POTENTIAL ACTION ITEM

Washington State
Energy Facility Site Evaluation Council
AGENDA

MONTHLY MEETING
Wednesday August 21, 2024
1:30 PM

HYBRID MEETING
Click here to join the meeting
Conference number: 564-999-2000 ID: 699286814#

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

- July 17, 2024 Monthly Council Meeting Minutes

5. Projects

a. Kittitas Valley Wind Project

- Operational Updates.....Jarred Caseday, EDP Renewables

b. Wild Horse Wind Power Project

- Operational Updates.....Jennifer Galbraith, Puget Sound Energy

c. Chehalis Generation Facility

- Operational Updates.....Jeremy Smith, Chehalis Generation

d. Grays Harbor Energy Center

- Operational Updates.....Chris Sherin, Grays Harbor Energy

e. Columbia Solar

- Operational Updates.....Thomas Cushing, Greenbacker Capital

f. Columbia Generating Station

- Operational Updates.....Denis Mehinagic, Energy Northwest

g. WNP – 1/4

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

h. Goose Prairie Solar

- Project Updates.....Jacob Crist, Brookfield Renewable

i. High Top & Ostrea

- Project Updates.....Sara Randolph, EFSEC Staff
- Initial Site Restoration Plan (ISRP).....Sara Randolph, EFSEC Staff

The Council may consider FINAL ACTION on the ISRP for the Ostrea project.

j. Horse Heaven Wind Farm

- Project Updates.....Amy Moon, EFSEC Staff

k. Wautoma Solar

- Project Updates.....Lance Caputo, EFSEC Staff

l. Hop Hill Solar

- Project Updates.....John Barnes, EFSEC Staff

m. Carriger Solar

- Project Updates.....Joanne Snarski, EFSEC Staff

n. Wallula Gap

- Project Updates.....John Barnes, EFSEC Staff

o. Goldeneye BESS

- Project Updates.....Zia Ahmed, EFSEC Staff

7. 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

WASHINGTON STATE

ENERGY FACILITY SITE EVALUATION COUNCIL

MONTHLY MEETING

July 17, 2024

Lacey, Washington

Reporter: John M.S. Botelho, CCR, RPR

Energy Facility Site Evaulation Council
July 2024, Monthly Council Meetings - July 17, 2024

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APPEARANCES

STATE AGENCY MEMBERS:

Kathleen Drew, Chair

Elizabeth Osborne, Department of Commerce (*)

Eli Levitt, Department of Ecology

Lenny Young, Department of Natural Resources

Stacey Brewster,
Utilities & Transportation Commission

LOCAL GOVERNMENT AND OPTIONAL STATE AGENCIES:

Horse Heaven:
Ed Brost, Benton County (*)

Badger Mountain:
Jordyn Guilio, Douglas County (*)

Wautoma Solar:
Dave Sharp, Benton County (*)
Paul Gonseth, Washington State Department of Transportation (*)

Hop Hill Solar:

Paul Krupin, Benton County (*)

Carriger Solar:

Matt Chiles, Klickitat County (*)

APPEARANCES (Continuing)

ASSISTANT ATTORNEYS GENERAL:

Jon Thompson

Jenna Slocum (*)

Zack Packer (*)

ADMINISTRATIVE LAW JUDGES:

Adam Torem (*)

Laura Bradley (*)

COUNCIL STAFF:

Sonia Bumpus	John Barnes
Ami Hafkemeyer	Joanne Snarski
Amy Moon (*)	Alex Shiley (*)
Stew Henderson	Karl Holappa
Joan Owens	Maria Belkina
Andrea Grantham	Lisa McLean (*)
Sara Randolph (*)	Adrienne Barker (*)
Sean Greene	Martin McMurray
Lance Caputo	Trevin Taylor

OPERATIONAL UPDATES:

Jarred Caseday (*)
Kittitas Valley Wind, EDP Renewables

APPEARANCES (Continuing)

OPERATIONAL UPDATES (Continuing):

Sara Randolph
Wild Horse Wind Power Project, Puget Sound Energy
Chris Sherin (*)
Grays Harbor Energy Center, Grays Harbor Energy

Jeremy Smith (*)
Chehalis Generation Facility, PacifiCorp
Katie Hall
Columbia Generating Station & WNP-1/4, Energy Northwest
Thomas Cushing (*)
Columbia Solar, Tuusso Energy

Patrick McNelis
Goose Prairie Solar, Brookfield Renewable

COUNSEL FOR THE ENVIRONMENT:

Bill Sherman (*)

(*) indicates remote attendee

Note: All attendees listed above have been verified as being present despite some having been omitted from the oral roll call.

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BE IT REMEMBERED that on Wednesday, July 17, 2024, at 621 Woodland Square Loop Southeast, Lacey, Washington, at 1:37 p.m., the following Monthly Meeting of the Washington State Energy Facility Site Evaluation Council was held, to wit:

<<<<<< >>>>>>

CHAIR DREW: Good afternoon. This is Kathleen Drew, Chair of the -- what am I Chair of? No -- the Energy Facility Site Evaluation Council.

My apologies for the technical difficulties here. We'll try and get everything into order.

And as we begin, Ms. Grantham, will you call the roll.

MS. GRANTHAM: Certainly, Chair Drew.

Department of Commerce.

MS. OSBORNE: Elizabeth Osborne, present.

MS. GRANTHAM: Department of Ecology.

MR. LEVITT: Eli Levitt, present.

MS. GRANTHAM: Department of Fish and Wildlife.

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Department of Natural Resources.

MR. YOUNG: Lenny Young, present.

MS. GRANTHAM: Utilities and Transportation Commission.

MS. BREWSTER: Stacey Brewster, present.

MS. GRANTHAM: Local government and optional State agencies: For Horse Heaven, we have Benton County, Ed Brost.

I know I saw Mr. Brost online. If you are online, please press pound 6 or star 6. You might have gotten muted. I will move on for now.

For Badger Mountain, for Douglas County, Jordyn Guilio.

MS. GUILIO: Jordyn Guilio, present.

MS. GRANTHAM: For the Wautoma Solar project, for Benton County, Dave Sharp.

MR. SHARP: Dave Sharp, present.

MS. GRANTHAM: Washington State Department of Transportation, Paul Gonseth.

MR. GONSETH: Paul Gonseth, present.

MS. GRANTHAM: Hop Hill Solar, for Benton County, Paul Krupin.

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MR. KRUPIN: Paul Krupin, present.

MS. GRANTHAM: For the Carriger Solar, for Klickitat County, Matt Chiles.

MR. CHILES: Matt Chiles, present.

MS. GRANTHAM: For Wallalu Gap, for Benton County, Adam Fyall.

And I will circle back for Benton County, for Horse Heaven. Mr. Brost, are you able to unmute yourself?

MR. BROST: I hope so.

MS. GRANTHAM: We can hear you.

MR. BROST: This is Ed. Can you hear me?

MS. GRANTHAM: Yes.

MR. BROST: Okay. Super.

MS. GRANTHAM: Thank you.

MR. BROST: Thank you.

MS. GRANTHAM: Okay. Moving down to assistant attorney generals. Jon Thompson.

MR. THOMPSON: Present.

MS. GRANTHAM: Jenna Slocum.

MS. SLOCUM: Present.

MS. GRANTHAM: Zack Packer.

Administrative law judges. Adam Torem.

ALJ TOREM: Hi. This is Judge Torem. Can you hear me?

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MS. GRANTHAM: Yes, we can. Thank you.

Laura Bradley.

ALJ BRADLEY: Judge Bradley, present.

MS. GRANTHAM: Dan Gerard.

And Travis Dupree.

Moving on to EFSEC staff. I will be calling those who may be anticipated to speak today.

Sonia Bumpus.

MS. BUMPUS: Sonia Bumpus, present.

MS. GRANTHAM: Ami Hafkemeyer.

MS. HAFKEMEYER: Present.

MS. GRANTHAM: Amy Moon.

MS. MOON: Amy Moon, present.

MS. GRANTHAM: Sara Randolph.

MS. RANDOLPH: Present.

MS. GRANTHAM: Sean Greene.

MR. GREENE: Present.

MS. GRANTHAM: Lance Caputo.

MR. CAPUTO: Present.

MS. GRANTHAM: John Barnes.

MR. BARNES: Present.

MS. GRANTHAM: Joanne Snarski.

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MS. SNARSKI: Present.
MS. GRANTHAM: And Zia Ahmed.
Moving on to operational updates. Excuse me. Kittitas Valley wind project.
MR. CASEDAY: Jarred Caseday, present.
MS. GRANTHAM: Wild Horse Wind Power Project.
Grays Harbor Energy Center.
MR. SHERIN: Chris Sherin's present.
MS. GRANTHAM: Chehalis Generation Facility.
MR. SMITH: Jeremy Smith, present.
MS. GRANTHAM: Columbia Generating Station.
MS. HALL: Katie Hall, present.
MS. GRANTHAM: Columbia Solar.
MR. CUSHING: Thomas Cushing, present.
MS. GRANTHAM: And Goose Prairie Solar.
MR. McNELIS: Patrick McNelis, present.
MS. GRANTHAM: And then do we have

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anyone present for the counsel for the environment?
MR. SHERMAN: Yes. This is Bill Sherman. I'm pinch hitting today for Yuriy Korol and Sarah Reyneveld.
MS. GRANTHAM: Thank you.
Chair, we have a quorum for all of the councils. Thank you.
CHAIR DREW: Thank you.
Council, in front of us, we have the proposed agenda.
Is there a motion to adopt the proposed agenda?
MR. YOUNG: Lenny Young. So moved.
CHAIR DREW: Second?
MS. BREWSTER: Stacey Brewster. Second.
CHAIR DREW: All those in favor, say "aye."
MULTIPLE SPEAKERS: Aye.
CHAIR DREW: Opposed?
The minutes are -- excuse me. The agenda is approved.
Moving on to the meeting minutes. You have in front of you the June 20th, 2024, monthly council meeting minutes.
Is there a motion to approve those minutes?

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MS. OSBORNE: Elizabeth Osborne. So moved.
CHAIR DREW: Thanks.
Second?
MS. BREWSTER: Stacey Brewster. Second.
CHAIR DREW: Thanks.
I have two edits/changes to the minutes.
One is on Page 45, Line 24. The word "habit" should be "habitat."
And on Page 47, Line 25, the word "thee," t-h-e-e, should be "tree."
All those in favor of approving the minutes as amended, please say "aye."
MULTIPLE SPEAKERS: Aye.
CHAIR DREW: Opposed?
The minutes are approved as amended.
Moving on to our operational updates. Kittitas Valley wind project. Mr. Caseday.
MR. CASEDAY: Good afternoon, Chair Drew, EFSEC Council, and staff. This is Jarred Caseday with EDP Renewables for Kittitas Valley wind power project.
We had nothing nonroutine to report for the period.

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CHAIR DREW: Thank you.
MR. CASEDAY: Thank you.
CHAIR DREW: Wild Horse Wind Power Project. Ms. Randolph.
MS. RANDOLPH: Thank you.
Good afternoon, Chair Drew and Council members. For the record, this is Sara Randolph, site specialist, for Wild Horse.
The facility update is provided in your packet. There were no nonroutine updates to report.
CHAIR DREW: Thank you.
Moving on to Chehalis Generation Facility. Mr. Smith.
MR. SMITH: Good afternoon, Chair Drew, Council members, and staff. This is Jeremy Smith, the operations manager, representing the Chehalis Generation Facility.
I do not have anything nonroutine to note for the month of June.
CHAIR DREW: Thank you.
Grays Harbor Energy Center. Mr. Sherin.
MR. SHERIN: Good afternoon, Chair Drew, Council members, and EFSEC staff. This is Chris Sherin, plant manager, with Grays Harbor Energy Center.

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For the month of June, the only nonroutine item we had -- had to report is that we did -- Grays Harbor Energy Center made EFSEC staff aware of three emission exceedances during start-ups following our hot gas path inspection or major gas turbine work and upgrades during our annual maintenance outage.

I believe the issues other -- all but the third event have been resolved. The third event was just CO on a star-up/shutdown limit of 500 pounds was exceeded. So Grays Harbor Energy Center is currently working with the gas turbine equipment manufacturer to determine the cause of these emissions events and ensure a resolution.

CHAIR DREW: Thank you.

Are there any questions?

MS. RANDOLPH: Chair.

CHAIR DREW: Go ahead.

MS. RANDOLPH: We -- this is Sara Randolph. We had one other update.

CHAIR DREW: Yes.

MS. RANDOLPH: The EPA has reviewed the air operating permit, or the AOP, and has no objections. The Council action to vote on the issuance of the permit was open for public comment, and none were received. Staff recommend that the

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Council vote to issuance [sic] the amended AOP.

There are no other updates.

CHAIR DREW: Okay. So we go ahead and make a motion to approve the Title V AOP for the Grays Harbor project.

MR. LEVITT: Can I just --

MR. YOUNG: Lenny Young.

Go ahead, Eli.

MR. LEVITT: Yeah. Just a quick question to make sure.

So there were no public comments, but I also want to make sure that no members of the community or public asked for a public hearing; is that correct?

UNIDENTIFIED SPEAKER: That is correct.

MR. LEVITT: Okay. Thank you.

CHAIR DREW: Mr. Young.

MR. YOUNG: Lenny Young. So moved.

CHAIR DREW: Thank you.

Second?

MS. BREWSTER: Stacey Brewster. Second.

CHAIR DREW: Are there any comments or questions?

All those in favor, signify by saying "aye."

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MULTIPLE SPEAKERS: Aye.

CHAIR DREW: Opposed?

Motion carries. Thank you. And thank you, staff, for all of your work on this as well.

Moving on to Columbia Solar operational --

MR. CUSHING: Good afternoon --

CHAIR DREW: -- update.

MR. CUSHING: -- Chair --

CHAIR DREW: Mr. Cushing.

MR. CUSHING: Good afternoon, Chair Drew, Council members, EFSEC staff. This is Thomas Cushing speaking on behalf of Columbia Solar.

There are no nonroutine updates to report.

CHAIR DREW: Thank you.

Columbia Generating Station. Ms. Hall. Is that correct?

MS. HALL: Yes, that is correct.

Good afternoon, Chair Drew, Council members, and EFSEC staff. This is Katie Hall speaking on behalf of Columbia Generating Station and Washington Nuclear Project 1 and 4.

There are no nonroutine items to report for either Columbia Generating Station or the Washington Nuclear Project 1 and 4, which is also commonly known as the Industrial Development Complex. Thank you.

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CHAIR DREW: Thank you. Thank you.

Goose Prairie Solar. Patrick, I didn't catch your last name.

MR. McNELIS: Patrick McNelis. I'm filling in for Jacob Crist.

CHAIR DREW: Thank you.

MR. McNELIS: And good afternoon, EFSEC staff and Council.

Project is on schedule. Upcoming milestones are a 90-day soak. That's TBD when it's going to start. Goose Prairie is considered mechanically complete. On or around September 30th, we'll get sign-off from Utility for COD.

All major scope items are complete. Cleanup items are current. Punch list items are completed. Hot commissioning and BPA testing remains. O&M site certificate deliverables in draft with Brookfield and O&M from Tetra Tech.

For environmental compliance, no discharge on the site reported in June. Frequent monitoring is occurring through WSP, with no findings reported for June other than some filter socks that needed replaced.

During upcoming projects, O&M office building permit has been submitted to Yakima County with EFSEC

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on copy. And currently we're preparing for a transition to Brookfield operations, and a new contract list is in draft and will be provided as soon as possible.

CHAIR DREW: Thank you.

MR. McNELIS: And no further updates. Thank you.

CHAIR DREW: High Top and Ostrea. Ms. Randolph.

MS. RANDOLPH: Thank you, Chair Drew, Council members. For the record, this is Sara Randolph, site specialist, for High Top and Ostrea.

EFSEC staff are continuing to work with the certificate holder and our contractors to review and refine pre-construction plans. In particular, staff are coordinating with the certificate holder on final revisions to the initial site restoration plan, or the ISRP, which will come to the Council for review for the August Council meeting and approval once fully refined.

There are no further updates at this time.

CHAIR DREW: Thank you.

And, again, that's for the Ostrea project?

MS. RANDOLPH: Correct. Yes.

CHAIR DREW: Okay. Badger Mountain

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project update. Ms. Snarski.

MS. SNARSKI: Thank you, Chair Drew. And good afternoon, Council members. For the record, this is Joanne Snarski, the siting specialist, for Badger Mountain Solar.

On June 27th, EFSEC received a formal request from Avangrid Renewables, the applicant, to place all project activities on hold for the next two to three months. As you will see in your Council packet, they stated that they intend to reevaluate public comments, including from project landowners and affected tribal nations. This request has paused the development of the draft environmental impact statement, wetlands characterization, and the cultural resources survey.

I can answer any questions.

CHAIR DREW: Thank you.

So we were in the midst of a cultural resources survey, so we're stopping at midstream.

How much more work was left to be done on that?

MS. SNARSKI: I would say approximately two-thirds to half.

CHAIR DREW: Was left?

MS. SNARSKI: Was remaining. Correct.

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CHAIR DREW: Okay. Thank you.

Any other questions from Council members?

Thank you.

Moving on to Wautoma Solar project update. Mr. Caputo.

MR. CAPUTO: Am I coming through? Very good.

Thank you, Chair Drew and Council members. On June 9th, 2022, Innergex Renewable Development USA, LLC, submitted its application for site certification for the Wautoma Solar energy project to the Council for our review and your recommendation to the governor. The Council convened its land-use consistency hearing on August 8, 2022. On November 15, 2022, the Council issued its final order, project inconsistent with land-use regulations, and set the matter for adjudication.

Since the Council found the project inconsistent with the County's land-use provisions, an adjudicative proceeding must be held to determine if the Council should recommend to the governor preemption of the County's land-use provisions and site the facility.

Because the EFSEC SEPA responsible official issued a mitigated determination of nonsignificance

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for this project in May of this year, the adjudication can and has been limited to the issues surrounding land use pursuant to RCW 80.50.090, Section 4, Subsection b. A prehearing conference was notified on July 2nd and is scheduled for next week on July 22nd.

May I answer any questions?

CHAIR DREW: Are there any questions for Mr. Caputo?

Thank you.

Hop Hill Solar Project. Mr. Barnes.

MR. BARNES: Thank you, Chair Drew and Council members. For the record, this is John Barnes, EFSEC staff, for the Hop Hill application.

Work is continuing with the applicant to complete studies and reports needed to make a SEPA determination. We continue to coordinate and review the application with our contractor, contracted agencies, and tribal governments.

Are there any questions?

CHAIR DREW: Do I remember correctly that it is Hop Hill Solar that was looking at perhaps an addition to the application?

MR. BARNES: That is correct.

CHAIR DREW: Okay. Just to remind

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everyone. Okay. Thank you.
MS. HAFKEMEYER: To clarify, Chair Drew, that has been informally communicated to staff, but we have not seen anything formally submitted yet.
CHAIR DREW: Okay. Thank you.
Carriger Solar. Ms. Snarski.
MS. SNARSKI: Thank you, Chair Drew. Again, this is Joanne Snarski, the siting specialist, for Carriger Solar.
We have -- EFSEC staff have been discussing the proposed mitigation in the revised visual impacts assessment provided to us by the applicant. Staff believe the applicant's mitigation proposal will reduce significant impacts to visual aesthetics. We anticipate the final revised visual impact assessment to be provided this week. It will then be posted on the Carriger website.
Additionally, EFSEC staff received final approval of the cultural resource survey report from the Department of Archaeology and Historic Preservation and the Yakama Nation Cultural Resources Program.
The next step for us is to complete the final SEPA determination -- or excuse me -- in -- the next step in determining this final SEPA determination is for us to -- to receive the traditional cultural

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property study that we've contracted with directly with the Yakama Nation's Cultural Resources Program. We expect this work to be completed in December 2024.
CHAIR DREW: So we will wait for the conclusion of that study before --
MS. SNARSKI: The final SEPA determination.
CHAIR DREW: -- the final SEPA determination.
MS. HAFKEMEYER: If I could jump in again. For the record, this is Ami Hafkemeyer.
If the Council will recall, when the applicant submitted an extension request letter, they requested an extension to allow for the completion of the study and then some additional time for discussions with the Yakama Nation depending on the findings of that study to identify mitigation.
CHAIR DREW: Thank you.
Okay. Moving on to Wallula Gap project update. Mr. Barnes.
MR. BARNES: Thank you, Chair Drew and Council members. For the record, this is John Barnes, EFSEC staff, for the Wallula Gap application.
Staff has developed and sent on July 2nd, 2024, Data Request No. 1. Staff are continuing to review

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the application with our contractor, contracted agencies, and tribal governments.
Are there any questions?
CHAIR DREW: Any questions? Thank you.
Whistling Ridge. Mr. Caputo.
MR. CAPUTO: Thank you, Chair Drew and Council members.
In September 2023, EFSEC received two petitions from Twin Creek Timber, LLC, regarding the Whistling Ridge energy project. The first petition seeks approval to transfer ownership of the site certification agreement from SDS Lumber to Twin Creek Timber. The second petition seeks an approval to extend the expiration date of the site certification agreement until November of 2026.
Last month, the Council directed staff to prepare a draft order for consideration at today's meeting. It is included in your information packets. The public was notified of pending Council action on this project. One comment was received from the Friends of the Columbia Gorge.
Based upon this comment, some edited -- some edits are proposed for Council consideration. Edits included corrections of the spelling of names,

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citations of applicable rules, and rewording of sentences to provide clarity. There is a red-line copy of the order in your packets. I will now quickly go through the proposed changes individually.
On Page 1 of the order, some edits are proposed to add clarity to the ownership of the company and correct the spelling of Mr. Spadaro's name. Corrections to the spelling of his name are carried throughout the document.
On Page 2, it contains an additional grammatical correction removing the possessive from "TCT."
Page 3, corrected a citation to refer to the entirety of the section of the Washington Administrative Code as well as a minor edit for readability.
Page 5 contains in the footnote a correction of the characterization of the position of Friends of the Gorge.
Staff request the Council approve the order as amended.
May I answer any questions?
CHAIR DREW: Any questions for Mr. Caputo?
Council members, this is an issue which we discussed at last meeting and had the -- held the

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public hearings as well.
Is there a motion to approve the order which denies the request for approval of transfer of control and for an extension of site certifications expiration date and declares the SCA expired and denies as moot the Friends of Columbia Gorge's petition for an adjudicative proceeding on TCT's transfer and extension request?
Is there a motion to approve?
MS. BREWSTER: Stacey Brewster. So moved.
MR. LEVITT: Eli Levitt. Second.
CHAIR DREW: Thank you.
Discussion?
I think we did talk about this quite a bit at the last meeting. And the Council unanimously was thinking at that point in time that the company did not meet the requirements for the approval of transfer of control and, therefore, an extension of the site certification.
This is all laid out in the -- in the Council order. So approving the order, I should change the motion, if you-all agree, that we are approving an order, No. 893.
All those in favor of Council Order 893, please

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say "aye."
MULTIPLE SPEAKERS: Aye.
CHAIR DREW: All those opposed?
The order is approved. Thank you.
We are now moving on to Horse Heaven Wind Farm project update.
For those Council members who are not present, if you could turn on your cameras so that when we have questions or we have discussion, I can better see when you are interested in making a comment.
Mr. Brost, I don't know if you're able to, but we will keep track of you. Okay?
Project update. Ms. Moon.
MS. MOON: Good afternoon, Council Chair Drew and EFSEC Council members. For the record, this is Amy Moon reporting on the Horse Heaven wind project.
EFSEC staff continue to address feedback and comments provided by the governor's office and the EFSEC Council on the Horse Heaven recommendation report. Sean Greene, EFSEC staff, has prepared a slide presentation in response to Council questions and requests stemming from the June 20th Council meeting. And I'm just going to introduce Sean.
Sean, your turn.

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MR. GREENE: Thank you.
All right. I'm going to share my screen. Okay. That looks like it's displaying.
So as Amy mentioned, at the previous Council meeting, the Council directed staff to identify mitigation alternatives in relation to mitigation options that were included within the draft site certification agreement that were identified by the governor's office as potentially reducing the production potential (audio interference) -- are we okay?
Okay. So following that guidance, staff have identified several mitigation alternatives to replace, supplement, or pull back on the mitigation measures that were identified as having that potential of reducing production potential of the project.
To begin with, we're going to -- well, we're going to go through several resource areas that were affected in a mitigative sense from the SCA regarding project impacts, the first of which is priority habitat.
As a brief on non-exclusion mitigation measures that were included within the FEIS and subsequently incorporated into the SCA, there were several,

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including Vegetation-1, which required that tree removal be avoided where possible and mitigated where necessary;
Vegetation-4, which requires an as-built report and revegetation monitoring to ensure success of revegetation and shrub-steppe restoration;
Vegetation-7, which require the preparation and execution of a detailed site restoration plan and revegetation plan, which, again, encompassed priority habitat;
and Habitat-5 and -8, which outlined the process through which an assessment of indirect habitat loss and alteration would take place and outlined how compensatory mitigation would be developed.
All of these measures and any other measures outlined in this presentation are included in their full text within your -- your Council packet.
So for priority habitat, the draft SCA measure that was identified as potentially reducing energy production potential of the project was Vegetation-10. This was a measure that was crafted by the Council following the publication of the final environmental impact statement and, in essence, prohibited the siting of solar arrays on rabbitbrush, shrubland, or WDFW-designated priority habitat types,

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of which the only one on-site would be shrub-steppe or this project.

The result of this measure, if implemented, would reduce the proposed solar siting area. And as a reminder, that is the total area in which all solar arrays could be sited, but the final footprint of the solar arrays would not encompass the entire solar siting area.

Approximately 5200 acres of solar arrays are proposed by the applicant to be sited, and of those, 75 percent -- or pardon me -- 75 acres, or about 1 and a half percent, would be excluded from site -- their current -- siting on their current footprint by this measure. Though it should be noted that there is the option for the applicant to relocate prohibited solar arrays to a different area of the solar siting area where they would not impact these habitat types.

In regards to the alternatives proposed by staff, there -- what you see on the screen are essentially the options: Either eliminating Vegetation-10 and allowing for siting on these areas with the other measures that were included in the final environmental impact statement and draft SCA, which are inclusive of applicant commitments to implement

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compensatory mitigation for any impacts to designated habitat types; or retaining the language from the draft SCA, which would continue to exclude approximately 10 percent of the solar siting area and 1 and a half percent of the proposed solar footprint.

CHAIR DREW: Mr. Brost. Or I'm sorry. Who has the hand raised?

MR. YOUNG: Chair Drew, this is Lenny Young.

CHAIR DREW: Hi.

MR. YOUNG: Could you -- could you clarify? I think you characterized what we're looking at as staff proposals. Are these -- or excuse me. Staff recommendations. Are these staff recommendations, or are these just possibilities that staff is sharing with the Council?

CHAIR DREW: So, Ms. Bumpus, would you like to take that question?

MS. BUMPUS: Yes. For the record, this is Sonia Bumpus.

The PowerPoint presentation revisits what's -- what was in the FEIS and what was in the draft site certification agreement sent to the governor. And in some cases, we have offered an alternative to those for discussion by the Council.

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Vegetation-10 does not have another option that we created for you to consider. We really just wanted to show here the -- the difference between what the measures in the FEIS for priority habitat were versus those measures in addition to Veg-10, which was drafted by the Council. This is --

MR. YOUNG: Yeah.

MS. BUMPUS: I'll just add that this isn't a measure that, in the staff's view, we found to have a significant difference in the overall output of the project. As Mr. Greene mentioned, there is the possibility of relocation even with Veg-10 in place. And so we really didn't -- ultimately didn't really see that this was one that had a substantial impact on the build-out. But nonetheless, it does have some role in affecting the potential build-out.

MR. YOUNG: Yeah, understood.

MS. BUMPUS: Is that -- mm-hmm.

MR. YOUNG: I think I heard Mr. Greene, though, refer to this as a staff recommendation. And I just was looking for clarity on whether what we're being presented this afternoon is analysis without a recommendation or, in fact, is a staff recommendation.

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MR. GREENE: You are correct. These are not intended to be staff recommendations. If I used that terminology, that was incorrect. We went back and reviewed resource areas where the Council had identified mitigation beyond those in the -- the FEIS, which essentially operates as a staff recommendation, and tried to identify alternatives for the Council's consideration at this meeting that are options for you to discuss.

The final versions of these mitigation, including their -- retaining them as written in the SCA, removing them, or adding onto them, is a determination date that will be made by the Council and can extend beyond the options presented on your screen right now.

MR. YOUNG: Understood. Thank you for clarifying.

CHAIR DREW: Mr. Young, what I'm looking for today is the views from Council on each of these areas to perhaps have then, at the conclusion of our discussion, something we would direct the staff to draft for the August meeting.

So, for example, as I look at Veg-10, I think that this does not affect the output. I think it's a common-sense approach. I think it retains vegetation

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in priority areas. And for me, I guess I would ask if the Council is comfortable retaining that.
Are there any views?
MS. BREWSTER: This is Stacey Brewster. I'll agree with you on that. I think the -- the impact is small. The benefits for retaining that habitat is high and worthy of keeping in place.
CHAIR DREW: Anyone who would like to object, please say so. Otherwise, we'll move on to the next slide.
Okay. We can come back to it if people have questions. We just have a lot more material to get through, so -- and we can have a motion if one -- if the Council desires to do so at the end, and we can discuss everything in that.
Okay. Thank you.
MR. GREENE: Okay. The next resource area that was related to potential mitigation measures that would reduce the production energy potential of the project was wildlife movement corridors.
There were several mitigation measures in the FEIS that were incorporated into the SCA that did not deal with exclusion of project components. That's

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still mitigated for the resource, including Wildlife-6, which required maintenance of a road mortality database and enforced adaptive management based on the results of that database data collection;
Habitat-2, which required minimization of transmission lines cross -- crossing canyons and draws to reduce potential wildlife movement barriers;
and Habitat-7, which required that all project roadways be removed during decommissioning to restore pre-project levels of wildlife movement.
The exclusion mitigation measure that mitigated for impact to this resource was Habitat-1. The FEIS version of this measure required that all project components located within medium-or-above wildlife linkage corridors be avoided to the extent feasible. And if they were cited within those medium-or-above linkage corridors, they must be accompanied by a corridor mitigation plan, which includes a number of measures, including adjacent habitat improvements; features to accommodate passage, such as culverts; post-construction monitoring; and restoration.
The draft SCA version of the measure prohibited the siting of primary project components -- specifically, turbines, solar, and BESS -- within

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medium-or-above linkage corridors and prohibited the siting of secondary project components, such as roads and transmission lines, in high-or-above linkage corridors unless colocated within existing infrastructure. And maintained -- the SCA version maintained the FEIS corridor mitigation plan for all medium -- or all secondary components cited within medium-or-above linkage corridors.
The result of implementation of the draft SCA version of this mitigation would see approximately a 13 and a half percent reduction in the number of turbines based on where they're currently proposed within the project area as well as a 6 percent reduction in the proposed solar siting area, though none of the currently proposed solar footprint would be affected.
There is also the matter of a 230-kilovolt intertie transmission line that is propo- -- that the applicant has requested the option of construction to connect their eastern substation and western substation at three points along its route. This line would cross areas of high-or-above linkage corridors and be precluded from being sited there, so additional engineering redesign would be necessary for about three and a half miles of that 19

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-plus-mile intertie line.
CHAIR DREW: Mr. Greene, couple questions for you.
First of all, when you look back at the FEIS language -- and I know it's just summarized here. And for the Council members, there is something that is in the packet which you can't see there. But can we maybe put it on the screen? The Habitat-1? Is that the one?
MR. GREENE: Yes, I can.
CHAIR DREW: I think that would be very good.
So in other projects that have come recently to EFSEC, we've had a great deal of cooperation from applicants to identify a wildlife corridor through the project if that was raised as a concern.
When I read this that is in the FEIS and when you read it, do you read it saying there must be a wildlife movement corridor through the project?
MR. GREENE: So the FEIS version is specific to modeled wildlife movement corridors by the -- the Washington Wildlife Habitat Connectivity Working Group. It is less a requirement that a wildlife movement corridor be installed in the project area and more a requirement that project

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components seek to avoid being placed in already-identified wildlife movement corridors, if that makes sense.

CHAIR DREW: And, but to the extent feasible.

MR. GREENE: Correct.

CHAIR DREW: So how do we ensure in the FEIS measure that there is wildlife -- there will be future wildlife movement through the project?

MR. GREENE: That is done through the development of the corridor mitigation plan. And you can see on your screen, there are a number of different avenues that the applicant could work with EFSEC and WDFW to identify which -- which and in what level would be most effective at retaining available wildlife movement areas following the potential for project components to negatively impact, adversely impact the modeled wildlife movement corridors.

Those can include things like improvement of habitat adjacent to those modeled corridors or installing movement infrastructure within the project, such as open-bottom culverts that allow for easier wildlife movement, in concert with the installation of project components.

CHAIR DREW: Are there any other

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questions or comments from Council members?

MR. BROST: I have one, if you can hear me.

CHAIR DREW: Mr. Brost.

MR. BROST: Question on what's feasible versus not. Who defines what that is? Is there a definition of what is feasible?

MR. GREENE: There is not a definition of what is feasible. That would be a process that EFSEC would go through with the applicant to determine which project components were -- were necessary for an effective build-out of the project and which could potentially be eliminated if they were -- if they were not critical.

CHAIR DREW: But in addition to EFSEC, when you say EFSEC, we do have the PTAG, and we have Fish and Wildlife, Department of Fish and Wildlife, who will also be part of this process, and perhaps the tribe, the Yakama Tribe as well.

MR. GREENE: Yes, this is a measure that would encompass the PTAG and subsequently the TAC as part of the development of the mitigation plan and the development of the performance standards and adaptive mitigation throughout the life of the project. So it would incorporate guidance from a

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number of State agencies and potentially affected tribe, should they wish to be members of the PTAG and the TAC.

MR. BROST: One more question. Does the community or the County have some input into that if they have some?

MR. GREENE: We have had TACs on previous projects that have included County representatives. The exact membership of the PTAG and TAC for this project have not been defined as of yet.

CHAIR DREW: Certainly I would think that if they were interested, they would be able to participate.

Mr. Young.

MR. YOUNG: I have a concern that, in and of itself, removing this provision of the original SCA would allow the restoration of up to 30 turbines and 3.4 miles of 230 kV transmission line to the project and that this would increase the project's already significant impacts on Yakama Nation traditional cultural properties.

CHAIR DREW: Thank you.

Are there other comments as to the Council's view of retaining this as it is in the draft SCA,

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returning perhaps to the FEIS language?

To me, it does -- and I hear Mr. Young. I do think that if there are ways, as we're talking just about -- I mean, we can also talk about tribal cultural properties.

I'm really walking through this to perhaps identify what mitigation goes with which impact. And as a wildlife corridor impact, personally I would be comfortable with the FEIS language. I do think the fact that it's in the middle of the project and there's potential for impact to a optional intertie transmission line, that the outcome I would be looking for in this would be that there is able to be wildlife movement throughout the project after the project is completed.

Any other comments?

MS. BREWSTER: This is Stacey Brewster.

With the components that we're discussing, which tend to be porous and allow for some movement, I see where you're coming from, and I get your points.

I think initially identified and what we're trying to move away from is the compounding impacts, and I think initially we looked at that corridor because it had multi- -- those turbines had multiple

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impacts.
So in terms of movement, it seems to me the FEIS conditions are probably adequate. You know, not ideal, as I think we would like to avoid those impacts entirely. But if we're talking about movement, it seems to me the FEIS mitigation is probably sufficient.
I would be interested in hearing the thoughts on our Fish and Wildlife Council member, unfortunately who is not with us today.
CHAIR DREW: Yes, he's not able to be here.
But what we're talking about, I think, is asking the staff to draft something. And we're not voting on it, so we have time to consider it and look at comments and then perhaps come back in August just to have something in front of us to discuss.
Any other comments?
Okay. Let's move on to the next issue.
MR. GREENE: Okay. The next resource is the ferruginous hawk.
There are several non-exclusion mitigation measures from the FEIS that were incorporated into the SCA, including Wildlife-1, which implements a mortality monitoring program and adaptive management

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strategy for all avian species, inclusive of the ferruginous hawk. And that's a fairly lengthy measure, and it's available, again, in that handout.
There is also Wildlife-8, which prohibits the siting of turbines within a quarter mile of all documented raptor nests, inclusive of the ferruginous hawk. Currently this would exclude three of the 222 Option 1 turbines, or about 1 percent, or one of the 147 Option 2 turbines, just under 1 percent.
And the third measure is Wildlife-9, which requires that vegetation clearing and grubbing during the ferruginous hawk breeding -- during all avian species' breeding periods, inclusive of ferruginous hawk, be avoided where feasible and mitigated for if necessary.
And the exclusion measure is -- there we go. Okay. I don't know why my bottom part is showing.
But the FEIS version of Species-5 prohibits the siting of project components within two miles of a documented ferruginous hawk where that nesting site is still available and where foraging habitat is viable. For any components sited within two miles of an unavailable or nonviable ferruginous hawk nest, a ferruginous hawk mitigation and management plan would be required, which includes habitat loss offsets,

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turbine curtailment, active nest disturbance avoidance, and pre- and post-construction monitoring, as well as others. And, again, that is a fairly lengthy measure, and it's available in your handout.
For all versions of Species-5, Wildlife-1, Wildlife-8, and Wildlife-9 from the previous slide would still apply.
The FEIS version would eliminate -- would exclude anywhere between 0 and about 48 percent of the project proposed turbines. The exact number would be determined after the process of identifying which nests are available and viable.
The range for excluded solar siting area is 0 to 30 percent, and the range of excluded current proposed solar footprint would be 0 to 12 percent. It would also potentially exclude up to one of the three proposed BESS sites, though it should be noted that the SCA only allows for a maximum of two BESSes within the project area.
The draft SCA version of Species-5 implements a hard buffer on all documented ferruginous hawk nests of two miles, not allowing any turbines to be sited within that two-mile buffer. It also applies a half-mile buffer to all documented ferruginous hawk nests for solar arrays and BESS. It continues the

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requirement for a ferruginous hawk mitigation and management plan for any components sited within two miles of a documented nest. This measure would exclude approximately 48 percent of the project turbines, just under 10 percent of the proposed solar siting area, and about 4 percent of the current proposed solar footprint.
A third option which would be -- which is not from the FEIS or the SCA but has been developed by staff as something that could potentially address the Council's concerns about impacts to this resource would be a version of the draft SCA mitigation but replacing the two-mile buffer with a .6-mile buffer or one-kilometer buffer.
This buffer was adapted after review of the 2004 WDFW seasonal disturbance guidelines for active ferruginous hawk nests, so it -- it should be made clear that this guidance is not a direct one-to-one comparison with how we're using it here, but it is something that WDFW has published on the record regarding what active projects should -- the distance to which active projects should avoid disturbing active ferruginous hawk nests.
This measure would prohibit the siting of all primary project components -- so turbine, solar, and

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BESS -- within .6 miles of a documented ferruginous hawk nest and still require that any components sited within two miles, again, require a ferruginous hawk mitigation management plan.

