

# Record of Decision for the Electrical Interconnection of Umatilla Generating Project

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## INTRODUCTION

The Bonneville Power Administration (BPA) has decided to offer contract terms for connecting and integrating power from the Umatilla Generating Project (Project)—a 550-megawatt (MW) gas-fired, combined-cycle, combustion-turbine electric power generation project—with the Federal Columbia River Transmission System (FCRTS). The Project is located within an industrial area adjacent to the existing Hermiston Generating Plant, near Hermiston, Oregon.

Over the last 2 years, the West Coast experienced a shortfall in electric energy supply, as well as a volatile wholesale power market in which prices reached record highs. Electrical supplies and rates have somewhat stabilized, but the need for additional energy supply remains. The Project is one of many proposed generation projects currently being considered for connection and integration into the FCRTS. Power generated at the Project will be available for purchase in the wholesale power market. I have selected the proposed action over the No Action Alternative because the Project will help meet the short-term need for energy resources and serve as a resource to meet future demand.

The decision to offer terms to connect and integrate this Project is consistent with the Umatilla Generating Project Environmental Impact Statement (EIS), DOE/EIS-0324, January 2002. Mitigation for the Project will be taken in accordance with the requirements of the Final EIS, and in accordance with permit conditions specified by regulating agencies. An EIS for the Project was prepared at the request of Umatilla Generating Company, L.P. and at their expense, rather than the preparation of a Supplement Analysis under BPA's Business Plan EIS.

## BACKGROUND

As discussed in the Final EIS, in 2000 the Pacific Northwest Electric Power and Conservation Planning Council estimated that the region would require almost 3,000 MW of new generating resources by 2003. BPA's Phase I Results, Regional Air Quality Modeling Study<sup>1</sup> (Air Study), August 2001, noted, "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 6,000 MW of electricity over the next 10 years. Other estimates run as high as 8,000 MW." Since then, over 3,000 MW of thermal generation has been added in the region. Even assuming all of the additional generation serves Northwest customers, current estimates still show a regional deficit during the next 8 years. This 550-MW Project will help reduce the Northwest energy deficit.

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<sup>1</sup> A Modeling Protocol, the Phase I Results of the Regional Air Quality Modeling Study and the Phase II Results for Umatilla Generating can be found at <http://www.efw.bpa.gov/cgi-bin/PSA/NEPA/SUMMARIES/air2>.

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Responsible for operating about three-fourths of the region's high-voltage transmission, BPA has adopted an open access transmission tariff that is substantially similar to the Federal Energy Regulatory Commission's (FERC) *pro forma* open access tariff (BPA's Open Access Transmission Tariff). BPA offers transmission services in accordance with this tariff to all eligible customers on a first-come, first-served basis, and connects and integrates generation upon request and subject to BPA's interconnection requirements. BPA is committed to offer non-discriminatory access to its transmission system, which ensures that BPA will receive non-discriminatory access to the transmission systems of other transmitting utilities, which are subject to FERC's jurisdiction. Although BPA's interconnection of a generator is subject to National Environmental Policy Act (NEPA) review, BPA otherwise will not deny interconnection to eligible customers that comply with BPA's financial, technical, and operating requirements and who agree to comply with all other regulatory permit requirements.

BPA will prepare a contract offering terms to Umatilla Generating Company, L.P., for integration of the Project. This contract is a Generation Interconnection Agreement that will provide for interconnection of the Project with the FCRTS at BPA's 500-kilovolt (kV) McNary Substation. The interconnection facilities include a 230-kV line from the Project to BPA's McNary Substation (on existing Umatilla Electric Cooperative structures), approximately 0.5 miles of new transmission line on up to seven new towers, a 500/230-kV transformer, and two 500-kV-power circuit breakers at the 500-kV switchyard. Commercial operation of the interconnection facilities is planned for August 2005.

## **DESCRIPTION OF THE PROJECT**

**Generator** – The 550-MW Project would be located on Umatilla Generating Company, L.P., property, about 4 miles southwest of the City of Hermiston, Oregon, and about one-half mile west of the existing Hermiston Generating Plant. The Project would consist of two essentially identical combustion turbine generators, two heat recovery steam generators (HRSGs), and one steam turbine. Natural gas would be burned in the combustion turbines. Expanding gases from combustion would turn rotors within the turbines that are connected to electric generators. The hot gases exhausted from the combustion turbines would be used to raise steam in the HRSGs. Steam from the HRSGs would be expanded through a steam turbine that drives its own electric generator. The general locations of the power generation facility and related ancillary facilities are shown on the attached Project Location Map (Attachment A).

