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1-76	Provide the following information for the site restoration cost estimate: a. Describe the maximum weight of metal (net tons) in the turbine tower and nacelle for the proposed 1.5-megawatt (MW) turbines. b. Describe the maximum weight of metal (net tons) in the turbine tower and nacelle for the proposed 3.0-MW turbines. c. Describe the maximum volume of concrete (cubic yards) in each turbine foundation to a depth of three feet below grade (including all concrete above grade) for the proposed 1.5-MW turbines. d. Describe the maximum volume of concrete (cubic yards) in each turbine foundation to a depth of three feet below grade (including all concrete above grade) for the proposed 3.0-MW turbines. e. Describe the maximum volume of concrete (cubic yards) in each transformer pad to a depth of three feet below grade (including all concrete above grade) for each turbine type that would include a pad-mounted transformer. f. Describe the maximum area (square yards) and type of surface preparation for each turbine turnout for the proposed 1.5-MW turbines. g. Describe the maximum area (square yards) and type of surface preparation for each turbine turnout for	It should be noted that the majority of estimates presented in the revised site restoration cost estimate provided as Attachment 1-76 are based on a reduced 164-turbine layout. Some estimates have been retained from the original estimate – such as length of access roads – so the overall decommissioning estimate presented represents a conservative estimate. a. Based on GE 1.5 MW turbine – 167 tons b. Based on Vestas V90 3.0 MW turbine – 300 tons c. Based on GE 1.5 MW turbine – 22.5 cubic yards (16 feet diameter) d. Based on Vestas V90 3.0 MW – 17.1 cubic yards (14 feet diameter) Note: Larger turbines generally have a larger foundation, but due to the difference in diameter of the above turbines and the fact that the estimate only represents the top 3.5 feet, the 3.0 MW turbine presented above represents a smaller estimate. In order to present a very conservative decommissioning estimate in Attachment 1-76, Applicant assumed that there would be 29 cubic yards of concrete per foundation to a depth of 3.5 feet. e. Typically this is a concrete or fiberglass vault. If concrete, the maximum total would be about 2 cubic yards. This amount has been included in the foundation removal estimates presented in Section C of Attachment 1-76. There is no concrete above grade at transformer pads. The only turbine currently considered for use at the Facility that utilizes concrete mounted pad-mount transformers is the GE 1.5 MW turbine. Therefore, if a different turbine is used, this amount will be zero. f. The turbine turnouts would be constructed the same as the road design

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	the proposed 3.0-MW turbines. h. Describe the maximum length (miles) of the overhead 230-kV transmission line or lines that would interconnect the facility with regional grid at the existing BPA LaGrande Substation, IPCO Ladd Canyon Substation, and/or IPCO North Power Substation. i. Describe the distance (feet) between the wooden H-frame poles or steel monopole structures that would be installed to serve the 230-kV transmission line. j. Describe the total number of wires and cables that would be installed to serve the 230-kV transmission line. k. Describe the maximum length (miles) of the aboveground segments of the 34.5-kV collector system. l. Describe the distance (feet) between poles that would be installed to serve the 34.5-kV collector system. m. Describe the total number of wires and cables (including fiber optic cables serving the SCADA system) that would be installed to serve the 34.5-kV collector system. n. Describe the maximum number of junction boxes that would be installed to serve the 34.5-kV collector system. o. Describe the maximum length (miles) of new access roads with a drivable surface of 22 feet that would be developed during construction of the proposed facility.	(surface preparation would be typically 8" of 3" minus with a second course of 5" of 3/4" minus – depending on bearing capacity of subgrade in the area). The crane pads would be built either with a 12" course of the 3" minus, or Applicant may increase the bearing capacity by using timber cribbing. The area for this would not exceed 100 feet by 50 feet (555 square yards). g. The turbine turnouts would be constructed the same as the road design (surface preparation would be typically 8" of 3" minus with a second course of 5" of 3/4" minus – depending on bearing capacity of subgrade in the area). The crane pads would be built either with a 12" course of the 3" minus, or Applicant may increase the bearing capacity by using timber cribbing. The area for this would not exceed 100 feet by 50 feet (555 square yards). h. As currently designed, the maximum length of overhead 230-kV transmission lines is 21 miles. i. This number will be determined by design criteria such as cable size, structure height and terrain topography. Typically (based on other projects Applicant has experience constructing) the distance is between 800 and 1200 feet between structures. j. Three electrical conductors and one optical grounding wire are typical for the 230-kV transmission line. k. As currently designed, the maximum length of new overhead 34.5-kV collector lines is 35 miles. An additional 9 miles would be co-located with existing transmission or distribution lines. l. This number will be determined by design criteria such as cable size, structure height and terrain topography. Typically (based on other projects Applicant has experience constructing) the distance is between 300 and 400 feet between structures.

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	p. Describe the maximum length (miles) of new access roads with a drivable surface of 34 feet that would be developed during construction of the proposed facility.	m. Three electrical conductors and one optical grounding wire are typical. n. Applicant is required to have one junction cable box every 8,000 feet in order to perform testing on the system. Based upon the existing layout and without having performed the design on the system, no more than 20 junction boxes are anticipated. o. As currently designed, the maximum length of new access roads with a drivable surface of 22 feet is approximately 57 miles (The total length of access roads including those already in existence is approximately 90 miles). These will be reclaimed to 16-foot graveled surface after construction. Note: The decommissioning estimate provided in Attachment 1-76 assumes that only newly constructed access roads will be removed. It also assumes that the total width to be reclaimed is 22 feet. This presents a very conservative estimate, since Applicant anticipates that only 16 feet of gravel will remain permanently after construction. p. As currently designed, the maximum length of access roads with a drivable surface of 34 feet is approximately 70 miles (This includes modification of existing roads). These will be reclaimed to 16 foot graveled surface after construction.