This option, if implemented as written here, would exclude about 5 and a half percent of the proposed turbines, 12 percent of the prosed solar siting area, or about 6 percent of the current proposed solar footprint.

And, again, these are options given to the Council for consideration. These are not the only options available to the Council if they wish to develop their own.

CHAIR DREW: Mr. Young.

MR. YOUNG: Yeah, I have two comments here, and the first is that I do not believe that it is appropriate scientifically to extrapolate a seasonal activity buffer -- in this case, one kilometer -- to a habitat protection buffer. Those are two different concepts, if you will, that address different aspects of the species life history, so I -- I don't believe that the extrapolation of the activity buffer to a habitat protection buffer is appropriate.

And then, similarly, as with Habitat-1, I have

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great concern that restoring a hundred and seven turbines to the landscape would increase the project footprint and would have a big impact on Yakama Nation traditional cultural properties.

CHAIR DEW: Thank you.

Are there other questions or comments from Council members?

So I will ask a question.

So in addition to the one-kilometer buffer, there would still be not just -- would it just be seasonal curtailment? Would it require, if there are active nests before construction, to not have those turbines constructed?

MR. GREENE: So any nest that would be identified up to the start of construction would be afforded the same buffer as any other documented nest based on how this is written now.

As for seasonal curtailment, as the third option is written, that would apply for any turbines constructed within two miles of a documented nest. Both of those -- those two as this is written now could be altered by the Council, if you desire.

CHAIR DREW: If we look at the FEIS, the FEIS has components prohibited within two miles of documented ferruginous hawk nests where a

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nesting site is available and foraging habitat is viable.

We don't have the information of that yet. When would you expect that? Would you expect that that information would be required before the construction plan is completed?

MR. GREENE: Yes. Prior to construction, EFSEC, the PTAG, and the applicant would go through the process of identifying which nests are avail- -- which nesting sites are available and which documented ferruginous hawk nests have viable foraging habitat within that two-mile buffer.

For nests that meet both of those selection criteria, they would be afforded that two-mile buffer based on the FEIS version. Nests that do not meet one or both of the criteria would allow project components within the buffer so long as they are accompanied by a mitigation and management plan which includes a number of things, most -- perhaps most importantly a seasonal curtailment plan. But that would all be completed prior to the start of construction.

CHAIR DREW: And that would be based on available nests where foraging habitat is viable, not necessarily actual nesting of a hawk.

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MR. GREENE: Yes. So if there is an active nest, it would automatically be determined that the nesting site is available and the habitat is viable. So any active nest would immediately be given that -- that buffer based on the FEIS version.

CHAIR DREW: Questions or comments or thoughts from Council members?

MS. BREWSTER: This is Stacey Brewster. Initially my thought on the -- the new option is that it's based on 20-year-old recommendations and prior to the listing of the ferruginous hawk as endangered. So I would hope that we could get some more current science and recommendations from Fish and Wildlife on which to -- to base any consideration we might make. I know that might not be the case.

And I'm inclined to put the strictest protections around ferruginous hawks at this point. That is my leaning at the moment. I guess there's too many questions as to identifying nests and their viability and habitat from me at the moment.

MR. GREENE: And I would say that the two-mile buffer outlined within the FEIS is based on the most current recommendation from WDFW staff. They have identified that as the home range of the

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ferruginous hawk.
CHAIR DREW: Other comments?
Go ahead.
MR. LEVITT: This is Eli Levitt. I think I just have one or two.
One is that, you know, it's kind of an exercise in lumping and splitting, and I think the direction we have gotten from the governor's office is to try to look at the impacts individually and choose which option fits best. So just, I guess, maybe a reminder that we need to -- we're trying to think about each one individually and think about the option that works best for each of us as individuals and the Council.
You know, the other -- I guess the other thing for me is thinking about the FEIS and what it says. It seems like a lot of the numbers would really come down to how the technical group and the Council would define "available" and "viable." And so it's a little bit difficult to vote on a option that has such a wide range of options. So I guess that's just an observation for me.
CHAIR DREW: I do think that for the overall consideration -- and for me; I'm speaking for myself -- that we have a real challenge in that

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we very much want to protect the home territory of the ferruginous hawk, but we also don't have the future knowledge of whether it will be there or not. And that is really a very, very difficult challenge for us to come to terms with.
I think having a hard buffer less than the two miles makes sense for that reason. I think the one kilometer is the other hard buffer that we have in the record. So, again, you asked about information. We -- this is -- this is the one that is in the record.
And, again, I went back, and I listened to the adjudication and to -- listened to particularly Don McIvor -- there were a lot of experts, and we got a lot of good information -- but talking about both the risk and then the application of adaptive management, which is why if -- the ferruginous hawk is one goal, but it's not our only goal. And so trying to balance these two in a way that's protective, I think one way of doing that could be to have a short, less-than-two-mile buffer with the FEIS adaptive management.
So that is the way I'm looking at it. Not assurance, but trying to balance the need for clean energy and the potential impact for an endangered

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species.
If it is available -- if the species does come from to the site, I think we have hard stops. We also have the ability with -- and that could include, you know, if the turbines are constructed, then seasonal curtailment. But with the FEIS, we also have the potential to look at the most viable habitat -- not ourselves, but our staff and associates; Fish and Wildlife; tribal members, if they wish to; others -- to identify those viable, most viable areas, and have additional protection.
So that's why, I guess, that's where I'm leaning at this point in time.
Other questions from Council members? Comments? Discussion?
MR. BROST: Can I pose a question?
CHAIR DREW: Would you like to vote on that now or as a -- part of a motion in the end? If you're making the motion, we can look for a vote right now.
MR. BROST: I didn't have a motion to make. I was going to ask a question about the -- the buffer zones.
Is it -- is it a norm that the buffers for wind and solar are the same? From the -- from the

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nonscientific guy, it seems to me that the wind would have a larger buffer than the solar would, but it sounds like they're the same here. Am I correct --
MR. GREENE: Yes.
MR. BROST: -- on that, or (videoconference audio distortion)?
MR. GREENE: The FEIS version and the third option there do have the same buffer areas for wind and solar. The draft SCA version had different buffers for the two component types.
If the Council wants to identify preferred buffers for the component types, we can work those into final language.
CHAIR DREW: I -- I don't know what the purpose of a one-kilometer buffer from solar and BESS has.
MR. GREENE: So the primary impact that solar and BESS construction would have on the ferruginous hawk is the denial of available foraging habitat. If -- if those nests were ever occupied, the home range is the area within two miles. And while those components may not be sited on ideal foraging habitat, there may be some foraging activity of that species within that area.
The primary impact that turbine construction

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would have is direct mortality via strike. So all three types of components have an impact. They're just of differing types and degree.

CHAIR DREW: And would you say that, with Veg-10, is the project reduction listed in the draft SCA, the right column, overlap? Maybe that's unfair to ask you.

MR. GREENE: No, so it's fine. The -- the third option would only exclude areas of the solar siting area within the east solar array. That is the same area that is addressed by Veg-10. So that 75-acre area of the solar footprint excluded by Veg-10 would also be excluded by this measure. The third option, or, honestly, any three of these options. The two western solar arrays are without -- are outside of the two-mile buffer of any identified nest, so they would not be affected by this measure in any format.

CHAIR DREW: Okay. Any other questions?

Let's move on to the traditional -- the next slide, I'll just say.

MR. GREENE: Okay.

Okay. The next resource area is cultural resources. There are two non-exclusion measures in

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the FEIS and SCA. The first is Cultural Resources-1, which requires that the applicant maintain ongoing engagement with affected tribes and, where appropriate, implement relevant and effective mitigation measures that may be developed as part of that engage.

The second is Cultural Resources-2, which outlines the specific DAHP -- Department of Archeological and Historic Preservation -- permitting and/or avoidance buffers required for specifically identified archeological and architectural resources of a historic and/or cultural nature, which can include TCPs.

All of these identified resources that could be impacted by the project have been outlined within that measure in the table as is attached to it in your handout.

Originally the SCA version of Species-5 was developed to identify compounding impacts, including impacts to traditional cultural properties, in an effort to split up the mitigation to specifically address resource areas. Staff have identified two potential mitigation options that the Council can consider for inclusion in the final version of the SCA or the final draft of the SCA. Both of these are

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new to this point, but they do draw on the existing record.

On March 2nd of 2021, the Yakama Nation identified Webber Canyon as an area of particular TCP concern for them. These two measures on the left impose a 0.5-mile buffer for turbines around Webber Canyon. On the right, it is a full one-mile buffer around the -- the maximum extent of Webber Canyon. The .5-mile buffer would eliminate four turbines from either option, about 2 percent of the project proposed turbines. The one-mile buffer would exclude 17 Option 1 turbines, or 13 Option 2 turbines, for approximately 8 percent of the total proposed turbines.

CHAIR DREW: And, again, this is one letter. We're not saying this addresses the large extent of the Yakama Nation's concerns with this project. But this is a specific one which is on the -- in the actual project area that staff wanted to draw attention to for the Council.

MR. GREENE: That is correct. The Yakama Nation has identified multiple TCPs within the project lease boundary and adjacent to it that would be impacted by project construction and have indicated that all proposed project components would

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adversely impact TCPs.

This one was -- was proposed for inclusion here because it is specifically outlined in the record as an area where the Yakama Nation has identified particular concerns. Any reduction in the project footprint would have an associated reduction of impacts to TCPs.

CHAIR DREW: Thank you. I understand you might actually have a map of this one.

MR. GREENE: Yes.

So this is the Option 1 turbines, and I have an associated map with Option 2 turbines, but they are more or less the same.

The purple outline is the maximum geographic extent of Webber Canyon. The black dots are, in this -- in the case of this map, Option 1 turbines as currently proposed for siting.

The yellow highlighted area would -- would be a .5-mile buffer, with the orange being a full one-mile buffer.

And the -- the number of turbines visible on this map are not exactly the same as what you saw on this slide, because some of these turbines have already been removed from the application proposal by applicant commitment. But the numbers in the -- the

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previous slide that you saw are -- are accurate.
CHAIR DREW: Mr. Young.
MR. YOUNG: Yeah, my concern here is I'm glad -- appreciate seeing the -- the concern for TCPs to the extent that there may be associated with Webber Canyon, but I don't know whether a .5-mile buffer or a one-mile buffer, I don't know to what extent that would provide necessary impact reduction in this area.
And then in and of itself, as evidenced by all the input we've received from Yakama Nation in the two years subsequent to March '21 -- three years subsequent to March '21, this is a very, very limited reduction of impacts to Yakama Nation TCPs, if in fact it does provide impact reduction for -- for a TCP at all. So concerned with the very small amount, the very limited scope of this, and not knowing whether what's proposed would provide meaningful protection or not.
CHAIR DREW: Thank you.
Other comments or questions?
MR. LEVITT: This is Eli Levitt. I guess I would offer that that was a challenge of a lot of the public comments we received across the board almost, is that specific individuals and groups

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did not tell us which mitigation measures would suffice for them or how specific changes may help, hinder, or -- or maintain their concerns.
So, you know, in some ways, as a Council, with the exception of some of the more scientific mitigation measures, we're operating without a lot of detailed understanding for what would work for individuals or groups.
CHAIR DREW: Mr. Young.
MR. YOUNG: Yeah, I would just add that we have, again, multiple subsequent written communications from Yakama Nation post March '21 that do provide us some idea of the extent to which the project would need to be modified to avert impacts to Yakama Nation TCPs. We do have communications from Yakama Nation that do speak to that.
CHAIR DREW: Thank you.
That's true. And we also do have communications saying the SCA which was proposed to the governor was insufficient, as everybody well knows.
Any other questions or comments here?
Okay. Thank you. Thanks for the work on this.
Next slide.
MR. GREENE: Yeah, so the final resource that we're going to go through in this

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presentation is public health and safety, specifically in relation to aerial firefighting. There is one non-exclusion measure in the FEIS and SCA that deals with this resource. That is public Health and Safety-1, which requires that turbines be shut down in the event of a major wildfire occurring in an area where fire suppression aircraft may need access near the project.
Staff have identified two potential options for the Council to consider regarding this resource. Both are based on the perimeter of historic wildfires in the area of the project since 2000.
The left would provide -- would eliminate any turbines proposed within the perimeter of one or more of those fires while the option on the right would provide that perimeter with a 0.25-mile buffer. That is done -- that is proposed in consideration of DNR guidance that they provide all of their aerial firefighting craft with a quarter-mile standoff buffer from turbines when in operation. So no turbines would be allowed to be sited within that standoff buffer of the perimeter of any historic fire since 2000.
The elimination of -- the exclusion of turbines from the perimeters would eliminate about 1 -- 1

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percent of the proposed turbines while adding that quarter-mile buffer would exclude 3 to 5 percent of the proposed turbines.
In the area that -- area of the project that these historic fires have taken place is generally the northwest ridge line of the lease boundary.
CHAIR DREW: Do you also have a map of that?
MR. GREENE: I do.
This is adapted from a map that was provided to the Council during adjudication. The various colors are the perimeters of historic fires with the names of the fires written as well.
All the block dots are Option 1 turbines as currently proposed. You can see that -- my cursor, I guess -- these three are the three that would be within the perimeter while the ones surrounding it are within the quarter-mile buffer. And, again, this is not a direct one-to-one comparison to the numbers that you saw on the slide, because some of these turbines have voluntarily been removed from the application by applicant commitment.
CHAIR DREW: Thank you.
Questions on this?
MS. BREWSTER: Just curious.

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Firefighting is new to me. Is the use of historic fires a common practice for delineating fire danger?

CHAIR DREW: Ms. Bumpus.

MS. BUMPUS: My -- my team is leaving me hanging here.

For the record, this is Sonia Bumpus. I was just going to say that one thought that came to mind is that I think that this was -- that that rationale was some of the rationale that was used in the original recommendation.

MR. GREENE: Yeah, I would say it's -- it's a fairly common practice to review the perimeters of historic fires to identify areas where topography or vegetation may limit the spread of fires in the future and also to identify areas where -- that are particularly fire-prone.

The reason that there have been so many fires in this area is the prevailing winds in the area do whip up the fire as they approach the ridge line. And you can see this -- this bit here where it kind of goes south is Webber Canyon. And that is, again, a case where topography aids the spread of fire through the canyon area and limits its spread from the bottom of the canyon to the ridge line above it.

MS. BUMPUS: And I would add one

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other thought to that, and that is that in thinking about the framework around SEPA, the State Environmental Policy Act, when you're identifying impacts, you also consider -- you're considering significant adverse impacts, but you also consider the probability. And so I think that's also where you -- where you have some basis for considering historic fire activity at the site.

MS. BREWSTER: Thanks. Yeah. Looking at the map, that makes sense. I was just curious if it was a -- a practice.

CHAIR DREW: And we did hear from DNR, Department of Natural Resources, about the specific distance that you have in Option 2, correct?

MR. GREENE: Yes. That came from a DNR source where they indicated that they provide a quarter-mile buffer to all turbines for -- as a standoff area for their aircraft.

CHAIR DREW: So my view on this one specifically is that the Mitigation Option 2 is appropriate, given what we heard about the concern for fire and the testimony from DNR.

Oh. Mr. Young.

MR. YOUNG: Yeah, just a couple of comments here.

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Absolutely looking at historic fire patterns is valuable in determining or estimating future fire risk. But to point out the obvious, there is no hard guarantee that future fires would occur exactly where fires have occurred in the past.

And then just pointing out because I think I saw in a previous slide that there was a reference to having turbines stop operations if the blades come to a halt during fire -- when fire -- aerial firefighting is ongoing. And I would just point out that the turbines, as tall vertical structures, present a hazard to aircraft operations regardless of whether the blade is turning or not.

CHAIR DREW: Oh, yes. I hear your point there. I think that's what the buffer of turbines -- the quarter mile from those -- those fire-prone areas. But, as you said, that's no guarantee that's where the fire is going to be. So, understood.

MR. LEVITT: This is Eli Levitt.

Mr. Greene, do you know to what degree some of these recommendations or mitigation measures the Venn diagram overlap is between some of them? For example, does Vegetation-10 overlap with this one or any of the other ones?

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MR. GREENE: Vegetation-10 doesn't overlap with this one, because that deals specifically with solar arrays placed on priority habitat.

There is overlap between -- potentially overlap between this measure, Species-5, dealing with ferruginous hawk, and the measure that we discussed just prior to this dealing with TCPs. Correct. Yes. The -- the -- especially the northern half of Webber Canyon, the turbines proposed there would be excluded by any of those three measures. The southern half of Webber Canyon would be excluded by this measure and TCPs.

CHAIR DREW: Are there other questions, other issues that the Council would like to discuss?

I have a draft proposal. Why don't I -- would you become the Chair of the meeting, and I'll make the motion.

MS. BREWSTER: Okay.

CHAIR DREW: Rather than asking anyone else to do so.

So I'm asking the Council to direct the staff -- the motion is to direct the staff to develop amendments to the draft -- no -- amendments to the

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draft site certification agreement for consideration at August's meeting.

I would like to have a map of the Venn diagram, as Eli put it, but a map that the Council can look at that lays out these -- all these measures together.

And the -- so the motion is: Maintaining Veg-10. That's not an amendment. Eliminating the draft SCA prohibition of primary project components -- I guess this is Habitat-1 wildlife movement corridors -- and returning that to the FEIS language.

For the ferruginous hawk, to have a one-kilometer buffer for all identified ferruginous hawk nests.

Is that the correct language, Mr. Greene?

MR. GREENE: Documented --

CHAIR DREW: Documented. Thank you.

And to include all of the language that was in the FEIS on Species-5.

To have a new mitigation option on traditional cultural properties of -- of Mitigation Option 2 for prohibit turbines within one mile of Webber Canyon.

And new mitigation option on Aerial Firefighting Option 2.

Did I cover everything?

Okay. Is there a second to my motion?

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MR. LEVITT: Eli Levitt. Second.

CHAIR DREW: Thank you.

Is there discussion?

Mr. Young.

MR. YOUNG: I'll be voting against the motion. And I'd like to explain why.

I do support retaining Veg-10, and I do support the last two pieces, although I view those last two pieces of having fairly limited utility. But I am opposed to the changes to Habitat-1 and Species-5, so I would be voting against the motion.

CHAIR DREW: Thank you.

Any other comments? Oh, I just took over the Chair. Whoops. Sorry. Ms. Brewster, that was for you to do.

MS. BREWSTER: Are there any comments or discussion?

This is Stacey Brewster. Just to seek a little bit of clarification on the adjustments to Species-5. You discussed the third option with the kilometer buffer with the addition of the FEIS language that would prohibit a two-mile -- two miles around documented nests where nesting site is available and habitat is viable.

So this is a combination of the two where

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documentation of -- of viable nests and habitat would lead to a two-mile buffer?

MR. GREENE: That is my understanding of what Chair Drew proposed.

MS. BREWSTER: Thanks.

Are there any other comments?

All those in favor, say "aye."

MULTIPLE SPEAKERS: Aye.

MS. BREWSTER: Opposed?

MR. YOUNG: Nay.

MS. BREWSTER: The ayes have it.

CHAIR DREW: Yes. Thank you.

Would you like me to take the...?

MS. BREWSTER: Please take it.

CHAIR DREW: Thank you very much.

Okay. Thank you, all. That was a lot of information to review and think about. And, again, we will come back again, having that drafted for discussion and votes, in August.

Back to the agenda. Okay. Next, we have the Goldeneye BESS, battery storage system, new application.

Mr. Ahmed.

MS. HAFKEMEYER: Chair Drew, Mr. Ahmed is out of the office today, so I will be

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introducing the project to the Council.

CHAIR DREW: Ms. Hafkemeyer.

MS. HAFKEMEYER: Thank you.

As mentioned, for the record, my name is Ami Hafkemeyer.

EFSEC received an application for a standalone BESS project, Goldeneye BESS, proposed by the developer, Tenaska, who I believe is on the line to introduce themselves. This is a BESS project that is located in Skagit County -- "Skagit" County; one day I'll remember that -- and on 16 acres of privately owned ag land. And I will ask if the developer is on the line to introduce themselves.

It sounds like they may not be with us today.

Staff are working on scheduling the informational meeting for the project as well as the land-use consistency hearing. And once those information -- once those details are available, the Council and the public will be notified.

CHAIR DREW: And we will have a presentation from them at that meeting?

MS. HAFKEMEYER: Correct.

CHAIR DREW: Moving on to the cost allocation. Ms. Bumpus.

MS. BUMPUS: Good afternoon, Chair

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Drew and Council members. For the record, this is Sonia Bumpus reporting on the non-direct cost allocation for Quarter 1, Fiscal Year 2025. This covers July 1, 2024, through September 30, 2024. Quite a long list to get through here for the projects.

Kittitas Valley Wind Power Project: 4 percent.
Wild Horse: 4 percent.
Columbia Generating Station: 20 percent.
Columbia Solar: 4 percent.
WNP-1, 2 percent.
Grays Harbor 1 & 2: 6 percent.
Chehalis: 6 percent.
Desert Claim Wind Power Project: 4 percent.
Goose Prairie Solar Project: 4 percent.
Horse Heaven Wind Farm Project: 11 percent.
Badger Mountain: Adjusted to 0 percent given the pause.
For High Top: 4 percent.
Ostrea: 4 percent.
Wautoma Solar: 7 percent.
Hop Hill: 5 percent.
Carriger Solar: 5 percent.
Wallula Gap: 5 percent.
And Goldeneye, our recent addition: 5 percent.

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And that concludes my update for the updated non-direct cost allocations.

CHAIR DREW: And with that, we conclude our agenda, and this meeting is adjourned. Thank you, all.

(Meeting adjourned at 3:12 p.m.)

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STATE OF WASHINGTON)
) ss
County of Pierce)

I, John M.S. Botelho, CCR, RPR, a certified court reporter in the State of Washington, do hereby certify:

That the foregoing Monthly Meeting of the Washington State Energy Facility Site Evaluation Council was conducted in my presence and adjourned on July 17, 2024, and thereafter was transcribed under my direction; that the transcript is a full, true and complete transcript of the said meeting, transcribed to the best of my ability;

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

IN WITNESS WHEREOF, I have hereunto set my hand this 2nd day of August, 2024.

_____
John M.S. Botelho, CCR, RPR
Certified Court Reporter No. 2976
(Certification expires 5/26/2025.)

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EFSEC Monthly Council Meeting – Facility Update Format

Facility Name: Kittitas Valley Wind Power Project
Operator: EDP Renewables
Report Date: August 6, 2024
Reporting Period: July 2024
Site Contact: Jarred Caseday, Operations Manager
Facility SCA Status: Operational

Operations & Maintenance (only applicable for operating facilities)

- Power generated: 43,074.49 MWH.
- Wind speed: 10.31m/s.
- Capacity Factor: 57.51%.

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: August 12, 2024
Report Period: July 2024
Site Contact: Jennifer Galbraith
SCA Status: Operational

Operations & Maintenance
July generation totaled 49,522 MWh for an average capacity factor of 24.42%.

Environmental Compliance
Nothing to report.

Safety Compliance
Nothing to report.

Current or Upcoming Projects
Nothing to report.

Other
Nothing to report.

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: August 16, 2024
Reporting Period: July 2024
Site Contact: Jeremy Smith, Operations 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.

- 275,451 net MW-hrs. generated in the reporting period for a capacity factor of 79.07%

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

Environmental Compliance
-Monthly Water Usage: 2,051,158 gallons

- Both of the City of Chehalis water meters are out of commission. Chehalis utility district has replacements on order.

-Monthly Wastewater Returned: 1,107,781 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.

- Nothing to report

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

- Zero injuries this reporting period for a total of 3,288 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,

Jeremy Smith
Gas Plant Operations Manager
Chehalis Generation Facility

EFSEC Monthly Council Meeting – Facility Update

Facility Name: Grays Harbor Energy Center
Operator: Grays Harbor Energy LLC
Report Date: August 21, 2024
Reporting Period: July 2024
Site Contact: Chris Sherin
Facility SCA Status: Operational

Operations & Maintenance
-GHEC generated 404,907MWh during the month and 1,568,033MWh YTD.

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

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

-GHEC notified EFSEC Staff of the disposed of two expired Tritium exit signs previously installed.
-GHEC notified EFSEC Staff of the completion annual inspection of our outfall diffuser in the Chehalis River on July 30th, 2024.

Safety Compliance
- None.

Current or Upcoming Projects
- Submitted the Acid Rain Permit Application for permit renewal in accordance with Permit Requirements 1(i) of Acid Rain Permit No. EFSEC/10-01-AR.
-NPDES permit renewal application submitted to EFSEC in December 2023 in accordance with Section S6.A of NPDES Permit No. WA0024961.

Other
-None.

EFSEC Monthly Council Meeting Facility Update

Facility Name: Columbia Solar Projects (Penstemon, Camas and Urtica)
Operator: Tuusso Energy, LLC
Report Date: August 9, 2024
Reporting Period: 31 Days from July 1, 2024
Site Contact: Thomas Cushing
Facility SCA Status: Construction

Construction Status

- Penstemon
  - Currently operational
  - Total Generation during the month of July was 1.660 Gigawatt hours

- Camas
  - Currently operational
  - Total Generation during the month of July was 926 MWh hours

- Urtica
  - Currently operational
  - Total Generation during the month of July was 985 MWh hours

---

EFSEC Monthly Council Meeting

Facility Name: **Columbia Generating Station and Washington Nuclear Project 1 and 4 (WNP-1/4)**
Operator: **Energy Northwest**
Report Date: **August 21st, 2024**
Reporting Period: **July 2024**
Site Contact: **Denis Mehinagic**
Facility SCA Status: **Operational**

CGS Net Electrical Generation for July 2024: **833,134 Mega Watt-Hours.**

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

Environmental Compliance:
No update.

Safety Compliance
No update.

Current or Upcoming Projects
No update.

Other
No update.

EFSEC Monthly Council Meeting – Facility Update Format

Facility Name: Goose Prairie Solar
Operator: Brookfield Renewable US
Report Date: 08/08/24
Reporting Period: 07/13/24 to 08/09/24
Site Contact: Jacob Crist
Facility SCA Status: (Pre-construction/**Construction**/Operational/Decommission)

Construction Status (only applicable for projects under construction)
-On schedule or not. If not, provide additional information/explanation.

1. **Project remains on the contractual schedule.**
2. **Upcoming Milestone Dates for commissioning activities.**
    a. **8/19/2024, Start of BPA 90 Day Soak and hot commissioning of inverters**
    b. **Goose Prairie is considered Mechanically Complete Contractually.**
    c. **On or Around 11/22/24, Utility Signoff and COD.**
    d. **Substantial Completion on our around 12/24/24.**

-Phase/Brief update on status/month in review.

1. **All major scope items are complete. Modules, racking, trackers, substation**
2. **Clean up items and current punchlist items are complete.**
3. **Back feed of the substation is complete up to the inverters.**
4. **Hot commissioning and BPA testing remains.**

Operations & Maintenance (only applicable for operating facilities)
O&M site certificate deliverables are in draft with Brookfield O&M and Tetratech.

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

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

1. **No discharge on the site reported in July.**

-Any EFSEC-related inspections that occurred.

1. **Frequent Monitoring is occurring through WSP with no findings reported for July**

Safety Compliance
-Safety training or improvements that relate to SCA conditions.
Current or Upcoming Projects
-Upcoming permit renewals.

1. **O&M Office Building Plans have been submitted to EFSEC Team for review.**

Other
-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).

1. **Currently preparing for a transition to Brookfield Operations and a new contact list is in draft and will be provided ASAP.**

High Top and Ostrea Solar Project

August 2024 project update

[Place holder]

Initial Site Restoration Plan

Ostrea Solar, LLC

12 August 2024

Prepared for

Cypress Creek Renewables, LLC
3402 Pico Boulevard
Santa Monica, CA 90405

Prepared by

Tetra Tech Inc.
190803 North Creek Pkwy
Bothell, WA 98011

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Acronyms/Abbreviations

AC	Alternating Current
ASC	Application for Site Certification
BMP	Best Management Practice
BPA	Bonneville Power Administration
Certificate Holder	Ostrea Solar, LLC
DAHP	Department of Archaeology and Historic Preservation
DC	Direct Current
DSRP	Detailed Site Restoration Plan
EFSEC	Energy Facility Site Evaluation Council
ESCP	Erosion and Sediment Control Plan
ISRP	Initial Site Restoration Plan
kV	Kilovolts
MDNS	Mitigated Determination of Non-Significance
MPE	The Maximum Project Extent (MPE) is defined as the EFSEC permitted area that contains the Project Footprint and additional construction areas for micro-siting of facility components
MW	Megawatt
MWac	Megawatt Alternating Current
O&M	Operation and Maintenance
Project, or solar facility	Ostrea Solar, LLC Project
PV	Photovoltaic
RCW	Revised Code of Washington State
SCA	Site Certification Agreement
SCADA	Supervisory Control and Data Acquisition
SPCC	Spill Prevention, Control and Countermeasures
SWPPP	Storm Water Pollution Prevention Plan
Tetra Tech	Tetra Tech, Inc.
VMP	Vegetation and Noxious Weed Management Plan
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
YCC	Yakima County Code

1 INTRODUCTION

1.1 Project Description

Ostrea Solar, LLC (Project or solar facility) is an 80-megawatt (MW) solar photovoltaic facility located on 811.3 permitted acres in Yakima County, Washington. Ostrea Solar, LLC (Certificate Holder) received approval for construction and operation from the State of Washington Energy Facility Site Evaluation Council (EFSEC) on April 6, 2023 through the execution of a Site Certification Agreement (SCA) (ESFEC 2023). The Certificate Holder is a wholly-owned subsidiary of Cypress Creek Renewables, LLC, and will construct and operate the solar facility. The Project is estimated to have an in-service date of 2026 and a useful life of 40 years.

1.2 Purpose of this Plan

The purpose of this Initial Site Restoration Plan (ISRP) is to identify, evaluate, and resolve major environmental and public health and safety issues reasonably anticipated by the Certificate Holder pursuant to the requirements of Washington Administrative Code (WAC) 463-72-040 and in compliance with Article IV Part F of the *Site Certification Agreement between the State of Washington and Ostrea Solar, LLC* (EFSEC 2023). Specifically, the plan addresses the possibility that site restoration may occur either prior to or at the end of the useful life of the Project, as well as the possibility that the Project could be suspended or terminated during construction. This ISRP describes the process and assumptions used to evaluate the various options and select the measures that will be taken to demolish facilities, salvage equipment, and dispose of waste materials. An initial plan to restore or preserve the Project site, including removal of structures and foundations and restoration of disturbed soils is required by the SCA. The ISRP also assesses the potential for hazardous materials to be present on the site (note that the Certificate Holder has indicated they do not intend to construct the Project with panels incorporating hazardous materials). Finally, the ISRP includes a discussion of economic factors regarding the costs and benefits of various restoration options versus public risk, and addresses provisions for funding or bonding arrangements to meet the site location restoration or management costs.

Cost estimates for decommissioning and site restoration at the Ostrea solar facility are included in Appendix A.

2 PROJECT COMPONENTS

The Project components subject to decommissioning include all equipment summarized herein and ancillary facilities authorized under Article 1, Section C of the SCA and subsequently constructed by the Certificate Holder. The decommissioning activities associated with these components are discussed in Section 3.0 of this ISRP.

2.1 Water Tanks

Water for use during the construction and operation of the Project will include but may not be limited to water for dust control during construction, water for compaction, water for site preparation to include vegetation efforts, water for fire protection, and water for panel washing [if required]. Water

will be brought in from an approved off site source and stored in above-ground water tanks. Water for routine use at the operation and maintenance (O&M) building will be brought in from an approved off-site source and stored in an above-ground tank.

2.2 Solar Photovoltaic Array

The solar photovoltaic (PV) equipment for the facility is expected to consist of approximately 190,733 Maxeon P6 545W and 550W bifacial PV modules mechanically fastened on steel support structures and driven by single axis trackers. The steel support structures will be supported on galvanized steel piles that will be driven into the ground. The tracker motors are mounted on the structures.

2.3 Substation

The solar facility will connect to the Project's substation located on site. The substation consists of the main step-up transformer, to increase the voltage to 115 kilovolts (kV) for interconnection to the Midway-Moxee circuit #1, and the control house, which houses supervisory control and data acquisition (SCADA) equipment and protective relaying/metering equipment, including communications equipment, circuit breakers, disconnect switches and relays. The substation is designed to be approximately 183 feet by 127 feet and will be interconnected to an existing utility transmission line in the Bonneville Power Administration's (BPA) system. A 50-foot radio/communications tower, required by BPA, will be constructed by the Certificate Holder and co-located within the substation fence line.

2.4 Operations and Maintenance Building

The solar facility will include an O&M building, which will consist of a single-story structure with office space, warehousing space, a bathroom, and breakroom facilities. A graveled parking area with at least three spaces for employee and visitor vehicles is planned to be located adjacent to the O&M building. The designed O&M building has an approximate footprint of 72.5 feet by 100 feet. All components of the O&M building will be demolished and removed in accordance with the SCA and in compliance with this ISRP.

2.5 Power Collection System

The PV modules convert sunlight into direct current (DC) electricity. The PV-generated DC power will be collected from each of the multiple rows of PV modules, from which it will be connected to multiple combiner boxes, and ultimately to steel pile driven skids containing inverters and collection system transformers. The inverters convert the DC power to alternating current (AC) power, which will then flow to the transformer that will increase the AC power voltage to 34.5 kV. Multiple transformers from multiple skids will be connected in parallel to on-site switchgear and protection equipment. The power will then be delivered to the facility substation where the power will be increased to 115 kV for interconnection to the BPA transmission line. The solar facility is designed to comprise a total of 22 Sungrow 4400UD-MV-US transformer integrated systems, each with a footprint of 20 feet by 8 feet and up to 9.5 feet in height.

2.6 Fences, Gates, and Roads

The solar facility will have gravel roads constructed in accordance with the design drawings issued for construction and approved by both the Certificate Holder and EFSEC. The roads are designed to provide access to the inverters, the Project substation, and the O&M building, to provide maintenance access for PV equipment, and to provide overall site access for emergency response personnel and equipment. The gravel access roads are designed to be 16 feet wide and estimated to total about 43,061 linear feet. The access road from State Route 24 to the Project substation is designed to be 20 feet wide.

The solar facility perimeter will be surrounded by 8-foot-high woven wire security fencing installed on chain-link metal posts. There will be no barbed wire along the top of the perimeter fencing. The fencing is estimated to be 78,400 linear feet.

Access points into the Project will be gated, signed, and locked.

2.7 Site Vegetation

Vegetation under the solar modules (low-growing native forbs and grasses) is required to be managed per the SCA for safety and operational requirements as well as fire control purposes. Noxious weeds will be controlled to the maximum extent practicable during construction and throughout the operational phase. The Vegetation and Noxious Weed Management Plan (VMP) has been prepared and will be updated with the operational phase and prior to decommissioning.

2.8 Solar Facility Decommissioning and Recycling

The activities involved in the closure of the solar facility will depend on the expected future use of the site. The Certificate Holder is required to commence site restoration within 12 months following termination of the SCA. Decommissioning may occur if the Project is canceled at any point in time, not solely at the end of the useful life of the facility. This ISRP establishes the general requirements and procedures for decommissioning and the associated cost estimate for such activities for the purposes of establishing a financial surety. The ISRP shall be followed should the solar facility be forced to close prior to the end of useful life. The ISRP—and associated cost estimate—may be updated at any time during the development, construction, or operation of the solar facility. It is standard industry practice to revisit the cost estimate at regular intervals—5 or 10 years—to capture changes in market conditions that affect the cost estimate and decommissioning methodology.

In accordance with Article VIII of the SCA, the Certificate Holder shall not begin site restoration activities without prior approval from the Council. The Certificate Holder shall consult with Washington Department of Fish and Wildlife (WDFW) and Ecology in preparation of the Detailed Site Restoration Plan (DSRP). The detailed plan and schedule must describe the equipment to be removed and an associated schedule for such removal. The currently envisaged plan involves completion of the decommissioning—excluding establishment of soil stabilization measures that utilize seeding of vegetation—within approximately 12 months. Revegetation will be initiated; however, vegetation may not be fully established within the initial 12-month period The VMP will be updated prior to decommissioning.

In general, the decommissioning contractor is required to attempt to maximize the recycling of facility components to the furthest extent practicable. Specific opportunities for recycling are discussed below for various site components. At the time of this ISRP, implementation of Washington's module supplier takeback and recycling requirement is not yet in force, but is expected to be implemented in July 2025; therefore, disposal costs have been included in the estimate. Subject to the approval of Chapter 70A.510.010 RCW, the Certificate Holder requests the option to reassess the decommissioning estimate if the recycling costs are passed to the module supplier as part of the Washington recycling requirements.

The key facility components affected by decommissioning activities are discussed below. The general decommissioning approach will be the same, whether a portion or the entire facility is decommissioned.

Decommissioning of the facility has been broken into individual tasks, with costs for each estimated separately. Each task includes labor requirements, equipment needs, and duration. Production rates were established using professional experience and published standards that include RS Means (www.rsmeans.com). Labor rates relevant to the geographic area of the solar facility were obtained by referencing United States Department of Labor wage determinations. Typical average markups that are industry standard were applied for contingency, overhead, and fee.

A Decommissioning Cost Estimate Summary as well as detailed cost estimates are provided in Appendix A.

As summarized in Appendix A, the estimated cost to decommission the solar facility, including the scrap credit, is $3,843,411 in 2024 dollars. The estimate is based on the overall site layout and experience preparing decommissioning plans and cost estimates for similar facilities. Upon decommissioning, the Certificate Holder is required by the SCA to remove all facility components to a depth of four feet below grade and to restore disturbed soil to pre-construction condition (Article VIII.C).

The Certificate Holder is required to provide a financial security for the estimated cost to decommission the facility, remove facility components, and perform restoration activities. See Section 4 and Appendix B for detailed information.

The site restoration cost estimate may include a salvage credit only if the certificate holder owns the equipment or materials included in the salvage credit and has not granted a security interest in or otherwise pledged or assigned any interest to a third party in such equipment or materials, and expressly surrenders and transfers all right and interest in the equipment and materials to EFSEC or the lessor of the property in the event that EFSEC triggers its right to payment under the financial assurance instrument (the "Salvage Credit Requirements"). EFSEC will require a corporate officer of the certificate holder to certify that it meets Salvage Credit Requirements on an annual basis. If the certificate holder is unable to satisfy the Salvage Credit Requirements, then the certificate holder must increase the amount of its financial assurance by the salvage credit amount. Additionally, the certificate holder may at any time decrease the amount of the financial assurance by the salvage credit amount, but only if the certificate holder is able to certify that it can satisfy the Salvage Credit

Requirements. For clarity, any increase to the amount of the financial assurance due to removal of the salvage credit will be separate from any potential increase because of inflation.

2.9 Site Restoration Timing and Scope

2.9.1 Timing

Per Article VIII.C.1 of the SCA, the Certificate Holder is required to begin decommissioning of the facility within 12 months following facility termination. Facility termination can be triggered directly by the Certificate Holder, or if the Certificate Holder is required to terminate the facility according to the requirements of Article VIII.B of the SCA. This ISRP assumes that decommissioning and restoration activities will occur at the end of the useful life of the facility, but all activities outlined herein would be the same if required prior to that time, or if the site was suspended or terminated during construction, as required in Article IV.F.5.