**Gas Pipeline** – The Project would be fueled by natural gas from the existing Pacific Gas & Electric's Gas Transmission-Northwest (GTN) pipeline. The pipeline is located about 5 miles south of the proposed power plant site. The Project will require construction of up to 5 miles of new natural-gas pipeline. Natural gas would be conveyed from the GTN mainline to the power plant site via one of three alternative pipeline routes proposed by the Umatilla Generating Company, L.P., as shown on Attachment A.

**Transmission Facilities** – Electric power generated by the proposed power plant would be conveyed to the McNary Substation using the existing Westland-McNary transmission line, owned by Umatilla Electric Cooperative. The existing 115-kV transmission line would be

upgraded to 230 kV. The new circuit would run from the proposed power plant to the McNary Substation. The route into McNary Substation would require approximately a half mile of new transmission line and up to seven new towers. At McNary Substation, the Project would be interconnected into the 500-kV portion of the substation, where the voltage would be increased from 230 kV to 500 kV. The proposed transmission line location is shown on Attachment A. Modifications at McNary Substation would include installation of a 500/230-kV transformer and two 500-kV power circuit breakers at the 500-kV switchyard to accommodate the new generation facility interconnection.

## **PUBLIC PROCESS AND CONSIDERATION OF COMMENTS**

Preparation of an EIS for the Project provided opportunities for public comment. Public notice and participation opportunities included:

1. BPA published a Notice of Intent (NOI) to prepare an EIS on the Project in the *Federal Register* dated January 5, 2001. The NOI announced the commencement of a 45-day scoping period for public comments, and invited the public to a scoping meeting.
2. Public announcements of the scoping meeting were placed in local newspapers (*The Hermiston Herald*, *The Tri-City Herald*, and *The East Oregonian*) one week before the meeting.
3. BPA invited public comment by direct mail and at the scoping meeting at Hermiston High School on January 30, 2001, from 7 p.m. to 9 p.m.
4. BPA prepared a report documenting the results of scoping. The scoping report was mailed to all parties on the NOI mailing list and attendees at the public meeting.
5. BPA published a Draft EIS and notified the public on August 15, 2001, by direct mail and with a Notice of Availability published in the *Federal Register*. The Draft EIS was also made available on BPA's website.
6. BPA invited public comment by letter, e-mail, or phone message, or at a public meeting at Hermiston High School on September 25, 2001, from 5:30 p.m. to 7:30 p.m.

Comments received during the scoping period were incorporated into the Draft EIS. The five comments received on the Draft EIS were addressed in the abbreviated Final EIS for the Project.

## **ENVIRONMENTAL ANALYSIS**

A Draft EIS was prepared to evaluate the two primary alternatives: the proposed action and the No Action Alternative. In the No Action Alternative, BPA would not provide a connection to the regional electric power transmission grid for the Project. The No Action Alternative is the environmentally preferred alternative. In the proposed action, BPA would provide a connection to the FCRTS grid for the Project at McNary Substation. Without access to the grid, the

proposed Project would not be feasible. The EIS described the potential environmental consequences of no action and the proposed action. An assessment of the effects of the proposed action on geology, soils and seismicity, hydrology and water quality, vegetation and wildlife, fish, air quality, noise, traffic, visual quality and aesthetics, cultural resources, land use, socioeconomics, public services, and health and safety were included in the EIS. Cumulative and unavoidable impacts were also addressed. The Final EIS included additional information regarding BPA's study of cumulative impacts to air quality from the Project and other existing and proposed power projects in the vicinity. It also contained a discussion of modifications made to the wastewater disposal component of the proposed Project, and evaluation of the effects of those modifications. Mitigation measures included in the proposed Project, as presented in the EIS, will be implemented. While interconnecting the Project as proposed would have no significant environmental effects, not providing the interconnection is environmentally preferred because that would cause no environmental changes. However, the environmentally preferred alternative would not meet the need.

