

**Section 29
Decommissioning Plan**

1.0 ANTICIPATED LIFE OF WIND TURBINES

Megawatt-scale wind turbines are designed and certified by independent agencies for a minimum expected operational life of 20 years.

As the wind turbines approach the end of their expected life, it is anticipated that technological advances will make available more efficient and cost-effective generators that will economically drive the replacement of the existing generators.

Following the commencement of operation of the amended Oakfield Wind Project (project), absent the existence of a Force Majeure event, as defined herein, there will be a rebuttable presumption that the owner shall decommission the project in the event that there is an absence of electricity generated by the project for a continuous period of twelve (12) months. In addition to the Force Majeure exception, the owner may also provide reasonable evidence that the project has not been abandoned and should not be decommissioned.

“Force Majeure” as used herein shall mean fire, earthquake, flood, tornado, or other acts of God and natural disasters; strikes or labor disputes; war, civil strife or other violence; any law, order, proclamation, regulation, ordinance, action, demand or requirement of any government agency; suspension of operations of all or a portion of the project for routine maintenance, overhaul, upgrade or reconditioning; or any other act or condition beyond the reasonable control of a party.

2.0 ESTIMATED COST OF DECOMMISSIONING

The cost of decommissioning the project is offset by the salvage value of the towers and the turbine component, as well as associated facilities that are not placed into productive alternative use. Attached as Appendix 29-1 is a detailed report prepared by Sewall, which estimates the decommissioning costs and assumptions underlying those costs, as well as the salvage value estimates and assumptions underlying those estimates. As noted in that report, the decommissioning costs are based on disassembly of the component parts for sale as scrap, as opposed to disassembly in a manner that will allow for sale of intact component parts for re-use. Likewise, the salvage values are based on scrap as opposed to re-use values, unless otherwise indicated in the report. This report reflects a shift in the methodology used to determine decommissioning costs and salvage values. Specifically, in the permitted Oakfield Project, the decommissioning costs were based on disassembly of the project component parts, including the wind turbine generators, met towers and electrical collector system, in a manner that allowed for the sale and re-use of those parts. Disassembly for re-use is labor intensive and expensive, because it requires substantial construction oversight and specialized equipment, practices and testing to ensure that the components remain in working order and are available for re-use. For example, the process of turbine disassembly would in effect be the reverse of the initial turbine installation, and would require the use of specialized cranes to remove the blades and components and transport them off-site intact. Disassembly of component parts that will be sold as scrap is substantially less expensive because the parts do not need to be preserved for re-use but may be broken down on site and without utilizing special measures to ensure that the parts remain functional. Because the decommissioning costs in the permitted Oakfield Project assumed re-use of the component parts, the salvage values likewise reflect the higher values associated with sale of intact components. In contrast, the Sewall report salvage values are based on scrap metal prices, unless otherwise indicated, which is consistent with the decommissioning methodology in that report. The existence of a well-developed scrap metal market reduces the uncertainty in estimating salvage values and therefore we believe the updated methodology, which utilizes scrap metal prices in lieu of estimates of the resale value of wind turbine component parts, provides greater certainty to the DEP on net decommissioning costs.

The cost of decommissioning the project is offset by the salvage value of the towers and the turbine component, as well as associated facilities that are not placed into productive alternative use. As of the date hereof the estimated cost of decommissioning, minus salvage, value is \$1,425,000, detailed below.

