INTRODUCTION

Energy Northwest, a municipal corporation and joint operating agency operating in the State of Washington, seeks a Site Certification Agreement to construct and operate the 600 Megawatt (MW) Pacific Mountain Energy Center (PMEC) to generate electricity. The PMEC would be constructed within the Port of Kalama Industrial area, in Cowlitz County, Washington.

The PMEC ownership structure is comprised of two major portions. Energy Northwest will aggregate the Public Utilities' (PU's) interests and will own 50% of the gasification complex and one of two 300 MW combined cycle combustion turbine power plants. The other 50% of the gasification complex and 300 MW combined cycle combustion turbine power plant will be owned by the Pacific Mountain Energy Group, LLC (PMEG LLC), a Washington State, Limited Liability Corporation. PMEG LLC ownership will consist primarily of Investor Owned Utilities (IOU's), with the potential for participation by Electric Cooperative Utilities (Co-Ops).

This power aggregation process is one of the primary functions of Energy Northwest as a public power joint operating agency. The process is initiated by Energy Northwest by first aggregating interest from its own members in the form of letters of intent for long-term power purchases from the facility being developed. If there is still power production remaining, an offer is made to non-member public utilities. If power still remains from the facility being developed, then it would be offered to other entities. The total power commitment is then aggregated and converted into long-term power purchase agreements for the total electrical power output of the facility. These power purchase agreements form the basis for Energy Northwest to finance construction of their facility portion with tax exempt municipal bonds. The entire output of the PMEC complex would be fully subscribed prior to finance and construction.

PROJECT SUMMARY

The PMEC showcases the latest advancements in Integrated Gasification Combined Cycle ("IGCC") power generating facility that applies state-of-the-art fuel flexible gasification technology and process optimization to generate competitive base-load electrical power.

The preliminary PMEC IGCC design is based on a wet slurry gasification process. In this process low-cost solid feedstocks such as petroleum coke and coal are crushed and mixed with water to form a slurry. The slurry is combined with high purity oxygen that has been separated from the air and is injected into the gasifiers. The slurry chemically reacts readily with the oxygen in the gasifiers to form a synthesis gas (syngas) composed mostly of hydrogen and carbon monoxide. The high temperature of the gasifiers ensures the complete conversion of all feedstock materials and also traps inorganic materials like ash and metals in a glassy matrix resembling coarse sand. The sand-like material, referred to as slag is inert and has a variety of uses in the construction industry. The slag is continuously removed from the gasifiers via a slag removal system. The syngas exiting the gasifiers is cooled in an efficient heat recovery system and cleaned in preparation as feedstock to gas turbines.

Raw syngas exiting the gasifiers contain entrained solid particulates that are removed and recycled back to the gasifiers. Recycling of these solids enhances efficiency and consolidates the solid

effluent from the process in one stream as a slag leaving the gasifiers. The sulfur in the syngas is recovered and converted into elemental sulfur for sale into agricultural and other markets.

Overall, this process can achieve minimal levels of emissions by converting petroleum coke and coal into a clean de-sulfurized syngas that is then supplied as fuel gas for power generation in efficient advanced combined cycle combustion turbines. This facility would provide much needed clean, base-load generation to the Pacific Northwest.

A redundant gasification train is included in the design to improve plant availability and capacity above 90%. At a 92% capacity factor, the PMEC would generate approximately 4.8 million megawatt hours (MWh) of electricity annually and approximately 142 million MWh of electricity over a 30-year operational life. To achieve this generation, the PMEC would consume approximately 1.4 million tons of petroleum coke per year if operating solely on the use of petroleum coke, or approximately 2.5 million tons of coal per year based on 100% use of coal. Petroleum coke is a solid waste product and is produced in the oil refinery coking process where high value transportation fuels are extracted from oil. Natural gas usage is expected to be minimal as it would only be used as a backup fuel supply.

The PMEC site is an approximately 95-acre property consisting of an open area that was used for the deposition of dredge spoils from the Columbia River. The PMEC site would include a modern, enclosed fuel handling and storage terminal with access to both a deep water port and multiple rail systems for superior fuel transportation flexibility.

