture base of this community because it will be converted to habitat by those entities. Most common is Washington Department of Fish and Wildlife.

We've talked a lot about habitat corridors. I can tell you that the impact to sage grouse is irreplaceable. Those birds do not like these kind of structures. There is no way around it. They will not come near it.

And when you consider the firing center and its management plan for sage grouse, you consider the Hanford monument and its value for our sage grouse, you have constructed a fence in between the two. It is a non-compatible fence.

Now, it's been mentioned before, this is just about Ostra and High Top tonight. When you string Goose Prairie, Wautoma Hill Top, Solway and Black Rock on top of that, you have such an impact that you will never, ever be able to recover from.

And with that, my time is up. Thank you very much.

JUDGE BRADLEY: Thank you, Mr. Tobin.

Ms. Owens, has anyone else expressed an interest in speaking this evening?

SPEAKER OWENS: I have not seen any. That is

Page 37

the end of the list.

JUDGE BRADLEY: There are folks who are present here. If you'd like to speak, you can raise your hand or you can send an email or call to get added to the list. And we'll give you a couple of minutes to do that.

I see Mark Herke's hand raised. I'm sorry if I mispronounced your name, sir.

SPEAKER HERKE: Okay. Can you hear me?

JUDGE BRADLEY: Yes. Please state your name and spell it for the record.

SPEAKER HERKE: Certainly. My name is Mark Herke, M-A-R-K, H-E-R-K-E, and I'm the president of the Yakima County Farm Bureau. I appreciate very much the opportunity to speak tonight, to comment, and also that you gave me the opportunity to speak on such short notice. I tried to get through the maze of stuff, and it wasn't working. I'm assuming I waited until too long, but anyway -- so I'll start.

Our farm bureau -- the Washington State Farm Bureau and the Yakima County Farm Bureau is not opposed to green energy, to alternate energy; we believe in all of the above. But we believe that this process is being rushed too quickly -- and I won't go into the reasons why I think it is. Well, shortly, I'll just say it's blindsiding, before the public really wakes up to what's happening and how much

we're losing. And that's what I'm going to stick with, is what are we losing.

And I want to echo and thank Amanda -- Commissioner McKinney's comments and our North Yakima Conservation District Director, Mike Tobin's comments and the other folks that chimed in. This is very much not a win-win situation. We're walking off into the deep end of the pool without even realizing whether there's water in it or not.

For this process, there's too much at stake, loss of ESP. If we miss our goals and objectives, we're down the tubes. We're in a deep trouble. We have to stick with those objectives, and if this -- these kinds of projects all chained together, as many of them are, cause us to lose that, we're in a lot of trouble with the agriculture community and keeping up with regulations of growth management.

The wildlife situation, like with the sage grouse, is very important, you know. That can just as easily be an endangered species, up with the eagles and grizzly bears. And these kind of things, this reckless, wanton creation of these solar industrial complexes is just flying in the face of that and a lot of other things.

I think that we need to really look -- I mean, everywhere else we look, it's about saving open spaces and

saving agricultural lands, and now we're just throwing caution to the wind and now it's all about solar panels. We don't even know if we can find enough resources, these rare earth materials to create all these panels and batteries. And the fire danger, I'm very worried about the fire influence -- influence of fire in that area.

We take the time of year, like in the summer when we have those high pressure inversions and the air is stagnant and we've got wildfire seasons. And I sure don't want to go from -- I don't want the timber smoke, but I really don't want your lithium batteries burning up and drifting down into Yakima Valley, start having evacuation notices for people because of toxic smoke.

I think I've kind of touched the bases. I sent in a written comments from our farm bureau, a lengthy one that was prepared last fall, and I'll bow out to anybody else who might want to comment. Thank you.

JUDGE BRADLEY: Thank you.

I see Ms. Gefre's hand. I'm not sure Ms. Gefre was on when we indicated that folks would have one chance to speak.

Are there others who want to speak at this point, and then we'll reconsider Ms. Gefre's request?

Chair Drew, is it acceptable to the council if we give Ms. Gefre another two minutes?

CHAIR DREW: I think if she would like to add additional comments, she can send them in to us by email. Five minutes is sufficient. Thank you.

JUDGE BRADLEY: All right. We also have Commissioner McKinney raising her hand.

I'm guessing that the council would like Ms. McKinney also to follow up with written comments?

CHAIR DREW: Yes. I think that if these are not new issues, if they are, um -- that they have had the time to express that and can follow up by sending them to our comment database, which is listed on -- right in front of you.

JUDGE BRADLEY: Anyone else who would like to speak?

So, Ms. Gefre, just to confirm, the council would like you to submit any additional comments in writing, please.

SPEAKER GEFRE: It's more a question than a comment that I have.

JUDGE BRADLEY: What is your question?

SPEAKER GEFRE: Well, I sit across the highway from the Bonneville station that will supply the Ostrea and High Top Solar Farms. And my question is, now that this looks to be set up to hook up to the solar farms, what happens to Bonneville and what they've done, all the

work over there, if this is put on hold, or does it happen? I mean, is this -- that's my question.

I'm not sure people are aware that Bonneville already has this set up and they've been working on it for a long time. So my question is, since everything is already fast-forwarded, what's going to stop the money waste in Bonneville if it doesn't happen, or is it just telling us, too bad, so sad.

I'm not sure a lot of people know this, but I have this question: What happens to all the money in the Bonneville if this doesn't --

CHAIR DREW: I'm sorry, Ms. Gefre. This is not germane to our conversation or to what we asked for comments today.

SPEAKER GEFRE: Okay. Thank you.

CHAIR DREW: We don't speak for Bonneville.

SPEAKER GEFRE: Okay. Well, I know it hooks into that, and that's all I know. It was a question.

Thank you. Sorry.

JUDGE BRADLEY: Thank you, Ms. Gefre.

I believe I'm not seeing any other requests to speak, so it appears, Chair Drew, that we can conclude the meeting at this time.

CHAIR DREW: Thank you.

Thank you, everybody, for commenting tonight, and

the council will take all of your comments under consideration as we make decisions moving forward. I appreciate your time this evening.

The meeting is adjourned. Thank you.

(Meeting concluded 5:56 p.m.)

C E R T I F I C A T E

STATE OF WASHINGTON) I, Ann Marie G. Allison, CCR,
) certified court reporter, State of
COUNTY OF PIERCE) Washington, do hereby certify:

That the foregoing meeting was taken before me, via Teams video conference, completed on January 11, 2023, and thereafter transcribed by me;

That the transcript contains a full, true and complete reporting and transcription of the proceedings;

That I am not a relative, employee, attorney or counsel of any party to this action, or relative or employee of any such attorney or counsel, and that I am not financially interested in the said action or the outcome thereof;

IN WITNESS WHEREOF, I have hereunto set my signature on the 25th day of January, 2023.

Ann Marie G. Allison, CCR
Certified Court Reporter #3375

ENERGY FACILITY SITE EVALUATION COUNCIL

Monthly Council Meeting

January 18, 2023

held via Teams Video Conferencing

Reported by: ANN MARIE G. ALLISON, CCR
Certified Court Reporter #3375

EFSEC 2023 Monthly Council Meetings
Energy Facility Site Evaulation Council, Monthly Council Meeting - January 18, 2023 Pages 2..5

A P P E A R A N C E S

CHRISTOPHER WISSEL-TYSON, BrightNight
RON KIECANA, BrightNight

BE IT REMEMBERED that on Wednesday, January 18, 2023, 1:30 p.m., the following proceedings were held before Ann Marie Allison, Certified Court Reporter residing in Pierce County, Washington.

(All parties present via Teams)

*** MEETING CALLED TO ORDER 1:30 p.m. ***

CHAIR DREW: Good afternoon. This is Kathleen Drew, chair of the Energy Facility Site Evaluation Council, bringing our meeting to order.

We have had some feedback -- (No audio.)

SPEAKER GRANTHAM: Start from the beginning, Chair Drew. For some reason it got muted from our sides.

CHAIR DREW: Certainly.

SPEAKER GRANTHAM: Apologies.

CHAIR DREW: Good afternoon, this is Kathleen Drew, chair of the Energy Facility Site Evaluation Council, calling to order our January monthly meeting.

All of those of you who have microphones out there that may be open, please check your microphones -- we're getting some feedback in the room -- and make sure that they are off.

Ms. Grantham, will you please call the roll?

SPEAKER GRANTHAM: Certainly.

Department of Commerce.

SPEAKER KELLY: Kate Kelly present.

SPEAKER GRANTHAM: Department of Ecology.

SPEAKER LEVITT: Eli Levitt present.

SPEAKER GRANTHAM: Department of Fish and Wildlife.

SPEAKER LIVINGSTON: Mike Livingston present.

SPEAKER GRANTHAM: Department of Natural Resources.

SPEAKER YOUNG: Lenny Young present.

SPEAKER GRANTHAM: Utilities and Transportation Commission.

SPEAKER BREWSTER: Stacey Brewster present.

SPEAKER GRANTHAM: Local government and optional state agencies for the Horse Heaven Project, Department of Agriculture.

SPEAKER SANDISON: Derek Sandison present.

SPEAKER GRANTHAM: Benton County, Ed Brost.

SPEAKER BROST: I'm here.

SPEAKER GRANTHAM: For the Badger Mountain Project, Douglas County.

(No response)

SPEAKER GRANTHAM: For the Wautoma Solar Project for Benton County, Dave Sharp.

(No response)

SPEAKER GRANTHAM: Washington State Department of Transportation.

(No response)

SPEAKER GRANTHAM: The Assistant Attorney General.

SPEAKER THOMPSON: This is John Thompson, Assistant Attorney General.

SPEAKER GRANTHAM: Thank you.

Administrative law judges, Adam Torem.

JUDGE TOREM: This is Judge Torem. I'm here.

SPEAKER GRANTHAM: Laura Bradley.

JUDGE BRADLEY: This is Judge Bradley; I'm here. Also, I've heard from Judge Gerard that he's having difficulty joining the meeting, so he may not be with us yet.

JUDGE GERARD: I'm in now. Thank you.

SPEAKER GRANTHAM: Perfect. Thank you. Dan Gerard is present. Thank you.

For EFSEC staff, Sonia Bumpus.

(No response)

SPEAKER GRANTHAM: Amy Hafkemeyer.

SPEAKER HAFKEMEYER: Amy Hafkemeyer present.

SPEAKER GRANTHAM: Amy Moon.

SPEAKER MOON: Amy Moon present.

SPEAKER GRANTHAM: Patty Betts.

(No response)
SPEAKER GRANTHAM: Stew Henderson.
(No response)
SPEAKER GRANTHAM: Joan Owens.
SPEAKER J. OWENS: Present.
SPEAKER GRANTHAM: Dave Walker.
SPEAKER WALKER: Dave Walker present.
SPEAKER GRANTHAM: Sonya Skavland.
SPEAKER SKAVLAND: Sonya Skavland present.
SPEAKER GRANTHAM: Lisa Masengale.
SPEAKER MASENGALE: Lisa Masengale present.
SPEAKER GRANTHAM: Sara Randolph.
SPEAKER RANDOLPH: Sara Randolph present.
SPEAKER GRANTHAM: Sean Greene.
(No response)
SPEAKER GRANTHAM: Lance Caputo.
SPEAKER CAPUTO: Lance Caputo present.
SPEAKER GRANTHAM: John Barnes.
SPEAKER BARNES: John Barnes present.
SPEAKER GRANTHAM: Osta Davis.
SPEAKER DAVIS: Osta Davis --
SPEAKER GRANTHAM: Joanne Snarski.
SPEAKER SNARSKI: Present.
SPEAKER GRANTHAM: For the operational updates, Kittitas Valley Wind Project.

SPEAKER MELBARDIS: Eric Melbardis present.
SPEAKER GRANTHAM: Wild Horse Wind Power Project.
SPEAKER GALBRAITH: Jennifer Galbraith present.
SPEAKER GRANTHAM: Grays Harbor Energy Center.
SPEAKER SHERIN: Chris Sherin present.
SPEAKER GRANTHAM: Chehalis Generation Facility.
SPEAKER ADAMS: Mike Adams present.
SPEAKER GRANTHAM: Columbia Generating Station.
SPEAKER SCHMIDT: Marshall Schmidt present.
SPEAKER GRANTHAM: Columbia Solar.
SPEAKER HURD: Owen Hurd present.
SPEAKER GRANTHAM: And do we have someone here for the counsel for the environment?
(No response)
Hearing none, Chair, there is a quorum for the regular counsel, the Horse Heaven counsel and the Wautoma counsel. Thank you.
SPEAKER BREWSTER: This is Stacey Brewster. I move that we approve the November monthly meeting minutes.
UNIDENTIFIED SPEAKER: Second.

SPEAKER KELLY: Kate Kelly, second.
(No audio)
CHAIR DREW: I'm sorry. I'll start again.
I have two changes to make. The first one is on page 8, line 21. The word "professional" should be "facility," and on page 52, line 3, before the word "walk," it should say "I will."
Are there any other changes for the November monthly meeting minutes?
SPEAKER KELLY: Chair Drew, this is Kate Kelly. Can you hear me?
CHAIR DREW: Yes. Go ahead.
SPEAKER KELLY: Okay. We're just having a little trouble hearing you sometimes.
I have two changes on page 21 for some reason. The top line, Line No. 1, "effective" should be "executive."
CHAIR DREW: Thank you.
SPEAKER KELLY: Line 14, the word "quart" should be "short."
CHAIR DREW: Thank you.
SPEAKER KELLY: You're welcome.
CHAIR DREW: Are there any other changes for the monthly meeting minutes?
Hearing none, all those in favor of the November monthly meeting minutes as amended, please say "Aye."

(Aye.)
CHAIR DREW: Opposed?
The minutes are amended.
I'm going to take a step backwards and ask for approval of adopting the agenda for today's meeting. Is there a motion to approve the agenda for today's meeting?
SPEAKER YOUNG: Lenny Young, so move.
CHAIR DREW: Thank you.
SPEAKER BREWSTER: Stacey Brewster, second.
CHAIR DREW: Thank you. All those in favor of approving the agenda for today, please say "Aye."
(Aye.)
All those opposed?
The agenda is approved.
Okay. Now moving on to the second set of minutes, as I get there on my screen. Is there a motion to approve the minutes for the November 29th special meeting?
SPEAKER KELLY: Kate Kelly, move to approve the minutes.
CHAIR DREW: Thank you. Second?
SPEAKER LEVITT: Eli Levitt, second.
CHAIR DREW: Are there any changes to that set of minutes?
Hearing none, all those in favor of approving the minutes for the September -- I'm sorry -- November 29th

Page 10

special meeting please say "Aye."
(Aye.)
CHAIR DREW: Opposed?
The minutes are approved.
Okay. Moving on in our agenda to the facility updates. Mr. Melbardis with Kittitas Valley Wind Project, please go ahead.
SPEAKER MELBARDIS: Good afternoon, Chair Drew, EFSEC council and staff. For the record, this is Eric Melbardis. I think you asked us to spell that this time. M-E-L --
CHAIR DREW: Mr. Melbardis, we have you on the list that we will send to the court reporter, so yes.
SPEAKER MELBARDIS: Okay. So yes, I am with EDP Renewables for the Kittitas Valley Wind Power Project, and I have nothing non-routine to report for the period.
CHAIR DREW: Thank you.
Moving on to Wild Horse Wind Power Facility, Ms. Galbraith.
SPEAKER GALBRAITH: Thank you, Chair Drew, council members and staff. This is Jennifer Galbraith with Puget Sound Energy, representing the Wild Horse Wind Facility, and I have nothing non-routine to report for the month of November or December.
CHAIR DREW: Thank you.

Page 11

Grays Harbor Energy Facility, Mr. Sherin.
SPEAKER SHERIN: Good afternoon, Chair Drew, council members, staff. This is Chris Sherin, the land manager at Grays Harbor Energy Center.
For the month of November, I have no non-routine items to report. I will note though that we weren't (ph.) limited to one-by-one operation for two weeks, due to transmission line maintenance on the Paul Olympia Satsop sub or transmission line.
In the month of November, I have no non-routine items to report.
CHAIR DREW: Thank you.
For Chehalis Generation Facility.
SPEAKER ADAMS: Yeah. Good afternoon, Chair Drew, EFSEC council and staff. This is Mike Adams, plant manager at the Chehalis Generation Facility. For the month of November, I have no non-routine items to report.
CHAIR DREW: Thank you.
Columbia Generating Station.
SPEAKER SCHMIDT: Good afternoon, Chair Drew, council members and staff. For the record, this is Marshall Schmidt reporting for Columbia Generating Station.
For the month of November, I only have one update, and that is on the 17th, Energy Northwest received approval from EFSEC for the Columbia Generating Station annual air

Page 12

emission source registration, and that's for 2020 and 2021.
For December, the only item I have to update is that on the 1st of the month, Energy Northwest received the inspection report for our 2022 Columbia Generating Station synthetic minor air inspection that was conducted back in October. There were no issues or findings identified in that letter.
That is all that I have to update.
CHAIR DREW: Thank you.
For the Columbia Solar Projects, Mr. Hurd.
SPEAKER HURD: Good afternoon, Chair Drew, council members and EFSEC staff. This is Owen Hurd reporting for the Columbia Solar Projects. For the month of November, total generation of 385 megawatt hours for the Penstemon Project, 356 megawatt hours for the Camas Project and on the Urtica Project for troubleshooting inverters and substantial completion as expected in late January.
Thank you.
CHAIR DREW: Thank you.
Yes?
SPEAKER HAFKEMEYER: Sorry, Chair Drew. If I could, I wanted to step back just a bit. We do have a line item on the agenda for an update for the counsel on the Columbia Generating Station NPDES permit provided by Ms. Moon.

Page 13

CHAIR DREW: And that was, for the record, Ms. Hafkemeyer.
And I was following the sheets in my packet and not the agenda, so my apologies there.
Ms. Moon, this is the NPDES permit update. Go ahead, Ms. Moon.
SPEAKER MOON: Thank you.
Good afternoon Council Chair Drew and council members. For the record, this is Amy Moon, EFSEC staff member providing an update on the National Pollutant Discharge Elimination System, or NPDES permit, at the Columbia Generating Station.
The last time there was action taken by the council on the NPDES permit was in 2019, and the council members have changed quite a bit since then. And I want to provide you and the public with a brief summary of the NPDES permit and permit program.
Energy Northwest operates a nuclear-fueled steam electric power generation plant known as the Columbia Generating Station, that discharges to the Columbia River. EFSEC regulates the discharge to the Columbia River under the NPDES permit program.
This regulatory authority warrants a brief explanation, beginning with the Clean Water Act. The federal Clean Water Act, first enacted in 1972, established

Page 14

water quality goals for the navigable surface waters of the United States. One mechanism for achieving the goals of the Clean Water Act is the NPDES, administered by the Federal Environmental Protection Agency or EPA.

The EPA authorized the State of Washington to manage the NPDES permit program in our state. The Washington State Legislature accepted the delegation and assigned the power and duty for conducting NPDES permitting and enforcement to EFSEC for facilities under EFSEC authority.

EFSEC worked with the Washington Department of Ecology and issued the current NPDES permit on September 30th of 2014. This permit was modified twice, on February 8th of 2016 and again on March 19th of 2019.

Although the NPDES was issued with an October 31st, 2019, expiration date, EFSEC administratively extended the permit on September 13th, 2019, after accepting the NPDES renewal application on August 6th, 2019, in accordance with the Washington State Administrative Procedure Act, which is the Revised Code of Washington 34.05.422(3) and the Washington Administrative Code 463-76-061(4).

Today I want to let you know that EFSEC has been working with Ecology on the new NPDES permit and expects to have the draft permit and fact sheet ready for presentation

Page 15

to the council in February.

Does the council have any questions?

CHAIR DREW: Are there any questions from council members?

No. Thank you.

Next item in the next order on our agenda is Horse Heaven Wind Farm. Ms. Moon.

SPEAKER MOON: Thank you, Council, Chair Drew and council members. Again, for the record, this is Amy Moon, EFSEC staff member, providing a draft environmental impact statement or draft EIS update on the Horse Heaven Wind Project.

The draft EIS was issued December 19th, 2022, for a 45-day comment period ending February 1st of 2023. Copies of the draft EIS are posted for public review on the EFSEC public website, and electronic copies were distributed to public libraries near the Horse Heaven Wind Project -- or proposed project area, as well as to the Washington State Library in Olympia. Public comments may be submitted to the EFSEC comment database or by US mail to the EFSEC mailing address.

After the comment period closes, EFSEC will review the comments received to determine if additional information gathering and analysis should be done to improve the environmental analysis for the final EIS.

Page 16

Does the council have any questions?

CHAIR DREW: Any questions from council members?

SPEAKER BREWSTER: Just a question of how long you expect it to take to go through the comments.

SPEAKER MOON: Since we're still in the comment period and we don't know how many comments or the content of those comments, that's hard to answer.

We do have a contractor that will be working on sorting the comments and tabulating and figuring out what topics we have and whether or not additional information-gathering will need to be done and what additional analysis will have to occur.

Does that answer your question it's a vague answer, but...(pause).

SPEAKER BREWSTER: I expect so.

SPEAKER MOON: Okay. Thank you.

CHAIR DREW: Any other questions?

Okay. Thank you.

Moving on to the Goose Prairie Solar Project, project updates. Ms. Randolph.

SPEAKER RANDOLPH: Good afternoon, Chair Drew, council members and staff. For the record, this is Sara Randolph, the site specialist for the Goose Prairie Facility.

Page 17

EFSEC staff received a draft of the initial site restoration plan, or ISRP, from the certificate holder, which is available to you in your packet. Staff have reviewed the draft in consultation with our independent contractor and our attorney general and determined that the plan complies with the facility site certification agreement, or SCA, an agreement and regulation, excuse me, with Washington Administrative Code or WAC 463-72.

The ISRP is required to be approved by the council, per WAC 463-72-030. At this time, staff are recommending that the council vote to approve the ISRP as provided.

EFSEC staff received two comments in the ISRP. Neither comment warranted a change in the draft ISRP as we received it.

Are there any questions?

CHAIR DREW: Are there any questions for staff?

Hearing none, I would ask the council: Seeing and having a chance to review the ISRP or initial site restoration plan, is there a motion to approve that plan?

SPEAKER YOUNG: Lenny Young, so move.

CHAIR DREW: Thank you.

Second?

SPEAKER KELLY: Kate Kelly, second.

Page 18

CHAIR DREW: Thank you.
Are there any comments?
The plan seems to me to be in good order and certainly covers the -- what is required both in our rules and in the site certification agreement, so I commend it to you.
All those in favor of approving Goose Prairie Solar Initial Site Restoration Plan, please say "Aye."
(Aye.)
CHAIR DREW: All those opposed?
The plan is approved. Thank you.
Badger Mountain Project update. Ms. Hafkemeyer.
SPEAKER HAFKEMEYER: Thank you, Chair Drew. Good afternoon, council.
Staff have been working with our contractor in the initial stages of drafting the environmental impact statement. On December 27th, EFSEC staff sent a second data request to the applicant in support of the draft EIS. Staff have also received additional studies from the applicant as coordinated with EFSEC staff and contracted agencies of expertise.
Are there any questions?
CHAIR DREW: Are there -- so this is the preparation of the draft EIS phase that we are in now for Badger Mountain. Correct?

Page 19

SPEAKER HAFKEMEYER: Correct. EFSEC staff are working with our contractor to draft the sections of the EIS, which will then be compiled for issuance later this year.
CHAIR DREW: Thank you.
Any other questions? Okay. Thank you.
Whistling Ridge. Ms. Hafkemeyer.
SPEAKER HAFKEMEYER: Thank you, Chair Drew. Again, this is Amy Hafkemeyer, for the record.
EFSEC staff are waiting for the certificate holder to submit the remaining materials for the FCA amendment request. There are no further updates at this time.
CHAIR DREW: On to the next project, High Top and Ostrea. Ms. Hafkemeyer.
SPEAKER HAFKEMEYER: Thank you. I'd like to start by thanking the council for their attendance at the conditional use criteria meeting last Wednesday. At that meeting there were four speakers. EFSEC also received four written comments, one of which was received verbally, as well, and was one of the four commenters who spoke.
These comments included recommendations on fire risk mitigation, recommendation on use of local labor, and concerns about use of agricultural land and environmental impacts and input on the EFSEC review process for this project.

Page 20

I'd like to take a moment to review the timeline of this project to date, highlighting the opportunities that we have had so far for public comment.
On April 7th, EFSEC received the application for site certification RASC, as well as the letter requesting expedited process.
On June 1st, EFSEC held the initial public informational meeting to receive public comment, followed by the land use consistency hearing to receive testimony from the public. Both of these meetings were held virtually.
On July 19th, at the regularly scheduled council meeting, the council reviewed and approved an extension of the expedited process and determination by ten weeks.
On October 18th, the council voted to approve Order 884 determining the proposal to be consistent with local land use ordinances in place at the time of application. Public comment was taken during the meeting on this council action.
On October 1st, EFSEC issued a SEPA threshold determination of mitigated determination of non-significance, or MDNS, followed by a 14-day public comment period.
On October 28, EFSEC issued the revised MDNS.
On November 2nd, the council went on a site tour and viewed the High Top and Ostrea sites from a nearby

Page 21

vantage point at which the public was welcome to attend.
With the land use consistency determination made by Order 884 and the revised MDNS issued on October 28th, the council voted to approve the applicant's expedited request by Order 885 on November 15th. Council action was open for public comment ahead of the November council meeting.
On November 29th, the council reviewed and approved the request to extend the timeline for the recommendation to February 22nd. This action was open for public comment ahead of the council meeting.
And then finally, last week, EFSEC held a conditional use criteria meeting to receive public comment on conditions related to the conditional use criteria as identified in the Yakima County Code that could then be included in a site certification agreement draft.
Are there any questions from the council on the project activity to date?
CHAIR DREW: Are there any questions about the timeline and the actions the council has taken or public comment opportunities? Go ahead.
UNIDENTIFIED SPEAKER: Thank you.
In consideration of our review of the application, the issued MDNS, the determination of land use consistency and the granting of expedited process, staff would like to

Page 22

recommend that the council direct staff to prepare an order with the recommendation of approval, a draft site certification agreement and associated documents to be reviewed and voted on at the February 15th council meeting.

CHAIR DREW: Thank you. Are there any questions from council members?

Is there a motion to direct the staff to draft an order recommending approval of the project for the February meeting?

SPEAKER LEVITT: Eli Levitt, motion to direct the staff.

CHAIR DREW: Second?

SPEAKER BREWSTER: Stacey Brewster, second.

CHAIR DREW: Thank you.

Are there any questions or comments on this motion?

A lot of work has gone into reviewing the application, working with agencies who have had concerns on the project, that have been actually worked through in terms of the mitigation. That has -- is all part of our package as we go forward, and I commend this project to you and encourage a yes vote.

I will ask for a roll call vote.

Clerk, will you call -- Ms. Grantham, will you call the roll for the EFSEC council, which is also the High

Page 23

Top and Ostrea council.

SPEAKER GRANTHAM: Yes. No problem. Chair Drew.

CHAIR DREW: Aye.

SPEAKER GRANTHAM: Department of Commerce, Kate Kelly.

SPEAKER KELLY: Aye.

SPEAKER GRANTHAM: Department of Fish and Wildlife.

SPEAKER LIVINGSTON: Aye.

SPEAKER GRANTHAM: Department of Ecology, Eli Levitt.

SPEAKER LEVITT: Aye.

SPEAKER GRANTHAM: Utilities and Transportation Commission, Stacey Brewster.

SPEAKER BREWSTER: Aye.

SPEAKER GRANTHAM: Department of Natural Resources, Lenny Young.

SPEAKER YOUNG: Aye.

CHAIR DREW: The motion is approved.

I will point out to the public that the order will be drafted before the next council meeting, and you will have time to send in your comments to us about that draft order. So that's the next step. We haven't finalized the order, so the opportunity will be to comment on the proposed

Page 24

order before the next meeting. Thank you all.

Moving on to the next item on our agenda, which is the Wautoma Solar Project update, Mr. Caputo.

SPEAKER CAPUTO: Thank you, Chair Drew and council members. For the record, my name is Lance Caputo. I'm the EFSEC staff assigned to the Wautoma Project.

The state briefly -- we are in the stage of the process where we thoroughly review the application and then request supplemental data.

In October of 2022, EFSEC sent the applicant a request for additional information. We received the applicant's response to Data Request No. 1 in mid November.

On the 27th of December, a second request for additional information was sent. However, due to the holiday season, the applicant requested a 45-day period to respond. We anticipate a reply by 15th of January 2023, and in the meantime, we are continuing to work with the applicant and our contractors on this project.

CHAIR DREW: Thank you.

So those data requests are to help with the staff completion of the determination of significance for the project. Is that correct?

SPEAKER CAPUTO: Correct. They fill in missing gaps in the application so that we can make a proper SEPA determination.

Page 25

CHAIR DREW: Thank you.

So the next step will be the SEPA determination, which is made by Sonia Bumpus, our EFSEC director, and then from there that information will come back to the council.

SPEAKER CAPUTO: Correct.

CHAIR DREW: Thank you.

Any questions? And we also had a site visit of Wautoma as well, so I think that's helpful for us as we consider that project.

Moving on to Hop Hill Solar, this is a new application that has just recently come to EFSEC.

Ms. Hafkemeyer.

SPEAKER HAFKEMEYER: Thank you. For the record, this is Amy Hafkemeyer.

On December 22nd, EFSEC staff received the application for the proposed Hop Hill Solar Facility. The applicant is here today to give a brief introduction to the project, more detail on which will be provided at the public informational meeting.

Staff are currently working to schedule this meeting and will update the council and the public as details become available.

Are there any questions?

CHAIR DREW: Any questions?

Go ahead.

Page 26

SPEAKER HAFKEMEYER: Hearing none, I will hand the floor over to the applicant to introduce themselves to the council.

SPEAKER TYSON: Thank you, Chair Drew, council members and staff. So excited to come here and talk a little bit about the Hop Hill Project, but real quickly, just as a matter of introductions, my name's Chris Wissel-Tyson. I lead development here for BrightNight in the Pacific Northwest. I'm based just north of Seattle, and I'll let Ron introduce himself.

CHAIR DREW: If you can spell your name for --

SPEAKER TYSON: Sorry about that.

CHAIR DREW: -- the court reporter.

SPEAKER TYSON: C-H-R-I-S-T-O-P-H-E-R. And I have a hyphenated last name, W-I-S-S-E-L dash T-Y-S-O-N.

CHAIR DREW: Thank you.

SPEAKER KIECANA: And I'm Ron Kiecana, K-I-E-C-A-N-A. I'm the chief development officer with BrightNight Power. And thank you, Chair Drew and EFSEC staff for the opportunity to introduce BrightNight and the Hop Hill Project today.

SPEAKER TYSON: We'll move quickly to the next slide and just a little background behind who we are and the company BrightNight.

Page 27

We're an independent power producer. I'd say young in current formation, we were formed in 2018, but I'd say old in pedigree and experience amongst the team. We are the next iteration of a company that was started by Martin Hermann, called 8minutenergy. 8minute, from around 2010 to 2018, was a large private solar developer in the United States and really changed the way we looked at large utility-scale solar projects. He built projects in Southern California and Nevada and Arizona that set price records at the time and really showed that large solar projects can be competitive with fossil fuel projects.

But around 2017-2018, he started to come to the realization that if we're going to truly decarbonize the grid, we're going to have to move from as available renewable technology, when wind blows or when it's sunny or when the hydro's running with a large runoff in the spring, to something that's more dispatchable, like a traditional power plant. And that's why he formed BrightNight, and we are a purpose-built team for that goal.

I'll get a little bit into that next slide, but just real quick, we have a US portfolio of around 21 gigawatts, two gigawatts in the Asia Pacific. We have two financial partners, CPPIB, the Canadian pension fund, is a partner in all of our western projects, and we also have GIP, Global Infrastructure Partners, which is one of the

Page 28

largest infrastructure funds in the world, and they support our US portfolio.

One point of clarification, we are an IDP. We intend to develop, build and own these projects for up to 40 to 50 years. We are not trying to sell the project before or right after construction. That's not how we're built. So I think it does change, a little bit, how we do business as a company. Stakeholders, neighbor relationships, just the design of the plants and thinking about our rate payers and customers, us, as power buyers, is very important to us when we have that kind of -- you want to say something?

I was just going to check on the next part here. And just moving along, we're now a team of about 110 people, with operations here in the US, as well as over in Asia Pacific. 85 people are located here in the US, and we have a strong team here in the Northwest. They're located here; six people reside here in the Northwest. We're a big believer in being very close to the customers and to the markets which we aspire to be a part of in the future.

If we can move on to the next slide here, I just want to touch on -- this is something that is very different and is part of BrightNight. And this is a proprietary software platform that we have developed here at BrightNight, and this supports our focus on structuring clean power products for our customer.

Page 29

And so as Chris mentioned, there is a difference between clean energy and clean power. You're going to get clean energy when the sun is shining, wind is blowing. We focus on clean power and providing that power when the customer really values it and needs it most. And it can most be beneficial from an operations perspective for the customer and for the transmission system.

So our PowerAlpha platform, very quickly, is able to very quickly analyze immense amounts of data across intermittent resources and identify where the gaps are. So we look for opportunities to combine intermittent resources to provide structured, more valuable clean power products to customers.

Sometimes this does involve using energy storage. Other times it may involve just layering in more intermittent energy, such as wind, solar, possibly even hydro. So again, very powerful tool core to BrightNight and a big part of what we do here as a team here in the US.

SPEAKER TYSON: Two slides, I'll talk a little bit about the Hop Hill Energy Project. This is a PVS 500-megawatt project in Benton County, Washington, Central Washington, around 5,000 acres within the fence line. And we actually have three different potential points of interconnect and interconnect applications with the EPA.

We have four main goals with the Hop Hill Project.

Page 30

One is to provide low-cost and reliable energy in an area that compliments already-existing resources. And so that's the Columbia River dams and what's really called the Northwest hub, as well as other resources, such as nuclear, to help meet growing needs in the region as well as the state.

2. We wanted to avoid expensive and lengthy infrastructure projects. I'm sure you guys know, but we are extremely constrained here in Washington and Oregon as well, mostly around the BPA system. There's just no transmission left to bring a lot of new projects online to meet our renewable goals.

If you put, for example, a project maybe closer to Spokane, Eastern Washington, you can trigger upgrades on the east and west side of Washington, as well as Portland and Eastern Oregon. And those upgrades can take 10 to 15 years, and it's a big impact on everyone that's experiencing those upgrades.

So we looked across Washington's BPA system and really tried to find a location where we can inject a large amount of renewable power without triggering those long upgrades, which allows us to come online in two to three years and deliver to customers and help meet renewable goals and not trigger all these projects across multiple states.

No. 3, minimizing natural resource impacts while

Page 31

maximizing community benefits. So these projects bring a lot of tax revenue to communities, but we heard, kind of, three main concerns, and we worked with -- we've been talking to Benton County over two-and-a-half years. I mean, one is visual, and the other one is impact to productive land, and a third is pristine habitat, impact to its pristine habitat.

So really tried to find a site that was a happy medium between all these impacts. We wanted to avoid any irrigated land. We also wanted to avoid those higher value habitat areas and wanted to seat the project in a location in which it was shielded from the rest of the community as much as we could. That's how we picked this site just south of Rattlesnake Hill, and it's on low-productivity grazing land.

No. 4. One thing that's very important to us is co-use, and we'll talk about this in two slides. But we wanted to maintain the productive nature of the land. Even though this is low productivity grazing land, we really think that we can work in concert with traditional agricultural practices.

So for this site we are doing sheep grazing across the entire project, and it will probably be the largest project, we think, in the Pacific Northwest to pursue this type of agrivoltaics.

Page 32

I'll talk about that. And if we can switch, go one more slide.

Just real quick, on a little bit more about the micrositing of the project. You guys understand, I think, why we came to this area. And if you look on the south or bottom of your screen there, you can see the white areas are solar panels, so there's a lot of design considerations once we narrowed into this site. One was natural resources.

We actually talk a lot to WDFW. One, about habitat that borders, I'd say, to the north of the site, of actual species that they were concerned about. In this case, it was the Ferruginous Hawk, and so we actually moved all our panels from the west to the east to try to avoid the Ferruginous Hawk's prey habitat in that area.

Culture and archaeological, we did transect surveys and we've hired, we think, very good local consultants that understand our stakeholders and really helped in that stakeholder outreach.

Water resources, there is some water in the draws between the sites, but we'll really be able to avoid those impacts through our crossings.

Visual impact, which I already talked about a little bit, and then topography and existing agricultural operations.

So with all these design considerations or

Page 33

constraints, we came up with this layout which will be included in our permit.

And I'll move to the next slide. I know we don't have a lot of time.

This is one thing I really wanted to talk about. I mean, because we really think that the industry -- this is where the industry needs to go, and it really can be a part of agriculture. So we're really focused on agrivoltaics in the company. Our owner, Martin, has two regenerative farms. It's a big focus of ours, and we think this is the way we're going to have to do business and really work in a symbiotic relationship in the future.

There's an agricultural Oregon State professor that said: Solar panels are farm equipment and the sun is a farm resource.

We like that. We think that's a good goal and maybe where we can move, but we do think we already complement existing traditional ag practices. And so for this site, we're pursuing sheep grazing. And there's really good research, locally, about the advantages of doing that.

There's a study, specifically, on sheep grazing, same type of landscape and low-productivity grazing land. They see up to about a 300 percent improvement in water conservation just by the shading. By doing that shading you get twice the plant growth. And it's because on the eastern

Page 34

side of the Cascades here, we are water limited, not sun or photon limited. And what does that equal? Actually, about a ten percent increase in care and capacity of sheep on the site.

So not only does this work well with an existing ag practice, but actually improves it. So we really think it's a great model going forward.

We're also very excited; this was actually -- this property was an historic sheep operation since the landowner originally homesteaded the land and expanded it, they raised sheep for years and ran them up into the mountains. There was, I'd say, a little bit of a crash in the wool market a couple decades ago, and now trends are changing again and it's starting to make more sense.

So we're really excited to bring this sheep operation back to the property. And he will actually own and run this, so it's quite exciting.

And lastly, we want to support agrivoltaics in the future. I mean, this isn't just us in this project. We're committed to really supporting the industry and making sure that we're doing business in a way that works well with our local communities.

So we're actually funding a research project through a local university. We'll announce it soon, but it's really on the impact of co-use on this project and

Page 35

actually nutrient transport. Without getting into details, sheep like to sit under the panels, and so they do certain things there. So a lot of nutrients is concentrated under those panels, and there's a lot of interest on how that nutrient flows throughout the property.

That's about it. We do have a quick video, if we do have time, about the project as well.

BRIGHTNIGHT: I just wanted to add one more thing. We do have a power sale commitment in place for 280 megawatts of the 500 megawatts that's being shown here in the application, and that power will -- clean energy power will be used for future Washington State clean power requirements.

(Video being played. No audio)

CHAIR DREW: Can we pause for a minute? I'm seeing messages that there is not audio for those who are not in this room.

SPEAKER GRANTHAM: Chair Drew, we may need to make the video available afterwards. I believe there may be an issue with playing video through Teams, where sound doesn't come through.

CHAIR DREW: We apologize to everyone who is participating in this meeting. There is a glitch that we cannot play the audio from the video. So I think what I will do is pause here and ask council members: Is that the

Page 36

end of your presentation?

And we'll watch it afterwards, and we'll ask others, also, to watch it afterwards, after we conclude our meeting today, so we don't spend the time looking at a video that no one else can see -- I mean, hear.

So are there questions from council members? Go ahead, Ms. Kelly.

SPEAKER KELLY: Thank you, Chair Drew.

This is Kate Kelly from the Department of Commerce. I just have a question for the proponents. I thought I saw on some of the materials that this was going to be -- that 5,000 acres was going to be fenced in. Is that correct?

BRIGHTNIGHT: Yes, that is correct.

SPEAKER KELLY: So that's a lot -- a lot of fence. Is it -- what's the implications on wildlife?

BRIGHTNIGHT: Yeah. I mean, so we were working on a number of things I kind of talked about on the constraint side, you know. We were trying to move away from where we thought there was valuable prey habitat and start trying to avoid impacts on wildlife.

Currently, the site is grazed by couple hundred cattle. So it's pretty well-impacted. But there is wildlife, I'd say especially on the northern edge. So we tried to pull the site down from that and as well as looked

Page 37

at -- a lot of our other projects, we looked at migration corridors and trying not to create a bottleneck in our projects.

But we also have this, you know, competing operation here with sheep, and we do need to protect them from predation. So we are going to work with the landowner through this whole process to really understand where we need fencing and not.

We think there is some more fingers and, kind of, migration pathways we can add to the site, but really, our main goal was to try to avoid where we surveilled wildlife or knew there was historic presence of wildlife or their prey habitat. So we tried to move away from that, get more into those grazing areas.

SPEAKER KELLY: And so just to come from -- the sheep would graze there year-round and not go up into the hills.

BRIGHTNIGHT: Yes. So they would graze the project year-round, mostly -- I mean, the grazing season is spring, summer and then a little bit of fall, and then we will have to supplement their feed in the winter.

SPEAKER KELLY: Thank you.

CHAIR DREW: And with some of our projects to follow on that theme, the fencing is raised a little bit to allow for the smaller critters.

BRIGHTNIGHT: Absolutely. In Idaho we've been working with BLM on some sage grouse-friendly fencing, essentially allow them -- that's kind of a standard we wanted for these projects.

We are faced with an interesting situation here, where there are coyotes and we have sheep. So we're working with the landowner on, you know, What does that look like? Can we have wildlife-friendly fencing? Can we move that fencing? So that is something we are still working on the project. But as far as the application, we kind of want to take the worst-case scenario and say, we're putting this fencing down to the ground, and then we're going to work and see what we can do.

CHAIR DREW: Through the comments and issues that might arise and work with that.

BRIGHTNIGHT: Yep.

CHAIR DREW: Thank you. Are there additional questions from council members?

I wondered if you could share with us who is the power off-taker.

BRIGHTNIGHT: Yeah, I'm sorry. That's not public yet.

CHAIR DREW: Okay.

BRIGHTNIGHT: It will be sometime here in 2023.

CHAIR DREW: Okay. Appreciate that. Understand.

Thank you for your presentation. We look forward to viewing the video and also to hearing more about this project as we review your application.

Moving into our good of the order and the next item before us is the third quarter cost allocation.

Ms. Bumpus.

SPEAKER HAFKEMEYER: Chair Drew, Ms. Bumpus asked that I cover the cost allocation for the council meeting this afternoon.

CHAIR DREW: Thank you. I was actually reading my agenda. Go ahead, Ms. Hafkemeyer.

SPEAKER HAFKEMEYER: Thank you.

So on the screen you'll see the cost allocation for third quarter, which is January 1st through March 30th, 2023, and the allocation is as follows:

Kittitas Wind Valley -- Kittitas Valley Wind Power project, four percent.

Wild Horse Wind, four percent.

Columbia Generating Station, 21 percent.

Columbia Solar, four percent.

WNP-1, three percent.

Whistling Ridge Energy, three percent.

Grays Harbor 1 and 2, eight percent.

Chehalis Generation Facility, seven percent.

Desert Claim Wind, three percent.

Goose Prairie Solar, four percent.

Horse Heaven Wind, 15 percent.

Badger Mountain Solar, six percent.

Cypress Creek Renewables, which is the High Top and Ostrea Project, six percent.

Wautoma Solar, six percent.

Hop Hill, six percent.

Are there any questions?

CHAIR DREW: Any questions?

Thank you for that report. For the good of the order, we do have some new staff members to introduce to the council. Ms. Hafkemeyer.

SPEAKER HAFKEMEYER: Thank you, Chair Drew.

We do have a new addition to the EFSEC staff. A knew siting specialist joined us on January 3rd. Joanne Snarski is joining us as a siting specialist, and she will be taking the lead on the Badger Mountain Project.

CHAIR DREW: Thank you. And we also have Ms. Osta Davis with us, if you would like to introduce yourself and tell about your role to the council.

SPEAKER DAVIS: Thank you, Chair Drew and members of the council. My name is Osta Davis, and I'm EFSEC's new legislative and policy manager. I will be

keeping track of all of the bills that go through the legislature that affect EFSEC and make sure that EFSEC's perspective is considered in the legislative process.

I wanted to introduce myself and offer up myself as a resource to the council. If you do have any questions about specific legislation or the legislative process, feel free to reach out, and I'm happy to provide an update there. Thanks.

CHAIR DREW: Thank you. And welcome, to both Osta and to Joanna.

With that, there's no further business to come before us, and the meeting is adjourned.

(Meeting concluded 2:31 p.m.)

C E R T I F I C A T E

STATE OF WASHINGTON) I, Ann Marie G. Allison, CCR,
) certified court reporter, State of
COUNTY OF PIERCE) Washington, do hereby certify:

That the foregoing meeting was taken before me, via Teams video conference, completed on January 18, 2023, and thereafter transcribed by me;

That the transcript contains a full, true and complete reporting and transcription of the proceedings;

That I am not a relative, employee, attorney or counsel of any party to this action, or relative or employee of any such attorney or counsel, and that I am not financially interested in the said action or the outcome thereof;

IN WITNESS WHEREOF, I have hereunto set my signature on the 1st day of February, 2023.

Ann Marie G. Allison, CCR
Certified Court Reporter #3375

EFSEC Monthly Council Meeting – Facility Update Format

Facility Name: Kittitas Valley Wind Power Project
Operator: EDP Renewables
Report Date: February 3, 2023
Reporting Period: January 2023
Site Contact: Eric Melbardis, Sr Operations Manager
Facility SCA Status: Operational

Operations & Maintenance (only applicable for operating facilities)

- Power generated: 13547 MWh
- Wind speed: 4.4 m/s
- Capacity Factor: 15.9%

Environmental Compliance

- No incidents

Safety Compliance

- Nothing to report

Current or Upcoming Projects

- Nothing to report

Other

- No sound complaints
- No shadow flicker complaints

EFSEC Monthly Council Meeting – Facility Update

Facility Name: Wild Horse Wind Facility
Operator: Puget Sound Energy
Report Date: February 2, 2023
Report Period: January 2023
Site Contact: Jennifer Galbraith
SCA Status: Operational

Operations & Maintenance
January generation totaled 32,295 MWh for an average 15.92%.

Environmental Compliance
Nothing to report.

Safety Compliance
Nothing to report.

Current or Upcoming Projects
Nothing to report.

Other
Nothing to report.

PACIFICORP
A BERKSHIRE HATHAWAY ENERGY COMPANY

Chehalis Generation Facility
1813 Bishop Road
Chehalis, Washington 98532
Phone: 360-748-1300

EFSEC Monthly Council Meeting – Facility Update

Facility Name: Chehalis Generation Facility
Operator: PacifiCorp
Report Date: February 3, 2023
Reporting Period: January 2023
Site Contact: Mike Adams, Plant Manager
Facility SCA Status: Operational

Operations & Maintenance
-Relevant energy generation information, such as wind speed, number of windy or sunny days, gas line supply updates, etc.

- 320,509 net MW-hrs generated in the reporting period for a capacity factor of 85.19%.

The following information must be reported to the Council if applicable to the facility:

Environmental Compliance
-Monthly Water Usage: 2,247,740 gallons
-Monthly Wastewater Returned: 1,131,724 gallons
-Permit status if any changes.

- No changes.

-Update on progress or completion of any mitigation measures identified.

- Nothing to report

-Any EFSEC-related inspections that occurred.

- Nothing to report

-Any EFSEC-related complaints or violations that occurred.

- Nothing to report

-Brief list of reports submitted to EFSEC during the monthly reporting period.

