

ADMINISTRATOR'S RECORD OF DECISION

Longview Energy Development Project Record of Decision

INTRODUCTION

The Bonneville Power Administration (BPA) has decided to offer contract terms for integrating power from Longview Energy Development LLC's (LED) 290-megawatt (MW) gas-fired, combined-cycle, combustion-turbine power generation project (Project) into the Federal Columbia River Transmission System (FCRTS). This Project, which is located within an industrial area south of the City of Longview, in Cowlitz County, Washington, is one of many proposed generation projects currently being considered for integration into the FCRTS. Power generated at the LED Project will be available for purchase in the wholesale power market. The West Coast is experiencing a shortfall in electric energy supply, as well as a volatile wholesale power market in which prices have reached record highs. The LED Project will help meet the immediate need for energy resources and serve as a resource to meet demand in the long term. The decision to offer terms to integrate this LED Project is consistent with BPA's Business Plan (BP), the Business Plan Environmental Impact Statement (BP EIS) (DOE [Department of Energy]/EIS-0183, June 1995) and the Business Plan Record of Decision (BP ROD) (August 15, 1995). Mitigation for the LED Project will be taken in accordance with the requirements of the State of Washington's State Environmental Policy Act (SEPA) and regulatory agencies.

RELATIONSHIP TO BUSINESS PLAN EIS

In response to a need for a sound policy to guide its business direction under changing market conditions, BPA explored six alternative plans of action in its BP EIS. The six alternatives were: Status Quo (No Action), BPA Influence, Market-Driven, Maximize Financial Returns, Minimal BPA, and Short-Term Marketing. The BP EIS examined each of these six alternatives as they relate to meeting the regional electric energy need in the dynamic West Coast energy market. The analysis focused on the relationships among BPA, the utility market, and the affected environment. The evaluation, which included transmission as well as generation, compared BPA actions and those of other energy suppliers in the region in meeting that need (BP EIS, section 1.7).

In the BP ROD, the BPA Administrator selected the Market-Driven alternative. Although the Status Quo and the BPA Influence alternatives were the environmentally preferred alternatives, the differences among alternatives in total environmental impacts were relatively small. Other business aspects, including loads and rates, showed greater variation among the alternatives. BPA's ability to meet its public and financial

responsibilities would be weakened under the environmentally preferred alternatives. The Market-Driven alternative strikes a balance between marketing and environmental concerns, including those for transmission-related actions. It also helps BPA to ensure the financial strength necessary to maintain a high level of support for public service benefits, such as energy conservation and fish and wildlife mitigation and recovery activities.

The BP EIS was intended to support a number of decisions (BP EIS, section 1.4.2), including contract terms BPA will offer for transmission services. The BP EIS and ROD documented a strategy for making these subsequent decisions (BP EIS, Figure 1.4-1 and BP ROD, Figure 3, page 15). BPA's decision to offer terms for integrating the LED Project is one of these subsequent decisions and the subject of this tiered ROD. BPA reviewed the BP EIS to ensure that offering contract terms for transmission services was adequately covered within its scope and that it was appropriate to issue a tiered ROD (BP EIS, section 1.4.1 and BP ROD, page 1). This tiered ROD, which summarizes and incorporates information from the BP EIS, demonstrates this decision is within the scope of the BP EIS and ROD. This ROD describes the specific information applicable to this decision to offer contract terms, and provides a summary of the environmental impacts associated with the decision with reference to appropriate sections of the BP EIS and BP ROD. This tiered ROD also references information that was incorporated by reference into the BP EIS from BPA's Resource Programs (RP) EIS (DOE/EIS-0162, February 1993). The RP EIS contains an analysis of environmental effects and mitigation for combustion turbines, gas pipelines, and associated transmission. Lastly, this ROD summarizes and references Project information from the State of Washington's SEPA process to clarify where and how the site-specific environmental consequences described in the BP EIS will occur, including mitigation measures to be taken.

BACKGROUND

The West Coast has immediate supply needs for electricity, as well as a long-term need for electrical energy resources. Recent long-term planning estimates by BPA and the Pacific Northwest Electric Power and Conservation Planning Council show the region will need an additional 5,000 to 6,000 MW of electricity over the next 5 years; estimates for the next 10 years run as high as 8,000 MW. The 290-MW LED Project will help reduce the Northwest energy deficit.

Because of the demand for electricity, a number of new generating resources are being proposed to meet the regional energy need. BPA is being asked to integrate many of these resources into the FCRTS. Since the majority of these resources are combustion turbines, there is a regional concern over air quality. BPA initiated its Regional Air Quality Modeling Study¹ (Air Study) to provide clarifying information to the BP EIS. The

¹ Regional Air Quality Modeling Study, Bonneville Power Administration, July 2001. The Air Study will be found at <http://www.efw.bpa.gov/cgi-bin/PSA/NEPA/SUMMARIES/air2>.

study area covered proposed power plants in Washington, the northern half of Oregon, and the Idaho panhandle. The air quality impacts of more than 45 natural-gas-fired combustion turbines, representing more than 24,000 MW in capacity, were evaluated.

