

6.0 HEALTH AND SAFETY

Catamount has developed time-tested, successful safety procedures for of the construction and operation of wind energy projects. This POD commits Catamount to the implementation of these continuously updated safety procedures for the construction, operation and decommissioning of the Searchlight Wind Energy Facility.

A sample health and safety plan from a similar wind energy project in Texas is included as Attachment XX. Through the environmental review and permitting processes, any project-specific safety requirements will be identified. Any project-specific safety measures will be incorporated into the final project plans and the final version of this POD.

Public safety concerns associated with project construction may include the following:

- the movement of large construction vehicles, equipment and materials,
- falling overhead objects,
- falls into open excavations, and
- electrocution.

These issues are most relevant to construction personnel who will be working in close proximity to construction equipment and materials, and will be exposed to construction related hazards on a daily basis. Additionally, certain construction activities (excavation, heavy vehicular travel) may pose risks to construction personnel and the general public when working in the vicinity of oil and gas facilities present within the ROW. However, risk of construction related injury will be minimized through careful safety planning, regular safety training and use of appropriate safety equipment.

In many ways, wind energy facilities are safer than other forms of energy production since combustible fuel sources and fuel storage are not required. In addition, use and/or generation of toxic or hazardous materials are minor when compared to other types of generating facilities. However, wind turbines are generally more accessible to the public, and risks to public health and safety can be associated with these facilities. Examples of such safety concerns include tower collapse, blade throw, stray voltage, fire in the nacelle, and lighting strikes. Although public concern regarding these incidents is high, actual safety incidents associated with wind farm operation are extremely rare. These issues will be fully explored in project environmental review and additional safety measures may be identified, which would be incorporated into project plans and the EIS.

6.1 EMERGENCY RESPONSE

Catamount will prepare an Emergency Response Plan that is specific to this project. Copies of the Emergency Response Plan will be provided to all emergency services prior to the commencement of facility construction and operation. A sample Plan used for a previous Catamount project is included as Attachment XX.

6.2 CONSTRUCTION WASTE AND HUMAN WASTE

During construction, portable toilets will be located at reasonably accessible locations throughout the ROW. Construction workers will be directed to use these facilities. The portable toilets will be replaced as needed.

During commercial operation, human sanitary waste will be disposed of in an underground septic tank located adjacent to the operations and maintenance building.

6.3 OIL SPILL PREVENTION

The wind turbines will typically use four lubricating oils and greases, none of which contain any compounds listed as hazardous by the Environmental Protection Agency. These are used in moderate quantities and are contained entirely within the spill trap and nacelle so that the possibility for accidental leakage is minimal. Lubricating oils are checked quarterly and filled and changed as needed. Spent oils will be recycled with a certified waste contractor. The oil change will be performed up-tower where any accidental spills will be contained by the nacelle.

Small amounts of oils and greases will be stored in the operations and maintenance building on site in special containers. All special wastes, including waste oils and contaminated rags, etc., will be removed from site using a controlled waste manifest. All waste materials will be disposed of via a licensed waste carrier who shall deliver the material to a licensed waste disposal site.

Transformers will contain cooling oil that does not contain PCB's. Inspection of each transformer will be performed on a regular basis in order to detect and prevent leaks.

Construction equipment and operations and maintenance trucks will be maintained at all times to minimize leaks of motor oils, hydraulic fluids and fuels. All vehicular maintenance will be performed off-site at an appropriate facility. An environmentally benign detergent will be used to remove wind carried particulate matter from internal and external turbine mechanisms.

All production, use, storage, transport and disposal of hazardous materials as a result of the project will be in strict accordance with Federal, State and Clark County regulations and guidelines. No extremely hazardous materials (40 CFR 355) are currently anticipated to be produced, used, stored or disposed of as a result of the project.

A Spill Prevention Containment and Countermeasure Plan (SPCCP) that outlines procedures to be implemented to prevent the release of hazardous substances into the environment will be developed and implemented. This plan will include a number of required best management practices, and all contractors will be required to keep materials on hand to control and contain a petroleum spill. These materials will include, at a minimum, a shovel, tank patch kit, and oil-absorbent materials. Any spills will be reported in accordance with applicable regulations. Contractors will be responsible for ensuring responsible action on the part of construction personnel.

6.4 HAZARDOUS MATERIALS

Each contractor employed in the construction of the wind energy facility will provide a log of potentially hazardous materials stored or used on site, and a summary log will be maintained. The log will be a living document to be continuously updated throughout the operational phase of the project and during decommissioning.

The summary hazardous materials log will be on file in the construction trailers (during construction) and the O&M building (during operation), and provided to local fire departments and emergency service providers.

6.5 PESTICIDES, HERBICIDES AND OTHER CHEMICAL CONTROL PROCEDURES

There has been no identified need for the use of chemical control procedures during the construction phase. If any pesticides and herbicides become required during commercial operation, they will be as agreed upon with the BLM and Clark County.