Category	Decommissioning Cost	Salvage Value	Net
Project Management (contractor costs, equipment) and Operations & Maintenance building removal	\$1,500,000	\$0	\$1,500,000
Site work/Civil (site reclamation)	\$1,070,000	\$0	\$1,070,000
Wind Turbine Foundations	\$420,000	\$0	\$420,000
Wind Turbine Generators (towers, hub, nacelle, blades)	\$1,901,000	\$3,500,000	(\$1,599,000)
Electrical Collector System	\$529,000	500000	\$29,000
Substation	\$199,000	\$194,000	\$5,000
Generator lead transmission Line	\$611,000	\$365,000	\$246,000
Total	\$6,230,000	\$4,559,000	\$1,671,000
Total Minus Generator Lead	\$5,619,000	\$4,194,000	\$1,425,000

3.0 ENSURING AVAILABILITY OF DECOMMISSIONING AND SITE RESTORATION FUNDS

On or prior to December 31 of each calendar year, beginning with the calendar year in which the project commences commercial operation through and including calendar year 7, an amount equal to \$50,000 shall be reserved for decommissioning and site restoration. The first year financial assurance installment will be in place prior to the start of construction. Such amount may be in the form of a performance bond, surety bond, letter of credit, parental guaranty or other acceptable form of financial assurance (the "Financial Assurance").

At the end of year 7, the estimated cost of decommissioning (minus salvage value) will be reassessed. Based on this revised estimate, in years 8 through 15, Evergreen Wind Power II, LLC will make annual contributions commensurate with the goal of fully funding the decommissioning reserve by the end of the 15th year.

On or prior to the end of calendar year 15 of the project's operation, the estimated cost of decommissioning (minus salvage value) will be reassessed, and a copy of that reassessment submitted to the Town and Maine Department of Environmental Protection (MDEP). An amount equal to the balance of such updated estimated cost of decommissioning (minus salvage value) less the amounts reserved pursuant to the immediately preceding paragraph will be reserved for decommissioning and site restoration.

The Financial Assurance shall be kept in place until such time as the decommissioning work has been completed, provided, however, to the extent available as liquid funds, the Financial Assurance may be used to offset the costs of the decommissioning.

4.0 DECOMMISSIONING PROCESS DESCRIPTION

Decommissioning and restoration activities will adhere to the requirements of appropriate governing authorities and will be in accordance with applicable federal, state, and local permits. The Applicant will follow the erosion and sedimentation control measures and other best management practices currently in place for construction of the project, except as modified in a plan submitted to and approved by the MDEP prior to commencing removal activities.

The decommissioning and restoration process comprises removal of above-ground structures; removal of below-ground structures to a depth of 24 inches; grading, to the extent necessary; and restoration of topsoil and seeding.

The process of removing structures involves evaluating and categorizing all components and materials into categories of recondition and reuse, salvage, recycling and disposal. In the interest of increased efficiency and minimal transportation impacts, components and material may be stored on-site in a pre-approved location until the bulk of similar components or materials are ready for transport. The components and material will be transported to the appropriate facilities for reconditioning, salvage, recycling, or disposal.

Above-ground structures include the turbines, transformers, overhead collector or transmission lines, substation(s), wind farm-owned portions of the interconnection facilities (if any), meteorological towers, and maintenance building(s). Below-ground structures include turbine, substation, and building foundations; collector system conduit and cable; fiber optic facilities; and subterranean drainage structures (if any). The above-ground structures and below-ground structures are collectively referred to herein as the "Wind Farm Components".

In connection with the decommissioning of the Wind Farm Components and removal as further set forth below, in the event that on or prior to decommissioning the owner provides evidence of a plan of continued beneficial use of any of the Wind Farm Components, such items shall be excepted from the requirements of decommissioning, and the existing license shall be amended to reflect such revisions.

Turbine removal. Access roads to turbines will be widened to a sufficient width to accommodate movement of appropriately sized cranes, trucks, and other machinery required for the disassembly and removal of the turbines. Control cabinets, electronic components, and internal cables will be removed. The rotor, nacelle and tower sections will be lowered to the ground where they may be transported whole for reconditioning and reuse, or disassembled/cut into more easily transportable sections for salvageable, recyclable, or disposable components.