- 2022 Q4 Wastewater Report
- 2022 Q4 Air Emissions Report
- 2022 Annual Water Usage Report
- 2022 Annual Title V Compliance Report
- 2022 EFSEC GHG Report

Safety Compliance
-Safety training or improvements that relate to SCA conditions.

- Zero injuries this reporting period for a total of 2741 days without a Lost Time Accident.

Current or Upcoming Projects
-Planned site improvements.

- No planned changes.

-Upcoming permit renewals.

- Nothing to report.

-Additional mitigation improvements or milestones.

- Nothing to report.

Other
-Current events of note (e.g., Covid response updates, seasonal concerns due to inclement weather, etc.).

- Nothing to report.

-Personnel changes as they may relate to EFSEC facility contacts (e.g., introducing a new staff member who may provide facility updates to the Council).

- Nothing to report.

-Public outreach of interest (e.g., schools, public, facility outreach).

- Nothing to report.

Respectfully,

Mike Adams
Plant Manager
Chehalis Generation Facility

EFSEC Monthly Council Meeting – Facility Update

Facility Name: Grays Harbor Energy Center
Operator: Grays Harbor Energy LLC
Report Date: February 15, 2023
Reporting Period: January 2033
Site Contact: Chris Sherin
Facility SCA Status: Operational

Operations & Maintenance
-GHEC generated 288,154MWh during the month and 288,154MWh YTD.

The following information must be reported to the Council if applicable to the facility:

Environmental Compliance
-There were no emission, outfall, or storm water deviations, during the month.
-Routine monthly, quarterly, and annual reporting to EFSEC Staff.
- Monthly Outfall Discharge Monitor Report (DMR).
- Quarterly EDR Report.

Safety Compliance
- None.

Current or Upcoming Projects
-- Application for a Modification to the Air Operating Permit submitted to EFSEC in April. GHEC is currently authorized to operate under PSD Permit EFSEC/2001-01, Amendment 5 and Federal Operating Permit EFSEC/94-1 AOP Initial.

Other
-None.

EFSEC Monthly Council Meeting

Facility Name: **Columbia Generating Station (CGS) and Washington Nuclear Projects 1 and 4 (WNP 1/4)**
Operator: **Energy Northwest**
Report Date: **February 6, 2023**
Reporting Period: **January 2023**
Site Contact: **Marshall Schmitt**
Facility SCA Status: (Pre-construction/Construction/Operational/Decommission) **Operational**
Operations & Maintenance (only applicable for operating facilities)
CGS Net Electrical Generation January 2023: **831,225 MWh**

Environmental Compliance
On January 9-10, 2023, the Washington State Patrol (WSP) Fire Protection Bureau (FPB) completed the annual 2022 fire inspection of the Energy Northwest Industrial Development Complex and non-power block buildings at Columbia Generating Station. A re-inspection will be scheduled for later this year to evaluate closure of several actions.

No other non-routine items to report. All routine reports were submitted on-time.

Safety Compliance
None.

Current or Upcoming Projects
None.

Other
None.

Issuance Date: _?_
Effective Date: _?_
Expiration Date: _?_

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT WA0025151
State of Washington
ENERGY FACILITY SITE EVALUATION COUNCIL (EFSEC)

PO Box 43172
Olympia WA 98504-3172

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The State of Washington Energy Siting Law
Chapter 80.50 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq

Energy Northwest Columbia Generating Station
PO Box 968
Richland, WA 99352-0968

is authorized to discharge in accordance with the Special and General Conditions that follow.

Facility Location: HANFORD - T11N R28E SEC 5

Industry Type: Steam-Electric Power Generation

Treatment Type: Disinfection, neutralization, filtration, ion exchange

Receiving Water: Columbia River

SIC Code: 4911

NAICS Code: 221113

Kathleen Drew, Chair
Energy Facility Site Evaluation Council

Note: All linked citations in this permit are understood to be as of the permit issuance date.

SUMMARY OF PERMIT SUBMITTALS

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Table 1 – Summary of Permit Submittals

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report (DMR)	Monthly	Enter a specific date
S3.A	Discharge Monitoring Report (DMR)	Annual	Enter a specific date
S3.A	Permit Renewal Application Monitoring Data	1/permit cycle	Enter a specific date
S3.F	Reporting Permit Violations	As necessary	
S4.A	Update to Operations and Maintenance Manual – Cooling Water System	1/permit cycle	Enter a specific date
S4.A	Update to Operations and Maintenance Manual – Evaporation Ponds	1/permit cycle	Enter a specific date
S4.B	Reporting Bypasses	As necessary	
S5.C	Modification to Solid Waste Plan	As necessary	
S6	Application for Permit Renewal	1/permit cycle	Insert date from S6
S7	Non-Routine and Unanticipated Discharges	As necessary	
S8	Modification to Spill Plan	As necessary	
S9	Modification to Stormwater Pollution Prevention Plan	As necessary	
S10	Outfall Evaluation	1/permit cycle	Enter a specific date
S11	Acute Toxicity Effluent Test Results - Submit with Permit Renewal Application	Once	Enter a specific date
S12	Chronic Toxicity Effluent Test Results with Permit Renewal Application	Once	Enter a specific date
S13	CWIS Certification Statement and Report	Annual	1/15/2024
G1	Notice of Change in Authorization	As necessary	
G4	Permit Application for Substantive Changes to the Discharge	As necessary	
G5	Engineering Report for Construction or Modification Activities	As necessary	
G7	Notice of Permit Transfer	As necessary	
G10	Duty to Provide Information	As necessary	
G21	Compliance Schedules	As necessary	

SPECIAL CONDITIONS

S1. Discharge Limits

S1.A. Process Wastewater Discharges

All discharges and activities authorized by this permit must be consistent with the terms and conditions of this permit.

The discharge of any of the following pollutants more frequently than, or at a level in excess of that identified and authorized by this permit violates the terms and conditions of this permit.

There shall be no discharge of wastewater of radioactive materials in excess of the limitations on radioactive effluents established by the Nuclear Regulatory Commission in the facility operation license and in 10 CFR Parts 20 and 50.

Beginning on the effective date of this permit, the Permittee is authorized to discharge circulating cooling water blowdown, service water system blowdown, and radioactive wastewater treatment system effluent to the Columbia River at the permitted location subject to complying with the following limits:

Table 2 – Effluent Limits: Outfall 001

Latitude: 46.47139 Longitude: -119.26250

Parameter	Average Monthly [a]	Maximum Daily [b]
Flow	5.6 million gallons/day (MGD)	9.4 MGD
Total Residual Halogen (TRH) [c]	Not applicable	0.1 milligrams/liter (mg/L)
Chromium (Total)	8.2 micrograms/liter (µg/L)	16.4 µg/L
Zinc (Total)	53 µg/L	107 µg/L
The 126 priority pollutants (40 CFR 423 Appendix A) contained in chemicals added for cooling tower maintenance, except chromium and zinc	No detectable amount	No detectable amount
Polychlorinated biphenyl compounds (PCBs)	No discharge	No discharge
Heat Load (June through October only)	1.27E+09 kilocalories per day (kcal/day)	N/A

Parameter	Minimum	Maximum
pH [d]	6.5 standard units (s.u.)	9.0 s.u.

Footnotes:

[a] Average monthly effluent limit means the highest allowable average of daily discharges over a calendar month. To calculate the discharge value to compare to the limit, add the value of each daily discharge measured during a calendar month and divide this sum by the total number of daily discharges measured.

[b] Maximum daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day. The average daily measurement does not apply to pH or temperature.

[c] In the event of an equipment failure, CGS may operate using a batch halogenation process of the cooling water system. When the batch halogenation process is utilized, the circulating water blowdown isolation valves must be closed during biofouling treatments and remain closed until the concentration of total residual halogen is less than 0.1 mg/L for at least 15 minutes.

[d] When pH is continuously monitored, excursions between 5.0 and 6.5, or 9.0 and 10.0 are not be considered violations if no single excursion exceeds 60 minutes in length and total excursions do not exceed 7 hours and 26 minutes per month. Any excursions below 5.0 and above 10.0 at any time are violations.

S1.B. Mixing Zone Authorization

Mixing Zone for Outfall 001

The following paragraphs define the maximum boundaries of the mixing zones.

Chronic Mixing Zone

The width of the chronic mixing zone is limited to a distance of 175 feet (53 meters). The length of the chronic mixing zone extends 100 feet (30 meters) upstream and 308 feet (94 meters) downstream of the outfall. The mixing zone extends from the bottom to the top of the water column. The mixing zone must not utilize greater than 25% of the flow. The concentration of pollutants at the edge of the chronic zone must meet Chronic Aquatic Life Criteria and Human Health Criteria.

Acute Mixing Zone

The width of the acute mixing zone is limited to a distance of 18 feet (5 meters). The length of the acute mixing zone extends 10 feet (3 meters) upstream and 31 feet (9 meters) downstream of the outfall. The mixing zone extends from the bottom to the top of the water column. The acute mixing zone must not utilize greater than 2.5% of the flow. The concentration of pollutants at the edge of the acute zone must meet Acute Aquatic Life Criteria.

Table 3 – Dilution Factors

Criteria	Dilution Factor
Acute Aquatic Life Criteria	9
Chronic Aquatic Life Criteria	93
Human Health Criteria - Carcinogen	93
Human Health Criteria - Non-carcinogen	93

S2. Monitoring Requirements

S2.A. Monitoring Schedule

The Permittee must monitor in accordance with the following schedule and the requirements specified in Appendix A.

Table 4 – Circulating Water Blowdown (Outfall 001)

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Flow	MGD	Continuous [a]	Metered/Recorded
pH [b, c]	standard units	Continuous	Metered/Recorded
Total Residual Halogen (TRH) [d]	mg/L	Continuous	Metered/Recorded
TRH	mg/L	2/treatment, as needed [e]	Grab [f]
Temperature [g]	degrees Celsius (°C)	Continuous	Measurement
Heat Load [h]	kcal/day	Monthly [i] (June through October)	Calculated
Chromium (Total)	µg/L	1/month	24-Hour Composite [j]
Zinc (Total)	µg/L	1/month	24-Hour Composite
Cyanide (Total)	µg/L	Once per year	Grab
Total Phenolic Compounds	µg/L	Once per year	Grab
Oil and grease	mg/L	Once per year	Grab
Chromium (hex), dissolved	µg/L	Once per year	24-Hour Composite
Priority Pollutants (PP) – Total Metals [k]	µg/L; nanograms/liter (ng/L) for Mercury	Once per year	24-Hour Composite Grab for Mercury
PP – Volatile Organic Compounds	µg/L	Once per year	Grab
PP – Acid-extractable Compounds	µg/L	Once per year	24-Hour Composite
PP – Base-neutral Compounds	µg/L	Once per year	24-Hour Composite
PP - Dioxin	picograms/liter (pg/L)	Once per year	24-Hour Composite
PP – Pesticides/PCBs	µg/L	Once per year	24-Hour Composite

Table 5 – Permit Renewal Application Requirements, Outfall 001

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Biochemical Oxygen Demand (BOD5)	mg/L	Once in 2026	24-Hour Composite
Chemical Oxygen Demand (COD)	mg/L	Once in 2026	24-Hour Composite
Total Organic Carbon (TOC)	mg/L	Once in 2026	24-Hour Composite
Total Suspended Solids (TSS)	mg/L	Once in 2026	24-Hour Composite

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Total Ammonia	mg/L as N	Once in 2026	24-Hour Composite
Asbestos	million fibers/liter (MFL)	Once in 2026	Grab

Table 6 – Flow Monitoring

Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Cooling Water Intake	MGD	Continuous	Metered/Recorded
Standby Service Water discharge to Outfall 001	MGD	Continuous or volume estimate	Metered/estimated
Radioactive wastewater treatment system effluent discharge to Outfall 001	Gallons	Total per event	Metered/estimated

Table 7 – Whole Effluent Toxicity Monitoring

Monitoring Type	Description
Acute Whole Effluent Toxicity Testing	As specified in condition S11
Chronic Whole Effluent Toxicity Testing	As specified in condition S12

Footnotes:

[a] Continuous means uninterrupted except for brief lengths of time for calibration, power failure, or unanticipated equipment repair or maintenance. The time interval for the associated data logger must be no greater than 30 minutes. Sample once per day when continuous monitoring is not possible.

[b] Report the instantaneous maximum and minimum pH monthly. Do not average pH values.

[c] Record and report: The number of minutes the pH value measured between 5.0 and 6.0 and between 9.0 and 10.0 for each day; total minutes for the month; and the monthly instantaneous maximum and minimum pH. If multiple excursions occur during the day, note the duration for each excursion in the notation field in the parameter notes.

[d] Report maximum daily concentration of TRH.

[e] Conduct batch sampling procedure before discharging in the event the continuous monitor becomes inoperable for any reason.

[f] Grab means an individual sample collected over a fifteen (15) minute, or less, period.

[g] Conduct temperature grab sampling when the effluent is at or near its daily maximum temperature, which usually occurs in the late afternoon. If measuring temperature continuously, report a daily maximum from half-hour measurements over a 24-hour period. Continuous

monitoring instruments must achieve an accuracy of 0.2 degrees Celsius and the Permittee must verify accuracy annually.

[h] The average monthly heat load is calculated using the following formula: [average monthly temperature (°C)] x [average monthly flow (MGD)] x [3.78×10^6]. The average monthly temperature is the sum of average daily temperatures divided by the number of daily discharges measured in the month. The average monthly flow is the sum of all flows in the month divided by the number of days in the month.

[i] Monthly means once every calendar month.

[j] Twenty-four (24)-hour composite means a series of individual samples collected over a 24-hour period into a single container and analyzed as one sample.

[k] Priority Pollutant Scans for Total Metals must use total recoverable metal laboratory methods for all parameters except for hexavalent chromium. The 40 Code of Federal Regulations (CFR) 136 method for hexavalent chromium measures only its dissolved form.

S2.B. Sampling and Analytical Procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 Code of Federal Regulations (CFR) Part 136[1] [or as applicable in 40 CFR subchapter N[2] (Parts 400-471) or 40 CFR Subchapter O[3] (Parts 501-503)] unless otherwise specified in this permit. EFSEC may specify alternative methods only for parameters without limits and for those parameters without an EPA-approved test method in 40 CFR Part 136.

S2.C. Flow Measurement, Field Measurement, and Continuous Monitoring Devices

The Permittee must:

1. Select and use appropriate flow measurement, field measurement, and continuous monitoring devices and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain the devices to ensure the accuracy of the measurements is consistent with the accepted industry standard, the manufacturer's recommendation, and approved Operation and Maintenance (O&M) Manual procedures for the device and the wastestream.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring reports. The Permittee:
   a. May calibrate apparatus for continuous monitoring of Dissolved Oxygen by air calibration.

[1] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-136
[2] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N
[3] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O

   b. Must calibrate continuous pH measurement instruments according to the manufacturer's requirements.
   c. Must calibrate continuous Chlorine measurement instruments using a grab sample analyzed in the laboratory within 15 minutes of sampling.
4. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates.
5. Establish a calibration frequency for each device or instrument in the O&M Manual that conforms to the frequency recommended by the manufacturer.
6. Calibrate flow monitoring devices at a minimum frequency of at least one calibration per year.
7. Maintain calibration records for at least three years.

S2.D. Laboratory Accreditation

The Permittee must ensure that all monitoring data required by EFSEC for permit specified parameters is prepared by a laboratory registered or accredited under the provisions of Chapter 173-50 Washington Administrative Code (WAC)[4], Accreditation of Environmental Laboratories. Flow, Temperature, Settleable Solids, Conductivity, pH, and internal process control parameters are exempt from the requirement. The Permittee must obtain accreditation for Conductivity and pH if it must receive accreditation or registration for other parameters.

S3. Reporting and Recording Requirements

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to EFSEC is a violation of the terms and conditions of this permit.

S3.A. Discharge Monitoring Reports

The first monitoring period begins on the effective date of the permit (unless otherwise specified). The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic Discharge Monitoring Report (DMR) form provided by EFSEC within the Water Quality Permitting Portal[5]. Include data for each of the parameters tabulated in Special Conditions S2 and as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.
2. Submit DMRs no later than the dates specified below, unless otherwise specified in this permit.
3. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:
   a. Submit monthly DMRs by the 15th day of the following month.
   b. Submit annual DMRs, unless otherwise specified in the permit, by January 15th for the previous calendar year. The annual sampling period is a calendar year, starting _____.

[4] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-50

[5] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance

c. Submit permit renewal application monitoring data in WQWebDMR, as required in Special Condition S2, by _____.

4. Enter the "No Discharge" reporting code for an entire DMR, for a specific monitoring point, or a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.
5. Report single analytical values below detection as "less than the Detection Level (DL)" by entering the < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR. If the method used did not meet the minimum DL and Quantitation Level (QL) identified in the permit report the actual QL and DL in the comments or in the location provided.
6. Report single analytical values between the DL and the QL by entering the estimated value, the code for estimated value/below quantitation limit (J) and any additional information in the comments.
7. Submit a copy of the laboratory report as an attachment using WQWebDMR.
8. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in Appendix A or Special Condition S2.
9. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
   a. The reported numeric value for all parameters measured between the detection value and the quantitation value for the sample analysis.
   b. One-half (1/2) the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.
   c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for reporting period.
10. Report single-sample grouped parameters (for example: priority pollutants, PAHs, pulp and paper chlorophenolics, TTOs) on the WQWebDMR form and include: sample date, concentration detection, DL (as necessary), and laboratory QL (as necessary).

S3.B. Permit Submittals and Schedules

The Permittee must use the Water Quality Permitting Portal – Permit Submittals application (unless otherwise specified in the permit) to submit all other written permit required reports by the date specified in the permit.

When another permit condition requires submittal of a paper (hard-copy) report, the Permittee must ensure that it is postmarked or received by EFSEC no later than the dates specified by this permit. Send these paper reports to EFSEC at:

EFSEC
PO Box 43172
Olympia, WA 98504-3172

S3.C. Records Retention

The Permittee must retain records of all monitoring information for a minimum of three years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this

permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by EFSEC.

S3.D. Recording of Results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement;
2. The individual who performed the sampling or measurement;
3. The dates the analyses were performed;
4. The individual who performed the analyses;
5. The analytical techniques or methods used;
6. The results of all analyses.

S3.E. Additional monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Special Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR unless otherwise specified by Special Condition S2.

S3.F. Reporting Permit Violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable. Immediately repeat sampling and analysis. Submit the results of any repeat sampling to EFSEC within 30 days of sampling.
   a. Immediate Reporting

      The Permittee must **immediately** report to EFSEC, Ecology, and the Department of Health, Drinking Water Program (at the numbers listed below), for all:

      - Failures of disinfection system
      - Plant bypasses discharging to a water body used as a source of drinking water.

EFSEC	360-664-1345
Ecology Central Regional Office ERTS	509-575-2490

      Department of Health Drinking Water Program
      800-521-0323 (business hours)
      877-481-4901 (after hours)

   b. Twenty-Four (24) Hour Reporting

      The Permittee must report the following occurrences of noncompliance by telephone, to EFSEC at the telephone number listed above, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

(i) Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
(ii) Any unanticipated bypass that causes an exceedance of any effluent limit in the permit (See Part S4.B., Bypass Procedures).
(iii) Any upset that causes an exceedance of an effluent limit in the permit (See G15., Upset).
(iv) Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Special Condition S1.A. of this permit.
(v) Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit. This requirement does not include industrial process wastewater overflows to impermeable surfaces which are collected and routed to the treatment works.

c. Report Within Five Days

The Permittee must also submit a written report within five days of the time that the Permittee becomes aware of any reportable event under subparts a or b, above. The report must contain:

(i) A description of the noncompliance and its cause.
(ii) The period of noncompliance, including exact dates and times.
(iii) The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
(iv) Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
(v) If the noncompliance involves an overflow prior to the treatment works, an estimated of the quantity (in gallons) of untreated overflow.

d. Waiver of Written Reports

EFSEC may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

e. All Other Permit Violation Reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for Special Condition S3.A. (Reporting). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S3.G. Other Reporting

1. Spills of Oil or Hazardous Materials

In addition to the requirements in S3.F, the Permittee must report a spill of oil or hazardous materials in accordance with the requirements of Revised Code of Washington

(RCW) 90.56.280[6] and WAC 173-303-145[7]. Visit the website How to Report a Spill[8] for further instructions.

2. Failure to Submit Relevant or Correct Facts

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to EFSEC, it must submit such facts or information promptly.

S3.H. Maintaining a Copy of this Permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to EFSEC inspectors.

S4. Operation and Maintenance

The Permittee must, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances), which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes keeping a daily operation logbook (paper or electronic), adequate laboratory controls, and appropriate quality assurance procedures. This provision of the permit requires the Permittee to operate backup or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of this permit.

The Permittee must schedule any facility maintenance, which might require interrupting of wastewater treatment and degrade effluent quality, during non-critical water quality periods and carry this maintenance out according to the approved O&M Manual or as otherwise approved by EFSEC.

S4.A. Operation and Maintenance (O&M) Manual

1. O&M Manual Submittal and Requirements
   The Permittee must:
   a. Update the Columbia Generating Station Operations and Maintenance Plan (NPDES O&M Manual) and submit it to EFSEC by Insert Date.
   b. Update the Operation and Maintenance Manual for the Stormwater/Industrial Wastewater Evaporation System (Ponds O&M Manual) and submit it to EFSEC by Insert Date.
   c. Submit to EFSEC for review any substantial changes or updates to the O&M manuals.
   d. Keep the approved O&M manuals at the permitted facility.
   e. Follow the instructions and procedures of the O&M manuals.
2. NPDES O&M Manual Components
   In addition to the requirements listed in WAC 173-240-150[9], the NPDES O&M Manual must include:

[6] https://app.leg.wa.gov/RCW/default.aspx?cite=90.56.280
[7] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-303-145
[8] https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue/Report-a-spill
[9] https://app.leg.wa.gov/wac/default.aspx?cite=173-240-150

a. A review of system components which, if failed, could pollute surface water or could impact human health. Provide a procedure for a routine schedule of checking the function of these components.
b. Any directions to maintenance staff when cleaning, or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine).
c. Wastewater sampling protocols and procedures for compliance with the sampling and reporting requirements in the wastewater discharge permit.
d. Procedures for inspection, maintenance, and reporting for the cooling water intake structures as described in Permit Condition S22.

3. Ponds O&M Manual Components
In addition to the requirements listed in WAC 173-240-150, the Ponds O&M Manual must include:
a. Procedures for leak detection.
b. Procedures to manage periods of low evaporation or ponds at full level.

S4.B. Bypass Procedures

A bypass is the intentional diversion of waste streams from any portion of a treatment facility. This permit prohibits all bypass except when the bypass is for essential maintenance, as authorized in Special Condition S4.B.1, or is approved by EFSEC as an anticipated bypass following the procedures in Special Condition S4.B.2.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

This permit allows bypasses for essential maintenance of the treatment system when necessary to ensure efficient operation of the system. The Permittee may bypass the treatment system for essential maintenance only if doing so does not cause violations of effluent limits. The Permittee is not required to notify EFSEC when bypassing for essential maintenance. However, the Permittee must comply with the monitoring requirements specified in Special Condition S2.B.

2. Anticipated bypass for non-essential maintenance.

EFSEC may approve an anticipated bypass under the conditions listed below. This permit prohibits any anticipated bypass that is not approved through the following process.

a. If a bypass is for non-essential maintenance, the Permittee must notify EFSEC, if possible, at least 10 days before the planned date of bypass. The notice must contain:

- A description of the bypass and the reason the bypass is necessary.
- An analysis of all known alternatives which would eliminate, reduce, or mitigate the potential impacts from the proposed bypass.
- A cost-effectiveness analysis of alternatives.
- The minimum and maximum duration of bypass under each alternative.

- A recommendation as to the preferred alternative for conducting the bypass.
- The projected date of bypass initiation.
- A statement of compliance with State Environmental Policy Act (SEPA).
- A request for modification of Water Quality Standards as provided in WAC 173-201A-410[10], if an exceedance of any Water Quality Standard is anticipated.
- Details of the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

b. For probable construction bypasses, the Permittee must notify EFSEC of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.

c. EFSEC will determine if the Permittee has met the conditions of Special Condition S4.B.2.a and b, and consider the following prior to issuing a determination letter, an Administrative Order, or a permit modification as appropriate for an anticipated bypass:

- If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.
- If the bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. “Severe property damage” means substantial physical damage to the property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- If feasible alternatives to the bypass exist, such as:
  - The use of auxiliary treatment facilities
  - Retention of untreated wastes
  - Stopping production
  - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance.
  - Transport of untreated wastes to another treatment facility.

[10] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A-410

S5. Solid Waste

S5.A. Solid Waste Handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

The Permittee must follow the procedures in EFSEC Resolution No. 299 or the most current resolution pertaining to the disposal of sediments from the cooling water system and double-lined impoundments (evaporation ponds).

S5.B. Leachate

The Permittee must not allow leachate from it solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment (AKART), nor allow such leachate to cause violation of State Surface Water Quality Standards, Chapter 173-201A WAC[11], or the State Ground Water Quality Standards, Chapter 173-200 WAC[12]. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface water.

S5.C. Solid Waste Control Plan

The Permittee must submit all proposed revisions or modifications to the Solid Waste Control Plan to EFSEC for review and approval at least 30 days prior to implementation. The Permittee must comply with the approved Solid Waste Control Plan and any modifications once approved. The Permittee must submit an update of the Solid Waste Control Plan as needed.

S6. Application for Permit Renewal or Modification for Facility Changes

The Permittee must submit a complete application for renewal of this permit by Insert Date (at least one year prior to expiration date).

The Permittee must also submit a new application or addendum at least 180 days prior to commencement of discharges resulting from activities, listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

S7. Non-Routine and Unanticipated Wastewater

S7.A. Notification Requirements

Beginning on the effective date of this permit, the Permittee is authorized to discharge non-routine wastewater or unanticipated wastewater, and therefore not listed on the permit application, on a case-by-case basis if approved by EFSEC. Prior to any such discharge, the Permittee must contact EFSEC, and at a minimum, provide the following information:

1. The proposed discharge location;
2. The nature of the activity that will generate the discharge;
3. Any alternatives to the discharge, such as reuse, storage, or recycling of the water;
4. The total volume of water it expects to discharge;
5. The results of the chemical analysis of the water;

[11] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A-410

[12] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200

6. The date of proposed discharge; and
7. The expected rate of discharge discharged, in gallons per minute.

S7.B. Chemical Analysis

The Permittee must analyze the water for constituents limited for the discharge and report them as required by subpart A.5 above. The analysis must also include any parameter deemed necessary by EFSEC. All discharges must comply with the effluent limits as established in Special Condition S1 of this permit, Water Quality Standards, and any other limits imposed by EFSEC.

S7.C. Flow Limitation

The Permittee must limit the discharge rate, as referenced in subpart A.7 above, so it will not cause erosion of ditches or structural damage to culverts and their entrances or exits.

S7.D. Approval Requirements

The discharge cannot proceed until EFSEC has reviewed the information provided and has authorized the discharge by letter to the Permittee or by an Administrative Order.

S8. Spill Control Plan

S8.A. Spill Control Plan Submittals and Requirements

The Permittee must:

1. Review the existing Spill Control Plan at least annually and update the Spill Plan as needed.
2. Send changes to the Plan to EFSEC.
3. Follow the Plan and any supplements throughout the term of the permit.

S8.B. Spill Control Plan Components

The Spill Control Plan must include the following:

1. A list of all oil and petroleum products and other materials used and/or stored on-site, which when spilled, or otherwise released into the environment, designate as a Dangerous Waste (DW) or Extremely Hazardous Waste (EHW) by the procedures set forth in WAC 173-303-070[13]. Include other materials used and/or stored on-site which may become pollutants or cause pollution upon reaching State's waters.
2. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills of these materials.
3. A description of the reporting system, the Permittee will use to alert responsible managers and legal authorities in the event of a spill.
4. A description of operator training to implement the Plan.

The Permittee may submit plans and manuals required by 40 CFR Part 112[14], contingency plans required by Chapter 173-303 WAC[15], or other plans required by other agencies, which meet the intent of this section. Approval of the Spill Control Plan with respect to this

[13] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-303-070
[14] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-112
[15] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-303-070

requirement does not constitute approval of the plans and manuals with respect to the underlying requirement.

S9. Stormwater Pollution Prevention Plan

S9.A. General Requirements

The Permittee must implement a Stormwater Pollution Prevention Plan (SWPPP).

1. The SWPPP must specify the Best Management Practices (BMPs) necessary to provide All Known, Available, and Reasonable methods of prevention, control, and Treatment (AKART) of stormwater pollution, ensure the discharge does not cause or contribute to a violation of the Water Quality Standards, and comply with applicable federal technology-based treatment requirements under 40 CFR 125.3.
2. BMPs in the SWPPP must be consistent with the Stormwater Management Manual for Eastern Washington (2019)[16]. Alternatively, the SWPPP shall include documentation that the BMPs selected are demonstrably equivalent to practices in the 2019 Stormwater Management Manual for Eastern Washington, including the proper selection, implementation, and maintenance of all applicable and appropriate best management practices for on-site pollution control.
3. The Permittee must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance at the facility that significantly changes the nature of pollutants discharged in stormwater from the facility, or significantly increases the quantity of pollutants discharged.
4. The Permittee must sign and certify all revisions to the SWPPP in accordance with General Condition G1.

S9.B. Specific SWPPP Requirements

The SWPPP must contain:

1. A site map, showing all buildings, structures, and impermeable surfaces, location of BMPs, stormwater flows, and monitoring locations;
2. A detailed assessment of activities, equipment and materials that have the potential to contribute any pollutants to stormwater;
3. Specific individuals listed by name or position whose responsibilities include SWPPP development, implementation, maintenance and modification;
4. A description of the operational source control BMPs;
5. A description of the structural source control BMPs;
6. A description of treatment BMPs, if any;
7. A description of erosion and sediment control BMPs, if any.

S9.C. SWPPP Implementation

The Permittee must conduct two inspections per year: one during the wet season (October 1 – April 30) and the other during the dry season (May 1 – September 30). Personnel named in the SWPPP must conduct the wet season and dry season inspections.

[16] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Stormwater-manuals

1. Conduct the wet season inspection during a rainfall event. Verify that the description of potential pollutant sources required under this permit are accurate; the site map as required in the SWPPP has been updated or otherwise modified to reflect current conditions; and the controls to reduce pollutants in stormwater discharges associated with industrial activities identified in the SWPPP are being implemented and are adequate. The wet weather inspection must include observations of the presence of floating materials, suspended solids, oil and grease, discolorations, turbidity, odor, etc. in the stormwater discharges(s).
2. The dry season inspection must determine the presence of unpermitted non-stormwater discharges such as non-contact cooling water or process water to the stormwater system. If an unpermitted, non-stormwater discharge is discovered, the Permittee must immediately notify EFSEC.

S9.D. SWPPP Evaluation

The Permittee must:

1. Evaluate whether measures to reduce pollutant loadings identified in the SWPPP are adequate and properly implemented in accordance with the terms of the permit or whether additional controls are needed.
2. Maintain a record summarizing the results of inspections and include a certification, in accordance with General Condition G1, that the facility is in compliance with the plan and in compliance with the permit.
3. Identify and correct any incidents of noncompliance with the SWPPP.

S9.E. SWPPP Update

The Permittee must review and update the CGS SWPPP (2015) and submit it to EFSEC by xxxx (1 year prior to expiration date).

S10. Outfall Evaluation

The Permittee must inspect the submerged portion of the outfall line and diffuser to document its integrity and continued function. If conditions allow for a photographic verification, the Permittee must include such verification in the report. By Insert Date, the Permittee must submit the inspection report to EFSEC.

The inspector must, at a minimum:

1. Assess the physical condition of the outfall pipe and associated couplings.
2. Determine the extent of sediment accumulation in the vicinity of the outfall.
3. Confirm physical location (latitude/longitude) and depth (at MLLW) of the diffuser section of the outfall.
4. Assess physical condition of the submarine line.
5. Assess physical condition of anchors used to secure the submarine line.

S11. Acute Toxicity

S11.A. Testing When There is No Permit Limit for Acute Toxicity

The Permittee must:

1. Conduct Acute Toxicity Testing on final effluent once in the last summer and once in the last winter prior to submission of the application for permit renewal.

2. Conduct Acute Toxicity Testing on a series of at least five concentrations of effluent, including 100 percent effluent and a control.
3. Use each of the following species and protocols for each Acute Toxicity test:

Table 8 - Acute Toxicity Tests

Acute Toxicity Tests	Species	Method
Fathead Minnow 96-Hour Static-Renewal Test	Pimephales Promelas	EPA-821-R-02-012
Daphnid 48-Hour Static Test	Ceriodaphnia Dubia, Daphnia Pulex, OR Daphnia Magna	EPA-821-R-02-012

4. Submit the results to EFSEC by Insert Date (with the permit renewal application).

S11.B. Sampling and Reporting Requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication 95-80, Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria[17]. Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.
2. The Permittee must collect 24-hour composite effluent samples for toxicity testing, while the continuous halogenation/dehalogenation process is operating. The Permittee must cool the samples to 0 – 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria.
4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Subsection C and the Ecology Publication No. WQ-R-95-80, Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria. If EFSEC determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Section A or pristine natural water of sufficient quality for good control performance.
6. The Permittee must conduct Whole Effluent Toxicity tests on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in the order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the ACEC. The ACEC equals 11 percent effluent.
8. All Whole Effluent Toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing must comply with the Acute Statistical Power

[17] https://apps.ecology.wa.gov/publications/SummaryPages/9580.html

Standard of 29 percent as defined in WAC 173-205-020[18]. If the test does not meet the Power Standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S12. Chronic Toxicity

S12.A. Testing When There is No Permit Limit for Chronic Toxicity

The Permittee must:

1. Conduct Chronic Toxicity testing on final effluent once in the last winter and once in the last summer prior to submission of the application for permit renewal.
2. Conduct Chronic Toxicity testing on a series of at least five concentrations of effluent and a control. This series of dilutions must include the ACEC. The ACEC equals 11 percent effluent. The series of dilutions should also contain the CCEC of 1 percent effluent.
3. Compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.
4. Submit the results to EFSEC by Insert Date (with the permit renewal application).
5. Perform Chronic Toxicity Tests with all of the following species and the most recent version of the following protocols:

Table 9 - Chronic Toxicity Tests

Freshwater Chronic Test	Species	Method
Fathead Minnow Survival and Growth	Pimephales Promelas	EPA-821-R-02-013
Water Flea Survival and Reproduction	Ceriodaphnia Dubia	EPA-821-R-02-013

S12.B. Sampling and Reporting Requirements

1. The Permittee must submit all reports for toxicity testing in accordance with the most recent version of Ecology Publication 95-80, Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria[19]. Reports must contain toxicity data, bench sheets, and reference toxicant results for test methods. In addition, the Permittee must submit toxicity test data in electronic format (CETIS export file preferred) for entry into Ecology's database.
2. The Permittee must collect 24-hour composite effluent samples for toxicity testing, while the continuous halogenation/dehalogenation process is operating. The Permittee must cool the samples to 0 – 6 degrees Celsius during collection and send them to the lab immediately upon completion. The lab must begin the toxicity testing as soon as possible but no later than 36 hours after sampling was completed.
3. The laboratory must conduct water quality measurements on all samples and test solutions for toxicity testing, as specified in the most recent version of Ecology Publication No. WQ-R-95-80, Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria.

[18] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-205-020

[19] https://apps.ecology.wa.gov/publications/SummaryPages/9580.html

4. All toxicity tests must meet quality assurance criteria and test conditions specified in the most recent versions of the EPA methods listed in Subsection C and the Ecology Publication No. WQ-R-95-80, Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria. If EFSEC determines any test results to be invalid or anomalous, the Permittee must repeat the testing with freshly collected effluent.
5. The laboratory must use control water and dilution water meeting the requirements of the EPA methods listed in Section A or pristine natural water of sufficient quality for good control performance.
6. The Permittee must conduct Whole Effluent Toxicity tests on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance testing in the order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the CCEC and the ACEC. The CCEC and the ACEC may either substitute for the effluent concentrations that are closest to them in the dilution series or be extra effluent concentrations. The CCEC equals 1 percent effluent. The ACEC equals 11 percent effluent.
8. All Whole Effluent Toxicity tests that involve hypothesis testing must comply with the Chronic Statistical Power Standard of 39 percent as defined in WAC 173-205-020[20]. If the test does not meet the Power Standard, the Permittee must repeat the test on a fresh sample with an increased number of replicates to increase the power.

S13. Cooling Water Intake Structure (CWIS)

Pursuant to Section 316(b) of the Clean Water Act, the Permittee must comply with the following requirements to minimize adverse impact by the facility's cooling water intake structure (CWIS).

S13.A. Closed-cycle Recirculating System

The Permittee must continue to operate a closed-cycle recirculating system as defined at 40 CFR 125.92(c).

S13.B. Operation and Maintenance

The Permittee must:

1. At all times, properly operate and maintain the CWIS including any existing technologies currently used to minimize impingement and entrainment.
2. Report any significant impingement or entrainment events to EFSEC within 24 hours consistent with the requirements in Permit Condition S3.F.b.
3. Notify EFSEC 60 days prior to any changes which change the design through-screen velocity or location of the CWIS.
4. Perform visual impingement monitoring of the CWIS on a semiannual basis when the intake structure is operational and the inspection can be conducted safely. Include photographic verification if conditions allow. Document inspection dates, findings, and any maintenance performed. Records of inspections must be made available to EFSEC upon request.

[20] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-205-020

5. Include procedures for inspection, maintenance, and reporting for the CWIS in the Operation and Maintenance Manual required by Permit Condition S4.A.

S13.C. Annual Certification Statement and Report

The Permittee must submit an annual signed certification statement which includes the following:

1. If the information contained in the previous year's annual certification is still pertinent (or, if this is the first submission of the annual signed certification statement, if the information contained in the permit application submitted to EFSEC is still pertinent), the Permittee may simply state as such in the annual certification.
2. If the Permittee has substantially modified operation of any unit at the facility that impacts cooling water withdrawals or operation of your cooling water intake structures, they must provide a summary of those changes in the report. In addition, they must submit revisions to the information required in the next permit application.
3. The annual report must include a summary of inspection dates, findings, and maintenance.
4. The annual certification statement must be signed by the responsible corporate officer.
5. Submit the certification statement and report to EFSEC by January 15, 2024 and annually thereafter.

GENERAL CONDITIONS

G1. SIGNATORY REQUIREMENTS

1. All applicants submitted to EFSEC must be signed and certified.
   a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

      - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or
      - The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing the other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

   b. In the case of a partnership, by a general partner.
   c. In the case of sole proprietorship, by the proprietor.
   d. In the case of municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

      Applications for permit for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.

2. All reports required by this permit and other information requested by EFSEC must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
   a. The authorization is made in writing by a person described above and submitted to EFSEC.
   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
3. Changes to authorization. If an authorization under paragraph G1.2., above, is no longer accurate because a different individual or position has responsibility for overall operation of the facility, a new authorization satisfying the requirements of paragraph G1.2., above, must be submitted to EFSEC prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section must make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G2. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of EFSEC, upon the presentation of credentials and such other documents as may be required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
2. To have access to and copy, at reasonable times and a reasonable cost, any records required to be kept under the terms and conditions of this permit.
3. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
4. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the Permittee) or upon EFSEC's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR Part 122.62[21], 40 CFR Part 122.64[22], or WAC 173-220-150[23] according to the procedures of 40 CFR Part 124.5[24].

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
   a. Violation of any permit term or condition.
   b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
   c. A material change in quantity or type of waste disposal.
   d. Determination that the permitted activity endangers human health or the environment, or contributes to Water Quality Standards violations and can only be regulated to acceptable levels by modification or termination.

[21] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#122.62
[22] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#122.64
[23] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-220-150
[24] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-124#124.5

e. A change in any condition requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit.
f. Nonpayment of fees assessed pursuant to RCW 90.48.465[25].
g. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090[26].

2. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:
   a. A material change in the condition of waters of the State.
   b. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
   c. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
   d. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
   e. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
   f. EFSEC has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statuary deadlines.
   g. Incorporation of an approved local pretreatment program into a municipality's permit.
3. The following are causes for modification or alternatively revocation and reissuance:
   a. The permitted facility being determined to be a new source pursuant to 40 CFR Part 122.29(b)[27].
   b. A significant change in the nature or an increase in quantity of pollutants discharged.
   c. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required Engineering Plans and Reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR Part 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by the permit constitutes a violation.

G4. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, but no later than 180 days prior to the proposed changes, give notice to EFSEC of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
2. A significant change in the nature or an increase in quantity of pollutants discharged.
3. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of new application or supplement to the existing

[25] https://app.leg.wa.gov/RCW/default.aspx?cite=90.48.465
[26] https://app.leg.wa.gov/RCW/default.aspx?cite=90.48.090
[27] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#122.29

application, along with required Engineering Plans and Reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, a new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. PLAN REVIEW REQUIRED

Prior to constructing or modifying any wastewater control facilities, an Engineering Report and detailed Plans and Specifications must be submitted to EFSEC for approval in accordance with Chapter 173-240 WAC[28]. Engineering Reports, Plans, and Specifications must be submitted at least 180 days prior to the planned start of construction unless a shorter time is approved by EFSEC. Facilities must be constructed and operated in accordance with the approval plans.

G6. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes ordinances, or regulations.

G7. TRANSFER OF THIS PERMIT

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to EFSEC.

1. Transfer by Modification

Except as provided in paragraph B below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR Part 122.62(b)(2), or a minor modification made under 40 CFR Part 122.63(d)[29], to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

2. Automatic Transfers

This permit may be automatically transferred to a new Permittee if:

a. The Permittee notifies EFSEC at least 30 days in advance of the proposed transfer date.
b. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.
c. EFSEC does not notify the existing Permittee and the proposed new Permittee or its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR Part 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

[28] https://apps.leg.wa.gov/wac/default.aspx?cite=173-240

[29] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#122.63

G8. REDUCED PRODUCTION FOR COMPLIANCE

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. REMOVED SUBSTANCES

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be re-suspended or reintroduced to the final effluent stream for discharge to state waters.

G10. DUTY TO PROVIDE INFORMATION

The Permittee must submit to EFSEC within a reasonable time, all information which EFSEC may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to EFSEC, upon request, copies of records required to be kept by this permit.

G11. OTHER REQUIREMENTS OF 40 CFR

The other requirements of 40 CFR Part 122.41[30] and 40 CFR Part 122.42[31] are incorporated in this permit by reference.

G12. ADDITIONAL MONITORING

EFSEC may establish specific monitoring requirements in addition to those contained in this permit by Administrative Order or permit modification.

G13. PAYMENT OF FEES

The Permittee must submit payment of fees associated with this permit as assessed by EFSEC.

G14. PENALTIES FOR VIOLATION OF PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof, shall be punished by a fine up to $10,000 and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to $10,000 for each such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. UPSET

Definition – "Upset" means an exception incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent

[30] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#122.41

[31] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#122.42

caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset.
2. The permitted facility was being properly operated at the time of the upset.
3. The Permittee submitted notice of the upset as required in Special Condition S3.F.
4. The Permittee complied with any remedial measures required under Special Condition S3.F. of this permit.

If any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. PROPERTY RIGHTS
This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. DUTY TO COMPLY
The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is ground for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal.

G18. TOXIC POLLUTANTS
The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. PENALTIES FOR TAMPERING
The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or by both.

G20. REPORTING REQUIREMENTS APPLICABLE TO EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGES
The Permittee belonging to the categories of existing manufacturing, commercial, Mining, or silviculture must notify EFSEC as soon as they know or have reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"
   a. One hundred micrograms per liter (100 µg/L)

b. Two hundred micrograms per liter (200 µg/L) for Acrolein and Acrylonitrile; 500 µg/L for 2,4-Dinitrophenol and 2-Methyl-4,6-Dinitrophenol; and 1 mg/L for Antimony.
c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR Part 122.21(g)(7)[32].
d. The level established by the Director in accordance with 40 CFR Part 122.44 (f)[33].

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"
   a. Five hundred (500) µg/L
   b. One (1) mg/L for Antimony
   c. Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR Part 122.21(g)(7).
   d. The level established by the Director in accordance with 40 CFR Part 122.44(f).

G21. COMPLIANCE SCHEDULES

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

[32] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#122.21
[33] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#122.44

APPENDIX A – List Of Pollutants, Analytical Methods, Detection Levels And Quantitation Levels

The Permittee must use the specified analytical methods, detection levels (DLs) [1] and quantitation levels (QLs) [2] in the following table for permit and application required monitoring unless:

Another permit condition specifies other methods, detection levels, or quantitation levels.

The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136.

If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

If the Permittee is unable to obtain the required DL and QL in its effluent due to matrix effects, the Permittee must submit a matrix-specific detection level (MDL) and a quantitation level (QL) to Ecology with appropriate laboratory documentation when the detection levels are too high to provide results near or below criteria (or applicable permit limits).

The lists below include conventional pollutants (as defined in CWA section 502(6) and 40 CFR Part 122), toxic or priority pollutants as defined in CWA section 307(a)(1) and listed in 40 CFR Part 122 Appendix D, 40 CFR Part 401.15 and 40 CFR Part 423 Appendix A), and nonconventionals. 40 CFR Part 122 Appendix D (Table V) also identifies toxic pollutants and hazardous substances which are required to be reported by dischargers if expected to be present. This permit appendix A list does not include those parameters.

