PLAN OF DEVELOPMENT

for the

WILSON CREEK WIND PROJECT

Lincoln County, Nevada

Applicant:

WILSON CREEK POWER PARTNERS, LLC

February 2010

TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

TABLE OF CONTENTS
(continued)

TABLE OF CONTENTS
(continued)

List of Tables

List of Figures

1.0 INTRODUCTION

This Wilson Creek Wind Project Plan of Development (Plan) identifies measures to be taken by Wilson Creek Power Partners, LLC, (Applicant) and its contractors to construct, operate, maintain, and ultimately decommission the Wilson Creek Wind Project (Project). Measures identified in the Plan apply to work within the Project areas to be defined as the right-of-way (ROW), access roads, all work and storage areas, and other areas used during construction and ultimately operation of the Project. This Plan was developed in consideration of the U.S. Department of the Interior (USDI), Bureau of Land Management (BLM) ROW Plans of Development and Grants, BLM Manual Handbook H-2901-1.

The Plan is organized into the following main sections:

1. Introduction
2. Project Overview
3. Project Construction
4. Project Operation
5. Project Decommissioning
6. Environmental Considerations

This Section 1 (Introduction) describes the contents of this Plan. Section 2 provides an overview of wind energy development in general, and the proposed Project in particular. The purpose is to provide the reader with a basic understanding of the Project and the various parties involved with its development.

Sections 3, 4, and 5 describe activities performed in the three phases of the Project: construction, operation, and decommissioning. Section 6 describes environmental considerations and summarizes environmental studies completed to date. Appendix A includes a set of engineering drawings that depict the project area, site components, typical sections, and other preliminary design details. Additional details describing Applicant Proposed Environmental Protection Measures will be appended to the Plan as they are developed in consultation with the BLM.

This Plan will become part of the BLM Record of Decision (ROD) and ROW grant and will be updated as necessary as agreed by the Project participants.

2.0 PROJECT OVERVIEW

2.1 Project Description

Wilson Creek Wind Company, LLC (the Company), a wholly-owned subsidiary of Nevada Wind, LLC (NVW), has applied for a 35-year renewable-term ROW grant from the BLM's Ely District Office to construct, operate, and maintain up to 990 megawatt (MW) (nominal) wind powered generation facility on approximately 31,000 acres of land administered by the BLM in eastern Nevada (Project). Wilson Creek Power Partners LLC, the Applicant, entered into an agreement with NVW to acquire the Company and develop the Project. The fully constructed Project would consist of up to 350 wind turbines to be located along the ridgeline of the Wilson Creek range in Lincoln County, Nevada (**Figure 1**). This mountain range includes Mt. Wilson, Atlanta Summit, White Rock, and the Table Mountain area and is located about approximately 20 miles northeast of the town of Pioche, Nevada, and approximately 110 miles northeast of Las Vegas. The elevation of the proposed Project area ranges from approximately 6,800 to 9,400 feet above mean sea level. These facilities each meet the definition of "renewable energy facilities" as defined in the Code of Federal Regulations (10 CFR 451.2).

2.1.1 Project History

In 2003, NVW submitted SF-299 applications to the BLM and in 2004, the BLM issued a 3-year renewable-term ROW grant to construct, operate and maintain wind measurement facilities on the Wilson Creek and Table Mountain sites (the "Phase I Project") and granted an exclusive right to develop the site for wind energy. In 2007, NVW filed an application to renew the ROW grant for the Wilson Creek and Table Mountain sites and also filed new applications on BLM land located northwest and southeast of the Project on sites referred to as Atlanta and White Rock. The Wilson Creek, Table Mountain, White Rock and Atlanta sites are collectively referred to as "the Project."

2.1.2 Project Schedule and Phasing

The Project will be developed in multiple phases, with the Wilson Creek and Table Mountain sites comprising Phase I (which may be built in two phases). The Atlanta Summit sites will comprise Phase II and the White Rock sites will comprise Phase III. Phase I will consist of up to 195 turbines and up to 500 MW of generation capacity, depending on wind turbine generator (WTG) selection. Later phases of the Project will be developed subsequently if the wind resource in the Atlanta Summit and White Rock areas is sufficient.

2.1.3 Project Components

The exact location and number of wind turbines, roads, power lines, or other facility-related construction would be sited based on environmental, engineering, meteorological, and permit requirements. At a minimum, primary components of the proposed Project would include:

- Multiple wind turbines and turbine foundations;
- Multiple pad-mounted transformers;

- Buried power collection and communication cables;
- Project access roads;
- Meteorological towers on foundations;
- Up to six substations;
- One single or double circuited 120 to 230 kilovolt (kV) overhead power transmission line;
- Operations and maintenance building; and
- Up to four portable cement batch plants and rock crushing facilities.

Figure 1 provides an overview of the proposed Project phases and tentative wind turbine generator array. Appendix A includes a set of engineering drawings that depict the Project in greater detail.

Currently, five anemometers are collecting micro-siting wind resource data and additional anemometer sites have been approved and proposed for installation in 2010. The data provided by the anemometers will serve to optimize the precise site for each wind turbine and help determine the optimum turbine size including power output, tower height and blade diameter and spacing within the approved right-of-way. The wind turbines will be placed in locations that will provide the best balance of energy capture, safe construction, and minimum impacts on the environment. **Table 1** provides a technical summary of typical wind turbine sizes used in today's market, which may be selected for use in the proposed project. **Figure 2** is a general schematic of a typical wind turbine.

Table 1
Turbine Technology Overview

Characteristics	Vestas	Repower		GE Wind		Siemens
Nominal Output	3 MW	2 MW	3.3 MW	1.5 MW	2.5 MW	2.3 MW
Rotor Diameter (Meters)	93	82/92	104	77/82.5	100	101
Tower Height (Meters)	65 - 80	68.5 – 80	80 - 100	65 - 80	75 - 100	75 – 100

Source: ESP, 2010

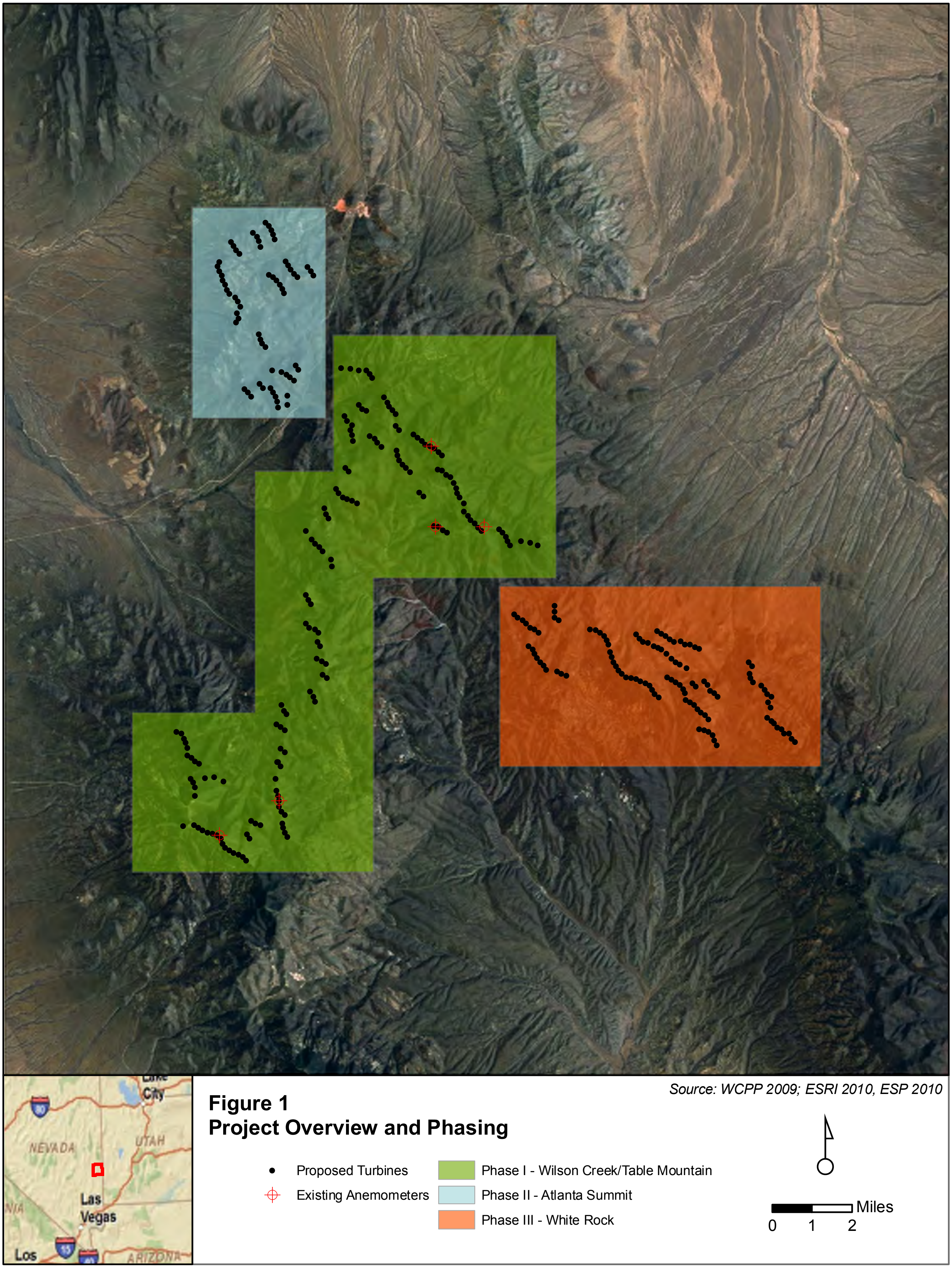
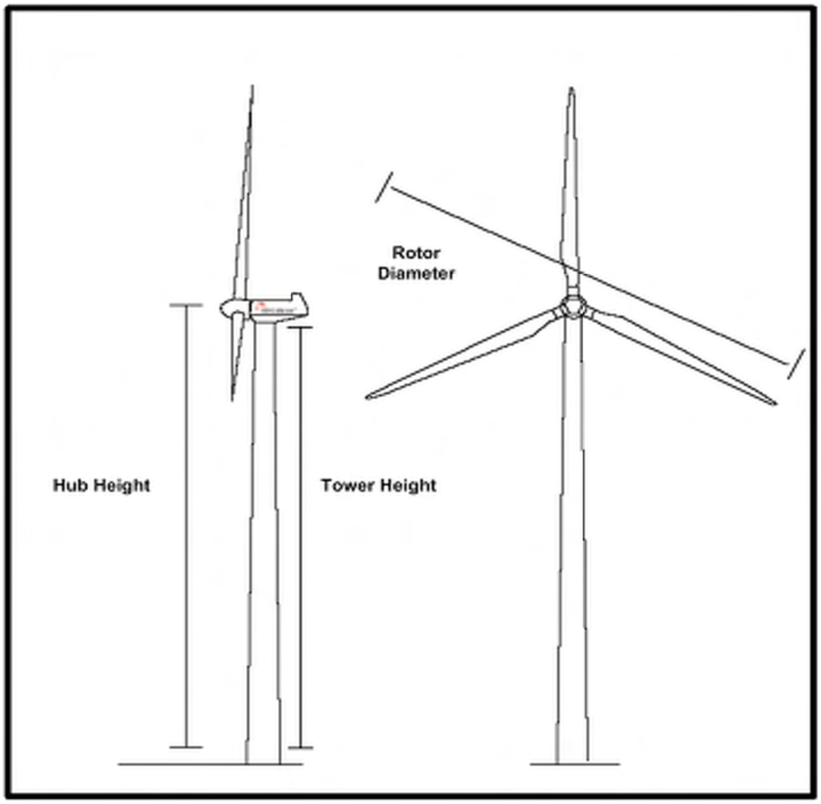


Figure 1
Project Overview and Phasing

Figure 2 Diagram of Typical Wind Turbine



2.2 Purpose and Need

The purpose of the Project is to develop an economically feasible wind powered electric generation facility in the Project area creating an environmentally sensitive renewable energy source. Current policies for development and land use decisions within the administrative boundary of the BLM Ely District Office are contained in the *Ely District Record of Decision and Approved Resource Management Plan* (RMP). The RMP is a land use plan designed to guide the management of BLM land in the Ely District Office Area for a variety of uses such as grazing, mineral development, fire management, etc. The RMP and Record of Decision were issued on August 20, 2008.

The proposed Project is in conformance with the RMP. The RMP goal for renewable energy development is to "*Provide opportunities for development of renewable energy sources such as wind, solar, biomass, and other alternative energy sources while minimizing adverse impacts to other resources.*" The development of energy resources is part of the BLM management program under the authority of the Federal Land Policy and Management Act of 1976.

The USDI and, more specifically, the BLM is seeking opportunities to develop renewable energy resources including wind energy. The BLM's policy is to encourage development of wind energy projects on BLM land consistent with the National Energy Policy Act of 2001 and the Energy Policy Act of 2005. In furtherance of that goal the BLM in 2005 finalized the

Programmatic Wind Energy EIS assuring a common direction and policy for permitting wind facilities on public land. The design and operation of the proposed Project would incorporate recommended best management practices included in the *Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States* (2005).

Projected demand for electric power in the West, Northwest and Southwest regions of the United States exceeds current capacity. Peak demand and annual energy requirements for the Arizona-New Mexico-Eastern Nevada Power Area (Arizona, most of New Mexico, westernmost Texas, eastern Nevada, and part of southeast California) are projected to grow in the coming years.

The Western Systems Coordination Council has determined that approximately 66,849 MW of new generation must be added to the region over the next 10 years to maintain reliable operations of the region's electricity grid. The development of the Project on public lands, administered by the BLM in Lincoln, County Nevada would aid in addressing anticipated future electricity shortfalls in the region.

In addition to basic demand for electricity, the other driving force in the need for the Project is to help the state of Nevada satisfy its renewable portfolio standard (RPS) and to prepare in advance should a national RPS be adopted in future. A RPS currently is a state policy that requires a minimum percentage of power be obtained from renewable energy resources by a certain date. In the case of Nevada the RPS was signed into law in 2001 mandating that 15 percent of all electricity generated be derived from renewables by the year 2013. The law phased in the renewables commitment by 2 percent each year beginning with 5 percent in 2003. Due to challenges in meeting the state's obligations the legislature passed a bill in 2005 extending the deadline but raising the overall requirement of the RPS to 20 percent by 2015 and allowing energy efficiency measures to count toward a portion of the percentage. As of January 1, 2008, Nevada has achieved 8 percent of their electricity from renewable energy compared to the goal of 15 percent.

2.3 Economic Benefits

Consulting economists, using the Nevada Regional Project Assessment System, conducted an analysis of the economic impact of the proposed Phase I Project in 2009 (Rubald 2009). Their report is attached as Appendix B. The analysis is based on the modeling of economic impacts, real estate impacts and revenue impacts. The economic impact module describes the effects on data like the number of students, jobs, households, and population as a result of the Project. The real estate impacts involve consideration of the type of non-residential improvements which would be necessary to accommodate the changes in community demographics. For instance, the impacts are measured in incremental square footages for such public buildings as the hospital and retail stores. The revenue impact measures state and local property tax revenue, modified business tax, and sales tax.

This analysis estimates that approximately 20 full-time jobs and approximately 10 indirect jobs will be created by the Project. Of these jobs, it is estimated that more than 78 percent of people involved in this Project, both for construction and operations of the Project, will live in Lincoln

County. It is expected that more than 95 percent of the operational positions will live in the County. These are permanent, full-time jobs that will be required throughout the life of the Project which is anticipated to be 30 to 40 years. The model indicates operations will create 30 new jobs for the Project throughout Lincoln County, thereby creating an additional 57 people in the population with the Project.

An overall payroll impact for the area will grow to an annual total of about $1,622,800 for the Project. This will produce an overall economic impact of $6.4 million per year for the program. Additional economic benefits will be generated from the development of Phase II and Phase III of the Project.