Turbine and substation foundation removal. Topsoil will be removed from an area surrounding the foundation and stored for later replacement, as applicable. Turbine foundations will be excavated to a depth sufficient to remove all anchor bolts, rebar, conduits, cable, and concrete to a depth of 24 inches below grade. The remaining excavation will be filled with clean sub-grade material of quality comparable to the immediate surrounding area. The sub-grade material will be compacted to a density similar to surrounding sub-grade material. All unexcavated areas compacted by equipment used in decommissioning shall be de-compacted in a manner to adequately restore the topsoil and sub-grade material to the proper density consistent and compatible with the surrounding area.

Underground collection cables. The cables and conduits contain no materials known to be harmful to the environment. As part of the decommissioning, these items will be cut back to a depth greater than 24 inches. All cable and conduit buried greater than 24 inches will be left in place and abandoned.

Overhead collection and generator lead transmission lines. The conductors, insulators, and other pole-top material will be removed. The supporting poles and anchors will be removed and the holes filled in with compatible sub-grade material. In areas where environmental damage from complete removal may outweigh the benefits, the poles will be sawed flush with the surrounding grade. Line components may be stored on-site during deconstruction of the line but will then be transported off-site for salvage or disposal.

Substation and interconnection facilities. Disassembly of the substation and interconnection facilities will include only the areas owned by the Applicant. Components (including steel, conductors, switches, transformers, fencing, and control houses) will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately at the Applicant's sole discretion. To the extent possible to remove foundations and underground components without damaging or impacting adjacent

facilities, such foundations and underground components will be removed to a depth of 24 inches, and the excavation filled, contoured, and re-seeded.

Access roads. Unless requested otherwise by the underlying landowner, permanent access roads constructed to accommodate the project will remain in place. Ditch crossings connecting access roads to public roads will be removed unless required that they remain by the landowner.

Improvements to Town and County roads that were not removed after construction will remain in place.

5.0 SITE RESTORATION PROCESS DESCRIPTION

Topsoil will be removed prior to removal of structures from all work areas and stockpiled, clearly designated, and separate from other excavated material. The topsoil will be de-compacted to match the density and consistency of the immediate surrounding area. The topsoil will be replaced to original depth, and original surface contours reestablished where possible. Any topsoil deficiency and trench settling shall be mitigated with imported topsoil consistent with the quality of the affected site.

Following decommissioning activities, the sub-grade material and topsoil from affected areas will be de-compacted and restored to a density and depth consistent with the surrounding areas to a maximum depth of 24 inches. The affected areas will be inspected, thoroughly cleaned, and all construction-related debris removed.

Disturbed areas will be reseeded to promote re-vegetation of the area to a condition reasonably similar to the original condition, reasonable wear and tear excepted. In all areas restoration shall include, as reasonably required, leveling, terracing, mulching, and other necessary steps to prevent soil erosion, to ensure establishment of suitable grasses and forbs, and to control noxious weeds and pests.

Appendix 29-1

Memorandum

TO: ALEC JARVIS, DEVELOPMENT MANAGER, FIRST WIND ENERGY, LLC

FROM: Janine S. Murchison, PE

DATE: June 6, 2011

SUBJECT: Oakfield Wind Project Decommissioning Budget

Sewall was requested to review the Decommissioning Budget for the 50 wind turbine generator (WTG) Oakfield Wind Project located in Oakfield and T4 R3 WELS, Aroostook County, Maine. This Oakfield Wind Project Decommissioning Budget represents an opinion of probable cost (OPC), in today's dollars, for decommissioning based on the assumption that the WTGs, towers, substation, interconnection facilities and other project components will be disassembled and disposed following completion of use of the wind turbines. The budget is also built on the assumption that the cost of decommissioning will be offset by the scrap value of the towers and turbine components.

Based on information provided by First Wind, the O&M Facilities will not be part of the decommissioning scope. Therefore, this item has not been included in the discussion or calculations herein. It is assumed that all project roads will remain.

Additionally, the transmission line and interconnect system (known as the Maine GenLead for this project) will not be included in the decommissioning scope; however, in the event that decommissioning funds need to be set aside for the Maine GenLead, budget information has been added at the end of this memo.