The CALPUFF model was used to assess power plant emissions of sulfur dioxide (SO₂), nitrogen oxide (NO_x), and particulate matter nominally 10 microns and less (PM₁₀). Results were compared against established criteria for human health [the National Ambient Air Quality Standards (NAAQS) and the Prevention of Significant Deterioration (PSD) Significant Impact Levels (SILs)] and the environment (nitrogen and sulfur deposition as well as visibility in sensitive areas²). The analysis assumed all plants, including the peaking plants, were operating at peak load with their primary fuel for the entire simulation period. Information provided by the Air Study will be used by BPA in evaluating individual facility transmission and integration requests. Phase I of the Air Study found that the power plants would not cause a notable deterioration of air quality as characterized by SO₂, NO_x, and PM₁₀. Results of Phase I of the Air Study will be available on the BPA website at www.efw.bpa.gov.

Phase I of the Air Study suggested that the proposed combustion turbines have the potential to degrade visibility. Although visibility is not regulated, it is an area of concern. Phase II of the Air Study will consist of a separate evaluation of each proposed power plant's contribution to visibility impacts. Phase II will be implemented as individual combustion turbines are being considered for integration by BPA. Developers are encouraged to consider offsite mitigation to offset visibility impacts. Such mitigation includes, but is not limited to, funding of:

- Retrofits of inefficient boilers at older industrial and commercial facilities.
- Mobile source reductions, such as clean diesel technology upgrades and use of lower sulfur fuels.
- Replacement of inefficient fireplaces and wood stoves.

Information from Phase I and Phase II of the Air Study will be used in BPA's National Environmental Policy Act (NEPA) evaluations of individual transmission and integration requests.

BPA is a major provider of electric transmission services in the Northwest. BPA has adopted the Federal Energy Regulatory Commission's (FERC) *pro forma* open access tariff. Under this tariff BPA must offer transmission services, including interconnection of generation, to all eligible customers on a first-come, first-served basis. Although BPA is not subject to FERC's jurisdiction, BPA follows the tariff as a matter of national policy. This course of action demonstrates BPA's commitment to non-discriminatory access to its transmission system and ensures that BPA will receive non-discriminatory access to the transmission systems of public utilities, which are subject to FERC's jurisdiction.

² Sensitive areas include NW Class I areas, wilderness areas, and the Columbia River Gorge National Scenic Area.

Although BPA's interconnection of a generator is subject to NEPA review, BPA otherwise will not deny interconnection to any eligible customer that complies with BPA's financial and technical requirements.

BPA has prepared two contracts offering terms to LED for integration of the LED Project. The first, Contract No. 01TX-10485, is a Generation Interconnection Agreement that provides for interconnection of the Project with the FCRTS, the operation of the LED Project in the BPA Control Area (including control area services such as generation imbalance service), and the maintenance of reliability of the FCRTS and interconnected systems. The second contract, Contract No. 01TX-10486, is a Construction, Operation and Maintenance Agreement, for engineering, procurement, and construction of the interconnection facilities; for interconnection with the FCRTS; and for operation and maintenance. The planned interconnection facilities' commercial operation date is March 1, 2003.

DESCRIPTION OF THE LED PROJECT

LED, a wholly-owned subsidiary of Enron North America Corporation (Enron), proposes to construct and operate a 290-MW natural-gas-fired, combined-cycle, combustion-turbine power generation plant. The LED generation facility will be located within the Port of Longview industrial area, south of the City of Longview, Washington. The LED facility will burn natural gas in a combustion turbine driving an electric generator. The combustion turbine exhaust will flow to a waste-heat boiler generating high-pressure steam to drive a steam turbine and second electric generator. The gas turbine will use a low-emissions combustor and the waste-heat boiler will contain a catalyst to destroy NO_x and carbon monoxide (CO). Natural gas will be supplied by a new, approximately one-mile long extension of an existing Cascade Natural Gas Corporation (Cascade) pipeline lateral. The pipeline will be constructed and owned by Cascade.