Appendix A Table 1 – Conventional Pollutants

Pollutant	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection Level (DL) [1] µg/L Unless specified**	**Quantitation Level (QL) [2] µg/L Unless specified**
Biochemical Oxygen Demand		SM5210-B		2 mg/L
Biochemical Oxygen Demand, Soluble		SM5210-B [3]		2 mg/L
Fecal Coliform		SM 9221E, 9221F SM 9222D	N/A	Specified in method sample aliquot dependent
Oil and Grease (HEM) (Hexane Extractable Material)		1664 A or B	1,400	5,000
pH		SM4500-H+ B	N/A	N/A

Total Suspended Solids		SM2540-D		5 mg/L

Appendix A Table 2 - Nonconventional Pollutants

Pollutant	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection Level (DL) [1] µg/L Unless specified**	**Quantitation Level (QL) [2] µg/L Unless specified**
Alkalinity, Total		SM2320-B		5 mg/L as $CaCO_3$
Aluminum, Total	7429-90-5	200.8	2.0	10
Ammonia, Total (as N)		SM4500-NH3-B and C/D/E/G/H		20
Barium Total	7440-39-3	200.8	0.5	2.0
BTEX (benzene +toluene + ethylbenzene + m,o,p xylenes)		EPA SW 846 8021/8260	1	2
Boron, Total	7440-42-8	200.8	2.0	10.0
Chemical Oxygen Demand		SM5220-D		10 mg/L
Chloride		SM4500-Cl B/C/D/E and SM4110 B		Sample and limit dependent
Chlorine, Total Residual		SM4500 Cl G		50.0
Cobalt, Total	7440-48-4	200.8	0.05	0.25
Color		SM2120 B/C/E		10 color units
Dissolved oxygen		SM4500-OC/OG		0.2 mg/L
E.coli		SM 9221B, 9221F, 9223B	N/A	Specified in method; sample aliquot dependent
Enterococci		EPA 1600 SM 9230B, 9230C, 9230D,	N/A	Specified in method; sample aliquot dependent
Flow		Calibrated device		
Fluoride	16984-48-8	SM4500-F E	25	100
Hardness, Total		SM2340B		200 as $CaCO_3$

Iron, Total	7439-89-6	200.7	12.5	50
Magnesium, Total	7439-95-4	200.7	10	50
Manganese, Total	7439-96-5	200.8	0.1	0.5
Molybdenum, Total	7439-98-7	200.8	0.1	0.5
Nitrate + Nitrite Nitrogen (as N)		SM4500-NO_3- E/F/H		100
Nitrogen, Total Kjeldahl (as N)		SM4500-N_{org}B/C and SM4500NH_3-B/C/D/EF/G/H		300
NWTPH Dx [4]		Ecology NWTPH Dx	250	250
NWTPH Gx [5]		Ecology NWTPH Gx	250	250
Phosphorus, Total (as P)		SM 4500 PB followed by SM4500-PE/PF	3	10
Salinity		SM2520-B		3 practical salinity units or scale (PSU or PSS)
Settleable Solids		SM2540 -F		Sample and limit dependent
Soluble Reactive Phosphorus (as P)		SM4500-P E/F/G	3	10
Sulfate (as mg/L SO_4)		SM4110-B		0.2 mg/L
Sulfide (as mg/L S)		SM4500-S2F/D/G		0.2 mg/L
Sulfite (as mg/L SO_3)		SM4500-SO3B		2 mg/L
Temperature		Analog recorder or micro-recording devices (thermistors)		0.2°C
Tin, Total	7440-31-5	200.8	0.3	1.5
Titanium, Total	7440-32-6	200.8	0.5	2.5
Total Coliform		SM 9221B SM 9222B	N/A	Specified in method; sample aliquot dependent
Total Organic Carbon		SM5310-B/C/D		1 mg/L
Total Dissolved solids		SM2540 C		20 mg/L

Appendix A Table 3 - Priority Pollutants: Metals, Chromium (hex), Cyanide & Total Phenols

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified
Antimony, Total	114	7440-36-0	200.8	0.3	1.0
Arsenic, Total	115	7440-38-2	200.8	0.1	0.5
Beryllium, Total	117	7440-41-7	200.8	0.1	0.5
Cadmium, Total	118	7440-43-9	200.8	0.05	0.25
Chromium (hex) dissolved	119	18540-29-9	SM3500-Cr C	0.3	1.2
Chromium, Total	119	7440-47-3	200.8	0.2	1.0
Copper, Total	120	7440-50-8	200.8	0.4	2.0
Lead, Total	122	7439-92-1	200.8	0.1	0.5
Mercury, Total	123	7439-97-6	1631E	0.0002	0.0005
Nickel, Total	124	7440-02-0	200.8	0.1	0.5
Selenium, Total	125	7782-49-2	200.8	1.0	1.0
Silver, Total	126	7440-22-4	200.8	0.04	0.2
Thallium, Total	127	7440-28-0	200.8	0.09	0.36
Zinc, Total	128	7440-66-6	200.8	0.5	2.5
Cyanide, Total	121	57-12-5	335.4	5	10
Cyanide, Weak Acid Dissociable	121		SM4500-CN I	5	10
Cyanide, Free Amenable to Chlorination (Available Cyanide)	121		SM4500-CN G	5	10
Phenols, Total	65		EPA 420.1		50

Appendix A Table 4 - Priority Pollutants: Acid Compounds

Priority Pollutants	PP #	CAS Number (if available)	Recommended Analytical Protocol	Detection Level (DL) [1] µg/L Unless specified	Quantitation Level (QL) [2] µg/L Unless specified

2-Chlorophenol	24	95-57-8	625.1	3.3	9.9
2,4-Dichlorophenol	31	120-83-2	625.1	2.7	8.1
2,4-Dimethylphenol	34	105-67-9	625.1	2.7	8.1
4,6-dinitro-o-cresol (2-methyl-4,6,-dinitrophenol)	60	534-52-1	625.1/1625B	24	72
2,4 dinitrophenol	59	51-28-5	625.1	42	126
2-Nitrophenol	57	88-75-5	625.1	3.6	10.8
4-Nitrophenol	58	100-02-7	625.1	2.4	7.2
Parachlorometa cresol (4-chloro-3-methylphenol)	22	59-50-7	625.1	3.0	9.0
Pentachlorophenol	64	87-86-5	625.1	3.6	10.8
Phenol	65	108-95-2	625.1	1.5	4.5
2,4,6-Trichlorophenol	21	88-06-2	625.1	2.7	8.1

Appendix A Table 5 - Priority Pollutants: Volatile Compounds

Priority Pollutants	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection Level (DL) [1] µg/L Unless specified**	**Quantitation Level (QL) [2] µg/L Unless specified**
Acrolein	2	107-02-8	624.1	5	10
Acrylonitrile	3	107-13-1	624.1	1.0	2.0
Benzene	4	71-43-2	624.1	4.4	13.2
Bromoform	47	75-25-2	624.1	4.7	14.1
Carbon tetrachloride	6	56-23-5	624.1/601 or SM6230B	2.8	8.4
Chlorobenzene	7	108-90-7	624.1	6.0	18.0
Chloroethane	16	75-00-3	624/601	1.0	2.0
2-Chloroethylvinyl Ether	19	110-75-8	624.1	1.0	2.0
Chloroform	23	67-66-3	624.1 or SM6210B	1.6	4.8
Dibromochloromethane (chlordibromomethane)	51	124-48-1	624.1	3.1	9.3
1,2-Dichlorobenzene	25	95-50-1	624.1	1.9	7.6

1,3-Dichlorobenzene	26	541-73-1	624.1	1.9	7.6
1,4-Dichlorobenzene	27	106-46-7	624.1	4.4	17.6
Dichlorobromomethane	48	75-27-4	624.1	2.2	6.6
1,1-Dichloroethane	13	75-34-3	624.1	4.7	14.1
1,2-Dichloroethane	10	107-06-2	624.1	2.8	8.4
1,1-Dichloroethylene	29	75-35-4	624.1	2.8	8.4
1,2-Dichloropropane	32	78-87-5	624.1	6.0	18.0
1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene)6	33	542-75-6	624.1	5.0	15.0
Ethylbenzene	38	100-41-4	624.1	7.2	21.6
Methyl bromide (Bromomethane)	46	74-83-9	624/601	5.0	10.0
Methyl chloride (Chloromethane)	45	74-87-3	624.1	1.0	2.0
Methylene chloride	44	75-09-2	624.1	2.8	8.4
1,1,2,2-Tetrachloroethane	15	79-34-5	624.1	6.9	20.7
Tetrachloroethylene	85	127-18-4	624.1	4.1	12.3
Toluene	86	108-88-3	624.1	6.0	18.0
1,2-Trans-Dichloroethylene (Ethylene dichloride)	30	156-60-5	624.1	1.6	4.8
1,1,1-Trichloroethane	11	71-55-6	624.1	3.8	11.4
1,1,2-Trichloroethane	14	79-00-5	624.1	5.0	15.0
Trichloroethylene	87	79-01-6	624.1	1.9	5.7
Vinyl chloride	88	75-01-4	624/SM6200B	1.0	2.0

Appendix A Table 6 - Priority Pollutants: Base/Neutral Compounds

Priority Pollutants	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection Level (DL) [1] µg/L Unless specified**	**Quantitation Level (QL) [2] µg/L Unless specified**
Acenaphthene	1	83-32-9	625.1	1.9	5.7
Acenaphthylene	77	208-96-8	625.1	3.5	10.5

Anthracene	78	120-12-7	625.1	1.9	5.7
Benzidine	5	92-87-5	625.1	44	132
Benzyl butyl phthalate	67	85-68-7	625.1	2.5	7.5
Benzo(a)anthracene	72	56-55-3	625.1	7.8	23.4
Benzo(b)fluoranthene (3,4-benzofluoranthene) [7]	74	205-99-2	610/625.1	4.8	14.4
Benzo(k)fluoranthene (11,12-benzofluoranthene) [7]	75	207-08-9	610/625.1	2.5	7.5
Benzo(a)pyrene	73	50-32-8	610/625.1	2.5	7.5
Benzo(ghi)Perylene	79	191-24-2	610/625.1	4.1	12.3
Bis(2-chloroethoxy)methane	43	111-91-1	625.1	5.3	15.9
Bis(2-chloroethyl)ether	18	111-44-4	611/625.1	5.7	17.1
Bis(2-chloro-1-methylethyl)Ether (Bis(2-chloroisopropyl)ether) [8]	42	108-60-1	625.1	5.7	17.1
Bis(2-ethylhexyl)phthalate	66	117-81-7	625.1	2.5	7.5
4-Bromophenyl phenyl ether	41	101-55-3	625.1	1.9	5.7
2-Chloronaphthalene	20	91-58-7	625.1	1.9	5.7
4-Chlorophenyl phenyl ether	40	7005-72-3	625.1	4.2	12.6
Chrysene	76	218-01-9	610/625.1	2.5	7.5
Dibenzo(a-h)anthracene (1,2,5,6-dibenzanthracene)	82	53-70-3	625.1	2.5	7.5
3,3-Dichlorobenzidine	28	91-94-1	605/625.1	16.5	49.5
Diethyl phthalate	70	84-66-2	625.1	1.9	5.7
Dimethyl phthalate	71	131-11-3	625.1	1.6	4.8
Di-n-butyl phthalate	68	84-74-2	625.1	2.5	7.5
2,4-dinitrotoluene	35	121-14-2	609/625.1	5.7	17.1
2,6-dinitrotoluene	36	606-20-2	609/625.1	1.9	5.7
Di-n-octyl phthalate	69	117-84-0	625.1	2.5	7.5
1,2-Diphenylhydrazine (as Azobenzene)	37	122-66-7	1625B/625.1	5.0	20
Fluoranthene	39	206-44-0	625.1	2.2	6.6
Fluorene	80	86-73-7	625.1	1.9	5.7

Hexachlorobenzene	9	118-74-1	612/625.1	1.9	5.7
Hexachlorobutadiene	52	87-68-3	625.1	0.9	2.7
Hexachlorocyclopentadiene	53	77-47-4	1625B/625.1	2.0	4.0
Hexachloroethane	12	67-72-1	625.1	1.6	4.8
Indeno(1,2,3-cd)Pyrene	83	193-39-5	610/625.1	3.7	11.1
Isophorone	54	78-59-1	625.1	2.2	6.6
Naphthalene	55	91-20-3	625.1	1.6	4.8
Nitrobenzene	56	98-95-3	625.1	1.9	5.7
N-Nitrosodimethylamine	61	62-75-9	607/625.1	2.0	4.0
N-Nitrosodi-n-propylamine	63	621-64-7	607/625.1	0.5	1.0
N-Nitrosodiphenylamine	62	86-30-6	625.1	1.0	2.0
Phenanthrene	81	85-01-8	625.1	5.4	16.2
Pyrene	84	129-00-0	625.1	1.9	5.7
1,2,4-Trichlorobenzene	8	120-82-1	625.1	1.9	5.7

Appendix A Table 7 - Dioxin

Priority Pollutant	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection (DL) [1] µg/L Unless specified**	**Quantitation Level (QL) [2] µg/L Unless specified**
2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (2,3,7,8 TCDD)	129	1746-01-6	1613B	1.3 pg/L	5 pg/L

Appendix A Table 8 - Pesticides and PCBs

Priority Pollutants	**PP #**	**CAS Number (if available)**	**Recommended Analytical Protocol**	**Detection (DL) [1] µg/L Unless specified**	**Quantitation Level (QL) [2] µg/L Unless specified**
Aldrin	89	309-00-2	608.3	4.0 ng/L	12 ng/L
alpha-BHC	102	319-84-6	608.3	3.0 ng/L	9.0 ng/L
beta-BHC	103	319-85-7	608.3	6.0 ng/L	18 ng/L

gamma-BHC (Lindane)	104	58-89-9	608.3	4.0 ng/L	12 ng/L
delta-BHC	105	319-86-8	608.3	9.0 ng/L	27 ng/L
Chlordane [9]	91	57-74-9	608.3	14 ng/L	42 ng/L
4,4'-DDT	92	50-29-3	608.3	12 ng/L	36 ng/L
4,4'-DDE	93	72-55-9	608.3	4.0 ng/L	12 ng/L
4,4' DDD	94	72-54-8	608.3	11ng/L	33 ng/L
Dieldrin	90	60-57-1	608.3	2.0 ng/L	6.0 ng/L
alpha-Endosulfan	95	959-98-8	608.3	14 ng/L	42 ng/L
beta-Endosulfan	96	33213-65-9	608.3	4.0 ng/L	12 ng/L
Endosulfan Sulfate	97	1031-07-8	608.3	66 ng/L	198 ng/L
Endrin	98	72-20-8	608.3	6.0 ng/L	18 ng/L
Endrin Aldehyde	99	7421-93-4	608.3	23 ng/L	70 ng/L
Heptachlor	100	76-44-8	608.3	3.0 ng/L	9.0 ng/L
Heptachlor Epoxide	101	1024-57-3	608.3	83 ng/L	249 ng/L
PCB-1242 [10]	106	53469-21-9	608.3	0.065	0.195
PCB-1254	107	11097-69-1	608.3	0.065	0.195
PCB-1221	108	11104-28-2	608.3	0.065	0.195
PCB-1232	109	11141-16-5	608.3	0.065	0.195
PCB-1248	110	12672-29-6	608.3	0.065	0.195
PCB-1260	111	11096-82-5	608.3	0.065	0.195
PCB-1016 [10]	112	12674-11-2	608.3	0.065	0.195
Toxaphene	113	8001-35-2	608.3	240 ng/L	720 ng/L

Footnotes

[1] Detection level (DL) – or method detection limit means the minimum concentration of an analyte (substance) that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results as determined by the procedure given in 40 CFR part 136, Appendix B.

[2] Quantitation Level (QL) – also known as Minimum Level (ML) – The term ''minimum level'' refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (DL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the DL in a method, or the DL determined

by a laboratory, by a factor of 3. For the purposes of NPDES compliance monitoring, EPA considers the following terms to be synonymous: ‘‘quantitation limit,” ‘‘reporting limit,’’ and ‘‘minimum level’’.

[3] Soluble Biochemical Oxygen Demand – method note: First, filter the sample through a Millipore Nylon filter (or equivalent) - pore size of 0.45-0.50 um (prep all filters by filtering 250 ml of laboratory grade deionized water through the filter and discard). Then, analyze sample as per method 5210-B.

[4] Northwest Total Petroleum Hydrocarbons Diesel Extended Range OR NWTPH Dx – Analytical Methods for Petroleum Hydrocarbons https://apps.ecology.wa.gov/publications/documents/97602.pdf

[5] Northwest Total Petroleum Hydrocarbons Gasoline Extended Range OR NWTPH Gx – Analytical Methods for Petroleum Hydrocarbons https://apps.ecology.wa.gov/publications/documents/97602.pdf

[6] 1, 3-dichloroproylene (mixed isomers) – You may report this parameter as two separate parameters: cis-1, 3-dichlorpropropene (10061-01-5) and trans-1, 3-dichloropropene (10061-02-6).

[7] Total Benzofluoranthenes – Because Benzo(b)fluoranthene, Benzo(j)fluoranthene and Benzo(k)fluoranthene co-elute you may report these three isomers as total benzofluoranthenes.

[8] Bis(2-Chloro-1-Methylethyl) Ether – This compound was previously listed as Bis(2-Chloroisopropyl) Ether (39638-32-9)

[9] Chlordane – You may report alpha-chlordane (5103-71-9) and gamma-chlordane (5103-74-2) in place of chlordane (57-74-9). If you report alpha and gamma-chlordane, the DL/PQLs that apply are 14/42 ng/L.

[10] PCB 1016 & PCB 1242 – You may report these two PCB compounds as one parameter called PCB 1016/1242.

FACT SHEET FOR NPDES PERMIT WA0025151

Energy Northwest Columbia Generating Station

Date of Public Notice: xx/xx/xxxx

Permit Effective Date: xx/xx/xxxx

Purpose of this fact sheet

This fact sheet explains and documents the decisions the Energy Facility Site Evaluation Council (EFSEC) made in drafting the proposed National Pollutant Discharge Elimination System (NPDES) permit for Columbia Generating Station, operated by Energy Northwest.

This fact sheet complies with Section 463-76-034 of the Washington Administrative Code (WAC), which requires EFSEC to prepare a draft permit and accompanying fact sheet for public evaluation before issuing an NPDES permit.

EFSEC makes the draft permit and fact sheet available for public review and comment at least thirty (30) days before issuing the final permit. Copies of the fact sheet and draft permit for Columbia Generating Station, NPDES permit WA0025151, are available for public review and comment from insert month day, year until month day, year. For more details on preparing and filing comments about these documents, please see Appendix A - Public Involvement Information.

Energy Northwest reviewed the draft permit and fact sheet for factual accuracy. EFSEC corrected any errors or omissions regarding the facility's location, history, discharges, or receiving water prior to publishing this draft fact sheet for public notice.

After the public comment period closes, EFSEC will summarize substantive comments and provide responses to them. EFSEC will include the summary and responses to comments in this fact sheet as Appendix E - Response to Comments and publish it when issuing the final NPDES permit. EFSEC generally will not revise the rest of the fact sheet. The full document will become part of the legal history contained in the facility's permit file.

Summary

Energy Northwest operates a nuclear-fueled steam electric power generation plant that discharges to the Columbia River. EFSEC issued the current permit on September 30, 2014 and modified the permit on February 8, 2016 and again on March 19, 2019. The current permit reflects changes to the facility's dehalogenation process made in 2019.

Effluent limits for pH, flow, chromium, zinc, total residual halogens, PCBs, and priority pollutants contained in chemicals added for cooling system maintenance are unchanged from the permit issued in 2014.

Summary of changes in the proposed permit:

- Added limit and DMR reporting for heat load based on the Total Maximum Daily Load (TMDL) for temperature in the Columbia and Lower Snake Rivers.
- Removed the limit for acute whole effluent toxicity, based on the facility meeting the performance standard throughout the previous permit term. Acute WET testing requirements are reduced from quarterly to twice during the permit term.
- Removed permit conditions and monitoring related to the Outfall 002 discharge to ground, which has been replaced by a non-discharging evaporative lagoon.
- Metals monitoring - chromium and zinc increased to 2/month for better monitoring of effluent limit compliance. Copper removed from monthly monitoring and included in annual priority pollutant monitoring.
- PCBs included in annual priority pollutant monitoring.
- Groundwater studies required by the previous permit were completed and accepted by EFSEC. The proposed permit does not authorize any discharges to groundwater other than stormwater covered under the UIC Program.
- Cooling water intake structures - the entrainment characterization study and the operation and maintenance manual required by the previous permit were completed and accepted by EFSEC. The proposed permit includes updated requirements for compliance with Section 316(b) of the Clean Water Act.

TABLE OF CONTENTS

I. Introduction

The Federal Clean Water Act (FCWA, 1972, and later amendments in 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES), administered by the federal Environmental Protection Agency (EPA). The EPA authorized the state of Washington to manage the NPDES permit program in our state. Our state legislature accepted the delegation and assigned the power and duty for conducting NPDES permitting and enforcement to the Department of Ecology (Ecology) and EFSEC. The Legislature defined Ecology's and EFSEC's authority and obligations for the wastewater discharge permit program in 90.48 RCW[1] (Revised Code of Washington).

The following regulations apply to industrial NPDES permits:

- Procedures EFSEC follows for issuing NPDES permits (chapter 173-220 WAC[2])
- Water quality criteria for surface waters (chapter 173-201A WAC[3])
- Water quality criteria for ground waters (chapter 173-200 WAC[4])
- Whole effluent toxicity testing and limits (chapter 173-205 WAC[5])
- Sediment management standards (chapter 173-204 WAC[6])
- Submission of plans and reports for construction of wastewater facilities (chapter 173-240 WAC[7])

These rules require any industrial facility owner/operator to obtain an NPDES permit before discharging wastewater to state waters. They also help define the basis for limits on each discharge and for performance requirements imposed by the permit.

Under the NPDES permit program and in response to a complete and accepted permit application, EFSEC must prepare a draft permit and accompanying fact sheet, and make them available for public review before final issuance. EFSEC must also publish an announcement (public notice) telling people where they can read the draft permit, and where to send their comments, during a period of thirty days (WAC 173-220-050[8]). (See *Appendix A-Public Involvement Information* for more detail about the public notice and comment procedures). After the public comment period ends, EFSEC may make changes to the draft NPDES permit in response to comment(s). EFSEC will summarize the responses to comments and any changes to the permit in Appendix E.

[1] https://app.leg.wa.gov/RCW/default.aspx?cite=90.48
[2] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-220
[3] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A
[4] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200
[5] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-205
[6] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-204
[7] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-240
[8] https://app.leg.wa.gov/WAC/default.aspx?cite=173-220-050

II. Background Information

Table 1 - Facility Information

Applicant:	**Energy Northwest**
Facility Name and Address	Columbia Generating Station P.O. Box 968 (Mail Drop PE20) Richland, WA 99352
Contact at Facility	Marshall Schmitt Title: Environmental Scientist Telephone: (509) 372-5334
Responsible Official	Scott Vance Vice President, Corporate Governance & General Counsel PO Box 968, Mail Drop 1020, Richland, WA 99352 Telephone: (509) 377-4650 Fax: (509) 372-5330
Industry Type	Electric Services
Categorical Industry	40 CFR Part 423 Steam Electric Power Generating Point Source Category
Type of Treatment	Cooling, disinfection, neutralization (blowdown) Filtration, ion exchange (processed radwaste water)
SIC Codes	4911
NAIC Codes	221113
Facility Location (NAD83/WGS84 reference datum)	Latitude: 46.47170 Longitude: -119.33280
Discharge Waterbody Name and Location (NAD83/WGS84 reference datum)	Columbia River (RM 351.75) Latitude: 46.47139 Longitude: -119.26250
Intake Structures	Latitude: 46.471419 Longitude: -119.262954

Permit Status

Issuance Date of Previous Permit: September 30, 2014

Application for Permit Renewal Submittal Date: May 1, 2019

Date of EFSEC Acceptance of Application: August 6, 2019

Inspection Status

Date of Last Non-sampling Inspection: September 27, 2022

Figure 1 - Facility Location Map

The Columbia Generating Station (CGS) is on the left side of the image with the Columbia River approximately three miles east, along the right border. CGS resides within the Hanford Nuclear Reservation and is approximately 15 miles north of Richland, WA.

II.A. Facility description

1. History

The Columbia Generating Station (CGS) is a 1,236- megawatt boiling water reactor that uses nuclear fission to produce heat. Energy Northwest owns and operates this facility, located on leased land within the U.S. Department of Energy (USDOE) Hanford Site in Benton County about 12 miles north of Richland, Washington. CGS employs about 1,100 people and produces electricity 24 hours a day, 7 days a week when in operation. The reactor is shut down approximately every two years for refueling and maintenance. The last planned outage occurred from May 8 to June 19, 2021. CGS produces eight to nine billion kilowatt-hours of electricity annually, representing four percent of the power consumed in the northwest.

The 1,089 acre site includes several buildings and structures located three miles west of the Columbia River. Construction of the plant began in 1973. The Nuclear Regulatory Commission (NRC) issued an operating license in 1983 and the first electricity was produced in May of 1984. In May 2012, NRC issued a renewed operating license to Energy Northwest, which expires 12/20/2043.

Energy Northwest replaced the main steam condenser during a 2011 refueling outage. The admiralty brass condenser tubes were replaced with titanium to reduce copper content in reactor feed water and blowdown, reduce radiation exposure, and improve operational efficiencies.

2. Industrial Processes

The Columbia Generating Station's (CGS) Standard Industrial Classification (SIC) Code is 4911, Electric Services. The North American Industry Classification System (NAICS) Code is 221113, Nuclear Electric Power Generation. The facility is subject to EPA Categorical Pretreatment Standards 40 Code of Federal Regulations (CFR) Part 423 Steam Electric Power Generating Point Source Category.

The main activity at the site is production of commercial electric power from nuclear energy. The boiling water type nuclear reactor uses light water as the moderator and enriched uranium in pellet form as the nuclear fuel. Demineralized water passes around zirconium tubes containing the reactor fuel in the core and is converted to steam at about 70 atmospheres (1000 psi). The electrical generator is turned by a steam powered turbine converting thermal energy to mechanical energy and ultimately to electrical energy.

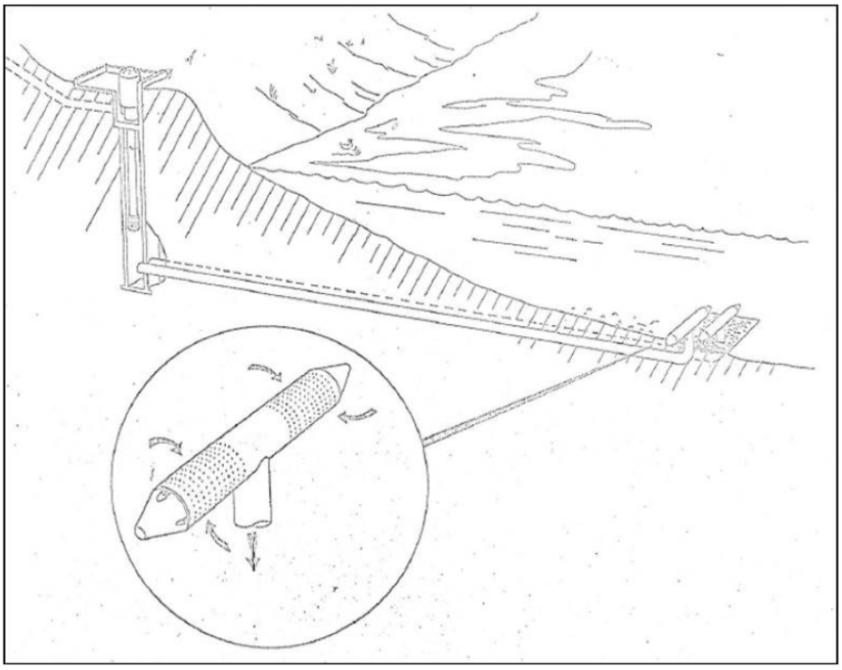
The primary use for the process water is non-contact cooling water. Flow is recirculated through six mechanical draft cooling water towers where heat is rejected to the atmosphere. Evaporation, drift, and blowdown losses are replenished from the Columbia River. CGS also produces potable water and water for use in the reactor on-site.

This NPDES permit covers discharges of pollutants not otherwise covered by EFSEC Council Resolution or other authority, such as the NRC, in any wastewater discharges to waters of the state.

3. Cooling Water Intakes

The CGS cooling water intake consists of two screened cylinders. Each cylinder is 30 feet long and is composed of two intake screens each 6.5 ft long. The screens consist of an outer and inner sleeve of perforated pipe. The outer sleeve is 42" diameter with 3/8" holes and the inner sleeve is 36" diameter with ¾" holes. Columbia River water flows by gravity through the intake structures into the pump well on the river shore, where it is then pumped to the CGS facility. The intake screens were designed for low through-screen velocities to minimize impingement and entrainment.

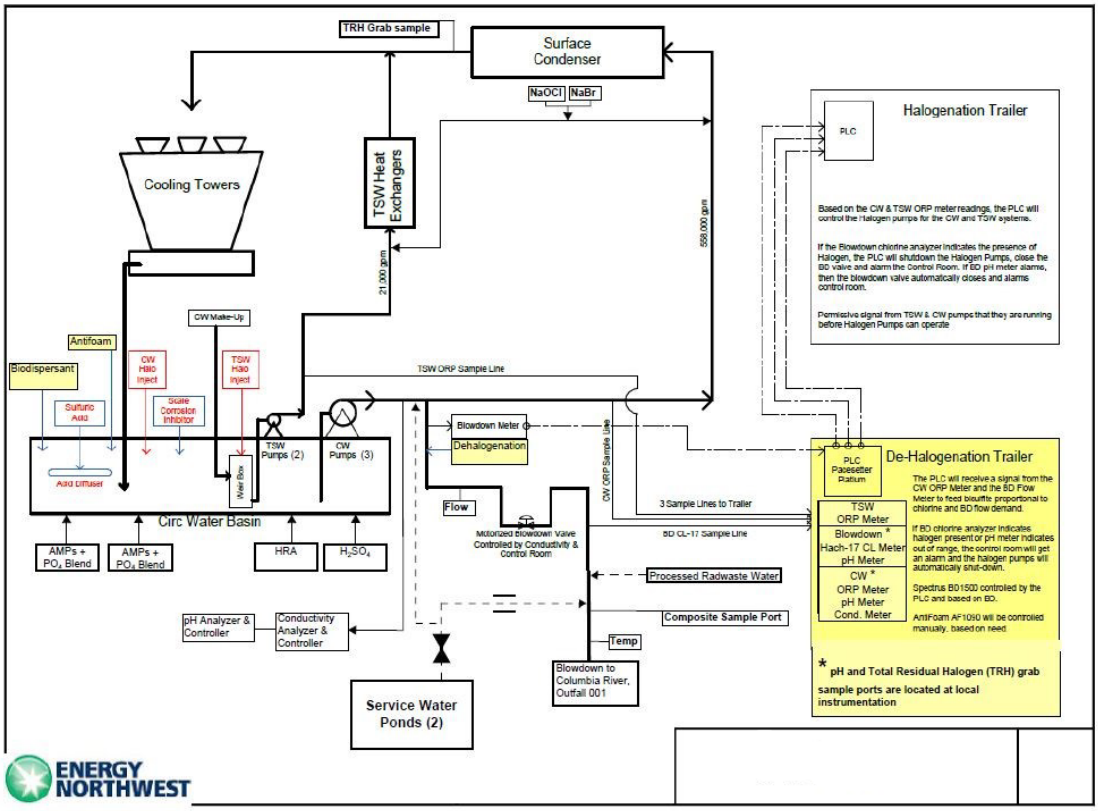
Figure 2 - CGS cooling water intake structures



4. **Wastewater Treatment processes discharging to Outfall 001 (Columbia River at RM 351.75)**

Figure 3 shows a flow diagram of the circulating cooling water system.

Figure 3 - Cooling Water System Schematic



Circulating cooling water blowdown – The major waste stream, in terms of volume, is the blowdown from the non-contact circulating cooling water system, which cools the steam condenser and associated machinery. This water is circulated at approximately 600,000 gallons per minute (gpm), cooled by the evaporative process in six mechanical draft cooling towers, and recycled. The evaporated water and that lost through drift and blowdown is replenished from the Columbia River at an average rate of about 15,000 gpm. Evaporation of the cooling water results in the concentration of dissolved solids. To limit the buildup of dissolved salts, a portion of the cooling water is released to the river as blowdown through to Outfall 001.

Although the blowdown stream is intended to be a relatively constant discharge, several factors can cause variation in the chemical composition of the discharge. The most important factor is the adjustable blowdown rate that determines the concentration factor for dissolved material in the circulating water. CGS has typically operated between 5 cycles of concentration (about 2,850 gpm blowdown) and 12 cycles of concentration (about 850 gpm blowdown). The permit application reports an average flow of 1.91 MGD.

The chemical composition of the blowdown is affected by the circulating water treatment regime. Sulfuric acid is added to help maintain pH in the range of 8.2 to 8.6 for optimal reduction of biofouling and scale. The water is also treated with DVS3A002 which is a

HEDP (1hydroxy-ethylidne-1, 1, diphosphonate) and AMPs (amino-trimethylene-phosphonate) copolymer blend that functions as a calcium scale inhibitor and a dispersant. Sodium tolyltriazole, which is a halogen-resistant azole (HRA), is added separately for copper alloy corrosion control.

On March 19, 2019 EFSEC modified the NPDES permit to improve the inhibition of biological fouling of the circulating water and plant service water systems. This improvement involves changing from a batch to a continuous halogenation process, with continuous injection of the same halogenation agents (sodium hypochlorite and sodium bromide). CGS adds two additional chemicals to assist the effectiveness of the halogenation, a biodispersant (surfactant) and an antifoaming agent. To prevent the discharge of elevated halogens (i.e., chlorine and bromine derivatives) to Outfall 001, the dehalogenation agent sodium bisulfite is continuously added to the blowdown in a controlled manner. The batch process for microbiocidal treatment is available as a backup procedure in the event of a problem with the effluent total residual halogen (TRH) analyzer or other problem with the continuous halogenation/dehalogenation system.

Another factor causing short-term increases in metal concentrations in the cooling water is the periodic dewatering and mechanical cleaning of the condenser tubes during maintenance outages. Online cooling tower cleaning to remove silt and organic matter can cause some of the material to become re-suspended such that the solids concentration in the blowdowm is slightly higher than normal. Cooling water (and blowdown) suspended solids concentrations are also increased during dust storms and large wildfire events with heavy ambient smoke because the towers act like large air scrubbers. Seasonal increase in makeup water turbidity also results in higher cooling water suspended solids.

Condenser cleaning water - Periodically the main condenser becomes scaled. This reduces plant efficiency to the point that chemical cleaning of the main condenser is necessary. Blowdown to the river will be secured and a cleaning agent, FerroquestTM or equivalent, will be added to the circulating water system. Sodium tolyltriazole will be added for copper metal corrosion protection. After the treated water has circulated a sufficient time to remove most of the scale (estimated to be one or two hours), sodium hydroxide will be added for pH adjustment. At the completion of the cleaning process, if any permit condition is not met, circulating water will be pumped to a storage location using temporary pumps and piping. During this pumping process, the concentration of constituents in the circulating water will be reduced by the addition of makeup water from the river. When the circulating water meets all conditions for discharge, blowdown to the river will be initiated. After the condenser cleaning process is completed, the stored water will be treated as necessary to meet discharge requirements. Following achievement of discharge limits, the water will be pumped back to the circulating water basin at CGS. Sediment from the cleaning process will be analyzed and disposed in accordance with the solid waste control plan.

Standby Service Water (SSW) system– The SSW system removes reactor decay heat during normal shutdown conditions and provides a heat sink for emergency equipment

during a plant transient or accident. The SSW system is a closed-loop circulating water system that draws cooling water from an onsite reservoir, and returns heated water to the reservoir. The primary reason for discharging service water is to reduce the concentration of sulfur or chlorides that have the potential to induce corrosion. Other reasons for discharging include the need to perform maintenance on the submerged components in the spray ponds, the need to clean out accumulations of sediments in the ponds, or to reduce suspended solids in the ponds. Infrequently, several million gallons of standby service water might be released to the blowdown line or to the cooling water system over a period of a couple days to multiple weeks. This water tends to be of lower cycles of concentration than the circulating cooling water. No discharges from the SSW system occurred during the previous permit term.

Radioactive wastewater treatment system effluent – This is treated wastewater from the "primary water system" (reactor water for steam production) that Energy Northwest must occasionally discharge when the plant storage inventory is full or if the total organic content of the water is too high to be used in the plant. This is relatively pure, low conductivity water that is released in batches of about 15,000 gallons at rates of up to 190 gpm. It is filtered and treated through an ion exchange process to reduce radioactive impurities prior to discharge. There have been no releases from this system since September 19, 1998.

Plant Service Water (TSW) - During Plant Service Water (TSW) system outages approximately 110,000 gallons of TSW water is drained via the blowdown line. The TSW system maintenance is infrequent and occurs approximately every ten years.

5. Evaporation Ponds

A series of double-lined, evaporative lagoons is located approximately 1500 feet northeast of the plant. Runoff from the power block building and stormwater collected in the bermed area around the Diesel Fuel Polishing Building is discharged to the evaporations ponds. Non-stormwater wastewater streams discharging into the evaporation ponds include backwash from the potable water and process water treatment systems, sumps and floor drains, and the fire protection system. These lagoons do not discharge into surface waters or ground waters.

6. Stormwater

Stormwater runoff from parking lots, support building, and other impervious surfaces are discharged to multiple UIC wells at the facility. The UIC wells are registered with the statewide Underground Injection Control (UIC) program[9]. The proposed permit requires Energy Northwest to submit an update to the stormwater pollution prevention plan (SWPPP) developed during the previous permit cycle.

[9] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Underground-injection-control-program

7. Sanitary wastes

Sanitary waste from the facility is piped to a treatment system located approximately one-half mile to the southeast. The facility uses aeration lagoons and facultative stabilization ponds to treat sanitary waste. Discharge of treated wastewater to ground is regulated under Temporary State Waste Discharge permit ST0501312.

8. Solid wastes

Several waste streams from the facility are addressed in the Solid Waste Control Plan. General refuse, scrap metal, metal and polyurethane drums, and worn vehicle and equipment tires are recycled or disposed of off-site. Demolition and construction debris are primarily disposed of at the City of Richland Municipal Landfill. Energy Northwest can also dispose of some waste in the onsite inert waste landfill. Used oil and hydraulic fluid is collected in drums until recyclable quantities are accumulated and transported off-site for recycling. Petroleum contaminated soils are land-farmed at the City of Richland Municipal Landfill or transported to a hazardous waste landfill off-site.

Cooling system sediments from the cooling tower decks and basins are collected approximately annually and placed in a disposal cell south of the towers. Sediments are periodically removed from the service water spray ponds and disposed of in the cooling tower sediment disposal cells.

EFSEC Council Resolution or other authority such as the Nuclear Regulatory Commission regulates the handling, treatment, storage, disposal and release of dangerous and radioactive wastes. The scope of this proposed permit does not include these activities beyond the requirement in S5.A to follow the procedures in the most current resolution pertaining to the disposal of sediments from the cooling water system and double-lined impoundment.

9. Discharge outfall

The treated effluent flows into the Columbia River through Outfall 001 at river mile 351.75. At minimum river flow of 36,000 cfs, a buried 18-inch pipe emerges at the outfall approximately 175 feet from the west shoreline and at a depth of seven feet. The slot-nozzle outfall is aligned perpendicular to the river flow, is 8-inches high, 32-inches wide and extends upwards from the river bed at a 15° angle.

II.B. Description of the receiving water

Columbia Generating Station discharges to the Columbia River at rive mile 351.75. No other point source outfalls are nearby. Significant nearby non-point sources of pollutants include discharges from agricultural areas to the east and north along the Columbia River. Nearby drinking water intakes include one for the facility approximately 700 feet upstream and those of the Cities of Richland and Pasco located approximately 12 miles downstream to the south. Section III.D of this fact sheet describes any receiving waterbody impairments.

The ambient background data used for this permit includes the following from Ecology's ambient monitoring location 36A070 (Columbia River at Vernita Bridge, upstream from the discharge), from 1990-present:

Table 2 - Ambient Background Data

Parameter	Value Used
Temperature (90th percentile 1-DMax)	19.5 °C
pH (90th/10th percentile)	8.4/7.8 standard units
Dissolved Oxygen (10th percentile)	9.7 mg/L
Total Ammonia-N	0.041 mg/L (from permit application, intake water data)
E.coli (average)	10/100 mL
Turbidity (average)	1.5 NTU
Hardness	65 mg/L as CaCO3
Alkalinity	60.4 mg/L as CaCO3
Chromium (dissolved, 90th percentile)	0.60 µg/L
Copper	1.2 µg/L
Lead	0.075 µg/L
Nickel	1.1 µg/L
Silver	Not detected
Zinc	4.5 µg/L

II.C. Wastewater characterization

Energy Northwest reported the concentration of pollutants in the discharge in the permit application and in discharge monitoring reports. The tabulated data represents the quality of the wastewater effluent discharged from November 2014 through May 2022. Of the priority pollutants, only those with detected results are listed here.

Table 3 - Wastewater Characterization, Outfall 001

Parameter	Units	# of Samples	Average Value	Maximum Value
Flow - monthly average	MGD	monthly	2.2	4.7
Flow - daily max	MGD	daily	2.2	6.7
Temperature	°C	daily	26.7	33.1 (95th %tile)
Turbidity	NTU	90	9	26 (95th %tile)
Total Residual Halogen	mg/L	continuous monitor	<0.1	<0.1
Chromium, Total	µg/L	97	1.4	2.8 (95th %tile)
Copper, Total	µg/L	97	14	20 (95th %tile)
Zinc, Total	µg/L	97	19	38 (95th %tile)
Biochemical Oxygen Demand (BOD_5)	mg/L	3	<2.0	<2.0
Chemical Oxygen Demand (COD)	mg/L	3	37	39
Total Organic Carbon	mg/L	3	13	15
Total Suspended Solids (TSS)	mg/L	37	9.1	45
Ammonia (as N)	mg/L	37	0.071	0.250

Parameter	Units	# of Samples	Average Value	Maximum Value
Bromide	mg/L	3	13.6	16.0
Chlorine	mg/L	3	<0.1	<0.1
Color	CU	3	10	10
Fecal Coliform	#/100 ml	3	3.3	7.8
Fluoride	mg/L	37	0.65	0.90
Nitrate-Nitrite (as N)	mg/L	37	1.24	3.25
Nitrogen, Total Organic (as N)	mg/L	3	1.35	1.52
Oil and Grease	mg/L	4	0	<1
Phosphorus, Total (as P)	mg/L	37	2.68	3.44
Beta Radioactivity, Total	pCi/L	36	7.48	17.1
Sulfate	mg/L	37	572	760
Aluminum, Total	mg/L	3	0.18	0.18
Barium, Total	mg/L	37	0.28	0.37
Boron, Total	mg/L	3	0.0378	0.0479
Cobalt, Total	mg/L	3	0.00041	0.00042
Iron, Total	mg/L	37	0.37	1.3
Magnesium, Total	mg/L	37	44	58
Molybdenum, Total	mg/L	3	0.0079	0.0081
Manganese, Total	mg/L	37	0.034	0.092
Tin, Total	mg/L	3	<0.001	<0.001
Titanium, Total	mg/L	37	0.019	0.066
Antimony, Total	µg/L	7	1.3	1.6
Arsenic, Total	µg/L	37	6.4	9.5
Lead, Total	µg/L	37	0.9	3.5
Mercury, Total	ng/L	7	2.27	4.07
Nickel, Total	µg/L	37	7.7	12
Selenium, Total	µg/L	37	3.6	7.4
Silver, Total	µg/L	37	0.015	0.24
Bromoform	µg/L	7	0.20	0.63
2-Nitrophenol	µg/L	4	0.21	0.54
4-Nitrophenol	µg/L	4	0.47	1.56
Bis(2-Ethylhexyl) Phthalate	µg/L	4	0.98	2.16

Parameter	Units	# of Samples	Minimum Value	Maximum Value
pH	s.u.	Continuous monitor	6.8	8.8

II.D. Summary of compliance with previous permit Issued

The previous permit placed effluent limits on flow, pH, acute toxicity, total residual halogens, total chromium, total zinc, polychlorinated biphenyl compounds (PCBs), and 126

priority pollutants (40 CFR 423 Appendix A) contained in chemicals added for cooling tower maintenance, except chromium and zinc.

CGS has complied with the effluent limits and permit conditions throughout the duration of the permit issued on September 30, 2014. EFSEC assessed compliance based on its review of the facility's information in Ecology's Permitting and Reporting Information System (PARIS), discharge monitoring reports (DMRs) and on inspections.

The following table summarizes compliance with report submittal requirements over the permit term.

Table 4 - Permit Submittals

Submittal Name	Due Date	Received Date	Permit Section
Application for permit renewal	5/1/2019	4/30/2019	S.6
Chronic toxicity - Testing when there is no permit limit - results	5/1/2019	1/21/2019	S.19.F
Acute toxicity - compliance testing for acute toxicity	4/30/2015	3/12/2015	S.13.A
Acute toxicity - compliance testing for acute toxicity	7/31/2015	5/14/2015	S.13.A
Acute toxicity - compliance testing for acute toxicity	10/31/2015	9/21/2015	S.13.A
Acute toxicity - compliance testing for acute toxicity	1/31/2016	12/3/2015	S.13.A
Acute toxicity - compliance testing for acute toxicity	4/30/2016	3/9/2016	S.13.A
Acute toxicity - compliance testing for acute toxicity	7/31/2016	6/20/2016	S.13.A
Acute toxicity - compliance testing for acute toxicity	10/31/2016	9/12/2016	S.13.A
Acute toxicity - compliance testing for acute toxicity	1/31/2017	11/30/2016	S.13.A
Acute toxicity - compliance testing for acute toxicity	4/30/2017	3/20/2017	S.13.A
Acute toxicity - compliance testing for acute toxicity	7/31/2017	6/6/2017	S.13.A
Acute toxicity - compliance testing for acute toxicity	10/31/2017	9/11/2017	S.13.A
Acute toxicity - compliance testing for acute toxicity	1/31/2018	11/29/2017	S.13.A
Acute toxicity - compliance testing for acute toxicity	4/30/2017	4/4/2017	S.13.A
Acute toxicity - compliance testing for acute toxicity	4/30/2018	3/14/2018	S.13.A
Acute toxicity - compliance testing for acute toxicity	7/30/2018	6/12/2018	S.13.A
Acute toxicity - compliance testing for acute toxicity	10/30/2018	9/5/2018	S.13.A
Acute toxicity - compliance testing for acute toxicity	1/30/2019	12/6/2018	S.13.A
Acute toxicity - compliance testing for acute toxicity	4/30/2019	2/21/2019	S.13.A
Acute toxicity - compliance testing for acute toxicity	7/30/2019	5/21/2019	S.13.A
Acute toxicity - compliance testing for acute toxicity	10/30/2019	9/9/2019	S.13.A
Acute toxicity - compliance testing for acute toxicity	1/30/2020	12/17/2019	S.13.A
Acute toxicity - compliance testing for acute toxicity	4/30/2020	3/9/2020	S.13.A
Acute toxicity - compliance testing for acute toxicity	7/30/2020	5/27/2020	S.13.A
Acute toxicity - compliance testing for acute toxicity	10/30/2020	9/2/2020	S.13.A
Acute toxicity - compliance testing for acute toxicity	1/30/2021	12/14/2020	S.13.A

Acute toxicity - compliance testing for acute toxicity	4/30/2021	2/24/2021	S.13.A
Acute toxicity - compliance testing for acute toxicity	7/30/2021	5/27/2021	S.13.A
Acute toxicity - compliance testing for acute toxicity	10/30/2021	9/9/2021	S.13.A
Acute toxicity - compliance testing for acute toxicity	1/30/2022	12/9/2021	S.13.A
Acute toxicity - compliance testing for acute toxicity	4/30/2022	2/16/2022	S.13.A
Acute toxicity - compliance testing for acute toxicity	7/30/2022	5/24/2022	S.13.A
Outfall evaluation	5/1/2019	1/17/2019	S.11
Operation and maintenance manual for evaporative pond system	12/1/2014	3/31/2014	S.4.Aa1/S 7
Submit a notice of completion of double-lined impoundment	5/1/2015	5/1/2015	S.7
Spill control plan update with permit application	5/1/2019	10/10/2018	S.9.A.1
Solid Waste Control Plan Update with permit application	5/1/2019	10/10/2018	S.5.C
Scope of work for analysis of circulating cooling H2O losses	11/1/2016	10/31/2016	S.7.3
Scope of work for analysis of circulating cooling H2O losses	11/1/2016	8/1/2017	S.7.3
Scope of work for analysis of circulating cooling H2O losses	11/1/2016	8/23/2017	S.7.3
Engineering Report for Circulating Cooling Water System Losses	5/1/2019	4/24/2019	S.7.4
Ground Water Quality Assurance Project Plan (QAPP) Update	5/1/2015	4/30/2015	S.7.5
Ground Water (QAPP) Update-Tasks 1-5 Findings	5/1/2019	4/22/2019	S.7.6
Report Relocation of temperature monitoring location	11/15/2015	11/1/2015	S.7.7/G21
Report Installation of sampling equip to collect 24 hour comp samples	11/15/2015	10/22/2015	S.7.8/G21
Storm Water Pollution Prevention Plan (SWPPP)	11/1/2015	10/22/2015	S.10
Cooling Water Intake Structure O&M Manual	11/1/2015	10/27/2015	S.12.A.1.a
Entrainment Characterization Study Design	11/1/2015	10/28/2015	S.12.B.1
Entrainment Characterization Study Report	5/1/2019	2/12/2019 (interim) 2/26/2020 (final)	S.12.B.2

II.E. State environmental policy act (SEPA) compliance

State law exempts the issuance, reissuance or modification of any wastewater discharge permit from the SEPA process as long as the permit contains conditions that are no less

stringent than federal and state rules and regulations (RCW 43.21C.0383[10]). The exemption applies only to existing discharges, not to new discharges.