INFORMATION SOURCES FOR THIS REVIEW

This review is based on the civil and electrical site plans and quantity information provided by First Wind, discussions with contractors familiar with this type of construction and our own experience with wind projects. Wage rates used in these estimates are based on the State of Maine Department of Labor, Bureau of Labor Standards; 2011 Fair Minimum Wage Rates, Heavy and Bridge; Aroostook County.

DECOMMISSIONING SCOPE

The decommissioning format reflected in this OPC is based on Decommissioning Plans prepared for similar wind projects.

The decommissioning and restoration scope was based on the following:

- Disassembly and removal of above-ground structures
- Removal of below-ground structures to a depth of 24 inches
- Re-grading and seeding

Above-ground structures include the turbines, transformers, overhead collection or transmission lines, substation(s), wind farm-owned portions of the interconnection facilities (if any), meteorological towers, and maintenance building(s). Below-ground structures include turbine, substation, and building foundations; collector system conduit and cable; fiber optic facilities; and subterranean drainage structures (e.g., culverts) as necessary to restore turbine sites. Following removal of all above- and below-ground structures to 24-inches

below grade, the individual disturbed areas will be re-graded to be consistent with surrounding areas and reseeded to promote re-vegetation. The cost for disposal of any materials that are not scrapped is considered incidental, unless otherwise noted.

DECOMMISSIONING BUDGET

The decommissioning process has been divided into six (6) general work items. These work items have been grouped based on spreadsheets received from First Wind and decommissioning categories submitted to Maine DEP. Quantities and unit prices for these individual work items are presented and discussed in detail in the following paragraphs.

1. Project Management and Project Specific/Other
2. Site Work/Civil
3. Wind Turbine Foundations
4. Wind Turbine Generators and Meteorological System
5. Electrical Collection System
6. Electrical Substation

Please note that should decommissioning funds need to be set aside for the Maine GenLead, an additional work item has been included at the end of this memo.

7. Maine GenLead

1. Project Management

- Mobilization.
 - Mobilization and demobilization to setup and breakdown the crane and assist crane is estimated to cost a flat fee of \$95,000 per one-way trip, for a total of \$190,000.
 - In addition, it is estimated that the cranes will be re-mobilized an additional five (5) times at an estimated cost of \$30,000 per move to reach all of the turbine sites for a total of \$150,000.
 - Mobilization and demobilization of ancillary equipment (i.e. bull dozers, backhoes, etc.) is estimated to be \$50,000.

Total estimate for mobilization is \$390,000.

- Project Oversight. Oversight of the decommissioning is estimated at \$300,000.
- Incidentals. A budget of \$270,000 (approximately 5% of decommissioning costs) is recommended for project incidentals.
- Contingency. A contingency of \$540,000 (approximately 10% of decommissioning costs) is recommended to cover unknowns.

The total opinion of probable costs for **Project Management is \$1,500,000.**

2. Site Work/Civil (Site Reclamation)

- Re-grading of turbine sites.
 - The decommissioning plan includes restoring each of the turbine sites. We are assuming that all excavated areas will be brought up to grade and sloped to drain with suitable fill material generated from the re-grading of the turbine site or from off-site sources. Based on an approximate 12,000 SF (12 MSF) disturbed area at each turbine site, the estimated cost per site for additional fill and topsoil or other organic matter to support growth, seed, and mulch is \$330/MSF for a total of about \$4,000, or \$200,000 for all 50 sites.
 - This re-grading and restoration work is estimated to take a dozer and operator approximately eight (8) hours to complete at each turbine site at a labor and equipment rate of \$200 per hour. For all 50 turbine sites, re-grading is approximately \$80,000.

Total estimate for re-grading turbine sites is \$280,000.