In addition, there is sufficient acreage available to expand the energy center with another 300 MW of gasification, generation , and fuel handling and storage capacity as well as space for potential ancillary facilities, such as manufacturing facilities using IGCC byproducts, or technology demonstration facilities.

The site unloading terminal would have the economies of scale and be well positioned to supply solid fuels to PMEC as well as other industrial operations in the region. The potential to separate hydrogen from the syngas for fuel cell commercialization or hybrid vehicles is an attractive option because of the adjacent Interstate-5 corridor and proximity to large metropolitan areas.

DEMAND FOR ELECTRIC POWER IN THE PACIFIC NORTHWEST

The Northwest region is experiencing above average load growth, increasing wholesale power price volatility and a lack of base load generation. Thus, it is important to build new and diverse sources of generation, in order to meet our growing power supply demands. Pacific Northwest publicly and privately owned utilities need reliable resources to meet their retail electric loads and have expressed strong interest in PMEC to meet those needs.

Energy Northwest is proposing to provide low cost and reliable base load electrical power into the Pacific Northwest. The Fifth Northwest Electric Power and Conservation Plan ("Fifth Power Plan") issued in May 2005 by the Northwest Power and Conservation Council (NWPCC) states that "the region's individual utilities are currently in deficit and the role of the Independent Power Producers (IPPs) in the region's electricity future is unclear". In the plan electricity demand in the Northwest was projected to grow at an average annual rate of nearly 1 percent per year, resulting in over 5,000

MW deficit by 2025 using the medium forecast. By the time the NWPCC issued the Draft Fifth Power Plan, it was clear that the demand for new power resources exists in the Pacific Northwest and that IGCC was a chosen as a viable resource technology in the Plan, concluding that "the region should secure sites and permits to be prepared to begin construction of new coal generating resources as early as 2010."

The Washington State Community Trade and Economic Development (CTED) reports to the Washington Legislature on electric power demands in Washington. (CTED, 2005). In their report, they state "the region should begin an aggressive program to capture the large amount of cost-effective conservation that is available and to lay the groundwork for building a large amount of wind generation (and relatively small amount of coal-fired generation) that would be needed later."

According to the Northwest Power Pool, Northwest control area loads in 2005 surpassed the previous record set in 2000. This shows that load growth has more than completely offset the load loss from the 2000-2001 energy crisis and regional loads since 2002 have grown at nearly 3% annually. Similarly, 2006 has been showing record monthly usage and continued demand growth in the region.

In BPA's July 2006 regional dialogue proposal, BPA estimates that in 2012 it may be deficit by up to 800 MW under a high load growth (2.5%) scenario for their preference customers alone.

Common estimates for the annual load growth in the coming decade range from one to two percent. Energy Northwest anticipates load growth that mirrors economic development, likely in the 1.5% per year range. Over six years that equates to more than nine percent, or 1800 MW growth over present load base.

Meeting future electricity demand requires carefully planning today. Waiting for demand to materialize, before beginning work on new generation sources, would eventually leave the state short of reliable, affordable power and at the economic mercy of the volatile open power market. This could lead to a similar set of conditions that prompted the Western energy crisis of 2000-2001.

Viable options for meeting future demand are limited. As essential and attractive as conservation and renewable sources are, the capacity and control of those measures falls short of meeting future retail load. Traditional large scale generation sources, like hydro, nuclear, and combustion turbines are not viable solutions either. IGCC is perhaps the only large scale generation option that combines the affordability, reliability, environmental performance, and public support necessary to succeed in Washington today.

Natural Gas Industry

In addition to a need for power, Energy Northwest proposed the IGCC technology due to high volatility and rising costs for natural gas. Several factors are recognized as contributing to the recent price increases for natural gas. These factors can be grouped into supply, demand and industry structure groupings. Some of the primary factors are:

Supply

1. Domestic natural gas supply has been on the decline even with the increases in drilling.
2. Imports of natural gas from Canada after growing during the 1990's and covering the U.S. supply gap, peaked in 2001 and have been flat or declined slightly in recent years.
3. Imports from other nations with abundant natural gas supplies are currently limited by available natural gas infrastructure, shipping and liquefied natural gas (LNG) terminal capacity as well as rising international competition for LNG. In addition, LNG requires costly infrastructure investments and projects require years of lead time to complete.