Based on Washington's Expanded SEPA Checklist, Cowlitz County issued a Mitigated Determination of Non-Significance for LED's originally proposed 249-MW generating facility on May 9, 2001. The Southwest Washington Clean Air Agency (SWCAA) issued the Notice of Construction (NOC) final Order of Approval for installation and operation of LED's 249-MW configuration on May 14, 2001. The 249-MW capacity limit was selected in part to remain below the 250-MW threshold of the State of Washington's Energy Facility Site Evaluation Council (EFSEC), the threshold above which EFSEC must perform environmental review and permitting. The EFSEC threshold capacity was recently increased to 350 MW. Subsequently, on June 25, 2001, LED submitted an amended application to SWCAA for approval of changes in the design and operation of the LED facility. Included in the amended NOC are plans to increase the generating plant's capacity to 290 MW. The increase in generating capacity is achieved through the addition of supplemental firing in a set of duct burners installed in the heat-recovery steam generator. The LED facility will still meet SWCAA requirements with the inclusion of the duct burners and the increased hours on distillate oil firings. SWCAA signed a

preliminary order for the 290-MW LED Project on July 31, 2001. Final approval of the amended application is expected in late August 2001.

LED has requested BPA to integrate the power from their Project into the FCRTS at BPA's Longview Substation. Power generated at the LED Project will be delivered to the regional transmission grid via a proposed new 230-kilovolt (kV) transmission line connecting the generation facility to the Longview Substation. The proposed new transmission line will extend northward about 2,220 feet from the generation facility before following BPA's existing Longview-Cowlitz No. 1 transmission line corridor westward to the Longview Substation. Approximately 3.5 miles of the Longview-Cowlitz transmission line will be rebuilt. The existing 115-kV H-frame wood-pole structures will be replaced with single-pole, double-circuit steel structures capable of supporting both the new 230-kV and the existing transmission lines. The section of the transmission line from the generating facility to the Longview-Cowlitz No. 1 right-of-way will require acquisition of a new pole-line easement. BPA will have access to individual structures in addition to a 50-foot air swing easement for the conductors. The remaining section of the line will be located within the existing BPA right-of-way.

Power generated at the LED Project will be available for purchase in the wholesale power market, possibly to a local industrial customer, and/or to BPA. However, no BPA power purchase is planned at this time. The West Coast is in the midst of a power emergency caused by a demand for electricity that is often greater than its supply and fluctuating wholesale market prices that have reached record highs. The LED Project will help serve resource demand in the long term.

PUBLIC PROCESS AND CONSIDERATION OF COMMENTS

Consistent with BPA's tiered ROD strategy for the BP EIS, a public process for the LED Project was conducted. A specific meeting on the proposed LED Project was held at BPA's request. Review processes for State and local permits included discussions of BPA's potential role in the Project and provided additional opportunities for public comment.

Public participation opportunities included:

1. The BPA-requested public meeting held in Kelso, Washington, on June 28, 2001, at the Cowlitz County Administration Building.
2. The 15-day Cowlitz County solicitation of public comment on the SEPA Checklist which ended on May 2, 2001.
3. SWCAA's 30-day request period for public comment on its Preliminary Determination of Order of Approval (air permit) for LED's original 249-MW project proposal.

4. An additional 30-day public comment period conducted by SWCAA on LED's amended air permit to increase the generation plant's capacity to 290 MW. The comment period will run through the end of August.
5. A 30-day comment period on LED's Public Notice for Stormwater Construction Permit Application, from April 9, 2001, to May 9, 2001.

In addition, BPA invited the public to participate in its Air Study for new generating resources, including the LED Project, being planned in the region. An initial public meeting was held in Portland, Oregon, on April 20, 2001. The results of Phase I of the Air Study are posted on the BPA website (www.efw.bpa.gov). A public information meeting is also being planned to share the results of the study. Notice of that meeting will be announced in the *BPA Journal* and posted on BPA's website.

Comments received on the LED Project are summarized below, followed by BPA's responses to those comments.

- A. Concern was expressed for the impact of high-frequency noise on animals at the animal shelter of the Humane Society of Cowlitz County.

Response: The LED Project will comply with applicable noise ordinances. Although frequency regulation is not imposed by State or Federal guidelines, to respond to the Humane Society's concerns, the LED Project is currently researching expected plant frequency emissions and attempting to determine whether there is scientific basis for concerns that there may be impacts on animals.

- B. City of Longview requested more detail on the availability and use of reclaimed water from the Cowlitz Sewer Operating Board (CSOB) water treatment plant.

Response: An option agreement has been signed with the CSOB for effluent supply for the LED Project. The LED Project will treat on site and use up to 2.3 million gallons per day of reclaimed water for cooling purposes. According to the CSOB, the lowest historical effluent flow from the CSOB plant is approximately twice this amount.

- C. City of Longview requested that LED indicate how it would dispose of its process wastewater and stormwater if the CSOB chose not to allow LED to use the effluent line for discharge. Other commenters asked how surface-water runoff would be treated prior to any release to the CSOB sewer outfall.