The SCA allows the period to perform the decommissioning to be extended if there is a delay caused by conditions beyond the control of the Certificate Holder, including but not limited to, inclement weather or other environmental conditions, wildland fire events, equipment failure, wildlife considerations, or the availability of contractor personnel, cranes, or equipment to support decommissioning.

2.9.2 Scope

As required by Article VIII.C.2 of the SCA, decommissioning the solar facility involves removal of the solar modules and steel support structures; removal of foundations or equipment to a depth of four feet below grade; protect and/or stabilize any exposed soils; restoration of disturbed soil to preconstruction condition; and removal of facility access roads, security gates, fences, O&M building and associated infrastructure, substation, overhead poles and transmission lines, electrical cabling, communication tower, except for any roads and/or overhead infrastructure that the site location landowner wishes to retain. These activities will comprise site restoration.

Removal of the PV modules will be the initial priority of site restoration, and the remaining elements will be addressed thereafter. The Certificate Holder does not intend to use panels containing hazardous materials. If conditions3,6 change and solar modules containing hazardous materials—such as cadmium telluride—must be installed, site restoration shall also include the use of appropriate precautions during their decommissioning and removal to safely dispose of, avoid, and, if necessary, remediate any soil contamination resulting from the hazardous materials as outlined in Article VII.G (EFSEC 2023). Prior to initiating facility decommissioning, an on-site audit will be performed to identify and determine the appropriate method for disposing of hazardous materials (if any) present on the site location and for remediation of hazardous contamination (if any) at the site.

If the Project is suspended during construction, the Certificate Holder is required to remove or secure all loose materials, tools, and equipment immediately and protect any exposed soils with appropriate erosion control measures. If construction is suspended, the Certificate Holder will coordinate with EFSEC before resuming construction. If construction is suspended for three months, the Certificate Holder will declare that construction has been terminated or will coordinate with EFSEC on a

reasonable timeline for resuming construction. If the Project is terminated during construction, the Certificate Holder is required to decommission all in-place equipment and restore the site to pre-construction conditions in accordance with this ISRP. Specific site suspension or termination measures would need to be developed in conjunction with the decommissioning contractor in accordance with Article VIII.B.

2.10 Site Restoration Financial Assurance

In accordance with Article VIII.D.1 of the SCA, the Certificate Holder, or any Transferee is required to provide financial assurance sufficient for required site restoration costs in the form of a surety bond, irrevocable letter of credit, or guaranty based on detailed engineering estimates, such as the one prepared and included herein. Per WAC 463-72-040, the provision of financial assurances shall include evidence of pollution liability insurance coverage in an amount justified for the Project, and a site closure bond, sinking fund, or other financial instrument or security in an amount justified in the plan. The anticipated amount of this security is to be based on the detailed engineering estimate of the cost of decommissioning shown in Appendix A of the ISRP.

In accordance with Article VIII.D.1 of the SCA, the decommissioning costs must be adjusted for inflation within 60 days prior to the annual anniversary date of the establishment of the financial instrument used to provide financial assurance. The Certificate Holder must increase the financial assurance amount accordingly to ensure sufficient funds for site restoration.

The Certificate Holder is required to choose between one of the financial security instruments listed in Article VIII.D.2 at least 60 days prior to the beginning of construction of the site and is required to notify EFSEC of the type of instrument chosen. No later than 30 days before the beginning of construction, the Certificate Holder must have the chosen financial security instrument in effect, and the appropriate documentation of such security must be filed with EFSEC. The Certificate Holder intends to provide a surety bond to meet the financial assurance requirement.

2.11 Decommissioning Plan

The following sections of this ISRP outline the general decommissioning methodology and assumptions that form the basis for the cost estimate to decommission the solar facility.

At a later date, the Certificate Holder is required to submit a DSRP to EFSEC for approval within 90 days from the time the Council is notified of the termination of the Project, in accordance with the requirements of Article VIII of the SCA.

2.11.1 Decommissioning Preparation

The first step in the decommissioning process is to assess existing site conditions and prepare the Project site for demolition, including preparation and submittal of the above referenced removal work plan and schedule for the components and provisions described below. Per Article IV.F.7 the initial demolition plan includes salvaging and recycling equipment to the greatest extent possible.

Site decommissioning, excluding revegetation, is estimated to take less than 12 months.

Demolition debris will be placed in a temporary on-site storage area for no more than 120 days, with no more than one 120-day extension if determined necessary by EFSEC, pending final transportation and disposal/recycling according to the procedures listed below. The location of the temporary on-site storage area will be included on a site plan with the removal work plan and schedule and site restoration plan review submittal.

2.11.2 Photovoltaic Equipment

At the start of decommissioning, the Project will be de-energized and disconnected from the transmission system.

Removal of solar modules will be completed by manual labor. Wiring, cables, and electrical interconnections must be disconnected from the PV arrays. The module components are to be mechanically disconnected from the solar array and transferred to a staging location for transporting to an off-site facility. Modules suitable for reuse may be sold for market value, and modules not suitable for reuse will be processed at an off-site facility for recycling or disposal.

The racking structure materials can be recycled, reused, or sold as scrap metal. Disassembly and removal of the racking structure will be performed manually. Steel piles will be completely removed by hoisting with heavy equipment. Steel components will be segregated and transferred to a staging location for off-site recycling or sold as scrap metal.

Any other foundation structures and below-ground concrete are required to be removed to 4 feet below grade. The affected area will be backfilled with native soil or gravel removed from the Project (i.e., access roads). If gravel is used, only the first three feet of backfill will be gravel, and it will be covered with at least 6 inches of native soil.

The demolition debris and equipment to be removed may be cut or dismantled into smaller, more manageable pieces that can be safely lifted or carried with typical construction/demolition equipment. The majority is typically processed for transportation to an off-site recycling center. All steel, copper, and aluminum will be recycled to the maximum extent possible.

2.11.3 Substation

The substation is required to be de-energized. Oil in the substation's transformer must be drained for disposal, as required by local/state/federal regulations. The substation equipment and structures, including the control house communications equipment, circuit breakers, disconnect switches and relays, are to be mechanically disassembled with the use of support equipment for hoisting components. Steel is typically segregated for off-site recycling or sold for scrap. The substation site restoration includes the removal of the gravel surfacing and concrete foundations, soil preparation, grading, and seeding of disturbed areas.

2.11.4 Internal Power Collection System

The combiner boxes that convey DC power generated from the solar arrays must be dismantled and removed. The inverters that convert DC power to AC power, and the transformers that increase the AC power voltage to 34.5 kV, must also be removed. Any insulating and cooling mineral oil and fluids from

the transformers must be drained, removed from the site, and recycled or disposed of at an appropriately licensed disposal facility.

Structures supporting above-ground electrical cabling must be dismantled, with the steel segregated for off-site recycling or sold for scrap. Concrete from sleepers is typically broken down into manageably sized pieces (if required) and disposed of. Associated electrical cabling is removed from the conduit, if practical. Cabling is then segregated for off-site recycling or sold for scrap.

The underground 34.5-kV cables and conduits that form the AC collection systems are typically removed and recycled if cabling is less than 4 feet below grade. Cable or conduit deeper than 4 feet below grade will be abandoned in place. Associated electrical cabling is typically removed from the conduit, if practical. Remaining conduit is typically capped or filled with a fine construction material.

2.11.5 Operations and Maintenance Building

The O&M building and associated facilities, including above-ground water tank and associated piping, are mechanically disassembled with the use of support equipment for hoisting components. Steel is typically segregated for off-site recycling or sold for scrap. The O&M building site restoration includes the removal of the gravel surfacing and concrete foundations, soil preparation, grading, and seeding of disturbed areas.

2.11.6 Transmission Line and Communication Tower

Aboveground electrical cabling owned by BPA will be left in place. Any high voltage lines or structures on the solar facility's side of the point of interconnection (POI) is required to be dismantled, with the steel segregated for off-site recycling or sold for scrap. The BPA required communications tower will be dismantled, with the steel segregated for off-site recycling or sold for scrap. The associated concrete foundations are required to be removed and transferred to a staging location for off-site disposal or recycling at an approved facility.

2.11.7 Access Roads

On-site access roads will remain in place to accomplish decommissioning at the end of the solar facility's life, which is assumed to be 40 years. At the time of decommissioning, if the landowner determines that some of these roads will be beneficial for future use of the site, such roads may remain.

Roads that will not be re-used must be restored to preconstruction conditions. Gravel associated with the access roads will be stockpiled for recycling or reuse. Underlying geotextile fabric must be collected for off-site disposal. Low water crossings constructed of concrete and rip rap as well as any pipe culverts in streambeds and drainages will be removed and stockpiled for recycling or reuse. The landowner may choose to maintain the stream and drainage crossings for agricultural uses or other purposes.

If there are any asphalt access driveways that must be removed, the asphalt material must be broken up and transported to an appropriate disposal site. The landowner may choose to maintain the access driveways for agricultural uses or other purposes.

2.11.8 Fences and Gates

Once the site has been fully restored according to Section 3.1, the agricultural fences and gates are typically assessed prior to dismantling to determine if the landowner wishes to retain them. If the fence is to be removed, the fencing is typically sold for scrap or dismantled and recycled.

3 SITE RESTORATION

Once removal of solar facility equipment is complete, the site must be restored to preconstruction conditions as required by the governing agreements and/or applicable regulations.

At the time of decommissioning, the site must be evaluated by a qualified biologist to determine the extent of and type of vegetation existing on the site. The decommissioning contractor typically leaves the existing vegetation on site and allows the landowner to determine the revegetation of the area for agricultural uses or other purposes. The solar facility area will either be revegetated where necessary based on Project decommissioning activities or the final condition of the land will be determined at the landowner's discretion within 12 months of decommissioning.

3.1 Dust Control Plan

All decommissioning must occur in a manner where appropriate dust suppression can be achieved. Measures that will be outlined in the detailed decommissioning plan, completed by the Certificate Holder and approved by EFSEC prior to decommissioning, will include applicable measures outlined in Appendix C of this ISRP (Attachment O of the Application for Site Certification [ASC]; e.g., fugitive dust abatement measures listed under Air Quality).

3.2 Site Recontouring

With the exception of recontouring of stormwater detention ponds, as described in Drainage Restoration—restoration will not involve further grading by the Certificate Holder. Best management practices to be implemented to provide erosion and sediment control until revegetation efforts have sufficiently stabilized the soil must be defined in the VMP.

3.3 Drainage Restoration

Storm water detention ponds installed for the solar facility must be decommissioned as part of the restoration effort. Removal of the detention ponds, along with regrading and recontouring, ensures that pre-construction drainage patterns and release rates can be maintained. Based on current Washington Construction Stormwater General Permit requirements, a Stormwater Pollution Prevention Plan (SWPPP) will be required if more than one acre of soil is disturbed. The SWPPP will be included as required as part of the detailed decommissioning plan completed by the Certificate Holder and approved by EFSEC prior to decommissioning.

3.4 Revegetation

The Certificate Holder is responsible for the revegetation of the site. The Certificate Holder, in coordination with the landowner, assumes that the site will be returned to the pre-Facility condition.

The VMP developed for site construction and operations will be updated prior to decommissioning as part of the DSRP.

Revegetation following decommissioning will be conducted according to the updated VMP. Revegetation and site restoration will include all necessary measures to prevent soil erosion and minimize fugitive dust, ensure establishment of desired vegetation, and control noxious weeds at the appropriate time of year. Site revegetation is anticipated to be completed within 2 years of decommissioning, depending on the soil stabilization cover requirements (percent of vegetative cover) and known pre-construction vegetative conditions (e.g., grasses or sagebrush). If vegetation establishment is not successful, adaptive management measures provided in the updated VMP will be implemented.

3.5 Monitoring

Before decommissioning and site restoration, the solar facility's biologist will coordinate with EFSEC on site-specific monitoring of the revegetated area. Specific site restoration success criteria and monitoring protocols must be included in the updated VMP that will be incorporated into the DSRP. This will require the approval of EFSEC prior to decommissioning.

3.6 Criteria for Restoration

According to Article VIII.A (EFSEC 2023), success criteria for site restoration must be established prior to commencement of decommissioning activities, based on the documented preconstruction conditions, experience gained with revegetation during operations, and the condition of the site at the time of decommissioning. The restoration success criteria will be established in the updated VMP submitted with the removal work plan and schedule to EFSEC in consultation with the designated biologist.

3.7 Reporting and Schedule

Acceptable levels of revegetation success and the schedule for achieving them could vary based on factors such as soil and rainfall conditions and seed availability. Successful revegetation monitoring efforts must be determined to the satisfaction of EFSEC and the designated biologist, with the cooperation of the landowner(s). The annual reports submitted to EFSEC must include copies of completed site review forms and a summary of monitoring data and results, and identification of site locations successfully revegetated.

Once restoration of the solar facility is determined to be complete, a final report of restoration activities and results must be submitted to EFSEC, in consultation with the designated biologist, for review and approval.

4 MITIGATION MEASURES

During project decommissioning and site restoration the Certificate Holder shall implement the mitigation measures set forth in the SCA, including, but not limited to those presented in Attachment O, Proposed Mitigation Measures, of the ASC, those identified in the Final State Environmental Policy Act Environmental Checklist as commitments made by the Certificate Holder, and those presented in

the Revised Mitigated Determination of Non-Significance, as applicable. The Unanticipated Discovery Plan and Worker Environmental Awareness Program also contains important mitigation measures. The mitigation measures that were provided with the ASC are summarized in Appendix C.

5 REFERENCES

EFSEC (Washington Energy Facility Site Evaluation Council). 2023. Site Certification Agreement Between the State of Washington and Ostrea Solar, LLC for the Ostrea Solar Facility, Yakima County, Washington. Executed April 6, 2023. Olympia, Washington

APPENDIX A: BASIS OF ESTIMATE AND COST ESTIMATE FOR OSTREA SOLAR, LLC

Estimating Methods and Assumptions

Estimating methods and assumptions specific to this estimate f Ostrea Solar, LLC are as follows:

- Labor costs are developed by reviewing United States Department of Labor wage determinations and rates published by RS Means. An average rate is developed that includes base wage, fringe, and payroll tax liability. The final rate used in the estimate is an average of 40 hours standard time and 10 hours overtime per week, assuming a 50-hour work week for the duration of decommissioning.
- Equipment (commonly referred to as yellow iron) rates used in the estimate are developed by reviewing rates published by RS Means and historical vendor quotes. Rates include fuel, maintenance, and wear and tear of ground engaging components. Rates assume the use of rented equipment.
- Mobilization and demobilization costs are estimated to be approximately 15% of the overall contractor's costs. These reflect the actual costs of mobilizing equipment, facilities, and crew to the solar facility. This amount does not include the front loading of cost from other tasks.
- Work was estimated on a unit cost basis and priced by task, following the progression of work from start to finish. Unit costs were developed by including the labor, equipment, and production rate required for each individual task. RS Means and estimator's experience were used to establish the crew, equipment, and production for each individual task.
- Roads will be restored so that they become a part of the natural surroundings and are no longer recognizable to the furthest extent possible unless otherwise retained by the current landowner. Road gravel will be used to backfill foundation locations to within 6 inches of final grade. Although the remaining road gravel, which is a valuable resource, will likely be made available for local reuse by local receivers, costs for disposal of gravel have been included in the retirement cost estimate. Roads that existed on private land prior to installation of the solar facility, if any, will be restored to prior Project conditions.
- All concrete foundations will be fully removed or removed to a depth of 4 feet below grade, whichever is more cost effective at the time of removal. Gravel from road removal will be used as backfill to bring the top of grade to within 6 inches of final grade and then completed with an additional 6 inches of soil.
- Concrete foundation removal will be accomplished using excavators with concrete breakers.
- Processed concrete will be transported off site under the same assumptions as road gravel.
- Oil from transformers will be drained prior to removal, and the oil disposed of following state and federal regulations. Oil disposal cost was assumed to be $4.00 per gallon.
- Transmission Gen-Tie line and communication tower are assumed to be steel and will be processed on site and shipped as scrap.
- The costs for temporary facilities were included in the restoration cost. These include one office trailer, two Conex storage units, portable toilets, first aid supplies, and all necessary utilities.

- Field management during construction activities was added to the estimate. These costs include one superintendent, one health and safety representative, and two field engineers. These positions are critical to the safe and successful execution of work.
- The contractor's home office, solar facility management, overhead, and fee can vary widely by contractor. As such, averages were developed for the estimate and added as a percentage of total cost. These include 5 percent for home office and solar facility management and 13 percent for overhead and fee.
- Contractor contingency costs are not included.
- Other miscellaneous costs were approximated, including permits, engineering, signage, fencing, traffic control, utility disconnects, etc. In the context of the overall estimate, these are incidental costs that are covered in the estimate markups.
- Costs for damage to public roads are not included in the decommissioning estimate. Transportation services requiring use of public roads would be performed by subcontractors. If the subcontractor causes damage to public roads because of their work on this solar facility, they would be responsible for repair of any damages.

CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)
1	**OSTREA SOLAR RETIREMENT**	**1.00**	**Lump Sum**	**$3,843,410.90**	**$3,843,410.90**
1.1	**Equipment & Facilities Mob / Demob**	**1.00**	**Lump Sum**	**$51,661.20**	**$51,661.20**
1.1.1	Equipment Mob	1.00	Lump Sum	$40,600.00	$40,600.00
1.1.2	Site Facilities	1.00	Lump Sum	$2,200.00	$2,200.00
1.1.3	Crew Mob & Site Setup	1.00	Day	$4,430.60	$4,430.60
1.1.4	Crew Demob & Site Cleanup	1.00	Day	$4,430.60	$4,430.60
1.2	**Project Site Support**	**3.00**	**Month**	**$44,470.30**	**$133,410.89**
1.2.1	Site Facilities	3.00	Month	$1,305.00	$3,915.00
1.2.2	Field Management	3.00	Month	$43,165.30	$129,495.89
1.3	**Substation Retirement**	**1.00**	**Lump Sum**	**$173,621.26**	**$173,621.26**
1.3.1	Fence Removal	1.00	Day	$1,259.05	$1,259.05
1.3.2	Transformer Removal	1.00	Each	$92,788.70	$92,788.70
1.3.3	Remove Control Building & Switchgear	1.00	Each	$4,953.45	$4,953.45
1.3.4	UG Utility & Ground Removal	1.00	Day	$1,259.05	$1,259.05
1.3.5	Remove Foundations To Subgrade	500.00	Cubic Yard	$27.63	$13,812.78
1.3.6	Misc. Material Disposal	1.00	Lump Sum	$1,975.00	$1,975.00
1.3.7	Restore Yard	1.00	Lump Sum	$57,573.23	$57,573.23
1.4	**Remove Comms Tower**	**1.00**	**Lump Sum**	**$4,423.98**	**$4,423.98**
1.4.1	Structure Demo	0.50	Day	$5,821.70	$2,910.85
1.4.2	Remove Foundations To Subgrade	5.00	Cubic Yard	$27.63	$138.13
1.4.3	Trucking - Per Load	1.00	Each	$1,375.00	$1,375.00
1.5	**Transmission Line Retirement**	**1.00**	**Lump Sum**	**$33,027.63**	**$33,027.63**
1.5.1	Conductor Removal	310.00	Linear Feet	$93.31	$28,925.50
1.5.2	Utility Pole Removal	3.00	Each	$1,367.38	$4,102.14
1.6	**O&M Building Removal**	**1.00**	**Lump Sum**	**$45,056.71**	**$45,056.71**
1.6.1	Excavate, Cut & Cap Utilities	1.00	Day	$1,259.05	$1,259.05
1.6.2	Interior Demo & Removal	1.00	Lump Sum	$15,257.15	$15,257.15
1.6.3	Structure Demo	2.00	Day	$9,946.70	$19,893.40
1.6.4	Remove Foundations To Subgrade	230.00	Cubic Yard	$35.35	$8,129.71
1.6.5	Remove Water Tank & Piping	1.00	Lump Sum	$517.40	$517.40
1.7	**Inverter / Transformer Removal**	**22.00**	**Each**	**$5,438.37**	**$119,644.14**
1.7.1	Disconnect Electrical	22.00	Each	$1,248.52	$27,467.45
1.7.2	Loadout Inverter & Transformer	22.00	Each	$2,814.85	$61,926.69
1.7.3	Trucking - Per Load	22.00	Each	$1,375.00	$30,250.00
1.8	**Remove Solar Inverter Support Piles**	**22.00**	**Each**	**$375.82**	**$8,268.15**
1.8.1	Remove Solar Inverter Support Piles	22.00	Each	$250.82	$5,518.15
1.8.2	Trucking - Per Load	2.00	Each	$1,375.00	$2,750.00
1.9	**Solar Array Retirement**	**1.00**	**Lump Sum**	**$3,243,795.70**	**$3,243,795.70**
1.9.1	Fence Removal	78,400.00	Linear Feet	$1.22	$95,510.53
1.9.2	Solar Panel Removal & Disposal	190,733.00	Each	$6.08	$1,160,582.73
1.9.3	Solar Rack (Trackers) & Post Removal	7,064.00	Each	$281.38	$1,987,702.45
1.10	**Site Restoration - Partial Site Seeding**	**1.00**	**Lump Sum**	**$558,666.30**	**$558,666.30**
1.10.1	Strip & Decompact Roads	43,061.00	Linear Feet	$1.41	$60,723.74

1.10.2	Transport Road Gravel Offsite	16,225.00	Cubic Yard	$7.69	$124,770.25
1.10.3	Spot Grade Disturbed Areas	292.00	Acre	$277.99	$81,172.31
1.10.4	Re-Seed With Native Vegetation - Roads & Areas Disturbed By Construction	292.00	Acre	$1,000.00	$292,000.00
1.11	**Contractor Markups**	**1.00**	**Lump Sum**	**$815,298.95**	**$815,298.95**
1.11.1	Home Office, Project Management (5% Of Cost)	1.00	Lump Sum	$218,578.80	$218,578.80
1.11.2	Contractor OH & Fee (13% Of Cost)	1.00	Lump Sum	$596,720.15	$596,720.15
1.12	**Scrap Metal Credit**	**1.00**	**Lump Sum**	**-$1,343,464.00**	**-$1,343,464.00**
1.12.1	Scrap Credit - Substation	180.00	Ton	-$298.00	-$53,640.00
1.12.2	Scrap Credit - Comms Tower	2.00	Ton	-$298.00	-$596.00
1.12.3	Scrap Credit - Fence	314.00	Ton	-$298.00	-$93,572.00
1.12.4	Scrap Credit - Inverters / Transformers	440.00	Ton	-$298.00	-$131,120.00
1.12.5	Scrap Credit - Module Rack	3,532.00	Ton	-$298.00	-$1,052,536.00
1.12.6	Scrap Credit - Cable	3.00	Ton	-$4,000.00	-$12,000.00

Estimate Summary
TETRA TECH EC, INC.
Job Code: Ostrea Solar
Description: Decommissioning Estimate

CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost
1	1.00	Lump Sum	OSTREA SOLAR RETIREMENT	0.00	Detail	U.S. Dollar	3,843,410.90	3,843,410.90
1.1	1.00	Lump Sum	Equipment & Facilities Mob / Demob	0.50	Detail	U.S. Dollar	51,661.20	51,661.20
1.1.1	1.00	Lump Sum	Equipment Mob	0.00	Detail	U.S. Dollar	40,600.00	40,600.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UERNTRLG	Rental Equip Transp-Large		4.00	Each	U.S. Dollar	10,000.00	40,000.00
UERNTRSM	Rental Equip Transp-Small		4.00	Each	U.S. Dollar	150.00	600.00

1.1.2	1.00	Lump Sum	Site Facilities	0.00	Detail	U.S. Dollar	2,200.00	2,200.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UOCONMOB	Connex Box Mob		2.00	Each	U.S. Dollar	300.00	600.00
UOTRLTRN	Trailer Trnsp/Setup/Trdwn		2.00	Each	U.S. Dollar	800.00	1,600.00

1.1.3	1.00	Day	Crew Mob & Site Setup	1.00	Detail	U.S. Dollar	4,430.60	4,430.60

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	60.00	6.00	Each (hourly)	U.S. Dollar	40.26	2,415.60
L010101	OPERATOR	40.00	4.00	Each (hourly)	U.S. Dollar	50.37	2,015.00

1.1.4	1.00	Day	Crew Demob & Site Cleanup	1.00	Detail	U.S. Dollar	4,430.60	4,430.60

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	60.00	6.00	Each (hourly)	U.S. Dollar	40.26	2,415.60
L010101	OPERATOR	40.00	4.00	Each (hourly)	U.S. Dollar	50.37	2,015.00

1.2	3.00	Month	Project Site Support	0.05	Detail	U.S. Dollar	44,470.30	133,410.89
1.2.1	3.00	Month	Site Facilities	0.00	Detail	U.S. Dollar	1,305.00	3,915.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
URCONNEX	Connex Box		3.00	Month	U.S. Dollar	150.00	450.00
UROFFTRL	Office Trailer -12x60		3.00	Month	U.S. Dollar	500.00	1,500.00
UO1STAID	1st Aid Supplies		3.00	Month	U.S. Dollar	300.00	900.00
UOOFFSUP	Office Supplies($/prs/mo)		3.00	Month	U.S. Dollar	55.00	165.00
URPRTAJH	Port-a-John Unit(s) (4)		3.00	Month	U.S. Dollar	300.00	900.00

1.2.2	3.00	Month	Field Management	0.05	Detail	U.S. Dollar	43,165.30	129,495.89

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L90FXX02	Field - Proj Superintendent	660.00	1.00	Each (hourly)	U.S. Dollar	83.18	54,900.12
RPUTRK05	F-250 4X4 3/4 TON PICKUP	1,320.00	2.00	Each (hourly)	U.S. Dollar	11.88	15,681.60
L90FXX03	Field - SHSO	660.00	1.00	Each (hourly)	U.S. Dollar	89.26	58,914.17

1.3	1.00	Lump Sum	Substation Retirement	0.04	Detail	U.S. Dollar	173,621.26	173,621.26
1.3.1	1.00	Day	Fence Removal	1.00	Detail	U.S. Dollar	1,259.05	1,259.05

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L010101	OPERATOR	10.00	1.00	Each (hourly)	U.S. Dollar	50.37	503.75
L060100	GENERAL LABORER	10.00	1.00	Each (hourly)	U.S. Dollar	40.26	402.60
RBACKH09	Deere 710J BACKHOE, 1.62CY	10.00	1.00	Each (hourly)	U.S. Dollar	35.27	352.70

1.3.2	1.00	Each	Transformer Removal	0.17	Detail	U.S. Dollar	92,788.70	92,788.70
1.3.2.1	1.00	Each	Oil Removal & Disposal	1.00	Detail	U.S. Dollar	58,180.20	58,180.20

CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost
1.3.2.1.1	1.00	Each	Oil Removal	1.00	Detail	U.S. Dollar	805.20	805.20

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	20.00	2.00	Each (hourly)	U.S. Dollar	40.26	805.20

1.3.2.1.2	14,000.00	Gallon	Oil Disposal	0.00	Detail	U.S. Dollar	4.00	56,000.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USDISPOSAL	Disposal Fee's		56,000.00	Each	U.S. Dollar	1.00	56,000.00

1.3.2.1.3	1.00	Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	1,375.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		1,375.00	Each	U.S. Dollar	1.00	1,375.00

1.3.2.2	1.00	Each	Dismantle & Loadout Transformer	0.20	Detail	U.S. Dollar	34,608.50	34,608.50

1.3.2.2.1	1.00	Each	Dismantle, Cut & Size	0.20	Detail	U.S. Dollar	29,108.50	29,108.50

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	200.00	4.00	Each (hourly)	U.S. Dollar	40.26	8,052.00
L010101	OPERATOR	100.00	2.00	Each (hourly)	U.S. Dollar	50.37	5,037.50
*REXCAV06A	Excav 100K w/ Bucket & Grapple	50.00	1.00	Each (hourly)	U.S. Dollar	129.71	6,485.50
*REXCAV06E	Excav 100K w/ Shear	50.00	1.00	Each (hourly)	U.S. Dollar	190.67	9,533.50

1.3.2.2.2	4.00	Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	5,500.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		5,500.00	Each	U.S. Dollar	1.00	5,500.00

1.3.3	1.00	Each	Remove Control Building & Switchgear	1.00	Detail	U.S. Dollar	4,953.45	4,953.45

1.3.3.1	1.00	Each	Demo	1.00	Detail	U.S. Dollar	2,203.45	2,203.45

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	10.00	1.00	Each (hourly)	U.S. Dollar	40.26	402.60
L010101	OPERATOR	10.00	1.00	Each (hourly)	U.S. Dollar	50.37	503.75
*REXCAV06A	Excav 100K w/ Bucket & Grapple	10.00	1.00	Each (hourly)	U.S. Dollar	129.71	1,297.10

1.3.3.2	2.00	Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	2,750.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		2,750.00	Each	U.S. Dollar	1.00	2,750.00

1.3.4	1.00	Day	UG Utility & Ground Removal	1.00	Detail	U.S. Dollar	1,259.05	1,259.05

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L010101	OPERATOR	10.00	1.00	Each (hourly)	U.S. Dollar	50.37	503.75
L060100	GENERAL LABORER	10.00	1.00	Each (hourly)	U.S. Dollar	40.26	402.60
RBACKH09	Deere 710J BACKHOE, 1.62CY	10.00	1.00	Each (hourly)	U.S. Dollar	35.27	352.70

1.3.5	500.00	Cubic Yard	Remove Foundations To Subgrade	73.68	Detail	U.S. Dollar	27.63	13,812.78

1.3.5.1	500.00	Cubic Yard	Excavate / Remove Foundation - Various Depth	280.00	Detail	U.S. Dollar	15.60	7,801.07

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	17.86	1.00	Each (hourly)	U.S. Dollar	40.26	718.93
L010101	OPERATOR	35.71	2.00	Each (hourly)	U.S. Dollar	50.37	1,799.11
*REXCAV06C	Excav 100K w/ Hammer	17.86	1.00	Each (hourly)	U.S. Dollar	166.14	2,966.79

CBS Position Code	Quantity	UM	Description	Hours	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost
*REXCAV06A	Excav 100K w/ Bucket & Grapple			17.86	1.00 Each (hourly)	U.S. Dollar		129.71	2,316.25
1.3.5.2	500.00	Cubic Yard	Concrete Transport Offsite		100.00	Detail	U.S. Dollar	12.02	6,011.72
Resource Code	**Description**			**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
RDUTRK06	CAT D350D, 18CY-24CY			50.00	1.00 Each (hourly)	U.S. Dollar		76.71	3,835.50
L080940	TEAMSTER			50.00	1.00 Each (hourly)	U.S. Dollar		43.52	2,176.22
1.3.6	1.00	Lump Sum	Misc. Material Disposal		0.00	Detail	U.S. Dollar	1,975.00	1,975.00
1.3.6.1	1.00	Each	Trucking - Per Load		0.00	Detail	U.S. Dollar	1,375.00	1,375.00
Resource Code	**Description**			**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
USTRUCKING	Trucking Sub				1,375.00 Each	U.S. Dollar		1.00	1,375.00
1.3.6.2	10.00	Ton	Disposal Cost		0.00	Detail	U.S. Dollar	60.00	600.00
Resource Code	**Description**			**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
USDISPOSAL	Disposal Fee's				600.00 Each	U.S. Dollar		1.00	600.00
1.3.7	1.00	Lump Sum	Restore Yard		0.14	Detail	U.S. Dollar	57,573.23	57,573.23
1.3.7.1	1.00	Acre	Backfill / Regrade		2.00	Detail	U.S. Dollar	1,608.57	1,608.57
Resource Code	**Description**			**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
L060100	GENERAL LABORER			10.00	2.00 Each (hourly)	U.S. Dollar		40.26	402.60
L010101	OPERATOR			10.00	2.00 Each (hourly)	U.S. Dollar		50.37	503.75
REXCAV06B	Gradall - Excavator			5.00	1.00 Each (hourly)	U.S. Dollar		79.62	398.12
*RDOZER08	CAT D6 LGP Dozer			5.00	1.00 Each (hourly)	U.S. Dollar		60.82	304.10
1.3.7.2	2,000.00	Cubic Yard	Vegetative Cover		300.00	Detail	U.S. Dollar	27.48	54,964.66
1.3.7.2.1	2,000.00	Cubic Yard	Topsoil, Delivered		0.00	Detail	U.S. Dollar	20.00	40,000.00
Resource Code	**Description**			**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
IMSOIL	Topsoil				2,000.00 Cubic Yard	U.S. Dollar		20.00	40,000.00
1.3.7.2.2	2,000.00	Cubic Yard	Placement		300.00	Detail	U.S. Dollar	7.48	14,964.66
Resource Code	**Description**			**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
L010101	OPERATOR			133.33	2.00 Each (hourly)	U.S. Dollar		50.37	6,716.66
RDOZER08	CAT D6N XL			133.33	2.00 Each (hourly)	U.S. Dollar		61.86	8,248.00
1.3.7.3	1.00	Acre	Re-Seed With Native Vegetation		0.00	Detail	U.S. Dollar	1,000.00	1,000.00
Resource Code	**Description**			**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
USLANDSCAPE	Landscape Sub				1.00 Acre	U.S. Dollar		1,000.00	1,000.00
1.4	1.00	Lump Sum	Remove Comms Tower		1.76	Detail	U.S. Dollar	4,423.98	4,423.98
1.4.1	0.50	Day	Structure Demo		1.00	Detail	U.S. Dollar	5,821.70	2,910.85
Resource Code	**Description**			**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
*REXCAV06A	Excav 100K w/ Bucket & Grapple			5.00	1.00 Each (hourly)	U.S. Dollar		129.71	648.55
*REXCAV06E	Excav 100K w/ Shear			5.00	1.00 Each (hourly)	U.S. Dollar		190.67	953.35
L010101	OPERATOR			10.00	2.00 Each (hourly)	U.S. Dollar		50.37	503.75
L060100	GENERAL LABORER			20.00	4.00 Each (hourly)	U.S. Dollar		40.26	805.20
1.4.2	5.00	Cubic Yard	Remove Foundations To Subgrade		73.68	Detail	U.S. Dollar	27.63	138.13
1.4.2.1	5.00	Cubic Yard	Excavate / Remove Foundation - Various Depth		280.00	Detail	U.S. Dollar	15.60	78.01
Resource Code	**Description**			**Hours**	**Quantity UM**	**Currency**		**Unit Cost**	**Total Cost**
L060100	GENERAL LABORER			0.18	1.00 Each (hourly)	U.S. Dollar		40.26	7.19

CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost
L010101	OPERATOR		0.36	2.00 Each (hourly)	U.S. Dollar		50.37	17.99
*REXCAV06C	Excav 100K w/ Hammer		0.18	1.00 Each (hourly)	U.S. Dollar		166.14	29.67
*REXCAV06A	Excav 100K w/ Bucket & Grapple		0.18	1.00 Each (hourly)	U.S. Dollar		129.71	23.16
1.4.2.2	5.00	Cubic Yard	Concrete Transport Offsite	100.00	Detail	U.S. Dollar	12.02	60.12

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
RDUTRK06	CAT D350D, 18CY-24CY	0.50	1.00	Each (hourly)	U.S. Dollar	76.71	38.36
L080940	TEAMSTER	0.50	1.00	Each (hourly)	U.S. Dollar	43.52	21.76

1.4.3	1.00	Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	1,375.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		1,375.00	Each	U.S. Dollar	1.00	1,375.00

Notes: **********
Assumption: 45,000 lbs per load
****

1.5	1.00	Lump Sum	Transmission Line Retirement	0.09	Detail	U.S. Dollar	33,027.63	33,027.63
1.5.1	310.00	Linear Feet	Conductor Removal	31.00	Detail	U.S. Dollar	93.31	28,925.50
1.5.1.1	1.00	Lump Sum	Cut / Lower Cable, Size & Loadout	0.10	Detail	U.S. Dollar	28,925.50	28,925.50

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	400.00	4.00	Each (hourly)	U.S. Dollar	40.26	16,104.00
L010101	OPERATOR	100.00	1.00	Each (hourly)	U.S. Dollar	50.37	5,037.50
*RXMISC14	MAN LIFT GAS 125ft	100.00	1.00	Each (hourly)	U.S. Dollar	54.88	5,488.00
RLIFTS05	JCB 508C, 8,000lbs FRKLFT	100.00	1.00	Each (hourly)	U.S. Dollar	22.96	2,296.00

1.5.2	3.00	Each	Utility Pole Removal	3.08	Detail	U.S. Dollar	1,367.38	4,102.14
1.5.2.1	3.00	Each	Cut / Lower Pole	5.00	Detail	U.S. Dollar	522.49	1,567.47

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	24.00	4.00	Each (hourly)	U.S. Dollar	40.26	966.24
L010101	OPERATOR	6.00	1.00	Each (hourly)	U.S. Dollar	50.37	302.25
RHYDCR05	GROVE RT600E 40 TON	6.00	1.00	Each (hourly)	U.S. Dollar	49.83	298.98

1.5.2.2	3.00	Each	Size & Loadout	8.00	Detail	U.S. Dollar	326.56	979.67

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	15.00	4.00	Each (hourly)	U.S. Dollar	40.26	603.90
L010101	OPERATOR	3.75	1.00	Each (hourly)	U.S. Dollar	50.37	188.91
RHYDCR05	GROVE RT600E 40 TON	3.75	1.00	Each (hourly)	U.S. Dollar	49.83	186.86

1.5.2.3	1.00	Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	1,375.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		1,375.00	Each	U.S. Dollar	1.00	1,375.00

1.5.2.4	3.00	Ton	Disposal Cost	0.00	Detail	U.S. Dollar	60.00	180.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USDISPOSAL	Disposal Fee's		180.00	Each	U.S. Dollar	1.00	180.00

1.6	1.00	Lump Sum	O&M Building Removal	0.10	Detail	U.S. Dollar	45,056.71	45,056.71
1.6.1	1.00	Day	Excavate, Cut & Cap Utilities	1.00	Detail	U.S. Dollar	1,259.05	1,259.05

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	10.00	1.00	Each (hourly)	U.S. Dollar	40.26	402.60
L010101	OPERATOR	10.00	1.00	Each (hourly)	U.S. Dollar	50.37	503.75
RBACKH09	Deere 710J BACKHOE, 1.62CY	10.00	1.00	Each (hourly)	U.S. Dollar	35.27	352.70

CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost
1.6.2	1.00	Lump Sum	Interior Demo & Removal	0.33	Detail	U.S. Dollar	15,257.15	15,257.15
1.6.2.1	3.00	Day	Interior Demo	1.00	Detail	U.S. Dollar	3,154.05	9,462.15

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	120.00	4.00	Each (hourly)	U.S. Dollar	40.26	4,831.20
L010101	OPERATOR	30.00	1.00	Each (hourly)	U.S. Dollar	50.37	1,511.25
*RXMISC19	Material Handler	30.00	1.00	Each (hourly)	U.S. Dollar	103.99	3,119.70