### **Cumulative Environmental Impacts**

With an increasing demand for electricity, several new generation projects are being proposed to meet the regional energy need. Project owners are asking BPA to integrate many of these resources into the FCRTS. Because the majority of these resources are combustion turbines, there is a regional concern about the potential impacts on air quality. As discussed in Section 3.6.3 of the Draft EIS, the regional cumulative effects of the Project and other projects were considered. For example, two new electric power generation plants have been approved and are currently under construction in the vicinity of the proposed power plant. One is east of Hermiston (Hermiston Power Partners) and the other is located at the Port of Morrow (Coyote Springs Unit 2). BPA initiated a detailed modeling study of cumulative air quality and visibility impacts on the Columbia River Gorge and Northwest Class I areas. This study was done in two phases.

BPA's Phase I Air Study examined potential air quality impacts associated with over 40 recently proposed projects in the service area. The study suggested the proposed projects including the Project would probably not significantly contribute to sulfur and nitrogen deposition in Class 1/Scenic/Wilderness Areas, the Columbia River Gorge National Scenic Area, and the Mt. Baker Wilderness. The study also suggested that, even if all the proposed power plants were energized, they are unlikely to exceed the National Ambient Air Quality Standards. The model simulations did suggest the proliferation of proposed projects in the service area could potentially degrade visibility within Class I and Scenic Areas should all the projects become operational.

Based on the results of the Phase I Air Study, BPA performed a Phase II examination of potential cumulative regional haze impacts on a case-by-case basis for each new project before issuing a Record of Decision (ROD). Since it is unlikely all the proposed power plants will be built, the analysis investigated the cumulative impacts from a Baseline Source Group consisting of projects that have been issued a ROD, other recently permitted power projects not requesting access to BPA's transmission grid but within the service area, and the facility being considered

for a ROD. For example, the Baseline Source Group considered in the Phase II study for the Project includes the two local projects mentioned at the beginning of this section.

BPA's Phase II modeling study for the Project assessed regional haze impacts at 16 Class I Areas (three national parks, the Spokane Indian Reservation, and 12 Wilderness Areas), the Columbia River Gorge National Scenic Area, and the Mt. Baker Wilderness Area. Detailed descriptions of the Baseline Source Group, facility operating scenarios, and modeling methodology used in the analysis are provided in the Phase II report.

Results of the Phase II modeling assessment for the Project show no significant cumulative impacts.

### **Site Impacts**

The EIS provided information about the environmental impacts of the Project and the associated pipelines and transmission facilities. The potential impacts of the Project are not significant. The State of Oregon Energy Facility Siting Council issued a Site Permit for the Project in September 2001.

**Air Impacts** – As discussed in the EIS, temporary emissions would occur during construction of the Project. These emissions will include particulates (dust) and exhaust from construction vehicles and equipment. Similar emissions will result from gas-pipeline and transmission-line construction activities. These emissions would be of limited duration and minimized by use of Best Management Practices (BMPs).

The proposed Project would use advanced combined-cycle gas-turbine technology, clean-burning natural gas, and high-efficiency air-emission-control technology. Air pollutant emissions would meet or exceed current applicable emission limits. Plant operating emissions would be controlled using the Best Available Control Technology (BACT). An Air Quality Permit for the Project was issued by the Oregon Department of Environmental Quality in December 2001.

**Water Impacts** – The proposed Project would use water diverted from the Columbia River by the Port of Umatilla, consistent with the port's existing water rights. The Umatilla Generating Company L.P., would receive a maximum of 3.74 million gallons per day for use at the proposed Project. This is about 2 percent of the Port of Umatilla's water right. The amount of water used by the proposed Project, a maximum of 3.74 million gallons per day, would be small compared to the discharge of the Columbia River in the reach near Umatilla. It would represent less than 0.005 percent of river discharge and, consequently, its diversion would have a negligible effect on downstream beneficial uses of the river.

