

CHAPTER 1: SUMMARY

1.1 INTRODUCTION

Sagebrush Power Partners (the Applicant), a limited liability corporation (LLC), proposes to construct and operate a wind turbine electrical generation facility in Kittitas County, Washington (Figure 1-1). The Kittitas Valley Wind Power Project (KVVWPP) would consist of between 82 and 150 wind turbine generators with a total nameplate capacity of between 181.5 to 246 megawatts (MW). The project would be located on open ridgetops on each side of US 97 roughly halfway between Ellensburg and Cle Elum (Figure 1-2).

On January 13, 2003, the Applicant filed an Application for Site Certification (ASC), No. 2003-01, with the Washington State Energy Facility Site Evaluation Council (EFSEC) in accordance with Washington Administrative Code (WAC) 463-42. The Applicant chose to receive certification of this KVVWPP according to the Revised Code of Washington (RCW) 80.50.060. EFSEC has jurisdiction over the evaluation of major energy facilities including the proposed project. As such, EFSEC will recommend approval or denial of the proposed wind facility to the governor of Washington after an environmental review.

With the submission of the ASC EFSEC began evaluating the siting of the proposed project pursuant to the requirements of Chapter 80.50 RCW, and conducting an environmental review with an Environmental Impact Statement (EIS) in accordance with the Washington State Environmental Policy Act (SEPA) and EFSEC's SEPA Rules (Chapter 463-47 WAC). The information and resulting analysis were presented in a Draft EIS issued for public comment in December 2003.

The information and analyses presented in this Draft Supplemental EIS (Draft SEIS) are based primarily on information provided in the following documents: the Kittitas Valley Wind Power Project ASC No. 2003-01 (Sagebrush Power Partners, LLC 2003a); the draft EIS issued for the Kittitas Valley Wind Power Project (EFSEC, 2003); the Desert Claim Wind Power Project Draft EIS (Kittitas County, 2003); the Wild Horse Wind Power Project ASC No. 2004-01 (Wind Ridge Power Partners LLC, 2004); the Wild Horse Wind Power Project Off-Site Alternatives Analysis (Jones and Stokes, 2004a); and the Wild Horse Wind Power Project Off-Site Alternatives Impact Analysis (Jones and Stokes, 2004b). Where additional information was used to evaluate reasonable off-site alternatives, that information has been referenced.

1.2 PURPOSE AND NEED FOR PROJECT

As stated in the KVVWPP Draft EIS, the purpose of the KVVWPP is to construct and operate a new electrical generation resource using wind energy that will meet a portion of the projected growing regional demands for electricity produced from non-renewable and renewable resources.

1.3 DECISIONS TO BE MADE

This document is a SEPA Draft Supplemental EIS intended to meet the environmental review needs of EFSEC. EFSEC has jurisdiction over all of the evaluation and licensing steps for siting major energy facilities in the state of Washington. EFSEC is the sole non-federal agency authorized to permit the proposed project. Pursuant to EFSEC Statute (Chapter 80.50 RCW) and Regulation (Title 463 WAC), EFSEC is required to make a recommendation to the Governor of Washington State whether the project should be constructed and operated.

If the Governor approves the proposed project EFSEC would specify the conditions of construction and operation, issue a Site Certification Agreement in lieu of any individual state or local permitting authority, and manage the environmental and safety oversight program of project operations. EFSEC's Site Certification Agreement acts as an umbrella authorization that incorporates the requirements of all state laws and regulations.

1.4 DESCRIPTION OF ALTERNATIVES

Two alternatives were evaluated in the KVVPP Draft EIS, the Proposed Action Alternative (constructing and operating the KVVPP and associated components), and the No Action Alternative (not constructing and operating the proposed action). These alternatives are briefly described below. The KVVPP Draft EIS also analyzed in greater detail alternative wind energy technologies, and alternative wind turbine locations. This Draft SEIS provides an analysis of reasonable off-site alternatives.

1.4.1 Proposed Action

The proposed action is to construct and operate between 82 and 150 wind turbine generators with a total nameplate capacity of between 181.5 and 246 MW and associated components in Kittitas County, Washington (Figure 1-1). Depending on the type of wind turbine technology used, the proposed project would occupy between 93 and 118 acres of land and would be located on open ridgetops on each side of US 97 in Kittitas County, roughly halfway between Ellensburg and Cle Elum (Figure 1-2).