Response: If the CSOB outfall were not available for the disposal of process wastewater, the LED Project would expect to discharge this flow directly to the CSOB wastewater treatment plant. However, it is expected that disposal to the plant would dilute the existing flows and unnecessarily reduce its processing capability. Therefore, the LED Project's preferred plan is to discharge its process wastewater into the plant's outfall line. An option agreement has been signed with the CSOB for wastewater disposal into the CSOB outfall. It is expected that stormwater flows will

be managed through on-site bioswales. Stormwater overflow will be discharged in accordance with the Port of Longview's stormwater management plan. Drainage from all plant areas where chemicals or oils and grease are used will be segregated from stormwater collection areas so treatment of stormwaters will not be necessary.

- D. City of Longview expressed concern that, due to high groundwater and soil saturation during the winter, percolation swales would not provide sufficient capacity to handle all site runoff without discharging to offsite facilities. Concern was also expressed that the bioswales used for percolation may quickly surcharge with runoff, defeating their treatment capability. Also, if any runoff were to be discharged to drainage systems leading to Consolidated Diking Improvement District No. 1 ditches (listed on the 303(d) list of water bodies not meeting State water quality standards), the LED Project should commit to complying with any future Total Maximum Daily Load cleanup plan. This commitment would include implementing any Best Management Practices (BMPs) and constructing any on-site treatment facilities established by the plan.

Response: Stormwater will be kept separate from process wastewaters and areas of the plant where chemicals, oil, and grease are used. Therefore, biological or other treatment of collected stormwater is not needed. The bioswales are provided to allow percolation of the stormwater into the ground and to convey the stormwater to the Port of Longview's stormwater system. The LED Project is working with the Washington Department of Ecology (WDOE) to obtain necessary permits for such purpose.

- E. Has the LED determined that the soils can be safely built on without subsidence due to the weight of the finished Project? Also, there is concern about minimizing the amount of impervious surface and minimizing the total footprint of the facility.

Response: The results of the geotechnical analysis performed for the plant indicate that soil compaction or piles will be needed to stabilize heavy foundations. Equipment support structures will be designed by engineers, based on site-specific geotechnical studies and the earthquake classification for the area. The LED Project is planning to lease approximately 20 acres from the Port of Longview. It is estimated that only 10 acres will be used for the plant and related facilities.

- F. Who will receive the power and for what will it sell?

Response: Electrically, the plant's output will be delivered into the BPA transmission system in the Northwest and will help provide voltage support and improve power quality in the Portland/Vancouver and Seattle/Tacoma load centers. Commercially, LED can sell electricity at wholesale prices from the Project into the Western System Coordinating Council (WSCC) area. Sales will be made only to entities allowed by applicable State law such as industries, power marketers, and utilities. Direct sales to retail customers are not allowed in Oregon and Washington at this time. If the LED Project enters into a long-term off-take agreement with a

qualified purchaser, the power will be sold at a negotiated price during the term of the agreement. If LED does not enter into a long-term agreement for the Project, it will sell within the WSCC area at market prices when those prices are sufficient to recover costs, including fuel costs.

G. If there is no long-term individual load, who will use the power?

Response: If there were no long-term individual load, LED would sell into the WSCC wholesale power markets as described in Response F. Because the plant is being designed using advanced combined-cycle technology, it will be more efficient than many existing gas-fired power plants. This higher efficiency should allow the Project to cover its fuel costs and operate before older, less efficient plants in the region. The plant will have a steady-state heat rate of approximately 6,800 British Thermal Units (Btus) per Kilowatt-hour (kWh) while the average heat rate of gas-fired projects in the WSCC area is over 9,000 Btus/kWh.

H. Who will own and operate the plant?

Response: Enron is developing the plant. If the corporation were sold, the plant would be owned by the purchaser and operated by either the purchaser or a contractor specializing in the operation of power plants.

I. How much will be spent locally and will any local jobs be generated?

Response: The LED Project expects to pay over \$1 million annually in property taxes. Approximately 250 people will be needed on-site during the peak construction period and approximately 20 people will be required to operate the facility. It is fully expected that the majority of the construction employees and permanent plant employees will be obtained locally. During annual rebuild periods, local contractors will be needed to rebuild and maintain equipment. It is estimated that \$2 million to \$4 million would be spent annually to maintain the facility.

J. How efficient is the plant?

Response: During base-load operations, approximately 6,800 Btus of natural gas will be needed to produce 1 kWh of electricity. This is a conversion efficiency of approximately 50 percent, based on the higher heating value of natural gas. As noted in Response G, the LED plant is significantly more efficient than the average gas-fired plant in the WSCC area.

K. Is the Project financed entirely with private funds or are public monies involved?

Response: It is expected that the plant will be financed entirely by private funds.

L. The Washington State Department of Transportation (WSDOT) requires a permit from WSDOT for any work performed within the WSDOT right-of-way, and work

within or adjacent to WSDOT rights-of-way will require an approved Traffic Control Plan.

Response: It is not anticipated that the LED Project will require WSDOT permits. Should a WSDOT permit be required, the appropriate applications and plans will be submitted.