1.6.2.2	61.00	Ton	Material T&D	0.00	Detail	U.S. Dollar	95.00	5,795.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		3,965.00	Each	U.S. Dollar	1.00	3,965.00
USDISPOSAL	Disposal Fee's		1,830.00	Each	U.S. Dollar	1.00	1,830.00

1.6.3	2.00	Day	Structure Demo	1.00	Detail	U.S. Dollar	9,946.70	19,893.40
1.6.3.1	2.00	Day	Structure Demo	1.00	Detail	U.S. Dollar	5,821.70	11,643.40

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
*REXCAV06A	Excav 100K w/ Bucket & Grapple	20.00	1.00	Each (hourly)	U.S. Dollar	129.71	2,594.20
*REXCAV06E	Excav 100K w/ Shear	20.00	1.00	Each (hourly)	U.S. Dollar	190.67	3,813.40
L010101	OPERATOR	40.00	2.00	Each (hourly)	U.S. Dollar	50.37	2,015.00
L060100	GENERAL LABORER	80.00	4.00	Each (hourly)	U.S. Dollar	40.26	3,220.80

1.6.3.2	6.00	Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	8,250.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		8,250.00	Each	U.S. Dollar	1.00	8,250.00

Notes: **********
Assumption: 45,000 lbs per load
****

1.6.4	230.00	Cubic Yard	Remove Foundations To Subgrade	71.43	Detail	U.S. Dollar	35.35	8,129.71
1.6.4.1	230.00	Cubic Yard	Excavate / Remove Foundation - Various Depth	250.00	Detail	U.S. Dollar	17.47	4,019.11

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	9.20	1.00	Each (hourly)	U.S. Dollar	40.26	370.39
L010101	OPERATOR	18.40	2.00	Each (hourly)	U.S. Dollar	50.37	926.90
*REXCAV06C	Excav 100K w/ Hammer	9.20	1.00	Each (hourly)	U.S. Dollar	166.14	1,528.49
*REXCAV06A	Excav 100K w/ Bucket & Grapple	9.20	1.00	Each (hourly)	U.S. Dollar	129.71	1,193.33

Notes: **********
Assume monolithic slab on grade
****

1.6.4.2	230.00	Cubic Yard	Concrete Transport Offsite	100.00	Detail	U.S. Dollar	17.87	4,110.60

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
RDUTRK06	CAT D350D, 18CY-24CY	23.00	1.00	Each (hourly)	U.S. Dollar	76.71	1,764.33
L080940	TEAMSTER	23.00	1.00	Each (hourly)	U.S. Dollar	43.52	1,001.06
L010101	OPERATOR	11.50	0.50	Each (hourly)	U.S. Dollar	50.37	579.31
RFELWH09	CAT 966F LOADER, 4.25CY	11.50	0.50	Each (hourly)	U.S. Dollar	66.60	765.90

1.6.5	1.00	Lump Sum	Remove Water Tank & Piping	2.00	Detail	U.S. Dollar	517.40	517.40

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	10.00	2.00	Each (hourly)	U.S. Dollar	40.26	402.60
RLIFTS05	JCB 508C, 8,000lbs FRKLFT	5.00	1.00	Each (hourly)	U.S. Dollar	22.96	114.80

1.7	22.00	Each	Inverter / Transformer Removal	0.50	Detail	U.S. Dollar	5,438.37	119,644.14
1.7.1	22.00	Each	Disconnect Electrical	1.00	Detail	U.S. Dollar	1,248.52	27,467.45

CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L010110	ELECTRCIAN	220.00	1.00	Each (hourly)	U.S. Dollar	72.71	15,996.65
L060100	GENERAL LABORER	220.00	1.00	Each (hourly)	U.S. Dollar	40.26	8,857.20
RPUTRK05	F-250 4X4 3/4 TON PICKUP	220.00	1.00	Each (hourly)	U.S. Dollar	11.88	2,613.60

1.7.2	22.00 Each	Loadout Inverter & Transformer	1.00	Detail	U.S. Dollar	2,814.85	61,926.69

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER	880.00	4.00	Each (hourly)	U.S. Dollar	40.26	35,428.80
L010101	OPERATOR	220.00	1.00	Each (hourly)	U.S. Dollar	50.37	11,082.49
RHYDCR06	GROVE RT880 73 TON	220.00	1.00	Each (hourly)	U.S. Dollar	70.07	15,415.40

1.7.3	22.00 Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	30,250.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		30,250.00	Each	U.S. Dollar	1.00	30,250.00

1.8	22.00 Each	Remove Solar Inverter Support Piles	20.00	Detail	U.S. Dollar	375.82	8,268.15

1.8.1	22.00 Each	Remove Solar Inverter Support Piles	20.00	Detail	U.S. Dollar	250.82	5,518.15

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L010101	OPERATOR	22.00	2.00	Each (hourly)	U.S. Dollar	50.37	1,108.25
L060100	GENERAL LABORER	22.00	2.00	Each (hourly)	U.S. Dollar	40.26	885.72
*REXCAV06A	Excav 100K w/ Bucket & Grapple	11.00	1.00	Each (hourly)	U.S. Dollar	129.71	1,426.81
*REXCAV06E	Excav 100K w/ Shear	11.00	1.00	Each (hourly)	U.S. Dollar	190.67	2,097.37

Notes: **********
Crew to include
1 excavator w/shear, 1 excavator w/grapple, 2 operators and 2 laborers. Includes post removal and sizing of steel for sale as scrap, and loadout to haul trucks.
****

1.8.2	2.00 Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	2,750.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		2,750.00	Each	U.S. Dollar	1.00	2,750.00

Notes: **********
Assumption: 45,000 lbs per load
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1.9	1.00 Lump Sum	Solar Array Retirement	0.00	Detail	U.S. Dollar	3,243,795.70	3,243,795.70
1.9.1	78,400.00 Linear Feet	Fence Removal	5,124.80	Detail	U.S. Dollar	1.22	95,510.53
1.9.1.1	78,400.00 Linear Feet	Fence Removal	5,124.80	Detail	U.S. Dollar	0.97	76,260.53

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L010101	OPERATOR	458.94	3.00	Each (hourly)	U.S. Dollar	50.37	23,119.32
L060100	GENERAL LABORER	917.89	6.00	Each (hourly)	U.S. Dollar	40.26	36,954.23
RBACKH09	Deere 710J BACKHOE, 1.62CY	458.94	3.00	Each (hourly)	U.S. Dollar	35.27	16,186.98

1.9.1.2	14.00 Each	Trucking - Per Load	0.00	Detail	U.S. Dollar	1,375.00	19,250.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		19,250.00	Each	U.S. Dollar	1.00	19,250.00

1.9.2	190,733.00 Each	Solar Panel Removal & Disposal	1,799.29	Detail	U.S. Dollar	6.08	1,160,582.73
1.9.2.1	190,733.00 Each	Solar Panel Removal	1,799.29	Detail	U.S. Dollar	1.75	333,802.73

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
RLIFTS05	JCB 508C, 8,000lbs FRKLFT	1,060.04	1.00	Each (hourly)	U.S. Dollar	22.96	24,338.63
L010101	OPERATOR	1,060.04	1.00	Each (hourly)	U.S. Dollar	50.37	53,399.70

CBS Position Code	Quantity	UM	Description	Cost Item	UM/Day	Cost Source	Currency	Unit Cost	Total Cost
L060100	GENERAL LABORER			6,360.27	6.00 Each (hourly)	U.S. Dollar		40.26	256,064.40

Notes: **********
Assumed production: 30 panels per laborer per hour,
includes packaging and preparing for shipment offsite.
****

1.9.2.2	304.00 Each	Trucking - Per Load		0.00	Detail	U.S. Dollar	1,375.00	418,000.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		418,000.00	Each	U.S. Dollar	1.00	418,000.00

Notes: **********
Assumption: 45,000 lbs per load
****

1.9.2.3	6,813.00 Ton	Disposal Cost		0.00	Detail	U.S. Dollar	60.00	408,780.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USDISPOSAL	Disposal Fee's		408,780.00	Each	U.S. Dollar	1.00	408,780.00

Notes: **********
Assumption: 190,733 modules x 71.43 lbs each
****

1.9.3	7,064.00 Each	Solar Rack (Trackers) & Post Removal		20.00	Detail	U.S. Dollar	281.38	1,987,702.45
1.9.3.1	7,064.00 Each	Solar Rack (Trackers) & Post Removal		20.00	Detail	U.S. Dollar	250.82	1,771,827.45

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
L010101	OPERATOR	7,064.00	2.00	Each (hourly)	U.S. Dollar	50.37	355,848.65
L060100	GENERAL LABORER	7,064.00	2.00	Each (hourly)	U.S. Dollar	40.26	284,396.64
*REXCAV06A	Excav 100K w/ Bucket & Grapple	3,532.00	1.00	Each (hourly)	U.S. Dollar	129.71	458,135.72
*REXCAV06E	Excav 100K w/ Shear	3,532.00	1.00	Each (hourly)	U.S. Dollar	190.67	673,446.44

Notes: **********
Assumed production: .5 hour per rack per crew. Crew to include
1 excavator w/shear, 1 excavator w/grapple, 2 operators and 2
laborers. Includes post removal and sizing of steel for sale as scrap,
and loadout to haul trucks.
Quantity assumption: 27 modules per rack assembly
****

1.9.3.2	157.00 Each	Trucking - Per Load		0.00	Detail	U.S. Dollar	1,375.00	215,875.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USTRUCKING	Trucking Sub		215,875.00	Each	U.S. Dollar	1.00	215,875.00

Notes: **********
Assumption: 45,000 lbs per load
****

1.10	1.00 Lump Sum	Site Restoration - Partial Site Seeding		0.02	Detail	U.S. Dollar	558,666.30	558,666.30
1.10.1	43,061.00 Linear Feet	Strip & Decompact Roads		2,500.00	Detail	U.S. Dollar	1.41	60,723.74

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
*RDOZER08	CAT D6 LGP Dozer	344.49	2.00	Each (hourly)	U.S. Dollar	60.82	20,951.76
L010101	OPERATOR	516.73	3.00	Each (hourly)	U.S. Dollar	50.37	26,030.35
*RFELWH08C	CAT 980 LOADER	172.24	1.00	Each (hourly)	U.S. Dollar	79.78	13,741.63

Notes: **********
Decompaction to include discing and regrading
Assume removed road base transported offsite at no charge
****

1.10.2	16,225.00 Cubic Yard	Transport Road Gravel Offsite		0.00	Detail	U.S. Dollar	7.69	124,770.25

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USMISC	Misc Sub		124,770.25	Each	U.S. Dollar	1.00	124,770.25

1.10.3	292.00 Acre	Spot Grade Disturbed Areas		8.00	Detail	U.S. Dollar	277.99	81,172.31

CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
*RDOZER08	CAT D6 LGP Dozer	730.00	2.00	Each (hourly)	U.S. Dollar	60.82	44,398.60
L010101	OPERATOR	730.00	2.00	Each (hourly)	U.S. Dollar	50.37	36,773.71

Notes: **********
Assumtion: 583 acres total property area.
Assume that 50% of the area will be regraded.
****

1.10.4	292.00	Acre	Re-Seed With Native Vegetation - Roads & Areas Disturbed By Construction	0.00	Detail	U.S. Dollar	1,000.00	292,000.00

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USLANDSCAPE	Landscape Sub		292.00	Acre	U.S. Dollar	1,000.00	292,000.00

Notes: **********
Assumtion: 583 acres total property area.
Assume that 50% of the area will be re-seeded.
****

1.11	1.00	Lump Sum	Contractor Markups	0.00	Detail	U.S. Dollar	815,298.95	815,298.95
1.11.1	1.00	Lump Sum	Home Office, Project Management (5% Of Cost)	0.00	Detail	U.S. Dollar	218,578.80	218,578.80

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USMARKUP5	5% Markup		4,371,576.00	Each	U.S. Dollar	0.05	218,578.80

1.11.2	1.00	Lump Sum	Contractor OH & Fee (13% Of Cost)	0.00	Detail	U.S. Dollar	596,720.15	596,720.15

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
USMARKUP	13% Markup		4,590,155.00	Each	U.S. Dollar	0.13	596,720.15

1.12	1.00	Lump Sum	Scrap Metal Credit	0.00	Detail	U.S. Dollar	(1,343,464.00)	(1,343,464.00)
1.12.1	180.00	Ton	Scrap Credit - Substation	0.00	Detail	U.S. Dollar	(298.00)	(53,640.00)

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UODCFERROUS	Ferrous Metal Scrap		180.00	Ton	U.S. Dollar	(298.00)	(53,640.00)

1.12.2	2.00	Ton	Scrap Credit - Comms Tower	0.00	Detail	U.S. Dollar	(298.00)	(596.00)

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UODCFERROUS	Ferrous Metal Scrap		2.00	Ton	U.S. Dollar	(298.00)	(596.00)

1.12.3	314.00	Ton	Scrap Credit - Fence	0.00	Detail	U.S. Dollar	(298.00)	(93,572.00)

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UODCFERROUS	Ferrous Metal Scrap		314.00	Ton	U.S. Dollar	(298.00)	(93,572.00)

Notes: **********
Assume 8 lbs per ft fence & posts
****

1.12.4	440.00	Ton	Scrap Credit - Inverters / Transformers	0.00	Detail	U.S. Dollar	(298.00)	(131,120.00)

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UODCFERROUS	Ferrous Metal Scrap		440.00	Ton	U.S. Dollar	(298.00)	(131,120.00)

Notes: **********
Assume 20 ton per inverter / transformer
****

1.12.5	3,532.00	Ton	Scrap Credit - Module Rack	0.00	Detail	U.S. Dollar	(298.00)	(1,052,536.00)

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UODCFERROUS	Ferrous Metal Scrap		3,532.00	Ton	U.S. Dollar	(298.00)	(1,052,536.00)

Notes: **********
Assume 1000 Lbs per rack w/ piles
****

CBS Position Code	Quantity	UM	Description	Cost Item UM/Day	Cost Source	Currency	Unit Cost	Total Cost
1.12.6	3.00	Ton	Scrap Credit - Cable	0.00	Detail	U.S. Dollar	(4,000.00)	(12,000.00)

Resource Code	Description	Hours	Quantity	UM	Currency	Unit Cost	Total Cost
UODCCOP	Copper Scrap		3.00	Ton	U.S. Dollar	(4,000.00)	(12,000.00)

Notes: **********
Assume .2 lbs per lf x 11,200'+ misc cable at sub station
****

Report Total:	3,843,410.90

Category	Total
Labor	1,337,876.14
Rented Equipment	1,352,584.57
Supplies	1,065.00
Materials	40,000.00
Subcontract	2,453,149.20
ODCs	2,200.00
Other Costs	(1,343,464.00)

APPENDIX B: APPLICABLE REQUIREMENTS FROM THE SITE CERTIFICATION AGREEMENT FOR THE OSTREA SOLAR, LLC PROJECT

Article III: General Conditions

Article III.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.

Article IV: Plans, Approvals and Actions Required Prior to Construction

Article IV.F. Initial Site Restoration Plan

The Certificate Holder is responsible for Facility 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 Facility Site to approximate pre-Facility 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 Application 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 Facility and also the possibility of the Facility 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 Facility, the anticipated time frame of site restoration, and the anticipated future use of the Facility 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 Facility with solar modules incorporating hazardous materials, such as Cadmium Telluride, then the Certificate Holder shall use appropriate precautions during decommissioning and removal of the solar modules to safely dispose of and to avoid, and, if necessary, remediate any soil contamination resulting from the modules' hazardous materials.
9. An initial plan for restoring the Facility 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 Facility facilities if the Facility is suspended or terminated during construction.

Article VIII: Facility Termination, Decommissioning and Site Restoration

Article VIII.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 Facility. The Detailed Site Restoration Plan shall provide for restoration of the Facility Site within the timeframe specified in Article VIII.C, taking into account the Initial Site Restoration Plan and the anticipated future use of the Facility 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.

Article VIII.B. Facility 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 Facility, including by concluding the plant's operations, or by suspending construction and abandoning the Facility.
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 Facility is suspended or abandoned during construction or before it has completed its useful operating life.

Article VIII.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 Facility 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 equipment to support decommissioning.

1. Scope. Site Restoration shall involve removal of the solar modules and mounting structures; removal of foundations or other Facility facilities to a depth of four (4) feet below grade; restoration of any disturbed soil to pre-construction condition; and removal of Facility access roads and overhead poles and transmission lines (except for any roads and/or overhead infrastructure that Facility Area 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 Facility 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 preconstruction conditions, experience gained with re-vegetation during operation and the condition of the Facility 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 Facility 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.

Article VIII.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 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 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. 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 Facility and shall be continuously maintained through to the completion of Site Restoration. Construction of the Facility 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:
    i. 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
    ii. 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

iii. 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.

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.

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.

APPENDIX C: MITIGATION MEASURES SUMMARY FROM THE APPLICATION FOR SITE CERTIFICATION, ATTACHMENT O, OSTREA SOLAR, LLC

Attachment O. Proposed Mitigation Measures Table

Table 1 Proposed Mitigation Measures

Mitigation Measure	Description	Expert agency participation
Earth		
Applicant will obtain all necessary permits including Building, Grading and Excavation Permits prior to construction.	The Projects' design will meet the seismic design parameters and Washington State and Yakima County Building codes to be compliant with Washington State WAC 463-62-020; 2015 International Building Code and American Society of Civil Engineers (ASCE) 7-10 and ASCE 7-16 and Yakima County Grading and Excavation Permit	Yakima Planning Department and Washington State Building Code Council
The Section 7.0 geotechnical construction recommendations provided by ANS GEO, INC.'s High Top and Ostrea Solar Project Draft Geotechnical Report (Attachment L) may be implemented as appropriate.	The Projects' design will implement the appropriate geotechnical recommendations to meet Washington State and Yakima County Building codes.	Yakima Planning Department and Washington State Building Code Council
While the Projects are in an area of low risk from seismic activity, the seismic design parameters will be incorporated as appropriate. The Projects will comply with the current codes at the time of construction, demonstrating compliance with WAC 463-62-020.	2015 International Building Code and ASCE 7-10 and ASCE 7-16 which follow the Washington State Building Codes. WAC 463-62-020.	Yakima Planning Department and Washington State Building Code Council
Pre-drilling of the pile foundations will likely be required, depending on the pile depths, unless shallow-depth footings are used.	2015 International Building Code and ASCE 7-10 and ASCE 7-16 which follow the Washington State Building Codes. WAC 463-62-020.	Yakima Planning Department and Washington State Building Code Council

Mitigation Measure	Description	Expert agency participation
Air Quality		
Best Management Practices (BMPs) – Air Quality	Washington Administrative Codes (WAC) addressing air quality include: • WAC 173-400-040(3) Fallout. • WAC 173-400-040(4–4a) Fugitive Emissions. • WAC 173-400-040(5) Odors. • WAC 173-400-040(9)(a) Fugitive Dust. To adhere to the State codes described above, the Project may implement the following BMPs and standard construction practices: • Fugitive dust-abatement measures will be used as needed to control fugitive dust generated during construction. When applied, Applicant will use an environmentally safe water-based or polymer additive dust palliative such as lignin sulfonate for dust control. All products will be acceptable for use by Ecology. • Vehicles and equipment used during construction will be properly maintained to minimize exhaust emissions. • Operational measures such as limiting engine idling time and shutting down equipment when not in use will be implemented. • Construction materials that could be a source of fugitive dust will be covered when stored. • Traffic speeds on unpaved roads will be limited to 25 miles per hour or less to minimize generation of fugitive dust. • Truck beds will be covered when transporting dirt or soil. • Carpooling among construction workers will be encouraged to minimize construction-related traffic and associated emissions. • Erosion control measures will be implemented to limit deposition of silt to roadways, to minimize a vector for fugitive dust.	Yakima Regional Clean Air Agency (YRCAA)
Emissions	Any generators used on site will be rated appropriately and be properly maintained to minimize emissions as required by the federal emission standards for stationary reciprocating internal combustion engines. Refer to the Appendix F for more details and specifications regarding generators.	YRCAA[1]
Construction Dust Policy Notification	In compliance with Section 3.2 of the YRCAA Construction Dust Control Policy, the Applicant will be required to submit an additional notification to the YRCAA, as soon as possible, prior to commencement of work that would disturb ground cover or otherwise cause fugitive dust emissions.	YRCAA

[1] EFSEC will work with Yakima Regional Clean Air Agency or another air permitting authority as appropriate at the time of decommissioning.

Mitigation Measure	Description	Expert agency participation
Master Dust Control Plan	As the Project moves forward, the Applicant will generate the Master Dust Control Plan. The Master Dust Control Plan will outline plans to mitigate fugitive dust emissions generated during construction or post-construction Operations and Maintenance (O&M) activities within the Master PE. A Master Dust Control Plan will include the following items: • Identification of all anticipated fugitive dust sources including roads. • A description of the BMPs to be used for each source including schedule, rate of application, calculations, or some other means of describing how often, how much and when the BMP is to be used. • Requirements used for monitoring and recordkeeping including storage location. • Contact information for the parties responsible for implementation of the plan. • A detailed site plan identifying dust sources and best management practices. • Source and availability of water and other dust control materials. An inspection checklist specific to the project will be developed. Using an inspection checklist during the daily report process serves as a record of efforts to minimize fugitive dust problems. Refer to Appendix E for the Dust Control Plan.	YRCAA
Water Quality – Wetlands and Surface Waters		
Avoidance and Minimization	No wetland features exist within the Project Footprints. The Projects have no impacts to wetlands and are consistent with WAC 463-62-050. The stream features that are present are Type 5 streams, which do not require a buffer per Yakima County Code. During construction, four ephemeral channels will be temporarily crossed by construction traffic. BMPs will be implemented at construction crossings, including but not limited to timber mats, or other similar types of temporary products, to limit impacts to the channel crossings. The BMPs will be removed when the construction is complete. The ephemeral channels will be restored to their current topography once construction is complete.	Ecology

Mitigation Measure	Description	Expert agency participation
	A permanent access road crosses five ephemeral channels. The design of the road will seek to minimize impacts to the ephemeral channels. The crossing will be designed to minimize permanent impacts per YCC 16C.06.13, YCC 16C.06.17, and WAC 220-660-190, including: • Location and alignment of the proposed road crossing to minimize impacts to the ephemeral channel. • Excavated material not used to achieve the design grade shall be removed from the ephemeral channel. • Site restoration and revegetation in areas disturbed by construction in the channel boundaries. • Channel crossings for construction equipment and vehicles may include a variety of control measures, that could include, but would not be limited to timber mats, or other similar types of temporary products that can be removed from the Project site when construction is completed. • Stage materials and equipment to prevent contamination of Waters of the State. • Develop and implement a Construction Phase Stormwater Pollution Prevention Plan (SWPPP), an Erosion and Sediment Control Plan (ESCP), and a Construction Phase Spill Prevention, Control and Countermeasures (SPCC) Plan, as applicable, in compliance with 90.48 RCW. • Installation and maintenance of temporary erosion and sediment control measures including the appropriate use of silt fencing. • Complete all work in dry conditions outside of storm events when no water is present. • A Nationwide Permit 14 will be acquired from the USACE as part of the Project permitting effort. A separate 401 permit will be obtained from Ecology if required.	
Water Quality--Stormwater Runoff		
BMPs - Stormwater	The construction SWPPP will outline planned BMPs to mitigate, reduce, and remove the potential for stormwater runoff from discharging from the site. BMPs from Washington State Department of Ecology's (Ecology) Stormwater Management Manual for Eastern Washington (SWMMEW) will be employed. The construction SWPPP will meet the	Ecology

Mitigation Measure	Description	Expert agency participation
	following objectives based on S9.A of the CSWGP: • To identify BMPs which prevent erosion and sedimentation, and to reduce, eliminate, or prevent stormwater contamination and water pollution from construction activity. • To prevent violations of surface water quality, groundwater quality, or sediment management standards. • To control peak volumetric flow rates and velocities of stormwater discharges.	
O&M Mitigation Measures and BMPs	The O&M SWPPP will specify the BMPs needed to prevent, control, and treat stormwater runoff. The BMPs will be consistent with the 2019 SWMMEW.	Ecology
Construction Stormwater General Permit (CSWGP)	In compliance with WAC 173-200, the Applicant will obtain a CSWGP. The CSWGP requires that a construction SWPPP that includes an ESCP be prepared and implemented for permitted construction sites. A Stormwater Plan will be provided to Yakima County in compliance with YCC 12.10.210.	Ecology
Spill Prevention	Substantial quantities of oils, fuels, and other potential contaminants are not expected to be stored on-site during construction or operation. The Projects will prepare a SPCC Plan, consistent with requirements of 40 CFR Part 112, to prevent spills during construction and to identify measures to expedite the response to a release if one were to occur. Preventive procedures and rapid response measures will address/prevent potential water quality issues. Per the requirements of CFR Part 112, Sections 311 and 402 of the Clean Water Act, Section 402 (a)(1) of the Federal Water Pollution Control Act, and RCW 90.48.080, an O&M Phase SPCC Plan will be updated in consultation with Ecology for the Project to address activities occurring during decommissioning and site restoration.	Ecology
Dust Control	The Projects will employ the following BMPs as necessary related to dust control and on-site traffic. These practices will be applicable to both construction and post-construction O&M. • Construction materials that could be a source of fugitive dust will be covered when stored. • Truck beds will be covered when transporting dirt or soil. • Carpooling among construction workers will be encouraged to minimize construction-related traffic and associated emissions.	N/A

Mitigation Measure	Description	Expert agency participation
	• Erosion-control measures will be implemented to limit deposition of silt to roadways, to minimize a vector for fugitive dust	
Plants		
BMPs - Special Status Plant - Columbia Milkvetch Mitigation	• During construction, existing trees, vegetation, and wildlife habitat will be protected and preserved to the extent practical. • Flag/fence each mapped Columbia milkvetch polygon within a 100-foot buffer of the Maximum Project Extent (MPE) for construction equipment avoidance. • Provide education training to construction and operation staff and contractors on how to recognize the Columbia milkvetch and its flowering and seed set times. • Avoid applying water-based or polymer additive dust palliative such as lignin sulfonate for dust abatement on roads and disturbed areas within 300 feet of the mapped population of the species, as needed. • Prepare an ESCP to manage construction-related ground disturbances. The ESCP will include BMPs such as the appropriate use of silt fencing to avoid or eliminate runoff of contaminants. • Projects have been designed to avoid surface disturbance in mapped populations of the Columbia milkvetch. • Implement the noxious weed control plan to limit further spread of noxious weeds in the MPE. Noxious weeds will be controlled in compliance with Revised Code of Washington (RCW) 17.10.140 and the Noxious Weed Management Plan. All herbicide and pesticide applications will be conducted in accordance with manufacturer instructions and all federal, state, and local laws and regulations including RCW 17.21. In compliance with RCW 17.10.140, weed control will only use herbicides that are approved for use in the state of Washington by the United States Environmental Protection Agency and Washington State Department of Agriculture. • Limit the use of herbicides within 200 feet of the mapped Columbia milkvetch populations and individual Columbia milkvetch. • No herbicide spraying will occur when winds are greater than 15 miles an hour. The Vegetation Management Plan will be implemented to revegetate	WDFW

Mitigation Measure	Description	Expert agency participation
	temporarily impacted areas to increase soil stabilization and minimize erosion.	
Habitat Restoration and Mitigation Plan	A Habitat Restoration and Mitigation Plan will be developed in consultation with WDFW and EFSEC. The Plan will detail the implementation of mitigation measures for impacts to the shrub-steppe habitat.	WDFW
Noxious Weed Management Plan	Noxious weeds will be controlled in compliance with Revised Code of Washington 17.10.140 and the Noxious Weed Management Plan. All herbicide and pesticide applications will be conducted in accordance with manufacturer instructions and all federal, state, and local laws and regulations including RCW 17.21. In compliance with RCW 17.10.140, weed control will only use herbicides that are approved for use in the state of Washington by the United States Environmental Protection Agency and Washington State Department of Agriculture. All herbicide and pesticide applications would be conducted in accordance with manufacturer instructions and all federal, state, and local laws and regulations; herbicides and pesticides would only be directly applied to localized spots and would not be applied by broadcasting techniques (RCW 17.21). Additionally, any new gravel needed for decommissioning or site restoration would be procured from a certified weed-free source.	
Animals		
Avoidance Measures	Avoidance measures include 1) siting facilities predominantly on the previously plowed and disturbed areas of the MPE, wherever possible, 2) siting the substation adjacent to the interconnecting transmission line for both Projects, 3) leaving unfenced and avoiding disturbance in the Ostrea MPE, which will provide corridors for wildlife movement and wildlife connectivity function, and for Ostrea 4) minimizing disturbance in the ephemeral channels in the MPE crossed by permanent and temporary access roads. Mitigation measures to avoid impacts to nesting migratory birds including burrowing owls, and fossorial species if required by an agency, will be developed in consultation with the WDFW and EFSEC. Details regarding the implementation of mitigation measures for impacts to the active nests and burrows, if any, will be identified prior to construction within the MPE.	WDFW
Minimization Measures	Minimization measures include: • Siting facilities predominantly on the previously plowed and	WDFW

Mitigation Measure	Description	Expert agency participation
	disturbed areas of the MPE, wherever possible. • Maintaining existing native vegetation to the extent practicable and controlling for invasive and noxious weed species present in the MPEs. • Implement the Vegetation Management Plan which will include noxious weed control measures to limit further spread of noxious weeds in each MPEs.	
BMPs - Wildlife	Unnecessary lighting will be turned off at night to limit attraction of migratory birds and bats. This includes downward-directed lighting to minimize horizontal or skyward illumination, and avoidance of steady-burning, high-intensity lights. Where applicable, above-ground collector or transmission lines are designed and constructed to minimize avian electrocution, per the guidelines outlined in Avian Power Line Interaction Committee standards (APLIC 2012). In accordance with WAC 173-60-050, construction activities will only occur between the hours of 7 a.m. and 10 p.m. Provide environmental awareness training to construction and operation staff and contractors on applicable wildlife resource protection measures, including: • Federal and state laws (e.g., those that prohibit animal collection or removal). • Awareness of sensitive habitats and bird species, potential bird nesting areas, potential bat roosting/breeding habitat, and general wildlife issues. Traffic speeds on unpaved roads will be limited to 25 miles per hour or less to minimize generation of fugitive dust and wildlife collisions. Following decommissioning, reclamation shall help to reduce the likelihood of ecological resource impacts in disturbed areas.	WDFW
Environmental Health--Hazardous Materials		
Emergency Plans	The following emergency plans would be developed and maintained onsite during the construction phase of the Projects and during the O&M phase of the project in the O&M trailer and provided to local	Yakima County Sheriff's Office

Mitigation Measure	Description	Expert agency participation
	emergency services • Construction Phase Emergency Plan • Construction Phase Fire Control Plan • Construction Phase Health and Safety Plan • O&M Phase Emergency Plan • O&M Phase Fire Control Plan • O&M Phase Health and Safety Plan These plans will be adhered to during decommissioning and site preparation activities.	Yakima County Fire Marshal's Office
BMPs - Fire Prevention	To minimize the risk of fire or explosions, the Projects would implement Best Management Practices including: • Construction equipment would have spark-arresting mufflers, heat shields, and other protection measures to avoid starting fires. • Fire extinguishers would be available in vehicles and on equipment and work crews would be trained in fire avoidance and response measures. • Fire suppression protocols and BMPs would be determined in consultation with the Yakima County Fire Marshal and outlined in the Fire Management Plan for each Project. • As appropriate, provide training to fire responders and construction staff on the codes, regulations, associated hazards, and mitigation processes related to solar electricity and battery storage system on a recurring basis during the life of the Facility. This training also would include techniques for fire suppression of PV and BESS technology. • During construction, water would be trucked on site and would be available for fire suppression should a fire occur. • The Certificate Holder would provide training to fire responders and construction staff on a recurring basis during the life of the Facility. The intent of the training would be to familiarize both responders and workers with the codes, regulations, associated hazards, and mitigation processes related to solar electricity and battery storage systems. This training also would include techniques for fire suppression of PV and BESS technology. • The BESS options would contain a fire suppression system in accordance with fire code and National Fire Protection Association	Yakima County Sheriff's Office Yakima County Fire Marshal's Office

Mitigation Measure	Description	Expert agency participation
	(NFPA) Standards, specifically NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems." The system would include monitoring equipment and alarm systems with remote shut-off capabilities.	
Environmental Health Plan	An Environmental Health Plan will be established, implemented, and maintained for the duration of the Proposed Projects. The Environmental Health Plan will address on-site temporary and permanent sanitary wastes during construction and during O&M of the Projects. In addition, the Environmental Health Plan will focus on the identification, removal, and off-site transportation and disposal of any hazardous material contamination and residuals on the property of the Proposed Projects.	Yakima County Sheriff's Office Yakima County Fire Marshal's Office
Hazardous Materials	Any hazardous materials used during construction activities will be stored and used in accordance with the manufacturer's specifications and applicable hazardous material regulations; Material Safety Data will be available to all personnel at the construction yard. Hazardous material spills will be recorded in the SWPPP and reported to the regulatory authorities as required.	
Public Safety Standards	The applicant will prepare a Construction and O&M SPCC Plan, consistent with requirements of 40 CFR Part 112, to prevent spills during construction and to identify measures to expedite the response to a release if one were to occur. Preventive procedures and rapid response measures will address/prevent potential water quality issues.	Ecology
Noise, Light, Glare and Aesthetics		
BMPs - Noise	• Maintain all construction tools and equipment in good operating order according to manufacturers' specifications. • Limit use of major excavating and earth-moving machinery to daytime hours in accordance with YCC 6.28 Noise Control. Also see attached Attachment G, PCL Construction Noise Hotline Plan, for information on setup of a noise complaint communication protocol. This plan will be updated as appropriate at the time of decommissioning. • Equipment to be used during the daytime work hours may include, but not be limited to Graders, Track Loaders, Water Trucks, Generator Sets, Backhoes, Excavators, Cranes, Telehandlers, Fork Trucks, & Skid Steers. • To the extent practicable, schedule construction activity during	N/A

Mitigation Measure	Description	Expert agency participation
	normal working hours on weekdays when higher sound levels are typically present and are found acceptable. Some limited activities, such as concrete pours, will be required to occur continuously until completion. • Equip any internal combustion engine used for any purpose on the job or related to the job with a properly operating muffler that is free from rust, holes, and leaks. • For construction devices that utilize internal combustion engines, ensure the engine's housing doors are kept closed, and install noise-insulating material mounted on the engine housing consistent with manufacturers' guidelines, if possible. • Limit possible evening shift work to low noise activities such as welding, wire pulling, and other similar activities, together with appropriate material handling equipment in accordance with YCC 6.28. A complaint resolution procedure (see Attachment G) should be utilized to address any noise complaints received from residents. • Equipment to be used during the low noise work hours may include, but not be limited to Telehandlers, Fork Trucks, & Skid Steers for material handling. Welding activities will use gas welders. Wire Pulling activities will use Wire Tuggers.	
Archaeological and Historical Resources, Cultural Resources		
Preconstruction Survey and Cultural Resources Avoidance Plan	If required, the Projects shall perform surveys prior to construction for any portions of the final Project footprint not yet surveyed (e.g., new or modified staging areas, or other work areas). Where operationally feasible, all National Register of Historic Places (NRHP) and Washington Historic Register (WHR) eligible resources shall be protected from direct Project impacts by Project redesign (i.e., ancillary facilities, or temporary facilities or work areas). Avoidance mechanisms shall include fencing off such areas as Environmentally Sensitive Areas for the duration of the Proposed Project, if identified. If avoidance of NRHP or WHR eligible resources is not feasible, The Projects will prepare and submit a Treatment Plan to outline the treatment of cultural resources that cannot be avoided. The Treatment Plan shall be submitted to the Department of Archaeology and Historic Preservation (DAHP) for review and approval.	DAHP, Yakama Nation

Mitigation Measure	Description	Expert agency participation
	The Facility has been designed to avoid direct impacts to all cultural resources that are eligible for listing on the National Register of Historic Places or protected by RCW 27.53 when feasible. As currently designed, the Facility has no direct impacts to such resources. However, as the design progresses, the Facility layout may be changed such that impacts to the resources that are protected by RCW 27.53 are created. The Certificate Holder will continue to communicate with the Yakama Nation regarding the archaeological sites and the potential impacts of the Facility on these sites. If any site protected by RCW 27.53 is impacted by the Facility, the Certificate Holder would obtain a DAHP excavation permit and perform all necessary archaeological work in order to comply with RCW 27.53. All treatment measures outlined in the Treatment Plan shall be implemented at least 30 days before the start of construction.	
Discovery of Archaeological Resources and Inadvertent Discovery Plan	If, during the course of construction, cultural resources (i.e., precontact sites, historic sites, or shell or bone, isolated artifacts or other features) are discovered, work shall be halted immediately within 100 feet of the discovery. The Lead Agency, and a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to determine the significance of the discovery. Determination of impacts, significance, and mitigation shall be made by qualified archaeological professionals (in consultation with recognized Yakama Nation designees). These protocols shall be outlined within the Inadvertent Discovery Plan. This plan will include protocols for notification, evaluation, and treatment of any archaeological or human remains that might be discovered during construction in accordance with RCW 27.53.060 and RCW 27.44.040 protecting archaeological resources and Indian graves..	DAHP, Yakama Nation
Worker Environmental Training Program	Prior to the initiation of construction, all construction personnel shall be trained regarding the recognition of possible buried cultural resources (i.e., precontact and/or historical artifacts, objects, or features) and protection of all archaeological resources during construction. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural materials. All personnel shall be instructed	DAHP

Mitigation Measure	Description	Expert agency participation
	that unauthorized removal or collection of artifacts is a violation of Federal and State laws. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend the Worker Environmental Training Program so that they are aware of the potential for inadvertently exposing buried archaeological deposits. A background briefing will be given for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential Environmentally Sensitive Areas, if identified, and anticipated procedures to treat unexpected discoveries.	
Conduct construction monitoring	Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historic and precontact resources during all ground-disturbing activities that are located within close proximity to previously recorded archaeological sites within the MPE. A Native American monitor may be required at culturally sensitive locations specified by the Lead Agency following government-to-government consultation with Native American tribes. CCR shall retain and schedule any required Native American monitors.	DAHP, Yakama Nation
Discovery of Human Remains	In the event that any ground-disturbing or other construction activities result in the unanticipated discovery of archaeological resources, work should be halted in the immediate area, and contact made with county officials, the technical staff at DAHP, and tribal representatives. Work should be stopped until further investigation and appropriate consultation have concluded. In the unlikely event of the inadvertent discovery of human remains, work should be immediately halted in the area, the discovery covered and secured against further disturbance, and contact made with law enforcement personnel, consistent with the provisions set forth in RCW 27.44.055 and RCW 68.60.055.	DAHP, Yakama Nation
Final reporting	At the conclusion of construction and laboratory work (if needed), a final report will be prepared describing the results of the cultural resources monitoring efforts associated with the Project. The report will include a summary of the field and laboratory methods, daily field logs, correspondence, emails, an overview of the MPE, a list of artifacts recovered (if any), an analysis of artifacts recovered (if any) and their scientific significance, and recommendations. The report will be submitted to DAHP, the CTWSRO, and Yakama Nation.	DAHP CTWSRO Yakama Nation.
Traffic and Transportation		

Mitigation Measure	Description	Expert agency participation
WSDOT Permits	Per WAC 468-51, the Applicant will obtain a General Permit from Washing State Department of Transportation (WSDOT) to upgrade the portion of the approach off SR-24 that is within the WSDOT Right-of-Way. A permit will be obtained for heavy or oversized loads in accordance with WSDOT regulations including RCW 46.44 and WAC 468-38.	WSDOT
Traffic Control Plan	A Traffic Control Plan will be prepared in consultation with WSDOT for traffic management during improvement of highway access. This plan will contain measures to facilitate safe movement of vehicles in the vicinity of the construction zone and will be in accordance with 23 CFR §655 Subpart F provides for the Federal Highway Administration to maintain the Manual on Uniform Traffic Control Devices for Streets and Highways, which defines standards for traffic control.	WSDOT
General Mitigation Measure	General mitigation measures for road access and transportation include: • Development of an ESCP to minimize impacts from erosion and sedimentation from construction related ground disturbances. • Obtaining applicable building permits and grading and excavation permits as required prior to construction. • Implement the appropriate geotechnical recommendations outlined in ANS GEO, INC.'s Ostrea Solar Project Draft Geotechnical Reports. • Development and implementation of a Construction and O&M SWPPPs for both construction and O&M phases of the Project to address access roads and on-site dirt access routes, haul routes, etc.	WSDOT, Yakima County

APPENDIX D: PRE-CONSTRUCTION VEGETATION PHOTOGRAPHS

APPENDIX E: DUST CONTROL PLAN

CONSTRUCTION HEALTH, SAFETY & ENVIRONMENTAL PLAN; MASTER DUST CONTROL PLAN; AND ENVRIONMENTAL HEALTH PLAN

Ostrea Solar Project

Yakima County, Washington

Prepared by:
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April 15, 2024

PCL PROJECT MANAGEMENT ACKNOWLEDGEMENT

Department: Health, Safety, and Environment

Prepared by ___Cory Brown____Date: _____2/22/2024____

Reviewed by_____Date:_____

REVISION LOG				
Section Revised	**Specific Section**	**Revision #**	**Date Revised**	**Description**

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1.0 FORWARD AND POLICIES

1.01 Introduction

PCL has long acknowledged the importance of maintaining a safe and healthy work environment for all workers and the ownership required to maintain an effective and successful program.