Demand

1. U.S. demand for natural gas has been in slight decline since 2000 mostly due to demand destruction of industrial consumers.
2. Demand growth has been and is likely to remain strong in the electric power generation sector along with some moderate growth in the residential and commercial sectors.

Market Structure Factors

1. Natural gas is no longer regulated and therefore the price is dependent on supply and demand interactions. A reliance on natural gas supply and demand have resulted in the increase of natural gas prices and price volatility mostly due to limited supply.
2. Some natural gas customers such as energy intensive industrials are price elastic; however, a majority of users are price inelastic. This means that there are a few customers who can reduce consumption when prices are high, but most customers would pay for natural gas at even very high prices. This creates a dangerous market dynamic when scarcity sets in.
3. Increased consumption by the power sector in conjunction with reduced supply has put upward pressure on gas prices, which has led to closures in energy intensive industries.
4. With declining natural gas supply and rising demand, future prices for this commodity are likely to exhibit continued volatility and upward pressure.
5. LNG has some potential to bring supply back into balance with demand in the long-term, but this is very uncertain due to the strong opposition to site these facilities.

The uncertainty in the natural gas market has made power plants that operate on this fuel undesirable in most regions including the Northwest.

PMEC Fuel Supply

One of the key benefits of PMEC is its inherent fuel diversity. Operations with petroleum coke, the preferred fuel feedstock, allow PMEC to convert a low-value oil refinery waste product into high-value electricity. The waste to resources concept when combined with reduced environmental impacts as compared with other less desirable solid fuels, shows great potential for petroleum coke as a feedstock.

Petroleum Coke

World light sweet crude oil supplies are declining and the refining of heavy oils is becoming a necessity. The refining of these heavy oils dramatically increases the amounts of petroleum coke waste product that are produced. As oil sands from Alberta, Canada are refined in large quantities new sources petroleum coke are becoming available. Just as U.S. refineries will have to add cokers to process this heavy oil and thus create more petroleum coke. It is projected that U. S. petroleum coke production is going to increase by 30% and Alberta production will likely triple, at a minimum, by 2010. Use of petroleum coke has significant environmental benefits as well resulting in lower CO_2 emissions.

Coal

Recoverable U.S. coal reserves are estimated at 275 billion tons, an estimated 25% of the world supply. Predictions show U.S. coal reserves are capable of meeting domestic needs for more than 250 years. The share of world coal reserves is in sharp contrast to the U.S. share of global oil and natural gas reserves are estimated to be less than 2% and 3% respectively. Reliance on U.S. fuel feedstocks reduces the nation's dependence on foreign energy supplies.

IGCC is the only thermal power option, excluding new nuclear plants, that effectively mitigates fuel price volatility while addressing current and future environmental concerns. An IGCC project's fuel hedging capability stems from its ability to gasify any combination of waste-products such as petroleum coke, coal, and as a back-up natural gas. These fuel options can be hedged and optimized to minimize cost of production creating unprecedented power cost stability. The anticipated PMEC power cost is approximately $45/MWh, which will make it one of the region's lowest cost new resources. The benefits of this low cost power will flow directly to participant utility retail customers.

Reduction of Environmental Impacts

Energy Northwest is committed to reducing environmental impacts of new power resources. The proposed IGCC technology has the ability to generate power with regulated emissions at or below natural gas combined-cycle levels and to reduce carbon dioxide (CO_2) emissions appreciably below conventional coal-combustion technologies. PMEC will also incorporate design features to minimize the possible future physical and economic impacts of adding carbon capture and sequestration equipment. Additionally, the Port of Kalama site is in close proximity to geological formations that scientific research efforts may in the future prove technically and economically viable for carbon sequestration.