2.4 Communications Plan

The BLM is the lead federal agency for conducting the preparation of the draft and final EIS and the associated analysis. The Project area is located entirely within the Ely BLM District. The Applicant will consult with assigned BLM representatives and affected agencies and stakeholders at critical development stages of the Project.

During the NEPA process, the BLM will invite other federal, state, or local agencies that have jurisdiction by law (40 CFR Section 1501.6) to participate on the Project. Cooperating agencies may have special expertise or have information that will assist in the development of the analysis. Upon issuance of the ROW grant, the Applicant expects the BLM to appoint a project manager to act as the authorized officer to validate compliance with terms and conditions of Project approval. The Applicant's project construction manager will communicate directly with the BLM representative on site to keep the BLM apprised of construction progress and the results of the environmental mitigation measures. The BLM authorized officer must review and approve in writing any deviations from the Plan requested by the Applicant before the Applicant can make any changes to the Plan.

2.5 Design Approval Process

The Applicant will communicate and collaborate with the BLM during Project design. Such collaboration will keep all parties informed of the exact nature of activities and disturbed areas so that any unnecessary disturbance of critical areas can be avoided.

The Applicant will prepare drawings and documentation of the Project design at critical design phases and provide these drawings to the BLM. The intention is to work with BLM to evaluate the disturbed area of the Project against the Plan. The Applicant does not expect the BLM to provide an independent review of the Project engineering, nor provide formal "approval" of Project drawings. The design phases at which drawings will be presented to the BLM for input and discussion are as follows:

- Initial project layout and road alignment
- Completion of wind turbine micro-siting and road alignment
- Drawings issued for bid

- Drawings issued for construction
- Final as-built drawings

The design aspects to be presented to the BLM include:

- Wind turbine locations
- Road alignment
- Storm water drainage design
- Temporary construction lay down areas
- Temporary concrete batch plant locations
- Permanent operations and maintenance building location
- Electrical collection system alignment
- Substation location and arrangement
- Transmission line alignment

2.6 Compliance with the National Environmental Policy Act

Based on the size and scope of the proposed Project, and initial pre-application meetings between the Applicant and BLM staff in the Ely District Office, the BLM has determined that the construction, operation, and maintenance of a wind powered project on the Wilson Mountain range triggered the need to prepare an Environmental Impact Statement (EIS) to evaluate the proposed action and all reasonable alternatives in compliance with the National Environmental Policy Act of 1969 (NEPA).

The Phase I Project will be treated at a NEPA project level, as advanced engineering details are available and environmental impacts can be readily identified. Phases II and III will be treated at a programmatic level to address potential cumulative effects. Phases II and III will be subject to additional project-level NEPA analysis prior to development of those phases. The appropriate NEPA document for Phases II and III will be determined at a later date based upon the results of the Phase I EIS and anticipated Phase II and Phase III environmental impacts.

The design and operation of the proposed Project would incorporate recommended best management practices included in the *Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States* (2005).

2.7 Permitting Plan

Potential permits and authorizations that may be required and will be obtained prior to the commencement of construction are listed in **Table 2**.

Table 2 Required Authorizations and Permits			
Authorization	**Authorizing Agency**	**Statutory Reference**	**Status**
FEDERAL			
ROW for Land Under Federal Management	BLM	FLPMA of 1976 (PL 94-579); 43 USC 1761-1771; 43 CFR Part 2800	In Progress
NEPA Compliance to grant ROW	BLM	NEPA (PL 91-190, 42 USC 4321-4347, January 1, 1970, as amended by PL 94-52, July 3, 1975, PL 94-83, August 9, 1975, and PL 97-258, §4(b), Sept. 13, 1982)	TBC
Endangered Species Act Compliance	USFWS	Endangered Species Act (PL 93-205, as amended by PL 100-478 [16 USC 1531, *et seq.*])	TBC
Migratory Bird Treaty Act	USFWS	16 USC 703-711; 50 CFR Subchapter B	TBC
Bald and Golden Eagle Protection Act	USFWS	16 USC 668-668(d)	TBC
NHPA Compliance	SHPO	NHPA 106 (PL 89-665; 16 USC 470 *et seq.*)	TBC
Notice of Proposed Construction or Alteration (Form 7460-1)	FAA	49 USC, 44718 and, if applicable, 14 CFR Part 77 (2005)	In Progress
Notice of Actual Construction (Form 7460-2)	FAA	14 CFR Part 77 (2005)	TBC
CWA, Section 404 Dredge and Fill Permit	U.S. Army Corps of Engineers	33 USC §1344	TBC
Consultation Regarding Military Radar	Department of Homeland Security	NA	TBC
CWA, Section 402 NPDES during operation	NDEP	33 USC 1251 *et seq.*	
STATE			
NHPA 106 Determination of Effect Concurrence	SHPO	16 USC 470 *et seq.*, NRS 383	TBC
Utility Environmental Protection Act – Permit to Construct	Nevada Public Utilities Commission	NRS 704.820-704.900, Nevada Administrative Code (NAC) 704.9063, NAC 704.9359-704.9361	TBC
Rare and Endangered Plant Permit	Nevada Division of Forestry	NRS 527.260-527.300	TBC
Native Cacti and Yucca Commercial Salvaging and Transportation Permit	Nevada Division of Forestry	NRS 527.050-527.110	
Incidental Take Permit	NDOW	NRS 503.584-503.589	TBC
Construction Permit	NDEP, Bureau of Air Pollution	NAC 445B, 42 USC 7401	TBC
Operating Permit (Clean Air Act, Title V)	NDEP, Bureau of Air Pollution Control	NAC 445B, 42 USC 7401	NA
CWA, Section 401 Permit	NDEP, Bureau of Water Quality Planning	33 USC 1251 *et seq.*	TBC

Table 2 (continued)
Required Authorizations and Permits

Authorization	Authorizing Agency	Statutory Reference	Status
STATE (continued)			
Groundwater Discharge Permit	NDEP, Bureau of Water Pollution	NRS 445A.300-730, NAC 445.070-348, NAC 445A.810-925	TBC
CWA, NPDES Notification for Stormwater Management During Construction	NDEP	33 USC 1251 *et seq*.	TBC
Surface Area Disturbance Permit	NDEP	NRS 519A.180, NAC 445B	TBC
ROW Occupancy Permit	Nevada Department of Transportation	NRS 408.423, 408.210, NAC 408	TBC
Over Legal Size/Load Permit	Nevada Department of Transportation	NRS 484.437-775, NAC 484.300-580	TBC
Uniform Permit (for Transportation of Hazardous Materials)	Nevada Department of Public Safety	NAC 459.979	TBC
Assignment of Water Rights	Nevada Division of Water Resources (State Engineer)	NRS 533-534	TBC
Dust Control Permit	Nevada Department of Environmental Quality	NAC 445B	TBC
Industrial Artificial Pond Permit	NDOW	NRS 502.390	TBC
Well Permit	Nevada Division of Water Resources		TBC
Phase I Environmental Site Assessment	NDEP	Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 USC 9601 *et seq*.	TBC
LINCOLN COUNTY / LOCAL			
Special Use Permit	Lincoln County Board of Commissioners	Lincoln County Zoning Ordinance	TBC*
Septic System Permit	Lincoln County		TBC*
Utility Permit/Easement	Lincoln County		TBC*
Building Permit	Lincoln County		TBC*
Variance	Lincoln County		TBC*

* If required.

BLM = Bureau of Land Management
CWA = Clean Water Act
FAA = Federal Aviation Administration
NA = Not applicable
NDEP = Nevada Division of Environmental Protection
NDOW = Nevada Division of Wildlife
NEPA = National Environmental Protection Agency
NHPA = National Historic Preservation Act
PL = Public Law
ROW = right of way
SHPO = Nevada State Historic Preservation Office
TBC = To be completed
USFWS = U.S. Fish and Wildlife Service

Source: ESP, 2010

2.8 Pre-Construction Activities

Once the BLM issues the ROW Grant for the Phase I Project, the Applicant will contact BLM's authorized officer prior to commencing construction or any surface disturbing activities. The authorized officer will schedule a preconstruction conference with the Applicant prior to commencement of construction and/or surface disturbing activities on land covered by the Project ROW. The Applicant's personnel and contractors will attend this conference to review the stipulations and conditions of the grant including the ROW.

At least five days prior to this conference, the Applicant will provide maps or survey plats of the Project to operators, contact them and invite them to attend the conference. Determining the names and contact points of these operators is the Applicant's responsibility. If the BLM authorized officer requests it, the Applicant will certify that these contacts were made and that the required information was given.

The Applicant will construct, operate and maintain the Project, improvements and structures within the Project ROW in strict conformity with the approved Plan, which will be incorporated by reference into the Project ROW. Any relocation, additional construction, or use that is not in accord with the approved Plan, will not be initiated without the authorized officer's prior written approval. The Applicant will make available a copy of the complete Project ROW, including all stipulations and approved Plan, at the Project site during construction and operation.

3.0 CONSTRUCTION

The activities required to construct the Project are outlined in this section. Illustrative photos of similar activities from the construction of other wind energy projects are provided throughout this project construction plan.

The Applicant plans to minimize the impact of construction activities upon the local environment to the maximum extent feasible. Taken in perspective, however, it is important to consider that wind turbines on a macro scale greatly improve the current condition of the world's environment for all of the reasons previously outlined in this Plan.

3.1 Project Construction Plan

This section contains a general description of the construction steps necessary for the major components of the Project. This Plan discusses the general activities and design approaches as currently understood and anticipated. The Applicant will remain in contact with the BLM as the Project designs are finalized and specifics on construction are available.

Construction of the Phase I Project is anticipated to be completed over a period of 9 to 12 months. During construction, up to 175 employees will be required. Three to five turbines can be erected weekly. Construction is expected to commence in the late 2011 to early 2012, with the final mechanical completion, commissioning, and testing expected to be completed by the end of 2012.

In general, the design for the proposed Project will minimize the overall environmental impact of the Project, while maintaining cost effectiveness and safety standards. This will include minimizing the amount of cut and fill required for the roads and foundations, and the use of as much excavated soil and rock as possible on Project roads.

Prior to the start of construction, the Applicant will review and document the general condition of the site, including the levels of vegetation and areas of disturbance. When construction is completed, the Applicant will conduct re-vegetation and reclamation to return the site to a near pre-construction condition. This would include re-seeding areas exposed during civil construction, weed control measures, and returning land contours and drainage to conditions similar to those that existed prior to construction.

3.1.1 Roads

In order for equipment and personnel to reach the wind turbine locations, existing roads must be upgraded and turbine string roads must be constructed on the site. Access to the Project would be by way of two roads: Atlanta Road and Mt. Wilson Road. Atlanta Road originates about 20 miles north of the town of Pioche on Highway 93. The road runs east from Highway 93 for about 10 miles prior to reaching the northern area of the Project. Mt. Wilson Road originates about 15 miles north of the town of Pioche on Highway 93. The road runs east from Highway 93 about five miles prior to reaching the southern end of the Project. Atlanta Road and Mt. Wilson are existing roads and they will be evaluated to determine if roadway upgrades are needed to accommodate the proposed project.

New access roads off of existing roads will be located to minimize disturbance, avoid sensitive resources (e.g., raptor nests, cultural resource sites, sage grouse habitat, etc.) and maximize transportation efficiency during construction and maintenance activities. A picture of a typical access road under construction is shown in **Figure 3** below.

Figure 3 Typical Turbine Access Road under Construction

A preliminary layout of the Project access roads is shown in **Figure 4**. Additional detail is provided in Appendix A on sheets C-3 through C-9. The road network will consist of a combination of existing roads, upgraded existing roads, and new roads. Preliminary engineering design has been performed to determine where existing roads must be upgraded and where new roads must be constructed. **Table 3** summarizes preliminary road construction needs and anticipated impacts by phase.

A typical access road cross section is shown in Sheet C-2 of Appendix A. Due to the preliminary nature of the road network design, a wide temporary disturbance limit of 1,000 feet is assumed. The typical Project road will have a permanent right-of-way width of 36 feet.

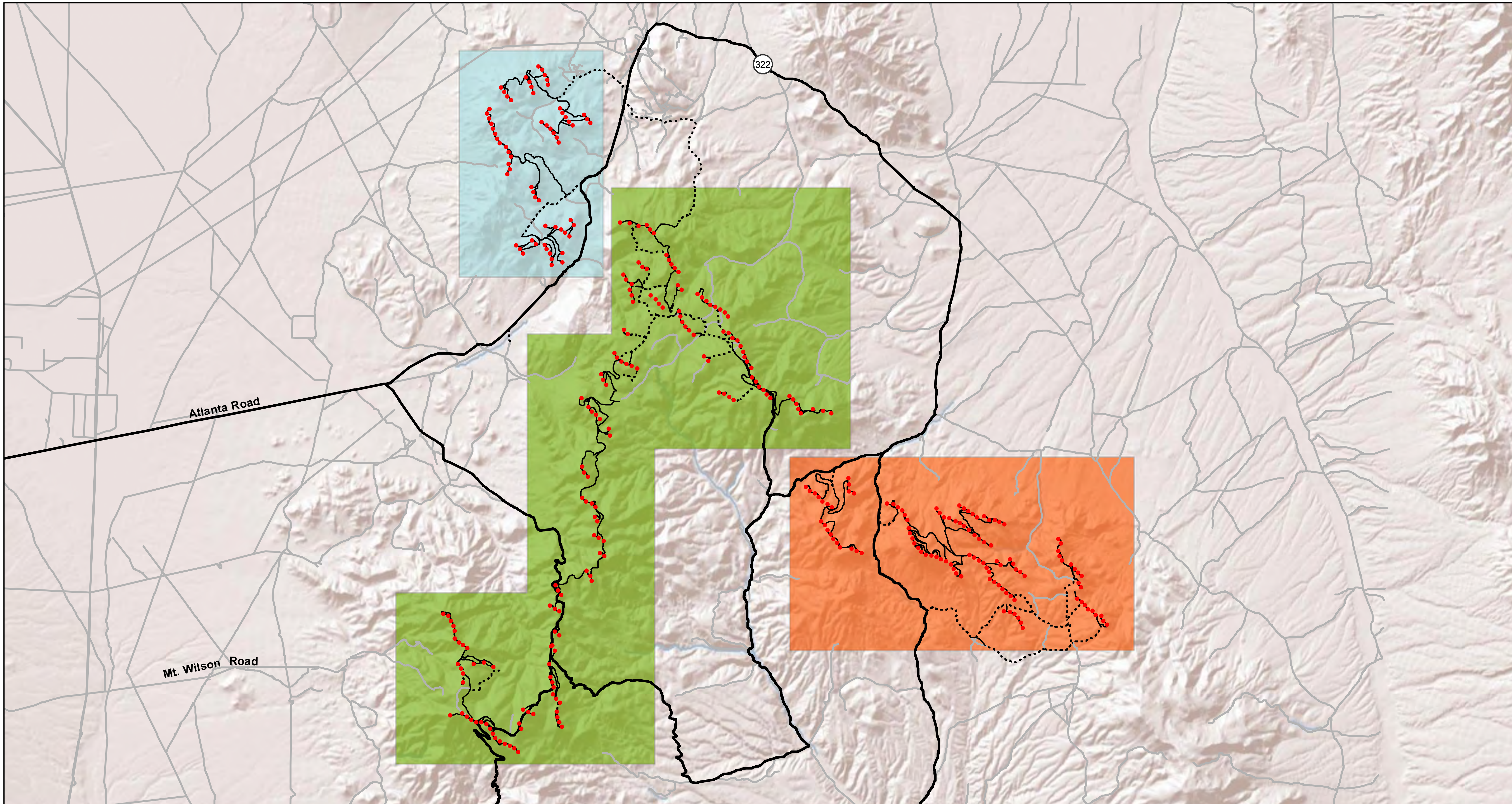


Figure 4
Tentative Layout of Project Access Roads

Proposed Turbines
Phase I - Wilson Creek/Table Mountain
Phase II - Atlanta Summit
Phase III - White Rock
Improved Access Roads
Improved String Roads
New String Roads
USGS Existing Roads