This Health, Safety, and Environmental (HSE) Plan applies to all workers (including sub/trade contractors). It addresses safe work practices and procedures, as well as environmental practices, which will govern the work to be performed on every project.

Full compliance with this HSE Plan, safety, and environmental laws and regulations are the **minimum** acceptable standards.

Where there is a conflict between this plan and any regulatory requirement, the more stringent will apply.

PCL expects that all workers will work together, every day, to maintain an injury and incident free environment.

Ostrea Solar, LLC (the "Certificate Holder" or "Ostrea Solar, LLC."), a wholly-owned subsidiary of Cypress Creek Renewables, LLC, plans to construct the Ostrea Solar Project (the "Project"), an 80 MW solar photovoltaic facility in Yakima County, according to the terms and conditions outlined in the Site Certification Agreement issued by the Energy Facility Siting Evaluation Council (EFSEC) in April 2023. The Certificate Holder has developed this Construction Health, Safety, and Environmental Plan (HSE Plan), which includes the; Master Dust Control Plan; and Environmental Health Plan (herein referred to collectively as "HSE Plan") for use during the construction phase of the project to meet the following criteria:

- 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.
- The construction specifications shall require contractors to implement a safety program that includes an HSE Plan.
- The Certificate Holder shall prepare and submit an HSE Plan to EFSEC for review prior to start of construction.
- The Certificate Holder shall coordinate development and implementation of the HSE Plan with PCL Construction (PCL) and applicable local and state emergency service providers.
- The Certificate Holder shall not begin construction prior to obtaining EFSEC approval of the HSE Plan.

The Certificate Holder has retained PCL to construct the Project (with the exception of the Project substation) on eight leased parcels of privately owned land within the Agricultural Zoning District in unincorporated Yakima County, 22 miles east of the city of Moxee. PCL will be responsible for the construction of the Project and will ensure that uniform guidelines for the compliance with worker health and safety are followed during construction projects.

1.1 Purpose of the Project Specific HSE Plan

- Assist project workers in the planning, organizing, control, monitoring, and implementation of corrective measures which are necessary to prevent exposures that could cause injury, illness, or negative environmental consequences.
- Enhance and maintain the safety and environmental awareness of all project workers.
- Minimize hazards to public health.

1.2 Policy Statements

- PCL Corporate Health, Safety, and Environment Policy
- PCL Corporate Environmental Policy
- PCL Fall Prevention and Protection Policy
- PCL Prevention of Workplace Violence Policy
- PCL Substance Abuse Program Policy
- PCL Harassment and Discrimination Policy
- PCL Media Relations Spokesperson Policy
- PCL Electronic Devices

PCL Solar Constructors USA Inc.

Solar District
Health, Safety, & Environment

POLICY STATEMENT

PCL Solar Constructors USA Inc. is committed to providing and maintaining a safe work environment.

We achieve this goal by providing a system of policies, procedures, and practices that encourage continuous improvement of all HSE program elements and the site-specific HSE plan.

It is every employee's and subcontractor's responsibility to manage risk exposure.

As an employee or subcontractor, at all times you must guard your safety and the safety of fellow personnel by identifying, controlling, and/or eliminating known hazards that can result in personal injury or illness, equipment and property damage, or any other form of controllable loss.

As an employee or worker, you must be aware of and comply with your responsibilities under legislative, industry, and company standards, including those identified in the HSE Manual and HSE Site-Specific Safety Plan. You must promptly report all unsafe acts or conditions to your supervisor(s). Supervisors are responsible for taking immediate action on problems that arise.

Fostering a safety culture requires the dedication, commitment, involvement, and participation of all employees and subcontractors. Working together will allow us to achieve safety excellence.

Date: January 2023

Andrew Moles
General Manager

PCL Solar Constructors USA Inc.

Prevention of Workplace Violence

POLICY STATEMENT

PCL believes in the prevention of violence and promotes a violence-free workplace. Any act of violence committed by or against any worker or member of the public is unacceptable conduct and will not be tolerated.

We are committed to:

- providing our employees with an appropriate level of protection from the risks associated with workplace violence;
- investigating reported incidents of violence in an objective and timely manner;
- taking necessary action on acts of workplace violence; and
- providing appropriate support for victims of workplace violence.

Employees have a responsibility to:

- become familiar and comply with this policy;
- report incidents of workplace violence to their supervisors; and
- participate in work site risk assessments and implement control measures to mitigate associated risks as required.

No action shall be taken against an individual for making a complaint unless the complaint is made maliciously or without reasonable and probable grounds.

No employee or any other individual affiliated with PCL shall subject any other person to violence in the workplace.

Date: January 2023

Andrew Moles
General Manager

PCL Solar Constructors USA Inc.

Fall Prevention and Protection
POLICY STATEMENT

PCL is committed to protect company personnel and other on-site workers from fall related injuries when working at elevated heights. To accomplish this, each PCL company through their line management team(s) will be responsible to:

We are committed to:

- Review and familiarize themselves with legislative jurisdictional requirements regarding fall prevention and protection;
- Comply with legislative jurisdictional requirements;
- Evaluate each project and compile a Site Specific Fall Prevention and Protection Plan where elevated work and fall protection is necessary;
- Provide the necessary resources, equipment and training; and
- Monitor the effectiveness of the Fall Prevention and Protection Plan.

Subcontractors/trade contractors will be responsible to compile and implement their own Site Specific Fall Prevention and Protection Plan for the work they perform. These plans should be in accordance with the applicable regulatory requirements and PCL's Site Specific Fall Prevention and Protection Plan.

All personnel are responsible for:

- Complying with the PCL Site Specific Fall Prevention and Protection Plan; and
- Reporting unsafe acts and conditions, and if necessary, taking action to see that corrective measures are implemented.

Date: January 2023

Andrew Moles
General Manager

PCL Solar Constructors USA Inc.

Solar District
Environmental

POLICY STATEMENT

We are committed to the goal of conducting our business operations in a manner that protects our environment.

We achieve this goal by:

- complying with all legislative, regulatory, and contractual requirements relating to the environment,
- monitoring our compliance with those requirements,
- reporting to our board of directors on our compliance with legislative and regulatory requirements,
- minimizing hazards to public health,
- taking steps to protect the environment from adverse effects of construction operations, and
- working with industry, government, and workers to maintain and enhance environmental awareness.

On large, complex construction projects of substantial duration and on projects with known environmental contaminants, we take additional steps to achieve this goal by:

- appointing an environmental designate,
- providing education to project personnel, to enable them to understand and share in the responsibility for monitoring and protecting the environment,
- maintaining an effective reporting and communications system, and
- developing a project environmental action plan.

Date: January 2023

Andrew Moles
General Manager

SUBSTANCE ABUSE POLICY STATEMENT

The PCL family of companies ("PCL") is committed to employee health and safety as these are paramount to PCL. PCL is also committed to maximum productivity and cost-effective operations.

PCL recognizes the problem of alcohol and drug abuse in our society and its potential to adversely impact its commitments. Accordingly, the use, possession, distribution, or presence in the body, of alcohol, illegal drugs and controlled substances, or their metabolic products, is prohibited and will not be tolerated, even when the medicinal or recreational use of certain federally mandated illegal drugs and controlled substances are permitted under state or local laws.

PCL employees shall not report to work under the influence of any illegal drug, alcoholic beverage, intoxicant, narcotic, or other substance that may in any way affect their working ability, alertness, coordination, or otherwise adversely affect the safety of the employee or others on the job. Any employee who tests positive pursuant to the procedures set forth in this Substance Abuse Program will be considered "under the influence" and in violation of the PCL's Substance Abuse Policy.

PCL employees are subject to testing and are required to test negative during alcohol, illegal drug, and controlled substance testing, including marijuana taken for medicinal purposes, without limitation, in the following situations:

- Applicant testing.
- Pre-placement.
- Random and/or job site specific (where permitted).
- Reasonable suspicion.
- Post-incident.

This policy aims to provide a safe, healthful, and efficient work environment for all PCL employees, business associates, and the public.

The following activities are strictly prohibited on Company premises during assigned work hours (including lunch and breaks), while performing company business while operating equipment owned by the company or on company or client property or any job site or place of work:

- The possession, use, concealment, transportation, sale, purchase, transfer, or distribution of alcohol, drugs, or other controlled substances, including marijuana taken for medicinal purposes, as defined under federal, state, or local law.
- The abuse or misuse of prescription drugs.

Notwithstanding anything above to the contrary, however, medically prescribed drugs, excluding marijuana taken for medicinal purposes, may be permitted on PCL premises or work locations provided the drugs are contained in the original prescription container, are not excessive in quantity for the length of time at work, and are prescribed by an authorized medical practitioner for the current use of the person in possession. Use of legally prescribed drugs, excluding marijuana taken for medicinal purposes, in accordance with the prescribed procedure and dosage as authorized above, is not grounds for disciplinary action, except that the use of legally prescribed drugs that might adversely affect the working ability, alertness, coordination, or otherwise interfere with the safety of the employee or of others, and must be reported to a drug and alcohol testing administrator (DAA), Designated Person or another authorized supervisor before reporting to work in possession of, having ingested or under the influence of such legally

prescribed drug. A determination will be made, in conjunction with appropriate medical personnel, as to whether the effects of the legally prescribed drug could be hazardous to job performance or safety. If so, appropriate, and reasonable action will be taken to reassign or accommodate the employee or to permit the employee to take off work for a reasonable duration if necessary and appropriate.

Employee expressly agrees that PCL may make the following inspections: PCL reserves the right to question any person entering upon or leaving Company premises and to inspect any person, locker, vehicle, package, purse, handbag, briefcase, lunchbox, or other possession brought to and from its property, vehicles or worksites, including Employee's own vehicles brought to work and parked in work parking areas. This applies to all PCL employees.

Social events, such as a holiday party, Company picnic, dinner meetings, open house, and other similar events, are important work activities, however PCL recognizes and agrees that the consumption of alcoholic beverages at such activities may be approved and acceptable. The consumption or serving of alcoholic beverages at such events may continue. However, only where approved in advance. Each employee's voluntary attendance at such functions shall represent that employee's acceptance of full responsibility for the consequences of his/her decision to participate, including the responsibility to avoid the use of alcohol to excess, including beyond legally prescribed limits for drivers in the relevant jurisdiction. When attending after-hours social activities sponsored by PCL or its potential or existing customers, vendors, or contractors at which alcohol is served, employees must use good judgment regarding their consumption of alcohol and their conduct. Under no circumstances may an employee ever operate a company vehicle while under the influence of alcohol.

PCL's Substance Abuse Program is intended to apply broadly and in numerous different circumstances. To the extent that the Substance Abuse Program might conflict with, or that any part of this Substance Abuse Program might be unenforceable under, any applicable law or other binding authority, then that law or authority shall control and the portion of this Substance Abuse Program that is in conflict shall be deemed to be severed here from, and the remainder of this Substance Abuse Program shall be enforced. Likewise, to the extent that any authority might impose additional requirements upon PCL or its employees and applicants, such as, by way of example only, specific owner-imposed requirements, the requirements of a contract involving governmental agencies like the Department of Transportation or Department of Defense and/or Federal Motor Carrier Safety regulations applicable to DOT-covered drivers, or Pipeline work, then those additional requirements shall also apply.

Nothing in this Policy Statement or Substance Abuse Program shall be interpreted as creating any binding obligation upon PCL or its managers, or any company within the PCL family of companies or Joint Venture of which PCL is a party. This Policy Statement and Substance Abuse Program are not intended to modify the at-will nature of the employment relationship or create any implied contractual obligations. PCL and any company in the PCL family of companies or PCL-related Joint Ventures expressly reserve the right to terminate any employee, with or without cause, and with or without notice, at any time.

Deron Brown--President & COO---PCL Construction Enterprises, Inc.

PCL Substance Abuse Program
Revision November 1, 2018

Harassment and Discrimination Policy

Policy Purpose
The purpose of this policy is to help create a working environment for all PCL workers that is free of harassment and discrimination and that respects their dignity and worth.

Application
This policy applies to all PCL workers at their place of employment, at PCL-sponsored social events and while traveling or otherwise engaged in business for a PCL company.

For PCL workers working in the United States, this policy is supplemented by the United States Equal Employment Opportunity and Affirmative Action Policy.

Meaning of Terms Used in This Policy

Harassment
In this policy, the term "harassment" means any objectionable conduct, comment or display that a reasonable person would realize was unwelcome and that creates an intimidating, hostile or offensive work environment, or leads to adverse job-related consequences for the victim of such conduct, comment, or display. It includes, without limitation:

- unwanted physical conduct, such as touching, assault, impeding or blocking movements.
- threats of a sexual nature.
- unwanted sexual propositions, teasing or requests.
- unwanted sexual advances, whether physical or verbal.
- offering an employment benefit (such as a raise or promotion or assistance with one's career) in exchange for sexual favors, or threatening an employment detriment (such as termination, demotion, or disciplinary action) for a person's failure to engage in sexual activity.
- unwanted visual conduct of a sexual nature (such as leering, making sexual gestures, displaying sexually suggestive objects or pictures, cartoons, posters, or calendars); or,
- verbal or written abuse of a sexual nature, graphic commentaries about an individual's body, use of sexually degrading words to describe an individual, or sending or forwarding obscene letters, emails, notes, or invitations.

Discrimination
In this policy, the term "discrimination" means unjustified discrimination on a prohibited ground.

- The term "unjustified" means conduct not justified under the human rights laws of the jurisdiction where the discrimination occurs.
- The term "prohibited ground" means:
  - race, religion, color, sex, sexual orientation, physical disability, mental disability, age, ancestry, place of origin, national origin, marital status, or family status; and,
  - in any given jurisdiction where discrimination may occur, any other ground on which discrimination is prohibited under the laws, including the human rights laws, applicable in that jurisdiction.

PCL Workers
In this policy, the term "PCL workers" means employees, officers and directors of a PCL company, and agents, consultants and contract workers engaged by a PCL company.

Third Party
In this policy, the term "third party" includes employees of clients, subcontractors and suppliers of a PCL company, and members of the public.

Policy

Compliance with Applicable Laws
Each of the PCL companies and all PCL workers will comply with all applicable laws relating to harassment and discrimination.

Prohibition of Harassment
Harassment, including sexual harassment, of PCL workers in respect of their employment or in the course of their employment is prohibited. This prohibition includes harassment by a PCL company, by other PCL workers or by a third party.

Harassment, including sexual harassment, of PCL workers in the course of their employment is prohibited. This prohibition includes harassment of other PCL workers or of third parties.

Prohibition of Discrimination
Discrimination against PCL workers in respect of their employment is prohibited. This prohibition includes discrimination by a PCL company, by other PCL workers or by a third party.
Discrimination by PCL workers in the course of their employment is prohibited. This prohibition includes discrimination against other PCL workers or a third party.

Effect of Violation
Violation of this policy by PCL workers will result in disciplinary action, up to and including immediate termination of employment. Violation of this policy by a PCL company or by a third party will result in appropriate action being taken, including action to end such violation.

Reporting
If you believe that you have been harassed or discriminated against in your employment with a PCL company, you should report the offending conduct in accordance with the Unethical Conduct Reporting Policy under the Code of Conduct.

Further, it is the responsibility of any person who is a supervisor or manager of a PCL company to take immediate and appropriate action to report or deal with incidents of harassment or discrimination, whether brought to their attention or personally observed. Under no circumstances should an observation or legitimate report of harassment or discrimination be dismissed or downplayed.

This policy is not intended to discourage or prevent any person who is subject to harassment or discrimination from exercising any other legal rights available to such person, including rights under applicable human rights legislation.

Media Relations Spokesperson Policy

Purpose	The PCL family of companies is committed to the ongoing preservation and enhancement of the organization's corporate reputation. The following **Media Relations Spokesperson Policy** ensures that all steps are taken to respond to media requests in a way this reputation is upheld.
Application	**This policy applies to all PCL employees.**
Policy	Only the following spokespersons are approved to speak on company matters. The spokespersons may delegate their responsibility to others in specific circumstances. **For district, specific or project specific media inquiries:** the district manager. **For issues that affect more than one district but not national:** the US regional vice president for that area or Canadian regional president for that area. **For national media inquiries in the United States:** the president and chief operating officer, US Operations or the president and chief operating officer responsible for the market sector from which the request originates. **For national media inquiries in Canada:** the president and chief operating officer responsible for the market sector from which the request originates. If the request is not market-specific, the spokesperson shall be the president and chief executive officer. **For company-wide or corporate media inquiries:** the president and chief executive officer. **All spokespersons are responsible to:** • Provide accurate and truthful information to and respond in a timely manner to media inquiries. • Keep superiors informed of all media situations and inquiries that could negatively affect the organization's corporate reputation. • Prepare key messages and responses. • Inform NAHQ Communications or USHO Corporate Development of all media situations and inquiries that could negatively affect the organization's corporate reputation. • Participate in the media relations training required to perform spokesperson duties appropriately. **All PCL employees are responsible to:** • Understand this policy and direct any media inquiries to their supervisor, who should, in turn direct the inquiry according to the above policy.
Communication of this Policy	This policy is intended to be communicated to all employees of the PCL family of companies by posting on PCL Connects.

Electronic Device Policy

Application
This policy applies to all employees of PCL companies:

- During normal working hours and while conducting business on behalf of a PCL company outside normal working hours.

Background
All PCL companies are committed to providing and maintaining a safe work environment and to obeying all applicable laws.

Studies have shown that using electronic devices such as cell phones, iPods, and other similar devices while driving distract drivers and may increase the risk of traffic accidents. In response, several jurisdictions have enacted legislation that specifically prohibits or limits the use of electronic devices while driving. Legislation in other jurisdictions prohibits driving without due care and attention. These types of legislation vary from jurisdiction to jurisdiction and change over time.

Objective
The objective of this policy is to establish procedures to help ensure that, while driving, all employees of PCL companies:

- Obey applicable laws relating to the use of electronic devices, and
- Refrain from using electronic devices in a manner that may create a safety hazard.

Requirement to Obey Applicable Laws
Every employee of a PCL company must obey all applicable laws relating to the use of electronic devices while driving.

The District HSE Manager shall obtain a summary of the relevant laws in the jurisdiction in which that district operates relating to the use of electronic devices while driving and shall incorporate those laws into the district HSE training and employee orientation procedures.

The requirement to Refrain from Unsafe Use of Electronic Devices While Driving
In addition to the requirement to obey all applicable laws, every PCL company employee shall refrain from using electronic devices while driving in a manner that may distract the employee or otherwise create a safety hazard.

Sanctions:

- Failure to comply with this policy may result in discipline, up to and including termination of employment.

2.0 LEADERSHIP / ADMINISTRATION AND COMPLIANCE

2.1 Introduction

This section defines roles and responsibilities for those associated with this project. Staff is subject to change, the HSE plan will be updated.

2.2 Documentation

- Copies and recordkeeping of material will be maintained in the project's 2H filing system.

2.3 Responsibilities

- A complete list of responsibilities for the roles below can be found in section 2.0 of the HSE Manual.

2.4 District Manager (Andrew Moles)

- The Vice President and District manager is responsible for the overall district HSE program.

2.5 Operations Manager (David Minor)

- The operations manager is responsible for assisting in the development and implementation of the HSE program for all district construction projects.

2.6 District HSE Manager (Syed Reza)

- The district HSE manager is responsible for defining and monitoring HSE policies, practices and procedures conducted on this job site.

2.7 Chief Estimator (Andrew Fleetwood)

- The chief estimator (or designate) plays a significant role in identifying and establishing the HSE scope of work, together with accompanying costs for each project.

2.8 Construction Manager (Kaz Robertson)

- The construction manager is responsible for assisting in developing and implementing the Project Specific HSE Plan on this project and on assigned construction projects.

2.9 Project Manager (Jesse Claybo)

- The Project manager is responsible for assisting in developing and implementing the Project Specific HSE Plan for assigned projects. The project manager will work closely with the project superintendent and the district HSE manager to implement the plan.

2.10 General Superintendent (Nick Zinchenko)

- The project superintendent is responsible for developing and implementing the Project Specific HSE Plan with the assistance of the project management team and the district HSE manager.

2.11 Project and Field Engineers (Jacob Green)

- The field engineer assists with implementing the Project Specific HSE Plan commensurate with the engineering discipline.

2.12 Project HSE Manager/Supervisor (Griffey Lytle)

- The project HSE manager/supervisor/coordinator assists with the development, implementation, and monitoring of the Project Specific HSE Plan with the assistance of the project management team and the superintendent.

2.13 Foreman/Supervisor/Lead Hand

- The foreman/supervisor/lead hand is responsible for promoting HSE awareness and demonstrating to the workers through day-to-day examples and actions.

2.14 Employees/Workers

- All workers are responsible for safeguarding their own health and safety and the safety of fellow workers.
- Throughout this plan, the term **worker** shall refer to PCL employees, Sub/ Trade Contractors, supervisors, vendors, and owners.

2.15 Sub/Trade Contractors

- Sub/Trade Contractors on the project are responsible for safeguarding their own health and safety, as well as the safety of their fellow workers. Comply with all requirements outlined in the HSE site specific HSE plan. Review section 11 for specific details.

2.16 Visitors, Suppliers, and Consultants

- Visitors, suppliers, and consultants are responsible for safeguarding their own health and safety and the safety of project workers. Review section 3 for specific details.

2.17 Safety Awards

- Jobsites are encouraged to hold 30, 60, or 90-day safety milestones to celebrate the success of PCL and Sub/Trade Contractors workers when safety milestones and positive behaviors affecting the overall safety performance can be observed and achieved on this project.
- Celebrations can be done by several means and will be determined by project management
- Celebrations shall be communicated in advance to job site workers through project HSE meetings.

2.18 Compliance with the Project Specific HSE Plan

- Compliance with company and legislated HSE standards is necessary to maintain a safe and healthy work environment.
- Compliance with the Project Specific HSE Plan is mandatory.
- To this end, PCL has developed a system of discipline to deal with infractions to the policies outlined within this plan.

2.19 Disciplinary Action Guidelines

- First offense – worker issued a documented verbal warning.
- Second offense – worker issued a written warning.
- Third offense – worker may be suspended, terminated, or removed from the site.
- **PCL RESERVES THE RIGHT TO TERMINATE ANY WORKER ON A SINGLE HSE INFRACTION, WITH OR WITHOUT PRIOR NOTICE.**

2.20 Zero Tolerance List

- The following are considered Zero Tolerance actions that the U.S. Solar District manager, David Minor, has directed Project Management to enforce.
- Violating any of the below will result in stoppage of work, re-training, dismissal, suspension and/or termination.
- Please note that this list is not all inclusive, and other infractions not identified may lead to dismissal suspension, or termination.
    - Violation of PCL Lifesaving Absolutes – Rigging, lockout/ Tag out, Vehicle Traffic, Fall Protection, Confined Space, Heavy Equipment and/or Excavations
    - Any criminal or illegal activities on the worksite
    - Possession of firearms, unless allowed by the jurisdictional authority
    - Any physical fighting or other acts of workplace violence
    - Theft or attempted theft of property of any value
    - Vandalism
    - Smoking in non-designated areas
    - Bomb threats
    - Unauthorized access/modification to a red flagged area or red tagged scaffold
    - Entry into a confined space without a valid permit
    - Willful violation of any project or operations work permit
    - Failure to follow fall prevention rules
    - Failure to comply with manufacturer recommendations on the use and maintenance of personal fall arrest equipment
    - Violation of the Lock Out/Tag Out procedure(s) and /or legislation
    - Tampering with fire prevention equipment or client plant equipment
    - Operating equipment without proper authority or qualifications
    - Talking or texting on cell phones while operating vehicles or equipment
    - Failure to utilize proper sanitary facilities
    - Disregard of or failure to follow equipment safe operating procedures
    - Alcohol or drug possession on the job site and/or substance abuse
    - Refusal to submit an alcohol and drug specimen when requested
    - Non-compliant with the use (or misuse) of PPE
    - Failure to report incidents in a timely manner

Date: June 2024

David Minor
Operations Manager

3.0 HSE ORIENTATION AND TRAINING

3.1 Introduction

The purpose of this section is to define the requirement to attend a job site specific safety orientation prior to commencing any work activity on-site and safety training requirements for workers.

3.2 Components of HSE Orientation

Workers shall complete the PCL Solar HSE Orientation online before accessing work activities on the job site. To start your PCL HSE online orientation, workers must create an account using the QR Code provided. Note, workers will only have to complete the PCL HSE online orientation once every 24 months.

An additional site specific HSE orientation is required by each employee on that specified site. This will be completed online with the general orientation or face-to-face conducted by the project team. Suppliers and delivery drivers shall follow HSE orientation requirements outlined in the Project Specific HSE Plan.

3.3 Short Duration Orientation

- A Short Duration worker refers to a worker performing work on a PCL project for a period of less than two business days that is not repetitive or anticipated to be repeated throughout the project. The following must be completed as part of the site-specific orientation:
- Emergency Contact Information
- HSE-03-03, Short Duration Worker HSE Orientation Checklist (for short duration workers).

3.4. Visitor Orientation

- A visitor is an individual (i.e., employee, worker or other) who is not assigned to the job site, office, or permanent facility.
    - Complete HSE-03-04 Visitor Orientation QR code Mobile Checklist and sign in and out.

3.5 Minimum Requirement for access to a PCL site

- Complete the Mobile visitor or short duration orientation and use the QR code sign in.
- Use and wear proper personal protective equipment.
- Comply with all project requirements.
- Review site Pre-Task Safety Inspection (PSI) prior to accessing site

3.6 Escorting Procedures for PCL

- PCL project management will assign a PCL employee or designate who has completed the full orientation to escort PCL visitors and short duration workers on-site.

3.7 Escorting Procedures for Sub/Trade contractor

- Seek approval from PCL project management.
- Provide designate who has completed the full orientation to escort visitors and short duration workers.

3.8 Escort Responsibilities

- Ensure visitors and short duration workers have the required PPE.
- If work in progress poses risk to visitors, restrict access to that area.
- Ensure visitors or short duration workers have signed in and out at the PCL jobsite office.
- Ensure visitors or short duration workers have completed an orientation.

3.9 Worker Specific Training Requirements to Site Hazards

- All workers are to receive formal, technical training to effectively deal with hazards associated with their work.
- All Sub/Trade contractors shall provide training for their workers as required.

3.10 Training Certifications

- Copies of training rosters shall be verified and validates during site-specific orientation or on the job site before the worker begins work on their first day.
- Workers are to provide copies of training certifications to facilitator during project orientation.
- PCL project management and supervision shall provide workers the appropriate training.
- All workers working on-site shall assist with training objectives as required.

3.11 Craft Safety Workshop

- PCL and Sub/Trade Contractor workers shall attend and fully comply with the workshop when conducted on the project.
- The purpose of the course is to:
  - Increase day-to-day awareness of safety
  - Understand the importance personally valuing safety
  - Learn the mentality needed to prevent incidents
  - Learn what behaviors cause injuries to happen
  - Identify communication gaps
  - Increase safe behaviors all the time and every day
  - Reinforce/make a personal commitment to safety

3.12 Minimum Requirement for access to site

- Complete the Mobile visitor or short duration orientation and use the QR code sign in.
- Use and wear proper personal protective equipment.
- Comply with all project requirements.
- Review site PSI prior to accessing site

4.0 HSE COMMUNICATION SYSTEM

4.1 Introduction

This section defines the communication systems that will be used on this project.

4.2 Daily HSE Meetings

- Shall take place daily through the PSI process.
- Shall be used to communicate work hazards associated with work activities.
- All workers are to participate in the discussions.

4.3 Health, Safety and Environmental Field Meeting (HSEFM)

- Communicates timely information on environmental and/or safety issues which relate to the project activities.

4.4 HSE Field Meeting Schedule

- Conducted every Tuesday at the beginning of shift.
- Limited to 15 minutes.

4.5 Distribution of HSE Field Meeting Minutes

- Minutes shall be posted onsite and issued to workers or sub/trade companies as requested.

4.6 Guidelines for HSE Field Meetings shall be:

- Conducted by supervisors and/or lead hands.
- All workers are required to attend.
- Workers shall print and sign their names on the form.
- Meeting minutes shall be provided to any worker upon request.
- Topics for discussion should pertain to health, safety and environment matters only:
  - Hazardous procedures associated
  - Project HSE committee meeting minutes
  - Training topics
  - Near misses or significant incidents
  - Upcoming activities and hazards
  - HSE alerts and bulletins
  - Project and/or District trend analysis

4.7 Sub/ Trade Contractor participation with HSE Field Meetings

- All supervision and workers shall attend job site HSEFM.
- If requested shall provide an HSE field meeting topic related to their scope of work.
- Required to conduct trade specific with own work force and submit upon request from project management.

4.8 Project HSE Committee Meetings

- Monthly project HSE meetings will be held on this project
- Meeting to occur every second Thursday of the month at 8:00AM
- Meeting minutes shall be provided in paper format:
  - Reviewed in HSE Field meetings, posted on site

4.9 Project HSE Committee Number of Members

- Project management to determine the size and number of members to attend.
- Members shall be rotated to allow as many PCL and Sub/Trade workers to participate.
- Be expected to distribute information to their managers, supervisors, and workers.

4.10 Project HSE Committee and Project Trend Analysis

- Committee will review project related incidents and statistical information.
- Hazard identification, inspection, and other related material will be used to identify trends.

4.11 Project HSE Committee Meeting Schedule

- PHSECM shall be scheduled monthly and communicated to all stakeholders.

4.12 Project HSE Committee Project Inspections

- Committee shall conduct one formal site HSE inspection.
- Due to the number of members, the inspections may be broken into smaller groups.

4.13 Project HSE Committee Member Duties

- Chaired by the project superintendent.
- Co-chaired by the project manager.
- Contribute ideas and suggestions for improvements.
- Influence others to work safely.
- Action plans will be developed to address the trends.
- Contribute ideas and suggestions for improvements.

4.14 HSE Alerts and Bulletins

- HSE alerts must be reviewed at the HSE field meetings and posted on site.
- HSE Bulletin Board shall be posted in a location accessible to all workers
- HSE Bulletin Board shall have all important site-specific safety information policy statements, site emergency contacts, map to nearest hospital, Environmental Action Plan, monthly trends, access to SDS's etc.

5.0 HAZARD IDENTIFICATION AND CONTROL

5.1 Introduction

The purpose of this section is to address hazard identification and control methods for the prevention of incidents and worker safety in the workplace.

5.2 Hazard Identification and Control

- **Elimination/ Substitution**
  - Elimination is the process of removing a hazard from the worksite and using alternative means to reach the same goal.
- **Engineering Controls**
  - Engineering controls help reduce the risk of potential hazards either by isolating the hazard or removing it from the work environment.
- **Administrative Controls**
  - Administrative controls are documented procedures that direct people and include policies, procedures, and training.
- **Personal Protective Equipment (PPE)**
  - PPE includes all clothing and other work accessories designed to create a barrier against workplace hazards.

5.3 Hazard Assessment Process

- Identify Hazards
  - Workers shall address known hazards that could result in harm.
- Determine Affected
  - Consider workers and the public affected by construction.
- Evaluate Risks
  - Evaluate risks and decide if they are adequately controlled.

5.4 Ongoing Hazards and Controls

- Ongoing hazards and controls will be address by but not limited to:
  - Job Hazard Analysis (JHA)
  - Pre-Job Safety Instruction (PSI)
  - Safe Work Practices (SWP)
  - Purchasing controls

5.5 Construction Hazard Assessment (CHA)

- Project Management will review the CHA to determine if a JHA is required.
- CHA shall be posted on site.
- Project management shall determine when a review and update of the CHA is necessary.
- Subcontractors/Trades are not required to complete a CHA

5.6 Job Hazard Analysis (JHA)

- JHA helps assist supervision and workers to identify hazards and risks associated with a specific task and to ensure appropriate controls are in place prior to execution of the task.
- JHA's are required with all specific task, scope of work for high-risk activities.
- Shall be submitted to project management prior to the execution of a specific scope of work or task for review and feedback.

5.7 Job Hazard Analysis Requirements

- Developed by supervision performing the operation.
- Reviewed by Project Management for accuracy prior to implementation.
- Communicated and signed by all workers involved with the task.

5.8 JHA audit consists of:

- The project will audit in the field all JHA's being completed.

5.9 Pre-Job Safety Instruction (PSI) Program

- Designed to enhance communication and to assist supervisors and workers to assist with hazard identification and control of where work activities are being conducted.

5.10 PSIs are to be completed at a minimum

- Prior to start of shift
- Change in conditions
- When beginning of a new task

5.11 PSI is specific to the moment of when that task is being done.

- **PSI identifies:**
  - Specific task activities
  - Issues and concerns
  - Control measures to be implemented

5.12 PSI Steps

- Assemble all workers involved in the work.
- Identify and document the scope of work being performed.
- Identify and document hazards and appropriate controls for each hazard.
- Workers involved shall sign PSI and review and initial after breaks.
- Communicate and review the PSI with the entire work group.
- Review with workers after breaks.

5.13 PSI Audit Requirements

- 20% of all PSIs completed in the field will be audited.
- Participation shall be tracked and reported to Project Management through SMC.
- Project Management will audit PSIs to correct and coach proper completion of a PSI.

5.14 PSI audit consists of:

- Review of documentation
- Observation in the field
- Interviews with workers at the task location

5.15 Safety Data Sheet (SDS)

- All controlled products are required to have a current SDS readily available to workers.
- SDS inventory list of all chemicals will be submitted to project management.
- SDSs inventory list provided will be current to the chemicals on site.

- SDSs inventory list will be in the PCL project office.
- Workers will be notified of SDS locations during:
  - New hire orientations
  - HSE Field Meetings
  - SDS sheets online

5.16 SDS – Safety Data Sheets – 2 Ways to Access

- Online web search
- WWW.MSDSONLINE.COM
- Scan QR Code on the Hazard Communication Poster (located on the HSE bulletin board).

5.17 Hazard Reporting Procedures

- Workers are to immediately report identified hazards to Project Management.
- Supervision shall instruct workers to correct hazards without jeopardizing themselves.
- Workers shall not be retaliated against by any worker for reporting hazards.
- Workers may report hazards to Project Management.

5.18 Employee Information and Training

- Using hazard identification, JHAs, and PSIs, employees, and workers shall have a thorough understanding of task, hazards, and controls associated with their work.
- Workers shall be trained using processes identified though out this section.

5.19 Occupational Hygiene, Health and Ergonomics

- The primary objective of occupational hygiene is to prevent or reduce worker risk to occupational health hazards that can lead to occupational disease and/or injury.
- When evaluating your work activities, consider ways to prevent or reduce worker risk.
- This can be accomplished through the evaluation and development of CHA, JHA's and PSI.

5.20 Construction Smarts

- Be accountable for safety on site
- Intervene whenever needed
- Identify and mitigate hazards
- Verify all workers understand and comply with HSE requirements

5.21 Lifesaving Absolutes

- Consists of 7 high hazard activities or tasks PCL refers to as our Lifesaving Absolutes

JOB HAZARD ANALYSIS (JHA)

PCL CONSTRUCTION

PCL HSE Manual
Hazard Identification & Control
Standard HSE 05-04

Job Hazard Analysis (JHA)

Project Number: _____ **Project Name:** _____

Work Activity/Work Task: _____ **JHA/** _____-001 rev.

Steps*	Hazards *Considerations to: People, Equipment, Material, Environment, Tools,(Chemical, Biological, Physical, Hygiene and Ergonomics)*	Pre-control Risk Rating	Control	Post Control Risk Rating	Controls Verified Yes / No

*Additional lines on page 2

REVIEW BY:

Project Superintendent: _____ **Date:** DD/MM/YY

Foreman: _____ **Date:** DD/MM/YY

Project HSE: _____ **Date:** DD/MM/YY

SPECIAL REVIEW BY:

Required:

Engineer: _____ **Yes** ☐ **No** ☐ **Date:** DD/MM/YY

District HSE Manager: _____ **Yes** ☐ **No** ☐ **Date:** DD/MM/YY

Crew Reviewed with Signatures:

_____ **Date:** DD/MM/YY

_____ **Date:** DD/MM/YY

_____ **Date:** DD/MM/YY

_____ **Date:** DD/MM/YY

_____ **Date:** DD/MM/YY

_____ **Date:** DD/MM/YY

_____ **Date:** DD/MM/YY

_____ **Date:** DD/MM/YY

PCL CONSTRUCTION

PCL HSE Manual
Hazard Identification & Control
Standard HSE 05-04

Steps	Hazards *Considerations to: People, Equipment, Material, Environment, Tools,(Chemical, Biological, Physical, Hygiene and Ergonomics)*	Pre-control Risk Rating	Control	Post Control Risk Rating	Controls Verified Yes / No

CONSTRUCTION

PCL HSE Manual
Hazard Identification & Control
Standard HSE 05-04

Item	Adequate	Inadequate	Item	Adequate	Inadequate
1. Work Activity/Work Task Description			6. Controls Verified		
2. Steps Identified			7. All sections completed		
3. Hazard Identification			8. Review Signatures Required		
4. Pre/Post control Risk Rating			9. Crew Signatures		
5. Hazard Controls			10. JHA at task location		

Comment:

Auditor's Name: Print **Auditor's Signature:** **Date:** DD/MM/YY

Auditor's Name: Print **Auditor's Signature:** **Date:** DD/MM/YY

CONSTRUCTION

PCL HSE Manual
Hazard Identification & Control
Standard HSE 05-04

Job Hazard Analysis Audit

Auditors will provide comments on all inadequate items and those that are worthy of positive recognition.