Process wastewater from the proposed Project, consisting primarily of cooling system blowdown, would be reclaimed and applied to cropland in an area several miles south of the proposed power plant site. Reclaimed water would be blended with surface water from another source to reduce its total dissolved solids content to a level no greater than would occur if

groundwater were used for irrigation. In addition, an approximately 20-acre water storage pond would be built near the application area. The pond provides increased operational flexibility during wet winters. An alternative to reuse of the process wastewater at the power plant site would be no use of process wastewater for the cooling system blowdown. The waste would be a non-hazardous solid or semi-solid salt cake. The plant, the gas pipeline, and the transmission line are not expected to cause significant adverse impacts to water resources.

**Land-Use Impacts** – The proposed power plant would be located on a 77-acre parcel of land surrounded by freeways, other roads, and industrial facilities. Umatilla County has zoned the parcel for industrial and commercial use and does not intend it to be used for agricultural purposes. The proposed power plant site was formerly used as a gravel yard and currently is sparsely vegetated.

Portions of the natural-gas pipeline and the reclaimed water lines would traverse lands used for agriculture. Topsoil would be removed during construction of the pipelines and replaced after pipe installation. The agricultural productivity of the land would be unaffected.

The proposed Project would add a large industrial structure to a local landscape already dominated by several other large industrial structures, including the Hermiston Generating Plant, the Lamb-Weston potato processing plant, and a number of potato sheds. These structures are within 1 mile of the proposed Project site. At times, the proposed Project would emit a visible steam plume from its cooling towers. Similar plumes are emitted by the cooling towers at the Hermiston Generating Plant and the Lamb-Weston facility. The proposed Project would not greatly alter or have a significant adverse effect on aesthetic qualities.

**Socio-Economic and Public Facility Impacts** – Vehicular access to the site is by way of Westland Road. No new roads would be constructed for either the gas pipeline or the transmission line. The proposed Project would create approximately 10 permanent jobs and an estimated 40 trips per day. The small increase in trips on local roads associated with the proposed Project would not be expected to create traffic congestion or a diminution of level of service at any affected intersections.

The proposed Project would result in a substantial increase in the local property tax base but very little increase in the demand for public services. Consequently, the proposed Project would provide funding for a better level of public services than is available today.

**Fish, Wildlife, and Vegetation Impacts** – In the Project area, much of the native shrub-grassland and grassland has been replaced by irrigated agriculture, industrial and commercial facilities, highways, and residences. The only element of the proposed Project that would permanently alter vegetative cover is the proposed power plant. The power plant would occupy about 20 acres of land that currently falls within Habitat Category 6, as established by the Oregon Department of Fish and Wildlife. Category 6 is the lowest habitat category and includes severely degraded areas of shrub-steppe and shrub-grass and developed or barren lands. The remaining habitat at the site would continue to be classified as Category 6. The natural gas, water, and reclaimed water pipelines would be primarily built in areas with low habitat value.

Short sections of the natural gas and reclaimed water pipelines pass through moderate-quality shrub-steppe and shrub-grass. In these areas, topsoil would be retained and replaced, and the disturbed area would be re-seeded with native vegetation. Because the proposed Project would not result in a permanent loss of high-value wildlife habitat, it would not have an adverse impact on wildlife. Some wildlife species could be temporarily disturbed by noise and human activity during the construction period.

The proposed Project would have no direct effects on fish. The amount of water withdrawn from the Columbia River for the proposed Project would be very small relative to river discharge. It would have a negligible effect on fish habitat.

**Cultural Resources Impacts** - The proposed Project could affect two properties potentially eligible for nomination to the National Register of Historic Places: the High Line and West Extension irrigation canals. In addition, Project construction activities such as excavation for the proposed power plant foundations, new power poles, water pipelines, and gas pipeline could affect buried archaeological resources that were not identifiable during the reconnaissance survey.

One element of the Project, a natural-gas pipeline, would cross under the Highline Canal, an historical irrigation canal, but would not affect either its appearance or its structural integrity. Each of the natural-gas pipeline alternatives would cross the Highline Canal, a National Register-eligible site. To avoid any adverse effects on the canal, this section of the pipeline would be installed by horizontal boring or jacking under the canal rather than trenching through it. Horizontal boring involves drilling a hole under the canal and then pushing a pipe section through it. Jacking involves driving a pipe section under the canal using jacks.

An existing electrical transmission line passes over the West Extension Canal. The line would be recondored to allow it to carry a higher voltage of electricity. None of the activities associated with recondoring the transmission line would affect the canal.