In addition to deploying IGCC technology that inherently reduces both regulated and unregulated greenhouse gas (GHG) emissions, the PMEC proposes to utilize additional pollution control measures, Innovative Control Technologies (ICT) which go beyond USEPA and Washington State regulatory requirements for Best Available Control Technology (BACT). These include but are not limited to:

- Enclosed fuel storage and material handling systems,
- Selexol® or equivalent gas cleaning system: sulfur dioxide (SO_2) reduction and bulk carbon dioxide ($CO_{2)}$ capture,
- Selective Catalytic Reduction (NOx reduction), and

Energy Northwest has also set a goal to utilize petroleum coke to the maximum extent possible to further reduce CO_2 emissions.

Water Use

The Port of Kalama will supply process water to the PMEC from an off-site industrial source for which valid water rights are held. The Port's well location is immediately to the east of the PMEC site. The Ranney collector well will have the ability to supply 15 million gallons per day (gpd). A water conveyance pipeline will be installed from the well location, under the rail loop track, to various PMEC facilities (e.g., storage tanks and water treatment plant).

The PMEC will have an estimated peak instantaneous water demand of 5,826 gallons per minute (gpm). The annual water usage by PMEC will vary based on the feedstock used and the ambient air temperature, with higher water usage at higher ambient temperatures. The total annual average demand used for design is 9,397 acre-feet per year or 5,826 gpm (for design planning purposes, the average demand was assumed to be the peak demand).

Potable water will be supplied by the City of Kalama in distribution lines that have already been installed for the site. The City of Kalama provides water service to over 1,300 accounts (approximately 3,000 people) inside and outside the city limits of Kalama. The source of water is a Ranney well adjacent to the Kalama River. The water rights associated with this source total 2,284 acre-feet/year on an annual withdrawal basis, and 2,225 gpm on an instantaneous basis. As the well is a groundwater under the influence of surface water (GWI) source, the City of Kalama has constructed a water filtration plant, which also includes chlorination, fluoridation, and pH adjustment. The City of Kalama is currently using its well field (along with thirteen water storage reservoirs) to satisfy all of the water demands of its system. The present municipal water supply should be enough to deal with growth through the year 2016, at which point the water treatment plant and associated water rights will need to be expanded.

Transmission System

Energy Northwest proposes to connect the PMEC via Cowlitz County Public Utility District (PUD) lines to Bonneville Power Administration's (BPA) electrical transmission grid. Cowlitz PUD will

construct approximately one mile of upgraded transmission lines within the PUD's existing transmission line corridor. These transmission lines are outside the scope of this Application.

The majority of Washington's power generation is located east of the Cascade Mountains, while the highest demand is on the west side of the state. Proximity to the load (population centers/industry) and transmission grid are key siting considerations.

Building PMEC near major Western Washington load centers will minimize transmission challenges and add stability to the transmission grid. By avoiding a majority of the region's transmission bottlenecks, PMEC should also be viewed as a potential non-wires solution, thus reducing the need for costly transmission system upgrades.

ELEMENTS OF THE PROJECT SUBMITTED FOR APPROVAL

The project submitted for review and approval under Chapter 80.50 RCW includes the following elements:

1. ***IGCC facility*** to include all facilities constructed within the boundaries of the project site as defined in Section 2.2 of this application. This includes primary equipment and facilities as follows:
   - Combustion Turbine Generators (CTG)
   - Heat Recovery Steam Generators (HRSG)
   - Steam Turbine Generators (STG)
   - Gasifiers
   - Electrical Generators
   - Electrical Switchyard and Control Equipment
   - Cooling Towers
   - Flare Enclosure
   - Carbonyl Sulfide Hydrolysis Unit

   Also included are the following ancillary systems and facilities:
   - Feed Stock Feed Bins and Storage Buildings
   - Raw Water Makeup and Feedwater Systems
   - Water System
   - Steam conveyance system
   - Electrical system
   - Acid Gas Removal (AGS) System
   - Selexol® System or equivalent system
   - Mercury Removal System
   - Sulfur Recovery Unit
   - Air Separation Unit (ASU)
   - Tank Vent Collection and Boiler System
   - Sour Water Treatment
   - Control Systems
   - Maintenance Facilities