- Road Maintenance. Dust control, road maintenance, and post construction road repairs is difficult to estimate. A budget of \$790,000 (approximately 5% of the \$15.8 million estimated for road construction) is recommended to address these items.

The total opinion of probable costs for **Site Work/Civil is \$1,070,000.**

3. Wind Turbine Foundations

- Removal of WTG foundation to 2 FT below grade. Removal of the turbine foundations will likely require a hydraulic excavator equipped with a hydraulic ram (hoe-ram), an additional excavator with bucket for loading, and various dozers and loaders. The total labor and equipment cost is estimated to be \$6,000 per site (based on 60 cubic yards and \$100/cubic yard) for a total of \$300,000 for all 50 sites.
- Transportation of rubble and disposal. Concrete demolition rubble generated at each turbine site is estimated to be approximately 60 cubic yards. However, as the steel rebar will likely be separated from the concrete debris, the rubble essentially becomes an inert material. Therefore, we have assumed that the concrete rubble generated will not be transported offsite but be used onsite as fill at toes of slopes, for road base or topping material, or at other locations in need of fill as desired by the property owner. Costs to transport the foundation rubble within the Oakfield Wind project boundaries, in comparison to other decommissioning costs, are assumed to be negligible. In the unlikely event the material cannot be used onsite, the material will be transported for offsite use. Costs to transport the foundation rubble to disposal are based on an estimated requirement of six (6) dump truck trips for each turbine site. Total material, labor and equipment costs for each dump truck trip are estimated to be \$400. At six (6) trips per site and 50 sites, our opinion of probable cost for transporting foundation rubble to disposal is approximately \$120,000.

The total opinion of probable costs for removal of **WTG Foundation is \$420,000.**

4. Wind Turbine Generators and Meteorological System

- Disassembly of turbine generators.
 - Disassembly costs for the WTGs are based on the assumption that it will take a 5-man crew 20 hours to disassemble each tower and turbine, which is roughly one-half the labor effort required for tower and turbine assembly. For all 50 turbines, this is equivalent to 5,000 man-hours. At a rate of \$25/man-hour, this is equivalent to \$125,000 of labor effort.
 - The crane costs (erector and assist cranes) are estimated at \$30,000/week. Based on an assumption that the cranes can disassemble two (2) turbines per week, the crane rental is estimated to be 25 weeks. Adding three (3) additional weeks for wind day delays yields \$840,000 for the crane rental.
 - Additionally, once the towers and turbines are on the ground, they will need to be cut up into manageable sized pieces in preparation for transportation to scrap, recycle, or disposal facilities. We are assuming it will take a 5-man crew 20 hours to do this work per turbine at a rate of \$30/man hour for each WTG. For all 50 WTGs, this is equal to about \$150,000.

The total estimate for WTG disassembly is \$1,115,000

- Nacelle housing and blade disposal. Disposal of the nacelle housing and blades are based on an estimated 31,000 lb/blade with 3 blades/turbine, or 46.5 tons per turbine. Disposal fees are estimated to be approximately \$68/ton. At 50 turbines, our opinion of probable cost for disposal of the blades and nacelle housing is about \$159,000.
- Transportation of turbine components to disposal/reclamation site. Cost to transport the tower and turbine components to facilities for scrap, recycling or disposal are based on a estimated requirement of ten (10) transport vehicles per turbine site (note: transport of new turbine and tower components to a site requires 12 to 14 transport vehicles). Total labor and equipment costs for each transport vehicle trip are estimated to be \$1,200. At ten (10) vehicle trips per turbine and 50 turbine sites, our opinion of probable cost for trucking turbine and tower components to disposal/reclamation is \$600,000.
- MET Tower disassembly/removal.
 - Disassembly costs for the MET towers are based on the assumption that it will take a 5-man crew 8 hours to disassemble each MET tower which is roughly equivalent to half the labor effort required for assembly. For all seven (7) MET towers, this is equivalent to 280 man-hours. At a rate of \$25/man-hour, this is equivalent to \$7,000 of labor effort.
 - Additionally, equipment rental is estimated at approximately \$200 per hour for 8 hours to assist with the disassembly, partially remove the foundations, and reclaim the site. For all seven (7) MET towers, this is approximately \$12,000.