ENVIRONMENTAL ANALYSIS

Consistent with the BP ROD, the BP EIS was reviewed to determine whether offering terms to integrate the LED Project is adequately covered within its scope. The BP EIS alternatives analyzed a range of marketing actions and response strategies to maintain a market-driven approach. The BP EIS showed that environmental impacts are determined by the responses to BPA's marketing actions, rather than by the actions themselves. These market responses include resource development, resource operation, transmission development and operation, and consumer behavior. The transmission integration of the LED Project clearly falls within the scope of the BP EIS.

BPA's RP EIS described generating resource types, their generic environmental effects on a per-average-MW (per-aMW) basis, and potential mitigation. The discussion for combustion turbines (including gas extraction, pipelines, and generation) is included in section 3.2.2.2. The RP EIS also described the environmental effects and potential mitigation associated with the construction or upgrade of transmission facilities to integrate the resources with the existing transmission system (section 3.5). The per-aMW impacts for combustion turbines (RP EIS, Table 3-26) were incorporated and updated in the BP EIS (Table 4.3-1). The BP EIS contains an analysis of generic environmental impacts, including resource development and operation (section 4.3.1) and transmission development and operation (section 4.3.2). The types of construction and operation of transmission lines for this Project are typically actions that the United States Department of Energy has determined do not individually or cumulatively have a significant effect on the human environment and are categorically excluded.

The Market-Driven alternative anticipated unbundling of products and services, constructing transmission facilities for requests for non-Federal power transmission, and providing transmission access to wholesale power producers (section 2.2.3). The BP EIS also noted that, under the Market-Driven alternative, new transmission requests will depend more on customer requests than on new resource development by BPA (section 4.2.3.3). In addition, the BP EIS noted (section 4.4.1.4) that, as new combustion turbines replace older, less efficient plants, the air quality impacts will be reduced.

Cumulative Environmental Impacts

The BP EIS addressed the cumulative effects of the Market-Driven alternative and provided an illustrative numerical assessment of regional impacts (section 4.4). The assessment included air, land, and water effects based on the generic per-aMW impacts (Table 4.3-1), as well as related socioeconomic effects (section 4.3). For combustion turbines, the air quality impacts are the key environmental concern (BP EIS, Figure 4.3-1).

Because of the demand for electricity, a number of new generating resources are being proposed to meet the regional energy need. BPA is being asked to integrate many of these resources into the FCRTS. Since the majority of these resources are combustion turbines, there is a regional concern over air quality. BPA initiated its Air Study to provide clarifying information to the BP EIS. The study modeled power plant SO₂, NO_x, and PM₁₀ emissions. Results were compared against established criteria for human health (NAAQS and PSD SILs) and the environment (nitrogen and sulfur deposition as well as visibility in sensitive areas). Of all the parameters evaluated in the study,³ visibility was the only criteria consistently exceeded. When half the power plants were modeled, regional haze from proposed power plant particulate and NO_x emissions potentially affected all but two of the region's sensitive areas. Currently, haze is not regulated, although some Federal Land Managers have issued guidelines for haze.⁴ Since the projected regional need for resources is only about 5,000 MW to 6,000 MW over the next 5 years, and only 8,000 MW over the 10-year projection, it is highly unlikely that most of the proposed resources will be built. Moreover, some of this regional need will be met with renewable resources such as wind energy. In addition, there are transmission limitations for the number of resources that can be integrated. Therefore, actual impacts will not be as frequent or adverse as those predicted in the study.

Site Impacts

As discussed above, BPA's RP EIS and BP EIS provided general information about the environmental impacts of combustion turbines and their associated pipelines and transmission facilities. Clarifying information from the Washington SEPA process shows that the potential impacts of the LED Project are within the parameters projected in those two EISs and are consistent with Federal, State, and local environmental regulations.

Air Impacts - As reported in the SEPA Checklist, temporary emissions will occur during construction of the LED facility. These emissions will include particulates (dust) and exhaust from construction vehicles and equipment. Similar emissions will result from

³ Other study criteria include: National Ambient Air Quality Standards, New Source Review/Prevention of Significant Deterioration (NSR/PSD) increment consumption, NSR/PSD Significant Impact Levels, and nitrogen and sulfur deposition.

⁴ Federal Land Managers' Air Quality Related Values Workgroup (FLAG) Phase I Report, December 2000. U.S. Forest Service, National Park Service, and U.S. Fish and Wildlife Service.

gas pipeline and transmission line construction activities. These emissions will be of limited duration and minimized by use of BMPs.