Construction personnel will be instructed in the identification of cultural materials. If unanticipated cultural resources are encountered during construction of the Project facilities, including the gas pipeline, construction personnel will halt ground-disturbing activities in the vicinity of a find until a qualified archaeologist evaluates the significance of the find.

If significant cultural materials are found, recommendations for mitigation measures would be made in consultation with the Oregon State Historic Preservation Office and other appropriate parties. Mitigation measures could include avoidance or data recovery. With the avoidance measures and unanticipated discovery procedures included in the construction requirements for the proposed Project facilities, including the gas pipeline, no adverse effect on cultural resources is anticipated and consequently no contribution to cumulative impacts would occur.

Pursuant to its responsibilities under Section 106 of the National Historic Preservation Act, and 36 CFR 800, BPA will initiate consultation with the Oregon State Historic Preservation Office (SHPO) at the time that a Generation Interconnection Agreement to interconnect the power

generated by the Project into the regional electric power transmission grid is signed between BPA and Umatilla Generating Company, L.P. The interconnection activities would occur at BPA's McNary Substation. The Section 106 consultation would address activities to be undertaken by BPA for the interconnection. Should any recommendations from the SHPO contravene any portion of this ROD, BPA will consider the need to revise and reissue this ROD.

### **Mitigation**

The Council on Environmental Quality's Regulations for Implementing 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** – The Project 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 the Project would not significantly contribute to regional haze at any of the Class I areas within the BPA service area, the Columbia River Gorge National Scenic Area, or the Mt. Baker Wilderness. The Project would not significantly contribute to regional haze in Mt. Rainier National Park. Based on the BACT outlined in the Project's proposal, the State of Oregon Department of Environmental Quality (DEQ) issued an Air Quality Permit for the Project in December 2001.

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

**Water** – Engineering controls and BMPs detailed in the Project's Siting Permit will control surface water and runoff impacts during construction and operation of the Project. BMPs will also be implemented during construction of the gas pipeline and transmission line. During operation, process wastewater, consisting primarily of cooling system blowdown wastewater, will be disposed by irrigation of cropland. Process wastewater would be applied to cropland in accordance with the terms of a Water Pollution Control Facility Permit issued by Oregon DEQ to the Hermiston Generating Plant. An alternative to reuse the process wastewater at the power plant site would result in no process wastewater for the blowdown. The waste would be a non-hazardous solid or semi-solid salt cake.

### **PUBLIC AVAILABILITY**

This ROD will be distributed to all interested parties and affected persons and agencies. Copies of the Draft EIS and Final EIS, and additional copies of this Umatilla Generating 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. Information is also available by accessing BPA's website at [www.efw.bpa.gov](http://www.efw.bpa.gov).



## CONCLUSION

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

- Within the scope of environmental consequences examined in the Project EIS, and
- 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 USC 838d).

In so doing, BPA will 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 the Project into the FCRTS.

The Project has or will soon fulfill all Federal, State, and local requirements for environmental concerns such as air emissions, water, wildlife species, cultural/historic resources, and land use. Appropriate mitigation measures, such as BACT for air emissions, BMPs for water quality, and revegetation for disturbed land areas, are included.