The total estimate for MET tower disassembly/removal is \$19,000.

- Transportation of MET tower components to disposal/reclamation site.
 - Cost to transport the MET tower components to facilities for scrap, recycling or disposal are based on an estimated requirement of one (1) truck trip for each MET tower. Total labor and equipment costs for each truck trip are estimated to be \$800. At one (1) truck trip per each of the seven (7) MET towers, our opinion of probable cost for trucking MET tower components to disposal/reclamation is approximately \$6,000.
 - We have assumed that the concrete rubble generated from the foundations (while separating rebar as necessary) will not be transported offsite but be used onsite as fill at toes of slopes, for road base or topping material, or at other locations in need of fill as desired by the property owner. In the unlikely event the material cannot be used on-site, the material will be transported for offsite use. Costs to transport the foundation rubble to disposal are based on six (6) cubic yards of rubble per MET tower site for each of the seven (7) MET towers. Estimating five (5) dump truck trips and a total material, labor and equipment cost for each dump truck trip estimated at \$400, our opinion of probable cost for transporting foundation rubble to disposal is approximately \$2,000.

The total estimate for MET tower disposal is \$8,000.

The total opinion of probable costs for **WTGs and MET System removal is \$1,901,000.**

5. Electrical Collection System

Note that the transformers are internal to each WTG and their removal cost is included in the disassembly costs above.

- Disassembly of overhead collector lines, communication lines, and associated components.
(Note that direct bury wires will not be removed, but abandoned in place during decommissioning process.)
 - Disassembly and spooling costs for the overhead collector and communication lines and associated components are based on the assumption that the labor effort required will be a 3-man crew working for four (4) hours per 1,000 feet of overhead line. Based on an overhead collector total system length of 208,280 feet and a rate of \$40/man-hour for labor, this totals approximately \$100,000.
 - Equipment rates are estimated at \$1,600/day for approximately 104 days which is about \$167,000.
 - Pole removal and filling of remaining hole, based on approximately 930 poles, is estimated at \$150/pole; this totals about \$140,000.

The total for disassembly of overhead collector lines is \$407,000.

- Transportation of collector and communication lines and associated components to disposal/reclamation site.

- The cost to transport the collector and communication lines and associated components to facilities for scrap, recycling or disposal is based on the number of spools required per collector line sizes and lengths for the project. With a total of 393 spools of collector line and eight (8) spools per truck, there will be approximately 50 truck trips at \$1,200 per truck trip totaling \$60,000
- The 930 poles removed will be transported at a rate of 30 poles per logging truck. Poles will likely be sold or given away. This equals 31 truck trips at \$2,000 per truck trip totaling \$62,000.

The total for transportation of collector line and associated components is \$122,000.

The total opinion of probable costs for removal of **Electrical Collection System is \$529,000.**

6. Electrical Substation

- Disassembly of substation and associated components.
 - Disassembly costs for the substation and associated components are based on the assumption that the labor effort required will be a 5-man crew working for three (3) weeks, for a total of 600 man-hours. At a rate of \$40/man-hour, this is equivalent to \$24,000 of labor effort.
 - The disassembly will require a variety of construction equipment; as such it is difficult to estimate specific equipment requirements. In lieu of specific equipment rates, our opinion of probable cost includes a rental equipment allowance of \$20,000/week, for a total of \$60,000.

The total cost for disassembly of substation and associated components is \$84,000.