The final selection of the exact type and size of wind turbine to be used for the project depends on a number of factors including equipment availability at the time of construction. The number of turbines and the resulting nameplate capacity of the project would depend on the make and model of turbine used. Therefore, to capture a "reasonable range" of potential project impacts, this EIS defines and evaluates the following three project scenarios:

- Lower End Scenario: The lower end scenario represents the project configuration with the lowest number of turbines erected. For turbines with a nameplate capacity of 3 MW each, up to 82 turbines would be used for a total nameplate capacity of 246 MW.
- Middle Scenario: The middle scenario represents the project configuration that would be chosen based on current pricing and performance for wind turbine technology currently on the market. For turbines with a nameplate capacity of 1.5 MW each, 121 turbines would be used for a total nameplate capacity of 181.5 MW.

Figure 1-1

Figure 1-2

- Upper End Scenario: The upper end scenario represents the project configuration with the highest number of turbines erected. For turbines with a nameplate capacity of 1.3 MW each, up to 150 turbines would be used for a total nameplate capacity of 195 MW.

The facilities, equipment, and features to be installed as part of the project include:

- approximately 19 miles of new roads,
- improvements to roughly 7 miles of existing roads,
- approximately 23 miles of underground 34.5-kV electrical power lines,
- approximately 2 miles of overhead 34.5-kV electrical power lines,
- two substations,
- one 5,000-square-foot operations and maintenance facility with parking, and
- up to nine permanent meteorological towers.

The KVVPP would be constructed across a land area of approximately 7,000 acres in Kittitas County, although the actual permanent facility footprint would comprise between 93 to 118 acres of land under the middle and lower end scenarios, respectively. The majority of the KVVPP site and the proposed interconnect points lie on privately owned lands; five parcels are owned by the Washington State Department of Natural Resources (DNR). The Applicant has obtained wind option agreements with landowners for all private lands within the project site boundary necessary for project installation. In June 2003, the Applicant executed a lease agreement for use of DNR property in the project area.

1.4.2 Alternatives Considered but Rejected

As indicated in the KVVPP Draft EIS, the applicant considered both alternative wind energy technologies and alternative wind turbine layouts for the proposed KVVPP site. No additional technologies or turbine layouts have been identified at this time.

1.4.3 No Action Alternative

Under the No Action Alternative, the proposed KVVPP would not be built, and the environmental impacts described in the KVVPP Draft EIS and this SEIS would not occur. However, development by others, and of a different nature, including residential development, could occur at the project site in accordance with the County's existing Comprehensive Plan and zoning regulations.

Power providers would continue to use other or new power sources to meet the needs of their customers. However, it is likely that the region's need for power would be addressed by developing a gas-fired combustion turbine; such a facility would have to generate 60 average MW to replace an equivalent amount of power generated by the project. (An "average MW" is the average amount of energy supplied over a specified period of time, in contrast to "MW," which indicates the maximum or peak output [capacity] that can be supplied for a short period.) Although it would be speculative to estimate impacts of a similarly sized combustion turbine because of uncertainty about the location and type of technology, impacts from a typical

combustion turbine include: site specific construction and operation impacts in the vicinity of the new plant; short and long range air emissions; impacts associated with natural gas extraction and transport; impacts associated with transmission of the generated power; impacts associated with withdrawal of large quantities of water used for cooling and discharge of wastewater; noise impacts; and associated impacts on fish, plant, and wildlife resources.

1.4.4 Off-site Alternatives

An analysis of reasonable off-site alternatives, coordinated between EFSEC and Kittitas County, was provided in the KVVPP Draft EIS. However, to assist the Council in its decision making process, an additional analysis of off-site alternatives was performed, and is presented in this Draft SEIS.

Four potential sites were identified and evaluated in a previous off-site investigation conducted for the Desert Claim Wind Power Project Draft EIS, and two new sites were independently evaluated against five criteria that are generally necessary for a site to be amenable for wind farm development (Jones and Stokes, 2004a and 2004b). These sites included Springwood Ranch, Swauk Valley Ranch, Manastash Ridge, the Boylston Mountains, Skookumchuck Creek and Quilomene. The Springwood Ranch Sites and Swauk Valley Ranch were selected for further review, in addition to the other wind power generation projects already being proposed in Kittitas County: the Desert Claim Wind Power Project and the Wild Horse Wind Power Project. Figure 2-2 shows the location of the off-site alternatives considered.