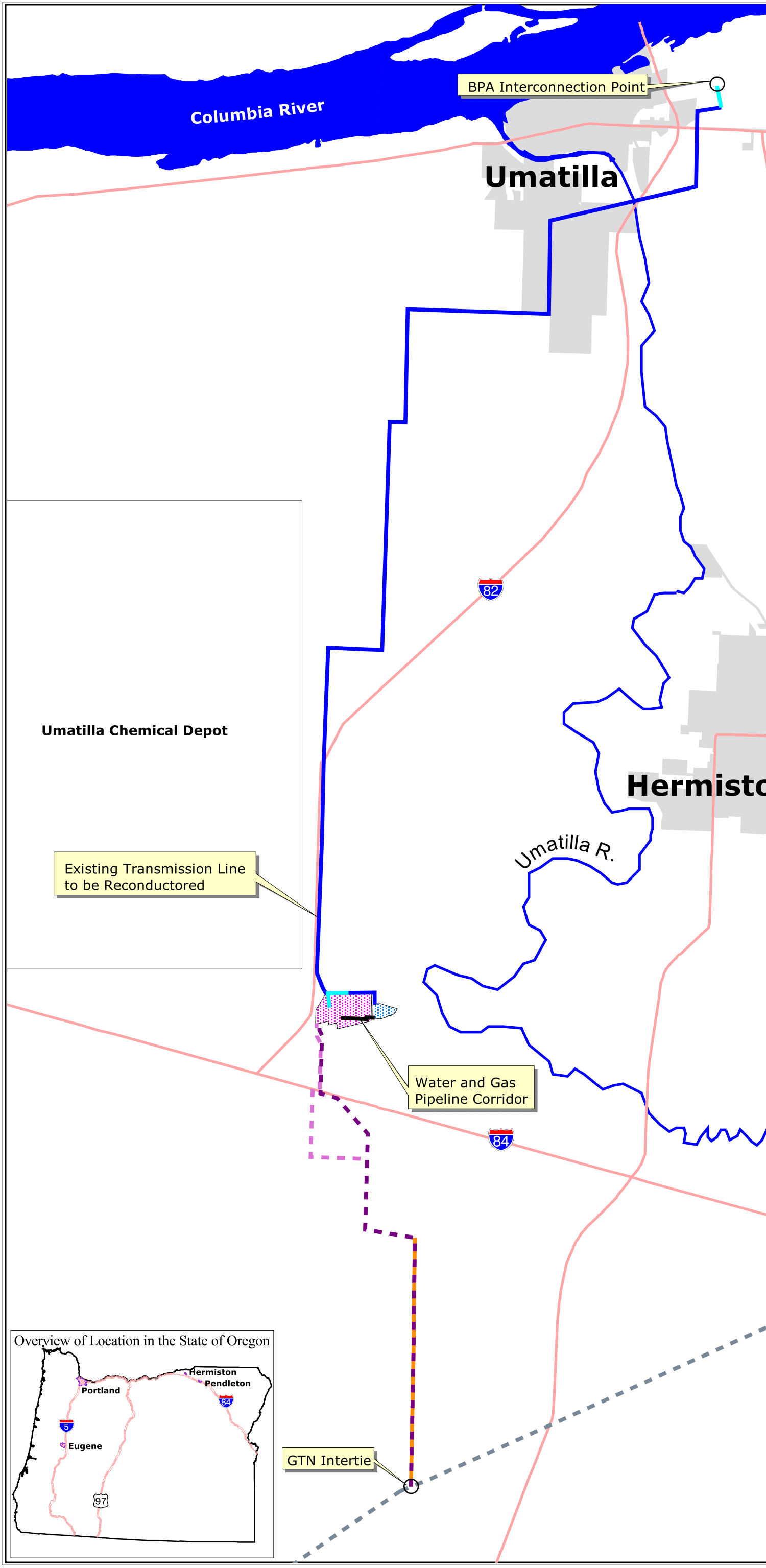
BPA contracts providing for integration of power from the Project into the FCRTS shall include terms requiring that all pending permits be approved before the contract is implemented. Umatilla Generating Company, L.P., will comply with terms and conditions of all permits issued pertaining to the Project including the mitigation and conditions stated in its Air Quality Permit and Siting Permit. 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  
Administrator and  
Chief Executive Officer

September 27, 2002  
Date

Attachment A:  
Project Location Map



BPA Interconnection Point

Columbia River

Umatilla

Umatilla Chemical Depot

Existing Transmission Line to be Reconductored

Hermiston

Umatilla R.










Water and Gas Pipeline Corridor

84

82


GTN Intertie




-  Water and Gas Pipeline Corridor
-  New Transmission Line on New Towers
-  Existing Transmission Line to be Reconductored
-  Proposed GTN Gas Pipeline Alternative 1
-  Proposed GTN Gas Pipeline Alternative 2
-  Proposed CNG Gas Pipeline Alternative
-  Existing PG&E GTN Mainline
-  Power Plant Site
-  Hermiston Generating Plant

1:55000

0.5 0 0.5 1 Kilometers



0.5 0 0.5 1 Miles



Umatilla Generating Company

UMATILLA GENERATING PROJECT

Project Location Map

March 2001

Figure 2.1

Overview of Location in the State of Oregon