- Transport substation components to disposal/reclamation site. Costs to transport the substation components to facilities for scrap, recycling or disposal are based on an estimated one (1) truck trip per day for three (3) weeks totaling 15 truck trips from the substation site. Total labor and equipment costs for each transport vehicle trip are estimated to be \$1,200. At 15 vehicle trips, our opinion of probable cost for trucking substation components to disposal/reclamation is \$18,000.
- Remove and transportation/dispose of substation foundations.
 - Removal of the substation and interconnection foundations to a depth of two (2) feet below grade will require various forms of hydraulic equipment and various dozers and loaders. Based on the foundation dimensions of these facilities, the foundation rubble volume is estimated to be 550 cubic yards. The total labor and equipment cost is estimated to be \$100 per cubic yard of material for a total of approximately \$55,000.
 - The foundation rubble volume is estimated at 550 cubic yards. However, as the steel rebar will likely be separated from the concrete debris, the rubble essentially becomes an inert material. Therefore, we have assumed that the concrete rubble generated will not be transported offsite but be used onsite as fill at toes of slopes, for road base or topping material, or at other locations in need of fill as desired by the property owner. Costs to transport the foundation rubble within the Oakfield Wind project boundaries, in comparison to other decommissioning costs, are assumed to be negligible. In the unlikely event the material cannot be used on-site, the material

will be transported for offsite use. Costs to transport the foundation rubble to disposal are based on an estimated 55 dump truck trips and a total material, labor and equipment cost for each dump truck trip estimated at \$400; our opinion of probable cost for transporting foundation rubble to disposal is approximately \$22,000.

The total estimate for transportation/disposal of substation foundations is \$77,000.

- Re-grading of substation site.
 - For the restoration of the substation site, we are assuming that all excavated areas will be brought up to grade and sloped to drain with suitable fill material. Based on an assumed 45,000 SF site area (45 MSF), the estimated cost per site for additional fill and topsoil, seed, and mulch is \$330/MSF for a total of about \$15,000.
 - This re-grading work is estimated to take a dozer and operator approximately three (3) days to complete at a labor and equipment rate of \$200 per hour. Re-grading is estimated to be about \$5,000.

The total estimate for re-grading the substation site is \$20,000.

The total opinion of probable costs for removal of **Electrical Substation is \$199,000.**

DISASSEMBLY & REMOVAL SUMMARY

The total opinion of probable disassembly and removal costs from summing the items above is **\$5,619,000.**

SCRAP/SALVAGE VALUE

Salvage value is the potential re-use value for the component. Scrap value assumes no re-use value and is based on the material scrap value of the component. The presumed scrap/salvage values are based on the following conservative estimates:

- **Presumed scrap value of WTGs.** In estimating the scrap value of the WTGs, the following component weight estimates were used:

Base:	151,000 lb	Hub:	55,000 lb
Mid:	129,000 lb	Gear Box:	98,000 lb
Top:	92,000 lb	Machine Base Assembly:	68,000 lb
		Generator:	4,000 lb

The total estimated metal weight for each WTG is 597,000 lb or 298.5 tons. The current price for #1 steel scrap at a Bangor area metal recycling center is \$270/ton and \$200/ton for #2. Using an average of \$235/ton this comes to a potential scrap value of about \$70,000 per WTG or a total of \$3,500,000 for all 50. No scrap value was assumed for the blades or nacelle shell.

Total opinion of **presumed scrap value of WTGs is \$3,500,000.**

- **Presumed scrap value of the MET towers.** Based on a MET tower component weight of 6,000 lb and an average price for steel scrap at \$235/ton, the potential scrap value of the seven (7) MET towers is about \$5,000.

Total opinion of **presumed scrap value of MET towers is \$5,000.**

- **Presumed salvage value of the internal transformers.**

The cost of an internal transformer is assumed to be 85% of the cost of an equivalent external pad mounted transformer. Based on an estimated cost of \$48,000 for external transformers, this equates to about \$40,000. Based on our research, typical transformers have a life expectancy of 50 years. Therefore, at 20 years the transformers could have a value of approximately 50% of original costs. A conservative estimate of the transformer salvage value is 10% of the original transformer cost, which gives a salvage value of \$4,000 each and \$200,000 for all 50 transformers.