Swauk Valley Ranch

The Swauk Valley Ranch Site has not been formally brought forward for the siting of a wind power generation project. However this site is intended to also provide a reasonable approximation of a plausible wind facility in Kittitas County. A hypothetical project layout is shown in Figure 2-4a.

The 6,000 plus acre Swauk Valley Ranch site is located north of the Yakima River approximately 12 miles northwest of the City of Ellensburg in the vicinity of Lookout Mountain (Figure 3). The NREL wind maps show the quality of wind resources on the site falling primarily in the “Good 15.7 – 16.8 mph” range with a few upper elevation locations falling into the “Excellent 16.8 - 17.9 mph” and “Outstanding 17.9 – 19.7 mph” categories. However, wind data from other public domain and confidential sources suggest a more accurate rating for the site would be “Good 15.7 – 16.8 mph.” A transmission line crosses through the center of the site in an east-west direction.

Based on an estimate made by Wind Ridge Power Partners, the Swauk Valley Ranch site could accommodate approximately 42 turbines. A smaller or greater number of turbines could potentially be accommodated based on micro-siting. Using a 1.5 MW turbine, this number of turbines would generate approximately 63 MW of electric power, which is less than the capacity of the KVVPP under the Middle Scenario.

Springwood Ranch

The Springwood Ranch Site has not been formally brought forward for the siting of a wind power generation project. However this site is intended to provide a reasonable approximation of a plausible wind facility in western Kittitas County. The hypothetical project layout was originally presented by Kittitas county in the Desert Claim Draft EIS, and is shown in Figure 2-4b.

The 3,610-acre Springwood Ranch site is located approximately eight miles northwest of the City of Ellensburg between Interstate 90 and the Yakima River (Figure 2-3b). The quality of wind resources on the site fall primarily in the “Good 15.7 – 16.8 mph” category based on NREL wind speed maps. A transmission line is located approximately 1.5 miles north of the site across the Yakima River.

The Springwood Ranch site could accommodate approximately 40 to 45 turbines (Figure 2-4b). A smaller or greater number of turbines could potentially be accommodated based on micro-siting. Using a 1.5 MW turbine, this number of turbines would generate approximately 64.5 MW of electric power, which is less than the capacity of the proposed action under the Middle Scenario. The connection to transmission facilities (for the Bonneville lines) would require building a transmission line approximately 5 miles long, including crossing the Yakima River. Easements would also need to be acquired to travel across private properties located between the project site and the transmission line.

Wild Horse Wind Power Project

The Wild Horse Wind Power Project is proposed on an approximately 5,000-acre site located about 10 miles east of the town of Kittitas, on the eastern slopes of Whiskey Dick Mountain. The Wild Horse Wind Power Project is currently under review by EFSEC.

The proposed configuration of wind turbines on the Wild Horse site is shown in Figure 2-4c. The proposal would be comprised of between 83 to 125 wind turbines and associated facilities. The proposal would generate between 125 and 249 MW of power depending on the size of turbine ultimately chosen. Figure 2-4c presents a layout for the “Most Likely Scenario” of 1.5 MW nameplate capacity turbines. The project would interconnect to either the existing Bonneville transmission line located approximately 4 miles west of the project site, or to the existing PSE transmission line located approximately 5 miles southwest of the project site. The facilities, equipment, and features that would be installed as part of the proposed project include:

- approximately 17 miles of new roads,
- improvements to roughly 15 miles of existing roads,
- approximately 27 miles of underground 34.5-kV collection system power lines,
- approximately 2 miles of overhead 34.5-kV collection system power lines,
- approximately 14 miles of overhead 230-kV transmission feeder lines,
- one or two step-up substations,
- one interconnection substation,
- an operations and maintenance (O&M) facility of approximately 5,000 square feet,

- parking area for the O&M facility approximately 300 feet x 300 feet,
- a visitors' kiosk,
- up to six permanent meteorological towers.

Desert Claim Wind Power Project

The Desert Claim Wind Power Project (Desert Claim) is a proposed wind power project currently under review by Kittitas County. The 5,237 acre project area is situated along the northern margin of the Kittitas Valley, which is the broad valley area of central Kittitas County on either side of the Yakima River between Lookout Mountain and the Yakima Canyon (Figure 2-4d). The southern edge of the project area is located approximately 8 miles north of the central part of Ellensburg. Access to the project area from Ellensburg can be via Wilson Creek Road, Robbins Road, Pheasant Lane, Reecer Creek Road or Lower Green Canyon Road.