Source: Weden 2010; ESRI 2010, ESP 2010

Miles
0 1 2

Table 3 Preliminary Road Construction Needs and Impacts					
Component	**Disturbance Length (miles)**	**Temporary Disturbance Width (feet)**	**Maximum Temporary Disturbance Area (acres)**	**Permanent ROW Width (feet)**	**Permanent Disturbance Area (acres)**
Phase I: Wilson Creek/Table Mountain					
Improved existing access roads	24.22	1,000	2,935.76	36	105.69
Improved existing string roads	20.25	1,000	2,454.55	36	88.36
New string roads	41.93	1,000	5,082.42	36	182.97
Phase I totals:	**86.40**	**N/A**	**10,472.73**	**N/A**	**377.02**
Phase II: Atlanta Summit					
Improved existing access roads	0	1,000	0	36	
Improved existing string roads	4.05	1,000	490.91	36	17.67
New string roads	19.7	1,000	2,387.88	36	85.96
Phase II totals:	**23.75**	**N/A**	**2,878.79**	**N/A**	**103.64**
Phase III: White Rock					
Improved existing access roads	0	1,000	0	36	0
Improved existing string roads	38.28	1,000	4,640	36	167.04
New string roads	29.39	1,000	3,562.42	36	128.25
Phase III totals:	**67.67**	**N/A**	**8,202.42**	**N/A**	**295.29**
Source: ESP, 2010					

The access roads will provide vehicular access (construction and maintenance) to the following permanent and temporary areas associated with the Project:

Permanent access:

- Each wind turbine
- Meteorological towers
- Substations
- Operations and maintenance building

Temporary access (during construction):

- Concrete batch plant
- Aggregate source(s)
- Water source(s)
- Construction parking and lay-down

Many of the trucks bringing wind turbine components to the site will be extra-long (for blade transport) and heavy-load (for wind turbine nacelles). Construction zones will be built around each wind turbine site. The area around each site will need to be clear and level enough to allow for the wind turbine components to be delivered, and for a crane to be set-up. Designers will work to minimize the amount of work required at each site, and where possible only a minimal amount of vegetation will be removed to allow for component delivery. Sheet C-2 of Appendix A depicts the configuration of the typical temporary laydown area that will be required at each turbine location.

It is likely that, at most sites, the location for the crane will require the same amount of earthwork as the roads (described below), although these pads can then be removed and the site restored to a natural state once construction is complete. To the greatest extent possible, the area of construction and operation of the Project (often referred to as the project "footprint") will be consolidated for efficient land use in order to minimize disturbance to the existing ecosystem.

When practical, the routing of existing roads will be improved rather than constructing new roads. Also, the cut and fill required for the access road will be balanced to the extent possible, to minimize the amount of materials that would need to be brought onto or removed from the site. The design of the roads will utilize the flow of the natural contours, to the extent practicable. Existing BLM design standards or current design standards suitable for wind energy development as approved by the BLM will be implemented.

The site access and turbine string roads will generally be constructed in the following sequence:

- Stake centerline of access and turbine string roads
- Install temporary stabilization features, such as silt fences, straw bales and other controls at the limits of construction
- Clear and grub area associated with the access and turbine string road
- Separate and stockpile top soil for later use
- Grade roads to slopes/design indicated on construction drawings
- Compact sub-grade
- Install aggregate all weather road surface
- Install final stabilization/re-vegetation on disturbed areas associated with the roadway corridor
- Remove temporary stabilization measures once final stabilization measures are established

Once the construction of the roads is complete, reclamation will be performed around the areas disturbed by the civil construction. The materials cut during the road construction will be used to return contours to near preconstruction conditions. Any remaining cut materials will be distributed across the site to the extent practicable. Any exposed areas that are not covered by road materials will be re-vegetated using a seed mixture specified by the BLM. Noxious weed control will continue on-site during the re-vegetation process and during the life of the Project.

3.1.2 Electrical Collection System

Each wind turbine in the proposed Project will be connected to an underground electrical cable to allow the generated energy to be sent to the Project substation(s). To install the electrical collection system, the following construction activities will be performed:

- Survey/Stake site
- Trenching
- Buried cable placement

In almost all areas, the cable will run along the side of the Project roads in an area already disturbed by the road construction. The cable will not be run in the center of the road to avoid unnecessary stress on the cables due to vehicle traffic, as well as the potential for cable damage during road maintenance. For areas near the substation(s) where several runs of cable will all be in the same area, the Applicant may use both sides of the road for the cable trenches. Cables will be installed in a manner similar to that described above, and the ground re-contoured to a state similar to pre-construction. The area would be re-vegetated with BLM-approved seed mix.

3.1.3 Wind Turbine Foundations

The wind turbine base foundation anchors the wind turbine structure (consisting of the tower, hub, blades, and nacelle) securely to the ground. For most projects, the construction of the wind turbine foundations constitutes the largest volume impact of earth excavation, although some foundation designs allow for much of the excavated material to be backfilled in and around the foundation itself.

Four foundation designs are typically used for wind turbine installations in the U.S. The first foundation type is a "mat" foundation, and is shown in **Figure 5**. The second foundation type is a "pier" or "P and H" foundation, and is shown in **Figure 6**. The third foundation type is a "Pile Support Anchors" foundation, and fourth type is a "Rock Anchors" foundation. The Mat foundations are wide and shallow, and pier foundations are narrow and deep. While the exact foundation type that will be used in the development of the Wilson Creek Wind Project will be dependent upon the results of site-specific geotechnical investigations, known conditions suggest that most turbines will utilize a mat foundation design.

Figure 5 Mat Foundation Installation

Figure 6 Pier Foundation Installation

3.1.4 Wind Turbine Installation

The wind turbines themselves are the primary generation equipment in the Project. Their installation requires specialized equipment and crews and careful planning. Once construction has fully begun on-site, components will be delivered directly to their installation locations as they arrive at the Project site. Lower tower sections will be placed immediately on foundations, with the remaining components placed around the site in planned lay down arrangements. Crane crews will erect the turbines soon after all components arrive to minimize the amount of time the equipment is on the ground (**Figure 7**). The construction activities necessary for the installation of a wind turbine also include:

- Turbine component delivery and storage
- Crane movement or assembly
- Wind turbine component lifts.

Sheet C-2 in Appendix A depicts typical crane/turbine pads and rotor/nacelle work areas. The typical work will require a temporary disturbance area of approximately 41,872 square feet. A typical turbine foundation requires a permanent disturbance area of approximately 1,328 square feet. Installation of 156 Phase I turbines is expected to require approximately 150 acres of temporary disturbance and approximately 4.8 acres of permanent impact.

3.1.5 Meteorological Tower Installation

The proposed Project contains a total of thirty-four temporary meteorological towers, or anemometers, to track weather readings and track the performance of the wind turbines. Permanent meteorological towers will be sited and may be comprised of a subset of the temporary towers their locations or new sites pending BLM approval. The readings from permanent and temporary tower will include wind speed and direction, barometric pressure, humidity and ambient temperature.

Figure 7 Wind Turbine and Crane

Due to terrain, wind, and icing conditions at the site, the Applicant has determined that guyed-monopole towers are the most effective design for use at the Project site.

These towers will use anti-perch points on horizontal surfaces of the tower to prevent the perching and nesting of birds. An example guyed meteorological tower is shown in **Figure 8**.

Figure 8 Meteorological Tower

3.1.6 Substations

The energy generated by the wind turbines will be delivered to the substations via the underground collection system. Depending upon final Project size, up to six electrical substations are currently anticipated to support the Project. Each substation will require an approximately 10 acre permanently fenced area. Preliminary substation locations are shown on Sheets C-3, C-4, C-8, C-9, and C-10 of Appendix A. These locations were tentatively selected to minimize grading and allow for year-round access via major roads. Final substation locations will be determined during advanced engineering design.

At each of the substations, voltage of the energy will be increased from the collection system level of 34.5 kV to the transmission level of 120 to 230 kV. Also, capacitor banks and other equipment will be installed at each substation to provide the voltage support necessary to meet the interconnection requirements for the Project. A small control building will also be developed within each substation for electrical metering equipment, and the supervisory control and data acquisition (SCADA) system for the wind turbines.

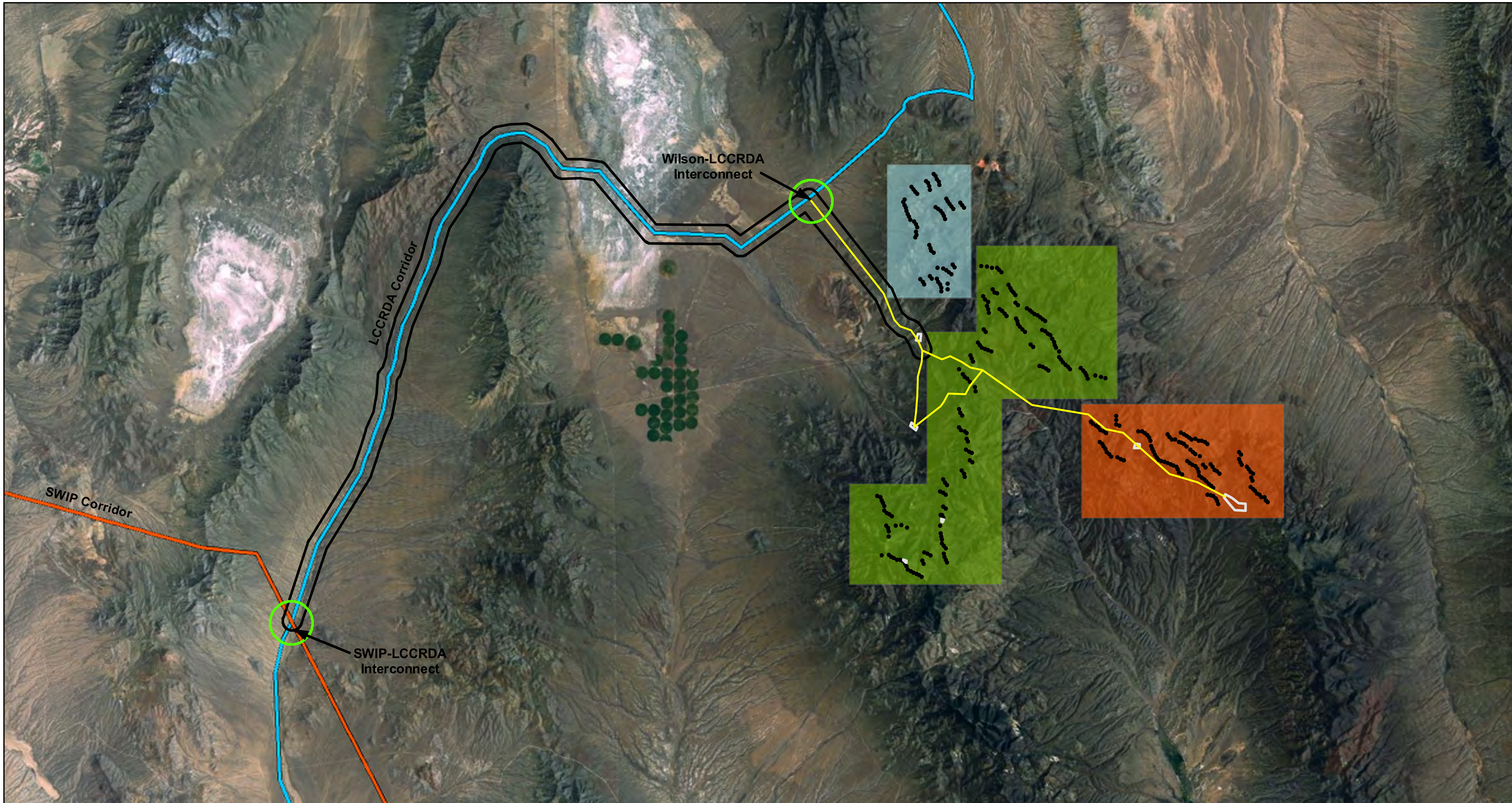
3.1.7 Transmission Line

The Applicant has identified a preferred transmission route and connection point for the Project, as depicted in **Figure 9**. The preferred transmission route utilizes designated utility corridors to convey power from the Project to potential power purchasers in the region.

The preferred transmission route links the Project to a utility corridor designated in the Lincoln County Conservation, Recreation, and Development Act of 2004 (LCCRDA) and identified in the Ely RMP. The LCCRDA corridor is also proposed for use by the Southern Nevada Water Authority (SNWA) for a groundwater development project in the region. Pending discussions with SNWA, WCPP will either tie into the proposed SNWA transmission line or develop a parallel line in the same corridor. The transmission route would continue along the LCCRDA corridor to a new substation to be constructed by the Applicant to connect to the new 500 kV transmission line proposed by NV Energy or the new 500 kV transmission line proposed by LS Power, both of which are to be located in the Southwest Intertie Project (SWIP) corridor to the southwest of the Project area.

If the preferred route is selected, up to 50 miles of new 120 kV to 230 kV transmission line could be required to interconnect the proposed Project with the existing electrical transmission grid. The transmission line and towers will include devices to prevent raptor perching, including anti-perching triangles and surge arrestor caps.

Confidential negotiations between the Applicant and potential transmission providers and power purchasers are ongoing. The transmission route and interconnect details will be finalized once these negotiations are complete. In addition, the SNWA corridor and the ON Line are undergoing separate environmental analyses through BLM. A Final EIS and Record of Decision (ROD) for the SNWA project is anticipated by the end of 2010. A Supplemental Draft EIS for the ON Line project was released in November of 2009, with a Final EIS and ROD are anticipated to be completed in 2010.



Source: Weden 2010; ESRI 2010, ESP 2010

Figure 9
Tentative Preferred Transmission Plan

In addition the external transmission route to the SWIP corridor, overhead transmission lines will be required to convey power from the internal Project substations to the main Project substation. These internal transmission routes will be determined during advanced engineering design.

3.1.8 Operations and Maintenance Facility

The Project will require an operations and maintenance (O&M) facility. The tentative location for the O & M facility is at the main project substation, as shown on Sheet C-4 of Appendix A. A picture of a typical O&M building is shown in **Figure 10**.

Figure 10 Typical Operations and Maintenance Building

3.1.9 Construction Schedule

The exact schedule of construction will depend upon the approval date for the Project, weather, delivery schedules for the turbines, steel, cement, and electrical components, and seasonal restrictions during which construction must be delayed for wildlife protection. In general, a typical schedule for the construction of wind energy projects of this scale is shown below.

It is anticipated that construction will begin in late 2011 to early 2012. The schedule for construction for the proposed Project will include a demobilization of outdoor work for winter, between November and March (depending on weather conditions). Any interior work, such as the commissioning of the wind turbines and finishing of the O&M building, can occur during this period, as can the construction of the transmission line. (Need input from Client/designers on realistic construction start date and schedule.)

Activity	Month
Mobilization	1
Access Roads, Lay Down Areas Complete	3
Substation Construction	3-6
Transmission Construction	3-9
Wind Turbine Foundations	4-8
Wind Turbine Installation	5-11
Commissioning	11-12
Acceptance Testing	12-13

3.2 Truck Deliveries

Heavy vehicle traffic will be accessing the site during the construction phase of this project. Many of these vehicles will be specialized vehicles for turbine component delivery (such as the blade truck in **Figure 11**). Included in the normal heavy duty truck traffic on site will be cement trucks used for delivering cement for the construction of the turbine bases, dump trucks to move aggregate from base excavations, and water tankers to wet down the site roads for dust control. The Applicant will erect signs on the public roads utilized by these trucks to advise the public of the increased heavy construction traffic on these roads. When possible, delivery times will be coordinated with the use patterns of the roads to avoid traffic congestion. All trucks will be washed down at a location approved by the BLM for noxious weed control prior to entering the site.