Total opinion of **presumed salvage value of the internal transformers is \$200,000.**

- **Overhead wire collection system scrap value.**

Based on electrical drawings, there is approximately 208,280 feet of OHW system consisting of communication lines and three aluminum conductors (steel reinforced). Based on wire sizes and lengths obtained from the electrical plans, the metal scrap is estimated to be 590,800 lb. of aluminum. The current price for aluminum scrap is \$0.50/lb at a Bangor area metal recycling center; this equates to approximately \$295,000.

Total opinion of potential **overhead wire collection system scrap value is \$295,000.**

- **Presumed scrap value of Substation**

Based on our research, typical substation components have a life expectancy of 50 years. Therefore, at 20 years the substation could have a value of approximately 50% of its original costs. In the event that the substation cannot be reused, the substation components will be sold for scrap value. As component weights are unavailable for the substation system, a conservative estimate of the substation scrap value is 2% of the total original cost. At an original cost of \$9,700,000 for the substation, this gives a scrap value of \$194,000.

Total opinion of **presumed scrap value of the substation is \$194,000.**

SCRAP VALUE SUMMARY

The total opinion of probable scrap/salvage value for the project is **\$4,194,000.**

DECOMMISSIONING SUMMARY

- The total opinion of probable disassembly and removal costs is \$5,619,000.
- The total opinion of probable scrap/salvage value for the project is \$4,194,000.

The net estimated opinion of probable cost for the decommissioning is \$1,425,000.

Please note that should decommissioning funds need to be set aside for the Maine GenLead, decommissioning and scrap values have been included here:

7. Electrical Maine GenLead System

- Disassembly of Maine GenLead and associated components.
 - Disassembly and spooling costs for the interconnection conductors, communication lines, and associated components are based on the assumption that the labor effort required will be a 3-man crew working for four (4) hours per 1,000 feet of overhead line. Based on an approximate total system length of approximately 290,700 feet and a rate of \$40/man-hour for labor, this totals approximately \$140,000.
 - Equipment rates are estimated at \$1,600/day for approximately 146 days which is about \$234,000.
 - Pole removal and filling of remaining hole, based on approximately 750 poles, is estimated at \$150/pole; this totals about \$113,000.

The total for disassembly of the interconnection conductors is \$487,000.

- Transportation of Maine GenLead and associated components to disposal/reclamation site.
 - The cost to transport the Maine GenLead, communication lines, and associated components to facilities for scrap, recycling or disposal is based on the number of spools required per line sizes and lengths for the project. With a total of 485 spools of collector line and eight (8) spools per truck, there will be approximately 61 truck trips at \$1,200 per truck trip totaling \$74,000.
 - The 750 poles removed will be transported at a rate of 30 poles per logging truck. This is equals 25 truck trips at \$2,000 per truck trip totaling \$50,000.

The total estimate for transportation/disposal of Maine GenLead System is \$124,000.

The total opinion of probable costs for removal of **Electrical Maine GenLead System is approximately \$611,000.**

SCRAP VALUE

- **Maine GenLead system scrap value.** There is approximately 1,162,800 linear feet of overhead communication and conductor wiring consisting of aluminum (steel reinforced) wire. Based on wire sizes and lengths provided, the metal scrap is estimated to be 730,000 lb. of aluminum. The current price for aluminum scrap is \$0.50/lb at a Bangor area metal recycling center; therefore the potential scrap value is approximately \$365,000.

Total opinion of **presumed scrap value of the Maine GenLead system is \$365,000.**

DECOMMISSIONING SUMMARY WITH MAINE GENLEAD

- The total opinion of probable disassembly and removal costs is \$6,230,000.
- The total opinion of probable scrap/salvage value for the project is \$4,559,000.

The net estimated opinion of probable cost for the decommissioning is \$1,671,000.

End of Memo

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