Plant operating emissions will be controlled using the best available control technology (BACT). The SEPA Checklist indicates that the proposed technology will result in emission rates below New Source Performance Standards established by the United States Environmental Protection Agency (EPA). LED's control technology will ensure that emissions remain less than 100 tons per year and will not trigger permitting standards under EPA's PSD program. On May 14, 2001, SWCAA issued an air quality permit NOC for the proposed LED 249-MW facility. An amended NOC application requesting approval of design and operational modifications that will increase the LED facility's capacity to 290 MW was submitted on June 20, 2001. SWCAA signed a preliminary order for the 290-MW LED Project on July 31, 2001. Changes to the original permit include the addition of duct firing to increase the facility's output to 290 MW (from 249 MW) and the capability to burn fuel oil up to 1,400 hours per year, up from 336 hours per year.⁵

The SEPA Checklist, in addition to the NOC and its amendment, includes an air quality analysis. The analysis describes the air pollution control technologies proposed at the LED facility; documents the resulting emissions of criteria pollutants, including NO_x, CO, SO₂, volatile organic compounds (VOCs), air toxics, and PM₁₀; and reports the results of modeling analysis used to predict the effect of those emissions on ambient air quality levels. Dispersion modeling conducted for the NOC predicted that emissions will not have a substantial effect on ambient air quality. The analysis compares the predicted ambient air quality impact of emissions from criteria pollutants (NO_x, CO, SO₂, VOCs, and PM₁₀) to "significant impact levels" defined in EPA's PSD regulations, and to the NAAQS and Washington Ambient Air Quality Standards. LED's predicted emissions are below the significant impact levels, except for the 24-hour PM₁₀ SIL, due to fuel-oil-related emissions. Because fuel oil PM₁₀ emissions lead to exceedances of the SIL, background PM₁₀ was modeled in combination with the LED emissions. Model results presented in the amended NOC indicate that the facility will not cause an exceedance of the NAAQS. The analysis also compares the predicted ambient air quality impact toxic pollutant emissions to "acceptable source impact levels" established by the WDOE. The LED facility's emissions will not adversely affect local or regional air quality since LED is considered a minor source of air emissions, based on definitions in State and Federal law (it does not emit a regulated pollutant in quantities exceeding 100 tons per year). SWCAA has approved the NOC for the 249-MW proposal and signed a preliminary order for the 290-MW proposal.

Results from Phase II of the BPA-sponsored Air Study showed that the LED facility could contribute to visibility degradation in the Columbia River Gorge National Scenic Area (CRGNSA). The modeling predicts that the LED facility could degrade visibility in the CRGNSA by more than 1 percent during several days of the year. Visibility impacts

⁵ Personal communication with Edmund V. Clark, Director, Enron North America, July 27, 2001.

from oil firing were 2.25 percent during the same days.⁶ These impacts are below single-source levels of concern but above multiple-source levels of concern.⁷ However, the Air Study did assume that all of the proposed plants in the study would be constructed, an addition of approximately 24,000 MW. As stated earlier, the projected regional need for resources is only about 5,000 to 6,000 MW over the next 5 years, and only 8,000 MW over the next 10 years. The Air Study also assumed that, once built, there would be sufficient load for all of the projects to operate. Finally, the Air Study did not account for the reduction in emissions from older, fossil-fueled plants that would operate less due to displacement by the LED Project and other new, clean plants.

Water Impacts - The Expanded SEPA Checklist evaluates potential erosion impacts, and impacts to surface water features, wetlands, 100-year floodplains, surface water and ground water withdrawals and waste discharges, and stormwater runoff. Reclaimed water treated at an on-site re-use treatment facility and supplied by the CSOB wastewater treatment facility is one option for cooling-water supply for the Project. An option to use reclaimed CSOB water was signed on June 25, 2001. The other option for cooling-water supply is well water that would be supplied by the Port of Longview. Under either option, plant wastewater will be discharged to the outfall of the CSOB sanitary sewer system, pending approval of the Project's National Pollution Discharge Elimination System Permit application for wastewater discharge. The permit application was submitted on June 15, 2001. The application is under review by both regulatory agencies--the Departments of Health and Ecology. Both agencies have indicated support for the reclaimed water alternative. In addition, the State of Washington's reclaimed water statute, Chapter 90.46.010 RCW, mandates support from both agencies for water reclamation projects:

"It is the intent of the legislature that the Department of Ecology and the Department of Health undertake the necessary steps to encourage the development of water reclamation facilities so that reclaimed water may be available to help meet the growing water needs of the state."

The reclaimed water option would add no contaminants of concern to the wastewater stream and would decrease the volume of discharge handled by the treatment plant's outfall to the Columbia River. In comparison, discharge from the groundwater option would add to the total volume of discharge handled by the outfall. Both options are expected to comply with temperature and other water-quality standards for the Columbia River. Engineering controls and BMPs detailed in the Project's Stormwater Pollution Prevention Plan (SWPPP) will control surface-water, ground-water, and runoff-water impacts during and following construction.

⁶ Model results were based on 1,500 hours/year of oil firing and likely overestimates impacts. The permitted levels will be 1,400 hours/year.