Figure 11 Wind Turbine Blade Delivery Truck

3.3 Materials Receipt, Handling and Storage

With the large amount of items and material arriving on-site, a plan must be developed for receipt, handling, and storage. Wind turbine components will be delivered directly to the site where they will be installed; although deliveries taken before the site is available (either due to weather or road construction) will be off-loaded in a designated lay-down yard. Likewise, materials needed for the concrete batch plant, substation construction, or electrical collection system will be offloaded near their use sites.

3.4 Civil Construction Activities

3.4.1 Surveying and Staking

Construction surveying and staking are the first construction activities associated with the Project. Field crews will use survey equipment and known reference points to locate points in the field that correspond to critical project design locations. When a critical point is found, crews will mark it with a survey stake (a wooden stake with a colored plastic flag, driven into the ground one to two feet). Survey crews will access the Project site by a pick-up truck or similar vehicle. Teams of two or more surveyors walk across the site to perform the surveying and staking. The items to be surveyed and staked include:

- The centerline of the access road
- The centerline of the turbine string road
- Wind turbine locations
- Meteorological tower locations

- Substation boundary
- O&M building boundary
- Disturbance areas
- Construction laydown areas

Once surveying and staking are completed, a joint inspection will be completed by the BLM and authorized officers, construction manager, and design engineer. During the inspection, if areas of concern regarding sensitive species, cultural sites, springs, wetland, or other issues arise, the Authorized officers, construction manager, and design engineer will correct the deficiencies or engage in the process of adaptive management to determine a reasonable outcome in accordance with the ROW grant

3.4.2 Geotechnical Sampling

As described in Section 2.1.4, above, geotechnical investigations will characterize the strength characteristics of the bedrock and determine dynamic properties for the turbine foundation design. The investigation will consist of coring specific locations along the turbine alignment. Coring will be completed using moderate-sized geotechnical drilling equipment mounted to either a truck or tracked vehicle. A typical coring truck and support vehicle is shown in **Figure 12**. The coring process will obtain samples of rock core that will be logged. Samples of the cores will be sent to a geotechnical for laboratory strength testing. The coring process leaves holes at the test site approximately three inches in diameter and up to 40 feet deep. Upon completion, each hole will be backfilled in accordance with Federal and state requirements. Test pits may also be utilized to evaluate whether the bedrock can be excavated.

Figure 12 Typical Coring Truck and Support Vehicle

3.4.3 Rock Removal/Blasting

Bedrock at the site will likely require blasting to remove. Blasting and excavation will be completed in accordance with applicable regulations and sound engineering practice, using methods and techniques that will minimize over break beyond the limits indicated on the drawings and which will preserve the rock beyond these limits in the soundest possible condition. Prior to the commencement of blasting operations, the Applicant will prepare a blasting plan. The blasting plan will include specific detailed information on all procedures, materials, and equipment to be used. The blasting plan will describe procedures and precautions to be taken with regard to the public, environmental and natural resources, and protection of existing structures. The blasting plan will indicate specific drilling, blasting, mucking, and hauling operations. All blasting will be performed in accordance with the approved blasting plan. Pre-blast surveys and blast monitoring will be required for blasting within 500 feet of any existing structures. Additional monitoring will also be required for blasting near identified springs.

3.4.4 Clearing & Grubbing

Clearing work will include clearing and removing all trees within the areas indicated on the design drawings; cutting and removal of all brush, shrubs, debris, and vegetation to approximately flush with the ground surface; and disposal of all cuttings and debris. Disposal of cuttings and debris will be in an approved facility designed to handle such waste or at the direction of the BLM authorized officer. Grubbing work will include the complete removal and disposal of all stumps and roots larger than approximately two inches in diameter, including matted roots, regardless of size. Grubbing will extend to a minimum depth of approximately four inches below the natural surrounding ground surface. All excavations made by clearing and grubbing activities will be backfilled with compacted earth/aggregate available on site.

3.4.5 Site Grading

There are three phases associated with the grading activities for the Project. The first (road grading) is the construction of the roadways associated with the Project. The roads will be constructed based on the lines and grades indicated on the detail design drawings. At the same time the roads are being constructed, or very shortly after they are completed, the second phase (rough grading) associated with the turbine sites, substation, and O&M building will begin. Once the turbine sites, substation, and O&M building are completed, the third phase (final grading) activities will be completed with these facilities. All ground surface areas disturbed by construction activities will be graded. The grading will be finished to the contours and elevations indicated on the drawings or match contours and elevations of the original undisturbed ground surface. The final grading will provide a smooth, uniform surface and minimize the impact to existing water runoff patterns. The overall goal of the detail design associated with grading activities is to achieve a cut and fill balance. Such a balance ensures that a minimum of material is required to be transported on or off the site.

3.4.6 Road Base Construction

The road base (aggregate) will generally be placed on graded areas in 6-inch to 12-inch (maximum) deep-compacted layers, to the finished grade as indicated on the engineering drawings. The depth of a compacted layer will be based on the compaction standard required in the engineering drawings approved by the BLM. Geo-textile may be required for separation between the road sub-grade and the aggregate, except where otherwise specifically noted. Aggregate materials will be made from crushing the excavated rock from the foundation holes, and therefore will be materials from the Project site, to the extent possible. Any additional aggregate materials will be from private sources located off site. The Applicant will need to import initial quantities of aggregate from a nearby source because the access and initial Project roads will need to be built before any foundations are excavated. The exact source of the aggregate will be determined once a civil construction contractor is selected.

3.4.7 Excavation

Excavation for structures will be completed to the designated lines and elevations indicated on the detail design drawings. Machine excavation will be controlled to prevent undercutting the sub-grade elevations indicated on the drawings. Excavated materials that meet the specified requirements may be used for the fills, embankments, and backfills. Vertical faces of excavations will not be undercut to provide for extended footings. Material excavated below the bottom of concrete structures to be supported on the sub-grade will be replaced with concrete placed monolithically with the concrete above. Rock fill or lean concrete may be used, if acceptable to the design engineer and the BLM authorized officer. Contractors will crush excavated materials for road aggregate or place the material back into the center of the foundation hole. Most rock material will be crushed and used as road aggregate. Remaining excess excavated materials, if any, will be used on the site for road maintenance, and will not be hauled off-site unless absolutely required. If required, it would be pre-approved by the BLM authorized officer.

3.4.8 Trenching

Open trenching is necessary for the placement of electrical collection system cables and fiber optic lines. The extent of the open trench at any given time will be minimized to only those distances necessary to conduct work. Trenches that are not backfilled by the end of the day will be covered or fenced. Covers will be secured in place and will be strong enough to prevent livestock or wildlife from falling through and into the trench and or hole.

3.5 Structural Construction Activities

3.5.1 Concrete Supply

Up to three batch plants will be set up on-site at locations that have yet to be finalized. Potential batch plan locations are shown on Sheets C-3 and C-4 of Appendix A. To operate a batch plant, quantities of sand, gravel, and water will be required. Known existing mines have been identified as potential on-site aggregate sources on Sheets C-3 through C-11 of Appendix A.

Known streams, springs, and wells have been identified as potential water sources on Sheets C-3 through C-11 of Appendix A. Further investigation will be required to determine the suitability of the on-site aggregate and water sources. If suitable on-site sources of aggregate and water are not available, this material will be trucked to the site.

3.5.2 Steel Placement

The construction of the numerous turbine foundations will require a considerable amount of steel reinforcement. A laydown area will be needed to store this rebar until it is used. A fabrication area within the lay down area will also be needed to prefabricate sections of rebar before they are transported to the turbine base excavation. Typically rebar placement follows the following sequence:

- Fabricate at shop and bend all material
- Ship to site all Project materials
- Shake out steel onsite in fabrication/lay down area
- Begin assembly of large mats to reduce in place assembly
- Place prefabricated sections
- Tie-in miscellaneous pieces
- Complete pre-pour inspection

3.5.3 Formwork

Depending on the type of turbine foundation selected, formwork may be necessary. Formwork is timber or steel shuttering used to form a shape into which rebar is placed and then concrete is poured. The formwork shuttering is then removed when the concrete has cured. The shuttering may be reused but in the case of timber shuttering it may be discarded. Proper disposal methods will be used to discard shuttering no longer fit for reuse.

3.5.4 Concrete Placement

Concrete placement for foundation construction will involve the following steps:

- Excavate foundation area
- Level bottom of excavation, pour mud mat (if required)
- Set forms for base slab (if required)
- Set and brace side wall forms
- Install reinforcing steel
- Install anchor bolts
- Check forms and reinforcing steel for correctness
- Placement of concrete
- Finish top of concrete
- Placement of soil or gravel over below-grade portions of foundation, as appropriate

3.6 Electrical Construction Activities

3.6.1 Buried Cable Placement

There are two methods for the placement of the electrical collection system cable. The first is open trench placement, where a trench is dug to the required depth of cable placement, the cable is placed in the trench, and the trench is then refilled. An example of an open trench is shown in **Figure 13**. The second placement method is direct placement using a trenching machine. These machines cut an opening just large enough for the cable, place the cable, and refill the hole in a combined single pass (**Figure 14**). While very efficient, these machines are hampered in areas where the soil conditions are very rocky. If the geotechnical investigation shows that the soils present on-site will not conduct heat away from a buried cable properly, it may be necessary to bring to the site an "engineered backfill" material to be placed around the cable for heat dissipation. If such backfill is necessary, the open trench approach will be required. Until the geotechnical investigation is completed, it is not known which method will be used at the Project. Excess materials excavated from trenches will be used for road fill or aggregate. The electrical collection system cable will be placed a minimum of 48 inches below grade. The fiber optic communications cable will be placed a minimum of 18 inches below grade. The final depths will be determined by the geotechnical conditions of the area, and the manner in which the cable is installed. Direct buried cable will have a warning tape placed over the top at a depth of 12 to 36 inches, which will act as a visual reminder of the cable's presence for future site work.

Figure 13 Open Trench Example

Figure 14 Trenching Machine Example

3.6.2 Grounding

Every wind turbine foundation will have a grounding mat cast in place when the base is constructed. This consists of a cable mat that discharges electric energy into the earth when the wind turbine builds up an electrical charge by being struck by lightning or equipment malfunction. The substation will also have a grounding grid laid below grade, in trenches around the substation site, to protect equipment and personnel in the case of electrical malfunction or lightning strike. Transmission poles also require grounding. The grounding crew will follow behind the pole assembly and erection crew installing the grounds. This crew will install the proper number of ground rods and measure the ground resistance. If the proper ground resistance is not initially achieved, they will install additional ground rods until the acceptable ground resistance is obtained.

3.6.3 Buswork and Electrical Line Connections

The majority of the electrical work performed on the BLM land will be underground. Some overhead electrical line and buswork connections will be made at the Project substation(s). The electrical collection system will come into the substation(s) underground, then transition overhead into the 34.5 kV buswork. This buswork connects the turbines connected on different feeder lines (each line connected up to 10 to 12 wind turbines or 25 to 30 MW) to a common bus. Any necessary voltage regulation devices will also connect to this buswork, which then connects to the low-voltage side of the substation transformer. On the high-voltage side of the transformer, an overhead connection will be made to the Project transmission tie line using a riser structure. This buswork will be constructed using small overhead cranes, scissor-lifts, and other similar devices. These components will be bolted together on-site, and placed on small foundations for support. All of this work will be performed within the fence line of the Project substation(s). **Figure 15** shows an example of buswork construction being performed.

Figure 15 Substation Buswork Construction

3.6.4 Communications Systems Installation

Communications between the wind turbines and the substation will be achieved by using underground fiber optic cables. These cables will be buried above the electrical collection system cables utilizing the same trenches in order to minimize the impact to the environment. Communications to the substation will be achieved by a fiber optic line to the O&M building.

3.6.5 Aviation Lighting on Wind Turbines

The Federal Aviation Administration (FAA) regulations require aircraft warning markings on all structures taller than 200 feet. A typical aviation warning light is shown in **Figure 16**. The wind turbine designs being considered for this Project would all be taller than 200 feet, so marking will be required. Once the Project layout is finalized, the Applicant will develop a Project lighting plan using the guidance from *FAA Technical Note: Developing Obstruction Lighting Standards for Wind Turbine Farms*, published by FAA in November 2007. Aviation warning for a wind energy project includes medium intensity red strobe warning lights, placed on the nacelles of the turbines on each end of a turbine "string" plus every third or fourth turbine. Once the exact marking plan is determined, it will be submitted to the FAA for review. The Project proponent has been working with the FAA on lighting requirements.

Figure 16 Typical Aviation Warning Light

3.7 Wind Turbine Tower Installation

3.7.1 Turbine Component Delivery and Storage

As wind turbine components arrive at the Project site, they will be routed to the turbine site where they are to be installed or more likely to staging area(s) for unloading. When trucks arrive at each site, or the staging area, a small crane mounted on rubber tires (rather than tracks) will remove the cargo. Cargo unloaded at the staging area will be reloaded onto an off-road vehicle for transportation to the site. Each site and the staging areas will have a plan for the arrangement of major components before erection. These major components include the tower sections, nacelle, rotor hub, and blades. If the wind turbine foundation has had sufficient time to cure before the lowest tower section arrives, that section will be off-loaded directly onto the foundation. Turbine deliveries may begin before the site opens in the spring, before the site roads are ready for truck traffic, or when traffic on the site must be minimized. In these instances, some major components may be offloaded and temporarily stored at a designated lay-down area. These components will then be moved to their turbine site as soon as feasible.

While most of the major components will arrive in completed form, the rotor (consisting of the hub and blades) will need to be assembled. The rotor will be placed with the nose up, and a small crane will be used to lift blades so they can be attached to the rotor. Once these blades are attached, and any hydraulic or electrical connections are made between the hub and blades, the completed rotor package will be ready to be lifted. A picture of a rotor being assembled is shown in **Figure 17**.

Figure 17 Typical Rotor Assembly

3.7.2 Crane Movement or Assembly

When a large crane first arrives onto the Project site, it will be taken to the location for its first turbine installation. The crane will be assembled on that site, and then used to install the wind turbine. Once the turbine at that site is erected, the crane will be "walked" to the next turbine site using the crane's tracked base (**Figure 18**). The requirements for walking the cranes will set many of the design parameters for the turbine string road, including road width and slope. At locations where the road cannot be built within the tolerances for walking the crane, the crane will be disassembled, moved to the next site, and reassembled.

Figure 18 Tracked Crane on Crane Pad

3.7.3 Wind Turbine Component Lifts

Wind turbines are installed in large, pre-assembled components that are interconnected in the field. The tower, which usually consists of three or four sections, is installed first. The sections are lifted one at a time, and bolted together in place as shown in **Figure 19**. Once the last tower section is in place, the nacelle is secured to the top of the tower as shown in **Figure 20**. Finally, the rotor (hub and blades) are lifted into place and secured onto the nacelle. The rotor can be lifted into position as a complete unit, in some instances the hub will first be fitted onto the nacelle, and then the blades are lifted into position and fixed to the hub. The rotor lift requires the use of a small "helper" crane, as shown in **Figure 21**.

Once the crane and all wind turbine components have arrived at a site, the assembly of the major components normally takes one to two days, depending on site conditions. The lifting of large turbine components can only be done during periods of high visibility and low winds. Weather delays can occur at some sites. Two or more large cranes may be simultaneously installing turbines.