6.6 AIR QUALITY

It should not be necessary to monitor air quality during either the construction or operation of the project. However, a road-spraying program may be employed during construction to suppress dust caused by vehicle and equipment traffic.

6.7 OPEN BURNING

No open burning will be permitted during the construction or operational phases of the project.

6.8 FIRE PREVENTION AND CONTROL

Wind turbines, due to their height, physical dimensions, and complexity, have the potential to present response difficulties to local emergency service providers and fire departments. Although the turbines contain relatively few flammable components, the presence of electrical generating equipment and electrical cables, along with various oils (lubricating, cooling, and hydraulic) does create the potential for fire or a medical emergency within the tower or the nacelle. This, in combination with the elevated location of the nacelle and the enclosed space of the tower interior makes response to a fire or other emergency difficult, and beyond the capabilities of most local fire departments and emergency service providers.

Other project components create the potential for a fire or medical emergency due to the storage and use of diesel fuels, lubricating oils, and hydraulic fluids. Storage and use of these substances may occur at the substation, in electrical transmission structures, staging area(s), and the O&M building/facility. However, due to the accessibility of these areas, response to an emergency should not prove difficult to local fire and emergency personnel. However, the presence of potentially hazardous materials as well as high voltage electrical equipment present potential safety risks to local responders.

During the construction of the project, fire prevention will be managed by the use of an emergency plan. In addition, Catamount has documented safety procedures in place for the management of work situations where fire presents a hazard. Catamount will ensure that its contractors perform safety audits at least once a week during construction to ensure adequate provision of fire extinguishers and other safety devices.

During operations, the operations and maintenance contractor will ensure that there are sufficient fire extinguishers and other safety devices deployed in the base and nacelle of the wind turbines, in the O&M building, and at the substations.

7.0 OPERATION AND MAINTENANCE

7.1 FINAL TESTING

Once the project has been constructed and the 230 kV project overhead line has been connected to WAPA's 230 kV system, the project will be energized, tested and commissioned prior to commencing commercial operation and the sale of renewable energy. Prior to project energization, pre-commissioning tests will take place to test the functionality of the wind turbines and safety systems. Following energization, commissioning and testing of each wind turbine will be in accordance with the manufacturer's testing and commissioning manual (including testing of the pitch systems, yaw system, lubrication pumps and demonstrating the power output of each wind turbine).

7.2 SITE OPERATION AND MAINTENANCE PROCEDURES

Following commercial operation, the project is expected to have an operating lifetime of approximately 30 years. During this period, the project will be operated and maintained by a team of trained personnel. Operations and maintenance trucks will be housed in or on the site of the O&M building, and will be used to transport the O&M team, tools and consumables around the project site to perform routine operations and maintenance activities.

Routine operations will include the monitoring and control of the wind turbines from the centralized computer in the O&M building, or remotely, and the resetting of turbine controls and re-starting turbines after any outages. Wind turbine performance will be analyzed for preventative maintenance and to afford operational and performance improvements.

Routine maintenance will be performed in accordance with manufacturer recommendations and will include regular wind turbine inspections, lubrication of mechanical parts, changing of fluids and, if necessary, blade cleaning. Mechanical equipment located within the nacelle and rotor of each wind turbine (including the wind turbine gearbox, generators and yaw system) will be accessed by maintenance personnel by means of steel ladders or a lift system located inside the tower of each wind turbine.

Extraordinary maintenance may be required from time to time for major overhauls or component replacement. These activities may require the temporary use of cranes or equipment similar to that used during construction.

Routine maintenance of the pad-mount transformers and project substation includes regular oil checks, verification of all trip settings and tightening of connections in accordance with the manufacturer's maintenance manuals. The overhead line will require minimal routine maintenance which will comprise an infrared scan of conductors performed by a hand held scanner every few years.

Long-term operations and maintenance traffic will average approximately four to eight vehicle trips per day to project facilities from the O&M building on normal workdays

(excluding weekends and holidays), which will be via project access roads, U.S. Highway 95 and Nevada State Highway 164.

Operation and maintenance activities will be described thoroughly during the environmental review and permitting process. This review will include an analysis of the potential environmental impacts, and any necessary mitigation measures will be incorporated into the Environmental Compliance Plan.

7.3 RIGHT OF WAY MAINTENANCE

The Searchlight Wind Energy Facility access roads established during construction will be employed during commercial operation. As during construction, access roads will be entered from U.S. Highway 95 and Nevada State Highway 164. Public access to BLM lands and private inholdings are not expected to be impacted during the operational phase of the project.

During the project operations period, roads will be informally evaluated on an as-used basis, and formally inspected at least twice annually. Periodic grading and placement of gravel may be required to maintain road quality. Road maintenance will be scheduled during times of low or no wind to minimize airborne dust. Speed limits of 20 mph will be posted and enforced for all O&M vehicles to minimize airborne dust and erosion.