⁷ Some Federal Land Managers (FLMs) are concerned about single sources which cause greater than 5 percent change in visibility. The FLMs also consider single-source visibility degradation greater than 0.4 percent to be unacceptable if the collective visibility degradation of multiple sources exceeds 10 percent.

The proposed natural-gas pipeline will not impact any wetlands. The wetland report, Supplement B-3 of the Expanded SEPA Environmental Checklist, indicates that wetlands occur at two locations within the transmission line right-of-way. If work on the transmission line affects a wetland, construction will meet the requirements of the Section 404 Nationwide General Permit for transmission line construction, and BMPs will be used to minimize erosion and water-quality impacts. Neither the plant, the gas pipeline, nor the transmission line is expected to cause significant adverse impacts to water resources.

Noise Impacts - Construction noise levels and measures to mitigate such noise are reported in the Expanded SEPA Environmental Checklist. Supplemental Section B-5 of the checklist contains a noise analysis summary report. Operational noise from the turbines is predicted to be 47 A-weighted decibels (dBA) at the nearest residence, 3,000 feet from the plant site. This level complies with the Washington nighttime noise standard of 50 dBA. Mitigation required by the conditions of approval for the Mitigated Determination of Non-significance issued by Cowlitz County is addressed in the Mitigation section of this document.

Land-Use Impacts - The LED facility will occupy approximately 10 acres within an area of 20 acres leased by the Port of Longview. Thus, the LED Project would occupy approximately 0.034 acre/MW, which is even less than the BP EIS projection of 0.15 acre/MW. The LED site is located on the Port of Longview property and currently is vacant. The proposed LED site is designated as Heavy Industrial by the Cowlitz County comprehensive plan; the LED Project is consistent with that designation.

The gas pipeline alignment will be located on industrial property. The one-quarter-mile-long segment of the proposed 230-kV transmission line, from the LED site to the existing BPA transmission line right-of-way, is also located in an industrial area. A new pole-line easement will be acquired for this section of the line. BPA will have access to individual structure sites, in addition to a 50-foot air swing easement for the conductors. The remainder of the transmission line will be within the existing BPA right-of-way and will cross a manufacturing district, border a residential district, and terminate in a manufacturing district at BPA's Longview Substation. This portion of the transmission line will be located on new transmission structures supporting both the new and existing transmission lines. The existing wood-pole transmission structures will be removed. No additional land is required for the majority of the interconnecting transmission line. Neither the LED facility, the gas pipeline, nor the transmission line will be located in areas classified as "environmentally sensitive." No occupied structures will be displaced by the Project.

The combustion turbine and the transmission line are not expected to obstruct views. The plant exhaust stack, at 150 feet tall, will be the tallest structure at the LED plant site. The exhaust stack will be noticeable from the adjoining property, but the low angle of view and the stack's narrow profile will minimize impacts. The low-profile buildings and structures on the LED site will not obstruct any views. Impacts to views near the transmission line will be minimal. The proposed single-pole steel transmission line

structures have a narrow profile and will replace the existing wood-pole structures within the current BPA right-of-way.

The LED facility, the gas pipeline, and the transmission line will not displace any recreational or residential uses.

Socioeconomic and Public Facility Impacts - The LED Project is in the northeastern portion of an industrial park being developed by the Port of Longview. Vehicular access to the site is via International Way. No new roads or road improvements will be needed for the LED site, the gas pipeline, or the transmission line. Approximately 230 to 250 construction workers will be employed to build the LED facility; 125 to 150 daily vehicle trips are expected during construction. Normal Project operation is expected to generate about 20 daily vehicle trips.

The LED Project is expected to generate 24 permanent jobs. Given this small increase in employment, an increased need for public services such as fire protection, police protection, health care, and schools is not expected. The LED Project will pay approximately \$1 million annually in property taxes.

The CSOB will provide a sanitary sewer connection and the City of Longview will provide a potable water line. Cowlitz Public Utility District will provide power during construction and standby power during operation. Natural gas for the plant operation will be supplied and delivered by Cascade.

Fish, Wildlife, and Vegetation Impacts - The SEPA Expanded Environmental Checklist provides information on plants, fish, and wildlife that could be impacted by the LED facility, the gas pipeline, and the transmission line.

Approximately 10 acres of grasses, weedy species, and small shrubs now occupying the LED plant site will be removed by site development. Vegetation will only be removed where necessary to accommodate siting and construction needs. The LED power generation site will be revegetated with native shrubs and grasses. Disturbed areas along the transmission line and pipeline routes will be reseeded and restored to preconstruction conditions. No fish-bearing waters are located within or adjacent to the LED site.

Consultation with the National Marine Fisheries Service and the United States Fish and Wildlife Service and a site inspection concluded that no known threatened or endangered plants, animals, or their habitat are known to occur on or near the proposed LED site, gas pipeline, or transmission line.