Frequency of Task		
Category	**Term**	**Definition**
4	**Very Frequent**	Possibility of repeated activities (many times in the course of a task)
3	**Frequent**	Possibility of isolated activities (several times in the course of a task)
2	**Occasional**	Likelihood of activity occurring sometime (likely in overall task and/or project)
1	**Infrequent**	Possible it will occur but not likely to

Severity – Consequences

Consequence Category		People	Property	Environment	Public Image, Reputation & Disruption
4	**Major**	Fatality	Impact >$100,000	Reportable Occurrence	Government intervention
3	**Critical**	Permanent, long-term injury or illness	Impact < $100,000 but > $50,000	Client Standards Not Met	Owner Intervention
2	**Serious**	Recordable Injury	Impact < $50,000 but > $ 10,000	Site Conditions Unacceptable	Community Attention
1	**Minor**	On-site/ No Treatment	Impact < $10,000	No Impact	Individual or none

		Frequency of Task			
		4	3	2	1
Severity	4	16	12	8	4
	3	12	9	6	3
	2	8	6	4	2
	1	4	3	2	1

Risk Category		Definition
"A"	High (8-16)	Situation must be corrected immediately. Approval to continue at current level of risk by District Manager, Senior Construction Manager and District HSE Manager.
"B"	Medium (4-6)	Approval to continue at current level of risk by 2 senior supervisory project team members.
"C"	Low (1-3)	Managed appropriately at field level.

6.0 INSPECTIONS AND AUDITS

6.1 Introduction

This section defines project audit and inspection requirements to evaluate the project's safety program.

6.2 Audit Requirement

- Random audits may be conducted without notice on all PCL projects.
- All Project Management, Sub/Trade Contractors, and workers shall assist with site audits as needed.

6.3 Hazard Classification Rating

- ***Class A, Potential of resulting in:***
  - Lost Time Injury
  - Permanent disability
  - Loss of life or body part
  - Extensive loss of structure, equipment, or material

- ***Class B, Potential of resulting in:***
  - Recordable incidents (Medical Aid/Modified Work)
  - Serious injury or illness
  - Temporary disability
  - Property damage that is disruptive but not extensive

- ***Class C, Potential of resulting in:***
  - Minor injury or illness (First Aid)
  - Non-disruptive property damage

6.4 Informal Inspections

- Daily visual inspections of the workplace conditions.
- Conducted by all workers as a part of their regular work task.
- All associated with the site are to conduct daily informal inspections of work areas.

6.5 Formal Inspections

- Formal documented visual tours of the workplace.
- Used to identify hazards and hazardous conditions.
- PCL to conduct formal inspections with Ostrea Solar, LLC on a frequency agreed upon at the Project level.

6.6 Project Formal Inspection Requirements

- Project Management is responsible to verify that corrective actions are completed.
- Shall review previous inspection prior to initiating new formal inspection.
- Noted deficiencies are to be signed off by the appropriate supervision.
- Entered in Safety Management Center **(SMC).**
- Reviewed at HSE Field Meetings.
- Workers are encouraged to be involved with PCL management inspections.

6.7 Weekly inspections

- Schedule of inspections for staff will be posted in the project office.

6.8 Monthly Inspection Requirements

- District manager and/or operations manager may conduct a monthly inspection.
- District HSE manager may participate with one formal monthly inspection.
- Project team shall participate in this inspection.

6.9 Project Manager Formal Inspections

- Will conduct at least one formal inspection per month.

6.10 Superintendents and Assistant Superintendent Formal Inspections

- Will conduct at least one formal inspection per month.

6.11 Project Engineers and Field Engineers

- Will conduct at least one formal inspection per month.

6.12 Sub/ Trade Contractor

- Will conduct one formal inspection per month.
  - Can be accomplished by accompanying PCL Project Management
- Responsible for inspecting their work areas on a routine basis.
- Inspections will be documented and submitted to PCL project management.
- HSE Committee Inspections will meet this requirement.

6.13 Workers (PCL and Sub/Trade Contractor)

- Are encouraged to participate with job site inspections on a routine basis.

6.14 Regulatory Agencies Inspections

- Inspectors from regulatory agencies will be permitted to inspect projects without obstruction, provided they have the appropriate authorization and identification.
- Project superintendent shall notify the District HSE Manager immediately.
- An opening conference must be held before the start of the inspection.

6.15 Regulatory Agency Inspectors Must:

- Wear the appropriate PPE for the project
- Be accompanied by project management
- Provide a close out conference once the inspection has been completed

6.16 Project Management is responsible for:

- All corrective actions that need to be carried out
- Posting any regulatory orders as required

6.17 Inspection Documentation

- Entered in Safety Management Center (SMC).
- Reviewed and signed off by project management and project superintendent in SMC.

7.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

7.1 Introduction

This section reviews personal protective equipment (PPE) and PPE requirements on-site.

7.2 Mandatory Basic/ Project Specific PPE Requirements

- Hard Hats
- Eye Protection
- High visibility vest, jacket, shirt, etc.
- Gloves (appropriate for the task)
- Safety toed boots (steel or composite toe)
- Sub/Trade contractor is required to provide their workers with the necessary PPE to safeguard their workers.

7.3 Hard Hats

- Hard hats must have ANSI Z89.1 stamped or labeled on the inside of the hard hat
- Will be worn always
- Only head apparel designed to be worn under a hard hat will be allowed
- PCL employees are to place emergency sticker inside their hard hat
- Metal hard hats are not permitted

7.4 Eye/Face Protection

- Eye protection is to be worn always
- Eye protection must have ANSI Z87 stamped on the frame
- Prescription glasses are to be ANSI Z87 rated for construction use and used side shields
- Face shield must be worn in addition to eye protection when flying debris is present
- Goggles or welding hoods shall be used for welding or cutting operations

7.5 Hand Protection

- PCL has adopted a 100% glove policy while on PCL construction sites
- All workers are to have the appropriate gloves available and wear while on site
- Gloves must be able to protect workers from hazards associated with their task
- Gloves are to be worn always, unless wearing gloves pose a greater hazard and an alternative to wearing gloves has been specifically addressed in the PSI.
- Fingerless gloves may be used when handling nuts and bolts.

7.6 Footwear

- Minimum is safety toed boot with steel or composite toe
- Boots must be made of leather or substantial synthetic material
- Boots must comply with ASTM F2413-11
- Boots must have at least a 6” upper
- Additional PPE may be implemented as needed

7.7 Hearing Protection

- A selection of hearing protection must be readily available for workers' use
- Earplugs or earmuffs will be required if the noise level exceeds 85 db.
- Double hearing protection shall be used around all pile driving operations

7.8 Clothing

- Sleeveless shirts and shorts are not acceptable. **(4" sleeve minimum)**
- Do not wear loose clothing or jewelry where they may create a hazard
- Fire/heat/chemical/ retardant or cut resistant sleeves clothing must be used when performing tasks requiring this additional protection

7.9 High Visibility

- Reflective Hi-Visibility vests are required 100% of the time on-site
- Workers (on foot) exposed to:
  - Vehicular traffic
  - During the hours of darkness

7.10 Respiratory Protection

- A written Respiratory Protection Plan (RPP) with specific work site procedures shall be in place and approved by PCL project management prior to on-site worker use of respirators.
- Written RPP not required for the voluntary use of filtering face pieces
- Workers shall sign off on voluntary use form
- Shall be provided when ventilation does not reduce air contaminants to safe levels
- Respirators shall:
  - Be worn in accordance with regulatory requirements
  - NIOSH certified
- All workers required to wear a respirator must complete:
  - Medical questionnaire and exam
  - Receive respirator training prior to on-site use
  - **Note:** Disposable particulate respirators are considered respirators

7.11 Fall Protection

- **100% fall protection shall be utilized at heights of 4 feet on all walking/working surfaces**
- Personal fall protection will only be employed after an evaluation of engineering and fall restraints have been ruled out of use
- A fall protection plan task plan sheet may be completed and reviewed by project management prior to use of personal fall arrest equipment
- Personal fall arrest includes:
  - Anchor point
  - Harness
  - Shock absorbing lanyards
  - Lifelines

7.12 PPE Service and Maintenance Logs

- Service and maintenance of PPE will be consistent with manufacturer's recommendations
- No employee-owned fall protection devices are allowed on site.

7.13 Defective and Damaged PPE

- PPE found to be damaged or defective is to be taken out of service immediately
- PPE shall not be altered in any way
- PPE that is damaged and/or altered are not authorized on PCL projects.

7.14 PPE Inspection Program

- PPE is to be visually inspected before each use
- Fall arrest equipment is to be inspected by the user daily and by a competent person (other than the user) on a quarterly and annual basis

7.15 Fall Protection Quarterly Inspection / Color Coding

- Table verifies quarterly inspection of fall protection equipment has occurred
- Appropriate colored tape or nylon ties may be affixed for verification of inspection
- PPE color coding

QUARTER	MONTH			COLOR
1ST	January	February	March	Green
2ND	April	May	June	Orange
3RD	July	August	September	Red
4TH	October	November	December	Yellow
Out of Service	Red Tag			

7.16 Enforcement

- Workers found to be non-compliant with the use (or misuse) of PPE will be:
  - May be retrained to ensure worker(s) understand PPE requirements
  - Disciplined as needed to include termination from this project

7.17 Areas where PPE is NOT Required

- Job site offices and/or trailers
- Established lunchrooms
- Temporary washrooms/portable toilets
- Changing rooms
- Personal and Company vehicles

7.18 PPE Training

- Workers are to be trained by their employer on the PPE they use.
- PPE requirements are to be reviewed by employers with workers on routine basis through orientation, JHAs, PSIs, HSEFM, and non-compliance.

8.0 EMERGENCY RESPONSE PLAN

8.1 Introduction

This section outlines the project's responsibilities for supervision and workers and specific steps to be taken in the event of an emergency or crisis.

8.2 Roles and Responsibilities

- **District Manager**
  - Designated as the District company spokesman

- **District HSE Manager**
  - Assess emergency response plan on a regular basis
  - Determine and make the appropriate notifications to regulatory agencies

- **Project Manager and Engineers**
  - Designated as the Project company spokesman
  - Review and understand the procedures outlined in this plan
  - Assist as needed with roles and responsibilities outlined
  - Train all workers to the Emergency Response Plan
  - Notify district HSE manager of all emergency events

- **Superintendent**
  - Responsible for the development of this plan and revisions
  - Assume the role of Incident Commander and control of any emergency situations
  - Ensure the availability of first aid equipment to workers on the project
  - Identify trained CPR/First Aid workers in their crews

- **Site Supervision (Sub/ Trade Contractor Supervision/PCL Supervision)**
  - Will immediately notify project management of any emergency event
  - Trades are to provide emergency contact information to project management
  - Ensure workers are trained to this plan prior to starting work on-site
  - Assist and participate with site emergency and evacuations drills
  - To complete the following in the event of an emergency:
    1. Report to PCL Project Management
    2. Direct workers to the emergency assembly area
    3. Taking a head count of all direct reports

- **Workers**
  - Respond immediately to instructions from the emergency response team
  - If workers witness an incident, they are to do the following:
    1. Immediately call for project management
    2. Muster at the emergency assembly area(s)
    3. Advise supervision if they were witness to the event
    4. Assist when requested by PCL with the incident

8.4 Emergency Response Team Roles and Responsibilities

EMERGENCY RESPONSE TEAM ROLES AND RESPONSIBILITIES				
PROJECT SITE NAME		**PROJECT ADDRESS**	**CROSS STREETS**	
Ostrea Solar Project		46°32'13.41"N, 119°54'54.34"W		
EMERGENCY SERVICES CONTACT		**JOB SITE PHONE NUMBER**	**GENERAL SUPERINTENDENT**	
Fire	or 911	612-427-5824	Nick Zinchenko	
Police	(870) 763-4411			
PRIMARY ASSEMBLY AREA		**SECONDARY ASSEMBLY AREA**	**MEDIA ASSEMBLY AREA**	
PCL Office Trailer			PCL Office Trailer	

TITLE	PERSON RESPONSIBLE		RESPONSIBILITY
	DAY	NIGHT	
Incident Commander	Nick Zinchenko 612-427-5824	N/A	- Individual located at the scene of the emergency directing operations - Determine if the crisis communication plan is required - Provide first as required
Site Coordinator	Jacob Green 206-755-1914	N/A	- Provide a clear path for emergency vehicles - Direct to specific location of event
Street Coordinator	Chase Barbre 206-450-9570	N/A	- Wait at entrance and flag down emergency vehicles - Control access in and out of the site
Job Site Office Coordinator	Jesse Claybo 303-549-5114	N/A	- Notify emergency services - Contact District HSE manager
Workers	Informational		- Notify Project Management of the incident - Evacuate the site or areas as directed by project management - Foremen to get a head count of their workers for accountability - Report accountability of all workers to project management - Witnesses should contact project management
Temporary Site Spokesperson	Jesse Claybo 303-549-5114		- Inform site personnel to direct requests for information from outside groups to you and consult PCL's Crisis Management Plan - Establish a media command center - In any event, no personnel or subcontractors will speak to the media. Only the Ostrea Solar, LLC Operations Manager or a representative from the Ostrea Solar, LLC office, are authorized to make any public statements in regard to an incident.
ENVIRONMENTAL EMERGENCY RESPONSE PLAN			
	DAY	NIGHT	
Incident Commander	Nick Zinchenko 612-427-5824	N/A	- Determine if evacuation is required - Can area be contained/cordoned off? - Are emergency services required?

Site Coordinator	Jacob Green 206-755-1914	N/A	- Clear site and provide a clear path for emergency response vehicles - Direct to specific location of event - Take head count and account for all workers	
Street Coordinator	Chase Barbre 206-450-9570	N/A	- Wait at entrance adjacent to street - Flag down emergency vehicles - Control access in and out of the site	
Job Site Office Coordinator	Jesse Claybo 303-549-5114	N/A	- Notify emergency services - Contact District HSE manager - Review SDS to identify. - Promptly notify Ostrea Solar, LLC of all incidents.	- Identify weather conditions which could affect the contaminated area
COMPLETE INCIDENT INVESTIGATION AND REPORT				

8.5 CPR and First Aid Workers for this project are:

- Jacob Green – Project Engineer
- Kaz Robertson – Senior Project Manager
- Jesse Claybo - Project Manager
- Nick Zinchenko – General Superintendent
- Griffey Lytle – HSE Supervisor
- Taha Asad – HSE Coordinator
- Chase Barbre – Project Engineer

8.6 Sub/Trade Contractor CPR and First Aid

- A member of the Sub/Trade Contractor shall be trained in CPR and First Aid.

8.7 Nearest Medical Facilities

FIRST AID ROOM	MAN BASKET – STRUCTURE OVER 40’
Located in the HSE office	N/A
FIRST AID SERVICES	**EMERGENCY WASHING FACILITIES**
HSE office to be stocked with adequate basic first aid materials, also a first responder bag. Each PCL truck shall be equipped with basic first aid kits	Portable hand wash facilities shall be placed throughout the jobsite and serviced regularly
CLINIC	**HOSPITAL**

Yakima Valley Urgent Care 1006 S 64th Ave Ste 100, Yakima, WA 98908	Yakima Valley Memorial Hospital 2811 Tieton Drive, Yakima, WA 98902
DIRECTIONS	**Directions**
Supervisors shall have conducted a dry run to the clinic to know the exact location.	Supervisors shall have conducted a dry run to the Hospital to know the exact location.

8.8 General Requirements

- **Project Management shall:**
  - Assess the nature of the emergency
  - Determine if equipment and energy sources need to be shut down
  - Establish site security to keep non-essential workers from the area
  - Supervision/foreman is to take a head count

8.9 Evacuation Plan

- **Workers are to:**
  - Cease all work
  - Lower all loads
  - Shut down all equipment
  - Proceed and gather at the emergency assembly area
  - When given the command, exit the site property

8.10 Emergency Assistance Procedure / Medical Emergency Coordination

- Project management shall coordinate site plan with emergency services
- Area shall be cleared for emergency services
- Workers are to be used to flag services to the scene of the incident
- In the event a helicopter must be landed:
  - Selection of the landing zone will be determined by emergency services

8.11 Site Plot Plan

- The site plan is to be addressed with emergency response agencies (police, fire, ambulance). The following will be identified on the site plot plan:
  - Access gates
  - Cross streets
  - Fire extinguisher locations
  - First aid kits (marked with a red cross)
  - Emergency washing stations (eye or body)
  - Emergency assembly areas (primary and secondary)
  - Environmental spill kits
  - Media assembly area

- Flammable material storage
- Evacuation routes
- Utilities and shut off locations
- Telephones (as required)
- Hand wash and toilets
- Gate locations and numbers
- Controlled product storage (flammable storage)
- Concrete wash out areas
- First aid attendants and services
- Parking location of lunch truck (as required)
- Helicopter land areas (as required)
- Overhead powerlines
- Environmentally sensitive areas
- AED's

8.12 Entrance

- PCL gate off State Highway 24

8.13 First Aid Kits

- Will be maintained on-site, inspected regularly, and replenished
- 1 First Aid kit will be in the job site trailer
- 1 First Aid kit shall be in the superintendent's truck
- 1 Emergency Response First Aid Bag will be available on site
- Sub/Trade Contractors are expected to have a first aid kit for their workers

8.14 Emergency Assembly Area

- Primary emergency assembly areas will be separated into individual locations
- Secondary emergency assembly area is located at the PCL site office
- Refer to the site plot plan for both locations

8.15 Regular and After-Hours Services

- Project Management shall coordinate site plan with emergency services
- This project does not have night operations planned at this time

8.16 Crisis Communication Plan

- A crisis is a significant disruption of one or more PCL company's normal activities that may stimulate media coverage and/or public scrutiny
- District manager will determine if the incident is a crisis and implement the crisis communication plan as needed and implement the District Crisis Communication Plan
- A project supervisor text chain shall be created to send out weather alerts/lightning/severe heat, or other emergencies

8.17 Media Relations

- In any event, no personnel or subcontractors will speak to the media. Only the Ostrea Solar, LLC Operations Manager or representative from the Ostrea Solar, LLC office, are authorized to make any public statement in regarding to an incident.

8.18 Biological Emergencies

- A biological emergency involves the release of a toxic substance, usually a bacteria or virus which is absorbed through skin, eaten, or inhaled.
- It may be spread through an accidental spill, the mail, an explosive device, the ventilation system, food, the water supply, or aerosol release.
- Some characteristics of suspicious packages and letters include the following:
  - Excessive, inadequate, or missing postage
  - Inappropriate Air Mail and Special Delivery stickers
  - Have no return addresses or have one that can't be verified as legitimate.
  - Foreign mail from politically unstable or hostile countries
  - Postmark is different from the return address location
  - Have strange odors, discoloration, oily stains, or crystallizations on them.
  - Marked with a threatening message

8.19 Electrical

- **Raise the Alarm**
  - The alarm should be raised as soon as the incident occurs or you become aware of an accident using a radio, calling out, mobile phone, or runner. Call 911 immediately.
- **Witnesses**
  - Be aware of your surroundings. Do not become the second victim
  - If safe to do so, deenergize power
  - For low voltage, if it is not possible to switch off or break the current, remove the person from contact by using non-conductive dry materials e.g. heavy duty insulated gloves, wooden poles etc. Only trained personnel shall complete this task
  - For high voltage – Do Not attempt to rescue a person until the supply has been de-energized and earthed.
  - Ensure other workers are isolated and remain in a safe area
  - Continue with first aid response and assist the affected person only when you are sure it is safe to do so.
  - Secure the scene and conduct a post-incident investigation takes place after the victim is taken care of and it is safe to do so.

8.20 Person Struck by Heavy Equipment

- **Raise the Alarm**
  - The alarm should be raised as soon as the incident occurs or you become aware of an accident using a radio, calling out, mobile phone, or runner. Call 911 if necessary.
- **Assess the Scene**
  - Assess the scene for dangers to passersby and emergency personnel. If on a roadway, traffic/road closures should be put in please as soon as possible to protect the casualty and rescuers.
- **Assess injuries to persons involved**
  - Be aware of your surroundings and help victim is safe to do so
  - Stabilize any casualties as best as possible until emergency services arrive.
  - When communicating with emergency services, give specific details regarding location, injurie(s), equipment involved, description of the victim, etc.
- **Post-Incident**

- Participate in incident investigation and provide any assistance needed to emergency services, PCL designate, or other parties involved.

8.21 Active Shooter

- **Run**
  - Have an escape route and plan in mind
  - Leave your belongings behind
  - Evacuate regardless of whether others agree to follow
  - Help others escape, if possible
  - Do not attempt to move the wounded
  - Prevent others from entering an area where the active shooter may be
  - Keep your hands visible
  - Call 911 when you are safe

- **Information to provide to 911 operations**
  - Location of the active shooter
  - Number of shooters
  - Physical description of shooters
  - Number and type of weapons shooter has
  - Number of potential victims at location

- **Hide**
  - Hide in an area out of the shooters view and remain quiet
  - Lock door or block entry to your hiding place
  - Silence your cell phone (including vibrate mode)

- **Fight**
  - Fight as a last resort and only when your life is in imminent danger
  - Attempt to incapacitate the shooter
  - Act with as much physical aggression as possible
  - Improvise weapons or throw items at the active shooter
  - Commit to your action, your life depends on it

- **When law enforcement arrives**
  - Remain calm and follow instructions
  - Drop items in your hands (e.g., bags, jackets)
  - Raise hands and spread fingers
  - Keep hands visible always
  - Avoid quick movements toward officers, such as holding on to them for safety
  - Avoid pointing, screaming, or yelling
  - Do not ask questions when evacuating

- The first officers to arrive on scene will not stop to help the injured
- Expect rescue teams to follow initial officers
- These rescue teams will treat and remove injured
- Once you have reached a safe location:
  - You will likely be held in that area by law enforcement until the situation is clear

- All witnesses have been identified and questioned
- Do not leave the area until law enforcement authorities have instructed you to do so

8.22 Bomb Threats

- Notify superintendent and initiate evacuation procedures
- Warn surrounding occupants (clients, site workers)
- Attempt to obtain the following information:
  - When is the bomb going to explode?
  - Where is the bomb located?
  - What kind of bomb is it?
  - What does the bomb look like?
  - Why was the bomb placed?

- **Note/record the following information**
  - Phone display for caller identification (if applicable)
  - Time
  - Exact words of the person making the threat
  - Make determination of age of person (child/adult)
  - Sex of caller
  - Speech or accent patterns
  - Background noises

- **If a suspected bomb is received by mail**
  - Do not handle the envelope or package
  - Notify the superintendent
  - Immediately evacuate all workers from the site
  - Contact law enforcement officials

8.23 Fire

- Refer to Construction Fire Plan – Ostrea Solar Project
- Properly rated fire extinguishers will be located throughout the site
- Notify project management
- Evaluate a fire with regards to controlling it
- Attempt to extinguish or control the fire
- Remove any combustibles
- Prepare to take the necessary evacuation steps
- Leave lights on **(if applicable)**
- In the event of an electrical fire, do NOT use water, DO use a fire extinguisher

8.24 Hazardous Substance Spill/Release

- Implement the spill plan as identified in SPCC
- Refer to the SDS for detailed procedures
- Secure the area
- If the spill/release is an airborne vapor spill or a large uncontrolled spill of liquid, contact the local emergency services

High Winds

- Lower all equipment with booms and close the cabs of all equipment
- Secure loose materials, flammables, and portable equipment
- Try and wet site access roads to prevent nuisance dust
- Verify there are no loose panels installed, or left in opened crates on the ground
- Secure doors, windows, and gates

8.25 Flash Flooding

- Remove workers from areas with lower elevations that have potential to flood
- Prepare workers to evacuate on short notice
- Vehicles are not to transverse water courses
- In the event of an evacuation, shut down all equipment
- Do not attempt to shut down any electrical equipment located in wet areas

8.26 Landslide

- Shelter should be found immediately
- No action to be taken except to preserve life and prevent injury

8.27 Severe Lightning Storms

- PCL will monitor the weather daily when thunderstorms are present via a lightning detector
- The 30/20/10 rule will go into effect
- 30 miles initial notification text will alert supervisors/20 miles out a second text sent to notify supervisors to make necessary precautions/10 miles out text will be sent for supervisors to direct workers to shelter in place.
- Shelter options include rubber tire/tracks vehicles and equipment with full cabs, vans, busses, or Connex that has been properly grounded.
- Remove workers from the vicinity of high-power lines, equipment (especially cranes) and metal objects continuous in nature (i.e., torque tubes, H-piles)

8.28 Tornados

- If time permits, lower all equipment with booms and close the cabs of equipment.
- Dismiss all non-essential workers as soon as possible.
- Secure loose materials and portable equipment.
- Secure/store flammable liquids and materials.
- Disconnect electrical equipment.
- Secure doors, windows, and gates.
- Go to lowest lying area to seek refuge.

8.29 Earthquakes

- Everyone should keep the following in mind immediately after an earthquake:
  - Get to an area of safety as soon as possible and until the earthquake is over.
- **Indoors:**

- Drop, cover, and hold on
- Avoid windows and other hazards

- **Outdoors:**
  - Avoid power lines, trees, signs, buildings, vehicles, and other hazards
  - Keep your hard hat on during the earthquake
  - If there is a structural collapse or the threat of collapse, the following shall apply:
    1. The area of the earthquake should be secured
    2. People should be kept out of the area except for those rendering emergency aid
    3. Area utilities should be turned off quickly as possible providing it is safe to do so
  - When the earthquake is over, move to the emergency assembly area
  - On the way to the muster area if you find an injured person report them immediately
  - If you are hurt and are unable to move, remain calm and wait for help to arrive

8.30 Emergency Assistance Notification

- Primary Means of evacuation will be by word of mouth, air horn, or phone communication

- **When making notification to emergency services state the following:**

  - The nature of the emergency (fire, injury, spill)
  - Evaluation of the extent of the emergency
  - Other comments pertinent to the emergency
  - Location of Jobsite

Notification Procedure
All emergency situations should immediately be reported, or as soon as practicable. In the event of a Project site, site-wide emergency the workers will exit the work area and will not attempt to deal with emergency other than the protection of life & limb. The employees will muster to the designated rally areas and take a headcount to see that all employees and visitors have exited the project area.

The following 7-step Emergency Notification Procedure will be used:

1. Notify 911 Immediately
Give the site name, address 46°32'13.41"N , 119°54'54.34"W and directions to the operator, as well as describe the emergency.

<u>If calling from a mobile phone, be sure to check that you are talking to Yakima County 9-1-1 (SunComm).</u> Give the site name, address 46°32'13.41"N, 119°54'54.34"W and directions to the Project to the operator, as well as describe the emergency as detailed below.

2. Describe the type of emergency situation

Typically, the categories include:
a) Medical Emergency
b) Construction Emergency
c) Site Location Evacuation

d) Fire Protection and Prevention
e) Flooding
f) Extreme Weather abnormalities
g) Earthquake
h) Volcanic Eruption
i) Facility Blackout
j) Hazardous Materials Spills
k) Terrorism, Sabotage, or Vandalism
l) Bomb Threat

When describing personnel involved (medical emergency), indicate the numbers affected and the following initial assessment:

a) Fatality
b) Major Illness (heart attack, not breathing, unconscious, etc.)
c) Major Injury (broken bone, loss of limb, severe cuts/bleeding, etc.)
d) Minor Injury (twisted ankle, foreign body in eyes, minor cuts, etc.)
e) Bite/Sting (snake, scorpion, etc.)
f) Weather Effect (effects of heat, sun, cold, wind chill, lightning strike, etc.)
g) Incident Type (fall, crush, vehicle crash, fire, =electric shock, etc.)

3. Location

Give the operator the location of the emergency, using the physical address of 46°32'13.41"N , 119°54'54.34"W , WA-24 Sunnyside, WA 98944 in Yakima County.

4. Notify Supervisor

Contact the nearest site supervisor, and then your own supervisor. For non-urgent medical attention, the supervisor should arrange for site transport to take the injured to the hospital and notify the hospital that they are on their way. The nearest hospital with an E.R. is Yakima Valley Memorial, which is 33 miles west of the Project.

5. Notify Certificate Holder

The supervisor(s) will contact a Certificate Holder supervisor (see Appendix C) who will assist at the location of the emergency. Jointly, the supervisors will arrange for a staff person trained in first aid to attend the scene of the emergency, if required. The names of all staff trained in first aid should be made available to all the site supervisors.

6. Coordinate

The supervisor(s) will send an employee to the site access point to meet the emergency services, and escort them to the location of the emergency.

7. Accompany

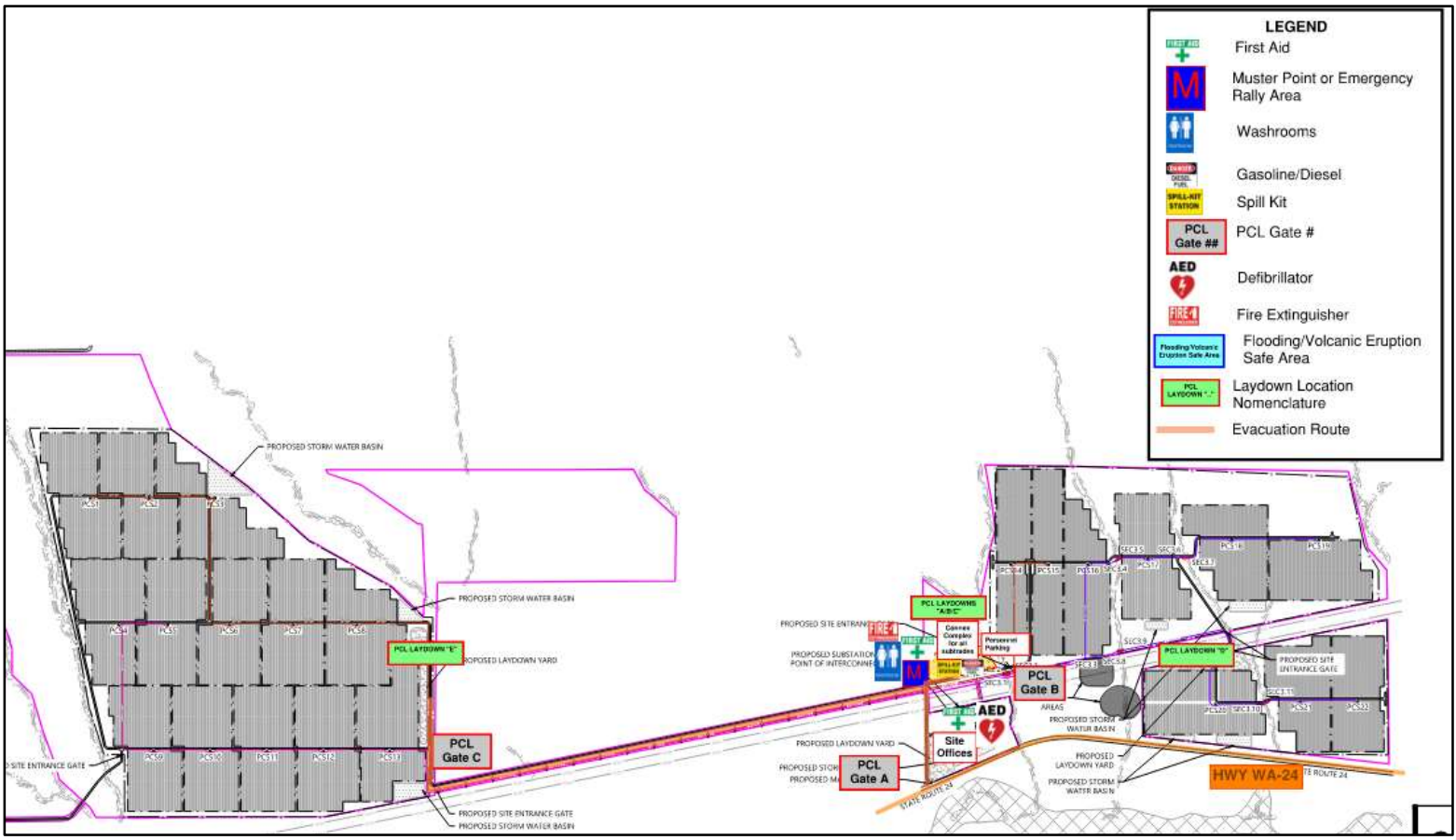
The supervisor(s) will continue to assist with the situation on site, and one of the supervisors will accompany any injured personnel to the hospital. They will stay until examination (including a drug & alcohol test) is complete, so that a full report including the extent of the injuries can be made. The employer can later require the injured to make an appointment to see the Company Doctor if confirmation of the extent or nature of injuries, treatment or disability is required.

8.31 Emergency/Evacuation Drills

- Conducted annually to evaluate the effectiveness of the emergency response plan
- Documented using emergency and evacuation annual drill log table below
- Supervision and workers are to participate and follow emergency response procedures

EMERGENCY / EVACUATION RESPONSE LOG		
DATE	**TYPE OF DRILL**	**DISCREPANCIES OR ISSUES IDENTIFIED**

PROJECT PLOT PLAN



PROJECT EMERGENCY CONTACT LIST			
EXTERNAL			
DEPARTMENT	**LOCAL REPRESENTATIVE**	**TELEPHONE NUMBER**	**LOCATION**
Police	Yakima Valley Police Department	(509) 574-2500	1822 1st Street Yakima, WA 98903
Fire	Yakima Valley Fire Department	(509) 457-8615	2003 Beaudry Road Yakima, WA 98901
Clinic	Yakima Valley Urgent Care Clinic	(509) 955-9248	1006 S 64th Ave Ste 100, Yakima, WA 98908
Hospital	Yakima Valley Memorial Hospital	(509) 575-8085	2811 Tieton Drive, Yakima, WA 98902
OSHA	L&I Headquaters	1-800-423-7233	Tumwater 7273 Linderson Way SW Tumwater, WA 98501-5414
Poison Center	Richland, WA	(360) 236-4501	309 Bradley Blvd., Ste. 201 Richland, WA 99352
Weather	National Weather Service	N/A	7-Day Forecast 46.6N 120.52W (weather.gov)
Gas	City of Yakima Utility Services	(509) 575.6080	129 N. Second Street Yakima, WA 98901
Electrical	City of Yakima Utility Services	(509) 575.6080	129 N. Second Street Yakima, WA 98901
Nicole Flournoy	Ostrea Solar, LLC	(903) 517-5151	3402 Pico Boulevard Santa Monica, CA 90405
Water	Blytheville Waterworks	(509) 575.6080	129 N. Second Street Yakima, WA 98901
Underground Utilities	811		
INTERNAL – CALLING TREE			
POSITION	**LOCAL REPRESENTATIVE**	**TELEPHONE NUMBER**	**LOCATION**
District Manager	Andrew Moles	(416) 275-5557	Solar District Office
Operations Manager	David Minor	(437) 241-8299	Solar District Office
District HSE Manager	Syed Reza	(416) 684-7817	Toronto District Office
Construction Manager	Kaz Robertson	(907) 229-3242	Solar District Office
Senior PM	Ethan Kent	(907) 229-3242	Solar District Office
Senior Project Superintendent	Nick Zinchenko	(612) 427-5824	Site
HSE Manager	Syed Reza	(416) 684-7817	Toronto District Office
HSE Supervisor	Griffey Lytle	(206) 496-4650	Site

All HSE incidents will be reported to Ostrea Solar, LLC's Construction Manager. The following additional steps will be taken:

PCL will ensure that Ostrea Solar, LLC is promptly notified of all incidents to include, date, time, incident type and ignition source, size of area affected, photographs, personnel and agencies involved, and details regarding the resolution of the incident.

Ostrea Solar, LLC will take the following actions when incidents are reported:

- Report incidents to EFSEC.
- Coordinate with EFSEC and other State or Federal agencies, as applicable, on site remediation activities or other requirements (e.g., Department of Ecology, Washington Department of Fish and Wildlife, Department of Agriculture, Department of Archaeological and Historic Preservation, Yakima Training Center, etc.).
- Coordinate with PCL to understand the incident and debrief the situation for future prevention of similar incidents.

9.0 PROJECT SECURITY PLAN

9.1 Introduction

The purpose of this section is to prevent and reduce the possibility of loss, protect public from workplace injuries and to establish a procedure for hours of operations and deliveries. Refer to Site Security Plan.

9.2 Legal Requirement

- This project does not have a requirement for all workers to be badged
- All workers are to report any suspicious behavior or any unauthorized individuals on site

9.3 Public Access

- Signage will be posted to direct public to check in at office before any public will be allowed to access site.
- Driveways will be marked and require drivers to verify access way is clear prior to accessing public roadway.
- The use of flagging personnel will be evaluated and if necessary certified flaggers will be used on-site

9.4 Fencing and/or Physical Barriers

- Work site, office and material storage area will be protected to reduce the chance of theft.
- Fencing shall be secured to not pose a threat to workers and/or the public
- Fencing with screen will be established around the jobsite
- Trenches left open over 24 hours or adjacent to roadways shall be flagged

9.5 Arson/ Fire Protection

- Combustible material shall be stowed away to prevent any arson risk from occurring

- An assessment has been done for this project and there appears to be or not be a risk associated with the project from an arson standpoint

9.6 Open/ Flame Heaters

- Use of open and flame heaters shall be coordinated with project management
- During or after hours' activity may be required to be supervised by a designated fire watch

9.7 Theft and Vandalism Protection

- Products of importance shall be stored in a secured area on the site
- The use of solar powered surveillance cameras shall be setup throughout the project
- Sub/Trade contractors are responsible for the security and protection of their own materials and equipment

9.8 Random Site Inspections

- All workers, visitors, vendors, personnel, and vehicles are subject to random inspections when entering and exiting the site.
- All workers are to comply with random inspection requests
- Failure to comply may result in suspension and or termination from working on-site

9.9 Signage

- Shall be posted at the entrance directing visitors to the project office
- Shall address site requirements prior to entry

9.10 Gates

- Gates are to be locked when not in use and opened only when required for specific deliveries or other authorized entries

9.11 Vehicle Access

- Project management shall control vehicle entry
- Only construction vehicles will be authorized on-site
- All vehicles entering and exiting site are subject to search

9.12 Parking Access

- Parking for workers will be located at various locations around the project

9.13 Site Hours / After Hour Activities

- Site hours are from dawn until dusk or otherwise communicated by **Nick Zinchenko**
- Saturday hours are to be designated by project management – Approval Required
- All project workers and Sub/Trade Contractors that return to the project after hours or on the weekends must be authorized to do so by project management
- Weekend or after hours will require a 24-hour notice and approval by project management

9.14 Control of Tools and Equipment

- Tools and equipment used for cutting (except for cylinders) will be stored inside a secured location after hours and on weekends
- Tools and equipment shall be stored in a secured location

9.15 Inventory of Tools and Equipment

- Will be conducted as required by purchasing department
- Deficiencies are to be brought to the attention of the project management
- PCL tools and equipment are to be clearly marked and identified

9.16 Parking Mobile Equipment

- Parking shall be arranged so that the equipment cannot be tampered with
- Fueling operations may occur after hours
- Ignition keys must not be left with the equipment after hours or when a vehicle is parked

9.17 Shipping, Receiving, and Material Control

- PCL Deliveries will be coordinated and accepted by Superintendent or PCL designate.
- Shipments and material are to be examined for defects or damage prior to being accepted
- Sub/Trade Contractors who are expecting deliveries and vendors shall advise and coordinate deliveries with Project Management

9.18 All Deliveries and Vendors

- Asked to provide a point of contact on-site
- If entering the site must complete a delivery drivers/ vendor site orientation

9.19 Sub/ Trade Contractor supervision will be required to:

- Meet deliveries and vendors at the entrance
- Escort deliveries to the material lay down area or designated location
- Be responsible to receive their equipment and material deliveries, unload and transport their material to a storage location.
- Deliveries that are unable to identify point of contact will not be authorized on-site

9.20 Key Control

- Key control will be coordinated through PCL supervision
- Keys issued only after approval from the project superintendent
- The use of combination locks will be encouraged

9.21 Keys shall be

- Issued to supervisory workers as needed
- Turned into project management once the use of keys has been completed
- Secured and/ or locked up in a lock box

9.22 Secure Lock Box

- A secure lock box is in the project office
- A key inventory of all keys shall be kept current in the lock box.