- Emergency Diesel Engines
- Auxiliary Boiler

2. ***Natural gas service pipeline*** would be supplied from the existing Williams Northwest Pipeline Corporation's Line at or near Deer Island meter station located on the south end of the Port of Kalama. The pipeline would follow the Port of Kalama access road to and across the Kalama River and north to the PMEC site. The majority of the pipeline route is on Port of Kalama, City of Kalama and Cowlitz County right-of-way (ROW).

SUMMARY OF ENVIRONMENTAL FINDINGS

The PMEC has been planned and designed to eliminate or fully mitigate all environmental impacts. The following is a summary of the elements of the environmental in terms of project design and operation.

Geology, Soils, and Floodplains

The project will have minor and insignificant impacts on earth resources as described in Section 3.1 of this Application. This includes excavation, grading, trenching, backfill, and compaction associated with site development and the gas pipeline.

Soils at the site or along the gas pipeline are generally not susceptible to wind erosion but have a low erodibility potential for water-caused erosion. Sections 2.10 and 3.1.7.3 specify Best Management Practices (BMPs) and other mitigation measures to control erosion.

Air

Sections 2.11, 3.2 and 5.1 describe air emissions, technology and emissions controls, and potential air quality impacts during construction and operation of the PMEC. Potential construction air related impacts related to the PMEC would be insignificant or minor.

Operation of the PMEC would have minor impacts to air quality. At a minimum, IGCC would incorporate BACT. As described in Section 2.11, 5.1 and Appendix B-1, the PMEC will incorporate BACT and for some units proposes utilizing Innovative Control Technology (ICT) to reduce further emissions beyond that required by BACT. The modeling conducted, using worst-case emissions from the PMEC, demonstrates that ambient concentrations would be far below National, Washington, and Oregon Ambient Air Quality Standards (NAAQS and WAAQS, OAAQS) and well within allowable PSD increments for Class I and Class II areas. (See Section 5.1). Concentrations of toxic air pollutants (TAPs) potentially attributable to the PMEC would also be either below the Small Quantity Emission Rate (SQER) or meet the Washington ambient concentrations (i.e., Acceptable Source Impact Level). Visible plumes from the cooling tower would be short and will not obscure visual resources.

As described in Section 2.11, Energy Northwest proposes to mitigate potential impacts to potential Greenhouse gases (GHG) (Chapter 80.70 RCW) with the PMEC efficient design, the preference of petroleum coke as a fuel feedstock, the installation of Selexol® or equivalent equipment, and efforts

undertaken as part of the Partnership, as a combined package. This proposed approach would more than satisfy the carbon dioxide ($CO_{2)}$ mitigation requirements as required in Chapter 80.70 RCW. Mitigation measures as descried in Section 1-4, Mitigation Measures, would be implemented to address any potential dust related to construction activites.

Water

Sections 2.7, 2.8, 2.10, 3.3 and 5.2 describe water discharges, water resources, and stormwater management. The PMEC's impacts to water quality would be minimal as the facility would discharge spent process water, not already recycled, and sanitary sewage through the existing, permitted water treatment systems at the Port of Kalama. PMEC would obtain an NPDES permit to discharge process water to the Port of Kalama's outfall as described in Section 3.3 and 5.2 of this Application.

Stormwater would increase since site development will result in addition of impervious surfaces. This stormwater would be managed utilizing appropriate BMPs. After collection, stormwater would be discharged via proposed ditches to a wet pond and then to the Columbia River. BMPs and the wet pond would be designed to meet the Washington State Department of Ecology's (Ecology) Stormwater Management Manual for Western Washington (SWMMWW) (Ecology, 2005).

The Port of Kalama would supply process water to PMEC from an off-site industrial source for which valid water rights are held. The City of Kalama would provide potable water to the PMEC based upon existing existing water rights and water supply as described in Sections 2.5 and 3.3 of this Application.