Mitigation

The Council on Environmental Quality Regulations for Implementing the NEPA (40 CFR § 1505.2(c)) require a ROD to "state whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not."

Air - LED has adopted as mitigation all applicable and economically feasible control technologies and is in compliance with all regulatory requirements for criteria pollutants and air toxics. The modeling results from the Air Study show that LED's control technologies reduce emission of pollutants below levels causing or contributing to significant environmental impacts. BACT will be applied to control emissions:

- A dry low-NOx combustor will be utilized in the combustion turbine and a selective catalytic reduction system will be installed to further reduce NOx emissions (aqueous ammonia will be used as the reducing agent).
- Catalytic oxidation will be employed to reduce CO emissions.
- The use of low-sulfur fuels will minimize the emission of SO₂.
- Good combustion controls will be BACT for VOCs.

BPA has no statutory obligation to impose additional mitigation to offset visibility impacts, which are not regulated, and will not require it for this LED Project.

Water - Engineering controls and BMPs detailed in the Project's SWPPP will control surface-water, ground-water, and runoff-water impacts during and following construction of the generation facility. BMPs will also be implemented during the construction of the transmission line. During operation, wastewater discharge is expected to comply with temperature and other water-quality standards for the Columbia River.

Noise - The conditions of approval for the Mitigated Determination of Non-significance issued by Cowlitz County for noise require the following mitigation:

- Construction equipment used for generating plant, transmission line, and pipeline construction will be equipped with industry-standard mufflers.
- Generated noise will be at least 400 feet from any property line to comply with the noise standard for industrial-receiving land uses.
- An acoustical enclosure will surround the gas turbine and generator.
- The steam turbine will be housed in a structure with sound insulation.
- A quieted air filter building package will be specified.
- LED will specify gas turbine sound levels below 85 dBA at 3 feet.
- The wall thickness of the heat-recovery steam generator sections may be increased beyond typical values.
- A sound baffle may be installed in the heat-recovery steam generator stack that achieves at least the 12 dBA attenuation as identified in Supplemental Section B-5 of the checklist.

PUBLIC AVAILABILITY

This ROD will be distributed to all interested and affected persons and agencies. Copies of the RP EIS, BP, BP EIS, and BP ROD; and additional copies of this Longview Energy Development Project ROD are available from BPA's Public Information Center, P.O. Box 12999, Portland, Oregon, 97212. Copies of these documents may also be obtained by using BPA's nationwide toll-free document request line: 1-800-622-4520.

CONCLUSION

I have decided it is in the best interests of BPA and the Pacific Northwest to offer contract terms for integrating the LED Project into the FCRTS at BPA's Longview Substation. As described above, BPA has considered both the economic and environmental risks and consequences of taking action to integrate power from the LED Project into the FCRTS. This decision is:

- within the scope of environmental consequences examined in the BP EIS,
- consistent with the Market-Driven alternative selected in the BP ROD, and
- in accordance with BPA's transmission access tariff, and is in accordance with BPA's statutory authority to make available to all utilities any capacity in this system determined in excess to that required by the United States (16 U.S.C. 838d).

In so doing, BPA shall take measures to ensure the continuing safe, reliable operation of the FCRTS and undertake all practicable means to avoid or minimize environmental harm that might be caused by the integration of LED into the FCRTS.

This decision is based on the evaluation of the environmental impacts of LED's 290-MW generation facility proposal. On May 14, 2001, SWCAA issued an air quality permit for LED's original proposal to build a 249-MW generation facility. LED submitted an amended NOC application requesting approval of a 290-MW facility on June 20, 2001. Air quality analysis presented in the SEPA checklist in addition to the NOC and its amendment concluded that the proposed LED 290-MW facility would be in compliance with all regulatory requirements for criteria pollutants and air toxics. Final approval of the amended NOC is pending review by SWCAA.

The LED Project has also fulfilled other State and local requirements for the non-major concerns such as water, noise, and land. Appropriate mitigation measures such as BMPs for water use, sound abatement techniques for noise, and revegetation for areas where the land is disturbed during construction are included.

BPA contracts providing integration of power from LED into the FCRTS shall include terms requiring that all pending permits be approved before the contract is implemented. LED will comply with terms and conditions of all permits issued pertaining

to this Project including the mitigation and conditions stated in its air quality permit and Cowlitz County's "mitigated Determination of Non-Significance" that are relevant to construction and operation of the LED facilities. BPA's contracts will also include appropriate provisions for remediation of oil or other hazardous substances associated with construction and operation of related electrical facilities in a manner consistent with applicable Federal, State, and local laws.

Issued in Portland, Oregon.

/s/ Stephen J. Wright
Stephen J. Wright
Acting Administrator and
Chief Executive Officer

7-31-01
Date