III. Proposed Permit Limits

Federal and state regulations require that effluent limits in an NPDES permit must be either technology- or water quality-based.

- Technology-based limits are based upon the treatment methods available to treat specific pollutants. Technology-based limits are set by the EPA and published as a regulation, or EFSEC develops the limit on a case-by-case basis (40 CFR 125.3[11], and chapter 173-220 WAC[12]).
- Water quality-based limits are calculated so that the effluent will comply with the Surface Water Quality Standards (chapter 173-201A WAC[13]), Ground Water Standards (chapter 173-200 WAC[14]), Sediment Quality Standards (chapter 173-204 WAC[15]), or the Federal Water Quality Criteria Applicable to Washington (40 CFR 131.45[16]).
- EFSEC must apply the most stringent of these limits to each parameter of concern. These limits are described below.

The limits in this permit reflect information received in the application and from supporting reports (engineering, hydrogeology, etc.). EFSEC evaluated the permit application and determined the limits needed to comply with the rules adopted by the state of Washington. EFSEC does not develop effluent limits for all reported pollutants. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation.

The proposed permit does not include limits for pollutants not reported in the permit application but may be present in the discharge. The permit does not authorize discharge of the non-reported pollutants. During the five-year permit term, the facility's effluent discharge conditions may change from those conditions reported in the permit application. The facility must notify EFSEC if significant changes occur in any constituent [40 CFR 122.42(a)[17]]. Until EFSEC modifies the permit to reflect additional discharge of pollutants, a permitted facility could be violating its permit.

[10] http://app.leg.wa.gov/RCW/default.aspx?cite=43.21C.0383
[11] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-125#125.3
[12] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-220
[13] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A
[14] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200
[15] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-204
[16] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-131#131.45
[17] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122/subpart-C/section-122.42

III.A. Technology-based effluent limits

EFSEC must ensure that facilities provide all known, available, and reasonable methods of prevention, control, and treatment (AKART) when it issues a permit. Technology-based effluent limitations for steam electric power generation are detailed in 40 CFR 423.

Applicable standards for Columbia Generating Station are best available technology economically achievable (BAT) standards in 40 CFR 423.13.

The technology-based limit for total residual halogen, PCBs, and priority pollutants are based on 40 CFR 423.13. Application of the BAT standards (200 µg/L chromium, 1,000 µg/L zinc) would result in potential violation of water quality standards. Columbia Generating Station does not add chemicals containing chromium and zinc to the cooling tower discharge. Therefore, the previous permit established limits for chromium and zinc that are protective of water quality standards without allowing for dilution. These limits are achievable based on demonstrated performance and are considered to be technology-based effluent limits.

Limits for pH and flow are based on demonstrated performance at the facility.

Table 5 - Technology-based Limits

Parameter	Average Monthly Limit	Maximum Daily Limit
Flow	5.6 million gallons/day (mgd)	9.4 mgd
Total Residual Halogen	NA	0.1 mg/L[1]
Chromium (Total)	8.2 µg/L	16.4 µg/L
Zinc (Total)	53 µg/L	107 µg/L
PCBs	No discharge	No discharge
126 priority pollutants (40 CFR 423 Appendix A) contained in chemicals added for cooling tower maintenance, except chromium and zinc	No detectable amount	No detectable amount

Parameter	Daily Minimum	Daily Maximum
pH	6.5 standard units	9.0 standard units

[1]Total Residual Halogen: BAT effluent limits at 40 CFR 423.13(d)(1) for free available chlorine are maximum concentration 0.5 mg/L and average 0.2 mg/L. The proposed maximum daily limit of 0.1 mg/L total residual halogen is more protective than the BAT chlorine limits. This is the same limit as in the previous permit and the facility is able to comply with it.

III.B. Surface water quality-based effluent limits

The Washington State surface water quality standards (chapter 173-201A WAC[18]) are designed to protect existing water quality and preserve the beneficial uses of Washington's surface waters. Waste discharge permits must include conditions that ensure the discharge

[18] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A

will meet the surface water quality standards (WAC 173-201A-510). Water quality-based effluent limits may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load study (TMDL).

1. Numeric criteria for the protection of aquatic life and recreation

Numeric water quality criteria are listed in the water quality standards for surface waters (chapter 173-201A WAC). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. EFSEC uses numeric criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

2. Numeric criteria for the protection of human health

Numeric criteria for the protection of human health are promulgated in Chapter 173-201A WAC and 40 CFR 131.45[19]. These criteria are designed to protect human health from exposure to pollutants linked to cancer and other diseases, based on consuming fish and shellfish and drinking contaminated surface waters. The water quality standards also include radionuclide criteria to protect humans from the effects of radioactive substances.

3. Narrative criteria

Narrative water quality criteria (e.g., WAC 173-201A-240(1)) limit the toxic, radioactive, or other deleterious material concentrations that the facility may discharge to levels below those which have the potential to:

- Adversely affect designated water uses.
- Cause acute or chronic toxicity to biota.
- Impair aesthetic values.
- Adversely affect human health.

Narrative criteria protect the specific designated uses of all fresh waters (WAC 173-201A-200) and of all marine waters (WAC 173-201A-210) in the state of Washington.

4. Antidegradation

The purpose of Washington's Antidegradation Policy (WAC 173-201A-300-330) is to:

- Restore and maintain the highest possible quality of the surface waters of Washington.
- Describe situations under which water quality may be lowered from its current condition.
- Apply to human activities that are likely to have an impact on the water quality of surface water.
- Ensure that all human activities likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART).

[19] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-131#131.45

- Apply three tiers of protection (described below) for surface waters of the state.

  Tier I: ensures existing and designated uses are maintained and protected and applies to all waters and all sources of pollutions.

  Tier II: ensures that waters of a higher quality than the criteria assigned are not degraded unless such lowering of water quality is necessary and in the overriding public interest. Tier II applies only to a specific list of polluting activities.

  Tier III: prevents the degradation of waters formally listed as "outstanding resource waters," and applies to all sources of pollution.

A facility must prepare a Tier II analysis when all three of the following conditions are met:

- The facility is planning a new or expanded action.
- EFSEC regulates or authorizes the action.
- The action has the potential to cause measurable degradation to existing water quality at the edge of a chronic mixing zone.

Facility Specific Requirements – This facility must meet Tier I requirements.

- Dischargers must maintain and protect existing and designated uses. EFSEC must not allow any degradation that will interfere with, or become injurious to, existing or designated uses, except as provided for in chapter 173-201A WAC.
- EFSEC's analysis described in this section of the fact sheet demonstrates that the proposed permit conditions will protect existing and designated uses of the receiving water.

5. Mixing zones

A mixing zone is the defined area in the receiving water surrounding the discharge port(s), where wastewater mixes with receiving water. Within mixing zones the pollutant concentrations may exceed water quality numeric standards, so long as the discharge doesn't interfere with designated uses of the receiving water body (for example, recreation, water supply, and aquatic life and wildlife habitat, etc.) The pollutant concentrations outside of the mixing zones must meet water quality numeric standards.

State and federal rules allow mixing zones because the concentrations and effects of most pollutants diminish rapidly after discharge, due to dilution. EFSEC defines mixing zone sizes to limit the amount of time any exposure to the end-of-pipe discharge could harm water quality, plants, or fish.

The state's water quality standards allow EFSEC to authorize mixing zones for the facility's permitted wastewater discharges only if those discharges already receive all known, available, and reasonable methods of prevention, control, and treatment (AKART). Mixing zones typically require compliance with water quality criteria within a specified distance from the point of discharge and must not use more than 25% of the available width of the water body for dilution (WAC 173-201A-400 (7)(a)(ii-iii)).

EFSEC uses modeling to estimate the amount of mixing within the mixing zone. Through modeling EFSEC determines the potential for violating the water quality standards at the edge of the mixing zone and derives any necessary effluent limits. Steady-state models are the most frequently used tools for conducting mixing zone analyses. EFSEC chooses values for each effluent and for receiving water variables that correspond to the time period when the most critical condition is likely to occur. Each critical condition parameter, by itself, has a low probability of occurrence and the resulting dilution factor is conservative. The term "reasonable worst-case" applies to these values.

The mixing zone analysis produces a numeric value called a dilution factor (DF). A dilution factor represents the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. For example, a dilution factor of 4 means the effluent is 25% and the receiving water is 75% of the total volume of water at the boundary of the mixing zone. EFSEC uses dilution factors with the water quality criteria to calculate reasonable potentials and effluent limits. Water quality standards include both aquatic life-based criteria and human health-based criteria. The former are applied at both the acute and chronic mixing zone boundaries; the latter are applied only at the chronic boundary. The concentration of pollutants at the boundaries of any of these mixing zones may not exceed the numerical criteria for that zone.

Each aquatic life acute criterion is based on the assumption that organisms are not exposed to that concentration for more than one hour and more often than one exposure in three years. Each aquatic life chronic criterion is based on the assumption that organisms are not exposed to that concentration for more than four consecutive days and more often than once in three years.

The two types of human health-based water quality criteria distinguish between those pollutants linked to non-cancer effects (non-carcinogenic) and those linked to cancer effects (carcinogenic). The human health-based water quality criteria incorporate several exposure and risk assumptions. These assumptions include:

- A 70-year lifetime of daily exposures.
- An ingestion rate for fish or shellfish measured in kg/day.
- An ingestion rate of two and four tenths (2.4) liters/day for drinking water (increased from two liters/day in the 2016 Water Quality Standards update).
- A one-in-one-million cancer risk for carcinogenic chemicals.

This permit authorizes a small acute mixing zone, surrounded by a chronic mixing zone around the point of discharge (WAC 173-201A-400). The water quality standards impose certain conditions before allowing the discharger a mixing zone:

a. EFSEC must specify both the allowed size and location in a permit.

The proposed permit specifies the size and location of the allowed mixing zone (as specified below).

b. The facility must fully apply "all known, available, and reasonable methods of prevention, control and treatment" (AKART) to its discharge.

EFSEC has determined that the treatment provided at Columbia Generating Station meets the requirements of AKART (see "Technology-based Limits").

c. EFSEC must consider critical discharge conditions.

Surface water quality-based limits are derived for the water body's critical condition (the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or designated waterbody uses). The critical discharge condition is often pollutant-specific or waterbody-specific.

Critical discharge conditions are those conditions that result in reduced dilution or increased effect of the pollutant. Factors affecting dilution include the depth of water, the density stratification in the water column, the currents, and the rate of discharge. Density stratification is determined by the salinity and temperature of the receiving water. Temperatures are warmer in the surface waters in summer. Therefore, density stratification is generally greatest during the summer months. Density stratification affects how far up in the water column a freshwater plume may rise. The rate of mixing is greatest when an effluent is rising. The effluent stops rising when the mixed effluent is the same density as the surrounding water. After the effluent stops rising, the rate of mixing is much more gradual. Water depth can affect dilution when a plume might rise to the surface when there is little or no stratification. Ecology's Permit Writer's Manual[20] describes additional guidance on criteria/design conditions for determining dilution factors.

Table 6 - Critical Conditions Used to Model the Discharge

Critical Condition	Value
Seven-day-average low river flow with a recurrence interval of ten years (7Q10)	52,700 cubic feet per second (cfs)
River depth at the 7Q10 period	8.5 feet
River velocity	5.35 ft per second
Manning roughness coefficient	0.02
Channel width	1,400 feet
Maximum average monthly effluent flow for chronic and human health non-carcinogen	4.3 MGD
Annual average flow for human health carcinogen	2.8 MGD
Maximum daily flow for acute mixing zone	5.9 MGD
7-DAD MAX/1-DAD-MAX Effluent temperature	31.9°C

EFSEC obtained ambient data at critical conditions in the vicinity of the outfall from the permit application, DMRs and the *Energy Northwest Columbia Generating Station Effluent Mixing Study* (R. E. Welch Environmental Services, 2008).

[20] https://apps.ecology.wa.gov/publications/summarypages/92109.html

d. Supporting information must clearly indicate the mixing zone would not:

- Have a reasonable potential to cause the loss of sensitive or important habitat.
- Substantially interfere with the existing or characteristic uses.
- Result in damage to the ecosystem.
- Adversely affect public health.

Ecology established Washington State water quality criteria for toxic chemicals using EPA criteria. EPA developed the criteria using toxicity tests with numerous organisms and set the criteria to generally protect the species tested and to fully protect all commercially and recreationally important species.

EPA sets acute criteria for toxic chemicals assuming organisms are exposed to the pollutant at the criteria concentration for one hour. They set chronic standards assuming organisms are exposed to the pollutant at the criteria concentration for four days. Dilution modeling under critical conditions generally shows that both acute and chronic criteria concentrations are reached within minutes of discharge.

The discharge plume does not impact drifting and non-strong swimming organisms because they cannot stay in the plume close to the outfall long enough to be affected. Strong swimming fish could maintain a position within the plume, but they can also avoid the discharge by swimming away. Mixing zones generally do not affect benthic organisms (bottom dwellers) because the buoyant plume rises in the water column. EFSEC has additionally determined that the effluent will not exceed 33 degrees C for more than two seconds after discharge; and that the temperature of the water will not create lethal conditions or blockages to fish migration.

EFSEC evaluates the cumulative toxicity of an effluent by testing the discharge with whole effluent toxicity (WET) testing.

EFSEC reviewed the above information, the specific information on the characteristics of the discharge, the receiving water characteristics and the discharge location. Based on this review, EFSEC concluded that the discharge does not have a reasonable potential to cause the loss of sensitive or important habitat, substantially interfere with existing or characteristics uses, result in damage to the ecosystem, or adversely affect public health if the permit limits are met.

e. The discharge/receiving water mixture must not exceed water quality criteria outside the boundary of a mixing zone.

EFSEC conducted a reasonable potential analysis, using procedures established by the EPA and by Ecology, for each pollutant and concluded the discharge/receiving water mixture will not violate water quality criteria outside the boundary of the mixing zone if permit limits are met.

f. The size of the mixing zone and the concentrations of the pollutants must be minimized.

At any given time, the effluent plume uses only a portion of the acute and chronic mixing zone, which minimizes the volume of water involved in mixing. The plume mixes as it rises through the water column therefore much of the receiving water volume at lower depths in the mixing zone is not mixed with discharge. Similarly, because the discharge may stop rising at some depth due to density stratification, waters above that depth will not mix with the discharge. EFSEC determined it is impractical to specify in the permit the actual, much more limited volume in which the dilution occurs as the plume rises and moves with the current.

EFSEC minimizes the size of mixing zones by requiring dischargers to install diffusers when they are appropriate to the discharge and the specific receiving waterbody. When a diffuser is installed, the discharge is more completely mixed with the receiving water in a shorter time. EFSEC also minimizes the size of the mixing zone (in the form of the dilution factor) using design criteria with a low probability of occurrence. For example, EFSEC uses the expected 95th percentile pollutant concentration, the 90th percentile background concentration, the centerline dilution factor, and the lowest flow occurring once in every ten years to perform the reasonable potential analysis.

Because of the above reasons, EFSEC has effectively minimized the size of the mixing zone authorized in the proposed permit.

g. Maximum size of mixing zone.

The authorized mixing zone does not exceed the maximum size restriction.

h. Acute mixing zone.

- The discharge/receiving water mixture must comply with acute criteria as near to the point of discharge as practicably attainable.

EFSEC determined the acute criteria will be met at 10% of the distance of the chronic mixing zone at the ten year low flow.

- The pollutant concentration, duration, and frequency of exposure to the discharge will not create a barrier to migration or translocation of indigenous organisms to a degree that has the potential to cause damage to the ecosystem.

As described above, the toxicity of any pollutant depends upon the exposure, the pollutant concentration, and the time the organism is exposed to that concentration. Authorizing a limited acute mixing zone for this discharge assures that it will not create a barrier to migration. The effluent from this discharge will rise as it enters the receiving water, assuring that the rising effluent will not cause translocation of indigenous organisms near the point of discharge (below the rising effluent).

- Comply with size restrictions.

The mixing zone authorized for this discharge complies with the size restrictions published in chapter 173-201A WAC.

i. Overlap of Mixing Zones.

This mixing zone does not overlap another mixing zone.

III.C. Designated uses and surface water quality criteria

Applicable designated uses and surface water quality criteria are defined in chapter 173-201A WAC[21]. The table included below summarizes the criteria applicable to this facility's discharge.

1. Freshwater Aquatic Life Uses and Associated Criteria

Aquatic Life Uses are designated based on the presence of, or the intent to provide protection for the key uses. All indigenous fish and non-fish aquatic species must be protected in waters of the state in addition to the key species. The Aquatic Life Uses for this receiving water are identified below.

Table 7 - Salmonid Spawning, Rearing, and Migration

Criteria	Value
Temperature Criteria – Highest 7-DAD MAX	20°C (68°F) Temperature must not exceed a 1-DMax of 20°C due to human activities. When natural conditions exceed a 1-DMax of 20°C, no temperature increase will be allowed which will raise the receiving water temperature by greater than 0.3°C; nor shall such temperature increases, at any time, exceed t=34/(T+9)
Dissolved Oxygen Criteria – Lowest 1-Day Minimum	8.0 mg/L
Turbidity Criteria	5 NTU over background when the background is 50 NTU or less; or A 10 percent increase in turbidity when the background turbidity is more than 50 NTU.
Total Dissolved Gas Criteria	Total dissolved gas must not exceed 110 percent of saturation at any point of sample collection.
pH Criteria	The pH must measure within the range of 6.5 to 8.5 with a human-caused variation within the above range of less than 0.5 units.

2. Recreational use and criteria

The recreational use for this receiving water is primary contact recreation. *E.coli* organism levels must not exceed a geometric mean value of 100 CFU or MPN per 100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained within the averaging period exceeding 320 CFU or MPN per 100 mL.

[21] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A

3. Water supply uses
The water supply uses are domestic, agricultural, industrial, and stock watering.

4. Miscellaneous freshwater uses
The miscellaneous freshwater uses are wildlife habitat, harvesting, commerce and navigation, boating, and aesthetics.

III.D. Water quality impairments

Portions of the Columbia River are listed on the current 303(d) as impaired for temperature, bacteria, dissolved oxygen, pH, PCBs, aldrin, chlordane, dieldrin, and 4,4'-DDE. There are no listed impairments in the vicinity of the CGS outfall.

EPA completed a Total Maximum Daily Load (TMDL) Analysis to Limit Discharges of 2,3,7,8-TCDD (Dioxin) to the Columbia River Basin (Ecology Publication 09-10-058[22]) in 1991. This publication is a United States Environmental Protection Agency document.

The Total Maximum Daily Load (TMDL) for Total Dissolved Gas in the Mid-Columbia River and Lake Roosevelt, developed jointly by Washington State, the Spokane Tribe of Indians, and EPA, addresses total dissolved gas (TDG) in the Columbia River and Lake Roosevelt from the Canadian border to the Snake River (Ecology Publication 04-03-002[23]). Elevated TDG levels, which can cause "gas bubble trauma" in fish, are caused by spills from Mid-Columbia dams and by upstream sources. Separate allocations apply to fish passage and non-fish passage conditions. Allocations must be met below the spillway of each dam (near the end of the aerated zone). The implementation plan describes compliance with both Endangered Species Act and TMDL requirements.

The Columbia and Lower Snake Rivers are listed on the state's polluted waters list for high water temperatures that are above Washington water quality standards and can harm aquatic life. Because the Columbia and Snake Rivers cross multiple state boundaries and span almost 900 miles, the federal Environmental Protection Agency (EPA) published the Total Maximum Daily Load (TMDL) for temperature in the Columbia and Lower Snake Rivers[24] on May 20, 2020. EPA used heat load (the product of temperature, flow, and a conversion factor) to determine Wasteload Allocations (WLAs) for three main source categories: tributaries, current and future point sources subject to NPDES permits, and nonpoint source impacts from dams and reservoirs. The TMDL includes a waste load allocation (WLA) for the Columbia Generating Station.

III.E. Evaluation of surface water quality-based effluent limits for narrative criteria

EFSEC must consider the narrative criteria described in WAC 173-201A-260[25] when it determines permit limits and conditions. Narrative water quality criteria limit the toxic, radioactive, or other deleterious material concentrations that the facility may discharge which

[22] https://apps.ecology.wa.gov/publications/SummaryPages/0910058.html
[23] https://apps.ecology.wa.gov/publications/summarypages/0403002.html
[24] https://www.epa.gov/columbiariver/tmdl-temperature-columbia-and-lower-snake-rivers
[25] https://apps.leg.wa.gov/wac/default.aspx?cite=173-201A-260

have the potential to adversely affect designated uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health.

EFSEC considers narrative criteria when it evaluates the characteristics of the wastewater and when it implements all known, available, and reasonable methods of treatment and prevention (AKART) as described above in the technology-based limits section. When EFSEC determines if a facility is meeting AKART it considers the pollutants in the wastewater and the adequacy of the treatment to prevent the violation of narrative criteria.

In addition, EFSEC considers the toxicity of the wastewater discharge by requiring whole effluent toxicity (WET) testing when there is a reasonable potential for the discharge to contain toxics. EFSEC's analysis of the need for WET testing for this discharge is described later in the fact sheet.

III.F. Evaluation of surface water quality-based effluent limits for numeric criteria

1. Mixing zones and dilution factors

Pollutants in an effluent may affect the aquatic environment near the point of discharge (near field) or at a considerable distance from the point of discharge (far field). Toxic pollutants, for example, are near-field pollutants; their adverse effects diminish rapidly with mixing in the receiving water. Conversely, a pollutant such as biological oxygen demand (BOD) is a far-field pollutant whose adverse effect occurs away from the discharge even after dilution has occurred. Thus, the method of calculating surface water quality based effluent limits varies with the point at which the pollutant has its maximum effect.

With technology-based controls (AKART), predicted pollutant concentrations in the discharge exceed water quality criteria. EFSEC therefore authorizes a mixing zone in accordance with the geometric configuration, flow restriction, and other restrictions imposed on mixing zones by chapter 173-201A WAC[26].

The diffuser at Outfall 001 is a single port structure aligned perpendicular to the river flow. It is 8-inches high, 32-inches wide, and extends upwards from the river bed at a 15 degree angle. The diffuser depth is 8.5 feet during critical low flow conditions. EFSEC obtained this information from the *Energy Northwest Columbia Generating Station Effluent Mixing Study*, June 2008.

Chronic Mixing Zone – WAC 173-201A-400(7)(a) specifies that mixing zones must not extend in a downstream direction from the discharge ports for a distance greater than 300 feet plus the depth of water over the discharge ports or extend upstream for a distance of over 100 feet, not utilize greater than 25% of the flow, and not occupy greater than 25% of the width of the water body. The mixing zone extends from the bottom to the top of the water column.

[26] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A

The chronic dilution factor below is based on a downstream distance of 308 feet.

Acute Mixing Zone – WAC 173-201A-400(8)(a) specifies that in rivers and streams a zone where acute toxics criteria may be exceeded must not extend beyond 10% of the distance towards the upstream and downstream boundaries of the chronic zone, not use greater than 2.5% of the flow and not occupy greater than 25% of the width of the water body. The mixing zone extends from the bottom to the top of the water column.

The acute dilution factor below is based on a downstream distance of 31 feet.

EFSEC determined the dilution factors that occur within these zones at the critical condition based on review of the *Energy Northwest Columbia Generating Station Effluent Mixing Study*, July 2008. Ecology's *Permit Writer's Manual* recommends that dilution for human health criteria be evaluated at the harmonic mean flow for carcinogens and 30Q5 for non-carcinogens. The study did not evaluate these conditions. Therefore, EFSEC used the dilution factor for aquatic life chronic criteria as a conservative estimate to evaluate human health criteria.

The study used the CORMIX Hydrodynamic Mixing Zone Model (CORMIX1 – Version 5.0). Energy Northwest also conducted an in-situ tracer study using forward looking infrared (FLIR) technology focusing on temperature as a dilution tracer. The dilution factors are listed below.

Table 8 - Dilution Factors (DF)

Criteria	Acute	Chronic
Aquatic Life	9	93
Human Health, Carcinogen		93
Human Health, Non-carcinogen		93

EFSEC determined the impacts of pH, ammonia, metals, other toxics, and temperature as described below, using the dilution factors in the above table. The derivation of surface water quality-based limits also takes into account the variability of pollutant concentrations in both the effluent and the receiving water.

2. pH

EFSEC modeled the impact to receiving waters under critical conditions using technology-based limits for pH (6.5 – 9.0) and the *pH-mix-fresh* worksheet in EFSEC's PermitCalc spreadsheet. Appendix D includes the model results. Model calculations predict no violation of the pH criteria under critical conditions. Because the facility has demonstrated it can meet the previous permit limits of 6.5 to 9.0, the proposed permit includes the technology-based effluent limits for pH of 6.5 to 9.0.

3. Aquatic Life Toxic Pollutants

Federal regulations (40 CFR 122.44[27]) require EFSEC to place limits in NPDES permits on toxic chemicals in an effluent whenever there is a reasonable potential for those

[27] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#122.44

chemicals to exceed the surface water quality criteria. EFSEC does not exempt facilities with technology-based effluent limits from meeting the surface water quality standards.

The following toxic pollutants are present in the discharge: ammonia and heavy metals. EFSEC conducted a reasonable potential analysis (See Appendix D) on these parameters to determine whether it would require effluent limits in this permit.

Ammonia's toxicity depends on that portion which is available in the unionized form. The amount of unionized ammonia depends on the temperature and pH in the receiving freshwater. To evaluate ammonia toxicity, EFSEC used the available receiving water information for Ecology's ambient station 36A070 and spreadsheet tools developed by Ecology.

Valid ambient background data were available for ammonia, chromium, copper, lead, nickel, silver, and zinc. EFSEC used all applicable data to evaluate reasonable potential for this discharge to cause a violation of water quality standards.

EFSEC determined that ammonia, aluminum, arsenic, chromium, copper, iron, lead, mercury, nickel, selenium, silver, and zinc pose no reasonable potential to cause or contribute to exceedances of the water quality criteria at the critical condition using procedures given in EPA, 1991 (Appendix D) and as described above. EFSEC's determination assumes that this facility meets the other effluent limits of this permit.

4. Temperature

The state temperature standards (WAC 173-201A, WAC 173-201A-200, WAC 173-201A-600, and WAC 173-201A-602) include multiple elements:

a. Annual summer maximum threshold criteria (June 15 to September 15)
b. Supplemental spawning and rearing season criteria (September 15 to June 15)
c. Incremental warming restrictions
d. Guidelines on preventing acute lethality and barriers to migration of salmonids

EFSEC evaluates each criterion independently to determine reasonable potential and derive permit limits.

a. Annual summer maximum and supplementary spawning/rearing criteria

Each water body has an annual maximum temperature criterion [WAC 173-201A-200(1)(c), and WAC 173-201A-602, Table 602]. These threshold criteria (e.g., 12, 16, 17.5, 20°C) protect specific categories of aquatic life by controlling the effect of human actions on summer temperatures.

Some waters have an additional threshold criterion to protect the spawning and incubation of salmonids (9°C for char and 13°C for salmon and trout) [WAC 173-201A-602, Table 602]. These criteria apply during specific date-windows.

The threshold criteria apply at the edge of the chronic mixing zone. Criteria for most fresh waters are expressed as the highest 7-Day average of daily maximum temperature (7-DADMax). The 7-DADMax temperature is the arithmetic average of seven

consecutive measures of daily maximum temperatures. Criteria for some fresh waters are expressed as the highest 1-Day annual maximum temperature (1-DMax).

b. Incremental warming criteria

The water quality standards limit the amount of warming human sources can cause under specific situations [WAC 173-201A-200(1)(c)(i)-(ii)]. The incremental warming criteria apply at the edge of the chronic mixing zone.

At locations and times when background temperatures are cooler than the assigned threshold criterion, point sources are permitted to warm the water by only a defined increment. These increments are permitted only to the extent doing so does not cause temperatures to exceed either the annual maximum or supplemental spawning criteria.

c. Guidelines to prevent acute lethality or barriers to migration of salmonids. These site-level considerations do not override the temperature criteria listed above.
   i. Instantaneous lethality to passing fish: The upper 99th percentile daily maximum effluent temperature must not exceed 33°C, unless a dilution analysis indicates ambient temperatures will not exceed 33°C two seconds after discharge.
   ii. General lethality and migration blockage: The temperature at the edge of a chronic mixing zone must not exceed either a 1DMax of 23°C or a 7DADMax of 22°C. When adjacent downstream temperatures are 3°C or more cooler, the 1DMax at the edge of the chronic mixing zone must not exceed 22°C.
   iii. Lethality to incubating fish: The temperature must not exceed 17.5°C at locations where eggs are incubating.

Temperature Limit

This discharge is regulated by the Total Maximum Daily Load (TMDL) for temperature in the Columbia and Lower Snake Rivers[28] waste load allocation (WLA) for the Columbia Generating Station. The WLA is 1.27E+09 kilocalories per day (kcal/day) of heat load, to be applied as a monthly average limit from June 1 through October 31. The proposed permit includes an effluent limit for temperature derived from the completed TMDL. The average monthly heat load is calculated from the average monthly temperature and flow rate as follows: Heat Load (kcal/day) = Flow (mgd) x Temperature (°C) x 3.78×10^6.

Reasonable Potential Analysis for annual summer maximum and incremental warming criteria

EFSEC calculated the reasonable potential for the discharge to exceed the annual summer maximum and the incremental warming criteria (See temperature calculations in Appendix D). The discharge is allowed to warm the water by a defined increment only when the background (ambient) temperature is cooler than the assigned threshold

[28] https://www.epa.gov/columbiariver/tmdl-temperature-columbia-and-lower-snake-rivers

criterion. EFSEC allows warming increments only when they do not cause temperatures to exceed either the annual maximum or supplemental spawning criteria.

The allowable warming increment, t, is the lesser of: $t = 28/(T_{ambient} + 7)$, or the numeric criterion minus the ambient temperature. For this discharge the allowable increment t is: 20°C - 19.5°C = 0.5°C.

The temperature at the edge of the chronic mixing zone is:

$T_{chronic} = T_{ambient} + (T_{effluent95} - T_{ambient})/DF)$

$T_{ambient}$ = 90th percentile annual 1-DMax background temperature

$T_{effluent95}$ = 95th percentile 1-DMax) effluent temperature

$T_{chronic} = 19.5 + (33.1 - 19.5)/93) = 19.6°C$

So the temperature increase from the discharge is 19.6-19.5 = 0.1°C.

The incremental increase for this discharge is within the allowable amount. Therefore, the proposed permit includes the temperature limit based on the TMDL WLA.

Instantaneous lethality to passing fish: Near-field dilution analysis demonstrates that the plume temperature is less than 33°C two seconds after discharge. EFSEC calculated the plume temperature two seconds after discharge using the equations shown below and data from the Energy Northwest Columbia Generating Station Effluent Mixing Study (June 2008) which used the CORMIX Hydrodynamic Mixing Zone Model (CORMIX1-Version 5.0). EFSEC reviewed the CORMIX1 Prediction File used to determine dilution factors for the proposed permit to determine a value for DF@2second. The file predicts the end of the near-field region at 1.25 seconds with a corresponding centerline dilution factor of 3.7. This value was used for DF@2seconds in the equation.

The results demonstrate there is no reasonable potential for instantaneous lethality to passing fish.

$T_{2sec} = T_{ambient90} + (T_{effluent99} - T_{ambient90})/(DF@2seconds)$.

Where:

T_{2sec} = plume temperature 2-seconds after discharge.

$T_{ambient90}$ = 90th percentile of annual maximum 1DMax background temperatures.

$T_{effluent99}$ = 99th percentile of maximum 1DMax effluent temperatures.

DF@2seconds = centerline dilution factor at 2 seconds plume travel during a 7Q10 period.

$T_{2sec} = 22 + (34.9-22)/(3.7) = 25.6°C$

III.G. Human health

Washington's water quality standards include numeric human health-based criteria for priority pollutants that EFSEC must consider when writing NPDES permits.

EFSEC determined the effluent may contain chemicals of concern for human health, based on the facility's status as an EPA major discharger, and data or information indicating the discharge contains regulated chemicals.

EFSEC evaluated the discharge's potential to violate the water quality standards as required by 40 CFR 122.44(d)[29] by following the procedures published in the Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001)[30] and Ecology's Permit Writer's Manual[31] to make a reasonable potential determination. The evaluation showed that the discharge has no reasonable potential to cause a violation of water quality standards, and an effluent limit is not needed, for antimony, bis(2-ethylhexyl) phthalate, bromoform, copper, iron, mercury, nickel, selenium, and zinc.

III.H. Sediment quality

The aquatic sediment standards (chapter 173-204 WAC[32]) protect aquatic biota and human health. Under these standards EFSEC may require a facility to evaluate the potential for its discharge to cause a violation of sediment standards (WAC 173-204-400). You can obtain additional information about sediments at the Aquatic Lands Cleanup Unit website[33].

Through a review of the discharger characteristics and of the effluent characteristics, EFSEC determined that this discharge has no reasonable potential to violate the sediment management standards. The velocity of the Columbia River in the vicinity of the outfall inhibits sediment deposition. Visual inspection of the outfall during the evaluation conducted on September 17, 2018 confirms this finding.

III.I. Groundwater quality limits

The groundwater quality standards (chapter 173-200 WAC[34]) protect beneficial uses of groundwater. Permits issued by EFSEC must not allow violations of those standards (WAC 173-200-100).

The previous permit included groundwater monitoring for two outfalls where facility water was discharged to ground. These outfalls were discontinued when the facility built a large evaporation impoundment that is double-lined with leak detection. CGS no longer discharges wastewater to the ground. The outfalls that discharged to ground but no longer do so were removed from the permit.

The previous permit also required Energy Northwest to conduct a groundwater monitoring study to assess the effects of circulating cooling water system leakage. This study has been

[29] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#122.44
[30] https://www3.epa.gov/npdes/pubs/owm0264.pdf
[31] https://apps.ecology.wa.gov/publications/summarypages/92109.html
[32] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-204
[33] https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Sediment-cleanups
[34] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200

completed, reviewed by Ecology, Dept. of Health, and EFSEC, accepted, and finalized. The compliance schedule specified in the previous permit has been resolved.

After reviewing the completed study and an additional ten years of groundwater data provided by Energy Northwest, EFSEC has determined that this proposed permit will not contain any further groundwater monitoring requirements.

III.J. Whole effluent toxicity

The water quality standards for surface waters forbid discharge of effluent that has the potential to cause toxic effects in the receiving waters. Many toxic pollutants cannot be measured by commonly available detection methods. However, laboratory tests can measure toxicity directly by exposing living organisms to the wastewater and measuring their responses. These tests measure the aggregate toxicity of the whole effluent, so this approach is called whole effluent toxicity (WET) testing. Some WET tests measure acute toxicity and other WET tests measure chronic toxicity.

- Acute toxicity tests measure mortality as the significant response to the toxicity of the effluent. Dischargers who monitor their wastewater with acute toxicity tests find early indications of any potential lethal effect of the effluent on organisms in the receiving water.
- Chronic toxicity tests measure various sublethal toxic responses, such as reduced growth or reproduction. Chronic toxicity tests often involve either a complete life cycle test on an organism with an extremely short life cycle, or a partial life cycle test during a critical stage of a test organism's life. Some chronic toxicity tests also measure survival.

Laboratories accredited by Ecology for WET testing must use the proper WET testing protocols, fulfill the data requirements, and submit results in the correct reporting format according to the procedures in the most recent version of Ecology's Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria (Publication 95-80)[35]. EFSEC recommends that the regulated facility send a copy of the acute and chronic toxicity sections(s) of its NPDES permit to the laboratory.

All WET testing results conducted in order to monitor for compliance with an acute WET limit assigned in a previous permit met the acute toxicity performance standard defined in WAC 173-205-02036. This testing has continued to meet the standard after modifications to the dehalogenation system in 2019. The Permittee has not made any other changes to the facility which would trigger an additional effluent characterization pursuant to WAC 173-205-060. For these reasons, EFSEC has not included the acute WET limit or additional characterization in the proposed permit. Instead, the Permittee must conduct WET testing at the end of the permit term in order to verify that effluent toxicity has not increased.

WET testing conducted during effluent characterization showed no reasonable potential for effluent discharges to cause receiving water chronic toxicity. The proposed permit will not

[35] https://apps.ecology.wa.gov/publications/SummaryPages/9580.html
[36] https://app.leg.wa.gov/WAC/default.aspx?cite=173-205-020

include a chronic WET limit. The Permittee must retest the effluent before submitting an application for permit renewal.

- If this facility makes process or material changes which, in EFSEC's opinion, increase the potential for effluent toxicity, then EFSEC may (in a regulatory order, by permit modification, or in the permit renewal) require the facility to conduct additional effluent characterization
- If WET testing conducted for submittal with a permit application fails to meet the performance standards in WAC 173-205-020[37], EFSEC will assume that effluent toxicity has increased. Energy Northwest may demonstrate to EFSEC that effluent toxicity has not increased by performing additional WET testing after the process or material changes have been made.

III.K. Comparison of effluent limits with the previous permit as modified on March 19, 2019

Table 9 - Comparison of Previous and Proposed Effluent Limits – Outfall 001

Limit	Basis of Limit	Existing permit limit	Proposed permit limit
Flow - average monthly	Technology	5.6 MGD	5.6 MGD
Flow - maximum daily	Technology	9.4 MGD	9.4 MGD
Total Residual Halogen - maximum daily	Technology	0.1 mg/L	0.1 mg/L
Chromium (Total) - average monthly	Technology	8.2 µg/L	8.2 µg/L
Chromium (Total) - maximum daily	Technology	16.4 µg/L	16.4 µg/L
Zinc (Total) - average monthly	Technology	53 µg/L	53 µg/L
Zinc (Total) - maximum daily	Technology	107 µg/L	107 µg/L
Polychlorinated biphenyl compounds (PCBs)	Technology	No discharge	No discharge
The 126 priority pollutants (40 CFR 423 Appendix A) contained in chemicals added for cooling tower maintenance, except chromium and zinc	Technology	No detectable amount	No detectable amount
pH – Daily Minimum	Technology	6.5 s.u.	6.5 s.u.
pH – Daily Maximum	Technology	9.0 s.u.	9.0 s.u.
Heat Load - average monthly, June-October	WQ - TMDL	none	1.27E+09 kilocalories per day (kcal/day)

[37] https://app.leg.wa.gov/WAC/default.aspx?cite=173-205-020

IV. Monitoring Requirements

EFSEC requires monitoring, recording, and reporting (WAC 173-220-210[38] and 40 CFR 122.41[39]) to verify that the treatment process is functioning correctly and that the discharge complies with the permit's effluent limits.

If a facility uses a contract laboratory to monitor wastewater, it must ensure that the laboratory uses the methods and meets or exceeds the method detection levels required by the permit. The permit describes when facilities may use alternative methods. It also describes what to do in certain situations when the laboratory encounters matrix effects. When a facility uses an alternative method as allowed by the permit, it must report the test method, detection level (DL), and quantitation level (QL) on the discharge monitoring report or in the required report.

IV.A. Wastewater monitoring

The monitoring schedule is detailed in the proposed permit under Special Condition S.2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, and significance of pollutants.

IV.B. Lab accreditation

EFSEC requires that facilities must use a laboratory registered or accredited under the provisions of chapter 173-50 WAC[40], Accreditation of Environmental Laboratories, to prepare all monitoring data (with the exception of certain parameters). Ecology accredited the laboratory at this facility for the following non-potable water parameters:

Table 10 - Accredited Parameters

Category	Method Name	Analyte Name
General Chemistry	EPA 300.0_2.1_1993	Bromide
General Chemistry	EPA 300.0_2.1_1993	Chloride
General Chemistry	EPA 300.0_2.1_1993	Fluoride
General Chemistry	EPA 300.0_2.1_1993	Nitrate
General Chemistry	EPA 300.0_2.1_1993	Nitrate + Nitrite
General Chemistry	EPA 300.0_2.1_1993	Nitrite
General Chemistry	EPA 300.0_2.1_1993	Sulfate
General Chemistry	EPA 410.4_2_1993	Chemical Oxygen Demand (COD)
General Chemistry	SM 2130 B-2011	Turbidity
General Chemistry	SM 2320 B-2011	Alkalinity
General Chemistry	SM 2510 B-2011	Specific Conductance
General Chemistry	SM 2540 C-2011	Solids, Total Dissolved
General Chemistry	SM 2540 D-2011	Solids, Total Suspended
General Chemistry	SM 3500-Cr B-2011	Chromium, Hexavalent
General Chemistry	SM 4500-H+ B-2011	pH

[38] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-220-210
[39] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122/subpart-C/section-122.41
[40] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-50

General Chemistry	SM 4500-NH3 D-2011	Ammonia
General Chemistry	SM 4500-O G-2011	Dissolved Oxygen
General Chemistry	SM 4500-P E-2011	Orthophosphate
General Chemistry	SM 4500-P E-2011	Phosphorus, Total
General Chemistry	SM 5210 B-2011	Biochemical Oxygen Demand (BOD)
General Chemistry	SM 5210 B-2011	Carbonaceous BOD (CBOD)
General Chemistry	SM 5310 B-2011	Total Organic Carbon
Metals	EPA 200.8_5.4_1994	Aluminum
Metals	EPA 200.8_5.4_1994	Antimony
Metals	EPA 200.8_5.4_1994	Arsenic
Metals	EPA 200.8_5.4_1994	Barium
Metals	EPA 200.8_5.4_1994	Beryllium
Metals	EPA 200.8_5.4_1994	Cadmium
Metals	EPA 200.8_5.4_1994	Calcium
Metals	EPA 200.8_5.4_1994	Chromium
Metals	EPA 200.8_5.4_1994	Cobalt
Metals	EPA 200.8_5.4_1994	Copper
Metals	EPA 200.8_5.4_1994	Iron
Metals	EPA 200.8_5.4_1994	Lead
Metals	EPA 200.8_5.4_1994	Magnesium
Metals	EPA 200.8_5.4_1994	Manganese
Metals	EPA 200.8_5.4_1994	Molybdenum
Metals	EPA 200.8_5.4_1994	Nickel
Metals	EPA 200.8_5.4_1994	Potassium
Metals	EPA 200.8_5.4_1994	Selenium
Metals	EPA 200.8_5.4_1994	Silver
Metals	EPA 200.8_5.4_1994	Sodium
Metals	EPA 200.8_5.4_1994	Thallium
Metals	EPA 200.8_5.4_1994	Tin
Metals	EPA 200.8_5.4_1994	Vanadium
Metals	EPA 200.8_5.4_1994	Zinc

IV.C. Effluent limits which are near detection or quantitation levels

The water quality-based effluent concentration limits for chromium are near the limits of current analytical methods to detect or accurately quantify. The method detection level (MDL) also known as detection level (DL) is the minimum concentration of a pollutant that a laboratory can measure and report with a 99 percent confidence that its concentration is greater than zero (as determined by a specific laboratory method). The quantitation level (QL) is the level at which a laboratory can reliably report concentrations with a specified level of error. Estimated concentrations are the values between the DL and the QL. EFSEC

requires the facility to report estimated concentrations. When reporting maximum daily effluent concentrations, EFSEC requires the facility to report "less than X" where X is the required detection level if the measured effluent concentration falls below the detection level.

V. Other Permit Conditions

V.A. Reporting and record keeping

EFSEC based Special Condition S3 on its authority to specify any appropriate reporting and record keeping requirements to prevent and control waste discharges (WAC 173-220-210[41]).

V.B. Non routine and unanticipated wastewater

Occasionally, this facility may generate wastewater which was not characterized in the permit application because it is not a routine discharge and was not anticipated at the time of application. These wastes typically consist of waters used to pressure-test storage tanks or fire water systems or of leaks from drinking water systems.

The permit authorizes the discharge of non-routine and unanticipated wastewater under certain conditions. The facility must characterize these waste waters for pollutants and examine the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and on any opportunities for reuse, EFSEC may:

- Authorize the facility to discharge the wastewater.
- Require the facility to treat the wastewater.
- Require the facility to reuse the wastewater.

V.C. Spill plan

This facility stores a quantity of chemicals on-site that have the potential to cause water pollution if accidentally released. EFSEC can require a facility to develop best management plans to prevent this accidental release [Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA)[42] and RCW 90.48.080[43]].

CGS developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the facility to update this plan if substantial changes are made onsite during the permit term and submit it to EFSEC.

V.D. Solid waste control plan

CGS could cause pollution of the waters of the state through inappropriate disposal of solid waste or through the release of leachate from solid waste.

This proposed permit requires this facility to update the approved solid waste control plan if substantial changes are made onsite during the permit term. The facility must submit the

[41] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-220-210
[42] https://www.epa.gov/cwa-404/clean-water-act-section-402-national-pollutant-discharge-elimination-system
[43] http://app.leg.wa.gov/RCW/default.aspx?cite=90.48.080

updated plan to EFSEC for approval (RCW 90.48.080[44]). Refer to the Ecology guidance document, Developing a Solid Waste Control Plan[45].

V.E. Operation and maintenance manual

EFSEC requires Energy Northwest to take all reasonable steps to properly operate and maintain their wastewater treatment system in accordance with state and federal regulations [40 CFR 122.41(e)[46] and WAC 173-220-150 (1)(g)[47]]. The facility has prepared and submitted an operation and maintenance manual for the cooling water system, and an operation and maintenance manual for the evaporation ponds, as required by state regulation for the construction of wastewater treatment facilities (WAC 173-240-150[48]). Implementation of the procedures in the operation and maintenance manual ensures the facility's compliance with the terms and limits in the permit. The proposed permit requires Energy Northwest to submit updates to each of these manuals.

V.F. Stormwater pollution prevention plan

In accordance with 40 CFR 122.44(k)[49] and 40 CFR 122.44 (s), the proposed permit includes requirements for the implementation and update of a SWPPP along with BMPs to minimize or prevent the discharge of pollutants to waters of the state. BMPs constitute Best Conventional Pollutant Control Technology (BCT) and Best Available Technology Economically Achievable (BAT) for stormwater discharges. EFSEC has determined that Energy Northwest must update the CGS SWPPP and continue to implement adequate BMPs in order to meet the requirements of "all known, available, and reasonable methods of prevention, control, and treatment" (AKART). A SWPPP requires a facility to implement actions necessary to manage stormwater to comply with the state's requirement under chapter 90.48 RCW[50] to protect the beneficial uses of waters of the state.

The SWPPP must identify potential sources of stormwater contamination from industrial activities and identify how it plans to manage those sources of contamination to prevent or minimize contamination of stormwater. Energy Northwest must continuously review and revise the SWPPP as necessary to assure that stormwater discharges do not degrade water quality. It must retain the SWPPP on-site or within reasonable access to the site and available for review by EFSEC.

1. Best Management Practices (BMPs)

BMPs are the actions identified in the SWPPP to manage, prevent contamination of, and treat stormwater. BMPs include schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment systems, operating procedures, and practices used to control plant site runoff, spillage or

[44] http://app.leg.wa.gov/RCW/default.aspx?cite=90.48.080
[45] https://apps.ecology.wa.gov/publications/documents/0710024.pdf
[46] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122/subpart-C/section-122.41
[47] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-220-150
[48] https://app.leg.wa.gov/wac/default.aspx?cite=173-240-150
[49] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122/subpart-C/section-122.44
[50] https://app.leg.wa.gov/RCW/default.aspx?cite=90.48

leaks, sludge or waste disposal, and drainage from raw material storage. Insert name must ensure that its SWPPP includes the operational and structural source control BMPs listed as "applicable" in Ecology's stormwater management manuals. Many of these "applicable" BMPs are sector-specific or activity-specific, and are not required at facilities engaged in other industrial sectors or activities.