Figure 19 Mid-Section Tower Assembly

Figure 20 Nacelle Placement

Figure 21 Complete Rotor Pick-Up

4.0 OPERATION & MAINTENANCE

The typical activities necessary to operate and maintain the Project are described below. A more detailed operations and maintenance (O&M) plan will be developed for the Project and provided to the BLM for review after all equipment has been selected and the project design completed. The O&M plan will be a "living document" that will be periodically reviewed and revised as needed to adjust to changing site conditions or applicable requirements. As with the construction of the Project, operators of the Project will continue to work closely with the BLM to ensure environmental monitoring and mitigation plans are efficient, appropriate, and effective.

4.1 Project Operation and Maintenance Plan

The Project will require an O&M plan to achieve reliable and safe operation. The plan will be prepared in conjunction with the manufacturer of the turbines. The Project O&M plan will include descriptions of each of the following major scheduled activities:

- Project administration and training
- Project performance monitoring
- Scheduled wind turbine maintenance
- Scheduled balance of plant maintenance
- Environmental monitoring

As with all operating equipment, some amount of unscheduled maintenance and repair will be necessary. It is important that these activities, while often important and urgent, still be performed per the requirements of the Plan, equipment specifications, and good industry practice. As such the O&M plan will also include descriptions of these major unscheduled maintenance and response activities:

- Unscheduled wind turbine maintenance
- Balance of plant maintenance

4.2 Operation Activities

The activities necessary for the efficient operation of the Project are described below. Maintenance activities are discussed in Section 4.3.

4.2.1 Project Administration

The administration of the Project includes the business activities associated with operating a wind energy project. These include staffing the Project, scheduling and facilitating maintenance, providing for necessary training, monitoring the performance of the Project, and reporting on the results of the environmental monitoring program. Several of these activities are discussed in more detail below. The O&M facilities will be staffed during normal business hours, and will include a supervisor and Project maintenance staff.

4.2.2 Orientation and Training

All maintenance employees of the Project will require and receive specific training regarding safe work on wind turbines, and the specific tasks necessary to provide scheduled and unscheduled wind turbine maintenance. All employees (regardless of job requirements) will be trained on the environmental management and monitoring requirements of the Project ROW grant. Additionally, it may be necessary to provide orientations to site visitors as to those aspects of environmental management they may impact by their on-site activities.

4.2.3 Wind Farm Performance Monitoring

Wind turbines generally operate autonomously guided by sophisticated computers and software. The site manager and staff monitor the performance of the turbines and initiate manual control only as needed for maintenance and troubleshooting. Periodically, the plant management will analyze the performance trends of individual wind turbines and the overall Project to ascertain the overall efficiency of operation. This analysis will utilize data collected from the wind turbines and the permanent meteorological towers. It is possible some scheduled maintenance activities would be added or adjusted to improve the performance of the Project.

4.3 Maintenance Activities

The activities necessary to perform preventive maintenance, as well as equipment repairs as needed, are described in general below.

4.3.1 Project Drive-By Inspections

Through the process of performing the operations and maintenance activities, Project staff will be driving through the entire project periodically. As staff drives through the Project area to perform these activities, they will also be performing a visual inspection to identify any obvious problems with the wind turbines that may require maintenance. If staff identifies a turbine that may be operating in an unsafe manner, that turbine will be stopped (remotely) until the condition can be fixed. This inspection is a redundant check, as the turbine has many internal sensors to watch for any potentially unsafe operational condition. Along with the turbines, staff will also review the condition of the Project roads and other visible aspects of the Project infrastructure. This will include reviewing the condition of substation fencing and components, looking for any loose trash on site, and checking for any vandalism. Any conditions found that could impact public safety, wildlife, livestock, or the environment in general that cannot be immediately fixed will be reported to the BLM authorized officer. While normal project operations will allow these inspections to occur very frequently, there may be periods during which the site cannot be accessed and these inspections are suspended. Conditions causing such suspensions could include extremely high winds, blizzards, or very heavy rain.

4.3.2 Scheduled Wind Turbine Maintenance

A regularly scheduled preventive maintenance program will be conducted by the Applicant to ensure that wind turbines operate in a safe and efficient manner. The Project O&M plan will include the scheduled minor and major maintenance and inspection activities anticipated during the calendar year. Various inspections will be performed on a daily, weekly, or monthly basis. Results of these inspections are logged and used to plan future maintenance activities. Visual inspections inside the rotor head, nacelle, and tower bottom are done on a regularly scheduled basis. Information collected in these inspections is utilized to plan future maintenance activities.

4.3.3 Unscheduled Wind Turbine Maintenance

Wind turbine maintenance and internal inspection activities are normally performed on a scheduled basis. However, when problems occur, unscheduled maintenance will be required in order to maintain the operating efficiency of the Project. During the first several years of operation, the turbines will be new and major repairs are not anticipated. However, they cannot be ruled out. Any turbine experiencing significant mechanical difficulties will be taken off-line until repairs can be completed. Otherwise, repairs will be planned for the first convenient opportunity.

4.3.4 Balance of Plant Maintenance

While the wind turbines are the component of the Project expected to require the most maintenance services, some maintenance will be needed for the balance of the plant. Those maintenance services are described below.

Substation Maintenance

The Project substation(s) will be inspected periodically to look for any obvious problems or areas of concern. Additionally, the substation(s) will undergo an annual inspection and maintenance cycle to ensure all protection equipment is functioning properly. This generally involves inspection of the breakers and switches to be certain they would operate as needed in a fault or emergency. Electrical connections will also be inspected and tested as needed to ensure no unsafe situations exist. Maintenance to the substation transformer, switchgear, and buswork will require the substation be de-energized, and therefore the project shutdown. Maintenance will be scheduled during low wind months of the year as much as possible. Most maintenance activities can be performed during a single day each year. All substation equipment will be enclosed within a fenced area.

Road Maintenance

Most road maintenance will be performed on an as-needed basis. Regular snow removal is expected to be required during the winter months to maintain access to the turbines and substation. It is expected that minor amounts of surface dragging, blading, or grading will be required after the spring thaw to remove vehicle ruts. Other similar surface work may be needed after periods of heavy rainfall, or just periodically due to maintenance traffic. Any identified needed repairs will be promptly addressed. Also, any culverts, drains, or other water management devices will need to be kept clear to allow effective drainage.

Road surfaces will be watered or otherwise treated to control dust. These treatments will occur as needed based on weather conditions and the amount of traffic on the road. Any treatment substance other than water will only be used after consultation with the BLM authorized officer.

O&M Building Maintenance

Any maintenance requirements for the O&M Building are expected to be typical for a building of this type of construction, and will be performed on an as-needed basis. Exterior maintenance will be performed in a timely manner so as to maintain a presentable appearance to the general public. Housekeeping and area cleanup will be done on a regular basis so as to avoid the buildup of litter and other unsightly materials.

5.0 DECOMMISSIONING

As with any energy project, the Project will have a lifetime after which it may no longer be cost effective to continue operation. At that time, the project would be either decommissioned and the existing equipment removed, or repowered with newer equipment. While it is possible the project owners may want to work with the BLM to re-power the site (i.e., replace existing wind energy project with a new project on the same site), repowering is not being considered or proposed in this plan.

5.1 Project Decommissioning Plan

The goal of project decommissioning is to remove the installed power generation equipment, and return the site to a condition as close to a pre-construction state as feasible. The major activities required for the decommissioning are:

- Wind turbine and meteorological tower removal
- Electrical system removal
- Structural foundation removal per ROW grant requirements
- Road removal
- Re-grading
- Re-vegetation

These activities are discussed in more detail in the subsequent sections. The specific requirements and approach for each activity is an estimate, since the technologies and construction techniques available when the Project is decommissioned are expected to change.

5.2 Wind Turbine/Meteorological Tower Removal

The decommissioning activity most notable to the general public will be the removal of the wind turbines and meteorological towers. The disassembly and removal of this equipment will essentially be the same as its installation, but in reverse order.

The most efficient manner for component removal once disassembled, will be for each large component (other than the rotor) to be placed directly onto a truck bed when it is removed from the turbine. These trucks could then immediately take the component off the site. This approach would limit the need for clearing an area around the turbine base to just enough area to set down the rotor. When the rotor is disassembled, the blades will be placed into a carrying frame. The blades in the frame can then be loaded onto a truck for removal from the site. The hub can also be removed once it is disassembled from the blades.

5.3 Electrical System Removal

5.3.1 Buried Cable Removal

Between each of the turbine locations will be a buried electrical cable and fiber optic cable. The Project owners will discuss with the BLM at the time of decommissioning if it is desired to remove these cables, or leave them in place. Removing the cables will cause some environmental impact that would need to be mitigated, but leaving them in place could impact future uses for the site. If the cables are to be removed, a trench will be opened and the cables pulled out. The cables will be cut into manageable sections and removed from the site. The trenches would then be filled with native soil and compacted. The disturbed area will be revegetated.

5.3.2 Substation Disassembly and Equipment Removal

Once the Project and transmission line is de-energized, the substation will be disassembled. Major components will be removed from their foundations and placed onto trucks using a small crane. The steel structures and control building will be disassembled and removed from the site. The fence will be taken down, and fence posts removed. The gravel placed in the substation will be removed if it was not native rock removed from excavations and crushed. Native rock will be scattered on-site.

The Project owners will discuss with the BLM if the substation grounding grid is to be removed or left in place. The issues associated with the removal of the grounding grid are similar to those of the buried electrical cable.

5.3.3 Transmission Line Removal

Assuming the transmission line no longer serves a purpose for the site; it will be disassembled and removed. Initially, the wires will be removed from the tower hangers and collected for recycling. The tower structures would then be disassembled and removed, including grounding rods to six inches below grade. The areas around the poles, along with any access roads that were necessary, will be reclaimed.

5.4 Structural Foundation Removal

When the wind turbines, meteorological towers, and substation components are removed from their foundations, the foundations need to be removed per the requirements of the ROW grant. The concrete and steel in the foundations will be broken-up and removed. Shallow foundations will be removed in their entirety. All concrete and steel debris will be removed from the site.

5.5 Civil Decommissioning Activities

5.5.1 Road Removal

The BLM will have the choice when the Project is decommissioned as to whether the Project string roads are to be removed. To facilitate the various uses for the Project area, the BLM may choose to leave the roads in place. If the roads are left, maintenance of the roads will become the responsibility of the BLM. Once all the necessary equipment and materials have been removed from an area and the road to that area is no longer needed, it can be removed. The road surface and bed materials will be removed down to grade. Any materials native to project area will scattered across the site, and foreign materials removed.

5.5.2 Regrading and Revegetation

For areas where equipment or materials are removed, those areas will be regraded back to pre-construction contours (if possible). Holes where foundations have been removed will be refilled with native soils. Removed roads will be re-graded to original contours if cuts and fills make such regrading practical. Crane pads will also be regraded. All areas of disturbed ground will be revegetated using seed mixtures specified by the BLM.

6.0 ENVIRONMENTAL CONSIDERATIONS

WCPP will plan and implement all aspects of the Project with the intent of minimizing impacts, to the extent practicable, from any new infrastructure required and of minimizing the project's overall footprint. A variety of biological surveys were been initiated to establish an understanding of the project site from a biological perspective and to enable WCPP to plan the project in a manner that would minimize impacts to ecological resources.

WCPP will continue to revise the Project design in order to avoid (if possible), minimize, or mitigate impacts to sensitive environmental resources. Environmental resource issues associated with this project are presented in the following sections. Best management practices and mitigation measures will be developed in cooperation with BLM as design of the Project progresses.

6.1 Wildlife

The following biological studies have been completed or are currently ongoing at the Project site:

Nesting Raptor Surveys: In 2008, nesting raptor surveys were completed for the entire turbine development project area including Table Mountain, Wilson Creek, Atlanta Summit and White Rock areas. No surveys were conducted in 2009. These surveys will be reinitiated in spring 2010 and be repeated in 2011. The new surveys will include the areas surveyed in 2008 in addition to outlying areas that may be part of the proposed transmission line/new road right-of-ways (ROW).

Bird Use Monitoring: Point counts and bird use monitoring surveys were completed for the entire turbine development project area during fall 2008 and fall 2009. No surveys were conducted during the spring or summer 2009. These surveys will continue in spring 2010 and continue through summer 2011 to complete the required 2-year survey period.

Sage Grouse Monitoring: Sage grouse monitoring was initiated in the spring of 2008 and will continue through the fall of 2011 to complete the 2-year survey period. Additional monitoring may be required for areas crossed by the proposed transmission lines or new roads if they occur in the vicinity of active sage grouse leks. This requirement will be determined and negotiated through discussions with the Nevada Division of Wildlife (NDOW).

Bat Acoustic Monitoring: Bat monitoring was conducted in the Phase I Project area during the summer and fall of 2008. This study included three anemometer tower locations on Table Mountain and one on Wilson Peak. No surveys were conducted in the Phase II or Phase III areas. Also, no monitoring was conducted in spring 2009. The bat monitoring study was re-initiated in fall of 2009 at two of the same Phase I anemometer towers on Table Mountain and the same one on Wilson Peak. These studies may be expanded pending the installation of additional anemometer towers in the Phase I area. These studies will continue through summer

2011 to complete the BLM-required 2-year monitoring period. Monitoring of the Phase II and Phase III development areas will be initiated during the year each phase is started.

The following additional studies are expected to be initiated in 2010:

Bird Surveys: Line transect surveys will be conducted along the transmission line corridor and new road ROWs during the spring 2010 and repeated during spring 2011. These surveys are different from the bird use monitoring in providing information on species occurrence and relative abundance along the ROWs. This data are required by the BLM to determine if any special-status species occur within the study area, and to quantify pre-construction levels of bird use and abundance in what will be project-disturbed areas.

Deer and Elk Movement Study: NDOW has requested radio-telemetry studies be conducted on deer and elk movement within the project area. Details of the scope are will be determined in discussions with NDOW. It is anticipated that this study will be initiated in the Phase I area in the Spring of 2010 and will involve two years of monitoring.

6.2 Vegetation and Special Status Plants

The following studies will be completed in 2010 and 2011:

Vegetation Mapping: Vegetation mapping will be completed for the Phase I turbine development areas (Table Mountain and Wilson Creek) and the transmission corridor and new road ROWs in 2010. Mapping for Phase II and II will be completed during the year each phase is started.

Rare Plant Surveys: Rare plant surveys will be conducted for the Phase I turbine development areas (Table Mountain and Wilson Creek) and the transmission corridor and new road ROWs in 2010. Surveys for Phase II and II will be completed during the year each phase is started.

6.3 Wetlands/Water Resources

WCPP will survey the Project area for surface water features that could be impacted by the project. It is anticipated that wetland impacts will be minimal and that a Nationwide Permit from the U.S Army Corps of Engineers will be obtained.

6.4 Cultural & Historical Resources

A cultural resource inventory will be performed to ensure that impacts from project components are minimized.

6.5 Recreation

The Federal Land Policy and Management Act provides for recreation use of public land as an integral part of multiple use management. Dispersed, unstructured activities typify the recreational uses occurring throughout the majority of the Project area and the surrounding lands.

BLM Manual 8300 directs the BLM to designate special units known as special recreation management areas (SRMA). Management within SRMAs focuses on providing recreation opportunities that will not otherwise be available to the public, reducing conflicts among users, minimizing damage to resources, and reducing visitor health and safety problems. The Project will not directly impact any SRMAs.

BLM maintains public use areas with a variety of special designations mandated by laws, regulations, and policies. Included are the BLM's Back Country Byway program, wilderness designated by Congress, wilderness study areas, wild and scenic rivers, and other special designations such as National Historic Trails. The Mount Wilson Back Country Byway is present in part of the Project area. The Project will not directly impact designated wilderness areas, wilderness study areas, wild and scenic rivers, or other specially-designated lands.

6.6 Noise

Site-specific data on outdoor sound levels in the project area are not available. It is known that the project area has low human population density. Additionally, it is known that the existing ambient noise level at the site is low. Typical primary noise sources throughout the project area consist of noise caused by wind and vehicular traffic along the major roads. In general, background noise levels are higher during the day than at night.