Wetlands

Construction of the railroad spur as proposed would permanently fill about 3.2 acres of palustrine open water wetland associated with the 8.8-acre wetland complex southeast of the proposed PMEC site. Filling of the open water section of this wetland complex and rerouting existing culverts draining to the wetland would also impact the remaining approximately 5.6 acres of scrub-shrub and forested communities. Impacts include reducing habitat and water quality functions, increasing the potential for excess flooding or dewatering of the remaining wetland, and reducing use by waterfowl that select these vegetation community associations. Permanent impacts to wetlands impacts and mitigation measures are currently being discussed with the USACE, Ecology and Cowlitz County.

All gas pipeline stream crossings, including the Kalama River are proposed to be hung or horizontally directionally drilled. No impacts to streams are anticipated.

Plants and Animals

The PMEC and its associated gas pipeline and transmission line would have minimal impact on plants and animals due to the site location, their small footprints, and design features. Construction of the PMEC would result in shifting the habitat to open industrial to industrial. The proposed PMEC site is very disturbed and dominated by non-native plant species. The site and gas line development would result in the removal of noxious weeds. (See Section 3.4).

Mitigation for the loss of the wetland area associated with the railroad spur would improve wildlife habitat quality, providing additional cover, forage, and breeding areas for amphibians, small mammals, and various birds. Wildlife habitat along the gas pipelines would be restored to pre-construction conditions. Impacts to stream and river habitats would be avoided by either hanging or drilling under these crossings for the gas pipeline.

The PMEC site construction would have no effect on threatened and endangered fish species as none are present on the site.

Although Essential Fish Habitat (EFH) and Endangered Species Act (ESA)-listed species are currently present in the wetlands in the northwest corner of the site, these species would be addressed by the Port of Kalama in their long-range planning in preparing the site for development for the PMEC. The development and filling of that wetland are part of the development of the Port of Kalama and are not part of this Application.

The filling of the wetland on the southeastern portion of the site to accommodate the railroad spur would have no long-term impacts as the railroad spur does not contain ESA-listed fish species due to a blocked culvert. Impacts from fill activities to EFH and ESA-listed species would be minimal, and no impact on endangered. Construction of the gas pipeline would not adversely impact any threatened, endangered or candidate plant or wildlife species as likely to occur within the site, or gas pipeline corridor. Listed fish may occur at the river crossed by the gas pipeline; however impacts would be avoided by hanging or drilling across the river.

Noise

Equipment and site design would ensure that the PMEC would meet Washington State noise requirements and would not result in a significant increase in existing noise environment. Section 4.1.1 summarizes the results of the noise impact analysis that was performed for this application.

Land Use, Recreation, Socioeconomics, Housing and Cultural Resources

The PMEC site, proposed rail spur and loop and natural gas pipeline are within Cowlitz County, except for a small portion of the pipeline within the City of Kalama limits. The PMEC, including the land for the rail spur is zoned heavy industrial and the proposed use is allowed. Land uses within and adjacent to the PMEC site are unzoned but designated heavy industrial. The proposed development would not represent a change in the planned use of the site lands and would be compatible and consistent with the immediately surrounding industrial uses.

The PMEC is consistent with Cowlitz County and City of Kalama land use regulations and has the following community effects:

- Recreation and recreation areas would be unchanged.
- Economic impacts would be beneficial to Cowlitz County and the City of Kalama.
- Existing housing would meet the need of the operating staff and be adequate for construction workers.
- Cultural resources would not be impacted.
- Agricultural crop and animal uses would be unchanged as the PMEC.

Visual Resources

The PMEC would be located within an existing heavy industrial zone. Visual impacts to the overall landscape setting resulting from construction of the facility are low. The facility would be visually compatible with the industrial development already existing in the area. (See Table 4.2-2 in Section 4.2). Project design and mitigation measures include the maintenance of existing trees to be used as landscape buffers, landscaping in the parking lots and along access roads, use of earth-tone colors on the facility and emission stacks. Additional measure may include additional screening using low tree/shrub plantings or construction of screening walls around ancillary elements.