2. Ecology-Approved Stormwater Management Manuals

Consistent with RCW 90.48.555 (5) and (6), the proposed permit requires the facility to implement BMPs contained in the Stormwater Management Manual for Eastern Washington (2019)[51], or practices that are demonstrably equivalent to practices contained in stormwater technical manuals approved by Ecology. This should ensure that BMPs will prevent violations of state water quality standards, and satisfy the state AKART requirements and the federal technology-based treatment requirements under 40 CFR part 125.352. The SWPPP must document that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable Stormwater Management Manuals, including: The technical basis for the selection for all stormwater BMPs (scientific, technical studies, and/or modeling) which support the performance claims for the BMPs selected.

3. Operational Source Control BMPs

Operational source control BMPs include a schedule of activities, prohibition of practices, maintenance procedures, employee training, good housekeeping, and other managerial practices to prevent or reduce the pollution of waters of the state. These activities do not require construction of pollution control devices but are very important components of a successful SWPPP. Employee training, for instance, is critical to achieving timely and consistent spill response. Pollution prevention is likely to fail if the employees do not understand the importance and objectives of BMPs. Prohibitions might include eliminating outdoor repair work on equipment and certainly would include the elimination of intentional draining of crankcase oil on the ground. Good housekeeping and maintenance schedules help prevent incidents that could result in the release of pollutants. Operational BMPs represent a cost-effective way to control pollutants and protect the environment. The SWPPP must identify all the operational BMPs and how and where they are implemented. For example, the SWPPP must identify what training will consist of, when training will take place, and who is responsible to assure that employee training happens.

4. Structural Source Control BMPs

Structural source control BMPs include physical, structural, or mechanical devices or facilities intended to prevent pollutants from entering stormwater. Examples of source control BMPs include erosion control practices, maintenance of stormwater facilities (e.g., cleaning out sediment traps), construction of roofs over storage and working areas, and direction of equipment wash water and similar discharges to the sanitary sewer or a

[51] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Stormwater-manuals

[52] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-125#125.3

dead end sump. Structural source control BMPs likely include a capital investment but are cost effective compared to cleaning up pollutants after they have entered stormwater.

5. Treatment BMPs

Operational and structural source control BMPs are designed to prevent pollutants from entering stormwater. However, even with an aggressive and successful program, stormwater may still require treatment to achieve compliance with water quality standards. Treatment BMPs remove pollutants from stormwater. Examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands.

6. Volume/Flow Control BMPs

EFSEC recognizes the need to include specific BMP requirements for stormwater runoff quantity control to protect beneficial water uses, including fish habitat. New facilities and existing facilities undergoing redevelopment must implement the requirements for peak runoff rate and volume control identified in the Eastern Washington SWMM (2019). Controlling the rate and volume of stormwater discharge maintains the health of the watershed. Existing facilities should identify control measures that they can implement over time to reduce the impact of uncontrolled release of stormwater.

V.G. Cooling water intake requirements

The Clean Water Act, Section 316(b) requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available (BTA) for minimizing adverse environmental impact. The Columbia Generating Station has a cooling water intake with a maximum design flow of 36 MGD. Over 90% of the flow is used exclusively for cooling. Facilities with design intake flows greater than two million gallons per day, of which greater than 25 percent of the water withdrawn is used exclusively for cooling purposes, must comply with specific application requirements and BTA standards in 40 CFR Part 125 Subpart J[53].

Energy Northwest submitted with their permit application the information required by 40 CFR 122.21(r).

Impingement BTA Determination: The owner or operator of an existing facility must comply with one of the alternatives listed in 40 CFR 125.94(c). CGS complies with this requirement by operating a closed-cycle recirculating system. CGS must monitor the actual intake flows at a minimum frequency of daily. The monitoring must be representative of normal operating conditions, and must include measuring cooling water withdrawals, make-up water, and blow down volume.

Entrainment BTA Determination: EPA has not promulgated specific compliance options for the entrainment standard. EFSEC must establish BTA standards for entrainment on a site-specific basis. 40 CFR 125.98(f) includes various factors for consideration in the entrainment determination. The previous permit required Energy Northwest to conduct an entrainment characterization study. EFSEC received an interim report February 7, 2019 and the final report on February 26, 2020. The report was prepared by Anchor QEA and underwent third-

[53] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-125/subpart-J

party external review by experts in biological monitoring and Columbia River aquatic ecology in accordance with the U.S. Environmental Protection Agency Peer Review Guidelines. Very few fish were entrained over the entire two-year study period. A total of four fish were entrained in 754 hours of monitoring, suggesting the Columbia Generating Station's impact to the fish populations in the Hanford Reach of the Columbia River are minute. Based on the information submitted with the permit application and the results of the characterization study, EFSEC's determination is that the existing closed-cycle recirculating system meets the BTA standard for entrainment and additional control measures are not necessary.

Operation and Maintenance: The permit includes general operation and maintenance requirements as well as reporting requirements to ensure that the cooling water intake structure continues to be operated as designed. Energy Northwest last updated the CGS NPDES Operation and Maintenance Plan on February 3, 2022. Visual impingement monitoring of the TMU river intake structure is conducted on a semiannual basis when the intake structure is operational and the inspection can be conducted safely. Underwater video equipment is deployed from a boat to collect photographic verification. Due to the remote offshore location of the intake structure, weekly visual monitoring is not feasible. The cooling water intake structure is also visually inspected every three years during low water conditions to evaluate the physical condition of the structure.

Energy Northwest must submit an annual certification and report to EFSEC that describes any modifications that affect cooling water withdrawals or operation of the cooling water intake structures. Any significant impingement or entrainment must be reported to EFSEC within 24 hours.

V.H. General conditions

EFSEC bases the standardized General Conditions on state and federal law and regulations. They are included in all individual industrial NPDES permits issued by EFSEC.

VI. Permit Issuance Procedures

VI.A. Permit modifications

EFSEC may modify this permit to impose numeric limits, if necessary to comply with water quality standards for surface waters, with sediment quality standards, or with water quality standards for groundwaters, after obtaining new information from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

EFSEC may also modify this permit to comply with new or amended state or federal regulations.

VI.B. Proposed permit Issuance

This proposed permit includes all statutory requirements for EFSEC to authorize a wastewater discharge. The permit includes limits and conditions to protect human health and aquatic life, and the beneficial uses of waters of the state of Washington. EFSEC proposes to issue this permit for a term of five years.

VII. References for Text and Appendices

Environmental Protection Agency (EPA)

1992. National Toxics Rule. Federal Register, V. 57, No. 246, Tuesday, December 22, 1992.

1991. ***Technical Support Document for Water Quality-based Toxics Control***. EPA/505/2-90-001.

1988. ***Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling***. USEPA Office of Water, Washington, D.C.

1985. ***Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water***. EPA/600/6-85/002a.

1983. ***Water Quality Standards Handbook***. USEPA Office of Water, Washington, D.C. Tsivoglou, E.C., and J.R. Wallace.

1972. ***Characterization of Stream Reaeration Capacity***. EPA-R3-72-012. (Cited in EPA 1985 op.cit.)

1979. ***In-stream Deoxygenation Rate Prediction***. Journal Environmental Engineering Division, ASCE. 105(EE2). (Cited in EPA 1985 op.cit.)

Washington State Department of Ecology

July 2018. ***Permit Writer's Manual***. Publication 92-109[54]

September 2011. ***Water Quality Program Guidance Manual – Supplemental Guidance on Implementing Tier II Antidegradation***. Publication 11-10-073[55]

October 2010 (revised). ***Water Quality Program Guidance Manual – Procedures to Implement the State's Temperature Standards through NPDES Permits***. Publication 06-10-100[56]

February 2007. ***Focus Sheet on Solid Waste Control Plan, Developing a Solid Waste Control Plan for Industrial Wastewater Discharge Permittees***, Publication 07-10-024[57].

Laws and Regulations[58]

Permit and Wastewater Related Information[59]

[54] https://apps.ecology.wa.gov/publications/summarypages/92109.html
[55] https://apps.ecology.wa.gov/publications/summarypages/1110073.html
[56] https://apps.ecology.wa.gov/publications/summarypages/0610100.html
[57] https://apps.ecology.wa.gov/publications/SummaryPages/0710024.html
[58] http://leg.wa.gov/LawsAndAgencyRules/Pages/default.aspx
[59] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance

Appendix A – Public Involvement Information

EFSEC proposes to reissue a permit to Energy Northwest Columbia Generating Station. The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and EFSEC's reasons for requiring permit conditions.

EFSEC will place a Public Notice of Draft on date in name of publication to inform the public and to invite comment on the proposed draft National Pollutant Discharge Elimination System permit and fact sheet.

The notice:

- Tells where copies of the draft Permit and Fact Sheet are available for public evaluation (a local public library, the closest Regional or Field Office, posted on our website).
- Offers to provide the documents in an alternate format to accommodate special needs.
- Urges people to submit their comments, in writing, before the end of the Comment Period
- Tells how to request a public hearing of comments about the proposed NPDES permit.
- Explains the next step(s) in the permitting process.

[Attach printed copy of the Public Notice mail-out]

Frequently Asked Questions about Effective Public Commenting[60]

You may obtain further information from EFSEC by telephone, 360-664-1345, or by writing to the address listed below.

Energy Facility Site Evaluation Council
PO Box 43172
Olympia, WA 98504-3172

The primary author of this permit and fact sheet is Laura Fricke, PE, Department of Ecology.

[60] https://apps.ecology.wa.gov/publications/SummaryPages/0307023.html

Appendix B – Your Right to Appeal

You have a right to appeal this permit. Pursuant to WAC 463-76-063(1), a decision to issue this permit is subject to judicial review pursuant to the Administrative Procedure Act, Chapter 34.05 RCW.

Appendix C – Glossary

1-DMax or 1-day maximum temperature – The highest water temperature reached on any given day. This measure can be obtained using calibrated maximum/minimum thermometers or continuous monitoring probes having sampling intervals of thirty minutes or less.

7-DADMax or 7-day average of the daily maximum temperatures – The arithmetic average of seven consecutive measures of daily maximum temperatures. The 7-DADMax for any individual day is calculated by averaging that day's daily maximum temperature with the daily maximum temperatures of the three days prior and the three days after that date.

Acute toxicity – The lethal effect of a compound on an organism that occurs in a short time period, usually 48 to 96 hours.

AKART – The acronym for "all known, available, and reasonable methods of prevention, control and treatment." AKART is a technology-based approach to limiting pollutants from wastewater discharges, which requires an engineering judgment and an economic judgment. AKART must be applied to all wastes and contaminants prior to entry into waters of the state in accordance with RCW 90.48.010[61] and RCW 90.48.520[62], WAC 173-200-030(2)(c)(ii)[63], and WAC 173-216-110(1)(a).

Alternate point of compliance – An alternative location in the groundwater from the point of compliance where compliance with the groundwater standards is measured. It may be established in the groundwater at locations some distance from the discharge source, up to, but not exceeding the property boundary and is determined on a site specific basis following an AKART analysis. An "early warning value" must be used when an alternate point is established. An alternate point of compliance must be determined and approved in accordance with WAC 173-200-060(2)[64].

Ambient water quality – The existing environmental condition of the water in a receiving water body.

Ammonia – Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Annual average design flow (AADF) – average of the daily flow volumes anticipated to occur over a calendar year.

Average monthly (intermittent) discharge limit – The average of the measured values obtained over a calendar months' time taking into account zero discharge days.

[61] http://app.leg.wa.gov/RCW/default.aspx?cite=90.48.010
[62] http://app.leg.wa.gov/RCW/default.aspx?cite=90.48.520
[63] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200-030
[64] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200-060

Average monthly discharge limit – The average of the measured values obtained over a calendar months' time.

Background water quality – The concentrations of chemical, physical, biological or radiological constituents or other characteristics in or of groundwater at a particular point in time upgradient of an activity that has not been affected by that activity, [WAC 173-200-020(3)[65]]. Background water quality for any parameter is statistically defined as the 95% upper tolerance interval with a 95% confidence based on at least eight hydraulically upgradient water quality samples. The eight samples are collected over a period of at least one year, with no more than one sample collected during any month in a single calendar year.

Best management practices (BMPs) – Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD_5 – Determining the five-day Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD_5 is used in modeling to measure the reduction of dissolved oxygen in receiving waters after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD_5 is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass – The intentional diversion of waste streams from any portion of a treatment facility.

Categorical pretreatment standards – National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties, which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Chlorine – A chemical used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

Chronic toxicity – The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean water act (CWA) – The federal Water Pollution Control Act enacted by Public Law 92 500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

[65] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200-020

Compliance inspection-without sampling – A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance inspection-with sampling – A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations. In addition it includes as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. EFSEC may conduct additional sampling.

Composite sample – A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

Construction activity – Clearing, grading, excavation, and any other activity, which disturbs the surface of the land. Such activities may include road building; construction of residential houses, office buildings, or industrial buildings; and demolition activity.

Continuous monitoring – Uninterrupted, unless otherwise noted in the permit.

Critical condition – The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Date of receipt – This is defined in RCW 43.21B.001(2)[66] as five business days after the date of mailing; or the date of actual receipt, when the actual receipt date can be proven by a preponderance of the evidence. The recipient's sworn affidavit or declaration indicating the date of receipt, which is unchallenged by the agency, constitutes sufficient evidence of actual receipt. The date of actual receipt, however, may not exceed forty-five days from the date of mailing.

Detection level – or method detection limit means the minimum concentration of an analyte (substance) that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results as determined by the procedure given in 40 CFR part 136, Appendix B[67].

Dilution factor (DF) – A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent

[66] http://app.leg.wa.gov/RCW/default.aspx?cite=43.21B.001
[67] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-136/appendix-Appendix%20B%20to%20Part%20136

fraction, for example, a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

Distribution uniformity – The uniformity of infiltration (or application in the case of sprinkle or trickle irrigation) throughout the field expressed as a percent relating to the average depth infiltrated in the lowest one-quarter of the area to the average depth of water infiltrated.

Early warning value – The concentration of a pollutant set in accordance with WAC 173-200-070[68] that is a percentage of an enforcement limit. It may be established in the effluent, groundwater, surface water, the vadose zone or within the treatment process. This value acts as a trigger to detect and respond to increasing contaminant concentrations prior to the degradation of a beneficial use.

Enforcement limit – The concentration assigned to a contaminant in the groundwater at the point of compliance for the purpose of regulation, [WAC 173-200-020(11)[69]]. This limit assures that a groundwater criterion will not be exceeded and that background water quality will be protected.

Engineering report – A document that thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report must contain the appropriate information required in WAC 173-240-060[70] or WAC 173-240-130[71].

Enterococci – A subgroup of fecal streptococci that includes *S. faecalis*, *S. faecium*, *S. gallinarum*, and *S. avium*. The enterococci are differentiated from other streptococci by their ability to grow in 6.5% sodium chloride, at pH 9.6, and at 10°C and 45°C.

E. coli – A bacterium in the family Enterobacteriaceae named Escherichia coli and is a common inhabitant of the intestinal tract of warm-blooded animals, and its presence in water samples is an indication of fecal pollution and the possible presence of enteric pathogens.

Fecal coliform bacteria – Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

Grab sample – A single sample or measurement taken at a specific time or over as short a period of time as is feasible.

Groundwater – Water in a saturated zone or stratum beneath the surface of land or below a surface water body.

[68] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200-070
[69] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-200-020
[70] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-240-060
[71] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-240-130

Industrial user – A discharger of wastewater to the sanitary sewer that is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial wastewater – Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated stormwater and, also, leachate from solid waste facilities.

Interference – A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local limits – Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Major facility – A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Maximum daily discharge limit – The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Maximum day design flow (MDDF) – The largest volume of flow anticipated to occur during a one-day period, expressed as a daily average.

Maximum month design flow (MMDF) – The largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.

Maximum week design flow (MWDF) – The largest volume of flow anticipated to occur during a continuous 7-day period, expressed as a daily average.

Method detection limit (MDL) – See Detection level.

Minor facility -- A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Mixing zone – An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The permit specifies the area of the authorized mixing zone that EFSEC defines following procedures outlined in state regulations (chapter 173-201A WAC[72]).

National pollutant discharge elimination system (NPDES) – Section 402 of the Clean Water Act[73], the federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the state of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State are joint NPDES/State permits issued under both state and federal laws.

pH – The pH of a liquid measures its acidity or alkalinity. It is the negative logarithm of the hydrogen ion concentration. A pH of 7 is defined as neutral and large variations above or below this value are considered harmful to most aquatic life.

Pass-through – A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

Peak hour design flow (PHDF) – The largest volume of flow anticipated to occur during a one-hour period, expressed as a daily or hourly average.

Peak instantaneous design flow (PIDF) – The maximum anticipated instantaneous flow.

Point of compliance – The location in the groundwater where the enforcement limit must not be exceeded and a facility must comply with the Ground Water Quality Standards. EFSEC determines this limit on a site-specific basis. EFSEC locates the point of compliance in the groundwater as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless it approves an alternative point of compliance.

Potential significant industrial user (PSIU) – A potential significant industrial user is defined as an Industrial User that does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;

[72] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A
[73] https://www.epa.gov/cwa-404/clean-water-act-section-402-national-pollutant-discharge-elimination-system

- Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

EFSEC may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation level (QL) – also known as Minimum level (ML) – The term ‘‘minimum level’’ refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (DL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the DL in a method, or the DL determined by a laboratory, by a factor of 3. For the purposes of NPDES compliance monitoring, EPA considers the following terms to be synonymous: ‘‘quantitation limit,’’ ‘‘reporting limit,’’ and ‘‘minimum level’’.

Reasonable potential – A reasonable potential to cause or contribute to a water quality violation, or loss of sensitive and/or important habitat.

Responsible corporate officer – A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22[74]).

Sample Maximum – No sample may exceed this value.

Significant industrial user (SIU) –

- All industrial users subject to Categorical Pretreatment Standards under 40 CFR Chapter I, Subchapter N[75] and 40 CFR 403.6[76] and;
- Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement [in accordance with 40 CFR 403.8(f)(6)].

[74] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-121#se40.24.121_122
[75] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N
[76] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N/part-403

Upon finding that the industrial user meeting the criteria in the second paragraph has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug discharge – Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate that may cause interference or pass through with the POTW or in any way violate the permit conditions or the POTW's regulations and local limits.

Soil scientist – An individual who is registered as a Certified or Registered Professional Soil Scientist or as a Certified Professional Soil Specialist by the American Registry of Certified Professionals in Agronomy, Crops, and Soils or by the National Society of Consulting Scientists or who has the credentials for membership. Minimum requirements for eligibility are: possession of a baccalaureate, masters, or doctorate degree from a U.S. or Canadian institution with a minimum of 30 semester hours or 45 quarter hours professional core courses in agronomy, crops or soils, and have 5, 3, or 1 years, respectively, of professional experience working in the area of agronomy, crops, or soils.

Solid waste – All putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

Soluble BOD_5 – Determining the soluble fraction of Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of soluble organic material present in an effluent that is utilized by bacteria. Although the soluble BOD_5 test is not specifically described in Standard Methods, filtering the raw sample through at least a 1.2 um filter prior to running the standard BOD_5 test is sufficient to remove the particulate organic fraction.

State waters – Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater – That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based effluent limit – A permit limit based on the ability of a treatment method to reduce the pollutant.

Total coliform bacteria – A microbiological test, which detects and enumerates the total coliform group of bacteria in water samples.

Total dissolved solids – That portion of total solids in water or wastewater that passes through a specific filter.

Total maximum daily load (TMDL) – A determination of the amount of pollutant that a water body can receive and still meet water quality standards.

Total suspended solids (TSS) – Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Upset – An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Water quality-based effluent limit – A limit imposed on the concentration of an effluent parameter to prevent the concentration of that parameter from exceeding its water quality criterion after discharge into receiving waters.

Appendix D — Technical Calculations
Un-ionized Ammonia Criteria Calculation:

The table below is a summary of the spreadsheet used by EFSEC, which contains the formulas modified by EPA that were adopted in the 1995 revision of the state water quality standards. Total ammonia, not unionized ammonia, is used in the reasonable potential calculation. Criteria are based on either total or unionized ammonia, depending on salmonid presence, but permittees measure total ammonia. The spreadsheet calculates the concentration of total ammonia in the effluent (as measured by permittee) that will result in the criteria concentration in the receiving water.

Table 11 - Ammonia Criteria Calculation

Freshwater Un-ionized Ammonia Criteria Calculation

Based on Chapter 173-201A WAC, amended November 20, 2006

INPUT	
1. Receiving Water Temperature (deg C):	19.5
2. Receiving Water pH:	8.4
3. Is salmonid habitat an existing or designated use?	Yes
4. Are non-salmonid early life stages present or absent?	Present
OUTPUT	
Using mixed temp and pH at mixing zone boundaries?	no
Ratio	13.500
FT	1.400
FPH	1.000
pKa	9.418
Unionized Fraction	0.087
Unionized ammonia NH3 criteria (mg/L as NH_3)	
Acute:	0.276
Chronic:	0.042
RESULTS	
Total ammonia nitrogen criteria (mg/L as N):	
Acute:	2.593
Chronic:	0.398

Reasonable Potential Analysis:

EFSEC uses spreadsheet tools to determine reasonable potential (to cause or contribute to violations of the aquatic life and human health water quality numeric standards) and to calculate effluent limits. The process and formulas for determining reasonable potential and effluent limits in these spreadsheets come from the Technical Support Document for Water Quality-based Toxics Control, (EPA 505/2-90-001)[77] (TSD). The adjustment for autocorrelation is from EPA (1996a), and EPA (1996b). The tables below show a summary of these calculations.

Table 12 - Aquatic Life Reasonable Potential Part 1

Pollutant, CAS No. & NPDES Application Ref. No.			AMMONIA, Criteria as Total NH3	ALUMINUM, total recoverable, pH 6.5-9.0 7429905	ARSENIC (dissolved) 7440382 2M	CHROMIUM(TRI) -16065831 5M Hardness dependent	COPPER - 744058 6M Hardness dependent	IRON 7439896	LEAD - 7439921 7M Dependent on hardness	MERCURY 7439976 8M
Effluent Data	# of Samples (n)		37	3	37	97	97	37	37	7
	Coeff of Variation (Cv)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	Effluent Concentration, ug/L (Max. or 95th Percentile)		250	180	9.5	2.8	20	1300	3.5	0.004
	Calculated 50th percentile Effluent Conc. (when n>10)						13	1000		
Receiving Water Data	90th Percentile Conc., ug/L		41	0	0	0.6	1.2	0	0.075	0
	Geo Mean, ug/L						0.7	0		0
Water Quality Criteria	Aquatic Life Criteria, ug/L	Acute	2,593	750	360	385.6	11.339	-	40.282	2.1
		Chronic	398	87	190	125.09	7.8553	1000	1.5697	0.012
	WQ Criteria for Protection of Human Health, ug/L		-	-	-	-	1300	300	-	0.14
	Metal Criteria Translator, decimal	Acute	-	-	1	0.316	0.996	-	0.466	0.85
		Chronic	-	-	1	0.86	0.996	-	0.466	-
	Carcinogen?		N	N	Y	N	N	N	N	N

Aquatic Life Reasonable Potential

Effluent percentile value			0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
s	$s^2=\ln(CV^2+1)$		0.555	0.555	0.555	0.555	0.555	0.555	0.555	0.555
Pn	$Pn=(1-\text{confidence level})^{1/n}$		0.922	0.368	0.922	0.970	0.970	0.922	0.922	0.652
Multiplier			1.00	3.00	1.00	1.00	1.00	1.00	1.00	2.01
Max concentration (ug/L) at edge of…		Acute	64	59.991	1.056	0.632	3.280	144.444	0.248	0.001
		Chronic	43	5.806	0.102	0.619	1.401	13.978	0.092	0.000
Reasonable Potential? Limit Required?			**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[77] https://www3.epa.gov/npdes/pubs/owm0264.pdf

Table 13 - Aquatic Life Reasonable Potential Part 2

Pollutant, CAS No. & NPDES Application Ref. No.			NICKEL - 7440020 9M - Dependent on hardness	SELENIUM 7782492 10M	SILVER - 7740224 11M dependent on hardness.	ZINC- 7440666 13M hardness dependent
Effluent Data	# of Samples (n)		37	37	37	97
	Coeff of Variation (Cv)		0.6	0.6	0.6	0.6
	Effluent Concentration, ug/L (Max. or 95th Percentile)		12	7.4	0.24	38
	Calculated 50th percentile Effluent Conc. (when n>10)		6.9	5		19
Receiving Water Data	90th Percentile Conc., ug/L		1.1	0	0	4.5
	Geo Mean, ug/L		0.61	0	0	2.6
Water Quality Criteria	Aquatic Life Criteria, ug/L	Acute	983.12	20	1.6445	79.449
		Chronic	109.18	5	-	72.549
	WQ Criteria for Protection of Human Health, ug/L		150	120	-	2300
	Metal Criteria Translator, decimal	Acute	0.998	-	0.85	0.996
		Chronic	0.997	-	-	0.996
	Carcinogen?		N	N	N	N

Aquatic Life Reasonable Potential

Effluent percentile value			0.950	0.950	0.950	0.950
s	$s^2=\ln(CV^2+1)$		0.555	0.555	0.555	0.555
Pn	$Pn=(1\text{-confidence level})^{1/n}$		0.922	0.922	0.922	0.970
Multiplier			1.00	1.00	1.00	1.00
Max concentration (ug/L) at edge of…		Acute	2.308	0.822	0.023	8.205
		Chronic	1.217	0.080	0.003	4.859
Reasonable Potential? Limit Required?			**NO**	**NO**	**NO**	**NO**

Table 14 - Human Health Reasonable Potential

Pollutant, CAS No. & NPDES Application Ref. No.			ANTIMONY (INORGANIC) 7440360 1M	BIS(2-ETHYLHEXYL) PHTHALATE 117817 13B	BROMOFORM 75252 5V	COPPER - 744058 6M Hardness dependent	IRON 7439896	MERCURY 7439976 8M	NICKEL - 7440020 9M - Dependent on hardness	SELENIUM 7782492 10M	ZINC- 7440666 13M hardness dependent
Effluent Data	# of Samples (n)		7	4	7	97	37	7	37	37	97
	Coeff of Variation (Cv)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	Effluent Concentration, ug/L (Max. or 95th Percentile)		1.6	2.16	0.63	20	1300	0.004	12	7.4	38
	Calculated 50th percentile Effluent Conc. (when n>10)					13	1000		6.9	5	19
Receiving Water Data	90th Percentile Conc., ug/L					1.2	0	0	1.1	0	4.5
	Geo Mean, ug/L		0	0	0	0.7	0	0	0.61	0	2.6
Water Quality Criteria	Aquatic Life Criteria, ug/L	Acute	-	-	-	11.339	-	2.1	983.12	20	79.449
		Chronic	-	-	-	7.8553	1000	0.012	109.18	5	72.549
	WQ Criteria for Protection of Human Health, ug/L		12	0.23	5.8	1300	300	0.14	150	120	2300
	Metal Criteria Translator, decimal	Acute	-	-	-	0.996	-	0.85	0.998	-	0.996
		Chronic	-	-	-	0.996	-	-	0.997	-	0.996
	Carcinogen?		N	Y	Y	N	N	N	N	N	N
Human Health Reasonable Potential											
s	$s^2=\ln(CV^2+1)$		0.5545	0.5545	0.5545	0.5545	0.5545	0.5545	0.5545	0.5545	0.5545
Pn	Pn=(1-confidence level)1/n		0.652	0.473	0.652	0.970	0.922	0.652	0.922	0.922	0.970
Multiplier			0.8054	1.0385	0.8054	0.3536	0.455	0.8054	0.455	0.455	0.3536
Dilution Factor			93	93	93	93	93	93	93	93	93
Max Conc. at edge of Chronic Zone, ug/L			0.0139	0.0241	5.5E-03	0.8323	10.753	3E-05	0.6776	0.0538	2.7763
Reasonable Potential? Limit Required?			**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

pH Analysis:

The calculation of pH of a mixture of two flows is based on the procedure in EPA's DESCON program (EPA, 1988. *Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling*. EPA Office of Water, Washington DC). The major form of alkalinity is assumed to be carbonate alkalinity. Alkalinity and total inorganic carbon are assumed to be conservative.

Table 15 - pH Mixing Calculation

Calculation of pH of a Mixture of Two Flows

Based on the procedure in EPA's DESCON program (EPA, 1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington D.C.)

INPUT	
	@ Chronic Boundary
1. Dilution Factor at Mixing Zone Boundary	93.0
2. Ambient/Upstream/Background Conditions	
Temperature (deg C):	19.50
pH:	8.40
Alkalinity (mg CaCO3/L):	60.40
3. Effluent Characteristics	
Temperature (deg C):	33.10
pH:	6.50
Alkalinity (mg CaCO3/L):	130.00
4. Aquatic Life Use Designation	Other species (salmonid/redband trout/warmwater species)
OUTPUT	
1. Ionization Constants	
Upstream/Background pKa:	6.39
Effluent pKa:	6.31
2. Ionization Fractions	
Upstream/Background Ionization Fraction:	0.99
Effluent Ionization Fraction:	0.61
3. Total Inorganic Carbon	
Upstream/Background Total Inorganic Carbon (mg CaCO3/L):	61
Effluent Total Inorganic Carbon (mg CaCO3/L):	214
4. Condtions at Mixing Zone Boundary	
Temperature (deg C):	19.65
Alkalinity (mg CaCO3/L):	61.15
Total Inorganic Carbon (mg CaCO3/L):	62.63
pKa:	6.38
5. Allowable pH change	0.50
RESULTS	
pH at Mixing Zone Boundary:	**8.00**
pH change at Mixing Zone Boundary:	0.40
Is permit limit needed?	NO

Appendix E — Response to Comments

[EFSEC will complete this section after the public notice of draft period.]

EFSEC Monthly Council Meeting Facility Update

Facility Name: Columbia Solar Projects (Penstemon, Camas and Urtica)
Operator: Tuusso Energy, LLC
Report Date: Feb 3, 2023
Reporting Period: 30 days ending Feb 3, 2023
Site Contact: Owen Hurd
Facility SCA Status: Construction

Construction Status

- Penstemon
    - Currently operational
    - Total Generation during the month of January was 324.3 megawatt hours

- Camas
    - Currently operational
    - Total Generation during the month of January was 308.7 megawatt hours

- Urtica
    - Substantial Completion expected shortly upon completion of final testing

---

Other

- Reached conceptual agreement on the revised planting plan, which is now being finalized in a memo for EFSEC staff to review.

Horse Heaven Wind Project

February 2023 project update

[Place holder]

Goose Prairie Solar Project

February 2023 project update

[Place holder]

Whistling Ridge Energy Project

February 2023 project update

[Place holder]

High Top and Ostrea Solar Project

February 2023 project update

[Place holder]

POTENTIAL ACTION ITEM

BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

In the Matter of Application No. of EF-220212 CYPRESS CREEK RENEWABLES – High Top Solar, LLC and Ostrea Solar, LLC	APPLICATION NO. EF-220212

REPORT TO THE GOVERNOR ON APPLICATION NO. EF-220212

Table of Contents

EXECUTIVE SUMMARY

On April 7, 2022, Cypress Creek Renewables, LLC (CCR or Applicant) filed an application for site certification (Application or ASC) with the Energy Facility Site Evaluation Council (EFSEC or Council) to construct and operate the High Top Solar and Ostrea Solar Projects (the Facility) through its wholly-owned subsidiaries, High Top Solar, LLC and Ostrea Solar, LLC. Each project consists of a solar photovoltaic generating facility and optional battery energy storage system (BESS). The High Top Project would be located on three parcels and the Ostrea Project would be located on eight parcels, together eleven parcels (the Site), in unincorporated Yakima County 20 and 22 miles east of the city of Moxee, respectively, each with a generating capacity of 80 megawatts (MW).

RCW 80.50.010 in the Energy Facility Site Locations Act (EFSLA) provides the legal framework for the Council's siting recommendation. The Washington Supreme Court has described EFSLA as seeking to balance the need for the proposed facility against its impacts on the broad public interest. The Council determines whether the proposed facility will produce a net benefit justifying a recommendation of project approval.

The Council has carefully considered the record before it, including: the Application; the record in the land use consistency hearing; the State Environmental Policy Act documentation; the draft Site Certification Agreements; public comments received orally during hearings and received by the Council in writing; and the statutory policies on need for energy at a reasonable cost, need to minimize environmental impacts, and other relevant state energy policies.

The Council concludes that the High Top Solar and Ostrea Solar Projects will provide the state and the region with important clean energy supply and will not cause significant unmitigated environmental impacts or substantial negative effect on the broad public interest. With the recommended mitigation measures that are required in the proposed site certification agreements (SCAs), the proposed Facility meets the requirements of applicable law and comports with the policy and intent of Chapter 80.50 RCW. Therefore, the Council recommends that the Governor approve of the Facility.

I. INTRODUCTION

A. The Applicant and the Application for Site Certification

On April 7, 2022, Cypress Creek Renewables, LLC[1] (Applicant) filed an Application with the Energy Facility Site Evaluation Council (EFSEC or Council) to construct and operate the Facility. The Applicant seeks to obtain site certification pursuant to RCW 80.50.060(1)(b)(ii). The Facility is an alternative energy resource facility as defined in RCW 80.50.020(1). Developers of alternative energy facilities have the option of seeking site certification through the EFSLA process or through standard permitting and local land use approval requirements.[2]

The Applicant is an indirect wholly-owned subsidiary of Cypress Creek Renewables, LLC, a California-based privately-held developer of utility-scale, distributed generation, community solar, and storage energy projects across the United States. It has developed more than 12 gigawatts (GW) of solar photovoltaic and storage projects since its founding in 2014 and has more than 2GW within company fleet ownership. It operates and maintains more than 4GW of combined owned and third-party projects. It has experience working with investor-owned utilities, public power, and commercial and industrial customers."

The proposed Facility, which is described in Section II below, will consist of PV modules mounted in rows on single-axis trackers supported on stationary piles. The High Top Project will interconnect through a dedicated switch yard PacifiCorp's Union Gap-Midway 230 kV transmission line that runs through the southern part of the project. The Ostrea Project will connect through a line tap to Bonneville Power Administration's Midway to Moxee 115-kilovolt (kV) transmission line, which runs through the southern part of the project. Both Projects' output will be conveyed to substations near their respective points of interconnection (POI) to the electrical grid. The BESSs would not exceed the nominal 80 MW capacity of each Project.[3]

The Application submitted by CCR is for two adjacent sites, together consisting of eleven parcels leased from one property owner. For purposes of the report, we refer to the eight parcels of the Ostrea Project and the three parcels of the High Top Project as the "Sites" or "Project sites." The Sites are in unincorporated Yakima County 20 (High Top) and 22 (Ostrea) miles east of the city of Moxee. Described below, the Sites' total acreage is approximately 3,263. However, High Top's footprint would not exceed 926.6 acres and Ostrea's footprint would not exceed 811.3 acres. The Applicant has stated that it chose the location based on several suitability factors, including but not limited to the high solar energy resource, the underlying topography and land traits, access to electrical infrastructure, and low impacts to land use and habitat.[4] On April 7, 2022, CCR requested that the application be granted expedited processing.[5]

---

[1] See Cypress Creek Renewables Public Information Meeting PowerPoint presentations, June 1, 2022 and March 16, 2021, at slide 4.
[2] RCW 80.50.060(1)(b)(ii); RCW 80.50.110(2); RCW 80.50.100(2); *See Residents Opposed to Kittitas Turbines v. EFSEC*, 165 Wn.2d 275, 285 (2008).
[3] Cypress Creek Renewables, LLC Application for Site Certification, Submitted April 7, 2022, page 13.
[4] Id. at 18-19
[5] RCW 80.50.075

B. The Council and its Processes

The Council is a Washington State agency, established under RCW 80.50.030 to advise the Governor in deciding whether to approve applications to site certain new energy facilities. The Council must "prepare written reports to the governor" which shall include recommendations on applications to construct proposed energy facilities on a specified site. If the Council recommends approval, it prepares site certification agreements embodying the conditions upon which approval should be granted.[6]

The Council's analysis is guided by RCW 80.50.010, which articulates Washington's policy to recognize the pressing need for increased energy facilities; ensure that the location and operation of such facilities produce minimal environmental effects; and balance the increasing demands for energy facilities with the broad interests of the public.

The Council must weigh and balance the need for the proposed facility against its impacts on the broad public interest, including human welfare and environmental stewardship. The Council then determines whether the proposed facility at the particular site selected will produce a net benefit that justifies a recommendation of project approval.[7]

RCW 80.50.110(2) provides that the "state hereby preempts the regulation and certification of the location, construction, and operational conditions of certification" with respect to the energy facilities that are required, or that have the option to receive site certification through the EFSEC process. The inclusion of the word "location" means that local land use plans and zoning ordinances are preempted by EFSLA. However, EFSLA also requires that "[i]f the council recommends approval of an application for certification" to the Governor, it must include in the draft site certification agreement "conditions . . . to implement the provisions of this chapter, including, but not limited to, conditions to protect state, local governmental or community interests . . . affected by the construction or operation of the facility, and conditions designed to recognize the purpose of laws or ordinances, or rules or regulations promulgated thereunder, that are preempted or superseded pursuant to RCW 80.50.110."[8]

The Council consists of a chair, appointed by the Governor, and appointees of the Departments of Ecology, Fish and Wildlife, Natural Resources, and Commerce, and the Utilities and Transportation Commission.[9] The county in which the project is to be sited is authorized to appoint a voting member.[10] In addition, the Departments of Agriculture, Transportation, Health, and the Military may elect to sit on the Council for a specific application.[11] For purposes of this Application, Yakima County did not appoint a member.

The Council Review Process. In reviewing an Application, the Council and the Governor must complete a number of procedural steps. The steps are summarized below, with a detailed

[6] RCW 80.50.040(8); RCW 80.50.100(2).
[7] *Columbia RiverKeeper v. Port of Vancouver,* 188 Wn.2d 80, 95, 392 p.3d 1025 (2012).
[8] RCW 80.50.100(2); *Residents Opposed to Kittitas Turbines v. EFSEC*, 165 Wn.2d 275, 285 (2008).
[9] RCW 80.50.030(2), (3).
[10] RCW 80.50.030(4).
[11] RCW 80.50.030(3)(b).

discussion of how the Council accomplished each of its steps for purposes of this Application provided in Section III of this report.

- **Informational Public Hearing.** RCW 80.50.090(1) requires the Council to conduct an informational public hearing in the county of the proposed site no later than 60 days after receipt of the application for site certification.
- **Land Use Consistency Hearing.** RCW 80.50.090(2) requires the Council to conduct a public hearing to determine whether the proposed site is (or sites are) consistent and in compliance with city, county, or regional land use plans or zoning ordinances as those terms are defined in EFSLA.
- **State Environmental Policy Act (SEPA).** The Council must comply with SEPA, RCW 43.21C, which requires consideration of probable significant adverse environmental impacts of government action (including approval or denial of an application to site an energy facility) and possible mitigation. If the Council's SEPA Responsible Official (the EFSEC Director) finds that any adverse environmental impacts can be mitigated to non-significant levels, they may issue a mitigated determination of non-significance.[12]
- **Expedited Processing Decision.** If an applicant requests expedited processing, the Council must decide whether to use the expedited process authorized by RCW 80.50.075 to evaluate the application. An application is eligible for expedited processing when EFSEC finds (1) the environmental impacts of the proposed project are not significant or can be mitigated to non-significant levels and (2) the proposed project is consistent and in compliance with city, county or regional land use plans and zoning ordinances. If an application is granted expedited processing, the Council may proceed to a decision without holding an adjudicative proceeding under chapter 34.05 RCW, and is not required to conduct any further review of an application by an independent consultant.[13]
- **Recommendation to Governor and Site Certification Agreements.** The final step for the Council is to prepare a report to the Governor recommending approval or denial of the application. If the Council recommends approval, the Council will also prepare and provide with the report draft site certification agreements.[14]
- **Governor's action on the Recommendation.** Within sixty days of receipt of the Council's report, the Governor is to either approve the application and execute the draft certification agreements, reject the application, or direct the council to reconsider certain aspects of the draft certification agreements.[15]

This report is organized as follows. Section II provides a summary description of the proposed Site. Section III details the procedural steps followed by the Council in processing this Application. Section IV discusses the issues and objections raised and the Council's resolution of each. Section V discusses the legal framework to be applied and the Council's application of the RCW 80.05.010 balancing analysis. Section VI contains the findings of fact and conclusions of law. Finally, Section VII states the recommendation of the Council.

[12] WAC 197-11-350, WAC 463-47-080.
[13] RCW 80.50.075(2), WAC 463-43-060.
[14] RCW 80.50.100.
[15] RCW 80.50.100(3).

II. DETAILED DESCRIPTION OF THE SITES

The eleven parcels on which the Facility will be located constitute the "Facility Parcels." The property is owned entirely by a single land owner, Zine and Najiba Badissy. The Applicant has executed options to lease with the landowners for adequate acreage to accommodate the Facility long-term. The landowners have provided letters of support for both Projects located on the Facility Parcels (Attachment M to the ASC).

The total acreage of the Facility Parcels is 3,263 acres. However, the Facility's footprint, defined as the Project Footprint, would be located wholly within two micrositing boundaries, defined as the Maximum Project Extent, of 926.6 acres for the High Top Project and 811.3 acres for the Ostrea Project. The Project Study Area is the extent of the acreage that was surveyed for the wildlife, cultural and wetland surveys, which totals 1,114 acres for the High Top Project and 1,123 acres for the Ostrea Project and wholly encompasses the Maximum Project Extent.

Each row of solar panels will be strung together in a north-south orientation and the panels will tilt on a single-axis (facing east in the morning and tilting toward the west, following the sun, through the course of each day to maximize energy output). Each string of panels will be arranged in rows with a minimum of eight feet of space between the rows. The racking system and panels will be supported by steel piles that will be driven to a depth of eight to ten feet below grade.

Inverters paired with medium voltage step-up transformers will convert the generated electricity from direct current (DC) to alternating current (AC) and increase the voltage to distribution class to minimize ohmic losses when collecting power circuits. The voltage at the High Top Project will be increased to 230 kV, and the voltage at the Ostrea Project will be increased to 115 kV. The output from each Project will be conveyed to a substation near the POI to the electrical grid.

The BESS for each project would not exceed the nominal 80 MW capacity of each project. The battery would store power generated by the Facility and dispatch it to the electrical grid at a later time.

The Ostrea Project will interconnect through a line tap to Bonneville Power Administration's Moxee to Midway 115 kV transmission line that runs through the southern part of the Ostrea Project. The Ostrea Project will be accessed on the east side of the Project from Washington State Route 24. The High Top Project will interconnect through a dedicated switchyard located at the High Top Project adjacent to PacifiCorp's Union Gap-Midway 230 kV transmission line that runs through the southern part of the High Top Project. The High Top Project will be accessed on the east side of the Project from Washington State Route 24.

The Facility will be secured with fencing within twenty feet of the final approved locations of the panel arrays. The fencing will be six feet in height with an additional foot of barbed wire across the top and access gates for authorized personnel. Internal gravel roads built to the applicable fire code will be used to maintain the Facility.

The Facility is currently grazed. Historic land use on both Projects has included crop production. Habitat types on the High Top Project include cheatgrass dominated pasture and mixed environs, shrub-steppe, and disturbed/reclaimed. Habitat types on the Ostrea Project include crested wheatgrass dominated pasture and mixed environs, cheatgrass dominated pasture and mixed environs, shrub-steppe, and disturbed/reclaimed. The cheatgrass dominated pasture and mixed environs in both Projects appears to have been plowed historically. Crested wheatgrass dominance is also typically associated with plowing and crops, and the crested wheatgrass dominated pasture and mixed environs may have also been historically plowed or cultivated. Project facilities for High Top will be predominately located in the cheatgrass dominated pasture and mixed environs area, while for Ostrea they will be located in the cheatgrass dominated pasture and mixed environs and crested wheatgrass dominated pasture and mixed environs habitats.

The northern boundary property lines of two parcels for the High Top Project and two parcels for the Ostrea Project adjoin the southeastern property line of the Yakima Training Center. Communications with representatives of the Yakima Training Center did not result in notable land use conflicts with the Projects. The results of the glint and glare studies conducted by the applicant were shared with the Yakima Training Center for confirmation that there are no impacts to the Yakima Training Center from the Projects.[16]

The ASC identifies one wetland and several ephemeral channels within the study area for each Project. The ephemeral channels were classified on non-forest land as Non- Fish Seasonal (formerly Type 5) streams by DNR and as Type 5 streams under Yakima County Code (YCC) Title 16C. Critical Areas Ordinance, 16C.06.06 Stream, Lake and Pond Typing System. Yakima County does not have any buffer requirements for Type 5 streams (YCC 16C.06.06).

For the High Top Project, nine ephemeral channels are located in the site control boundary. Two of these channels are located in the maximum project extent of the High Top Project. The United States Army Corps of Engineers (USACE) has provided a No Permit Required Letter confirming no impacts to ephemeral channels from the High Top Project based on the current proposed project footprint.

For the Ostrea Project, eighteen ephemeral channels occur within the site control boundary. Eight of these channels are located in the maximum project extent of the Ostrea Project. Temporary and permanent impacts to these channels will be covered under USACE Nationwide Permit 14, which has been issued and a copy provided to EFSEC.

The ASC states that micrositing would occur such that the precise location of Facility components within the maximum project extent would be provided in an updated site plan prior to construction. This would give the Applicant the ability to refine the spacing of solar modules, associated access roads, collector lines, staging areas and above-ground facilities within the maximum project extent as design is finalized. The maximum project footprint would not exceed the acreage of the maximum project extent.

As shown in the Preliminary Site Plan (Attachment K to the ASC), the Facility would consist

[16] Cypress Creek Renewables, LLC Application for Site Certification, Submitted April 7, 2022, page 23.

of PV panels, inverters, mounting infrastructure, an electrical collection system, operation and maintenance building, access roads, interior roads, security fencing, a new collector substation and electrical interconnection infrastructure.

III. PROCEDURAL STEPS – EXPEDITED PROCESS

A. Informational Public Hearing and Land Use Consistency Hearing

RCW 80.50.090(1) requires the Council to conduct an informational public hearing in the county of the proposed site no later than 60 days after receipt of the application for site certification. RCW 80.50.090(2) requires the Council to conduct a public hearing to determine whether a proposed site is consistent and in compliance with city, county, or regional land use plans or zoning ordinances as those terms are defined in EFSLA.

On May 25, 2022, EFSEC issued a Notice of Informational Public Hearing and Land Use Consistency Hearing and scheduled a virtual hearing by Teams or by telephone participation for 5:30 p.m. on June 1, 2022.[17]

The Council conducted a virtual public informational hearing, which was followed by a land use consistency hearing. The Council Members present on June 1, 2022, were Kate Kelly (Department of Commerce), Eli Levitt (Department of Ecology), Leonard "Lenny" Young (Department of Natural Resources), and Stacey Brewster (Utilities and Transportation Commission). Kathleen Drew, EFSEC Chair, presided over the hearing. Managing Assistant Attorney General Sarah Reyneveld, Counsel for the Environment, was present.

After a presentation by CCR describing the Project and a presentation by Council staff describing the Council and its role in the application process, the public was provided an opportunity to provide comment.