Noise levels generated during the construction phase will vary, depending on such factors as equipment used; operation schedule; and conditions of the project area. Most construction activities will occur during the day, and nighttime noise levels are anticipated to drop to the background levels of the project area.

Construction activities will last for a limited duration and, accordingly, their potential impacts would be short term and intermittent in nature. During facility operation, sources of noise will consist of mechanical and aerodynamic noise; transformer and switchgear noise from the substation and switching yard; corona noise from transmission lines; vehicular traffic noise, and noise from the O&M building, all of which is expected to be negligible.

Overall, the noise levels from site operation are anticipated to be lower than the noise levels associated with short-term construction activities.

6.7 Visual Resources

The BLM uses a Visual Resource Management (VRM) system to inventory and manage visual resources on public lands. VRM classes are visual ratings that describe an area in terms of visual or scenic quality and viewer sensitivity to the landscape (the degree of public concern for an area's scenic quality). The VRM system uses four classes to describe different degrees of modification allowed to the landscape; Classes I and II are the most valued, Class III represents moderate value, and Class IV represents the least value (BLM 1980).

VRM analysis involves determining whether the visual impacts of the Project would meet the management objectives established for the project area in the RMP. The BLM has established a visual contrast rating process to complete this analysis. WCPP will work with the BLM to develop a visual analysis program that will assess the impacts of the Project on the visual resources of the area.

Lands in the Project area are designated as VRM Class II, VRM Class III, and VRM Class IV. The objectives of these VRM classes are as follows:

- **Class II**: To retain the existing character of the landscape. The level of change to the characteristic landscape should be low.
- **Class III**: To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.
- **Class IV**: To provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.

A visual analysis program consisting of site photography, computer generated visual simulations, and visual analysis will be conducted to assess the impact of the Project on visual resources.

6.8 Aviation/Military

Initial consultation with the FAA regarding turbine placement has been done. Coordination with the Department of Defense will be completed to ensure that the Project does not interfere with military operations in the area.

6.9 Grazing/Rangeland

Livestock grazing and production occurs in the vicinity of the project area. Rangelands are divided into allotments for management purposes. The proposed Project area would be constructed within one existing grazing allotment, the Wilson Creek allotment.

7.0 REFERENCES

American Wind Energy Association. 2008. Wind energy and wildlife: frequently asked questions. Available at: http://www.awea.org/pubs/factsheets/Wildlife_FAQ.pdf. Accessed September 21, 2009.

Bureau of Land Management (BLM). 1980. Visual Resource Management Program. Washington, D.C.: U.S. Government Printing Office.

———. 1985. BLM Manual 9113, Roads, Release 9-247. U.S. Department of the Interior, U.S. BLM, Washington, D.C.

———. 2005. Final Wind Energy Programmatic Environmental Impact Statement. U.S. Department of the Interior, U.S. BLM, Washington, D.C.

———. 2008. Record of Decision for the Approved Ely Resource Management Plan and Final Environmental Impact Statement. Ely: U.S. Department of the Interior, U.S. BLM, Ely District Office.

Energy Information Administration (EIA). 2009. Annual Energy Outlook 2009: With Projections to 2030. Available at: www.eia.doe.gov/oiaf/aeo/. Accessed October 19, 2009. U.S. Department of Energy, Washington, D.C. March.

Rubald and Associates. 2009. A Study of Ten Year Expected Impacts from the Proposed 450 Megawatt Wilson Creek Wind Powered Electrical Production Facility in Lincoln County, Nevada.

United States Department of the Interior (USDI and United States Department of Agriculture (USDA). 2007. Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development. BLM/WO/ST-06/021+3071/REV 07. Bureau of Land Management. Denver, Colorado. 84 pp.

United States Geological Survey (USGS). 2004. Provisional Digital Land Cover Map for the Southwestern United States. Version 1.0. RS/GIS Laboratory, College of Natural Resources, Utah State University.

APPENDIX A: Engineering Drawings

APPENDIX B: Economic Impact Analysis

RUBALD & ASSOCIATES

Economic Development & Government Relations

A STUDY OF TEN YEAR EXPECTED IMPACTS

from the Proposed 450 Mega-Watt Wilson Creek Wind Powered Electrical Production Facility

Wind Generation Facility Lincoln County, Nevada

A Study of Ten Year Expected Impacts from the Proposed 450 Mega-Watt Wilson Creek Wind Powered Electrical Production Facility in

Lincoln County, Nevada

Prepared by:
Rubald and Associates
Tim Rubald, CEcD, CMSM, Principal

Using
NEVADA REGIONAL PROJECT ASSESSMENT SYSTEM

February 16, 2009

Table of Contents

Proposed Wind Generation Facility

Fiscal Impact Study

Executive Summary

The Wilson Creek Power Partners, LLC (the "Developers") seeks to develop a renewable energy project to be located in Lincoln County, Nevada. Rubald and Associates (R&A) was engaged by the company to analyze some of the fiscal and economic impacts of the proposed construction and subsequent operation of a 450 megawatt wind generation power facility ("Facility").

Scope of Analysis

This report studies in particular the anticipated tax revenue to local governments in Lincoln County as a result of the construction, operation, and maintenance of the Facility. The study also reports on estimates of overall fiscal impacts, payroll impacts, disaggregated employment levels, and other impacts resulting from development of the Facility. An analysis of the cost of incentives provided by the State of Nevada is also included.

Obviously, the benefits of the project include a reduction in fossil fuel consumption, reduced emissions from regional power plants, and greater energy independence, however the measurement of these benefits is outside the scope of this study.

Methodology

The study uses a pc-based econometric modeling program. The model was originally designed for use by the Nevada Commission on Economic Development (NCED), however, the model used in this study has been modified specifically for use by Rubald and Associates. The model uses current IMPLAN® input-output matrix data for the thousands of calculations necessary to estimate localized fiscal and economic impacts.[1]

Results of the Study

Our analysis shows a significant economic output of nearly $46 million in new local government revenue over a ten year period for the Lincoln County area. In addition, the project will require minimal government services. Anticipated revenue is net of any potential tax abatements which may be granted. The project is a positive situation for the local governmental entities.

[1] IMPLAN® Data Files are used to create local area *Social Accounting Matrices* and develop *Multiplier Models* which R&A used to estimate detailed economic impacts of new firms moving into an area.

Introduction

Renewable energy is the wave of the future and wind energy being converted into electricity is currently one of the more cost effective generators of "green energy". It has proven its technology over many years in the operation of wind generation fields from California to North Dakota and internationally as well. Currently there are no fully active, utility grade, wind generation facilities in Nevada. Many development companies are in the initial process of determining appropriate sites that have the sustained levels of wind needed to make utility level investment on the physical plant. The investment needed to produce and transmit this level of "green" electrical power onto the nation's electrical grid requires nearly as much investment as a coal fired plant. It takes time and money to develop this type of opportunity.

The proposed Wilson Creek Wind Power Facility ("facility") is a long-term renewable energy project. The project developers propose to build a 450 megawatt wind-generated power facility connected to the regional power grid by approximately 65 miles of transmission line. Preliminary screening has identified suitable locations for the project, and the developers are currently engaged in completing their study of the meteorological resource and transmission capability, as well as processing construction and permitting requirements.

The purpose of the study is to assess the fiscal impacts on the community in a systematic, objective fashion.

As part of the screening process, Rubald & Associates was engaged to estimate the fiscal impact of construction and operation of the facility on the local community and in particular on local governments as the project is developed and comes on-line. Whether development of the project is in the best interest of the local community depends in part on how the benefits the project would confer compare to the costs which it would impose. The purpose of this study is designed to assist the public and the company proposing the project in assessing the fiscal impacts on the community in a systematic, objective fashion.

In what follows, we provide a comprehensive analysis of the revenue generation potential of the project, net of any incentives from the state should they be obtained. We begin with a discussion of the community demographics, a description of the model used to develop the impact analysis, a statement of the assumptions made in the input phase of the modeling process, a discussion of the methodology employed, the results obtained from the model, our conclusions based on the model outputs, and various appendices showing the effects of the project.

Community Demographics and County Fiscal Data

The project is proposed to be constructed in the Wilson Table Mountain Range in Lincoln County, Nevada. Lincoln County is rural in nature but its location close to the Clark County and Las Vegas metropolitan area has generated a growing interest in developing residential areas within the 10,600 square miles which comprise Lincoln County. The current population of the county stands at approximately 4,300, or about .39 persons per square mile, compared to an average of 18 persons per square mile for all of Nevada, and 80 persons per square mile in the United States. According to the 2000 census, the median household income in Lincoln County was $31,979 compared to Nevada's median household income of $44,581.[2]

There are eleven local government taxing units in Lincoln County, including the county itself, the school district, the city of Caliente, three towns, Coyote Springs General Improvement District, the hospital district and three fire districts. Historically the county has relied on the mining and agriculture industries, although there is very little mining activity now. The total value of the net proceeds of minerals was only $40,000 in FY 2008-09.[3] The county's total assessed value for property tax purposes was $184,623,729 in FY 2008-09. Until recently, property assessed by the state, such as airlines and railroads, and apportioned to each county using a statutorily prescribed

---

[2] U.S. Bureau of the Census data

[3] Nevada Department of Taxation, Property Tax Rates for Nevada Local Governments for Fiscal Year 2008-2009, ("The Redbook"), p. A-8.

formula, represented as much as 46% of the total assessed value of the county.[4] In the last two years, however, the county has experienced more growth in locally assessed land and improvement values so that local assessments now account for about 70% of the total assessed value and centrally-assessed property represents only about 25% of the total assessed value.

According to the Lincoln County Board of County Commissioners in its 2008-2009 budget message, twelve funds receive property taxes, including the general fund, dedicated medical indigent fund, the State indigent fund, China Springs, capital projects, agricultural extension, Alamo clinic, museum, senior nutrition, library, accident indigent and county indigent funds.[5] The General Fund is used to account for resources "traditionally associated with government which are not required legally or by sound financial management to be accounted for in another fund".[6]

The County itself carries very little debt. The County has a medium-term obligation of only $312,904 out of a debt capacity of $17,168,342, or about .18% of total assessed value.[7] The school district, on the other hand, has a general obligation debt of $3,887,000, or 2.31% of the debt to assessed value debt limit. The City of Caliente, the hospital and the Pahranagut Valley Fire District also carry some debt.

The FY 2007-2008 audit states that the County's primary revenue sources for governmental activities were ad valorem taxes of $2,244,768, fuel tax of $1,642,285 and consolidated taxes which include sales tax and real property transfer tax, of $1,609,648. These revenue sources comprised 12.91%, 9.45%, 9.26% respectively, or 31.62% of total governmental activities revenues.

---

[4] Department of Taxation, 2006-2007 Statistical Analysis of the Roll, "Assessed Value by Property Type," p. A17.

[5] Lincoln County Final Budget FY 2008-2009, adopted 5-19-2008.

[6] Lincoln County Financial Statements for year ended June 30, 2008, pp. 55-56.

[7] Department of Taxation, 2007-2008 Indebtedness Report.

The FY 07-08 Audit also recites that the County's total expenses were $14,851,498, comprised of General Government, $4,294,405; Public Works, $2,520,790; and Public Safety, $1,850,649 functions. Business-type activities in the Enterprise fund for utility, building department, and operation of the detention center contributed $2,876,356 to total expenses. At the end of the fiscal year, the General Fund ending fund balance declined from $947,038 to $827,294 in FY 07-08.

Statement of Assumptions

The following assumptions are made for purposes of the model simulations:

1. The subject business is assumed to be typical of an independent power producing firm in the State of Nevada, unless specific alternative assumptions are listed below.

2. No annual changes in government infrastructure spending are required.

3. The expansion of this firm in the Utilities industry in the region is not expected to create a need to raise or lower tax rates to balance the government budget.

4. Total investment is estimated to be $1.03 billion for a 450 megawatt facility.

5. There are approximately 3,000 acres of land involved with this project. All land is owned by the federal government and administered by the Bureau of Land Management (BLM). This is typical of most projects like this in the West. Existing law provides for a lease rate of $1 per acre during the development period. Once operating, the BLM will receive a 3% royalty from the gross generation produced. None of this revenue was taken into account in the model's generation of tax revenues for state or local

governmental entities. It is possible for much of the royalty revenue generated to come back to the county but at this time it is not guaranteed and therefore not included in this study.

6. Actual construction costs of buildings, spares, owners costs, contingency, etc., was estimated at $24 million This also includes wages paid to construction workers for the non-land real property.

7. During the actual operation of the facility, labor was estimated at 29.5 percent skilled, 58.4 percent semi-skilled, and 12.1 percent unskilled. This is the standard expected throughout the country for a typical utility facility.

8. After the facility is built, it was estimated there will be 20 workers on site generating approximately $1.3 million in wages annually for the 450 mgw facility.

9. The project is expected to be designated as a "Wholesale Generator" or "EWG" by the Federal Energy Regulatory Commission (FERC). That designation if received, along with NRS 361.320 (6), should provide for the project be locally assessed instead of being centrally assessed. This has a significant impact on the levels of revenue the local governments will receive in tax revenues. If the project were to ever become centrally assessed, either due to a statutory change at the state level, or a change in the federal regulations at FERC, the projected revenues in this study would change dramatically. It is most likely that local governmental entities would receive significantly less revenue.

10. The project includes the construction of approximately 65 miles of transmission line, most of which will be located in Lincoln County. The costs for this line construction, including materials and labor, are estimated at $65 million and included as part of the overall project. Due to staging

issues, batch plant, field storage, locating and delivering of conglomerate, and provisions of located field storage, we have taken the liberty of handling most of the construction benefits to inure to Lincoln County rather than Clark County. We believe this is a conservative and accurate portrayal of the appropriate allocation; if not specifically accurate.

11. No provisions were allowed for inflation or changes in tax rates, depreciation schedules, or other unforseeable changes. All computations take place at today's rates and today's dollars. The changes which will occur in the future will change subsequent outputs.

12. All available "incentives" were factored into the simulations *as though the company had already received them* to generate these impacts. These incentives must be approved by formal action of the Commission on Economic Development, which will seek additional input from local governmental agencies prior to considering the company for abatements.

13. Much of the base data were provided by research and planning activities being developed by the company. Some of these data may change as the project continues its planning process. Data were also used from sources such as newspaper articles, internet material, the Federal Energy Regulatory Commission, Nevada Department of Taxation, and other projects analyzed previously by Rubald and Associates as well as the Nevada Commission on Economic Development.

METHODOLOGY

In order to understand some of the basic premises used in this study, following is a brief discussion of the methodologies of the model used in these analyses.

NVRPAS --- Nevada Regional Project Assessment System[8]

We will refer to this model as the Nevada Regional Project Assessment System, or NVRPAS, throughout this project.

This model, originally developed for the state of Nevada, was designed to estimate the economic impact of potential new businesses and new developments in major economic regions within the state including Lincoln County. It is important to understand that any outputs from the model that do not necessarily accrue to Lincoln County, could possibly accrue to other areas in Nevada's regional economy. The scope of this study only looks at economic impacts that will inure to Lincoln County. It does not track any leakage due to the economic activity of the Wilson Creek Project outside of that specific county level economic region.

The economic modeling program is pc based and uses IMPLAN data, annually updated, and was originally built for the State of Nevada's Commission on Economic Development (NCED). NCED still uses a version of this same model to do the analyses for all of their incentive applicants. The particular model used in this analysis was developed specifically for use by Rubald and Associates.

The model contains three modules: an economic impact, a real estate impact, and a revenue impact. The economic impact module describes the effects on data like the number of students, jobs, households, and population as a result of the project. The real estate impacts involve consideration of the type of non-residential improvements which would be necessary to accommodate the changes in community demographics. For instance, the impacts are measured in incremental square footages for such public buildings as the hospital and retail stores. The revenue impact measures state and local property tax revenue, modified business tax, and sales tax..