Transportation

The PMEC site is located in the North Marine Industrial Park at the Port of Kalama, on the east back of the Columbia River near the I-5 interchange. Roadway, air, rail and river transportation are available. Impacts to transportation attributable to the PMEC would be less than significant (e.g., low to moderate). With this existing access and dedicated heavy-load haul road in place, transportation impacts to roads would be primarily limited to the construction phase when construction activities would generally average approximately 400 workers and would peak with about 1,400 workers. The peak would be for a 1-year duration of the 4-year construction period and would have only minor impacts on the local street system and area intersections. See Section 4.3 for a discussion of construction traffic impacts. No road improvements are needed.

Larges pieces of equipment during construction could be delivered to the site by rail or river transport further reducing any potential impact on local roads. During operation of the facility approximately 80 full-time workers would be employed with an allocation of approximately 40 people for each 12-hour shift. Impacts to the gas pipeline would be consist of temporary short-term impacts during the construction phase which would impact the right-of-way along Hendrickson Drive and Tradewinds Road potentially requiring traffic control. Any traffic delays would be short-term in nature. Construction of the rail spur would require temporary traffic control. Additional shipments to the site by rail or by river during operation are not anticipated to impact BNSF rail operations, river transportation, or local roadway traffic patterns.

Measures to reduce any minor impacts would include providing WSDOT-approved safety signs during construction, scheduling of daily construction activity to avoid typical peak traffic periods, especially during construction of the natural gas pipeline along Hendrickson Drive south of West

Kalama River Road, and promotion of rideshare and vanpool programs for construction works during the 12-month peak construction period.

Socioeconomics and Public Services

Due to the relatively short duration of the project's construction phase and small size of the construction crew, the overall adverse impact on local public services and utilities caused by the construction of the PMEC is expected to be less than significant. These impacts would be more than offset by economic benefits to the communities from the project.

The project is an approximately nominal 600-megawatt generation facility with a total project cost of more than $1 billion dollars. Investment in the project is expected to yield direct socioeconomic benefits in the form of economic development, additional jobs, increased sales, and increased tax revenues.

Local (Cowlitz County) non-salary expenditures for construction materials, services and equipment leasing associated with construction are projected to total about $18 million. These procurements would augment the revenues of many construction-related businesses in Cowlitz County. In addition, the consumption spending of project workers and their households out of their wages and salaries would stimulate the retail trade and services sector of the regional economy. Total payroll costs for the project, including fringe benefits and other labor overhead costs, is projected at $433 million; of which approximately $43 million is expected to be expended over the course of the project in Cowlitz County.

Besides the local area procurements, which would be subject to state and local sales taxes, Energy Northwest would be purchasing large amounts of power generation and transmission-related equipment from various domestic and foreign suppliers. State use tax would be levied on these out-of-state procurements. Together with the in-state purchases of taxable goods and services–in all, the taxable purchases would be on the order of $867 million–these would generate an estimated $65 million in sales and use taxes for state and local jurisdictions (depending upon tax incentives that may be offered on the manufacturing and infrastructure portions of the PMEC facility).

Operation of the PMEC would result in a positive economic impact to Cowlitz and the state due to increased tax revenues, employment, and local expenditures. The estimated gross payroll (including fringe benefits and other payroll overheads) for the operational workforce is $12.9 million. In addition, a temporary workforce of the appropriate skills would be utilized during major maintenance or other non-routine operational work.

Based on regional economic modeling the PMEC would generate another $57 million, including $25 million in purchases from suppliers (including fuels, maintenance supplies and services, retail goods and professional services). Sales, use and other indirect business taxes on that level of output are estimated at $4 million per year, which would accrue to state and local government jurisdictions. Employee spending from wages and salaries is estimated at around $11 million per year.

Property taxes to be assessed on the PMEC power plant and associated facilities have not been determined, but could amount to several million dollars per year in view of the project's private

investment cost of approximately $500 million. The public portion would provide over significant revenue in the form of a generation tax.