9.23 Locks

- All exterior gates to the site shall be secured during non-business hours
- Project management shall have knowledge of the combination / access to the keys
- At no times shall any chain or lock be cut, damaged, or altered to gain access to the site.

9.24 Lighting

- Walkway areas and "common" areas:
  - Maintained during early morning and night operations
  - Shall be adequate to illuminate areas during the hours of darkness

10.0 ENVIRONMENTAL HEALTH PLAN

- **Introduction**

  This section defines the Environmental Action Plan for this project and outlines the steps to be taken to ensure all identified environmental conditions are controlled through Best Management Practices (BMP) and that all local and state environmental regulations and Storm Water Pollution Prevention Plan (SWPPP) requirements are followed.

- **Responsibilities**

  - **District HSE manager**
    - Review the Environmental Action Plan prior to distribution
    - Report serious environmental incidents to HSE Director (NAHQ)

  - **Chief Estimator**
    - Conduct a review of contract and project specifications for environmental scope and risk
    - This review shall lead to the development of the:
      - Environmental Checklist
      - Environmental Scope of Work
      - Environmental review with project management

  - **Project Management**
    - Develop and approve the site-specific Environmental Action Plan
    - Review, implement, and maintain the standards in the Environmental Action Plan.
    - Revise this plan as project conditions change
    - Conduct monthly inspections of the work site conditions

  - **Sub/Trade Contractor**
    - Comply with SWPP Plan requirements
    - Report damaged BMPs to project management
    - Correct BMPs as needed

  - **Workers**
    - Correct BMPs as needed.
    - Comply with SWPP Plan requirements.

  - **Ostrea Solar, LLC**
    - Ensure Project Compliance with Local and State Regulations and Storm Water Pollution Prevention Plan (SWPPP) and Spill Prevention, Control and Countermeasures Plan (SPCC).
    - Perform periodic audits of Project Environmental Program and Execution.

- **EFSEC**
  - Monitor Project Environmental Program and Construction Project Compliance.

- **Environmental Training**
  - Environmental action plan shall be reviewed with all workers through site orientation
  - Environmental designate shall complete environmental training

- **Contract Review**
  - See Environmental Project Checklist for Environmental Action Plan steps to be taken
  - SWPPP and Erosion and Sediment Control Plan (ESCP) are being created and reviewed for this site

Consultant Reports

- Owner has provided a Geotechnical Engineering report

- **Permits and Licenses**
  - SWPPP/Notice of Intent
  - Ostrea Solar, LLC Site Certification Agreement
  - Dust Control Permit
  - U.S. Army Corps of Engineers Nationwide Permit 14

- **Project Environmental Designate**
  - Environmental Designates for this site will include:
    - PCL is **TBD**
    - EFSEC 3rd Party Environmental Monitor - WSP
    - Cypress Creek Renewables, LLC - Senior Environmental Manager

- **Environmental Project Checklist**
  - Has been reviewed and completed by environmental designate

- **Spill Prevention and Response Plan**
  - **Refer to SPCC Plan.**
  - **Communications**
    - Report all spills to PCL project management
    - Notify emergency response agencies as needed **(Police, Hazmat, Fire)**
    - Notify District Management, Clients, and/or Owners as required

  - **Evaluation of Hazards**
    - Evaluate the hazards of the spill upwind from the contaminated area(s)
    - Identify the following:
      - Potential health risks
      - Physical risks
      - Environmental hazards
      - Hazardous vapors
      - Presence of energy sources which could act as ignition sources shall be identified

- **Spill Details**
  - Provide the following information when reporting a spill:
  - Location
  - Name of substance
  - Volume spilled
  - Total quantity involved
  - Chance of other release
  - Source of the spill or leak
  - Hazards involved
  - Size of the area affected by the spill
  - Workers requiring medical attention or rescue

- **Control of Contaminated Area**
  - If safe to do, the Emergency Response Team shall:
    - Contain the contaminated area
    - Extinguish or remove sources of ignition
    - Stopping leak or spill at source
    - Place dams of absorption materials to prevent further spread
    - Photograph contaminated area

- **Clean-up Operations**
  - Only trained personnel are authorized to perform clean-up of environmental spills
  - Always refer to SDS for clean-up instructions

- **Reports/Records**
  - PCL's Environmental Spill report shall be completed
  - If available, a copy of the following should be retained on-site
    - Any waste manifests
    - Chain-of-custodies
    - Transporter and disposal license
    - Environmental Spill Report and lab analysis
    - Kept on the job site for the duration of the project

- **Decontamination (decontamination facilities/areas)**
  - Remove residual equipment used during containment and clean up
  - Decontamination may require isolation areas and/or shower facilities
  - Properly dispose of contaminated clothing, wash water, etc.

- **Restoration of Contaminated Area**
  - Contaminated areas are to be restored back to pre-spill conditions

- **Chemical Products Information/Ordering chemicals**
  - A copy of the hazardous material list shall be kept at the project
  - Sub/Trade Contractors shall provide hazardous material list specific to the material being used on site.
  - SDS will be made available to all workers upon request

- **Designated Substances**
  - All material used on site shall be used as identified per the manufacture and as outlined in the owner's specifications

Spill Response Kit

- **Location**
  - The Spill Containment Kit(s) shall be near fuel storage areas, fueling stations, hazardous material locations that have the potential to be spilled.

- **Spill Containment Kit should have the following items:**
  - Personal protective equipment
  - Absorption - socks, pillows, sheets, booms, sand, litter
  - Over pack barrel
  - Other items that may be needed:
    - Shovels, pails, plastic bags
- **Restock**
  - The Spill Containment Kit is to be restocked with all items used during the spill response

- **Waste Management Requirements**
  - Refer to Waste Disposal Plan and Schedule
  - All construction trash will be comingled on site and separated off site.
  - Waste reduction shall be considered on all PCL Projects.
  - All Sub/Trade Contractors shall comply and participate with waste and recycle management.
  - Hazardous Material shall be properly stored and/or disposed.

- **Non – Hazardous Waste Management**
  - Waste management shall contain effective methods to mitigate waste
  - Principles of Reduction, Reuse, Recycling and Recovery (4Rs) are to be applied
  - Solid wastes shall be placed in containers which are emptied regularly

- **Project Recycling Requirements**
  - Not applicable on this project

- **Hazardous Waste Management**
  - **Waste Assessment**
    - Review SDS to determine if product could become or is hazardous waste
    - Product substitution shall be considered if the product is identified as hazardous
    - Properly dispose of hazardous material as required

- **Hazardous Waste Characteristics**
  - Solid waste that exhibits any of the following characteristics shall be considered hazardous:
  - **Ignitability**
    - Liquid waste with a flash point below 140 degrees. **Examples:** include waste oils.
  - **Corrosives**
    - A liquid waste which contains acids. **Examples:** include battery acid.
  - **Reactivity**

- Reactive wastes are unstable and cause explosions, toxic fumes, gases, or vapors when heated, compressed, or mixed with water.

- **Toxicity**
  - Toxic wastes are harmful or fatal when ingested or absorbed (e.g., containing mercury, lead, etc.). Requires a lab test procedure to determine.

- **Storage/Handling of Hazardous Waste**
  - No hazardous waste will be stored or handled on this project

- **Posting of Signs**
  - Signs visible from at least 25 ft. of affected areas are to be posted.
  - Should read **"Unauthorized Workers Keep Out."**

- **Containers / Tanks Management and Labeling**
  - Packaging/labeling prior to transport
  - When ready, transport wastes to a disposal facility
  - A company equipped to handle such waste shall be used
    - Contractor shall be properly licensed, bonded and equipped with the correct equipment

- **Vehicle / Refueling / Oil Changes**
  - Refer to SPCC Plan.
  - Place appropriate barriers and protection to prevent fuel and other related chemicals from contaminating project surfaces
  - Maintenance of equipment of vehicles shall occur only after containment has been established to prevent spilling of fuel and/or oil

  - **Disposal/Removal Requirements**
    - Samples of the waste to be analyzed:
      - The analysis is needed for transportation and disposal purposes
      - This is to be done by a certified lab
      - Obtain waste disposal permit if required
      - Transfer by a licensed hauler to an approved waste site

  - **Hazardous Waste Manifest**
    - Carefully check manifest for accuracy and completeness
    - All chain-of-custodies
    - Lab analysis and permits retained
    - A copy shall be retained on-site

- **Hazardous Waste Storage Areas**
  - **Items listed below shall be stored in a secondary containment facility:**
    - Diesel fuel
    - Gasoline
    - Form oils
    - Lubricating oils
    - Hydraulic fluids

- **Items listed below shall be stored and secured to prevent falling or tip over:**
  - Propane cylinders
  - Oxygen cylinder
  - Acetylene cylinders

- **Hazard Assessment**
  - Lead has not been found on-site and will not require remediation
  - Asbestos has not been found on-site and will not require remediation
  - An assessment has been done and there appears to be no areas of concern or decontamination required facilities.

- **Decontamination Facilities/Areas – Requirement**
  - This project does not require a containment area for workers
  - A wash out will be located at the entrance of the site to prevent vehicle track out of mud, rock, and debris

- **Communications System**
  - Workers are to be aware of the Environmental Action Plan using the following forums:
    - Orientation
    - Job Specific Assignment
    - HSE Field Meetings
    - Project HSE Committee Meetings

- **Environmental Emergency Response Plan**
  - **Incident Commander**
    - **Nick Zinchenko** assumes the role as Incident Commander

  - **Environmental Emergency Response Team**
    - **See Section 8** for Environmental Emergency Response Team
    - Team to be trained on the Environmental Action Plan
    - Are to respond to the area of the environmental incident
    - Take direction from the incident commander
    - Will communicate between field and emergency response agencies

  - **Emergency Evacuation Routes**
    - Incident commander to determine if site shall be evacuated

  - **Notifications shall be made as soon as reasonably possible to:**
    - Project Management
    - Local authorities as required
    - District HSE Manager
    - Ostrea Solar, LLC Operations Manager
    - **See Section 8 - Emergency Contact List**

- **Environmental Incident Reporting and Investigation**

- Environmental incident reporting is extremely important and shall be completed for all environmental incidents
- Environmental incidents are to be investigated

- **Environmental Audits/Inspections**
  - *Formal Inspections a*re to be conducted as outlined in the SWPPP plan.
  - At a minimum an environmental inspection shall occur weekly
  - Conducted by environmental designate or appointee.

- **Audits/Inspections by Owner and State of Washington Energy Facility Site Evaluation Concil (EFSEC)**
  - Coordination will occur with EFSEC's 3rd party Environmental Monitor (EM); EM site vists will be made on a routine basis to ensure compliance
  - The Owner may visit the site at any time and will comply with the provisions of this Plan.
  - Site visits of external agencies (e.g., Washington Department of Ecology, Washington Department of Fish and Wildlife) will be coordinated through Ostrea Solar, LLC's Construction Manager; PCL will be notified of external agency site visits. EFSEC has the right to inspect and audit the Project under the terms of the SCA.
  - All external visitors will be provided this Plan and will comply with this Plan.
  - Notify district HSE manager upon arrival of State or Federal agency personnel.
  - When external agency staff is on-site to conduct business:
    - Shall be directed to the Project management.
    - Orientated prior to entering onto the site.
    - Escorted by the Project management.

- **Storm Water Pollution Prevention Plan (SWPPP)**
  - **Best Management Practices (BMP's)**
    - PCL shall strictly enforce the SWPPP policy with all on-site workers.
    - BMPs shall be used as outlined in in the SWPPP
  - **Public Roadways**
    - Erosion and sediment inspections must be done a minimum of every 7 days and within twenty-four hours of discharge from site.
    - Responsible parties for track out will be required to clean affected roadways
    - Broom or street sweepers shall be used to clean roadways
  - **Stormwater Drainage and Site Dewatering**
    - There will be no discharge of site water to any sanitary sewer or storm drain
    - Discharge water must be discharged to a temporary or permanent sedimentation basins within the Project site
    - Construction runoff will be diverted or controlled prior to exiting the site and/or from exiting the site
  - **Concrete Waste**
    - Concrete trucks are to wash out in designated areas only
- **Management of Excavated Material**
  - Soil has been tested and there are no known contaminants
  - Soil Description: Type C
    - Material will be stored on site and hauled as needed

- Water will be used to suppress any material that is a concern for dust

PCL Project Management is to verify air quality is maintained on-site

10.1 MASTER DUST CONTROL PLAN AND AIR POLLUTION CONTROL PLAN

- Dust shall be controlled always, to include during non-working periods with acceptable dust control measures and in compliance with the Yakima Regional Clean Air Agency Master Dust Control Permit
- During construction activities, the site team will be responsible for ensuring the application of water is utilized to damper the dust. The site team will provide speed limit signs posted on site roads for dust reduction and control.
- The site will utilize storage tanks or water trucks depending on the level of construction and amount of activity on site. Throughout the duration of construction, the site team will treat the roads with moisture.
- Sub/Trade Contractors are to be responsible for work activities which create dust and to ensure measures are in place to ensure air quality standards are maintained
- As required by EFSEC for air quality mitigation, a supplemental environmental analysis will be required once the number and size of backup generators are determined to be used during construction. PCL will submit this information, to include any required permit applications, to Ostrea Solar, LLC's Construction Manager for submission to EFSEC for review and approval of these sources prior to implementation.

11.0 SUB/TRADE CONTRACTOR HSE PROGRAM

11.1 Introduction

This section outlines PCL requirements for Sub/ Trade Contractor(s) to comply with PCL's HSE policies and with applicable laws and terms of the prime / general contract.

Throughout the Project Specific HSE Plan, the term worker refers to PCL employees, Sub/Trade Contractors and their employees, Supervisors, Vendors and Owners.

11.2 Sub/Trade Contractors Acknowledgement of the PCL Project Specific HSE Plan

- Comply with this Project Specific HSE Plan.
- Comply with all policy updates and site changes
- Acknowledge this plan by submitting a signed Project HSE Plan Acknowledgement form to PCL project management

11.3 Trade contractor contractual obligations

- Administer their Project Specific HSE program
- Comply with applicable government standards and regulations
- Comply and adopt the content of the PCL Project Specific HSE Plan
- Comply with Owner/Client requirements and programs that may be specified

11.4 Sub/Trade Contractors shall submit:

- Copy of their Project Specific HSE Plan.
- Submit copy of Hazardous Communication Plan (SDS).
- Submit copy of their project specific hazardous chemical inventory list
- Submit applicable Job Hazards Analysis (JHA) 30 days prior to executing site work
- Submit Pre-Mobilization Safety Requirements
  - Sub Trade Pre Mobilization.docx
- Submit a copy of any project specific preventative plans as required. See examples below:
  - Fall Protection Plan
  - Respiratory Plan
  - Heat Illness Plan
  - Hoisting Plan
  - Worker/Operator, Licenses, Certifications
  - Competent persons list
  - Site HSE plan acknowledgement sheet

11.5 Competent Person / Worker

- Representative to enforce their HSE program
- Qualified and/or Competent person

11.6 Leadership/Administration

- Provide Safe Work Practices and Job Hazard Analysis as well as HSE Operating Procedures
- Contact Project Management regarding HSE hazards on-site
- Shall be responsible for their health and safety, as well as their fellow workers.
- Report to Project Management promptly on occurrence of any HSE incident.
- Cooperate with all HSE PCL representatives having jurisdiction at the jobsite.
- Ensure workers are competent and trained to perform specific work activities.
- See Section 2.0 of this plan for detailed information.

11.7 HSE Orientation and Training

- All workers shall attend an on-site HSE orientation meeting
- Trained on the hazards associated with their work
- Assist project management with the development of training needs
- Submit applicable training rosters including but not limited to:
  - Fall protection training
  - Confined space training
  - LOTO training
  - Forklift/UTV training
  - Aerial (scissor / boom) lift training
  - Qualified rigger training
  - Qualified signalperson training
  - Respiratory protection training
  - Section 3.0 of this plan for detailed information

11.8 HSE Meeting Communication Systems

- **Project HSE Meetings**
  - Attend PHSEM as required monthly
  - Rotation of attendees shall consist of supervisors and workers

- **HSE Field Meetings**
  - Attend PCL Job Site HSE Field Meeting (HSEFM)
  - Shall assist with conducting HSEFM to address hazards associated with expertise
  - Participate with reviewing topics as requested by project management.
  - Conduct HSE Field Meeting/Tailgate with your crews
  - When requested, submit a copy of your specific weekly/tailgate meeting to PCL
  - Section 4.0 of this plan for detailed information

11.9 Hazard Identification

- **Job Hazard Analysis (JHA)**
  - Shall complete all JHAs outlined by PCL project management
  - JHA's are required for all high-risk activities
  - Shall be submitted to project management 14 days prior to the execution of a specific scope of work or task for review and feedback
  - JHA's are to be revised as condition changes on site
  - Sub/ Trade Contractor JHA form to be approved by PCL

- **Pre-Job Safety Instruction – JSA/Job Safety Analysis**
  - Shall complete Pre-Job Safety Instruction (PSI) prior to starting each daily task and when a change in work occurs
  - Submit copy of PSI to PCL supervision
  - Conduct PSI audits
  - Section 5.0 of this plan for detailed information

11.10 Safety Data Sheets (SDS)

- A current list of hazardous materials that will be used on site, shall be submitted to PCL for review

11.11 Audits

- Participate with site audits as requested

11.12 Inspections

- Inspect work areas daily to ensure compliance
- Non-compliance issues are to be corrected as soon as reasonably possible
- If corrective actions are not taken work may be stopped until corrected
- Supervision and workers shall participate in project inspections
- Conduct one formal inspection of their area(s) of responsibility monthly
- Inspections can be conducted through the HSE Committee Meeting
- Site inspections shall be submitted to PCL project management
- See Section 6.0 of this plan for detailed information

11.13 Personal Protective Equipment (PPE)

- Verify workers are provided with the appropriate PPE as required and as needed
- Provide education and training and enforce the use of applicable PPE.
- Mandatory basic PPE requirements are as follows:
  - Hard Hats – ANSI Z89.1
  - Eye/Face Protection – ANSI Z87
  - Hand Protection – Proper glove for the task
  - Footwear – Safety Toed Boot with steel or composite toe – ASTM F2413-11
  - High visibility garment T-shirt or vest
- Clothing – Sleeveless shirts and shorts are not acceptable
- See Section 7.0 of this plan for detailed information

11.14 Emergency Response

- **Emergency Response Plan**
  - Shall become familiar with the Construction Emergency Plan
  - Supervision will communicate this plan to their workers
  - Shall identify all worker's CPR and First Aid trained

- **Sub/Trade Contractor Emergency Responsibilities**
  - Ensure the safe evacuation of their personnel to emergency assembly areas
  - Head counts shall be taken and reported to PCL's Project Management
  - If a worker is injured the same response plan shall still take place
  - Supervision to assist with gathering witnesses
  - Shall participate with emergency/evacuation drills
  - Section 8.0 of this plan for detailed information

11.15 Security

- Responsible for secure storage of own tools, materials and all other items stored on site
- Shall comply with all security requirements of the site
- Ensure all visitors and deliveries sign at the site office
- All Workers shall participate with random site inspections
- No work activity or entry into the site shall be made without prior approval
- Section 9.0 of this plan for detailed information

11.16 Environmental

- Shall comply with site environmental requirements
- Shall comply with the Unanticipated Discovery Plan and Worker Environmental Awareness Program
- Shall participate with site recycling efforts
- See Section 10.0 of this plan for detailed information

11.17 Preventative Maintenance

- All tools and equipment shall be inspected prior to use and in good working condition
- Good housekeeping and orderliness shall be maintained always on this project
- Crews are to conduct stretch and flex exercise daily at the beginning of shift
- Provide PCL project management with site specific heat illness prevention plan.
- Provide enough drinking water and shade for workers
- See Section 12.0 of this plan for detailed information

11.18 Incident Reporting

- All incidents' notifications shall be reported to project management immediately
- **Investigations**
  - Conduct a formal investigation of all near misses and incidents
  - Submit copy of report to PCL's supervision within 24 hours
  - See Section 13.0 of this plan for detailed information
  - Submit daily PSI's, equipment inspections, and weekly toolbox talks

11.19 Injury Management

- Provide modified work for workers on restriction

- Advise PCL Management of worker status
- Section 14.0 of this plan for detailed information

11.20 Worksite Monitoring

- PCL will monitor Sub/ Trade Contractor work areas for compliance
- This may include a review of all:
  - Job related records
  - Maintenance logs
  - Pre-Job Safety Instructions
  - Job Hazard Analysis
  - HSE Field Meetings
  - Project HSE Committee Meetings
  - Inspections

11.21 Statistical Reporting

- Submit the Sub/Trade Contractor weekly report to project management.

11.22 Compliance with the Project Specific Health, Safety and Environmental Plan

- Compliance with company and legislated HSE standards is necessary to maintain a safe and healthy work environment
- Compliance with the Project Specific HSE Plan is mandatory
- PCL has developed a system of discipline to deal with infractions to the policies outlined within this plan

11.23 Disciplinary Action Guidelines

- First offense – worker issued a documented verbal warning.
- Second offense – worker issued a written warning.
- Third offense – worker may be suspended, terminated, or removed from site.
- **PCL RESERVES THE RIGHT TO TERMINATE ANY WORKER ON A SINGLE HSE INFRACTION, WITH OR WITHOUT PRIOR NOTICE.**

12.0 PREVENTIVE MAINTENANCE

12.1 Introduction

The purpose of this section is to verify tools, equipment and other preventive measures are properly maintained and in place for the safety of all workers.

12.2 Inspection – Daily

- Tools and equipment shall be inspected daily and prior to each use by the user to verify that they are in proper working order
- Damaged or defective tools or equipment must be tagged "OUT OF SERVICE", and the damage is to be identified on the tag and returned to the tool room or yard.
- Under no circumstances shall tools or equipment in need of inspection or repair remain in service

12.3 Manufacturer Specifications

- Workers will maintain all tools and equipment in accordance with the manufacturer's maintenance requirements
- Records of equipment maintenance will be maintained on site

12.4 Tools and Equipment Checklist

- Some tools may require a checklist prior to use on site.
- Check with PCL Project Management for any requirements

12.5 All Equipment

- All vehicles and equipment, company owned or rented, dispatched to the site shall be sent in good mechanical condition and with required HSE equipment installed.
- Shall have a 10 lbs.' ABC fire extinguisher on board
- The fire extinguisher is to be inspected monthly and annually
- Shall have a working backup alarm

12.6 All Equipment Inspections / Maintenance Schedule

- Shall be inspected prior to use
- Shall be inspected daily:
  - Inspections are to be documented
  - Documentation is to be submitted to PCL project management
- Inspected in accordance with vendor and manufacture requirements
- Inspected for hydraulic oil, oil, gasoline, and any other hazardous substance leaks
  - Leaking equipment shall be repaired on site or removed from the site as soon as possible for repairs
  - Equipment that cannot be repaired quickly or removed from the site shall have drip pans or weighted kiddie pools placed underneath leaking equipment or vehicles
  - All leaks and spills will be cleaned up promptly in compliance with the Project SPCC and spill response and reporting requirements

12.7 All Equipment in Use

- Operator and passengers are to wear seat belts
- Equipment shall have an operator in seat while engine is running
- Workers shall not ride on any piece of equipment

- Use a spotter for backing when visibility is limited
- Keys are not to be left in the ignition of unattended equipment
- Workers shall not be lifted, hoisted, or transported
- Workers shall not use cellular phones while operating equipment
- Workers shall not listen to music, use headphones or earbuds while operating equipment

12.8 All Equipment Refueling

- Turn off the ignition system before refueling
- Refueling attendant must be present always
- In case of spill, cease operation until the area is made safe.
- Report all fuel spills to project management.

12.9 All Operators

- List of operators and the equipment they are assigned to shall be kept
- Shall be qualified, trained or certified to operate specific equipment
- PCL and Sub/Trade Contractor project management are to verify operator's qualifications
- Submit a copy of training documentation to project management
- Observe all rules of the road.

12.10 Load Lifting Requirements

- Will not be operated by workers other than qualified operators of the equipment
- Shall be verified it is in safe operating condition prior to use on-site
- Capacities marked on equipment shall not be exceeded
- Outriggers must be fully extended and set on stable ground before any lift
- Rigging gear assigned to equipment shall be inspected prior to each use
- Tag lines shall be used to control hoisted loads

12.11 Lift Director for Crane Lifts

- The project lift director is designated as: **TBD**
- The lift director's duties would include the following:
  - Being present at the job site and overseeing the lifting operations
  - Stop crane operations if alerted to an unsafe condition affecting the operations
  - Verify preparation of the area needed to support crane operations has been completed before crane operations commence
  - Verify necessary traffic controls are in place to restrict unauthorized access
  - Verify personnel involved in crane operations understand their assigned duties, and the associated hazards
  - Addressing safety concerns raised by the operator or other personnel and deciding if it is necessary to overrule those concerns and directs crane operations to continue.
  - In all cases, the manufacturer's criteria for safe operation and the requirements of this chapter and any other applicable safety and health standards must be adhered to.
  - Assigning qualified signal person(s) and conveying that information to the crane operator.
  - Allowing crane operation near electric power lines only when the requirements of the local Power Provider and any additional requirements determined by the site supervisor have been met.

- Ensuring precautions are implemented when hazards associated with special lifting operations are present.

12.12 Company/Trade Vehicles

- Vehicles assigned to this project are to be used for business purposes only
- Operated lawfully and safely always
- Vehicles are to have formal documented inspections daily
- Operators shall have a valid driver's license
- Seat belts are to be worn by operators and passengers
- Obey site speed limits
- Cell phone use is strictly prohibited in all vehicles and equipment
- **Use of vehicle is prohibited when driver is:**
  - Fatigued
  - Under the influence of substance that could impair their ability to drive
  - Using prescription medication which causes impairment

12.13 Emergency Equipment with each vehicle

- First Aid Kit
- 5 lbs. ABC fire extinguishers
- Flares or reflective devices
- Jumper cables

12.14 Incidents

- Report vehicle/equipment incidents to project and district management
- Do not volunteer information or respond to questions unless asked by law enforcement
- Do not sign any papers or accept blame
- Take pictures of:
  - Damaged property and/or material
  - Vehicles involved
  - Location
  - Incident shall be submitted in SMC.

12.15 General Electrical Requirements for Tools and Equipment

- Only round, heavy duty (type S, ST, SO, STD) is acceptable on this project and shall be visually inspected before each day's use.
- Inspect equipment connected by cord and plugs.
- All workers shall conduct a roundup of all extension cords and tools daily
- Only qualified workers shall make repairs and maintenance on electrical equipment
- Electrical power boxes and disconnects are to be labeled or marked
- Temporary lighting must have guards over the bulbs
- Broken or burned-out lamps are to be replaced immediately
- Guards, barricades and/or warning signs must be provided to prevent employee contact with un-insulated "live" electrical components or temporary wiring.
- Area around panel boxes and disconnects shall be free and clear of obstructions

12.16 Inspection Intervals

- Testing identified above is to be performed:
  - Before first use
  - Before tools and/or equipment is returned to service following repairs
  - Where there is reason to believe that damage could have occurred from incident
- Testing intervals are to not exceed three (3) months

12.17 Inspection Documentation

- Shall be done with colored tape
- All receptacle, extension cords and electrical tool shall be marked
- This designates the period for which the inspection and test are to be conducted
- The following table applies:

QUARTER	MONTH			COLOR
1ST	January	February	March	Green
2ND	April	May	June	Orange
3RD	July	August	September	Red
4TH	October	November	December	Yellow
Out of Service	Red Tag			

Lock Out/Tag Out

- No work will be permitted on energized machinery or equipment where unexpected energizing, start up or release of stored energy could occur and cause injury.
- PCL project management shall approve all lock out / tag out prior to implementation.

12.18 Power Lines

- Keep conductive equipment and material at least 10 ft. away from lines carrying up to 50 kV
- Signage shall be posted to warn workers
- If power lines are greater than 50 kV, the distance is 10’ + 4 ‘for each kV.

12.19 Underground Utilities

- Call for a utility stake-prior to disturbing or penetrating underground
- Completion of HSEOP-05-01 Excavation-Ground Disturbance Permit is required

12.20 Fuel Storage

- Do not store ordinary combustibles (e.g., wood, paper, etc.) with flammables
- Containers are to be stored properly with spill containment in mind
- Use only approved containers for the storage of flammable liquids
- Fuel containers are to be properly labeled
- Containers are to be inspected daily
- No plastic containers authorized on-site

13.0 INCIDENT INVESTIGATION

13.1 Introduction

The purpose of this section is to outline incident investigation, which shall be used to identify facts, determine cause(s) and provide ways and means to prevent a reoccurrence.

13.2 Responsibilities

- **Project Management**
  - Conducting incident investigations
  - Focusing on facts and why the event occurred not who is at fault
  - Interviewing all witnesses
  - Determining root cause
  - Implementing corrective actions
  - Report all incidents as soon as reasonably possible to:
    1. Clients/Owners representatives (as needed)
    2. District HSE manager and/or operations manager

- **Workers**
  - Participate as required with all site investigations
  - Provide honest statements of known facts to investigators
  - Report all incidents as soon as reasonably possible

- **Sub/ Trade Contractors**
  - Participate as required with all site investigations
  - Provide honest statements of known facts to investigators
  - Report all incidents as soon as reasonably possible
  - Failure to do so can result in suspension, termination, or removal from the site

- **District HSE Manger shall report incidents to:**
  - District management
  - Regulatory agencies
  - Corporate office as soon as reasonably possible

13.3 Incident Types

- **Near Misses**
  - An unplanned, unwanted event with some form of energy that might have resulted in personal harm, property damage or loss.

- **Serious Incident**
  - Any incident that causes death, life threatening, lost time or debilitating injury or illness
  - Requires notification to government agency

- **Non-Life-Threatening Incident**
  - Any incident that causes a medical aid, modified work, or first aid.

- **Loss of Process – Property Damage**
  - Requires a loss report form to be completed
  - Incident that results in the disturbance of construction operations caused by.
    1. An Incident
    2. Damage to property
    3. Damage to equipment
    4. Environmental impact
    5. Stolen equipment, tools, and material
    6. Damage to vehicles

13.4 Incident Response

- It is expected all able supervision and workers will respond to assist with an incident as needed and directed by project management.

13.5 Incident Investigation Process

- An HSE incident investigation is a systematic process of examination, observation, and inquiry comprised of the following seven parts including:

1. **Secure the scene**
   a. Verify that the scene of the incident is safe to enter
   b. Verify that the initial medical aid, identification of witnesses and safeguarding of evidence has been achieved

2. **Risk classification**
   a. The risk classification determines the level of management that is required

3. **Collect the facts**
   a. Activities include interviewing witnesses, gathering, and identifying physical evidence, arranging for technical reports, taking digital pictures, sketching the scene, gathering documentation such as training records, equipment, and medical reports.

4. **Description/Develop the sequence of events**
   a. The description identifies in detail how, when, and where the incident occurred including all related factors (i.e., weights, heights, distances, time of day, weather conditions). Developing a sequence of events indicates a timeline regarding specific occurrences that led to an incident.

5. **Determine the root cause(s) (Why did the incident occur?)**
   a. What acts, failures to act, and conditions contributed to the incident.

6. **Corrective action(s)**
   a. After the root cause(s) of the incident has been determined, recommendations to prevent recurrence will be prepared.

7. **Signoff and Final Report**
   a. Project Management to sign off on all incident investigation reports

13.6 Injury Types

- **General Requirements**
  - Worker shall be accompanied to the medical facility by supervision
  - All incidents are to be reported to supervision

- **First Aid**
  - Minor injuries, scratches, burns, abrasions, that do not require medical treatment

- **Medical Treatment (Medical Aid) ***
  - Treatment that is defined by OSHA as other than first aid

- **Modified Work (Restricted Work) ***
  - Work duties that have been modified by a licensed medical professional to accommodate an injured worker

- **Lost Time Injury (LTI)***
  - Worker instructed to miss work by a licensed health care professional, not including the day of injury
  - **Note:** * = District HSE manager to be notified as soon as reasonably possible
  - = PCL Project Management is to escort worker to clinic or hospital

13.7 Incident Investigation Team

- **Investigation Team Shall**
  - Will consist of available members of the project team as needed
  - Consist of the Emergency Response Team – See section 8
  - Work towards identifying the root cause of the incident

13.8 Investigation Kit

- Investigation Kit will be established at the district office and maybe utilized by the district HSE manager or project team as requested.

13.9 Corrective Actions

- Project Management is responsible for the creation and implementation of corrective actions

13.10 Incident Investigation Documentation and Reporting

- Incidents will be classified either A, B, or C
- Sub/Trade Contractors shall provide an incident report to project management within 24 hours
- Serious incidents will have a preliminary review within 4 hours of the occurrence and a formal review within 48 hours
- Submit report to district HSE manager within 48 hours of the Incident

13.11 Incident Review - Corrective Actions / Lesson Learned

- Shall attend incident review committee as required by project / district management
- May be required to be completed with specific incidents

13.12 Temporary Corrective Actions

- Includes those items that can be implemented immediately to prevent recurrence of the incident.

13.13 Permanent Corrective Actions

- Includes those items that take substantial time to implement such as training and/or developing or modifying a practice, standard or procedure.
- In any case, corrective action will be monitored until fully implemented
- Submit a copy to the District HSE manager
- Forward a copy to USHO/NAHQ
- Communicate to all workers through weekly HSE meeting

13.14 Statistical Reporting

- Information provided during an investigation may be used to assist with project/ district trending

14.0 INJURY MANAGEMENT

14.1 Introduction

The purpose of this section is to outline the injury management standards and expectations for this project to utilize a proactive approach to managing injuries and maintain a healthy working environment. Refer to Construction Emergency Plan.

14.2 Responsibilities

- **Project Management**
  - Report all work related injuries to project HSE staff before outside medical treatment is sought
  - Report any off hours' medical treatment to the HSE staff as soon as possible
  - Identify suitable modified work for workers
  - Monitor return to work programs

- **Workers**
  - Immediately report all injuries to their supervisor
  - Participate in modified work programs where medically acceptable
  - Notify treating health care providers that modified work is available
  - Notify project HSE staff and supervisors regarding medications, medical appointments, and medical work restrictions
  - Notify project HSE staff and supervisors regarding any concerns with modified work

- **Sub/ Trade Contractors**
  - Immediately report any injuries to PCL project HSE staff and project supervisors
  - Accommodate and provide modified work when required
  - Have management level employee accompany injured worker to designated clinic
  - Assist and participate with case management

14.3 Training

- PCL project management will receive training on injury management
- Injury management requirements shall be reviewed with workers during site orientation

14.4 Types of Injuries

- **First Aid**
  - An injury is defined as an injury or illness requiring a onetime treatment of minor, superficial injuries and does not require professional medical care.

- **Medical Aid**
  - An injury is defined as an injury or illness related procedure other than first aid or preventative treatment that is intended to provide a remedy or palliative care.

- **Modified Work**
  - An Injury or illness where work duties must be limited or restricted to accommodate an injured worker who cannot perform their regular work duties as directed by medical professional.
- **Lost Time**

- Injury where the worker is away from work on a day after the day on which the incident occurred or on the advice of a medical professional.

14.5 Medical Transportation/Medical Providers

- PCL management will select the appropriate facility to best care for workers
- PCL workers will go to the clinic determined by PCL project management
- Sub/Trade supervision shall determine or transport workers to the designated clinic
- PCL and Sub/Trade workers will be escorted to the clinic by project HSE staff or a PCL supervisor

14.6 Return to Work Program and Modified Work (Restricted Work Plan Requirement)

- All workers under all circumstance shall be accommodated for all work restrictions
- PCL will accommodate all modified work
- Project supervision will select modified work in accordance with medical restrictions
- Modified work duties will be reviewed with the worker and the worker's supervisors
- Sub/Trade Contractors are required to follow the return-to-work program and provide modified work for any of their workers.

- **Modified Work Offer**
  - PCL may use the modified work offer form 14-05 – see HSE Manual
  - A modified work offer will be presented to the worker for offer and signature

- **Refusal of Modified Work Offer**
  - Workers who refuse to participate in return to work or refuse the modified work offer will need to provide reasons for not wanting to participate
  - Different modified work may be provided as needed
  - Project management to notify the district HSE manager of all refusals

- **Monitor of Return-to-Work Program**
  - Supervision will monitor the progress of the worker
  - Supervisors and Workers will complete Employee Injury Management form 14-06 – see HSE Manual, completed employee injury management form shall be kept on file

14.7 Injury Management Case Coordination

- Project management will notify district HSE manager of progress and any changes to the status of the worker or return to work plan

15.0 CODE OF SAFE WORK PRACTICES

15.1 Introduction

This section defines safe work practices associated with this project, outlining responsibilities and compliance requirements of all workers.