[8] Portions of this section are provided by the designers of the NVRPAS model for use by their clients.

Each module estimates marginal changes in particular variables, based on current[9] conditions in the region.

The information and observations contained in the outputs are based on the present knowledge of the stages of development, and of the current[10] physical, socioeconomic, and fiscal conditions of the affected area. The information is obtained from data published by various sources, including the Bureau of Economic Analysis, and the Census Bureau. Estimates made by this model are based on hypothetical assumptions, current fiscal policies of the federal government, the status of the alternative energy industry, state and local government and the current economic structure of the state in the sub-region. All simulations were run separately and independently of each other in order to develop appropriate outputs and to avoid double-counting the effects of various inputs.

Even if the assumptions outlined were to occur, however, there will usually be differences between estimates and actual results because circumstances frequently do not occur as expected. These analyses are based on the best available information at this moment in time and are intended to aid the client and its partners in development of the project, in making decisions relative to its development strategies.

The fiscal impact model estimates the direct, indirect, and induced impacts of a proposed new business development. This part of the model measures both the construction impact, if the business builds a new facility which is the case here, and the ongoing operations impact. The model is specific to the region in that it allows for a level of indirect and induced purchases that are consistent with the area's economic base. Depending on the type of company and its supply needs, some companies would be able to make more local purchases. The underlying economic model is based on input – output matrices from the Minnesota IMPLAN® Group, Inc. For example,

[9] The IMPLAN I/O matrix used for these simulations is calendar year 2007 data.

[10] Ibid. No consideration was taken regarding other possible projects in the area.

published data such as the number of households would be an "input" and a tax revenue stream would be an "output." .[11]

Based on information provided by the developers of the project and used by R&A, the model calculates the effects of new employment and output to the region as a whole. The effects are separated into direct, indirect and induced impacts.

Direct impacts come as a result of expenditures by the developers, while indirect impacts come as a result of expenditures by suppliers to the project. Indirect impacts are new jobs, output, and income that will be generated in industries that supply goods and services directly to the new company. Direct impacts always affect the economic region of the study; while indirect impacts depend on the diversification of the economic region of the study. To the degree that a local economy is not diversified, there is resulting economic leakage.

Induced impacts are the result of the payroll spending by the employees of the developers and the suppliers and consist of new jobs, output, and personal income in industries that serve the new employees and their families. The induced impact includes not only end-use consumer products, but also any locally purchased intermediate products that were used in producing consumer goods. An example of an induced impact would be when the newly hired employees of the wind facility buy groceries and also eat out at the local restaurant. As a result of the increased business, the grocery store has to hire another clerk and the restaurant has to hire an additional waitress. Induced impacts depend on a combination of direct and indirect impacts.

The three kinds of impacts are reported in terms of employment, population, school-age population, households, output, and personal income for the selected region. This level of detail can be shown for both the construction impact, and the ongoing operations impact, but in this study, so that it's easily readable and we are able

[11] The Minnesota IMPLAN Group defines "output" as the value of industry production. In IMPLAN these are annual production estimates for the year of the data set and are in producer prices. For manufacturers this would be sales plus/minus change in inventory. For service sectors production = sales. For Retail and wholesale trade, output = gross margin and not gross sales. "Input" is defined as a broad expense category for an industry or final-use category. Examples include office supplies and purchased fuels. (BEA)

to present the pertinent issues appropriately, we most often report the total impact to the region. It is not unusual to also find the direct portion of the economic activity broken out separately. In those situations, the indirect and induced impacts have been added to the direct in order to provide the total impact.

The true strength of NVRPAS is its calculation of tax revenues. The program uses updated information from published sources to develop the estimated local and state revenues. These revenues are presented as additional tax revenue that will be available to the local and state governmental entities. It should be noted that fiscal results of the model have been tested through regression analysis, by staff at the Nevada Commission on Economic Development. The results have been excellent even though the model is static and does not have the ability to calculate unknown future policy decisions such as changes in tax rates, or other variables that exist in tax structures.

This model serves as a tool for basic quantitative evaluation. Results are based on the current economic structure of the region, and current tax rates. The results of the model for each level of proposed project are "order of magnitude" estimates, and are intended only as a general guide as to how this type of business development project may impact the state, and particularly this economic region.

RESULTS

NVRPAS Model Results

A summary of the results may be found in Table 1-1.

During the construction phase, which has been modeled to last a year, but could be phased over two years, the model expects the population of the region to increase by approximately 3,500 people based on the projected spending to develop the Facility.[12] However, we are quite sure this will be considerably less due to the current status of unemployment and recession being experienced throughout the

[12] The model assumes that when a business expends $361 million in construction spending to develop a project, and based on the average wage, it would take 3,500 people to construct the project.

construction industry. Another situation that arises with modeled estimations of employment for construction of wind projects, is that econometric models use formulas for "normal" construction processes. Wind "farms" like the proposed Facility, are unique in their construction process in that they utilize significant pre-manufactured units, the wind turbines themselves. These units, which are manufactured off-site, purchased and then transported to the location, take significantly less labor to construct compared to, for example, a large building of similar cost, where each piece shows up on the site as a 2x4 or something similar. Therefore, again in a fiscally conservative methodology, the modeled estimate has been cut to recognize these circumstances. Instead of total construction impact, we used a direct construction impact.

The model estimates that more than 78% of people involved in this project, both construction and operations, will live in Lincoln County. It is expected that more than 95% of the operational positions will live in the County. Due to needed expertise from the Las Vegas area, a number of the jobs created during the modeled 1 year construction period, will most likely come from that economic region which creates a small amount of "leakage" from those positions being from outside the area. This is more of a function of the relative lack of diversity of the Lincoln County economy which is taken in to account throughout this study.

School enrollment for the ongoing operational time of the project is forecasted to be only an additional 10 students. With a current enrollment of 964 students[13], the estimated number of new students represents just slightly over a 1% increase, and a reported class size of only 16.5 students.[14] We conclude this is a minimal impact on the local school system.

---

[13] Lincoln County School District; District/County Demographics. Internet document at www.lincoln.k12.nv.us/Demographics.htm 2-9-2009.

[14] Lincoln County School District; District/County Demographics. Internet document at www.lincoln.k12.nv.us/Demographics.htm 2-9-2009.

The model indicates households may be increased by approximately 23 homes for the on-going project. The model, however, does not take into account existing stock of housing or the fact that many of the people that will be employed by the construction and ongoing operation of this project already live in the region.

We conclude there is no expectation for significant increase in the socioeconomic infrastructure of the region. There is more than enough housing, and seats in existing schools, to take on any marginal increase. In fact, the impact is so minimal, the students may already be attending classes in the area and new homes may not be required because people are already living in the region who may be able to fill the expected jobs. This idea is supported by data which suggests the current unemployment in the state is 9.1%[15], and reportedly in the Lincoln County School District, 34%.[16]

The operational aspects of the project will definitely create some significant, above average wage jobs. Although not high numbers compared to some other industries, the fact that approximately 91% of current jobs available in the area are at minimum wage[17] still makes this project significant in the job creation arena. These are permanent, full time jobs that will be required throughout the life of the project which is anticipated to be 30-40 years. The model indicates operations will create 30 new jobs for the project throughout Lincoln County, thereby creating an additional 57 people in the population with the project, based on data suggesting 1.9 people per household in the economic region. It is this data upon which the forecast that an additional 10 students will impact the educational system, and an additional 23 households will be required when the project facility is constructed. Compared to the current student

---

[15] Nevada Department of Employment, Training, and Rehabilitation; Nevada Workforce Informer; Internet document at www.nevadaworkforce.com/ 2-9-2009.

[16] Lincoln County School District; District/County Demographics. Internet document at www.lincoln.k12.nv.us/Demographics.htm 2-9-2009.

[17] Lincoln County School District; District/County Demographics. Internet document at www.lincoln.k12.nv.us/Demographics.htm 2-9-2009.

population and number of households in the county, the increase is statistically insignificant.

The inputs for the set of studies done on this project separate the construction phase from the operating phase. All construction was presumed during the first year and all operations would take place thereafter. The model shows the fiscal impact to be positive, particularly during this first year, due a great degree, to the sales tax revenue generated from the sale of construction materials.

Nevada Regional Project Assessment System
"Total" Impact Summary

Construction & Operation of Wilson Creek Wind Power Facility in Lincoln Co. Nevada

Year	Employment	Population	School Enrollment	Households	Local Tax Revenue
2009	3,500	6,000	10	881	$15,924,697
2010	30	57	10	23	$4,420,979
2011	30	57	10	23	$4,035,478
2012	30	57	10	23	$3,755,989
2013	30	57	10	23	$3,479,070
2014	30	57	10	23	$3,278,930
2015	30	57	10	23	$3,069,795
2016	30	57	10	23	$2,909,812
2017	30	57	10	23	$2,746,616
2018	30	57	10	23	$2,615,546

Table 1-1 Total infrastructure demand determined by RPAS model.

Table 1-2 (below) generated by NVRPAS, provides some insight as to the level of revenues that can be expected in the first ten years, including construction for the first year and operations thereafter. The total amount of taxes directly reflects the taxes generated by all economic activity surrounding the project when the assumptions listed above are taken into account. Again, remember that these fiscal estimates have already anticipated the company receiving Renewable Energy tax abatements and Modified

Business Tax (aka "The Payroll Tax") abatement. With changes in assumptions will come some change in anticipated revenue.

Anticipated Local Government Revenues From The Construction & Operation of Wilson Creek Wind Power Facility in Lincoln Co., Nevada

Year	Property Taxes			
	Real	Personal	Sales Tax	Total
2009	$1,466,477	$3,013,815	$11,148,963	$15,629,255
2010	$1,515,814	$2,627,501	$8,054	$4,151,369
2011	$1,515,814	$2,265,843	$8,054	$3,789,711
2012	$1,515,814	$2,003,641	$8,054	$3,527,509
2013	$1,515,814	$1,743,851	$8,054	$3,267,719
2014	$1,515,814	$1,556,090	$8,054	$3,079,958
2015	$1,515,814	$1,359,890	$8,054	$2,883,758
2016	$1,515,814	$1,209,802	$8,054	$2,733,670
2017	$1,515,814	$1,056,701	$8,054	$2,580,569
2018	$1,515,814	$933,737	$8,054	$2,457,605
Total	$15,108,803	$17,770,871	$11,221,449	$44,101,123

Table 1-2 Total tax revenues that can be anticipated by local government.

An overall payroll impact for the area will grow to an annual total of about $1,622,800 for the project. This will produce an overall economic impact of $6.4 million per year for the program. Much of the indirect and induced impact will be generated not only by the growth mandated by the wind facility itself, but from an additional 11,000 square feet of non-residential space that will most likely be put back into service from existing stock to provide needed services for this new, additional economic activity. The additional square footage will end up being increased investment into mostly retail and service based commercial enterprises. The total tax revenues for local government noted above already include the additional tax revenue this added commercial activity will produce.

Results of Royalties

Once the project is up and running after the first year estimated construction period, the project will pay a 3% annual royalty to the BLM. These royalties have been a topic of discussion recently with the state legislature due to Nevada's current budget problems. Up until recently, the BLM provided a portion of this royalty revenue to the State of Nevada, and the state passed much of that revenue to the county where the energy was created through the royalty process. During the Special Legislative Session in December, 2008, the state "took back" all the royalty payments they had been paying to counties. In some cases, for example some geothermal facilities in Churchill County, this amounted to approximately $6 million in revenue the county was expecting that now stays in the state's General Fund. The 2008-2009 budget does not reflect any "BLM" revenue to Lincoln County. (See 2008-2009 Budget, Schedule A, page 11).

No one knows what the status of this royalty payment will be in the future. For now, the state is retaining any royalties received from any type of lease that is contracted with a federal agency. Therefore, royalty payments to the county have not been included in this study but it should be noted that this could become a significant source of revenue for local government should the State of Nevada change from their current "emergency" situation.

Indirect And Induced Job Creation

In addition to the 20 direct jobs created by the wind power project itself, as mentioned above there will be an additional 10 indirect and induced jobs created in the region. These jobs are created by spending generated through the payroll of the jobs created by the wind facility. Each new indirect and induced job created requires a specific level of spending to occur in order to create the impetus for a business to hire an additional employee. This dollar value varies greatly depending on the industry. Reported in the chart below, in a dollar value spent format, instead of a per job created format, is the amount of money that will circulate throughout the area's economy. As can be seen in the chart, this spending spreads throughout the economy within the Lincoln County region.

Motor vehicle and parts dealers	$28,548
Furniture and home furnishings	$6,590
Electronics and appliance stores	$1,468
Home improvement stores	$11,392
Food and beverage stores	$23,229
Health and personal care stores	$3,669
Gasoline stations	$12,037
Clothing and clothing accessories	$1,130
Sporting goods, hobbies, books	$1,925
General merchandise stores	$27,610
Miscellaneous store retailers	$8,600
Non-store retailers	$16,616
Publishing	$1,841
Broadcasting and media prod.	$476
Telecommunications	$27,632
Information services and data processing	$602
Finance and insurance	$57,667
Real estate	$57,925
Equipment rental and repair	$10,239
Prof and scientific services	$74,515
Computer programming	$141
Scientific R&D services	$5,770
Management of companies	$2,455
Administrative and support services	$24,855
Education	$7,938
Health services	$42,428
Social and religious services	$16,813
Arts, entertainment, recreation	$5,343
Other amusement, gambling, and recreation	$8,892
Accommodation and food services	$93,254
Personal services	$39,242
Federal government and military	$446
State and local government	$32,309

Because of the limits of the model used, and issues such as tax structural development, other possible issues are not included. Inflation, cost of capital, and future value of money issues, among others, are not covered by the simulations used to generate this report.

Incentives

Renewable energy projects in Nevada enjoy the opportunity to apply for numerous financial incentives in the form of sales and use, and property tax abatements, among others. This set of incentive programs was developed by the legislature during the 2001 session to provide policy guidance encouraging exactly this type of project. Projects such as the one being studied here are eligible for a 50% abatement on both real and personal property for ten (10) years. This significantly affects the amount of tax revenue that will be expected to be received by the local government. Projects such as this one are also eligible to receive an abatement of local sales/use tax on personal property (equipment) but not on construction materials. The abatement of direct sales/use tax is not a particularly significant event for the local governments since Lincoln County is currently considered a "guaranteed county" per NRS 377.057 (5).

This report is written, and the simulations were run, as though the company is going to be successful in their application for allowed and legally available tax abatements at the time the report is released. These abatements, from a structurally allowable status, may change from time to time through actions of the Nevada Legislature. Also, the NCED and the state's Department of Taxation are both currently authorized to promulgate regulations that could affect the availability and/or the value of the incentive programs as they relate to this project.

Presuming no material changes take place, and developing this report anticipating the company will be applying for the incentives and ultimately be successful, allows the local governments to view the dollars they will most likely receive if the project is completed as expected.

CONCLUSIONS

The results portion of this study mainly focuses on the local tax revenues anticipated, and some of the more significant socioeconomic aspects of this type of project. The study also reports on estimates of overall fiscal impacts, payroll impacts, disaggregated employment levels, anticipated incentives provided by the state, and other aspects normally found in an economic fiscal model.

The model provides outputs implying this could be a very significant economic event for the community. One issue not addressed is that the positive effect of having additional renewable electricity available in the region is ignored. This could prove to be tremendously advantageous to any community that has the ability to provide cost-effective, green energy resources for future economic development. With the planned increase of the Nevada statutorily required portfolio standard, product demand for green energy will continue to increase. Additionally, California currently only allows green energy to be imported into the state and other states are likely to follow this newly adopted policy as the federal government changes its focus with the new administration. This is one of the many aspects of economic impact analysis that cannot be judged in any quantitative methodology known today.