At the land use consistency hearing, Sarah Drummond, attorney from the Law Offices of Susan Drummond, represented the Applicant and spoke on the Applicant's behalf. Michael Tobin testified in opposition to a finding of land use consistency. The Applicant provided the Council two letters dated March 7, 2022, from Jason Earles, Zoning and Subdivision Manager and the Yakima County Planning Official, which included a Certificate of Zoning Compliance (Certificate). According to the Certificate, the Facility is defined as a Power Generating Facility under Yakima County Code (YCC) Title 19, the Unified Land Development Code, and is proposed to be within the Agricultural Zoning District (AG). It is classified as a "Type 3" conditional use in the County's AG zoning district (YCC Table 19.14-010). Type 3 Uses are "uses which may be authorized subject to the approval of a conditional use permit" as set forth in Section 19.30.030. Type 3 conditional uses are not generally appropriate throughout the zoning district. Type 3 uses require Hearing Examiner review of applications subject to a Type 3 review under the procedures of Section 19.30. 100 and YCC Subsection 16B.03.030(l)(c)." (YCC Title 19.19-010(2)). Therefore, for purposes of the Council's initial determination of land use consistency (which considers only whether the project "can be

[17]The Council sent this Notice to all interested persons on the application mailing list and the project mailing list. Further, the Council purchased a legal advertisement in the Yakima Herald.

permitted either outright or conditionally"[18]) the High Top Solar and Ostrea Solar projects were consistent with YCC Title 19 and would have been eligible for review and permitting under Yakima County permit processes.

B. Tribal Engagement

EFSEC seeks to avoid, minimize, or mitigate any adverse effects on tribal resources and rights and aims to implement methods for increased protection of tribal cultural resources, archaeological sites, and sacred sites during the energy facility siting process. EFSEC recognizes that the High Top Solar and Ostrea Solar projects are located within the traditional territories and the Wanapum and Yakama peoples, with periodic use of the area from the Nez Perce and Umatilla as well.

RCW 80.50.060 requires EFSEC to gather meaningful participation and input from federally recognized tribal governments during the siting review process and in ongoing compliance monitoring of proposed energy facilities.

Following the receipt of the Projects' Applications for Site Certification on April 7, 2022, EFSEC notified affected tribal nations and provided direction for application review on April 15, 2022. EFSEC provided continued communication throughout the process regarding notices of public meetings, the land use consistency hearing, and the request for comment on conditional use permit criteria.

On May 19th, 2022, EFSEC received a written letter from Casey Barney, the Interim Program Manager of the Yakama Nation Cultural Resources Program. The letter indicated that the Yakama Nation Cultural Resource Program (CRP) had reviewed the facilities application documents and noted the facilities are located in an area of known ancestral use and in proximity to Yakama Nation Traditional Cultural Properties. The letter noted concerns regarding cultural resource coordination among the EFSEC and applicable land managing agencies.

Regarding historical and cultural perseveration impacts, the Department of Archeological and Historic Preservation (DAHP) predictive model for cultural resources identified areas on both project sites as having potential for cultural resources. EFSEC, DAHP, and Yakama Nation CRP staff engaged in coordination and technical level review. Yakama Nation CRP staff provided comments regarding the cultural resource surveys and review of technical memos. Feedback from Yakama Nation CRP staff was incorporated into the State Environmental Policy Act threshold determination and issuance of the Mitigated Determination of Non-Significance. In their technical review of the applicant's cultural resources survey, Yakama Nation CRP staff requested that full avoidance of precontact archaeological resources.

The mitigation measures are captured in the SEPA threshold issuance described below, and are as follows:

- If the site identified as being avoided within the Ostrea Maximum Project Extent is going to be altered during construction or operations, the applicant would consult with DAHP,

[18] In re Columbia Solar Project, Docket No. EF-170823, Council Order – Expedited Processing, ¶ 35.

any concerned Tribes, and EFSEC. An archaeological excavation permit through DAHP would be required prior to any alteration.

- Prior to the start of construction, the applicant would submit to EFSEC a Concurrence Letter from DAHP stating approval of the revised Cultural Resources Survey Reports.
    - A Letter of Concurrence was received for each Project. The letter for the Ostrea Project is dated November 14, 2022. The letter for the High Top Project is dated November 18, 2022.
- Prior to the start of construction, the applicant would submit updated Unanticipated Discovery plans outlining steps taken to avoid precontact archaeological resources, including avoidance mechanisms proposed in the initial cultural resource reports. These plans would be developed in coordination with EFSEC, DAHP, and the Yakama Nation.
- Mitigation discussions will be ongoing once site impacts are fully assessed by EFESC, the Yakama Nation, and DAHP. These discussions will likely occur on a case-by-case basis and include both the Yakama Nation and DAHP.

The mitigation measures allow for ongoing conversations throughout the life span of the projects and provide an opportunity for Yakama Nation to assess impacts and refine mitigating actions on a case-by-case basis.

EFSEC recognizes that government-to-government consultation is a protected process, pursuant to RCW 43.376, the 1989 Centennial Accord, and the 1999 Millennium Agreement.

Government-to-government consultation is distinct from the required regulatory public comment periods and staff-level engagement. For the High Top and Ostrea projects, the Yakama Nation did not request a formal government-to-government consultation; rather, technical level staff coordination occurred, and Yakama Nation CRP staff feedback was incorporated into the EFSEC mitigation measures.

C. State Environmental Policy Act (SEPA)

SEPA, chapter 43.21C RCW, requires consideration of environmental information about impacts, alternatives, and mitigation before committing to a course of government action (approval or disapproval of the application). The Council's SEPA rules are found in chapter 463-47 of the Washington Administrative Code (WAC).

EFSEC staff completed SEPA review of the ASC and provided a memo of their review for consideration by the SEPA Responsible Official.

On October 1, 2022, EFSEC's SEPA Responsible Official[19] issued a Mitigated Determination of Non-Significance (MDNS) and invited public comment as required by WAC 197-11-340. The public comment period ended on October 14, 2022, during which EFSEC received 4 public comment submissions. All of these comments were reviewed, with a supplemental memo prepared by staff, and the SEPA Responsible Official added one additional mitigation measure

[19] Within EFSEC, the SEPA Responsible Official is the EFSEC Director. WAC 463-47-051.

related to Animals and Habitat (regarding fencing), and revised a mitigation measure also related to Animals and Habitat.

On October 28, 2022, EFSEC issued a Revised MDNS under WAC 197-11-350. The Revised MDNS listed 19 mitigation measures related to Earth, Air. Water, Animals and Habitat, Noise, Visuals and Aesthetics, and Historic and Cultural Preservation, and Utilities as follows:

Resource	Impact	Mitigation
Earth	Erosion	1. Monitoring for erosion, and response measures should erosion occur, would be addressed in the Stormwater Pollution Prevention Plans and the Vegetation and Weed Management Plans prepared prior to construction. Should erosion occur following construction, including wind-caused erosion, response measures would be taken in accordance with the approved plans. If mitigation is implemented for erosion, monitoring would occur for a period of time agreed upon by EFSEC and the applicant to ensure the mitigation is successful.
Air	Emissions	2. Once the number and size of backup generators to be used during construction is known, supplemental environmental analysis would be required, and the Applicant would be required to submit applications to EFSEC for approval of these sources prior to implementation.
Water	Quality – Wetlands and Surface Waters	3. Prior to the start of construction, an additional visit to each site would be conducted by Washington Department of Ecology (WDOE) to verify the lack of seasonal wetlands throughout the project sites. Additional mitigation, particularly with respect to buffer, may be imposed after the site visits, developed in coordination with WDOE.
		4. If the US Army Corps of Engineers determines the ephemeral streams are non-federally regulated waters, an Administrative Order would be needed if details showed the projects would not meet the State's water quality standards. Additional mitigation would be imposed if needed to replace any of the features' functions and values.
	Use	5. Prior to construction, the amount of water estimated to be used during construction must be identified, and an approved source of water with enough legally available water to supply the needed amount for construction would be identified and confirmed via a contract or certificate of availability
		6. Prior to operations, an approved source of water with enough legally available (202,000 gallons annually) water to supply the needed amount for continued operation would be identified and confirmed via a contract or certificate of availability.
	Quality and Quantity –	7. Water for washing the solar panels would not have any cleaning solvents, detergents, or other additives in it. Wash water would be

	Stormwater and Washwater	controlled in such a manner as to be able to infiltrate all water on site.
Animals and Habitat	Habitat impacts	8. Since the Project layouts are not yet final, the acres of impact and any subsequent mitigation calculations will represent higher values. Mitigation Ratios for habitat impacts are as follows: • 2:1 ratio for permanent impacts to shrubsteppe habitat • 1:1 ratio for altered impacts to shrubsteppe habitat • 0.5:1 ratio for altered impacts to the cheatgrass dominated pasture/mixed environment habitat classification at the Ostrea project. • No mitigation is required for cheatgrass dominated pasture/mixed environment habitat classification at the High Top Project
		9. The applicant would be required to provide compensatory mitigation for remaining impacts to habitat. The applicant would compensate for the remaining permanent and altered impacts by providing money to Washington Department of Fish and Wildlife (WDFW) or a third party identified by WDFW to purchase other lands suitable as in-kind and/or enhancement mitigation. This fee-based mitigation includes a per acre fee that would be determined by market rates and land sales within the general vicinity of the Facilities for lands containing comparable habitat types and quality present within the project area. The per acre fee would be developed by the applicant in consultation with WDFW and approved by EFSEC. The Total Financial Obligation (TFO) would be determined by multiplying the cost per acre by the total Compensatory Mitigation Acres (CMA) and would include a one-time 15% premium to cover administration and management costs for the purchased lands. The TFO for compensatory mitigation would be determined prior to issuance of a Site Certification Agreement (SCA). If construction has not begun within 12 months of the approval of the SCA, the TFO identified in the SCA would expire and be recalculated prior to beginning construction; comparable land sales at the time the TFO is recalculated would be used. Fee calculation: i. $\left(Average\ Comparable\ Land\ Sale\ Cost_{\ per\ acre}\right) * (CMA) * 1.15 = TFO$
		10. Prior to the start of construction, Habitat Restoration and Mitigation Plans would be developed in coordination with WDFW and EFSEC, as described in the ASC, to include 1) considerations of any potential additional setbacks as identified by WDFW or other micrositing options that may be feasible to further reduce the

		impact to habitat connectivity, and 2) revegetation of disturbed areas with a native seed mix
		11. Prior to the start of construction, the applicant will implement, where feasible, in coordination with EFSEC and WDFW, the raising of the bottom of fences to allow for small animal passage.
Noise		12. Set up a "noise hot line" or other form of communication that the public could use to report any undesirable noise conditions associated with the construction of the Projects, with the ability to log the date and time of a complaint. This line of communication would be maintained through construction.
		13. Loud machinery would be limited to the hours of 7 a.m. to 8 p.m.
		14. Perform noise monitoring during operations, at a frequency and locations identified in coordination with EFSEC for the first 180 days of operation. Additional mitigation (e.g., noise barriers, etc.) and subsequent noise monitoring would be required if 1) the facilities are receiving and documenting ongoing substantiated noise complaints, and/or noise levels exceed maximum permissible noise levels as indicated in WAC 173-60-040.
Visual and Aesthetics	Aesthetics	15. Following final design, provide visual simulations as requested by EFSEC, for EFSEC review, for viewpoints associated with residences. Following review of the simulations, mitigation such as visual screening (e.g., vegetation or physical) or surface treatments would be implemented for viewpoints: 1) with a moderate rating for contrast and 2) that have specific aspects that contribute to visual contrast that could be mitigated to a less than moderate level by additional best management practices such as visual screening or surface treatments.
Historic and Cultural Resources	Cultural Resources	16. If the site identified as being avoided within the Ostrea Maximum Project Extent is going to be altered during construction or operations, the applicant would consult with DAHP, any concerned Tribes, and EFSEC. An archaeological excavation permit would be required prior to any alteration.
		17. Prior to the start of construction, the applicant would submit to EFSEC a Concurrence Letter from DAHP stating approval of the revised Cultural Resources Survey Reports.
		18. Prior to the start of construction, the applicant would submit updated Unanticipated Discovery plans outlining steps taken to avoid precontact archaeological resources, including avoidance mechanisms proposed in the initial cultural resource reports. These plans would be developed in coordination with EFSEC, DAHP, and the Yakama Nation.
		19. Mitigation discussions will be ongoing once site impacts are fully assessed by EFESC, the Yakama Nation, and DAHP. These discussions will likely occur on a case by case basis and include both the Yakama Nation and DAHP.

Utilities		See mitigation measures #5 and #6 under Water use

The Responsible Official determined that the above mitigating conditions included in the Revised MDNS, along with required compliance with applicable county, state and federal regulations and permit requirements, will mitigate all significant adverse impacts to the environment. An environmental impact statement (EIS) therefore is not required under RCW 43.21C.030(2)(c). The Responsible Official made this determination after a review of the ASC, other information on file with the agency, and existing regulations applicable to the proposal.[20]

D. Expedited Processing Decision and Order

The Applicant requested that EFSEC use the expedited process authorized by RCW 80.50.075 to evaluate the Application. An application is eligible for expedited processing when EFSEC finds (1) the environmental impacts of the proposed project are not significant or can be mitigated to non-significant levels and (2) the proposed project is consistent and in compliance with city, county or regional land use plans and zoning ordinances.

If an application is granted expedited processing, the Council may decide on the Application without holding an adjudicative proceeding under chapter 34.05 RCW and is not required to conduct any further review of an application by an independent consultant.[21]

On November 15, 2022, the Council issued an order concluding that expedited process should be granted, finding land use consistency and that a revised MDNS had reasonably been issued by the SEPA Responsible Official. In so doing, the Council directed EFSEC Staff to develop a means for the Council to receive information akin to what the County would receive during a conditional use hearing as to site-specific conditions and criteria.[22] The Council's conclusion that the Project is consistent and in compliance with land use provisions, within the meaning of EFSLA, is set forth in the Council's October 18, 2022, Order Granting a Finding of Land Use Consistency.

IV. PUBLIC MEETING TO RECEIVE COMMENT ON YAKIMA COUNTY CONDITIONAL USE CRITERIA

The November 15, 2022, Order Granting Expedited Processing instructed EFSEC Staff to receive information akin to what Yakima County would receive during a conditional use hearing as to site-specific conditions and criteria.[23]

Consequently, on January 6, 2023, the Council issued a Notice of a Public Meeting and Request for Public Comment and invited public comment regarding whether additional requirements

[20] The Revised MDNS, environmental checklist, environmental review and staff recommendation, and the ASC are available for review at the EFSEC office. For convenience, the documents are available online at *https://www.efsec.wa.gov/energy-facilities/high-top-and-ostrea-solar-project*

[21] RCW 80.50.075; WAC 463-43-060.

[22] Order on Expedited Processing (Order) at 13, 23.

[23] Providing that after expedited processing is granted under RCW 80.50.075, the Council must hold a public meeting to take comments on the proposed application prior to issuing a recommendation to the Governor.

should be imposed in consideration of the goals of YCC 19.30.100(2). This meeting also met the requirement of 80.50.090(5), which requires that after expedited processing is granted, the council must hold a public meeting to take comments on the proposed application prior to issuing a recommendation to the Governor. The Applicant and EFSEC Staff made presentations at the virtual meeting convened on January 11, 2023.

Jess Mosleh, Heather Wise, and attorney Susan Drummond, presented on behalf of the Applicant, summarizing the information and analysis presented in Attachment A to the Application, which concerns the applicability of County comprehensive plan and development code provisions to the project.

Yakima County Code 19.30.100(2) allows the County hearing examiner to impose additional requirements as conditions of approval of Type 3 conditional uses (including Power Generating Facilities proposed in the Agricultural Zoning District), to:

a. Comply with any development standard or criteria for approval set forth in Yakima County Code
b. Mitigate material impacts of the development
c. Ensure compatibility of the development with existing neighboring land uses; assure consistency with the intent and character of the zoning district involved
d. Ensure that the structures and areas proposed are surfaced, arranged, and screened in such a manner that they are compatible with and not detrimental to existing or reasonable expected future development of the neighborhood, or resources uses, consistent with the Comprehensive Plan and
e. Achieve and further the intent, goals, objectives, and policies of the Comprehensive Plan and this Title (Title 19)

EFSEC received verbal comments from five parties during the public comment meeting regarding conditional use criteria. EFSEC received written comments from four parties during the public comment period. Two of the written comments were presented verbally as well, accounting for two of the five comments received at the public meeting--one provided by Dale Hille and the second provided by the Yakima County Farm Bureau.

Yakima County Commissioner Amanda McKinney expressed concern about the number of projects in Yakima County and noted that as of July 2022, the County had placed a moratorium on solar projects to allow time to develop more specific criteria for the siting of solar projects. She also indicated that the county had $5 billion in income from agricultural land and the Board of County Commissioners is concerned about the impact of the projects because they will be sited on agricultural land. Commissioner McKinney ask the Council to reject the Application.

Dale Hille, the Fire Chief for the Yakima Fire District (YCFD), expressed the need for a contractual fire suppression service for the projects. He cautioned that gates and roadways needed to be wide enough for fire equipment. He requested vegetation management to mitigate the risk of fire. He recommended pre-incident emergency response planning annually. He also asked whether there would be a water source on site to assist in fire suppression.

Lorre Gefre, a concerned citizen, spoke against the projects noting that High Top Solar and Ostrea Solar are not the only projects being planned for Yakima county. She felt the process has been rushed and citizens have not had enough time to understand the implications of all the projects. She also expressed a concern about fire protection and whether sufficient water is available to fight a fire. She expressed her opinion that there will be insufficient oversight of mitigation measures such that they will not be effective. Finally, she was concerned about toxins that may be released either during the project or when it is dismantled.

Michael Tobin of the North Yakima Conservation District noted that the land on which the site is proposed had been used as agricultural land in the past, and asserted it is compatible with future use as such. He asserted that the projects would convert agricultural land into an industrial commercial property and would violate state laws providing for the protection of agricultural lands. He stated that the mitigation measures cannot replace the habitat that is critical for sage grouse and other wildlife.

Mark Henke, President of the Yakima County Farm Bureau expressed concerns about projects being rushed through the process. He also expressed concerns about the projects being chained together across the landscape damaging the land, impacting sage grouse, and creating an increased fire hazard.

None of the comments received at the hearing recommended specific additional conditions to ensure consistency of the project with the conditional use criteria set forth in Yakima County Code 19.30.100(2).

To the concerns raised during this meeting, EFSEC provides the following response:

County Commissioners' request to reject the application based on the moratorium

> Commissioner McKinney's comments at the meeting mirrored those presented in a letter EFSEC received from the Yakima County Commissioners on November 7, 2022. As EFSEC Director of Siting and Compliance, Amí Hafkemeyer explained in response to that letter, RCW 80.50 and Title 463 WAC do not provide a basis to cease review of an application based of a county-enacted moratorium. EFSEC is directed to "conduct a public hearing to determine whether or not the proposed site is consistent and in compliance with city, county, or regional land use plans or zoning ordinances on the date of the application." RCW 80.50.090(2). EFSEC received the ASC for the High Top and Ostrea Projects on April 7, 2022. The County enacted its moratorium on July 26, 2022. Even if the moratorium had been in effect prior to CCR's submission of its application to EFSEC, the Council has previously determined that a moratorium is not a land use plan or zoning ordinance for the purposes of EFSEC's consistency determination.

Fire Response

> The ASC includes commitments for fire response plans, which the draft Site Certification Agreement requires to be submitted and approved prior to construction and operations. EFSEC staff have initiated coordination with the YCFD and the Applicant to include

input on required fire plans, and other related input. The Applicant has responded to the comments regarding fire risk indicating where they have or will make commitments to address the concerns of the YCFD.[24]

Adequacy of public input opportunities

RCW 80.50.100(1)(a) requires the Council to report to the Governor its recommendations as to the approval or rejection of an application for certification within twelve months of receipt of an application. This period may be extended based on the mutual agreement of the Council and the applicant. Several opportunities for public input on the Projects were provided and are inherent to the EFSEC process. Within the first 60 days of receipt of an ASC, EFSEC holds a public informational meeting, during which public comment is received. This meeting was held on June 1, 2022, for the Projects. EFSEC also holds a Land Use Consistency Hearing at which public comment is received. This meeting was also held on June 1, 2022. EFSEC also provided opportunities for public comment on the MDNS, the Land Use Consistency Order, and the Order on Expedited Processing. Finally, EFSEC provided the hearing required by RCW 80.50.090(5), on January 11, 2023, at which public input was solicited on whether the projects are consistent with Yakima County conditional use criteria, and whether any conditions need to be imposed to ensure consistency with those criteria. In summary, EFSEC's process actively seeks public input at these various waypoints in the application review process and encourages interested parties to participate.

Agricultural land loss

With respect to the concerns regarding impacts to agricultural land, the Project sites are not currently in agricultural use and have not been for 25 years and 70 years (for the High Top and Ostrea, sites respectively) except as rangeland. Cheatgrass (Bromus tectorum) and other weedy species not well suited for year-round livestock grazing are dominant in the previously plowed areas. Additionally, there is no on-site water source, so neither Project Study Area is irrigated, which diminishes the agricultural potential of the site. Therefore, use of the properties for a non-agricultural solar energy facility will not affect current agricultural activities on-site to the detriment of the region's commercial agricultural economy. The Projects will facilitate the property owner's intent to develop the sites with revenue-generating projects on lands that have not in recent years generated revenue with agricultural development.

The Washington Department of Agriculture reviewed the proposal and did not identify any impacts that could not be mitigated. With a planned lifespan of 40 years for each Project, after which the solar arrays will be decommissioned and removed from the site, the Projects will not remove the opportunity to reestablish agricultural uses in the future, consistent with the current intent of Yakima County Policy LU-ER-AG 1.1.[25] Per WAC 463-72-040, the Applicant will develop an initial site restoration plan. The plan will address site restoration occurring at the conclusion of the Projects' operating life, or in the event the project is suspended or terminated during construction or before it has

[24] See Applicant response letter, received January 30, 2023
[25] Yakima County, WA, Comprehensive Plan, Chapter 5, p. 85 (update June 2017).

completed its useful operating life. Under the draft SCAs, the applicant would not be allowed to build the Projects until it provides adequate financial assurance (such as a bond, irrevocable letter of credit, or guaranty) in an amount that is based on an engineering analysis of the cost of all work required to restore the site.

Regarding the interplay of the EFSLA siting process with requirements of the Growth Management Act, the Department of Commerce's GMA procedural criteria for adopting comprehensive plans and development regulations acknowledge that "[c]omprehensive plans and development regulations adopted under the [GMA] should accommodate situations where the state has explicitly preempted all local land use regulations, as for example, in the siting of major energy facilities under RCW 80.50.110." WAC 365-196-560(1).

Wildlife impacts

EFSEC has reviewed the impacts associated with this proposal in close coordination with WDFW. This review, and the resulting mitigation measures are presented in the Revised MDNS and associated documents. The Applicant has committed to establishing a wildlife corridor to maintain habitat connectivity. Mitigation for impacts are established and listed in the MDNS, and section III.B.

Release of toxins to the environment

The SCA includes a provision that the applicant develop a construction phase and operational phase Spill Prevention, Control, and Countermeasure Plan (SPCCP) in the event that materials on site are of sufficient quantity to qualify. In the event that hazardous materials were released to the environment, clean up would be required per WAC 463-74-030; WAC 173-303-145.

V. LEGAL FRAMEWORK AND ANALYSIS UNDER RCW 80.50.010

A. Legal Framework

RCW 80.50.010, the EFSLA, provides the central legal framework for the Council's siting recommendation:

The legislature finds that the present and predicted growth in energy demands in the state of Washington requires a procedure for the selection and use of sites for energy facilities and the identification of a state position with respect to each proposed site. The legislature recognizes that the selection of sites will have a significant impact upon the welfare of the population, the location and growth of industry and the use of the natural resources of the state.

It is the policy of the state of Washington to reduce dependence on fossil fuels by recognizing the need for clean energy in order to strengthen the state's economy, meet the state's greenhouse gas reduction obligations, and mitigate the significant near-term and long-term impacts from climate change while conducting a public process that is transparent and inclusive to all with particular attention to overburdened communities.

> It is the policy of the state of Washington to recognize the pressing need for increased energy facilities, and to ensure through available and reasonable methods that the location and operation of all energy facilities and certain clean energy product manufacturing facilities will produce minimal adverse effects on the environment, ecology of the land and its wildlife, and the ecology of state waters and their aquatic life. It is the intent to seek courses of action that will balance the increasing demands for energy facility location and operation in conjunction with the broad interests of the public. In addition, it is the intent of the legislature to streamline application review for energy facilities to meet the state's energy goals and to authorize applications for review of certain clean energy product manufacturing facilities to be considered under the provisions of this chapter.
>
> Such action will be based on these premises:
>
> (1) To assure Washington state citizens that, where applicable, operational safeguards are at least as stringent as the criteria established by the federal government and are technically sufficient for their welfare and protection.
>
> (2) To preserve and protect the quality of the environment; to enhance the public's opportunity to enjoy the esthetic and recreational benefits of the air, water and land resources; to promote air cleanliness; to pursue beneficial changes in the environment; and to promote environmental justice for overburdened communities.
>
> (3) To encourage the development and integration of clean energy sources.
>
> (4) To provide abundant clean energy at reasonable cost.
>
> (5) To avoid costs of complete site restoration and demolition of improvements and infrastructure at unfinished nuclear energy sites, and to use unfinished nuclear energy facilities for public uses, including economic development, under the regulatory and management control of local governments and port districts.
>
> (6) To avoid costly duplication in the siting process and ensure that decisions are made timely and without unnecessary delay while also encouraging meaningful public comment and participation in energy facility decisions.

Citing an earlier version of RCW 80.50.010 that included much of the same key language, the Washington Supreme Court described EFSLA as seeking to "balance the increasing demands for energy facility location and operation in conjunction with the broad interests of the public."[26] The Council applies RCW 80.50.010 by weighing and balancing the need for the proposed facility against its impacts on the broad public interest, including human welfare and environmental stewardship. The Council then determines whether a proposed facility at a

[26] *Columbia Riverkeeper v. Port of Vancouver,* 188 Wn.2d 80, 95, 392 P.3d 1025 (2017) (citing RCW 80.50.010).

particular site will produce a net benefit justifying a recommendation of project approval. The Council has referred to this balancing as determining "need and consistency."[27]

B. Analysis

This Recommendation draws from the Application for Site Certification and informational meeting presentations, information provided by consultant agencies, information provided at the land use consistency hearing, SEPA documentation and comments, and information received at the meeting to receive comment on the County's conditional use criteria.

On matters where there is a divergence of views, the Council makes the necessary findings based on the record assembled.

Regarding need for the facility, the Council has considered the policy of the State of Washington to support the development of facilities that produce electricity from renewable resources, including solar energy facilities. RCW 19.285, RCW 19.405, RCW 70A.65, RCW 80.50.010. The Facility will produce electrical energy without generating greenhouse gas emissions.

Regarding the off and onsite impacts to the broad public interest, the Facility will meet federal, state, and local regulatory requirements and the Applicant has agreed to appropriate environmental mitigation requirements as indicated in the sections discussed above. The mitigation package preserves and protects the quality of the environment.

After reviewing all available information on the record in this decision, the Council concludes that the proposed Facility will produce a net benefit justifying a recommendation of project approval.

VI. FINDINGS OF FACT AND CONCLUSIONS OF LAW

The Council includes conclusions of law with its findings of fact for the convenience of the reader. Any finding in the nature of a conclusion of law should be interpreted as a conclusion, and any conclusion in the nature of a finding should be interpreted as a finding of fact.

Nature of Proceedings

1. This matter involves Application No. EF-220212 to EFSEC for site certification to construct and operate High Top Solar Project and Ostrea Solar Project (the Facility) on sites located in unincorporated Yakima County, Washington, south of the Yakima Training Center and north of SR-24, 20 miles east of the town of Moxee. The Facility consist of solar photovoltaic (PV) projects with optional battery energy storage systems (BESS) with a combined generating capacity of 160 MW.

2. The Washington State Energy Facility Site Evaluation Council has jurisdiction over the persons and the subject matter of Application No. EF-220212, pursuant to Chapter 80.50 RCW.

[27] Council Order No. 753, at 12, *In re Chehalis Generating Facility* (Feb. 12, 2001).

The Applicant and the Application

3. The Applicant submitted its Application for Site Certification on April 7, 2022, seeking certification pursuant to RCW 80.50.060(3)(a)(iii) in the name of its subsidiaries, High Top Solar, LLC and Ostrea Solar, LLC, and requesting expedited processing of the Application.

4. The Applicant and the Council mutually agreed to extend the one hundred twenty-day timeline for the Council to issue an order on the expedited request.

Site Characteristics

5. The Facility will consist of two projects, High Top Solar Project, to be constructed and operated by High Top Solar, LLC, and Ostrea Solar Project, to be constructed and operated by Ostrea Solar, LLC. Each Project will consist of solar PV modules mounted on single-axis trackers with an aggregated injection capacity limited to 80 megawatts (MW) of alternating current. The eleven parcels on which the facility will be located will together constitute the "facility parcels." All facility parcels involved are owned by Zin and Najiba Badissy. The Applicant has executed options to lease and easement agreements with the landowners for adequate acreage to accommodate the facility long-term. The landowners have provided letters of support for each Project making up the facility (Attachment M[28] to the Application for Site Certification (ASC)).

Informational Public Meeting

6. The Council held a virtual public informational meeting on June 1, 2022, after receipt of the Application.

7. The Council concludes that it has complied with the applicable procedural law and regulation, including RCW 80.50.090(1), in conducting an informational public hearing in the county of the proposed site not later than 60 days after receipt of the application for site certification.

Land Use Consistency Hearing

8. On May 25, 2022, the Council issued a Notice of Land Use Consistency Hearing.

9. On June 1, 2022, the Council conducted a virtual Land Use Consistency Hearing under RCW 80.50.090 and WAC 463-26-050.

10. The Council heard from an attorney for the Applicant, and Michael Tobin.

[28] On the EFSEC website two attachments identified as M are listed. Although nearly identical, one attachment is the letter referencing the High Top Project and the other letter addresses the Ostrea Project.

11. The Council concludes it has complied with the applicable procedural law and regulation, including RCW 80.50.090(2), in conducting a land use consistency hearing in the county of the proposed site not later than 60 days after receipt of the application for site certification.

Compliance with the State Environmental Policy Act (SEPA)

12. EFSEC is the lead agency for environmental review of project proposals within its jurisdiction under the State Environmental Policy Act (SEPA), RCW 43.21C.

13. The Council Director is the SEPA Responsible Official. WAC 463-47-051.

14. EFSEC's SEPA Responsible Official issued a Mitigated Determination of Non-Significance (MDNS) on October 1, 2022, under WAC 197-11-350.

15. Also on September 30, 2022, the Council issued a notice inviting the public and agencies to comment on the MDNS by submitting written comments beginning October 1, 2022, to be received no later than October 14, 2022.

16. EFSEC's SEPA Responsible Official considered the public comments received and revised the MDNS to address the comments.

17. EFSEC's SEPA Responsible Official issued the revised MDNS on October 28, 2022.

18. The Council concludes that it has complied with SEPA and its implementing regulations including Chapter 80.50 RCW and WAC 463-47.

Expedited Process

19. The Applicant requested expedited processing of the Application on April 7, 2022.

20. By mutual agreement, the Applicant and the Council set a later time of October 20, 2022, for the Council to issue an order on the request for expedited process. The Council met on October 18, 2022 and agreed to grant expedited processing.

21. On November 15, 2022, EFSEC issued an Order Granting Expedited Processing consistent with the requirements of RCW 80.50.075 and WAC chapter 463-43.

22. In the order, EFSEC concluded that the Applicant had met its burden of proof of demonstrating that the sites were consistent and in compliance with Yakima County's Comprehensive Plan and applicable zoning ordinances as required by RCW 80.50.075(1). EFSEC also concluded the environmental impact of the proposed Site would be mitigated to a nonsignificant level under RCW 43.21C.031, as required by RCW 80.50.075(1).

23. The Order also directed Council staff to develop a means to receive information akin to what the County would receive during a conditional use hearing as to site-specific conditions and criteria.

24. The Council concludes that the Order granting expedited process complied with applicable statutes and regulations.

25. The Applicant requested an extension for the decision on the Application to February 22, 2023, which was granted.

Conditional Use Meeting

26. The EFSEC Staff reviewed the Application as it relates to Yakima County land use plans and development and ordinances.

27. The Council concludes that the SCA includes conditions to protect local governmental or community interests affected by the construction or operation of the energy facility, and conditions designed to recognize the purpose of Yakima County land use plans and development ordinances as required by RCW 80.50.100(2).

Site Certification Agreement

28. The holder of the Site Certification Agreement (SCA) would be required to comply with all mitigation measures provided for in the Revised Application, all mitigation required by the Revised MDNS, and the requirements of EFSEC rules and the SCA, such as site restoration and financial assurances.

Balancing Need against Public Interest

29. It is the policy of the State of Washington to support the development of facilities that produce electricity from renewable resources, including solar energy facilities. RCW 19.285, RCW 19.405, RCW 70A.65, RCW 80.50.010. The Facility will produce electrical energy without generating greenhouse gas emissions.

30. Council finds that the project will contribute to the availability of abundant energy at reasonable cost.

31. The Council concludes that the Applicant met its burden of proof demonstrating that the Site would comply with applicable land use provisions and should be approved as a conditional use.

32. The Site as conditioned in the SCA has no significant unmitigated impacts to the environment.

33. Finding no significant public interest impacts and finding significant evidence of need, the Council concludes that the project will produce a net benefit that would support a recommendation of approval.

34. The Council concludes that it should recommend that the Governor approve the updated Application with the mitigation measures outlined in SCA.

VII. RECOMMENDATION

The Council recommends that the Governor of the State of Washington approve Cypress Creek Renewables, LLC's Application dated April 7, 2022, for site certification authorizing its subsidiary High Top Solar, LLC, to construct and operate the High Top Solar Project, and authorizing its subsidiary Ostrea Solar, LLC to construct and operate the Ostrea Solar Project.

VIII. RECONSIDERATION OR OTHER ADMINISTRATIVE RELIEF

There is no opportunity for petitions for reconsideration of this Report. WAC 463-30-335, which allows parties to petition the Council for reconsideration of its recommendation to the Governor, is codified in WAC 463-30, the purpose of which is to set forth procedures by which adjudicative proceedings are to be conducted before the Council. Because the Council used the expedited process under RCW 80.50.075, it did not hold an adjudicative proceeding, and WAC 463-30-335 does not apply.

Pursuant to RCW 80.50.140, the Governor's final decision pursuant to RCW 80.50.100 on an application for certification shall be subject to judicial review pursuant to provisions of chapter 34.05 RCW and RCW 80.50. Any petitions for review of such a decision must be filed in the Thurston County superior court. RCW 80.50.140.

DATED at Olympia, Washington, and effective _____.

Washington Energy Facility Site Evaluation Council

_____
Kathleen Drew, EFSEC Chair

_____
Kate Kelly,
Department of Commerce

_____
Eli Levitt,
Department of Ecology

_____
Mike Livingston,
Department of Fish and Wildlife

_____
Leonard "Lenny" Young,
Department of Natural Resources

_____
Stacey Brewster,
Utilities and Transportation Commission

SITE CERTIFICATION AGREEMENT
BETWEEN

THE STATE OF WASHINGTON

AND

HIGH TOP SOLAR, LLC

For the

HIGH TOP SOLAR PROJECT
YAKIMA COUNTY, WASHINGTON
EXECUTED APRIL __, 2023

ENERGY FACILITY SITE EVALUATION COUNCIL
OLYMPIA, WASHINGTON

(This page intentionally left blank)

SITE CERTIFICATION AGREEMENT
FOR THE HIGH TOP SOLAR PROJECT
CONTENTS

Attachments

1. Council report to the Governor Recommending Site Certification entered February __, 2023

SITE CERTIFICATION AGREEMENT

FOR THE HIGH TOP SOLAR PROJECT

between

THE STATE OF WASHINGTON

and

HIGH TOP SOLAR, LLC

This Site Certification Agreement (Agreement or SCA) is made pursuant to Revised Code of Washington (RCW) 80.50 by and between the State of Washington, acting by and through the Governor of Washington State, and High Top Solar, LLC (HTS or Certificate Holder).

Cypress Creek Renewables, LLC (CCR) filed, as permitted by law, an application with the Energy Facility Site Evaluation Council (EFSEC or Council) for site certification for the construction and operation of a solar powered generation facility by its subsidiary High Top Solar, LLC, to be located in Yakima County, Washington. The Council reviewed Application 220212, conducted public meetings, and by order recommended approval of the application and a Site Certification Agreement by the Governor. On _____, 2023, the Governor approved the Site Certification Agreement authorizing High Top Solar, LLC to construct and operate the High Top Solar Project (Project).

The parties hereby now desire to set forth all terms, conditions, and covenants in relation to such site certification in this Agreement pursuant to RCW 80.50.100(2).

ARTICLE I: SITE CERTIFICATION

A. Site Description

The Certificate Holder plans to construct and operate a solar photovoltaic (PV) project with an optional battery storage system on three parcels of land within the Agricultural Zoning District in unincorporated Yakima County 20 miles east of city of Moxee.

The Project will consist of PV panels, single axis tracking PV modules and inverters, an electrical collection system, optional Battery Energy Storage System (BESS), an operation and maintenance building, access roads, interior roads, security fencing, a collector substation, and electrical interconnection infrastructure. The Maximum Extent of the Project will not exceed 926.6 acres. The Project will have a combined maximum generating capacity of 80 megawatts alternating current (AC).

The Project will interconnect through a dedicated switchyard located at the Project adjacent to PacifiCorp's Union Gap-Midway 230 kV transmission line that runs through the southern part of the Project. The Project will be accessed on the east side of the Project from Washington State Route 24.

B. Site Certification

The State of Washington hereby authorizes HTS and any and all parent companies, and any and all assignees or successors approved by the Council, to construct and/or operate the High Top Solar Project as described herein, subject to the terms and conditions set forth in Council Report to the Governor Recommending Site Certification (Attachment 1 to this Agreement), and this Agreement.

The construction and operation authorized in this Agreement shall be located within the areas designated herein and in the Application for Site Certification (ASC) submitted by CCR on April 7, 2022.

This Agreement authorizes the Certificate Holder to construct the High Top Solar Project such that Substantial Completion is achieved no later than ten (10) years from the effective date of the SCA.

If the Certificate Holder does not begin construction of the Project within five (5) years of the effective date of the SCA, then at least ninety days prior to the end of the five year period, the Certificate Holder must report to the Council its intention to continue and will certify that the representations in the SCA, environmental conditions, pertinent technology, and regulatory conditions have remained current and applicable, or identify any changes and propose appropriate revisions to the Agreement to address changes. Construction may begin only upon prior Council authorization and approval of such certifications. If the Certificate Holder does not begin construction of the Project within ten (10) years of the effective date of the SCA all rights under this SCA will cease.

C. Project Description

The High Top Solar Project will consist of:

1. *Solar Modules.* The photovoltaic solar modules, commonly known as solar panels, are electrical devices that converts the energy of light directly into electricity by the photovoltaic effect.

2. *Tracking System.* The panels are mounted together into solar arrays on a steel racking system which utilizes a single-axis tracking system.

3. *Posts.* The tracking system is secured to steel posts, also known as piles, which serve as the foundation. The piles are driven or screwed into the ground to a depth of approximately eight to 10 feet depending on site specific soil conditions.

4. *Cabling and Collector Lines.* Throughout the Project, electric cables transmit the electric current produced by the solar arrays to pad-mounted inverters and transformers. Electric cables will be both above and below ground between the arrays and inverters. Final depth of buried cables will generally not be deeper than 48 inches.

5. *Inverters and Transformers*. The electricity produced by the panels is in direct current (DC) form and is converted by inverters into alternating current (AC). The step up transformer will increase the voltage to 230kV to meet the voltage for the transmission line. The inverters and step-up transformer are mounted on concrete pads located adjacent to the POI.

6. *Facility Substation.* The Facility Substation consists of the main step-up transformer to increase the voltage to 230 kV for interconnection to the grid and the control house which houses protective equipment including communications equipment, circuit breakers, disconnect switches and relays.

7. *Operations and Maintenance Building.* The Project includes an Operations and Maintenance (O&M) trailer with employee parking which consists of a trailer with office space, storage space, a bathroom, onsite septic, and breakroom facilities. The employee parking area will be gravel.

8. *Civil Infrastructure*. Infrastructure will include access gates, internal access roads, and security fencing.

9. *Battery Energy Storage System.* The Project may include an optional battery energy storage system (BESS). The BESS allows for the storing excess solar-generated electricity and supplying it back to the grid when needed.

The location of Project facilities including, but not limited to, the solar panels, electrical collection and distribution system, electrical transformers, electrical generation tie lines, roadways, and other related infrastructure, is generally described in the ASC, as modified within the Agreement. The final location of the solar panels and other project facilities within the

Project Footprint may vary from the locations shown on the conceptual drawings provided in the ASC but shall be consistent with the conditions of this Agreement and in accordance with the final construction plans approved by EFSEC pursuant to Article IV.S.

ARTICLE II: DEFINITIONS

Where used in this Site Certification Agreement, the following terms shall have the meaning set forth below:

1. "Application" or "ASC" means the *Application for Site Certification*, designated No. 220212, submitted on April 7, 2022ASC.
2. "Approval" (by EFSEC) means an affirmative action by EFSEC or its authorized agents including those actions and consultations delegated to Council staff regarding documents, plans, designs, programs, or other similar requirements submitted pursuant to this Agreement.
3. "Begin Commercial Operation" or "Beginning of Commercial Operation" means the time when the Project begins generating and delivering electricity to the electric power grid, other than electricity that may be delivered as a part of testing and startup of the Project.
4. "BMPs" means Best Management Practices.
5. "Certificate Holder" means High Top Solar, LLC, any and all parent company(s), or an assignee or successor in interest authorized by the Council.
6. "High Top Solar Project" or "Project" means those High Top Solar Project facilities described in the ASC, including: solar panels and their construction areas; electrical collection/interconnection and communication systems; electrical step-up and interconnection transformers; optional Battery Energy Storage System; access roadways; temporary construction-related facilities; and other related Project facilities. The specific components of the Project are identified in Article I.C.
7. "Construction" means any of the following activities: Project Site clearing, grading, earth moving, cutting or filling, excavation, preparation of roads and/or laydown areas, foundation construction including hole excavation, form work, rebar, excavation and pouring of concrete for the inverter pads and switchyard, or erection of any permanent, above-ground structures including any solar tracking assemblies, the transformer, transmission line poles, substation poles, or meteorological towers.
8. "County" means Yakima County, Washington.
9. "DAHP" means the Washington State Department of Archaeology and Historic Preservation.
10. "Ecology" means the Washington State Department of Ecology.
11. "Effective date" means the date on which the Governor executes this Agreement, although the Agreement must also be signed by the Applicant to become binding.
12. "EFSEC" or "Council" means the State of Washington Energy Facility Site Evaluation Council, or such other agency or agencies of the State of Washington as may hereafter succeed to the powers of EFSEC for the purposes of this Agreement.
13. "EFSEC Costs" means any and all reasonable costs, both direct and indirect, actually incurred by EFSEC with respect to this Site Certification Agreement (SCA), including but not limited to monitoring, staffing, and SCA maintenance.

14. “End of Construction” means the time when all Project facilities have been substantially constructed and are in operation.
15. “Project Footprint” means the actual footprint of the Project within the 926.6 acre Maximum Project Extent where the facility is planned to be located, as described in greater detail in Section 2.A.2 of the ASC.
16. “Micro-siting” means the final technical and engineering process by which the Certificate Holder shall recommend to the Council the final location of solar project facilities on the Project Footprint.
17. “NPDES Permit” means National Pollutant Discharge Elimination System permit.
18. “RCW” means the Revised Code of Washington.
19. “Revised MDNS” means the Revised Mitigated Determination of Non-Significance issued on October 28, 2022 by EFSEC.
20. “Site,” or “Project Site,” means the land identified in the Application on which the High Top Solar Project is to be constructed and operated, namely, the up to 926.6 acre High Top site as described in greater detail in Section 1.A and 2.A of the ASC.
21. “Site Certification Agreement,” “SCA” or “Agreement” means this formal written agreement between the Certificate Holder and the State of Washington, including all attachments hereto and exhibits, modifications, amendments, and documents incorporated herein.
22. “State” or “state” means the State of Washington.
23. “Substantial Completion” means the Project is generating and delivering energy to the electric power grid.
24. “WAC” means the Washington Administrative Code.
25. “WDFW” means the Washington Department of Fish and Wildlife.
26. “WSDOT” means the Washington State Department of Transportation.

ARTICLE III: GENERAL CONDITIONS

A. Legal Relationship

1. This Agreement shall bind the Certificate Holder, and its successors in interest, and the State and any of its departments, agencies, divisions, bureaus, commissions, boards, and its political subdivisions, subject to all the terms and conditions set forth herein, as to the approval of, and all activities undertaken with respect to the Project or the Site. The Certificate Holder shall ensure that any activities undertaken with respect to the Project or the Project Footprint by its agents (including affiliates), contractors, and subcontractors comply with this Agreement and applicable provisions of Title 463 WAC. The term “affiliates” includes any other person or entity controlling, controlled by, or under common control of or with the Certificate Holder.

2. This Agreement, which includes those commitments made by the Certificate Holder in the ASC and mitigation requirements included in the October 28, 2022 Revised MDNS, constitutes the whole and complete agreement between the State of Washington and the Certificate Holder, and supersedes any other negotiations, representations, or agreements, either written or oral.

B. Enforcement

1. This Agreement may be enforced by resort to all remedies available at law or in equity.

2. This Agreement may be suspended or revoked by EFSEC pursuant to RCW 34.05 and RCW 80.50, for failure by the Certificate Holder to comply with the terms and conditions of this Agreement, for violations of RCW 80.50 and the rules promulgated thereunder, or for violation of any applicable resolutions or orders of EFSEC.

3. When any enforcement action of the Council is required by or authorized in this Site Certification Agreement, the Council may, but shall not be legally obligated to, conduct a hearing pursuant to RCW 34.05.

C. Notices and Filings

Filing of any documents or notices required by this Agreement with EFSEC shall be deemed to have been duly made when delivery is made to EFSEC's offices at Energy Facility Site Evaluation Council, 621 Woodland Square Loop SE, PO Box 43172, Olympia, WA 98504-3172, in Thurston County.

Notices to be served by EFSEC on the Certificate Holder shall be deemed to have been duly made when deposited in first class mail, postage prepaid, addressed to the Certificate Holder at High Top Solar, LLC, 3402 Pico Blvd, Santa Monica, CA 90405 c/o General Counsel, legal@ccrenew.com.

D. Rights of Inspection

Throughout the duration of this Agreement, the Certificate Holder shall provide access to the Site, the Project structures, buildings and facilities, underground and overhead electrical lines, and all records relating to the construction and operation of the Project to designated representatives of EFSEC and EFSEC contractors in the performance of their official duties. Such duties include, but are not limited to, environmental monitoring as provided in this Agreement and monitoring and inspections to verify the Certificate Holder's compliance with this Agreement. EFSEC personnel or any designated representatives of EFSEC shall follow all worker safety requirements observed and enforced on the Project Site by the Certificate Holder and its contractors.

E. Retention of Records

The Certificate Holder shall retain such records as are necessary to demonstrate the Certificate Holder's compliance with this Agreement.