The proposed Desert Claim project would occupy approximately 82 acres of land and support up to 120 turbines, with a total project generation capacity of 180 MW. The project would include:

- free-standing tubular-steel towers up to 262 feet high and supporting three-bladed rotors (Total maximum height including blades of 393 feet);
- approximately 23 miles of roads;
- underground 34.5-kV electrical power lines;
- one substation;
- up to several miles of overhead 115- or 230-kV transmission line from the substation to the regional transmission system;
- one 5,000-square-foot operations and maintenance facility with parking, and
- up to four meteorological towers up to 164 feet in height.

Construction of the project would require nine months and 120 to 150 workers. The project would be operated and maintained during an assumed 30 years' useful life. Operation and maintenance would include round-the-clock monitoring of output and performance and patrolling the project area to ensure security.

1.5 SUMMARY OF PUBLIC INVOLVEMENT, CONSULTATION, AND COORDINATION

Since issuance of the KVVPP Draft EIS on December 12, 2003, the Applicant has continued to communicate and meet with agencies, Indian tribes, the public, and non-governmental organizations. EFSEC received public comment on the Draft EIS through a postmark date of January 20, 2004, and conducted a public meeting to receive oral comments on the DEIS on January 13, 2004, in Ellensburg, Washington.

EFSEC has also proceeded with the adjudicative proceeding initiated in May 2003, with a second call for petitions for intervention in December 2003, and several prehearing conferences. EFSEC plans to hold adjudicative hearings for the KVVPP during the month of August 2003, including public testimony hearings.

Coordination between EFSEC and its contractors (Shapiro and Associates, Washington State Department of Fish and Wildlife, Washington State Department of Ecology) is on-going.

Project documents are available to the public on the EFSEC Web site and in local libraries. Further opportunities for public involvement will occur throughout the remainder of the siting evaluation process. The Final EIS would be issued after the conclusion of the adjudicative hearings.

1.6 DOCUMENT ORGANIZATION

This Draft SEIS analyzes the impacts of four reasonable off-site alternatives. The Impacts of the proposed KVVPP (the proposed action) and a No Action Alternative are also summarized. The document is organized into three main chapters.

- Chapter 1 summarizes this Draft SEIS for the KVVPP. This section briefly describes the additional alternatives evaluated in the environmental analysis, and summarizes the environmental impacts by alternative.
- Chapter 2 presents a brief description of the Action and No Action alternatives analyzed in this document, the process used for selecting off-site alternatives for further study, and describes the four off-site alternatives that were analyzed.
- Chapter 3 presents the impact analysis for each of the off-site alternatives considered on each element of the natural and built environment.

1.7 ISSUES TO BE RESOLVED

The KVVPP Draft EIS identified the following unresolved issues that require further evaluation and decision by the Applicant and EFSEC prior to issuance of the Final EIS. The status of these issues has not changed since issuance of the Draft EIS.

- Wetlands impacts and mitigation
- Economic effects of lower and upper end scenarios
- Economic and environmental effects of tourism
- Impacts on historical and tribal resources
- Television interference
- Radio interference

1.8 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential environmental impacts from the proposed action and the No Action Alternative were described in Chapter 3 of the KVVPP Draft EIS. The Draft EIS considered direct, indirect, and cumulative impacts for the proposed action. The analysis of impacts resulting from the Action and No-Action alternative will be updated in the Final EIS, pending completion of EFSEC's adjudicative proceeding.

1.9 CUMULATIVE IMPACTS

The Draft EIS identified the potential cumulative impacts that could result from the construction of all three proposed wind power projects in Kittitas County: the KVVWPP, the Desert Claim Wind Power Project, and the Wild Horse Wind Power Project. Since the issuance of the KVVWPP Draft EIS, no additional analyses have been performed regarding cumulative impacts to the natural or built environment.

1.10 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

The Draft EIS identified mitigation measures proposed by the Applicant to mitigate several potentially significant adverse impacts associated with the proposed action. Since issuance of the KVVWPP Draft EIS, no new significant adverse impacts have been identified.