The creation of nearly $46 million in new local government revenues over a ten year period, should be significant enough not to be ignored. There should not be any significant expenses to any local governmental entity. This project will not increase long term traffic requiring any new roads to be built, although it may increase highway traffic somewhat during the construction period. It won't cause the building of a new sub-division, won't tip the scales requiring additional police or fire personnel, and it certainly won't require any additional educational resources with just the addition of a few new students. Although not tremendously significant, any new students will also bring additional dollars from the state Distributive Education Fund that are not reflected here at all.

Notable to all of this fiscal information is the over-simplified statement that wind energy is a natural resource. Now that this resource has been studied and found to be located in specific areas of Lincoln County to the level needed for utility quality production, this will most likely not be the only project of this type. Similar to development of any other natural resource such as fossil fuels, industrial or precious minerals, once the "resource of interest" is located, quantified, and mapped, development will most likely continue to occur until such time as the resource is either depleted (not likely with Nevada wind!) or market forces do not make its use feasible any longer due to costs involved in the removal and/or process of transforming it. We believe these costs will only decrease in time as technology continues to make the process more efficient and less costly.

With all the recent activity in the stock market as well as the financial markets, it is interesting and important to note that although many other industries are suffering from the credit "freeze", alternative energy hasn't been affected to anywhere near the same significance. Surely some "borderline" projects have possibly felt some of the effects of the credit crunch, but none of the projects that we're aware of in Nevada have suffered from that problem.

As shown in Appendix E, this project will bring significant tax revenues for the local governmental entities, especially considering these projections are net of any anticipated allowed tax abatements. For Lincoln County, the benefits include the value of a stable revenue stream from taxes at a low cost to the community.

###

APPENDIX "A"

Value of Incentives

The relatively few incentives available through the statutes of the State of Nevada are available to this project. Due to the size, significant average wages of the primary jobs created, and the extraordinary high level of private investment, this project will easily qualify for all the incentives available.

It should be noted that as this report is being written, the Nevada Legislature is in its 75th Regular Session which will continue through June 2, 2009. Some of the incentives, those available in NRS 701A.220 and 701A.230, currently expire June 30, 2009. These are the most fiscally significant incentives to this project. There are not currently any bills introduced that will change this situation but it is anticipated that some have already been requested. The state legislature uses a "Bill Draft Request" (BDR) process that allows certain groups and individual legislators the ability to request a certain bill be drafted. These BDRs are considered confidential until introduced as a bill.

When a BDR is requested, it is assigned a number and also the public is provided a short statement of the anticipated effect of the bill. There are a number of BDRs currently in the queue that could provide the needed extension of the alternative energy incentives enumerated above.

Presuming the continuation of all current incentives, and also for sake of discussion in this report, all current incentives for a project of this type have been included. Provided below is a list of estimated incentives the project will qualify for and, with the positive action of the Nevada Commission on Economic Development, will receive.

Appendix B

TABLE I: Estimated Real Property Tax Over Ten-Year Period

	Acquisition Cost (trended up)	Replacement Cost Trend Factor	Replacement Cost New	Depreciation Rate	RCNLD Value	Assessed Value	Tax Rate	Tax Due	50% Abatement
Year 1	*$ 1,100,000*	0.000	$ 1,100,000	0.000	$ 1,100,000	$ 385,000	0.027485	$ 10,582	$ 5,291
Year 2	*$ 1,100,000*	1.050	$ 1,155,000	0.015	$ 1,082,675	$ 378,936	0.027485	$ 10,415	$ 5,208
Year 3	*$ 1,155,000*	1.050	$ 1,212,750	0.030	$ 1,118,618	$ 391,516	0.027485	$ 10,761	$ 5,380
Year 4	*$ 1,212,750*	1.050	$ 1,273,388	0.045	$ 1,155,448	$ 404,407	0.027485	$ 11,115	$ 5,558
Year 5	*$ 1,273,388*	1.050	$ 1,337,057	0.060	$ 1,193,164	$ 417,607	0.027485	$ 11,478	$ 5,739
Year 6	*$ 1,337,057*	1.050	$ 1,403,910	0.075	$ 1,231,764	$ 431,117	0.027485	$ 11,849	$ 5,925
Year 7	*$ 1,403,910*	1.050	$ 1,474,105	0.090	$ 1,271,240	$ 444,934	0.027485	$ 12,229	$ 6,115
Year 8	*$ 1,474,105*	1.050	$ 1,547,810	0.105	$ 1,311,585	$ 459,055	0.027485	$ 12,617	$ 6,309
Year 9	*$ 1,547,810*	1.050	$ 1,625,201	0.120	$ 1,352,786	$ 473,475	0.027485	$ 13,013	$ 6,507
Year 10	*$ 1,625,201*	1.050	$ 1,706,461	0.135	$ 1,394,829	$ 488,190	0.027485	$ 13,418	$ 6,709
			TOTAL					**$ 117,477**	**$ 58,739**

The calculation assumes an investment in real property, not including land, of $1,100,000 in the first year. The replacement cost factor, rate of depreciation, and the tax rate are all subject to change annually.

Table II: Wilson Creek Wind Facility Real Property Tax Entity Distribution

	Entity Tax Rate	Percent of Total Rate
State	0.1700	6.19%
County	1.3375	48.66%
School District	0.9731	35.40%
Hospital District	0.2679	9.75%
Total	2.7485	100.00%

TABLE III: Entity Distribution after abatement granted					
	Total Tax Revenue After 50% Abatement	County Revenue	School District Revenue	Hospital District Revenue	State Revenue
Year 1	$ 5,291	$ 2,575	$ 1,873	$ 516	$ 327
Year 2	$ 5,208	$ 2,535	$ 1,844	$ 508	$ 322
Year 3	$ 5,331	$ 2,594	$ 1,887	$ 520	$ 330
Year 4	$ 5,455	$ 2,654	$ 1,931	$ 532	$ 337
Year 5	$ 5,580	$ 2,715	$ 1,976	$ 544	$ 345
Year 6	$ 5,707	$ 2,777	$ 2,020	$ 556	$ 353
Year 7	$ 5,835	$ 2,839	$ 2,066	$ 569	$ 361
Year 8	$ 5,964	$ 2,902	$ 2,111	$ 581	$ 369
Year 9	$ 6,094	$ 2,965	$ 2,157	$ 594	$ 377
Year 10	$ 6,224	$ 3,029	$ 2,204	$ 607	$ 385
Total	**$ 56,688**	**$ 27,586**	**$ 20,070**	**$ 5,525**	**$ 3,506**

Appendix C

TABLE IV: Estimated Personal Property Tax Over Ten-Year Period

	Equipment Acquisition Cost (trended up)	Cost Index	Replacement Cost	"Percent Good" Rate	Depreciated Value	Assessed Value	Tax Rate	Tax Due	50% Abatement
Year 1	$ 667,900,000	1.00	667,900,000	1.00	$667,900,000	$ 233,765,000	0.027485	$ 6,425,031	$ 3,212,516
Year 2	$ 667,900,000	1.00	667,900,000	0.90	$601,110,000	$ 210,388,500	0.027485	$ 5,782,528	$ 2,891,264
Year 3	$ 667,900,000	1.01	674,579,000	0.81	$546,408,990	$ 191,243,147	0.027485	$ 5,256,318	$ 2,628,159
Year 4	$ 667,900,000	1.06	707,974,000	0.73	$516,821,020	$ 180,887,357	0.027485	$ 4,971,689	$ 2,485,845
Year 5	$ 667,900,000	1.11	741,369,000	0.66	$489,303,540	$ 171,256,239	0.027485	$ 4,706,978	$ 2,353,489
Year 6	$ 667,900,000	1.13	754,727,000	0.59	$445,288,930	$ 155,851,126	0.027485	$ 4,283,568	$ 2,141,784
Year 7	$ 667,900,000	1.15	768,085,000	0.53	$407,085,050	$ 142,479,768	0.027485	$ 3,916,056	$ 1,958,028
Year 8	$ 667,900,000	1.16	774,764,000	0.48	$371,886,720	$ 130,160,352	0.027485	$ 3,577,457	$ 1,788,729
Year 9	$ 667,900,000	1.18	788,122,000	0.43	$338,892,460	$ 118,612,361	0.027485	$ 3,260,061	$ 1,630,030
Year 10	$ 667,900,000	1.20	801,480,000	0.39	$312,577,200	$ 109,402,020	0.027485	$ 3,006,915	$ 1,503,457
			TOTAL					**$ 45,186,601**	**$ 22,593,300**

These calculations are based on the "Twenty Year Life Schedule" of the Personal Property Manual published annually by the Department of Taxation.

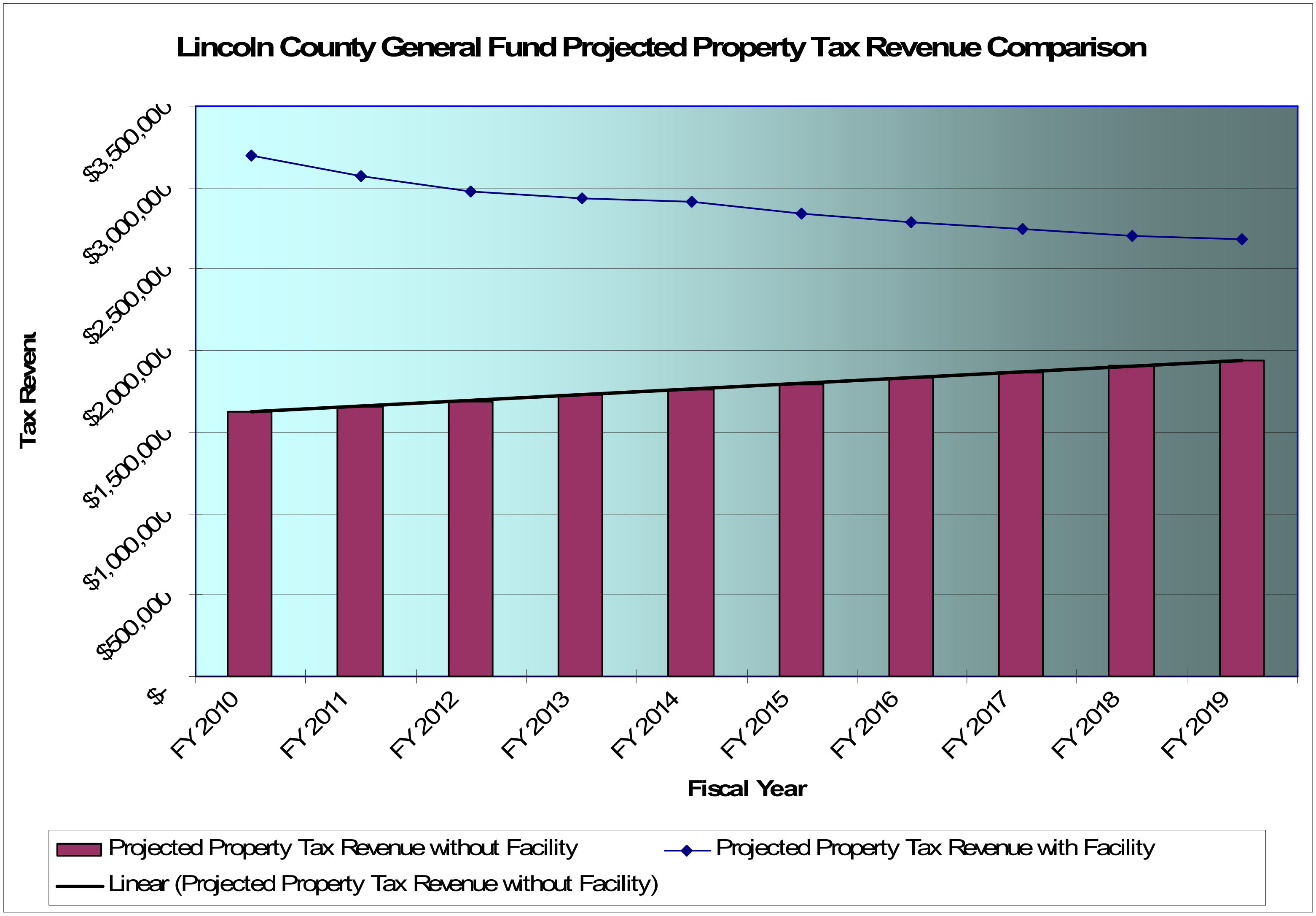
Due to the nature of specific equipment, separate depreciation schedules of such equipment, and the possible differences in valuation practices, these values are estimates only and should only be considered as a guideline for comparison purposes.

Table V: Wilson Creek Wind Facility Personal Property Tax Entity Distribution

	Entity Tax Rate	Percent of Total Rate
State	0.1700	6.19%
County	1.3375	48.66%
School District	0.9731	35.40%
Hospital District	0.2679	9.75%
Total	2.7485	100.00%

TABLE VI : Entity Distribution, Assuming Abatement Granted					
	Total Tax Revenue After 50% Abatement	County Revenue	School District Revenue	Hospital District Revenue	State Revenue
Year 1	$ 3,212,516	$ 1,563,303	$ 1,137,384	$ 313,128	$ 198,700
Year 2	$ 2,891,264	$ 1,406,973	$ 1,023,645	$ 281,815	$ 178,830
Year 3	$ 2,628,159	$ 1,278,939	$ 930,494	$ 256,170	$ 162,557
Year 4	$ 2,485,845	$ 1,209,684	$ 880,107	$ 242,299	$ 153,754
Year 5	$ 2,353,489	$ 1,145,276	$ 833,247	$ 229,398	$ 145,568
Year 6	$ 2,141,784	$ 1,042,254	$ 758,294	$ 208,763	$ 132,473
Year 7	$ 1,958,028	$ 952,833	$ 693,235	$ 190,852	$ 121,108
Year 8	$ 1,788,729	$ 870,447	$ 633,295	$ 174,350	$ 110,636
Year 9	$ 1,630,030	$ 793,220	$ 577,108	$ 158,881	$ 100,821
Year 10	$ 1,503,457	$ 731,626	$ 532,296	$ 146,544	$ 92,992
Total	**$ 22,593,300**	**$ 10,994,557**	**$ 7,999,105**	**$ 2,202,199**	**$ 1,397,439**

Appendix D



Property tax revenue based on 2008 Lincoln County general fund total, estimated to grow 2% annually (see linear trend line). The property tax revenue from the facility is added to the base adjusted by the growth rate.

Appendix E

Possible Incentives for the Wilson Creek Wind Project		
SALES & USE TAX ABATEMENT:		
Total Cost of Equipment	$540,000,000	
Rate of Abatement	0.0475	
Sales Tax Amount to be Abated:		**$25,650,000**
PERSONAL PROPERTY TAX ABATEMENT:		
Lincoln County Abatement-10 yr/50% on $667,900,000		**$22,593,300**
***REAL* PROPERTY TAX ABATEMENT:**		
Lincoln County – Building Abatement-10 yr/50% on $1.1 million		**$ 56,688**
MODIFIED BUSINESS (PAYROLL) TAX ABATEMENT:		
20 employees with gross payroll of $1,248,000		**$14,780**
TOTAL ABATEMENT POSSIBLE		**$48,314,768**
SALES & USE TAX DEFERRAL:		
Total Cost of Equipment	$540,000,000	
Rate of Deferral	0.02	
Amount to be Deferred:		**$10,800,000**
TOTAL DEFERRAL POSSIBLE		**$10,800,000**
TOTAL "TRAIN EMPLOYEES NOW" POSSIBLE		**$20,000**
Based on 20 employees @ $1,000 each (requires 25% company match)		
TOTAL INCENTIVES (DEFERRAL, ABATEMENTS, AND TRAINING) POSSIBLE:		**$59,134,768**

This is an estimate only, developed by Rubald and Associates with data provided by Wilson Creek Power Partners. All incentive applicants must appear before the Nevada Commission on Economic Development (NCED) and receive the formal approval of the Commission.