15.2 Aerial Lifts/Work Platforms

- Only authorized, trained operator is permitted to operate aerial lifts
- Aerial lifts/ work platforms include:
  - Extended boom platforms
  - Aerial ladders
  - Scissors lifts
  - Articulating boom platforms
  - Vertical towers
- Lifts shall be inspected prior to use and the inspection documented
- Any lift found to be damaged shall be removed from service
- Workers shall not stand on toe-boards, mid-rails, or upper rails
- Worker's lift must wear and secure a full body harness to designated manufacturer's points
- Exiting the lift in an elevated position without 100% tie-off is prohibited
- Lifts are to be operated on a surface within manufactures recommended limits
- Do not operate aerial lifts close to overhead power lines
- Lifts are not to be used as cranes or lifting devices
- Lifts maximum load capacity shall not be exceeded
- Lifts shall be moved only in low gear at low speeds
- Secure material to prevent possible shifting and injury to workers on the platform
- **For additional information see PCL HSE Operating Procedure section 26**

15.3 Blood Borne Pathogens

- Blood borne pathogens are disease-causing organisms transmitted through contact with infected blood and other bodily fluids, which could lead to disease or death.
- The following requirements shall apply when dealing with blood or other bodily fluids:
  - All human blood and body fluids are treated as if known to be infectious
  - Rubber gloves shall be readily available to all workers
  - All Sub/Trade Contractor certified first aid providers are required to wear disposable latex gloves and eye protection while performing first aid on an injured individual
  - If rescue breathing or CPR is performed, a resuscitation mask shall be provided for the protection of the injured and the provider
  - All blood spills shall be immediately contained and cleaned with an anti-viral solution, or by a solution of bleach and water by the responsible party.
  - Any material affected with blood shall be properly disposed of

15.4 Critical Lifts

- Lifts more than 80% of the maximum rated capacity at the maximum required radius
- Lifts requiring the coordination of multiple cranes working in unison
- Before attempting critical lifts:
  - A documented lifting plan shall be submitted to project management
  - Plan shall be reviewed by a competent person

- Reviewed with project management
- Critical Lift Pre-Lift Meeting Checklist shall be completed prior to the lift

- **For additional information see PCL HSE Operating Procedure Section 2 and 3**

15.5 Compressed Cylinders

- Be clearly marked
- Upright and secured always
- Flash arrest installed on gauges' end
- **For additional information see PCL HSE Operating Procedure Section 8**

- **Cylinders during Storage**
  - Full or empty, cylinders shall be secured
  - Removed from the work area and properly stored
  - Storage areas shall be well marked and located

- **Cylinders must be segregated by contents:**
  - By a minimum of twenty (20) ft.
  - Or by a non-combustible barrier at least five (5) ft. high
  - With a fire-resistant rating of at least one-half (1/2) hour

- **Cylinders during Use**
  - Be firmly secured
  - Always be opened slowly to prevent damage to the regulator
  - Placed in a location where they would be subject to heat sources
  - Placed where they cannot become part of an electrical circuit
  - Not be taken into confined spaces
  - Kept far enough away from the actual welding or cutting operation

- **Cylinders during Transport**
  - Moved on a chain equipped hand truck or an approved carrier
  - Carriers shall be intended for the cylinder
  - Transported with protective caps in place
  - Shall never be dragged
  - Shall be moved by tilting and rolling them on their bottom edges

15.6 Compressed Gas Welding and Cutting

- Cables shall be completely insulated, flexible type
- Cables can handle the maximum current requirements
- Regulators, gauges, leads, torches, and hoses shall be inspected prior to each use
- Any combustibles in the area should be removed prior to starting
- Proper personal protective equipment shall be used during the task operation:
  - Eye and face protection
  - Fire resistant clothing
  - Respirator
- A fire extinguisher should be present at the cutting and welding operation
- Post work inspection of the work area for any sparks, embers, or smoldering
- Electrodes shall not be struck against a cylinder to strike an arc

15.7 Confined Space

- A confined space is defined as an area that:
  - Is enclosed or partially enclosed
  - Is not designed or intended for continuous human occupancy
  - Has limited or restricted means of entry or exit
  - Is large enough so a worker could enter and perform assigned work
- **For additional information see PCL HSE Operating Procedure Section 13**

- **Confined Space shall:**
  - Be identified and labeled properly
  - Coordinated with the PCL supervision

    - **No work shall be permitted in a confined space until:**
  - Atmosphere is free of hazardous concentration of flammable or toxic vapors
  - Air levels are adequate, at minimum 19.5% oxygen

- **Prior to each entry and during the work:**
  - Tests shall be conducted
  - Made at regular intervals determined by the operations and supervision

- **A confined space entry permit must be:**
  - Completed
  - Signed
  - Posted at the point of entry

- **Rescue Plan shall be addressed and in place prior to entry:**
  - Refer to PCL Safe Operating Procedures manual

- **Where the atmosphere in a confined space has been found to be hazardous:**
  - No entry shall be made
  - Until the area has been thoroughly vented
  - Confined space has been found to be safe on re-testing

- **Confined entry test logs shall be:**
  - Maintained at the work location
  - Provided to Project Management

- **When hazardous concentration is presence, the following will be implemented:**
  - Approved respiratory protection
  - Lifelines
  - Attendants
  - Rescue workers

15.8 Dust (Airborne Particles) and Fumes

- PCL requires dust reduction systems for powered tools or equipment to cut, grind, core, or drill concrete or masonry materials

- These systems use the application of water or local exhaust ventilation to reduce the amount of airborne dust generated

- **Requirements**
  - Engineering controls shall be utilized to eliminate the hazard whenever feasible
  - Air tests or historical data may be required to confirm the controls in place are working and whether PPE is or is not required
  - After working with products that contain silica, employees will be required to thoroughly wash their hands before eating, drinking, or smoking.
  - Eating, drinking, or smoking near silica is strictly prohibited
  - Wet down dry materials and surfaces before cutting, chipping, grinding, sanding, sweeping, or cleaning.
  - All block cutting operations shall be performed by the wet cut method
  - Use power tools with built-in dust extraction units to capture the dust before it is released into the air
  - For abrasive blasting, replace silica sand with safer materials.
  - Check SDS for product info.
  - For more guidance, consult with an industrial hygienist or project management.
  - Industrial hygienist sampling may be required when silica, lead, asbestos, hexavalent chromium, or welding fume exposures are possible.
  - Check local requirements.

15.9 Equipment

- Operators are to be trained and qualified to operate equipment
- Use safety belts
- Operators shall inspect equipment prior to use
- Inspections shall be documented
- Do not remove protective guards from equipment
- Do not attempt to make repairs or adjustments to moving equipment
- Lock out/tag out procedures are to be utilized during maintenance or servicing
- Do not wear loose or frayed clothing around operating equipment
- Use extreme caution when refueling equipment to avoid the danger of fire
- All repairs will be made by an authorized and qualified person
- **For additional information see PCL HSE Operating Procedure Section**

15.10 Excavation/Trench

- Spoil piles shall be at least 3’ back from the edge
- Greater than four 4’ in depth
- Shall have a safe means of access/egress:
  - Within 25 ft. of workers working in the excavation or trench
  - The access/egress point (ladder) shall be properly secured and extend a minimum of 36 inches above the landing platform
  - The landing platform shall prevent trips, slips, and fall hazards
- Shall be protected from falls by the following, but not limited to:
  - Guardrail systems
  - Fences
  - Barricades
  - Approved personal fall protection system

- As conditions warrant at any depth, air quality monitoring must be performed prior to and during excavation and trenching activities
- Workers working within an excavation or trench must have been trained
- Excavation/Trench inspection:
  - Shall be completed prior to access
  - Daily by a competent person
  - Documented using the Daily Trench and Excavation Checklist
- At (5) ft. in depth shall have an approved means to eliminate a potential wall collapse
- **For additional information see PCL HSE Operating Procedure Section 05.**

15.11 Fall Protection

- Shall be utilized where workers are exposed to falls at and above 6’ in height.
- Personal fall protection will only be employed after an evaluation of engineering and fall restraints have been ruled out of use
- **For additional information see the PCL HSE Operating Procedure Section 24.**

- **Fall Protection Plan**
  - A written fall protection plan with specific work site procedures shall be in place prior to on-site worker use of fall protection and approved by project management.
  - A fall protection plan task plan sheet may be completed and reviewed by project management prior to use of personal fall arrest equipment

- **Fall Protection Plan must include, but is not limited to:**
  - Fall hazards expected in each work area
  - Fall protection system or systems to be used in each area
  - Procedures to assemble, maintain, inspect, use, and disassemble
  - Procedures for the rescue of a worker
  - Methods of providing overhead protection
  - Be specific to the work activity being conducted.
  - If plan is plan submitted is not specific to work activities a fall protection task plan shall be used com complete fall protection planning requirement

- **Harness and shock absorbing lanyards**
- Critical components of personal fall protection equipment/systems (PFAS) are:
  - Harness
  - Shock absorbing lanyards (fall arrest only) or lanyards
  - Locking snap hooks and connection hardware
- Each component of fall protection should be inspected visually prior to each use
- **Anchors point requirements**
  - Load rating shall be at a minimum
    1. 5000 lbs. for one worker
    2. 10,000 lbs. for two workers
  - Swing and impact prevention shall be considered
  - Structure/anchor must be easily accessible to avoid fall hazards during hook up
  - Chafing pads or abrasion resistant straps must be used around sharp edge
  - Points shall be at the worker's shoulder level or higher to limit free fall
  - Compatibility of permanent anchors with worker's fall arrest equipment

- Shall be removed from service and disposed of if subjected to fall arrest forces

15.12 Fire Prevention Plan

- This plan is designed to eliminate and/or reduce the impact of potential fire hazards on this job site and to ensure the proper storage and extinguishment procedures are in place. Refer to Construction Fire Control Plan.

- **Project Management**
  - Shall develop, review maintain, and implement the fire prevention plan
  - Placement of fire extinguishers throughout structure and site
  - Communicate fire prevention plan to workers
  - Conduct monthly inspections of fire extinguishers
  - Review fire extinguisher during site orientation
- Every worker on-site shall:
  - Have fire extinguisher present near hot work activities
  - Know fire extinguisher locations
  - Notify project management of any site fire
  - Understand it is a volunteer effort to extinguish fires

- **Fire Protection**
  - Workers are to apply for a hot work permit when dictated by project management
  - Sub/Trade Contractors are responsible to have extinguishers readily available
  - Trailers on-site are to be equipped with fire extinguishers
  - Hot work activities shall have fire extinguisher (minimum) within 25’ of hot work

- **Wild Land Fire Prevention**
  - Prevent uncontrolled wildfires, which could result in loss of life, loss of property and natural resources and the disruption of operations.
  - Communication with the Local Fire Department shall happen monthly to discuss points of emergency access.
  - The following precautions will be taken to reduce the likelihood of a wildfire:
    - All hot work activities will have a minimum 20 BC fire extinguisher immediately available within 25’.
    - All equipment on site will have a fire extinguisher mounted in the unit.
    - Refueling will take place within the confines of the project and appropriate fire protection equipment will be present.
    - Equipment will be inspected daily to check for leaks of combustible or flammable liquids.
    - When weather conditions are favorable for wildfires, all workers on site will be made aware during the PSI.
    - Additionally, a water truck used for dust control will be available in case of a fire.
    - If a wildfire is spotted it will be reported to the Local Fire Department by calling 911

- **Training**
  - Workers shall receive training on fire prevention procedures.
  - Know the acronym (P.A.S.S.):
    1. Pull the Pin - Release the locking mechanism

2. Aim Low - Stand 6 to 8 feet away from the fire and point nozzle at the base of fire
3. Squeeze the Trigger - Squeeze the trigger, which will release the agent
4. Sweep Side to Side - Sweep the nozzle from side to side until the fire is extinguished

- **Maintenance**
  - Contractors shall inspect and initial their portable fire extinguishers monthly
  - Portable extinguisher shall have a tag to identify year and month of inspection
  - Fire extinguishers shall be tagged and checked by a third party on an annual basis
  - Fire extinguishers found to be damaged; discharged or out of service shall be removed.

15.13 Forklifts

- **Operator using forklifts shall:**
  - Be trained
  - Use safety belts
  - Conduct and document daily inspections
  - Report all defects to project management
  - Observe maximum load limits always
  - Remain in the seat when there is a load elevated on the forks
  - Allow no riders or unauthorized people on the forklift
  - Operate at a safe distance away from leading edges or steep changes in grade
  - Operator shall stop for all workers and pedestrians
  - No modifications will be made without written consent from the manufacturer
  - Name plates, tags, stencils, and marks identifying stability shall be in place
  - Forklift will not be permitted to lift other workers
  - When in motion, forks shall always be carried as low as possible
  - Vehicle is to be shut off and brake is to be set, the mast is to be brought to the vertical position and forks are left in the down position.
  - Workers shall not use cellular phones while operating equipment
  - Workers shall not listen to music, use headphones or earbuds while operating equipment

15.14 Grinders

- Cutting disk form required to be completed prior to using grinder to cut material
- Grinding wheels shall be guarded with manufactures required guard
- Shall not be used if wheel guard in missing
- Tool handle shall be attached always
- Work or tool rest shall not be adjusted while grinding wheel is in motion
- Cracked or damaged grinding wheel shall not be used
- Turn off and wait for wheel to completely stop
- **For additional information see PCL HSE Operating Procedure Section 25**

15.15 Guardrails

- Constructed out of 2 X 4 or other rated material
- Top rail shall be 42”, +/- 3”
- Mid-rail shall be in the middle from the top rail to the floor

- Toe boards shall be 4” in height and flush with the ground
- Capable of withstanding a force of at least 200 pounds
- Secured to prevent accidental dislodgement
- Posts are to be no further than 8’ apart

15.16 Barricading Standards

- Work areas should always be maintained in a neat and organized manner.
- Barricades will be set up to delineate the area with a specific entry and exit point to avoid going under or over barricades to gain access.
  - All barricaded must be tight, maintained, and orderly.
- No Barricade Tape is to be used on site, only rope or plastic chain.
- PCL Barricade Tag or Signage needs to be in place on all barricades
- Rope Barricade Color Code:
  - Red Rope – Installed around immediate high-risk hazards: overhead work, confined spaced, electrical, open trenches or other Life Saving Absolutes
  - Yellow Rope – Installed around areas to caution of unsafe conditions: Tripping hazards, welding/cutting, sloped trenched, delineating work areas, other non-life-threatening hazards
  - Blue Rope – use for designating parking areas in operation
  - Green Rope – Used for ground personnel access routes
- Physical barricades such as wooden handrails or scaffolding rails will be used around exposure to falls.
  - Color code will be used for wooden barricades.
- T-Posts should be used in a manner that keeps the rope tight with minimal deflection
- “Orange” fencing offers better a solution for barricades depending on your scope to prevent dropped objects from working are height -- evaluation of chain link fence, fence panels or other commercially available products should be taken into consideration. No matter the product, a straight line, tight and orderly is the expectation.”
- For additional information see PCL HSE Operating Procedure Section 33, Flagging and Barricading

15.17 Hand and Power Tools

- Tools shall be:
  - Inspected prior to each use
  - Turned into supervision if damaged or defected
  - Shall only be utilized by competent person
  - Shall not be carried by the cord
  - Sharp edged or pointed tools shall not be carried in worker’s pocket

15.18 Hot Work Permit

- Hot work operations include welding, cutting, braising, and soldering or other work which may cause a fire on site.

- Each Sub/ Trade Contractor shall notify PCL project management of propose “Hot Work” through a “Hot Work Permit”
- Project management will determine if permit shall be completed and submitted by Competent Hot Work Operator (CHWO) prior to hot work operation.
- These permits must be reviewed and approved by PCL project management to assure that all areas of concern are accounted for in fire protection.
- Sub/ Trade Contractor worker shall ensure that the surrounding area(s) are free of combustible material
- When “hot” material may fall to areas below, areas shall be free of combustible material or material that may otherwise be damaged.
- Work in place must be protected by the trades performing the work.
- **For additional information see PCL HSE Operating Procedure Section 10**

15.19 Hoisting/Lifting Plan

- Shall be completed for all hoisting which are done with cranes
- Shall be submitted to PCL Project Management prior to lifts for approval
- Plan shall identify:
  - Location
  - Lifting team
  - Equipment information
  - Material to be lifted
  - Weight of the load
  - Rigging details
  - Rigging load capacity
  - Directional swing

15.20 Housekeeping

- PCL has adopted a policy where workers must keep their areas free of excess debris and reused daily, or as they move to another area
- Work areas shall be maintained always
- Excess material shall be removed daily
- Garbage bins will be provided for designated waste and monitored closely
- All hazardous chemicals must be properly disposed of
- Check with project management prior to disposal of any hazardous waste
- **Clean Up**
  - Job site cleanup shall take place as outlined in the sub trade bid manual for this project
  - All Sub/Trade Contractors are to participate in site clean up
  - Clean up crew shall comprise of all Sub/Trade Contractors on-site
  - If site conditions warrant work shall be stopped and a mandatory job site cleanup shall take place.
  - 24-hour clean-up notifications will be issued, if sub-trades are still in non-compliance PCL will supplement clean-up and time will be charged back to sub-trade

15.21 Hydro Testing

- Secure and remove workers from the area prior to conducting the testing
- Only workers associated with the activity shall be in the area.
- Examine all connections prior to the test
- Know the maximum test pressure to be used.

- Examine the line to ensure it secured and can't be moved during testing.
- **For additional information see PCL HSE Operating Procedure Section 27**

15.22 Infectious Control

- Containment of the job site
- Use a HEPA filter unit to purify the air
- Block vents that carry contaminants
- Use fire retardant plastic sheeting to secure the area
- Develop alternate travel routes for patients and staff

- **Entry and Egress of the Job Site**
  - Assess the amount of dirt, dust, and debris in the job site
  - Use damp cloth mats, followed by dry mats to avoid transporting dust outside
  - Outside - Use tack mats (walk-off mats) to avoid transporting dust outside the job site

- **Containment and Transport of Construction Material**
  - Shut doors to prevent the release of contaminants into patient areas
  - Cover trash collection carts before leaving job site
  - Clean off the outside of trash collection carts before leaving the job site

- **Decontamination Methods for Construction Crews**
  - Wear removable coveralls
  - Clean tools prior to exiting the facility

- **Cleanup of the job site**
  - Dismantle barrier, folding, material inward to lessen release of contaminants.
  - Use a HEPA vacuum and filter unit to get rid of lingering contaminants

- **Inspections**
  - Infectious Control Construction/Renovation Inspection Checklist shall be completed
  - Completed 2 times a day
    1. Once by the infectious control contractor
    2. Once by PCL Project Management
  - Posted next to the entrance of the construction site to be viewed by all workers
  - Non-Compliance Items are to be addressed and documented on page 2 of this form

15.23 Ladders

- **Extension Ladders**
  - Tied off at the top and bottom
  - Always extend ladders 3 feet above the edge
  - No more than one person is allowed on a ladder at one time
  - Do not splice short ladders together
  - Secured at higher elevations as not to be blown off structures
  - Removed from service if defects or damage is identified
  - Have clear access/egress to and from ladder
  - Require a gate or offset corral to access elevated work platforms or decks

- **Step Ladders**
  - Step ladders must be fully opened with spreader arms locked
  - The top two rungs of a ladder are not to be used as a step
  - In locations where electrical hazards are present, use fiberglass ladders
  - Workers working on ladders near an opening must be protected from openings below
  - Ground shall be clear of debris

15.24 Noise

- Protection must be worn when sounds louder than 85 dB are present
- **Warning Signs of Hazardous Noise**
  - You must raise your voice to be heard
  - Speech around you sound muffled or dull after leaving a noise area

- **Noise Protection**
  - Workers are to wear the appropriate hearing protection for task activities:
    1. Earmuffs
    2. Ear plugs
    3. Limit periods of exposure

- **Noise Identification**
  - Activities that generate excessive noise shall be:
    1. Reduce
    2. Eliminated
    3. Scheduled to limit the exposure

15.25 Power Saws

- Portable circular power saws must be equipped with guards that automatically and completely enclose the cutting edge when not in use.
- Shall not be used of cracked, bent, or have damaged blades.
- Power saws shall not be left running while unattended
- Never hold material being cut in your hands or across your legs
- Minimize body exposure, blade binding or loss of control

15.26 Ramps, Runways and Platforms

- Erected for the use of workmen shall be not less than 18 inches in width
- Shall be secured and supported to avoid deflection and springing action
- Securely fastened cleats or other means shall be used on inclined runways slope
- Sloped at two feet in 10 feet or more to improve the footing
- Surface shall be uniform in thickness
- All exposed ends shall be provided with beveled cleats to prevent tripping
- Any walking/working surface platform above 4 feet will have guardrails
- If guardrails on platforms are not feasible, workers will use fall protection
- All ramps, runways, and platforms will be kept free from debris
- Do not overload with people or materials
- Ramps or runways over three feet high, used for wheelbarrows, shall be not less than two feet, six inches wide and secured at each end to prevent ramp from sliding.

15.27 Respiratory Protection

- Shall be worn in accordance with regulatory requirements
- Respirators are to be NIOSH-certified
- Shall be provided when ventilation does not reduce air contaminants to safe levels

15.28 Rigging

- Worker shall be trained on proper rigging procedures
- Use tag line(s) when hoisting material
- Have the authority to remove damage or defective rigging equipment from service.
- Never stand directly underneath a load

Rigging Equipment

- The rated load of the lifting device shall be legibly marked on the main structure or on a tag attached to it where it is visible.
- If the lifting device is made up of several lifters, each detachable from the group, these lifters shall also be marked with their individual rated loads.

- **Inspection**
  - All Rigging equipment shall be inspected prior to use
  - Items such as the following shall be inspected for damage at intervals including observations during operation for any indications of damage that might appear between inspections.

- **For all lifters, inspect:**
  - Structural members for deformation, cracks, or excessive wear on any part
  - Loose or missing guards, fasteners, covers, stops, or nameplates
  - All functional operating mechanisms and automatic hold-and-release mechanisms for maladjustments interfering with the operation
  - Inspected and recorded daily by a competent person

15.29 Storage and Handling of flammable materials

- When propane tanks are in use, a fire extinguisher needs to be near the operation.
- Propane storage will not be in or near stairways and exits used for egress
- Storage of tanks will be done to minimize tipping and stored up right
- All tanks will be secured up right
- All tanks will have protective collars
- Any hazardous chemicals will be stored according to local legislation
- No smoking/flammable signage around storage areas
- Fire resistant cabinets can be used to hold flammable chemicals
- In absence of a fire-resistant cabinet a designated area can be assigned to store flammable material
- Fire extinguishers will be located near storage areas

15.30 Temporary Electrical Equipment

- Electrical power boxes and disconnects are to be labeled or marked
- Inspected monthly
- Temporary lighting must have guards over the bulbs
- Broken or burned-out lamps are to be replaced immediately

- Guards, barricades and/or warning signs must be provided to prevent:
  - Contact with un-insulated wiring
  - Live electrical components
  - Temporary wiring
- Area around panel boxes and disconnects shall be free and clear of obstructions

15.31 Temporary Heat

- Open fires shall **not** be permitted on this project
- All wood, tarps and blankets shall be made of fire retarding materials
- All heating equipment shall be:
  - Wired
  - Piped
  - Operated in accordance with all applicable codes and regulations

15.32 Mobile/Tower Cranes

- Fall protection must be provided when erecting or dissembling tower cranes
- Mobile cranes are to be tested and inspected daily by the crane operator
- Cranes are to be operated by a qualified operator
- All loads must be safely landed and supported before being unhooked
- Workers are not permitted to:
  - Stay in the range of a swing hazard
  - Stand or pass beneath a suspended load
  - To ride on a load, sling, hook, or any other rigging equipment
- **For additional information see PCL HSE Operating Procedure Section 2 and 3**

15.33 Unprotected Sides and Edges

- Workers exposed to unprotected sides and edges 6 feet or more above lower levels, must be protected from falling by:
  - Guardrail systems
  - Safety net systems
  - Personal fall arrest systems or fall restraint
  - Safety monitor systems and leading-edge systems must have written approval

15.34 Welding

- Hot work permit shall be obtained by project management, when required
- Protect others by using wielding screens / shields
- Only authorized persons are permitted to do any welding or burning
- Rod ends shall not be allowed to accumulate on floors
- Never lay a burning torch aside
- Fire watch may be required when there is risk of flammability or at the discretion of PCL project management

ADDITIONAL ADMINISTRATIVE REQUIREMENTS

15.35 Competent and/ or Qualified Person

- "**Competent**" One who can identify existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to workers, and who has authorization to take prompt corrective measures to eliminate those identified hazards.

- **"Qualified"** means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

15.36 Drugs and Alcohol

- The possession of or consumption of alcohol, illegal drugs or the misuse of prescription drugs is strictly prohibited on any PCL site.
- Disciplinary action will take place for those who fail to complete and/or fail a test
- All workers who work for or on a PCL site shall comply with the following:
  - No worker shall distribute, possess and/or consume alcohol or illegal drugs
  - No worker shall be under the influence of any substance
  - No worker shall test positive for any substances
  - No worker shall misuse prescription or non-prescription drugs
- If a worker is taking a prescription or non-prescription drug for which there is a potential unsafe side effect, he/she shall report this potential to their supervisor

- **Testing**
  - Shall be required on a case-by-case basis and identified by project management
  - If a worker is suspected to be under the influence of drugs or alcohol, completion of the district's Reasonable Suspicion Checklist is required
  - Trade/ Sub workers may require testing and will be the responsibility of their company

- **Incident testing**
  - Shall be administered on the following criteria:
    1. All workers who witness an incident take place
    2. All workers who have been involved in an incident
    3. Been involved in a company vehicle incident

15.37 Heat Illness Prevention

- **Requirement**
  - Heat Illness Prevention plans help protect workers
  - Sub/Trade Contractors shall provide adequate supply of water to all workers

- **Access to Water**
  - Will be readily available and provided to workers per contractual requirements
  - Designate a person(s) to periodically check the level of the water containers
  - Ensure that the water is suitably cool
  - Supervision shall encourage workers to frequently drink plenty of water
- **Access to Shade**
  - Locate shade structure close to where workers are working
  - Have and maintain one or more areas with shade
  - Permit access to shade always

- Encourage workers to rest in the shade, for a period of no less than 5 minutes at a time.
- Shade "Rule of Thumb," the amount of shade present should be at least enough to accommodate workers

- **Training**
  - Supervision and workers are to be trained to heat illness prevention

- **Signs and Symptoms of Heat Illness**
  - **Heat Rash**
    1. Also known as *prickly heat*, heat rash may occur in hot, humid environments where sweat is not easily removed from the surface of the skin by evaporation.
    2. Heat rash that is extensive or infected can be so uncomfortable that it inhibits sleep and impedes performance, or results in temporary or permanent disability.

  - **Fainting**
    1. May be a problem when a worker who is not acclimated to a hot environment simply stands still in the heat.

  - **Heat Cramps**
    1. Painful spasms of the muscles are caused when workers drink large quantities of water but fail to replace their bodies' salt loss.
    2. Tired muscles used for performing the work are the ones most susceptible to cramps.

  - **Heat Exhaustion**
    1. Results from loss of fluid through sweating
    2. The worker with heat exhaustion still sweats, but experiences extreme weakness or fatigue, giddiness, nausea, or headache.
    3. The skin is clammy and moist, the complexion pale or flushed, and the body temperature normal or slightly higher.

  - **Heat Stroke**
    1. The most serious health problem for workers in hot environments, which is caused by the failure of the body's internal mechanism to regulate its core temperature
    2. Sweating stops and the body can no longer rid itself of excess heat
    3. Victims of heat stroke will die unless treated promptly

  - **Signs Include**
    1. Mental confusion, delirium, loss of consciousness, convulsions, or coma
    2. A body temperature of 106 degrees Fahrenheit or higher
    3. Hot, dry skin which may be red, mottled, or bluish

15.38 Stretch and Flex Program

- **Requirements**
  - All workers on-site are required to start the day with 5 to 10 minutes of stretching.

- Taking time to stretch helps workers mentally prepare themselves for the tasks they are about to perform as well as physically preparing their muscles for work

- **Stretching Directions**
  - Begin stretching with your body in a relaxed neutral position
  - Hold each stretch for a count of 5 to 10 seconds
  - Do not bounce during the stretch
  - Have relaxed breathing and do not hold your breath
  - Stretches are posted in the site trailer and in the inside cover of your PSI book

15.39 Worker's Right of Refusal

- PCL project management, supervisors, and workers all share responsibility for identifying and recommending corrective action respecting situations which are, or could be, unsafe.

- **Observing an Unsafe Situation**
  - Workers have the right and the responsibility to refuse unsafe work
  - Workers that find unsafe conditions are required to inform their immediate supervisor or a PCL project management immediately

- **Informed of an Unsafe Situation**
  - Are required to immediately initiate positive corrective actions
  - Or refer the matter immediately to the next level of supervision

15.40 Phones/Music Radios/Music Devices

- PCL project management, supervisors, and workers all share responsibility for identifying workers using radios/music devices and headsets on site and advise to remove them from use and the project.

- **Smart Phones/Phones**
  - Workers are not authorized to use phones while conducting work activities
  - All Applicable law shall be followed while on site
  - Phones may be used in designated lunch areas.

- **Music Devices/Radios**
  - Use of music devices/radios are not consider hearing protection
  - At no time shall music devices such as iPods, smart phones, or any other device which plays music be authorized to play music on this project.

- **Earpieces**
  - Earpieces shall not be used on site
  - Earpieces include headsets, ear buds, or blue tooth devices

15.50 Barricading Standards

- Work areas should always be maintained in a neat and organized manner.
- Barricades will be set up to delineate the area with a specific entry and exit point to avoid going under or over barricades to gain access.
  - All barricaded must be tight, maintained, and orderly.

- No Barricade Tape is to be used on site, only rope or plastic chain.
- PCL Barricade Tag or Signage needs to be in place on all barricades
- Rope Barricade Color Code:
  - Red Rope – Installed around immediate high-risk hazards: overhead work, confined spaced, electrical, open trenches or other Life Saving Absolutes
  - Yellow Rope – Installed around areas to caution of unsafe conditions: Tripping hazards, welding/cutting, sloped trenched, delineating work areas, other non-life-threatening hazards
  - Blue Rope – use for designating parking areas in operation
  - Green Rope – Used for ground personnel access routes

- Physical barricades such as wooden handrails or scaffolding rails will be used around exposure to falls.
  - Color code will be used for wooden barricades.

- T-Posts should be used in a manner that keeps the rope tight with minimal deflection
- "Orange" fencing offers better a solution for barricades depending on your scope to prevent dropped objects from working are height -- evaluation of chain link fence, fence panels or other commercially available products should be taken into consideration. No matter the product, a straight line, tight and orderly is the expectation."

- For additional information see PCL HSE Operating Procedure Section 33, Flagging and Barricading

16.0 Energized Area Safety Precautions

- Energized Area Definition
  - Energized areas or Red Roped Areas defined as areas at which electric potential in excess of 50 V is present.
- Expectations
  - Personnel required to work in such areas must have:
    - completed training
    - wear appropriate PPE
    - have signed a Work Authorization for the job in the area.
  - To Provide all workers with a safe working environment
  - Advise workers regarding known and potential hazards
  - Provide notice of boundaries of the energized areas –through training and red roping
  - Workers are instructed in the hazards per their JHA and Pre-Job Brief/Work Authorizations
  - All workers and site personnel will advise company of unique and unanticipated hazards and shall follow safe work practices

- Access Requirements for Work
  - Authorized personnel for testing/remediation/installation work in EA
  - Hard hat sticker indicating EA training has been received
    - Example areas:
      - PV arrays in which the PV modules are connected in a string configuration and the circuit is brought to a combiner box by electric cabling (whips, harnesses, string, jumpers).
      - Power Conversion Stations which are connected to the PV field or the AC grid and have open terminals.
      - Combiner boxes which are connected to inverter feeders which in turn are connected to inverters that are connected to other combiner boxes (the DC bus).
      - Substations, switchgear, sectionalizing cabinets, and switchyards connected to the AC grid.
      - Disconnected pad mount transformers that are undergoing testing (resistance, oil sample, etc.) by qualified contractor.
      - AC or DC cables under resistance or fall-of-potential testing (megger, hi pot, VLF).
- Energized Area Demarcation
  - EA will be marked by red rope or red tape surrounding the work area
  - The rope or tape will have signage attached indicating “Tagout” status
- Daily Energized Area Work Procedure:
  - Before work: POD meeting with contract companies
    - The JOB PREVIEW MEETING IDENTIFIES
      - What jobs are planned for the day
      - Where the jobs will occur
      - Who is performing the jobs
      - Expected hazards and plans to mitigate them during the job
    - The outcome of The JOB PREVIEW MEETING ENSURES
      - That the WORK AUTHORIZATION is COMPLETE with all workmen signatures and defined work and is submitted to site superintendent
      - And the JOB HAZARD SAFETY ANALYSIS IS submitted to site EHS superintendent
- Basic EA Work Rules:
  - WORKING IN AN ENERGIZED AREA
    - All repair / remediation / installation work is done by a team of at least two authorized persons
    - The two persons can work apart to the extent they have visual contact (ie. comms testing PCS to PCS)
    - Each team has at least one means of communication to site supervision

17.0 HSE OPERATING PROCEDURES

- **Introduction**
  The Health, Safety and Environment Operating Procedures (HSEOP) HSE Manual outlines procedures and guidelines for work activities which may be performed on PCL projects.

- Circumstances or situations may dictate the need for local, specialized and/or client driven procedures that will require customization of the enclosed procedures.

- See PCL Project Management to review HSEOP Manual.

- ### *HSE OPERATING PROCEDURES (HSEOPs)*
  - To assist trade contactors while working on Ostrea, the following HSE Operating Procedures will be made available onsite.

Reference PCL HSEOP Manual

HSEOP-1 Introduction
HSEOP-3 Mobile Cranes, Personnel Baskets & Rigging
HSEOP-4 Worker and Material Hoists
HSEOP-5 Trenching & Excavation
HSEOP-6 Hazcom & HAZCOM
HSEOP-7 Control of Hazardous Energy
HSEOP-8 Compressed Gases
HSEOP-9 Swing & Non–Swing Type Earthwork Equipment
HSEOP–10 Hot Work
HSEOP–11 Cutting & Welding
HSEOP–12 Respiratory Protection
HSEOP–13 Confined Space Entry
HSEOP–15 Scaffolding
HSEOP–16 Asbestos Abatement
HSEOP–17 Lead Abatement
HSEOP–21 Silica Protection
HSEOP–23 Preventing Violence at the Workplace (Canadian Operations)
HSEOP–24 Fall Protection
HSEOP–25 Grinders
HSEOP–26 Aerial Work Platforms
HSEOP–28 Heat Stress Prevention
HSEOP–29 Working in Cold Environments
HSEOP–31 Electrical Safety
HSEOP–32 Flammable & Combustible Liquid Storage & Handling
HSEOP–33 Flagging & Barricades
HSEOP-35 Cleaning with Solvents
HSEOP-36 Construction Equipment
HSEOP-37 Portable Ladders
HSEOP-40 Sanitation and Drinking Water
HSEOP-41 Hand and Power Tool Safety

HSEOP-42 Material and Equipment Handling
HSEOP-44 Unmanned Aerial Systems

18.0 HSE FORMS

18.1 Introduction

The purpose of this section outlines the HSE forms that may be used for this project.

18.2 Contact project management to obtain a copy of the required forms

1. Worker Verbal Warning Log
2. Project Specific HSE Training Log
3. Sign-In Sheet
4. Delivery Driver /Vendor Site Orientation
5. Safety Hotline Report
6. Weekly HSE Field Meeting
7. Job Hazard Analysis (JHA) Template
8. Key Inventory Log
9. Competent / Qualified Persons List
10. Sub/Trade Contractor Daily Statistics and Inspection Report
11. Craft Worker Recognition
12. Fall Task Plan
13. Project Specific HSE Acknowledgement
14. Pre-Mobilization
15. Monthly Safety Submittals

- **NOTE: Other forms may apply see project management for required documentation.**

APPENDIX F: BACKUP GENERATOR

CONSTRUCTION BACKUP GENERATOR PLAN; AND YAKIMA REGIONAL CLEAN AIR AGENCY BACKUP GENERATOR REGISTRATION

Ostrea Solar Project

Yakima County, Washington

Prepared by:
PCL Solar Constructors USA, Inc.
2322 West Grand Parkway N, Suite 200
Houston, TX 77449

Prepared for:
Ostrea Solar, LLC
3402 Pico Boulevard
Santa Monica, CA 90405

April 15, 2024

Introduction

PCL is planning on powering the construction facilities with a permanent power connection to the local grid. Applications have already been submitted and site reviews completed with the Utility, Benton REA, and is expected to be installed prior to site mobilization in July 2024. This permanent power connection will also be used during the operation phase of the Project, becoming the permanent connection for the Operations & Maintenance building.

Contractor will obtain the Backup Generator Registration Application. Subcontractors will be responsible for securing their own Backup Generator Registration Application. All completed Applications will be submitted to EFSEC.

Should there be a delay with the connection to the utility, PCL will need to power the construction facilities with temporary generators until permanent power can be connected. Generators may also be used to perform some scopes of work. Potential uses of temporary generator connections are as follows:

Contractor Generators

In the event permanent power connection is delayed, PCL will power the construction facilities using the following equipment, which will run from approximately 6am to 6pm (Monday-Friday) during working days:

a. 180-199 KVA Tier 4 Generator Diesel (1)
b. Double Wall Fuel Tank, with a capacity of 1,000 – 1,250 GAL to support 180-199 KVA Tier 4 Generator plumbed in to avoid the need to regular re-fueling (1)
c. De-watering Generators 5,000-Watt Gasoline (4)

Subcontractor Generators

During construction, additional generators may be required to complete small scopes of work including de-watering, cutting, welding, etc. These generators are not expected to be larger than 6500W manual start portable generators.

Subcontractor may also utilize larger generators for temporary power of office facilities.

APPENDIX G: CONSTRUCTION NOISE HOTLINE

CONSTRUCTION NOISE HOTLINE

Ostrea Solar Project

Yakima County, Washington

Prepared by:
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2322 West Grand Parkway N, Suite 200
Houston, TX 77449

Prepared for:
Ostrea Solar, LLC
3402 Pico Boulevard
Santa Monica, CA 90405

April 15, 2024

PCL PROJECT CONSTRUCTION NOISE HOTLINE

Purpose: Form of communication that the public could use to report any undesirable noise conditions associated with the construction of the Project, with the ability to log the date and time of the complaint. This line of communication would be maintained through construction.

Action Plan:

1) Poster to be posted at site entrance/main gate listing “Construction Noise Hotline” contact information and hours of work. Contact person and phone number to be determined upon Construction start.
2) All noise complaints to be logged in noise complaint binder located in jobsite office.
3) Loud Machinery to be limited between the hours of 7AM to 8PM.
4) The site team will do its best to mitigate noise and work with the local neighbors. Anything that is outside of normal Construction Activities will be addressed promptly.
5) Noise complaints and resolution will be provided to Ostrea Solar, LLC and EFSEC.

Horse Heaven Wind Project

August 2024 project update

[Place holder]

Wautoma Solar

August 2024 project update

[Place holder]

Hop Hill Solar Project

August 2024 project update

[Place holder]

Carriger Solar

August 2024 project update

[Place holder]

Wallula Gap Solar Project

August 2024 project update

[Place holder]

Goldeneye BESS

August 2024 project update

[Place holder]