F. Consolidation of Plans and Submittals to EFSEC

Any plans required by this Agreement may be consolidated with other such plans if such consolidation is approved in advance by EFSEC. This Site Certification Agreement includes time periods for the Certificate Holder to provide certain plans and other information to EFSEC or its designees. The intent of these time periods is to provide sufficient time for EFSEC or its designees to review submittals without delay to the Project construction schedule, provided submittals made to EFSEC and/or its designees are complete.

G. Site Certification Agreement Compliance Monitoring and Costs

The Certificate Holder shall pay to the Council all EFSEC costs incurred during the construction and operation of the Project to assure compliance with the conditions of this Agreement, as required by RCW 80.50.071(2). The amount and manner of payment shall be prescribed by EFSEC pursuant to applicable procedures.

The Certificate Holder shall deposit with EFSEC a sum to guarantee payment of all EFSEC Costs as defined in Article II.12, consistent with RCW 80.50.071(2)(a), for the period commensurate with the activities of this Agreement.

H. Site Restoration

The Certificate Holder is responsible for site restoration pursuant to the Council's rules, WAC 463-72, in effect at the time of submittal of the Application.

The Certificate Holder shall develop an Initial Site Restoration Plan in accordance with the requirements set out in Article IV.F of this Agreement and submit it to EFSEC for approval. The Certificate Holder may not begin Site Preparation or Construction until the Council has approved the Initial Site Restoration Plan, including the posting of all necessary guarantees, securities, or funds associated therewith.

The Certificate Holder shall submit a Detailed Site Restoration Plan to EFSEC for approval prior to decommissioning in accordance with the requirements of Article VIII.A of this Agreement.

I. EFSEC Liaison

No later than thirty (30) days from the effective date of this Agreement, the Certificate Holder shall designate a person to act as a liaison between EFSEC and the Certificate Holder.

J. Changes in Project Management Personnel

The Certificate Holder shall notify EFSEC of any change in the primary management personnel, or scope of responsibilities of such personnel, for the Project.

K. Amendment of Site Certification Agreement

1. This Agreement may be amended pursuant to EFSEC rules and procedures applicable at the time of the request for amendment. Any requests by the Certificate Holder for amendments to this Agreement shall be made in writing.

2. No change in ownership or control of the Project shall be effective without prior Council approval pursuant to EFSEC rules and procedures.

3. Repair, maintenance, and replacement of Project facilities:

   a. The Certificate Holder is permitted, without any further amendment to this agreement, to repair and maintain Project Facilities described in Article I.C, consistent with the terms of this Agreement.

   b. The Certificate Holder shall notify EFSEC of the replacement of any significant

portion of the Project Facilities no later than thirty (30) days prior to the replacement occurring.

4. In circumstances where the Project causes a significant adverse impact on the environment not previously analyzed or anticipated by this Agreement, or where such impacts are imminent, EFSEC shall take all steps it deems reasonably necessary, including imposition of specific conditions or requirements on the Certificate Holder as a consequence of such a situation in addition to the terms and conditions of this Agreement. Such additional conditions or requirements initially shall be effective for not more than ninety (90) days and may be extended once for an additional ninety (90) day period if deemed necessary by EFSEC to pursue ongoing, or continuing temporary, arrangements under other authority, including but not limited to RCW 34.05, RCW 80.50 RCW, or Title 463 WAC.

L. Order of Precedence

In the event of an inconsistency or apparent ambiguity in this Agreement, the inconsistency or ambiguity shall be resolved by giving precedence in the following order:

1. Applicable Federal statutes and regulations;

2. Applicable State of Washington statutes and regulations;

3. The body of this Site Certification Agreement, including any other provision, term, or material incorporated herein by reference or otherwise attached to, or incorporated in, this Agreement;

4. The application of common sense to affect a result consistent with law and the principles effected in this document.

M. Review and Approval Process; Exceptions

1. Except for the Initial and Final Site Restoration Plans, prior to any site work, the Council may delegate to the EFSEC Director authority to approve or deny the construction and operational plans required by this Agreement. The EFSEC Director shall ensure that the construction and operational plans have been sufficiently reviewed prior to approval.

2. The EFSEC Director may allow temporary exceptions from plan requirements or provisions of the SCA when such exceptions are not contrary to the purposes of the SCA, provided that a record is kept, and Council members are immediately notified. Any Council member may within seven (7) days of the notice put the item on a Council meeting agenda for review.

ARTICLE IV: PLANS, APPROVALS AND ACTIONS REQUIRED PRIOR TO CONSTRUCTION

A. Plan Submission Requirements

All identified plans and submissions must adhere to the requirements and obligations set forth in relevant regulation, this Agreement, the Revised MDNS, and the ASC.

Unless otherwise noted, all plans and submissions required prior to beginning site construction activities are required to be filed with EFSEC ninety (90) days prior the start of Construction. The Certificate Holder shall not begin Construction activities prior to all applicable elements of the required plans or commitments outlined in this Agreement, the Revised MDNS, and the ASC being in place, and Council approval of required plans and authorization to begin construction has been obtained.

B. Notice of Federal, State, and Local Permit Approvals

No later than thirty (30) days after the effective date of this Agreement, the Certificate Holder shall notify the Council of all Federal, State, and Local permits, not delegated to EFSEC, that are required for construction and operation of the Project, if any, and the anticipated date of permit issuance to the Certificate Holder. The Certificate Holder shall notify the Council when all required permits have been obtained, no later than ten (10) business days after the permit has been issued.

C. Mitigation Measures

During construction, operation, decommissioning, and site restoration of this Project, the Certificate Holder shall implement the mitigation measures set forth in this Agreement, including, but not limited to, those presented in Attachment O of the ASC, those identified in the SEPA Staff Memo and Supplemental Memo, and those presented in the Revised MDNS. For each of these mitigation measures, the Certificate Holder shall in the same filing further identify the Construction Plan and/or Operation Plan addressing the methodology for its achievement.

The specific plans and submittals listed in the remainder of this Article IV, and Articles V, VI, VII, and VIII, shall incorporate these mitigation measures as applicable.

D. Construction Stormwater Pollution Prevention Plan

1. Notice of Intent. The Certificate Holder shall file with EFSEC a Notice of Intent to be covered by a General National Pollutant Discharge Elimination System (NPDES) Permit for Stormwater Discharges Associated with Construction Activities.

2. Construction Stormwater Pollution Prevention Plan. The Certificate Holder shall submit to EFSEC a Construction Stormwater Pollution Prevention Plan (Construction SWPPP) and provide a copy to Ecology for comment. The Construction SWPPP shall meet the requirements of the Ecology stormwater pollution prevention program (WAC 173-230), and the objectives and requirements in Special Condition S.9 of the *National Pollutant Discharge Elimination System and State Waste Discharge General Permit for Stormwater Discharges Associated with Construction Activities* issued by the Department of Ecology on January 1, 2021 or as revised. The Certificate Holder shall include

measures for temporary erosion and sedimentation control in the Construction SWPPP.

E. Construction Spill Prevention, Control and Countermeasures Plan

The Certificate Holder shall develop a Construction Spill Prevention, Control, and Countermeasures Plan (Construction SPCCP) in the event that quantities of materials maintained on site are of sufficient quantity to qualify, consistent with the requirements of 40 CFR Part 112 and shall adhere to requirements identified in this agreement and the ASC. The Construction SPCCP shall include the Project Footprint, and all access roads. The Certificate Holder shall require all contractors working on the facility to have a spill prevention and countermeasure program consistent with the above requirements. The Certificate Holder shall provide a copy to Ecology for comment.

F. Initial Site Restoration Plan

The Certificate Holder is responsible for Project decommissioning and site restoration pursuant to Council rules. The Certificate Holder shall develop an Initial Site Restoration Plan in consultation with EFSEC staff pursuant to the requirements of WAC 463-72-040 in effect on the date of Application. The objective of the Plan shall be to restore the Project Site to approximate pre-Project condition or better.

The Initial Site Restoration Plan shall be prepared in detail commensurate with the time until site restoration is to begin. The scope of proposed monitoring shall be addressed in the Initial Site Restoration Plan.

The Plan shall include the following elements:

1. A detailed engineering estimate of the costs of the Certificate Holder or Transferee hiring a third party to carry out Site Restoration. The estimate may not be reduced for "net present value" or other adjustments.

2. Decommissioning Timing and Scope, as required by Article VIII.C of this Agreement.

3. Decommissioning Funding and Surety, as required by Article VIII.D of this Agreement.

4. Mitigation measures described in the Revised MDNS, the ASC, and this Agreement.

5. A plan that addresses both the possibility that site restoration will occur prior to, or at the end of, the useful life of the Project and also the possibility of the Project being suspended or terminated during construction.

6. A description of the assumptions underlying the plan. For example, the plan should explain the anticipated useful life of the Project, the anticipated time frame of site restoration, and the anticipated future use of the Project Site.

7. An initial plan for demolishing facilities, salvaging equipment, and disposing of waste materials.

8. Performing an on-site audit and preparing an initial plan for disposing of hazardous materials (if any) present on the site and remediation of hazardous contamination (if any) at the site. In particular, if the Certificate Holder constructs the Project with solar panels incorporating hazardous materials, such as Cadmium Telluride, then the Certificate Holder shall use appropriate precautions during decommissioning and removal of the solar panels to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the panels' hazardous materials.

9. An initial plan for restoring the Project Site, including the removal of structures and foundations to four feet below grade and the restoration of disturbed soils.

10. Provisions for preservation or removal of Project facilities if the Project is suspended or terminated during construction.

G. Habitat Restoration and Mitigation Plan.

The Certificate Holder shall develop a Habitat Restoration and Mitigation Plan, in consultation with EFSEC staff and WDFW.

1. The Plan shall specify the Certificate Holder's plan for meeting Compensatory Mitigation Obligations. The Certificate Holder's Compensatory Mitigation Obligations will be met through the mechanisms identified in the Revised MDNS and associated staff memos.

2. Pre-construction Project layout drawings will show expected permanent and temporary land disturbances.

3. The Plan shall include a process to determine the actual impacts to habitat following the completion of construction. In the event that actual impacts to habitat exceed the expected impacts determined prior to construction, the Habitat Mitigation Plan will include a mechanism for the Certificate Holder to provide supplemental compensatory mitigation (Supplemental Mitigation). In the event of such determination, WDFW shall provide evidence of such exceedance of impacts. Supplemental Mitigation, if any, would be proportional to impacts and may take the form of additional on-site habitat enhancement or the payment of an additional fee equivalent to the value of permanently disturbed project acres to WDFW in lieu of mitigation. Any supplemental mitigation would be established in coordination with WDFW and reviewed and approved by the Council prior to implementation.

H. Vegetation and Weed Management Plan

The Certificate Holder shall develop a Vegetation and Weed Management Plan, in consultation with EFSEC staff, WDFW, and Ecology.

1. The Plan must address vegetation management activities related to Project construction and operation.

2. The Certificate Holder shall develop the Plan to require all temporarily disturbed areas

to be reseeded with an appropriate native seed mix selected in coordination with WDFW.

3. In consultation with WDFW, the Plan shall include a restoration schedule that identifies timing windows during which restoration should take place, and an overall timeline for when all restoration activities will be completed.

4. The Plan shall also include benchmarks and a timeline for revegetation success, and a plan for monitoring revegetation to ensure success.

5. This plan must address the requirements set forth in YCC 16C.11.070 and WAC 463-60-332(3).

6. The Plan must specify methods that will be implemented for effective noxious weed control and revegetation.

7. The plan must identify mowing schedule for vegetation maintenance and must be restricted March 15 to May 15 and limited to the extent practicable from February 1 to March 15 and May 15 to September 30.

I. Surface Waters

1. Field verification of seasonal wetlands will be verified by Ecology prior to the start of construction and impacts identified to wetlands or buffer areas shall be mitigated in accordance with this Agreement, the Revised MDNS, and the ASC.

J. Construction Traffic Control Plan

The Certificate Holder shall develop a Construction Traffic Control Plan, in consultation with EFSEC and WSDOT.

1. The Traffic Control Plan must address traffic management during improvement of highway access.

2. The plan must contain measures to facilitate safe movement of vehicles in the vicinity of the construction zone and be in accordance with 23 CFR Part 655, Subpart F.

K. Cultural and Archaeological Resources Unanticipated Discovery Plan

With the assistance of an experienced archaeologist, and in consultation with EFSEC, Department of Archaeology and Historic Preservation (DAHP), and any concerned Tribes, the Certificate Holder shall develop a Cultural and Archaeological Resources Unanticipated Discovery Plan for monitoring construction activities and responding to the discovery of archaeological resources or buried human remains.

1. Prior to construction, the Certificate Holder shall obtain any necessary DAHP permits and perform any additional necessary archaeological work in order to comply with RCW 27.53.

2. The Certificate Holder shall provide copies of the draft Plan for comment to the

Yakama Nation and other potentially affected tribes prior to submitting the plan for EFSEC approval.

3. The Plan shall include, but not be limited to, the following:

a. A copy of the final construction and micro-siting plans for the Project and shall provide for the avoidance of archaeological sites where practical.

b. For sites to be avoided, the boundaries of identified cultural resources and buffer zones located within project boundaries shall be staked in the field and flagged as no-disturbance areas to avoid inadvertent disturbance during construction. These site markings will be removed following construction.

c. The Plan shall address alternative mitigation measures developed in coordination with DAHP and affected tribes to be implemented if it is not practical to avoid archaeological sites or isolates.

d. The Plan shall address the possibility of the unanticipated discovery of archaeological artifacts during construction.

e. If any archaeological artifacts, including but not limited to human remains, are observed during construction, then disturbance and/or excavation in that area will cease, and the Certificate Holder shall notify DAHP, EFSEC, and any affected Tribes and, in the case of human remains, the County Coroner or Medical Examiner.

i. At that time, appropriate treatment and mitigation measures shall be developed in coordination with the agencies and tribes cited above and implemented following approval by EFSEC.

ii. The Certificate Holder Shall develop a Cultural and Archaeological Resources Monitoring and Mitigation Plan in coordination with the Yakama Nation, other effected Tribes and DAHP and submit the plan for EFSEC for final approval.

iii. If Project facilities cannot be moved or re-routed to avoid the resources, the Certificate Holder shall contact EFSEC and DAHP for further guidance, which may require the implementation of a treatment plan. If a treatment plan is required, it shall be developed in consultation with DAHP and any affected Tribes.

L. Construction Emergency Plan

The Certificate Holder shall prepare and submit a Construction Emergency Plan

1. The Certificate Holder shall coordinate development and implementation of the Plan with applicable local and state emergency services providers.

2. The Certificate Holder shall retain qualified contractors familiar with the general construction techniques and practices to be used for the Project and its related support facilities.

3. The construction specifications shall require contractors to implement a safety program that includes an Emergency Pan.

4. The Construction Emergency Plan shall include consideration of the items identified in Table 2-4 of the ASC.

M. Construction Fire Control Plan

The Certificate Holder shall develop and implement a Construction Fire Control Plan in coordination with state and local agencies to minimize the risk of accidental fire during construction and to ensure effective response to any fire that does occur on the Project Footprint at any time. The Certificate Holder shall submit the Fire Control Plan to EFSEC for review and approval at least ninety (90) days prior to Construction and provide a copy to Yakima County Fire District #4. The Certificate Holder shall not begin Construction prior to obtaining EFSEC approval of the Fire Control Plan.

N. Construction Health and Safety Plan

The Certificate Holder shall develop and implement a Construction Health and Safety Plan in consultation with local and state organizations providing emergency response services to ensure timely response in the event of an emergency.

O. Construction Site Security Plan

The Certificate Holder shall develop and implement a Construction Site Security Plan in consultation with local and state organizations providing emergency response services.

P. Utilities

1. The Certificate Holder Shall identify the source of potable water for use during project operations and provide to EFSEC confirmation of availability of water via a drinking well permit or some other agreed upon mechanism for supply of potable water.

2. The Certificate Holder Shall provide certification of water availability for process waters used for site construction to include vegetation management and solar panel washing.

Q. Construction Management Plan

The Certificate Holder shall, with the assistance of Council staff, develop a detailed Construction Management Plan in consultation with affected state and local agencies.

1. The Plan shall address the Construction phases for the Project and shall be generally based on the mitigation measures contained in this Agreement and the ASC.

2. The plan shall identify the construction management protocols used to address the mitigation measures contained in this Agreement and the ASC.

R. Construction Schedule

No later than thirty (30) days prior to the beginning of Construction, the Certificate Holder shall submit to EFSEC an overall construction schedule. Thereafter, the Certificate Holder shall notify EFSEC of any significant changes in the construction schedule.

S. Construction Plans and Specifications

The Certificate Holder shall submit to EFSEC those construction plans, specifications, drawings, and design documents that demonstrate the Project design will be in compliance with the conditions of this Agreement.

1. The Certificate Holder shall also provide copies to WDFW, Ecology, DAHP and other agencies as EFSEC may direct, for comment.

2. The plans shall include the overall Project site plans, equipment and material specifications.

3. The construction plans and specifications shall be in compliance with Yakima County construction and building codes.

4. The plans shall identify any items relevant to the mitigation measures contained in this Agreement, the Revised MDNS, and the ASC.

5. The Certificate Holder shall consult with emergency services suppliers prior to preparing final road construction plans, to ensure that interior all-weather access roads are sufficient to provide reliable access by emergency vehicles.

6. In its final design for construction, the Certificate Holder shall maximize the use of existing roads and pathways and minimize the construction of new roads as much as reasonable and practical to minimize disturbance of existing habitat. The final design shall be subject to approval by EFSEC as part of the overall construction plans and specifications.

ARTICLE V: PROJECT CONSTRUCTION

A. Environmental Monitoring During Construction

1. Environmental Monitor (EM). EFSEC shall provide on-site environmental monitoring for the construction phase of the Project, at the Certificate Holder's cost. The EM shall be an independent, qualified engineering firm (or a person) selected by EFSEC and shall report directly to EFSEC.

2. Environmental Compliance Program for Construction Activities. The Certificate Holder shall identify and develop an Environmental Compliance Program in consultation with the EM and other EFSEC designees.

a. The Environmental Compliance Program shall cover avoidance of sensitive areas during construction, waste handling and storage, stormwater management, spill

prevention and control, habitat restoration efforts begun during the construction phase of the Project, and other mitigation measures required by this Agreement, the Revised MDNS, and the ASC.

b. The Environmental Compliance program shall develop inspection criteria used to ensure relevant mitigation commitments, approved plans, and program avoidance activities are adhered to. Inspection criteria shall include inspection checklist items, "stop work" criteria, and procedures for responding to stop work notices and program deficiencies. The Certificate Holder shall implement the program to ensure that construction activities meet the conditions, limits, and specifications set out in the Site Certification Agreement, all Attachments thereto, and all other applicable state and federal environmental regulations.

3. Copies of Plans and Permits Kept On Site. A copy of the Site Certification Agreement, Plans approved by the Council or its designees, and all applicable construction permits shall be kept at the Project Site. The lead Project construction personnel and construction project managers will be required to read, follow, and be responsible for all required compliance activities.

4. Environmental Violations and Stop-Work Orders. Upon identification of an environmental noncompliance issue, the EM will work with the responsible subcontractor or direct-hire workers to correct the violation. If non-compliance is not corrected in a reasonable period of time, the EM shall request that EFSEC issue a "stop-work" order for that portion of the work not in compliance with Project environmental requirements. EFSEC will promptly notify the EM of any "stop work" orders that have been issued. Failure to correct a violation at the request of the EM may be considered by EFSEC in exercising its authority under RCW 80.50.155 to issue penalties to persons who violate the SCA or an EFSEC issued permit.

B. Quarterly Construction Reports

The Certificate Holder shall submit quarterly construction progress reports to EFSEC no later than thirty (30) days after the end of each calendar quarter following the start of construction. Such reports shall describe the status of construction and identify any changes in the construction schedule.

C. Construction Inspection

EFSEC shall provide plan review and inspection of construction for all Project structures, underground and overhead electrical lines, and other Project facilities to ensure compliance with this Agreement. Construction shall be in accordance with the approved design and construction plans, and other relevant regulations. EFSEC may contract with Yakima County, another appropriate agency, or an independent firm to provide these services.

D. As-Built Drawings

The Certificate Holder shall maintain a complete set of as-built drawings on file for the life of the Project and shall allow the Council or its designated representative access to the drawings on request following reasonable notice.

E. Habitat, Vegetation, Fish and Wildlife

The Certificate Holder shall use construction techniques and BMPs to minimize potential impacts to habitat and wildlife. In particular, construction of the Project shall be performed in accordance with mitigation items identified in the Revised MDNS and Section 4.9.D of the ASC.

F. Construction Noise

The Certificate Holder shall use construction techniques and BMPs to minimize potential impacts of construction related noise. In particular, construction of the Project shall be performed in accordance with mitigation items identified in the Revised MDNS and Attachment O of the ASC.

G. Construction Safety and Security

1. Federal and State Safety Regulations. The Certificate Holder shall comply with applicable federal and state safety regulations (including regulations promulgated under the Federal Occupational Safety and Health Act and the Washington Industrial Safety and Health Act), as well as local and state industrial codes and standards (such as the Uniform Fire Code). The Certificate Holder, its general contractor, and all subcontractors shall make every reasonable effort to maximize safety for individuals working at the Project.

2. Visitors Safety. Visitors shall be provided with safety equipment where and when appropriate.

H. Contaminated Soils

In the event that contaminated soils are encountered during construction, the Certificate Holder shall notify EFSEC and Ecology as soon as possible. The Certificate Holder shall manage, handle, and dispose of contaminated soils in accordance with applicable local, state, and federal requirements.

I. Light, Glare, and Aesthetics

Lighting

1. The Certificate Holder shall implement mitigation measures to minimize light and glare impacts as described in Attachment O of the ASC and the Revised MDNS.

2. The Certificate Holder shall minimize outdoor lighting to safety and security requirements. The Certificate Holder shall avoid the use of steady-burning, high intensity lights and utilize downward-directed lighting.

Glare

1. Solar panels with an anti-reflective coating shall be utilized.

Aesthetics

1. The Certificate Holder must institute the measures identified in the Revised MDNS regarding potential visual and aesthetic impacts once a final project design has been completed.

2. No later than sixty (60) days prior to the beginning of Construction, the Certificate

Holder shall submit to EFSEC for their review and approval any additional proposed mitigation measures resulting from the analysis conducted in accordance with mitigation measure 15 of the Revised MDNS.

J. Construction Wastes and Clean-Up

The Certificate Holder's waste disposal plans and schedule shall be included in the site construction plans and specifications for review and approval by EFSEC.

1. The Certificate Holder shall dispose of sanitary and other wastes generated during construction at facilities authorized to accept such wastes.

2. The Certificate Holder shall properly dispose of all temporary structures not intended for future use upon completion of construction.

3. The Certificate Holder also shall dispose of used timber, brush, refuse, or flammable materials resulting from the clearing of lands or from construction of the Project.

ARTICLE VI: SUBMITTALS REQUIRED PRIOR TO THE BEGINNING OF COMMERCIAL OPERATION

A. Plan Submission Requirements

All identified plans and submissions must adhere to the requirements and obligations set forth in relevant regulation, this Agreement the Revised MDNS, and the ASC.

Unless otherwise noted all plans and submissions required prior to beginning site operation are required to be filed with EFSEC ninety (90) days prior to the Beginning of Commercial Operation. The Certificate Holder shall not begin operation prior to all applicable elements of the required plans or commitments outlined in this Agreement, the Revised MDNS, and the ASC are in place and Council approval of required plans and authorization to begin operation has been obtained.

B. Operations Stormwater Pollution Prevention Plan

The Certificate Holder shall prepare an Operations Stormwater Pollution Prevention Plan (Operations SWPPP) in consultation with Ecology.

1. The Operations SWPPP shall include an operations manual for permanent BMPs.

2. The Operations SWPPP shall be prepared in accordance with the guidance provided in the Ecology *Stormwater Management Manual for Eastern Washington, September 2019* or as revised.

3. The Certificate Holder shall annually review the Operations SWPPP against the guidance provided in the applicable *Ecology Stormwater Management Manual* and make modifications as necessary to the Operations SWPPP to comply with current requirements for BMPs.

4. The Operations SWPPP shall specify that water used for washing of the solar panels is to not contain any solvents or other additives.

C. Operations Spill Prevention, Control and Countermeasure Plan

The Certificate Holder shall prepare an Operations Spill Prevention, Control and Countermeasures Plan (Operations SPCCP) in consultation with Ecology, in the event that quantities of materials maintained on site are of sufficient quantity to qualify.

1. The Operations SPCCP shall be prepared, pursuant to the requirements of 40 CFR Part 112, Sections 311 and 402 of the Clean Water Act, Section 402 (a)(l) of the Federal Water Pollution Control Act (FWPCA), and RCW 90.48.080.

2. The Operations SPCCP shall include the Project Footprint and all access roads, as appropriate.

3. The Operations SPCCP shall be implemented within three (3) months of the beginning of Commercial Operation.

4. The Operations SPCCP must be updated and submitted to the Council every two (2) years.

D. Vegetation and Weed Management Plan

The Certificate Holder shall develop an updated Vegetation and Weed Management Plan, in consultation with EFSEC staff, WDFW, and Ecology.

1. The updated plan must address any relevant changes to the vegetation or weed management requirements and protocols identified prior to beginning site operation.

E. Operations Emergency Plan

The Certificate Holder shall submit for the Council's approval an Operations Emergency Plan for the Project to provide for employee and public safety in the event of emergencies.

1. The Certificate Holder shall coordinate development of the plan with local and state agencies that provide emergency response services in the Project Footprint.

2. Periodically, the Certificate Holder shall provide the Council with updated lists of emergency personnel, communication channels, and procedures.

3. The Operations Emergency Plan shall address in detail the procedures to be followed in the event of emergencies listed in Table 2-4 of the ASC

F. Operations Fire Control Plan

The Certificate Holder shall develop an Operations Fire Control Plan in coordination with state and local agencies to minimize the risk of accidental fire during operation and ensure effective response to any fire that does occur.

1. The Fire Control Plan must consider and address potential wildfire risk minimization and response.

G. Operations Health and Safety Plan.

The Certificate Holder shall develop and, after EFSEC approval, implement an Operations Health and Safety Plan.

1. The Certificate Holder shall consult with local and state organizations providing emergency response services during the development of the plan to ensure timely response in the event of an emergency.

H. Operations Site Security Plan.

The Certificate Holder shall develop and implement an Operations Phase Site Security Plan.

1. The Plan shall include, but shall not be limited to, the following elements:
   a. Controlling access to the site by any visitors, contractors, vendors, or suppliers;
   b. Installing security lighting and fencing; and securing access to solar panels, pad transformers, pad-mounted switch panels and other outdoor facilities.

2. A copy of the final Security Plan shall be provided to EFSEC and other agencies involved in emergency response.

ARTICLE VII: PROJECT OPERATION

A. Plan Implementation and Adherence

The Certificate Holder shall adhere to and implement the provisions of the required plans, submittals, permits, the Revised MDNS, the ASC, and any relevant regulation during project operation.

B. Water Discharge

The Certificate Holder shall ensure that all stormwater control measures and discharges are consistent with the Operations SWPPP, required by Article VI.B and the Ecology *Stormwater Management Manual for Eastern Washington, September 2019* or as revised.

C. Noise Emissions

The Certificate Holder shall operate the Project in compliance with applicable Washington State environmental noise regulations WAC 173-60, WAC 463-62-030, WAC 173-58, and RCW 70A.20.

D. Fugitive Dust Emissions

The Certificate Holder shall continue to implement dust abatement measures as necessary.

E. Habitat, Vegetation and Wildlife BMPs

During Project operations, the Certificate Holder shall implement appropriate operational BMPs to minimize impacts to plants and animals. In addition to those BMPs, the Certificate Holder shall also take the following steps to minimize impacts:

1. Implementation of the Operations Fire Control Plan developed pursuant to Article VI.F, in coordination with local fire districts, to avoid accidental wildfires and respond effectively to any fire that might occur.

2. Operational BMPs to minimize storm water runoff and soil erosion.

3. Implementation of compensatory mitigation measures identified in the Revised MDNS must be finalized within 6 months of start of Beginning of Commercial Operation.

4. Implementation of a plan to monitor revegetation and noxious weed control success and erosion caused by wind events. If deficiencies are confirmed, mitigation measures shall be instituted which shall be developed in coordination with WDFW and approved by EFSEC.

F. Safety and Security

1. Personnel Safety. The safety of operating personnel is governed by regulations promulgated under the Federal Occupational Safety and Health Act and the Washington Industrial Safety and Health Act. The Certificate Holder shall comply with applicable federal and state safety laws and regulations (including regulations under the Federal Occupational Safety and Health Act and the Washington Industrial Safety and Health Act) as well as local and industrial codes and standards (such as the Uniform Fire Code).

2. Visitors Safety. The Certificate Holder shall require visitors to observe the safety plans and shall provide them with safety equipment where and when appropriate.

G. Dangerous or Hazardous Materials

The Certificate Holder shall handle, treat, store, and dispose of all dangerous or hazardous materials including but not limited to those related to any battery backup power sources or the optional battery energy storage system in accordance with Washington state standards for hazardous and dangerous wastes, WAC 463-74 and WAC 173-303.

Following any abnormal seismic activity, volcanic eruption, severe weather activity, flooding, vandalism, or terrorist attacks the Certificate Holder shall inspect areas where hazardous materials are stored to verify that containment systems are operating as designed.

H. Utilities

1. The Certificate Holder shall provide certification of water availability for process waters used for site operation and maintenance to include potable water for site operations staff, vegetation management, and solar panel washing on an annual basis.

I. Neighboring Land Uses

Yakima County is a “Right to Farm” County, codified in Yakima County Code 6.22. This project is located within an agricultural area, and will be subject to impacts from nearby pre-existing agricultural practices including, but not limited to: marketed produce at roadside stands or farm

markets, noise, odors, dust, fumes, operation of machinery and irrigation pumps, ground and aerial seeding and spraying, the application of chemical fertilizers, conditioners, insecticides, pesticides, and herbicides and associated drift of such materials; and the employment and use of labor. Impacts resulting from these activities shall not be found to be a public or private nuisance if the farm operation was in existence before the date of this agreement.

ARTICLE VIII: PROJECT TERMINATION, DECOMMISSIONING AND SITE RESTORATION

A. Detailed Site Restoration Plan

The Certificate Holder shall submit a Detailed Site Restoration Plan to EFSEC for approval within ninety (90) days from the time the Council is notified of the termination of the Project. The Detailed Site Restoration Plan shall provide for restoration of the Project Site within the timeframe specified in Article VIII.C, taking into account the Initial Site Restoration Plan and the anticipated future use of the Project Site. The Detailed Site Restoration Plan shall address the elements required to be addressed by WAC 463-72-020, and the requirements of the Council approved Initial Site Restoration Plan pursuant to Article IV.F of this Agreement. The Certificate Holder shall not begin Site Restoration activities without prior approval from the Council. The Certificate Holder shall consult with WDFW, and Ecology in preparation of the Detailed Site Restoration Plan.

B. Project Termination

1. Termination of this Site Certification Agreement, except pursuant to its own terms, is an amendment of this Agreement.

2. The Certificate Holder shall notify EFSEC of its intent to terminate the Project, including by concluding the plant's operations, or by suspending construction and abandoning the Project.

3. The Council may terminate the SCA through the process described in WAC 463-66-090, and the Council may initiate that process where it has objective evidence that a certificate may be abandoned or when it deems such action to be necessary, including at the conclusion of the plant's operating life, or in the event the Project is suspended or abandoned during construction or before it has completed its useful operating life.

C. Site Restoration Timing and Scope

Site Restoration shall be conducted in accordance with the commitments made in the Detailed Site Restoration Plan required by Article VIII.A and in accordance with the following measures:

1. Timing. The Certificate Holder shall commence Site Restoration of the Project within twelve (12) months following the termination described in Article VIII.B above.

The period to perform the Site Restoration may be extended if there is a delay caused by conditions beyond the control of the Certificate Holder including, but not limited to, inclement weather conditions, equipment failure, wildlife considerations, or the

availability of cranes or other equipment to support decommissioning.

1. Scope. Site Restoration shall involve removal of the solar panels and mounting structures; removal of foundations or other Project facilities to a depth of four (4) feet below grade; restoration of any disturbed soil to pre-construction condition; and removal of Project access roads and overhead poles and transmission lines (except for any roads and/or overhead infrastructure that Project Footprint landowner wishes to retain) (all of which shall comprise "Site Restoration"). Site Restoration shall also include the use of appropriate precautions during decommissioning and removal of any hazardous material to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the hazardous materials.

2. Monthly Reports. If requested by EFSEC, the Certificate Holder shall provide monthly status reports until this Site Restoration work is completed.

3. Restoration Oversight. At the time of Site Restoration, the Project Site will be evaluated by a qualified biologist to determine the extent of and type of vegetation existing on the site. Success criteria for Site Restoration will be established prior to commencement of decommissioning activities, based on the documented pre-construction conditions, experience gained with re-vegetation during operation and the condition of the Project Site at the time of Site Restoration. The restoration success criteria will be established in the Detailed Site Restoration Plan approved by EFSEC in consultation with the designated biologist. Once restoration of the Project Site is determined to be complete, a final report of restoration activities and results will be submitted to EFSEC in consultation with the designated biologist, for review and approval.

D. Site Restoration Financial Assurance

1. Except as provided in Article VIII.D.3 below, the Certificate Holder or any Transferee, as the case may be, shall provide financial assurance sufficient, based on detailed engineering estimates, for required Site Restoration costs in the form of a surety bond, irrevocable letter of credit, or guaranty. The Certificate Holder must also provide pollution liability insurance coverage in an amount justified for the project. The Certificate Holder shall include a detailed engineering estimate of the cost of Site Restoration in its Initial Site Restoration Plan submitted to EFSEC. The estimate must be based on the costs of the EFSEC hiring a third party to carry out Site Restoration. The estimate may not be reduced for "net present value" or other adjustments. During the active life of the facility, the Certificate Holder or Transferee must adjust the Site Restoration cost estimate for inflation within sixty days prior to the anniversary date of the establishment of the financial instrument used to provide financial assurance and must increase the financial assurance amount accordingly to ensure sufficient funds for Site Restoration.

2. The duty to provide such financial assurance shall commence sixty (60) days prior to the beginning of Construction of the Project and shall be continuously maintained through to the completion of Site Restoration. Construction of the Project shall not

commence until adequate financial assurance is provided. On or before the date on which financial assurance must be established, the Certificate Holder shall provide EFSEC with one of the following financial assurance mechanisms that is reasonably acceptable to EFSEC:

a. *Surety Bond*. The Certificate Holder or any Transferee, as the case may be, shall provide financial security for the performance of its Site Restoration obligations through a Surety Bond issued by a surety listed as acceptable in Circular 570 of the U.S. Department of the Treasury. The Performance Bond shall be in an amount equal to the Site Restoration costs. A standby trust fund for Site Restoration shall also be established by the Certificate Holder or Transferee to receive any funds that may be paid by the surety to be used to complete Site Restoration. The surety shall become liable for the bond obligation if the Certificate Holder or Transferee fails to perform as guaranteed by the bond. The surety may not cancel the bond until at least one hundred twenty days after the Certificate Holder or Transferee and EFSEC have received notice of cancellation. If the Certificate Holder or Transferee has not provided alternate financial assurance acceptable under this SCA within ninety days of the cancellation notice, the surety shall pay the amount of the bond into the standby Site Restoration trust; or

b. *Irrevocable Letter of Credit*. The Certificate Holder or any Transferee, as the case may be, shall provide financial security for the performance of its Site Restoration obligations through an irrevocable letter of credit payable to or at the direction of EFSEC, that is issued by an institution that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency. The letter of credit shall be in an amount equal to the Site Restoration costs. A standby trust fund for Site Restoration shall also be established by Certificate Holder or Transferee to receive any funds deposited by the issuing institution resulting from a draw on the letter of credit. The letter of credit shall be irrevocable and issued for a period of at least one year, and renewed annually, unless the issuing institution notifies the Certificate Holder or Transferee and EFSEC at least one hundred twenty days before the current expiration date. If the Certificate Holder or Transferee fails to perform Site Restoration, or if the Certificate Holder or Transferee fails to provide alternate financial assurance acceptable to EFSEC within ninety days after notification that the letter of credit will not be extended, EFSEC may require that the financial institution provide the funds from the letter of credit to be used to complete Site Restoration; or

c. *Guaranty*. Certificate Holder or any Transferee, as the case may be, shall provide financial assurance for the performance of its Site Restoration obligations by delivering a guaranty to fund the Certificate Holder or Transferee's Site Restoration obligations hereunder from an entity that meets the following financial criteria:

i. A current rating of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;
ii. Tangible net worth at least six times the sum of the current Site Restoration cost estimates;
iii. Tangible net worth of at least ten million dollars; and
iv. Assets in the United States amounting to at least ninety percent of its total assets or at least six times the sum of the current Site Restoration cost estimates.

d. The guarantor entity's chief financial officer shall provide a corporate guaranty that the corporation passes the financial test at the time the Initial Site Restoration Plan is filed. This corporate guaranty shall be reconfirmed annually ninety days after the end of the corporation's fiscal year by submitting to EFSEC a letter signed by the guaranteeing entity's chief financial officer that:
    i. Provides the information necessary to document that the entity passes the financial test;
    ii. Guarantees that the funds to finance required Site Restoration activities are available;
    iii. Guarantees that required Site Restoration activities will be completed;
    iv. Guarantees that within thirty days if written notification is received from EFSEC that the entity no longer meets the above financial criteria, the entity shall provide an alternative form of financial assurance consistent with the requirements of this section;
    v. Guarantees that the entity's chief financial officer will notify in writing the Certificate Holder or Transferee and EFSEC within fifteen days any time that the entity no longer meets the above financial criteria or is named as debtor in a voluntary or involuntary proceeding under Title 11 U.S.C., Bankruptcy;
    vi. Acknowledges that the corporate guaranty is a binding obligation on the corporation and that the chief financial officer has the authority to bind the corporation to the guaranty;
    vii. Attaches a copy of the independent certified public accountant's report on examination of the entity's financial statements for the latest completed fiscal year; and
    viii. Attaches a special report from the entity's independent certified public accountant (CPA) stating that the CPA has reviewed the information in the letter from the entity's chief financial officer and has determined that the information is true and accurate.

e. If the Certificate Holder or any Transferee fails to perform Site Restoration covered by the guaranty in accordance with the approved Initial or Final Site Restoration plan, the guarantor will be required to complete the appropriate activities. The guaranty will remain in force unless the guarantor sends notice of cancellation by certified mail to the Certificate Holder or Transferee and EFSEC. Cancellation may not occur, however, during the one hundred twenty days beginning on the date of receipt of the notice of cancellation by the Certificate

Holder or Transferee and EFSEC. If the Certificate Holder or Transferee fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from EFSEC within ninety days after receipt of a notice of cancellation of the guaranty from the guarantor, the guarantor will provide such alternative financial assurance in the name of the Certificate Holder or Transferee.

3. If the SCA is transferred after its effective date pursuant to applicable EFSEC laws and regulations, EFSEC has the right to require, consider, and approve other financial security that would provide for the Certificate Holder's performance of its Site Restoration obligations pursuant to Articles VIII.C and VIII.D of this Site Certification Agreement.

ARTICLE IX: SITE CERTIFICATION AGREEMENT - SIGNATURES

Dated and effective this_____day of _____, 2023.

FOR THE STATE OF WASHINGTON

_____
Jay Inslee, Governor

FOR HIGH TOP SOLAR, LLC

_____
XXX
Applicant signatory authority
High Top Solar, LLC

ATTACHMENT 1

2. Report to the Governor Recommending Approval of Site Certification entered _____, 2023.

SITE CERTIFICATION AGREEMENT
BETWEEN

THE STATE OF WASHINGTON

AND

OSTREA SOLAR, LLC

For the

OSTREA SOLAR PROJECT
YAKIMA COUNTY, WASHINGTON
EXECUTED APRIL __, 2023

ENERGY FACILITY SITE EVALUATION COUNCIL
OLYMPIA, WASHINGTON

(This page intentionally left blank)

SITE CERTIFICATION AGREEMENT
FOR THE OSTREA SOLAR PROJECT
CONTENTS

Attachments

1. Council report to the Governor Recommending Site Certification entered February __, 2023

SITE CERTIFICATION AGREEMENT

FOR THE OSTREA SOLAR PROJECT

between

THE STATE OF WASHINGTON

and

OSTREA SOLAR, LLC

This Site Certification Agreement (Agreement or SCA) is made pursuant to Revised Code of Washington (RCW) 80.50 by and between the State of Washington, acting by and through the Governor of Washington State, and Ostrea Solar, LLC (OS or Certificate Holder).

Cypress Creek Renewables, LLC (CCR) filed, as permitted by law, an application with the Energy Facility Site Evaluation Council (EFSEC or Council) for site certification for the construction and operation of a solar powered generation facility by its subsidiary Ostrea Solar, LLC, to be located in Yakima County, Washington. The Council reviewed Application 220212, conducted public meetings, and by order recommended approval of the application and a Site Certification Agreement by the Governor. On _____, 2023, the Governor approved the Site Certification Agreement authorizing Ostrea Solar, LLC to construct and operate the Ostrea Solar Project (Project).

The parties hereby now desire to set forth all terms, conditions, and covenants in relation to such site certification in this Agreement pursuant to RCW 80.50.100(2).

ARTICLE I: SITE CERTIFICATION

A. Site Description

The Certificate Holder plans to construct and operate a solar photovoltaic (PV) project with an optional battery storage system on eight parcels of land within the Agricultural Zoning District in unincorporated Yakima County 22 miles east of city of Moxee.

The Project will consist of PV panels, single axis tracking PV modules and inverters, an electrical collection system, a Battery Energy Storage System (BESS), an operation and maintenance building, access roads, interior roads, security fencing, a collector substation, and electrical interconnection infrastructure. The Maximum Extent of the Project will not exceed 811.3 acres. The Project will have a combined maximum generating capacity of 80 megawatts alternating current (AC).

The Project will interconnect through a line tap to Bonneville Power Administration's (BPA's) Moxee to Midway 115 kV transmission line that runs through the southern part of the Project. The Project will be accessed on the west side of the Project from Washington State Route 24.

B. Site Certification

The State of Washington hereby authorizes OS and any and all parent companies, and any and all assignees or successors approved by the Council, to construct and/or operate the Ostrea Solar Project as described herein, subject to the terms and conditions set forth in Council Report to the Governor Recommending Site Certification (Attachment 1 to this Agreement), and this Agreement.

The construction and operation authorized in this Agreement shall be located within the areas designated herein and in the Application for Site Certification (ASC) submitted by CCR on April 7, 2022.

This Agreement authorizes the Certificate Holder to construct the Ostrea Solar Project such that Substantial Completion is achieved no later than ten (10) years from the effective date of the SCA.

If the Certificate Holder does not begin construction of the Project within five (5) years of the effective date of the SCA, then at least ninety days prior to the end of the five year period, the Certificate Holder must report to the Council its intention to continue and will certify that the representations in the SCA, environmental conditions, pertinent technology, and regulatory conditions have remained current and applicable, or identify any changes and propose appropriate revisions to the Agreement to address changes. Construction may begin only upon prior Council authorization and approval of such certifications. If the Certificate Holder does not begin construction of the Project within ten (10) years of the effective date of the SCA all rights under this SCA will cease.

C. Project Description

The Ostrea Solar Project will consist of:

1. *Solar Modules.* The photovoltaic solar modules, commonly known as solar panels, are electrical devices that converts the energy of light directly into electricity by the photovoltaic effect.

2. *Tracking System.* The panels are mounted together into solar arrays on a steel racking system which utilizes a single-axis tracking system.

3. *Posts.* The tracking system is secured to steel posts, also known as piles, which serve as the foundation. The piles are driven or screwed into the ground to a depth of approximately eight to 10 feet depending on site specific soil conditions.

4. *Cabling and Collector Lines.* Throughout the Project, electric cables transmit the electric current produced by the solar arrays to pad-mounted inverters and transformers. Electric cables will be both above and below ground between the arrays and inverters. Final depth of buried cables will generally not be deeper than 48 inches.

5. *Inverters and Transformers*. The electricity produced by the panels is in direct current (DC) form and is converted by inverters into alternating current (AC). The step up transformer will increase the voltage to 115 kV to meet the voltage for the transmission line. The inverters and step-up transformer are mounted on concrete pads located adjacent to the POI.

6. *Facility Substation.* The Facility Substation consists of the main step-up transformer to increase the voltage to 115 kV for interconnection to the grid and the control house which houses protective equipment including communications equipment, circuit breakers, disconnect switches and relays.

7. *Operations and Maintenance Building.* The Project includes an Operations and Maintenance (O&M) trailer with employee parking which consists of a trailer with office space, storage space, a bathroom, onsite septic, and breakroom facilities. The employee parking area will be gravel.

8. *Civil Infrastructure*. Infrastructure will include access gates, internal access roads, and security fencing.

9. *Battery Energy Storage System.* The Project includes a battery energy storage system (BESS). The BESS allows for the storing excess solar-generated electricity and supplying it back to the grid when needed.

The location of Project facilities including, but not limited to, the solar panels, electrical collection and distribution system, electrical transformers, electrical generation tie lines, roadways, and other related infrastructure, is generally described in the ASC, as modified within the Agreement. The final location of the solar panels and other project facilities within the Project Footprint may vary from the locations shown on the conceptual drawings provided in the

ASC but shall be consistent with the conditions of this Agreement and in accordance with the final construction plans approved by EFSEC pursuant to Article IV.S.

ARTICLE II: DEFINITIONS

Where used in this Site Certification Agreement, the following terms shall have the meaning set forth below:

1. "Application" or "ASC" means the *Application for Site Certification*, designated No. 220212, submitted on April 7, 2022ASC.
2. "Approval" (by EFSEC) means an affirmative action by EFSEC or its authorized agents including those actions and consultations delegated to Council staff regarding documents, plans, designs, programs, or other similar requirements submitted pursuant to this Agreement.
3. "Begin Commercial Operation" or "Beginning of Commercial Operation" means the time when the Project begins generating and delivering electricity to the electric power grid, other than electricity that may be delivered as a part of testing and startup of the Project.
4. "BMPs" means Best Management Practices.
5. "Certificate Holder" means Ostrea Solar, LLC, any and all parent company(s), or an assignee or successor in interest authorized by the Council.
6. "Ostrea Solar Project" or "Project" means those Ostrea Solar Project facilities described in the ASC, including: solar panels and their construction areas; electrical collection/interconnection and communication systems; electrical step-up and interconnection transformers; optional Battery Energy Storage System; access roadways; temporary construction-related facilities; and other related Project facilities. The specific components of the Project are identified in Article I.C.
7. "Construction" means any of the following activities: Project Site clearing, grading, earth moving, cutting or filling, excavation, preparation of roads and/or laydown areas, foundation construction including hole excavation, form work, rebar, excavation and pouring of concrete for the inverter pads and switchyard, or erection of any permanent, above-ground structures including any solar tracking assemblies, the transformer, transmission line poles, substation poles, or meteorological towers.
8. "County" means Yakima County, Washington.
9. "DAHP" means the Washington State Department of Archaeology and Historic Preservation.
10. "Ecology" means the Washington State Department of Ecology.
11. "Effective date" means the date on which the Governor executes this Agreement, although the Agreement must also be signed by the Applicant to become binding.
12. "EFSEC" or "Council" means the State of Washington Energy Facility Site Evaluation Council, or such other agency or agencies of the State of Washington as may hereafter succeed to the powers of EFSEC for the purposes of this Agreement.
13. "EFSEC Costs" means any and all reasonable costs, both direct and indirect, actually incurred by EFSEC with respect to this Site Certification Agreement (SCA), including but not limited to monitoring, staffing, and SCA maintenance.
14. "End of Construction" means the time when all Project facilities have been

substantially constructed and are in operation.
15. “Project Footprint” means the actual footprint of the Project within the 811.3 acre Maximum Project Extent where the facility is planned to be located, as described in greater detail in Section 2.A.2 of the ASC.
16. “Micro-siting” means the final technical and engineering process by which the Certificate Holder shall recommend to the Council the final location of solar project facilities on the Project Footprint.
17. “NPDES Permit” means National Pollutant Discharge Elimination System permit.
18. “RCW” means the Revised Code of Washington.
19. “Revised MDNS” means the Revised Mitigated Determination of Non-Significance issued on October 28, 2022 by EFSEC.
20. “Site,” or “Project Site,” means the land identified in the Application on which the Ostrea Solar Project is to be constructed and operated, namely, the up to 811.3-acre Ostrea site as described in greater detail in Section 1.A and 2.A of the ASC.
21. “Site Certification Agreement,” “SCA” or “Agreement” means this formal written agreement between the Certificate Holder and the State of Washington, including all attachments hereto and exhibits, modifications, amendments, and documents incorporated herein.
22. “State” or “state” means the State of Washington.
23. “Substantial Completion” means the Project is generating and delivering energy to the electric power grid.
24. “WAC” means the Washington Administrative Code.
25. “WDFW” means the Washington Department of Fish and Wildlife.
26. “WSDOT” means the Washington State Department of Transportation.