8.0 POST-CONSTRUCTION MANAGEMENT

All temporarily disturbed areas will be returned to their previous state, to the extent feasible, and any debris will be removed and properly disposed of off-site. Any material placed in the areas of the roads or foundations will be compacted to at least 90 percent of the maximum Proctor density or greater as required for road structural integrity and foundation design. No soil stability problems are anticipated from project construction.

Prior to the completion of construction, all trash, construction debris and landscape cuttings shall be removed and properly disposed of off-site, and vegetation shall be allowed to re-establish.

Future environmental review and permitting activities will result in the generation of a Construction Mitigation and Restoration Plan. This and any other relevant documentation will be incorporated into the EIS and included in the Environmental Compliance Plan, as appropriate.

8.1 MONITORING

8.1.1 Wind Farm Performance Monitoring

Wind turbines are guided by sophisticated computers and software and generally operate autonomously. The site manager and O&M staff monitor the performance of the turbines and initiate manual control only as needed for maintenance and troubleshooting (see Section 7.2).

The plant management will continuously 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. Scheduled maintenance activities may be added or adjusted to improve the performance of the project.

There are no environmental impacts expected due to project performance monitoring.

8.1.2 Environmental Monitoring

One of the major responsibilities of the site manager will be to ensure the proper environmental monitoring activities are being performed, in accordance with the requirements of the Environmental Compliance Plan. The environmental monitoring program will incorporate monitoring observations and additional mitigation measures as needed into standard operating procedures for the project to minimize future environmental impacts.

8.2 CLEANUP

All temporarily disturbed areas will be returned to their previous state, to the extent feasible, and any debris will be removed and properly disposed of off-site. All temporarily disturbed areas will be returned to their previous state, to the extent feasible, and any debris will be removed and properly disposed of off-site. Any material placed in

the areas of the roads or foundations will be compacted to at least 90 percent of the maximum Proctor density or greater as required for road structural integrity and foundation design. All trash, construction debris and landscape cuttings shall be removed and properly disposed of off-site, and vegetation shall be allowed to re-establish in the areas of trash removal.

8.3 NOXIOUS WEED CONTROL

As outlined in Section 5.2.4, a project-specific Noxious Weed Plan will be established in future efforts and included with the Construction Mitigation and Restoration plan in the Environmental Compliance Plan. The plan will include project specific stipulations that will aid in prevention of the establishment and spread of Nevada-listed noxious weeds that may result from construction and operation of the proposed facility.

8.4 ABANDONMENT

When it is determined that the Searchlight Wind Energy Facility is no longer cost effective to continue operation, the site will be properly decommissioned as discussed in Section 9.0.

9.0 PROJECT DECOMMISSIONING PLAN

As with any energy project, the Searchlight Wind Energy Facility will have a lifetime after which continued operation will not be cost effective. This will most likely occur after approximately 30 years of commercial operation. At that time, the project would be decommissioned, and the existing equipment removed. While it is possible the project owners may want to work with the BLM to re-power the site (replace existing wind energy project with a new project on the same site), re-powering is not being considered in this 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 as follows:

- Wind turbine and meteorological tower removal;
- Pad-mount transformer, electrical and communications system removal;
- Structural foundation removal per ROW grant requirements;
- Operations and Maintenance building removal;
- Road removal;
- Re-grading; and
- Re-vegetation.

Actual decommissioning requirements will be determined during the environmental review process and permitting of the project.

The decommissioning activity most notable to the general public will be the removal of the wind turbines. The disassembly and removal of this equipment will essentially be the same as its installation, but in reverse order. The large components that make up a wind turbine will be disassembled in the reverse order they were assembled. The rotor (hub and blades) are removed from the nacelle and, with the help of a smaller crane, turned horizontally and set on the ground. Next, the nacelle will be removed from the top of the tower, followed by each portion of the tower. The permanent meteorological towers would be disassembled in a similar manner, with a crane first removing the upper tower section and moving downward. Once each turbine rotor has been removed, a crew and small crane will disassemble it into the hub and three loose turbine blades. The most efficient manner for component removal 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, which 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.

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 allowed to re-vegetate naturally.

Once the project and transmission line are 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, and 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. 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 will be reclaimed.

The O&M building will also be removed. The septic system will be abandoned in a manner consistent with state and local health regulations.

When the wind turbines, meteorological towers, and substation components are removed from their foundations, the foundations will be removed per the requirements of the ROW grant. The concrete and steel in the foundations will be broken-up and removed to a depth of six inches below grade. Shallow foundations (like that for the O&M building) will be removed in their entirety. All concrete and steel debris will be removed from the site.

The BLM will have the choice when the project is decommissioned as to whether the project access roads established expressly for the Searchlight Wind Energy Facility are to be removed. To facilitate the various uses for the property, 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 the site will be scattered across the site, and foreign materials will be removed. For areas where equipment or materials are removed, those areas will be re-graded back to pre-construction contours (if possible). Holes where foundations have been removed to six inches will be refilled with native soils. Removed roads will be re-graded to original contours where cuts and fills make such re-grading practical. Crane pads will also be re-graded.

10.0 REFERENCES

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ATTACHMENT 1

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