ARTICLE III: GENERAL CONDITIONS

A. Legal Relationship

1. This Agreement shall bind the Certificate Holder, and its successors in interest, and the State and any of its departments, agencies, divisions, bureaus, commissions, boards, and its political subdivisions, subject to all the terms and conditions set forth herein, as to the approval of, and all activities undertaken with respect to the Project or the Site. The Certificate Holder shall ensure that any activities undertaken with respect to the Project or the Project Footprint by its agents (including affiliates), contractors, and subcontractors comply with this Agreement and applicable provisions of Title 463 WAC. The term “affiliates” includes any other person or entity controlling, controlled by, or under common control of or with the Certificate Holder.

2. This Agreement, which includes those commitments made by the Certificate Holder in the ASC and mitigation requirements included in the October 28, 2022 Revised MDNS, constitutes the whole and complete agreement between the State of Washington and the Certificate Holder, and supersedes any other negotiations, representations, or agreements, either written or oral.

B. Enforcement

1. This Agreement may be enforced by resort to all remedies available at law or in equity.

2. This Agreement may be suspended or revoked by EFSEC pursuant to RCW 34.05 and RCW 80.50, for failure by the Certificate Holder to comply with the terms and conditions of this Agreement, for violations of RCW 80.50 and the rules promulgated thereunder, or for violation of any applicable resolutions or orders of EFSEC.

3. When any enforcement action of the Council is required by or authorized in this Site Certification Agreement, the Council may, but shall not be legally obligated to, conduct a hearing pursuant to RCW 34.05.

C. Notices and Filings

Filing of any documents or notices required by this Agreement with EFSEC shall be deemed to have been duly made when delivery is made to EFSEC's offices at Energy Facility Site Evaluation Council, 621 Woodland Square Loop SE, PO Box 43172, Olympia, WA 98504-3172, in Thurston County.

Notices to be served by EFSEC on the Certificate Holder shall be deemed to have been duly made when deposited in first class mail, postage prepaid, addressed to the Certificate Holder at Ostrea Solar, LLC, 3402 Pico Blvd, Santa Monica, CA 90405 c/o General Counsel, legal@ccrenew.com.

D. Rights of Inspection

Throughout the duration of this Agreement, the Certificate Holder shall provide access to the Site, the Project structures, buildings and facilities, underground and overhead electrical lines, and all records relating to the construction and operation of the Project to designated representatives of EFSEC and EFSEC contractors in the performance of their official duties. Such duties include, but are not limited to, environmental monitoring as provided in this Agreement and monitoring and inspections to verify the Certificate Holder's compliance with this Agreement. EFSEC personnel or any designated representatives of EFSEC shall follow all worker safety requirements observed and enforced on the Project Site by the Certificate Holder and its contractors.

E. Retention of Records

The Certificate Holder shall retain such records as are necessary to demonstrate the Certificate Holder's compliance with this Agreement.

F. Consolidation of Plans and Submittals to EFSEC

Any plans required by this Agreement may be consolidated with other such plans if such consolidation is approved in advance by EFSEC. This Site Certification Agreement includes time periods for the Certificate Holder to provide certain plans and other information to EFSEC or its designees. The intent of these time periods is to provide sufficient time for EFSEC or its designees to review submittals without delay to the Project construction schedule, provided submittals made to EFSEC and/or its designees are complete.

G. Site Certification Agreement Compliance Monitoring and Costs

The Certificate Holder shall pay to the Council all EFSEC costs incurred during the construction and operation of the Project to assure compliance with the conditions of this Agreement, as required by RCW 80.50.071(2). The amount and manner of payment shall be prescribed by EFSEC pursuant to applicable procedures.

The Certificate Holder shall deposit with EFSEC a sum to guarantee payment of all EFSEC Costs as defined in Article II.12, consistent with RCW 80.50.071(2)(a),for the period commensurate with the activities of this Agreement.

H. Site Restoration

The Certificate Holder is responsible for site restoration pursuant to the Council's rules, WAC 463-72, in effect at the time of submittal of the Application.

The Certificate Holder shall develop an Initial Site Restoration Plan in accordance with the requirements set out in Article IV.F of this Agreement and submit it to EFSEC for approval. The Certificate Holder may not begin Site Preparation or Construction until the Council has approved the Initial Site Restoration Plan, including the posting of all necessary guarantees, securities, or funds associated therewith.

The Certificate Holder shall submit a Detailed Site Restoration Plan to EFSEC for approval prior to decommissioning in accordance with the requirements of Article VIII.A of this Agreement.

I. EFSEC Liaison

No later than thirty (30) days from the effective date of this Agreement, the Certificate Holder shall designate a person to act as a liaison between EFSEC and the Certificate Holder.

J. Changes in Project Management Personnel

The Certificate Holder shall notify EFSEC of any change in the primary management personnel, or scope of responsibilities of such personnel, for the Project.

K. Amendment of Site Certification Agreement

1. This Agreement may be amended pursuant to EFSEC rules and procedures applicable at the time of the request for amendment. Any requests by the Certificate Holder for amendments to this Agreement shall be made in writing.

2. No change in ownership or control of the Project shall be effective without prior Council approval pursuant to EFSEC rules and procedures.

3. Repair, maintenance, and replacement of Project facilities:

   a. The Certificate Holder is permitted, without any further amendment to this agreement, to repair and maintain Project Facilities described in Article I.C, consistent with the terms of this Agreement.

   b. The Certificate Holder shall notify EFSEC of the replacement of any significant

portion of the Project Facilities no later than thirty (30) days prior to the replacement occurring.

4. In circumstances where the Project causes a significant adverse impact on the environment not previously analyzed or anticipated by this Agreement, or where such impacts are imminent, EFSEC shall take all steps it deems reasonably necessary, including imposition of specific conditions or requirements on the Certificate Holder as a consequence of such a situation in addition to the terms and conditions of this Agreement. Such additional conditions or requirements initially shall be effective for not more than ninety (90) days and may be extended once for an additional ninety (90) day period if deemed necessary by EFSEC to pursue ongoing, or continuing temporary, arrangements under other authority, including but not limited to RCW 34.05, RCW 80.50 RCW, or Title 463 WAC.

L. Order of Precedence

In the event of an inconsistency or apparent ambiguity in this Agreement, the inconsistency or ambiguity shall be resolved by giving precedence in the following order:

1. Applicable Federal statutes and regulations;

2. Applicable State of Washington statutes and regulations;

3. The body of this Site Certification Agreement, including any other provision, term, or material incorporated herein by reference or otherwise attached to, or incorporated in, this Agreement;

4. The application of common sense to affect a result consistent with law and the principles effected in this document.

M. Review and Approval Process; Exceptions

1. Except for the Initial and Final Site Restoration Plans, prior to any site work, the Council may delegate to the EFSEC Director authority to approve or deny the construction and operational plans required by this Agreement. The EFSEC Director shall ensure that the construction and operational plans have been sufficiently reviewed prior to approval.

2. The EFSEC Director may allow temporary exceptions from plan requirements or provisions of the SCA when such exceptions are not contrary to the purposes of the SCA, provided that a record is kept, and Council members are immediately notified. Any Council member may within seven (7) days of the notice put the item on a Council meeting agenda for review.

ARTICLE IV: PLANS, APPROVALS AND ACTIONS REQUIRED PRIOR TO CONSTRUCTION

A. Plan Submission Requirements

All identified plans and submissions must adhere to the requirements and obligations set forth in relevant regulation, this Agreement, the Revised MDNS, and the ASC.

Unless otherwise noted, all plans and submissions required prior to beginning site construction activities are required to be filed with EFSEC ninety (90) days prior the start of Construction. The Certificate Holder shall not begin Construction activities prior to all applicable elements of the required plans or commitments outlined in this Agreement, the Revised MDNS, and the ASC being in place, and Council approval of required plans and authorization to begin construction has been obtained.

B. Notice of Federal, State, and Local Permit Approvals

No later than thirty (30) days after the effective date of this Agreement, the Certificate Holder shall notify the Council of all Federal, State, and Local permits, not delegated to EFSEC, that are required for construction and operation of the Project, if any, and the anticipated date of permit issuance to the Certificate Holder. The Certificate Holder shall notify the Council when all required permits have been obtained, no later than ten (10) business days after the permit has been issued.

C. Mitigation Measures

During construction, operation, decommissioning, and site restoration of this Project, the Certificate Holder shall implement the mitigation measures set forth in this Agreement, including, but not limited to, those presented in Attachment O of the ASC, those identified in the SEPA Staff Memo and Supplemental Memo, and those presented in the Revised MDNS. For each of these mitigation measures, the Certificate Holder shall in the same filing further identify the Construction Plan and/or Operation Plan addressing the methodology for its achievement.

The specific plans and submittals listed in the remainder of this Article IV, and Articles V, VI, VII, and VIII, shall incorporate these mitigation measures as applicable.

D. Construction Stormwater Pollution Prevention Plan

1. Notice of Intent. The Certificate Holder shall file with EFSEC a Notice of Intent to be covered by a General National Pollutant Discharge Elimination System (NPDES) Permit for Stormwater Discharges Associated with Construction Activities.

2. Construction Stormwater Pollution Prevention Plan. The Certificate Holder shall submit to EFSEC a Construction Stormwater Pollution Prevention Plan (Construction SWPPP) and provide a copy to Ecology for comment. The Construction SWPPP shall meet the requirements of the Ecology stormwater pollution prevention program (WAC 173-230), and the objectives and requirements in Special Condition S.9 of the *National Pollutant Discharge Elimination System and State Waste Discharge General Permit for Stormwater Discharges Associated with Construction Activities* issued by the Department of Ecology on January 1, 2021 or as revised. The Certificate Holder shall include

measures for temporary erosion and sedimentation control in the Construction SWPPP

E. Construction Spill Prevention, Control and Countermeasures Plan

The Certificate Holder shall develop a Construction Spill Prevention, Control, and Countermeasures Plan (Construction SPCCP) in the event that quantities of materials maintained on site are of sufficient quantity to qualify, consistent with the requirements of 40 CFR Part 112 and shall adhere to requirements identified in this agreement and the ASC. The Construction SPCCP shall include the Project Footprint, and all access roads. The Certificate Holder shall require all contractors working on the facility to have a spill prevention and countermeasure program consistent with the above requirements. The Certificate Holder shall provide a copy to Ecology for comment.

F. Initial Site Restoration Plan

The Certificate Holder is responsible for Project decommissioning and site restoration pursuant to Council rules. The Certificate Holder shall develop an Initial Site Restoration Plan in consultation with EFSEC staff pursuant to the requirements of WAC 463-72-040 in effect on the date of Application. The objective of the Plan shall be to restore the Project Site to approximate pre-Project condition or better.

The Initial Site Restoration Plan shall be prepared in detail commensurate with the time until site restoration is to begin. The scope of proposed monitoring shall be addressed in the Initial Site Restoration Plan.

The Plan shall include the following elements:

1. A detailed engineering estimate of the costs of the Certificate Holder or Transferee hiring a third party to carry out Site Restoration. The estimate may not be reduced for "net present value" or other adjustments.

2. Decommissioning Timing and Scope, as required by Article VIII.C of this Agreement.

3. Decommissioning Funding and Surety, as required by Article VIII.D of this Agreement.

4. Mitigation measures described in the Revised MDNS, the ASC, and this Agreement.

5. A plan that addresses both the possibility that site restoration will occur prior to, or at the end of, the useful life of the Project and also the possibility of the Project being suspended or terminated during construction.

6. A description of the assumptions underlying the plan. For example, the plan should explain the anticipated useful life of the Project, the anticipated time frame of site restoration, and the anticipated future use of the Project Site.

7. An initial plan for demolishing facilities, salvaging equipment, and disposing of waste materials.

8. Performing an on-site audit and preparing an initial plan for disposing of hazardous materials (if any) present on the site and remediation of hazardous contamination (if any) at the site. In particular, if the Certificate Holder constructs the Project with solar panels incorporating hazardous materials, such as Cadmium Telluride, then the Certificate Holder shall use appropriate precautions during decommissioning and removal of the solar panels to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the panels' hazardous materials.

9. An initial plan for restoring the Project Site, including the removal of structures and foundations to four feet below grade and the restoration of disturbed soils.

10. Provisions for preservation or removal of Project facilities if the Project is suspended or terminated during construction.

G. Habitat Restoration and Mitigation Plan.

The Certificate Holder shall develop a Habitat Restoration and Mitigation Plan, in consultation with EFSEC staff and WDFW.

1. The Plan shall specify the Certificate Holder's plan for meeting Compensatory Mitigation Obligations. The Certificate Holder's Compensatory Mitigation Obligations will be met through the mechanisms identified in the Revised MDNS and associated staff memos.

2. Pre-construction Project layout drawings will show expected permanent and temporary land disturbances.

3. The Plan shall include a process to determine the actual impacts to habitat following the completion of construction. In the event that actual impacts to habitat exceed the expected impacts determined prior to construction, the Habitat Mitigation Plan will include a mechanism for the Certificate Holder to provide supplemental compensatory mitigation (Supplemental Mitigation). In the event of such determination, WDFW shall provide evidence of such exceedance of impacts. Supplemental Mitigation, if any, would be proportional to impacts and may take the form of additional on-site habitat enhancement or the payment of an additional fee equivalent to the value of permanently disturbed project acres to WDFW in lieu of mitigation. Any supplemental mitigation would be established in coordination with WDFW and reviewed and approved by the Council prior to implementation.

H. Vegetation and Weed Management Plan

The Certificate Holder shall develop a Vegetation and Weed Management Plan, in consultation with EFSEC staff, WDFW, and Ecology.

1. The Plan must address vegetation management activities related to Project construction and operation.

2. The Certificate Holder shall develop the Plan to require all temporarily disturbed areas

to be reseeded with an appropriate native seed mix selected in coordination with WDFW.

3. In consultation with WDFW, the Plan shall include a restoration schedule that identifies timing windows during which restoration should take place, and an overall timeline for when all restoration activities will be completed.

4. The Plan shall also include benchmarks and a timeline for revegetation success, and a plan for monitoring revegetation to ensure success.

5. This plan must address the requirements set forth in YCC 16C.11.070 and WAC 463-60-332(3).

6. The Plan must specify methods that will be implemented for effective noxious weed control and revegetation.

7. The plan must identify mowing schedule for vegetation maintenance and must be restricted March 15 to May 15 and limited to the extent practicable from February 1 to March 15 and May 15 to September 30.

I. Surface Waters

1. Field verification of seasonal wetlands will be verified by Ecology prior to the start of construction and impacts identified to wetlands or buffer areas shall be mitigated in accordance with this Agreement, the Revised MDNS, and the ASC.

J. Construction Traffic Control Plan

The Certificate Holder shall develop a Construction Traffic Control Plan, in consultation with EFSEC and WSDOT.

1. The Traffic Control Plan must address traffic management during improvement of highway access.

2. The plan must contain measures to facilitate safe movement of vehicles in the vicinity of the construction zone and be in accordance with 23 CFR Part 655, Subpart F.

K. Cultural and Archaeological Resources Unanticipated Discovery Plan

With the assistance of an experienced archaeologist, and in consultation with EFSEC, Department of Archaeology and Historic Preservation (DAHP), and any concerned Tribes, the Certificate Holder shall develop a Cultural and Archaeological Resources Unanticipated Discovery Plan for monitoring construction activities and responding to the discovery of archaeological resources or buried human remains.

1. Prior to construction, the Certificate Holder shall obtain any necessary DAHP permits and perform any additional necessary archaeological work in order to comply with RCW 27.53.

2. The Certificate Holder shall adhere to the proposed 100-foot buffers around identified

sites 45YA1587 and 45YA1920. Should work need to occur within these boundaries, or any sites newly discovered during construction activities, the Certificate Holder shall obtain all necessary DAHP permits and perform all necessary archaeological work in order to comply with RCW 27.53 prior to disturbing the site.

a. If ground disturbing activities are to occur in the vicinity of the above identified sites a Cultural and Archaeological Resources Monitoring and Mitigation Plan is required to be developed in accordance with item 4 below.

3. The Certificate Holder shall provide copies of the draft Plan for comment to the Yakama Nation and other potentially affected tribes prior to submitting the plan for EFSEC approval.

4. The Plan shall include, but not be limited to, the following:

a. A copy of the final construction and micro-siting plans for the Project and shall provide for the avoidance of archaeological sites where practical.

b. For sites to be avoided, the boundaries of identified cultural resources and buffer zones located within project boundaries shall be staked in the field and flagged as no-disturbance areas to avoid inadvertent disturbance during construction. These site markings will be removed following construction.

c. The Plan shall address alternative mitigation measures developed in coordination with DAHP and affected tribes to be implemented if it is not practical to avoid archaeological sites or isolates.

d. The Plan shall address the possibility of the unanticipated discovery of archaeological artifacts during construction.

e. If any archaeological artifacts, including but not limited to human remains, are observed during construction, then disturbance and/or excavation in that area will cease, and the Certificate Holder shall notify DAHP, EFSEC, and any affected Tribes and, in the case of human remains, the County Coroner or Medical Examiner.

i. At that time, appropriate treatment and mitigation measures shall be developed in coordination with the agencies and tribes cited above and implemented following approval by EFSEC.

ii. The Certificate Holder Shall develop a Cultural and Archaeological Resources Monitoring and Mitigation Plan in coordination with the Yakama Nation, other effected Tribes and DAHP and submit the plan for EFSEC for final approval.

iii. If Project facilities cannot be moved or re-routed to avoid the

resources, the Certificate Holder shall contact EFSEC and DAHP for further guidance, which may require the implementation of a treatment plan. If a treatment plan is required, it shall be developed in consultation with DAHP and any affected Tribes.

L. Construction Emergency Plan

The Certificate Holder shall prepare and submit a Construction Emergency Plan

1. The Certificate Holder shall coordinate development and implementation of the Plan with applicable local and state emergency services providers.

2. The Certificate Holder shall retain qualified contractors familiar with the general construction techniques and practices to be used for the Project and its related support facilities.

3. The construction specifications shall require contractors to implement a safety program that includes an Emergency Pan.

4. The Construction Emergency Plan shall include consideration of the items identified in Table 2-4 of the ASC.

M. Construction Fire Control Plan

The Certificate Holder shall develop and implement a Construction Fire Control Plan in coordination with state and local agencies to minimize the risk of accidental fire during construction and to ensure effective response to any fire that does occur on the Project Footprint at any time. The Certificate Holder shall submit the Fire Control Plan to EFSEC for review and approval at least ninety (90) days prior to Construction and provide a copy to Yakima County Fire District #4. The Certificate Holder shall not begin Construction prior to obtaining EFSEC approval of the Fire Control Plan.

N. Construction Health and Safety Plan

The Certificate Holder shall develop and implement a Construction Health and Safety Plan in consultation with local and state organizations providing emergency response services to ensure timely response in the event of an emergency.

O. Construction Site Security Plan

The Certificate Holder shall develop and implement a Construction Site Security Plan in consultation with local and state organizations providing emergency response services.

P. Utilities

1. The Certificate Holder Shall identify the source of potable water for use during project operations and provide to EFSEC confirmation of availability of water via a drinking well permit or some other agreed upon mechanism for supply of potable water.

2. The Certificate Holder Shall provide certification of water availability for process waters used for site construction to include vegetation management and solar panel

washing.

Q. Construction Management Plan

The Certificate Holder shall, with the assistance of Council staff, develop a detailed Construction Management Plan in consultation with affected state and local agencies.

1. The Plan shall address the Construction phases for the Project and shall be generally based on the mitigation measures contained in this Agreement and the ASC.

2. The plan shall identify the construction management protocols used to address the mitigation measures contained in this Agreement and the ASC.

R. Construction Schedule

No later than thirty (30) days prior to the beginning of Construction, the Certificate Holder shall submit to EFSEC an overall construction schedule. Thereafter, the Certificate Holder shall notify EFSEC of any significant changes in the construction schedule.

S. Construction Plans and Specifications

The Certificate Holder shall submit to EFSEC those construction plans, specifications, drawings, and design documents that demonstrate the Project design will be in compliance with the conditions of this Agreement.

1. The Certificate Holder shall also provide copies to WDFW, Ecology, DAHP and other agencies as EFSEC may direct, for comment.

2. The plans shall include the overall Project site plans, equipment and material specifications.

3. The construction plans and specifications shall be in compliance with Yakima County construction and building codes.

4. The plans shall identify any items relevant to the mitigation measures contained in this Agreement, the Revised MDNS, and the ASC.

5. The Certificate Holder shall consult with emergency services suppliers prior to preparing final road construction plans, to ensure that interior all-weather access roads are sufficient to provide reliable access by emergency vehicles.

6. In its final design for construction, the Certificate Holder shall maximize the use of existing roads and pathways and minimize the construction of new roads as much as reasonable and practical to minimize disturbance of existing habitat. The final design shall be subject to approval by EFSEC as part of the overall construction plans and specifications.

ARTICLE V: PROJECT CONSTRUCTION

A. Environmental Monitoring During Construction

1. Environmental Monitor (EM). EFSEC shall provide on-site environmental monitoring for the construction phase of the Project, at the Certificate Holder's cost. The EM shall be an independent, qualified engineering firm (or a person) selected by EFSEC and shall report directly to EFSEC.

2. Environmental Compliance Program for Construction Activities. The Certificate Holder shall identify and develop an Environmental Compliance Program in consultation with the EM and other EFSEC designees.

a. The Environmental Compliance Program shall cover avoidance of sensitive areas during construction, waste handling and storage, stormwater management, spill prevention and control, habitat restoration efforts begun during the construction phase of the Project, and other mitigation measures required by this Agreement, the Revised MDNS, and the ASC.

b. The Environmental Compliance program shall develop inspection criteria used to ensure relevant mitigation commitments, approved plans, and program avoidance activities are adhered to. Inspection criteria shall include inspection checklist items, "stop work" criteria, and procedures for responding to stop work notices and program deficiencies. The Certificate Holder shall implement the program to ensure that construction activities meet the conditions, limits, and specifications set out in the Site Certification Agreement, all Attachments thereto, and all other applicable state and federal environmental regulations.

3. Copies of Plans and Permits Kept On Site. A copy of the Site Certification Agreement, Plans approved by the Council or its designees, and all applicable construction permits shall be kept at the Project Site. The lead Project construction personnel and construction project managers will be required to read, follow, and be responsible for all required compliance activities.

4. Environmental Violations and Stop-Work Orders. Upon identification of an environmental noncompliance issue, the EM will work with the responsible subcontractor or direct-hire workers to correct the violation. If non-compliance is not corrected in a reasonable period of time, the EM shall request that EFSEC issue a "stop-work" order for that portion of the work not in compliance with Project environmental requirements. EFSEC will promptly notify the EM of any "stop work" orders that have been issued. Failure to correct a violation at the request of the EM may be considered by EFSEC in exercising its authority under RCW 80.50.155 to issue penalties to persons who violate the SCA or an EFSEC issued permit.

B. Quarterly Construction Reports

The Certificate Holder shall submit quarterly construction progress reports to EFSEC no later than thirty (30) days after the end of each calendar quarter following the start of construction.

Such reports shall describe the status of construction and identify any changes in the construction schedule.

C. Construction Inspection

EFSEC shall provide plan review and inspection of construction for all Project structures, underground and overhead electrical lines, and other Project facilities to ensure compliance with this Agreement. Construction shall be in accordance with the approved design and construction plans, and other relevant regulations. EFSEC may contract with Yakima County, another appropriate agency, or an independent firm to provide these services.

D. As-Built Drawings

The Certificate Holder shall maintain a complete set of as-built drawings on file for the life of the Project and shall allow the Council or its designated representative access to the drawings on request following reasonable notice.

E. Habitat, Vegetation, Fish and Wildlife

The Certificate Holder shall use construction techniques and BMPs to minimize potential impacts to habitat and wildlife. In particular, construction of the Project shall be performed in accordance with mitigation items identified in the Revised MDNS and Section 4.9.D of the ASC.

F. Construction Noise

The Certificate Holder shall use construction techniques and BMPs to minimize potential impacts of construction related noise. In particular, construction of the Project shall be performed in accordance with mitigation items identified in the Revised MDNS and Attachment O of the ASC.

G. Construction Safety and Security

1. Federal and State Safety Regulations. The Certificate Holder shall comply with applicable federal and state safety regulations (including regulations promulgated under the Federal Occupational Safety and Health Act and the Washington Industrial Safety and Health Act), as well as local and state industrial codes and standards (such as the Uniform Fire Code). The Certificate Holder, its general contractor, and all subcontractors shall make every reasonable effort to maximize safety for individuals working at the Project.

2. Visitors Safety. Visitors shall be provided with safety equipment where and when appropriate.

H. Contaminated Soils

In the event that contaminated soils are encountered during construction, the Certificate Holder shall notify EFSEC and Ecology as soon as possible. The Certificate Holder shall manage, handle, and dispose of contaminated soils in accordance with applicable local, state, and federal requirements.

I. Light, Glare, and Aesthetics

Lighting

1. The Certificate Holder shall implement mitigation measures to minimize light and

glare impacts as described in Attachment O of the ASC and the Revised MDNS.

2. The Certificate Holder shall minimize outdoor lighting to safety and security requirements. The Certificate Holder shall avoid the use of steady-burning, high intensity lights and utilize downward-directed lighting.

Glare

1. Solar panels with an anti-reflective coating shall be utilized.

Aesthetics

1. The Certificate Holder must institute the measures identified in the Revised MDNS regarding potential visual and aesthetic impacts once a final project design has been completed.

2. No later than sixty (60) days prior to the beginning of Construction, the Certificate Holder shall submit to EFSEC for their review and approval any additional proposed mitigation measures resulting from the analysis conducted in accordance with mitigation measure 15 of the Revised MDNS.

J. Construction Wastes and Clean-Up

The Certificate Holder's waste disposal plans and schedule shall be included in the site construction plans and specifications for review and approval by EFSEC.

1. The Certificate Holder shall dispose of sanitary and other wastes generated during construction at facilities authorized to accept such wastes.

2. The Certificate Holder shall properly dispose of all temporary structures not intended for future use upon completion of construction.

3. The Certificate Holder also shall dispose of used timber, brush, refuse, or flammable materials resulting from the clearing of lands or from construction of the Project.

ARTICLE VI: SUBMITTALS REQUIRED PRIOR TO THE BEGINNING OF COMMERCIAL OPERATION

A. Plan Submission Requirements

All identified plans and submissions must adhere to the requirements and obligations set forth in relevant regulation, this Agreement the Revised MDNS, and the ASC.

Unless otherwise noted all plans and submissions required prior to beginning site operation are required to be filed with EFSEC ninety (90) days prior to the Beginning of Commercial Operation. The Certificate Holder shall not begin operation prior to all applicable elements of the required plans or commitments outlined in this Agreement, the Revised MDNS, and the ASC are in place and Council approval of required plans and authorization to begin operation has been obtained.

B. Operations Stormwater Pollution Prevention Plan

The Certificate Holder shall prepare an Operations Stormwater Pollution Prevention Plan (Operations SWPPP) in consultation with Ecology.

1. The Operations SWPPP shall include an operations manual for permanent BMPs.

2. The Operations SWPPP shall be prepared in accordance with the guidance provided in the Ecology *Stormwater Management Manual for Eastern Washington, September 2019* or as revised.

3. The Certificate Holder shall annually review the Operations SWPPP against the guidance provided in the applicable *Ecology Stormwater Management Manual* and make modifications as necessary to the Operations SWPPP to comply with current requirements for BMPs.

4. The Operations SWPPP shall specify that water used for washing of the solar panels is to not contain any solvents or other additives.

C. Operations Spill Prevention, Control and Countermeasure Plan

The Certificate Holder shall prepare an Operations Spill Prevention, Control and Countermeasures Plan (Operations SPCCP) in consultation with Ecology, in the event that quantities of materials maintained on site are of sufficient quantity to qualify.

1. The Operations SPCCP shall be prepared pursuant to the requirements of 40 CFR Part 112, Sections 311 and 402 of the Clean Water Act, Section 402 (a)(l) of the Federal Water Pollution Control Act (FWPCA), and RCW 90.48.080.

2. The Operations SPCCP shall include the Project Footprint and all access roads as appropriate.

3. The Operations SPCCP shall be implemented within three (3) months of the beginning of Commercial Operation.

4. The Operations SPCCP must be updated and submitted to the Council every two (2) years.

D. Vegetation and Weed Management Plan

The Certificate Holder shall develop an updated Vegetation and Weed Management Plan, in consultation with EFSEC staff, WDFW, and Ecology.

1. The updated plan must address any relevant changes to the vegetation or weed management requirements and protocols identified prior to beginning site operation.

E. Operations Emergency Plan

The Certificate Holder shall submit for the Council's approval an Operations Emergency Plan for the Project to provide for employee and public safety in the event of emergencies.

1. The Certificate Holder shall coordinate development of the plan with local and state agencies that provide emergency response services in the Project Footprint.

2. Periodically, the Certificate Holder shall provide the Council with updated lists of emergency personnel, communication channels, and procedures.

3. The Operations Emergency Plan shall address in detail the procedures to be followed in the event of emergencies listed in Table 2-4 of the ASC

F. Operations Fire Control Plan

The Certificate Holder shall develop an Operations Fire Control Plan in coordination with state and local agencies to minimize the risk of accidental fire during operation and ensure effective response to any fire that does occur.

1. The Fire Control Plan must consider and address potential wildfire risk minimization and response.

G. Operations Health and Safety Plan.

The Certificate Holder shall develop and, after EFSEC approval, implement an Operations Health and Safety Plan.

1. The Certificate Holder shall consult with local and state organizations providing emergency response services during the development of the plan to ensure timely response in the event of an emergency.

H. Operations Site Security Plan.

The Certificate Holder shall develop and implement an Operations Phase Site Security Plan.

1. The Plan shall include, but shall not be limited to, the following elements:
   a. Controlling access to the site by any visitors, contractors, vendors, or suppliers;
   b. Installing security lighting and fencing; and securing access to solar panels, pad transformers, pad-mounted switch panels and other outdoor facilities.

2. A copy of the final Security Plan shall be provided to EFSEC and other agencies involved in emergency response.

ARTICLE VII: PROJECT OPERATION

A. Plan Implementation and Adherence

The Certificate Holder shall adhere to and implement the provisions of the required plans, submittals, permits, the Revised MDNS, the ASC, and any relevant regulation during project operation.

B. Water Discharge

The Certificate Holder shall ensure that all stormwater control measures and discharges are consistent with the Operations SWPPP, required by Article VI.B and the Ecology *Stormwater Management Manual for Eastern Washington, September 2019* or as revised.

C. Noise Emissions

The Certificate Holder shall operate the Project in compliance with applicable Washington State environmental noise regulations WAC 173-60, WAC 463-62-030, WAC 173-58, and RCW 70A.20.

D. Fugitive Dust Emissions

The Certificate Holder shall continue to implement dust abatement measures as necessary.

E. Habitat, Vegetation and Wildlife BMPs

During Project operations, the Certificate Holder shall implement appropriate operational BMPs to minimize impacts to plants and animals. In addition to those BMPs, the Certificate Holder shall also take the following steps to minimize impacts:

1. Implementation of the Operations Fire Control Plan developed pursuant to Article VI.F, in coordination with local fire districts, to avoid accidental wildfires and respond effectively to any fire that might occur.

2. Operational BMPs to minimize storm water runoff and soil erosion.

3. Implementation of compensatory mitigation measures identified in the Revised MDNS must be finalized within 6 months of start of Beginning of Commercial Operation.

4. Implementation of a plan to monitor revegetation and noxious weed control success and erosion caused by wind events. If deficiencies are confirmed, mitigation measures shall be instituted which shall be developed in coordination with WDFW and approved by EFSEC.

F. Safety and Security

1. Personnel Safety. The safety of operating personnel is governed by regulations promulgated under the Federal Occupational Safety and Health Act and the Washington Industrial Safety and Health Act. The Certificate Holder shall comply with applicable federal and state safety laws and regulations (including regulations under the Federal Occupational Safety and Health Act and the Washington Industrial Safety and Health Act) as well as local and industrial codes and standards (such as the Uniform Fire Code).

2. Visitors Safety. The Certificate Holder shall require visitors to observe the safety plans and shall provide them with safety equipment where and when appropriate.

G. Dangerous or Hazardous Materials

The Certificate Holder shall handle, treat, store, and dispose of all dangerous or hazardous materials including but not limited to those related to any battery backup power sources or the

optional battery energy storage system in accordance with Washington state standards for hazardous and dangerous wastes, WAC 463-74 and WAC 173-303.

Following any abnormal seismic activity, volcanic eruption, severe weather activity, flooding, vandalism, or terrorist attacks the Certificate Holder shall inspect areas where hazardous materials are stored to verify that containment systems are operating as designed.

H. Utilities

1. The Certificate Holder shall provide certification of water availability for process waters used for site operation and maintenance to include potable water for site operations staff, vegetation management, and solar panel washing on an annual basis.

I. Neighboring Land Uses

Yakima County is a "Right to Farm" County, codified in Yakima County Code 6.22. This project is located within an agricultural area, and will be subject to impacts from nearby pre-existing agricultural practices including, but not limited to: marketed produce at roadside stands or farm markets, noise, odors, dust, fumes, operation of machinery and irrigation pumps, ground and aerial seeding and spraying, the application of chemical fertilizers, conditioners, insecticides, pesticides, and herbicides and associated drift of such materials; and the employment and use of labor. Impacts resulting from these activities shall not be found to be a public or private nuisance if the farm operation was in existence before the date of this agreement.

ARTICLE VIII: PROJECT TERMINATION, DECOMMISSIONING AND SITE RESTORATION

A. Detailed Site Restoration Plan

The Certificate Holder shall submit a Detailed Site Restoration Plan to EFSEC for approval within ninety (90) days from the time the Council is notified of the termination of the Project. The Detailed Site Restoration Plan shall provide for restoration of the Project Site within the timeframe specified in Article VIII.C, taking into account the Initial Site Restoration Plan and the anticipated future use of the Project Site. The Detailed Site Restoration Plan shall address the elements required to be addressed by WAC 463-72-020, and the requirements of the Council approved Initial Site Restoration Plan pursuant to Article IV.F of this Agreement. The Certificate Holder shall not begin Site Restoration activities without prior approval from the Council. The Certificate Holder shall consult with WDFW, and Ecology in preparation of the Detailed Site Restoration Plan.

B. Project Termination

1. Termination of this Site Certification Agreement, except pursuant to its own terms, is an amendment of this Agreement.

2. The Certificate Holder shall notify EFSEC of its intent to terminate the Project, including by concluding the plant's operations, or by suspending construction and abandoning the Project.

3. The Council may terminate the SCA through the process described in WAC 463-66-090, and the Council may initiate that process where it has objective evidence that a certificate may be abandoned or when it deems such action to be necessary, including at the conclusion of the plant's operating life, or in the event the Project is suspended or abandoned during construction or before it has completed its useful operating life.

C. Site Restoration Timing and Scope

Site Restoration shall be conducted in accordance with the commitments made in the Detailed Site Restoration Plan required by Article VIII.A and in accordance with the following measures:

1. Timing. The Certificate Holder shall commence Site Restoration of the Project within twelve (12) months following the termination described in Article VIII.B above.

The period to perform the Site Restoration may be extended if there is a delay caused by conditions beyond the control of the Certificate Holder including, but not limited to, inclement weather conditions, equipment failure, wildlife considerations, or the availability of cranes or other equipment to support decommissioning.

1. Scope. Site Restoration shall involve removal of the solar panels and mounting structures; removal of foundations or other Project facilities to a depth of four (4) feet below grade; restoration of any disturbed soil to pre-construction condition; and removal of Project access roads and overhead poles and transmission lines (except for any roads and/or overhead infrastructure that Project Footprint landowner wishes to retain) (all of which shall comprise "Site Restoration"). Site Restoration shall also include the use of appropriate precautions during decommissioning and removal of any hazardous material to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the hazardous materials.

2. Monthly Reports. If requested by EFSEC, the Certificate Holder shall provide monthly status reports until this Site Restoration work is completed.

3. Restoration Oversight. At the time of Site Restoration, the Project Site will be evaluated by a qualified biologist to determine the extent of and type of vegetation existing on the site. Success criteria for Site Restoration will be established prior to commencement of decommissioning activities, based on the documented pre-construction conditions, experience gained with re-vegetation during operation and the condition of the Project Site at the time of Site Restoration. The restoration success criteria will be established in the Detailed Site Restoration Plan approved by EFSEC in consultation with the designated biologist. Once restoration of the Project Site is determined to be complete, a final report of restoration activities and results will be submitted to EFSEC in consultation with the designated biologist, for review and approval.

D. Site Restoration Financial Assurance

1. Except as provided in Article VIII.D.3 below, the Certificate Holder or any Transferee, as the case may be, shall provide financial assurance sufficient, based on detailed engineering estimates, for required Site Restoration costs in the form of a surety bond, irrevocable letter of credit, or guaranty. The Certificate Holder must also provide pollution liability insurance coverage in an amount justified for the project. The Certificate Holder shall include a detailed engineering estimate of the cost of Site Restoration in its Initial Site Restoration Plan submitted to EFSEC. The estimate must be based on the costs of EFSEC hiring a third party to carry out Site Restoration. The estimate may not be reduced for "net present value" or other adjustments. During the active life of the facility, the Certificate Holder or Transferee must adjust the Site Restoration cost estimate for inflation within sixty days prior to the anniversary date of the establishment of the financial instrument used to provide financial assurance and must increase the financial assurance amount accordingly to ensure sufficient funds for Site Restoration.

2. The duty to provide such financial assurance shall commence sixty (60) days prior to the beginning of Construction of the Project and shall be continuously maintained through to the completion of Site Restoration. Construction of the Project shall not commence until adequate financial assurance is provided. On or before the date on which financial assurance must be established, the Certificate Holder shall provide EFSEC with one of the following financial assurance mechanisms that is reasonably acceptable to EFSEC:

a. *Surety Bond*. The Certificate Holder or any Transferee, as the case may be, shall provide financial security for the performance of its Site Restoration obligations through a Surety Bond issued by a surety listed as acceptable in Circular 570 of the U.S. Department of the Treasury. The Performance Bond shall be in an amount equal to the Site Restoration costs. A standby trust fund for Site Restoration shall also be established by the Certificate Holder or Transferee to receive any funds that may be paid by the surety to be used to complete Site Restoration. The surety shall become liable for the bond obligation if the Certificate Holder or Transferee fails to perform as guaranteed by the bond. The surety may not cancel the bond until at least one hundred twenty days after the Certificate Holder or Transferee and EFSEC have received notice of cancellation. If the Certificate Holder or Transferee has not provided alternate financial assurance acceptable under this SCA within ninety days of the cancellation notice, the surety shall pay the amount of the bond into the standby Site Restoration trust; or

b. *Irrevocable Letter of Credit*. The Certificate Holder or any Transferee, as the case may be, shall provide financial security for the performance of its Site Restoration obligations through an irrevocable letter of credit payable to or at the direction of EFSEC, that is issued by an institution that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency. The letter of credit shall be in an amount equal to the Site Restoration costs. A standby trust fund for Site Restoration shall also be

established by Certificate Holder or Transferee to receive any funds deposited by the issuing institution resulting from a draw on the letter of credit. The letter of credit shall be irrevocable and issued for a period of at least one year, and renewed annually, unless the issuing institution notifies the Certificate Holder or Transferee and EFSEC at least one hundred twenty days before the current expiration date. If the Certificate Holder or Transferee fails to perform Site Restoration, or if the Certificate Holder or Transferee fails to provide alternate financial assurance acceptable to EFSEC within ninety days after notification that the letter of credit will not be extended, EFSEC may require that the financial institution provide the funds from the letter of credit to be used to complete Site Restoration; or

c. *Guaranty*. Certificate Holder or any Transferee, as the case may be, shall provide financial assurance for the performance of its Site Restoration obligations by delivering a guaranty to fund the Certificate Holder or Transferee's Site Restoration obligations hereunder from an entity that meets the following financial criteria:

    i. A current rating of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;
    ii. Tangible net worth at least six times the sum of the current Site Restoration cost estimates;
    iii. Tangible net worth of at least ten million dollars; and
    iv. Assets in the United States amounting to at least ninety percent of its total assets or at least six times the sum of the current Site Restoration cost estimates.

d. The guarantor entity's chief financial officer shall provide a corporate guaranty that the corporation passes the financial test at the time the Initial Site Restoration Plan is filed. This corporate guaranty shall be reconfirmed annually ninety days after the end of the corporation's fiscal year by submitting to EFSEC a letter signed by the guaranteeing entity's chief financial officer that:
    i. Provides the information necessary to document that the entity passes the financial test;
    ii. Guarantees that the funds to finance required Site Restoration activities are available;
    iii. Guarantees that required Site Restoration activities will be completed;
    iv. Guarantees that within thirty days if written notification is received from EFSEC that the entity no longer meets the above financial criteria, the entity shall provide an alternative form of financial assurance consistent with the requirements of this section;
    v. Guarantees that the entity's chief financial officer will notify in writing the Certificate Holder or Transferee and EFSEC within fifteen days any time that the entity no longer meets the above financial criteria or is named as debtor in a voluntary or involuntary proceeding under Title 11 U.S.C., Bankruptcy;

vi. Acknowledges that the corporate guaranty is a binding obligation on the corporation and that the chief financial officer has the authority to bind the corporation to the guaranty;
vii. Attaches a copy of the independent certified public accountant's report on examination of the entity's financial statements for the latest completed fiscal year; and
viii. Attaches a special report from the entity's independent certified public accountant (CPA) stating that the CPA has reviewed the information in the letter from the entity's chief financial officer and has determined that the information is true and accurate.

e. If the Certificate Holder or any Transferee fails to perform Site Restoration covered by the guaranty in accordance with the approved Initial or Final Site Restoration plan, the guarantor will be required to complete the appropriate activities. The guaranty will remain in force unless the guarantor sends notice of cancellation by certified mail to the Certificate Holder or Transferee and EFSEC. Cancellation may not occur, however, during the one hundred twenty days beginning on the date of receipt of the notice of cancellation by the Certificate Holder or Transferee and EFSEC. If the Certificate Holder or Transferee fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from EFSEC within ninety days after receipt of a notice of cancellation of the guaranty from the guarantor, the guarantor will provide such alternative financial assurance in the name of the Certificate Holder or Transferee.

3. If the SCA is transferred after its effective date pursuant to applicable EFSEC laws and regulations, EFSEC has the right to require, consider, and approve other financial security that would provide for the Certificate Holder's performance of its Site Restoration obligations pursuant to Articles VIII.C and VIII.D of this Site Certification Agreement.

ARTICLE IX: SITE CERTIFICATION AGREEMENT - SIGNATURES

Dated and effective this_____day of _____, 2023.

FOR THE STATE OF WASHINGTON

_____
Jay Inslee, Governor

FOR OSTREA SOLAR, LLC

_____
XXX
Applicant signatory authority
Ostrea Solar, LLC

ATTACHMENT 1

1. Report to the Governor Recommending Approval of Site Certification entered _____, 2023.

Badger Mountain Solar Energy Project

February 2023 project update

[Place holder]

Wautoma Solar

February 2023 project update

[Place holder]

Hop Hill Solar Project

February 2023 project update

[Place holder]

Carriger Solar

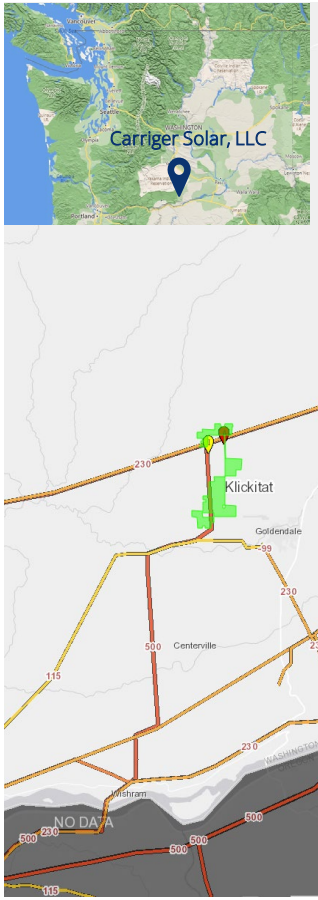
February 2023 project update

[Place holder]

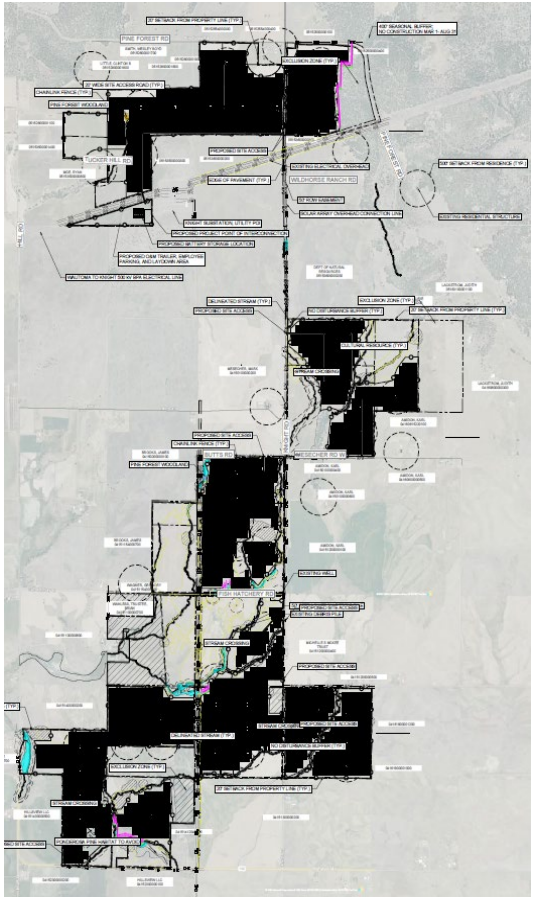
Carriger Solar LLC

Project Overview

Project Location



Project Layout



Project Site

Project Characteristics

Site: 160 MWac / 208 MWdc PV

BESS: 63 MW x 252 MWh (optional)

Location: Klickitat County, Washington

Interconnection Utility: Bonneville Power Administration (BPA)

Offtake: Fully executed Purchase Power Agreement with Washington-based counterparty

Commercial Operation Date: Q2 2025

Site Control:
Area: 2,108 acres under definitive site control