

**NUMBER NINE WIND FARM
MDEP NRPA/SITE LOCATION OF DEVELOPMENT COMBINED APPLICATION**

Section 29.
Decommissioning Plan

SECTION 29. DECOMMISSIONING PLAN

29.1 DECOMMISSIONING PLAN

Number Nine Wind Farm LLC (Applicant) has developed a decommissioning plan for the Number Nine Wind Farm (Project), including a decommissioning budgets developed by James W. Sewall Company for each component of the Project.

The Project will include 3 primary components, including 1) the Turbine Area, with up to 119 turbines, up to 4 permanent meteorological towers, associated 34.5-kilovolt (kV) electrical collector lines (collector line) and access roads, a project substation, and an Operations and Maintenance (O&M) building in the Turbine Area; and 2) segments of a 345-kV electrical generator lead line (generator lead), including 2) the North Generator Lead Line (North Line); and 3) the Bridal Path Generator Lead Line (Bridal Path Line).

It is anticipated that the Bridal Path Line will be acquired by a utility¹ at some point in the future, and is incorporated into the Project permit application as a distinct Project component in anticipation of the transfer of this portion of the Project. Similarly, the North Line may also be transferred to a third party at some point in the future, and is also presented in this permit application as a distinct Project component. As such, the decommissioning budget for each of the 3 components is presented separately.

29.1.1 Decommissioning Approach

Decommissioning of the entire Project will begin if 12 consecutive months of no generation occurs at the wind generation facility. Decommissioning of a single turbine will begin if 12 consecutive months of no generation occurs at that turbine.

If a third party (excluding a utility) acquires either the Bridal Path Line, and/or the North Line, separate from the Turbine Area, any decommissioning obligations and associated costs will be transferred to such third party; the Applicant's decommissioning costs will be calculated based on the Project components it continues to own. If a utility acquires either the Bridal Path Line and/or the North Line, separate from the Turbine Area, those assets shall become a permanent part of the utility infrastructure; as such, those assets will not be subject to decommissioning obligations, but rather will be subject to standard utility plant maintenance obligations. The

¹ For the purposes of this Section 29 only, the term "utility" means a regulated Maine transmission and distribution electric utility as that term is used and defined under Title 35-A M.R.S.A. Section 102 (20-B) et seq..

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Applicant's decommissioning costs will be calculated based on the Project components it continues to own.

An exception to the requirement will be allowed for a force majeure event; the Applicant proposes that "force majeure" be defined to mean any event or circumstance which wholly or partly prevents or delays the performance of any material obligation arising under this permit but only to the extent: (1) such event is not within the reasonable control, directly or indirectly, of the Applicant (including without limitation events such as fire, earthquake, flood, tornado, hurricane, acts of God and natural disasters; war, civil strife or other similar violence); (2) the Applicant has taken all reasonable precautions and measures in order to prevent or avoid such event or mitigate the effect of such event on the Applicant's ability to perform its obligations under this permit and which, by the exercise of due diligence, the Applicant could not reasonably have been expected to avoid and which, by the exercise of due diligence, it has been unable to overcome; and (3) such event is not the direct or indirect result of the fault or negligence of the Applicant.

In the event of a force majeure event which results in the absence of electrical generation by one or more turbines for 12 months, by the end of the twelfth month of non-operation the Applicant must demonstrate to the Maine Department of Environmental Protection (MDEP) that the Project, or any single turbine, will be substantially operational and producing electricity within 24 months of the force majeure event. If such a demonstration is not made to MDEP's satisfaction, the decommissioning of any single turbine only (and no other part of the Project that is operational) or if the Project is not substantially operational and producing electricity, then decommissioning of the Project must be initiated 18 months after the force majeure event.

29.1.2 Anticipated Operational Life of Turbines

The turbines have a useful life of 25 years and will be under warranty from the manufacturer for 2 years.

29.1.3 Implementation Plan

As described in Exhibits 29-A, 29-B, and 29-C, the decommissioning will include disassembly and removal of above-ground structures, removal of subsurface structures to a minimum depth of 24 inches below grade, and re-grading and re-seeding of disturbed areas. At the time of decommissioning, the Applicant will submit a plan for continued beneficial use of any components to be left on site.

29.1.4 Estimated Cost of Decommissioning

As described in Exhibits 29-A, 29-B, and 29-C, the estimated total cost of decommissioning is \$6,918,200, including \$6,333,500 for the Turbine Area (Table 29-1, Exhibit 29-A), \$277,600 for the North Line (Table 29-2, Exhibit 29-B) and \$307,100 for the Bridal Path Line (Table 29-3, Exhibit 29-C).

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As described in the decommissioning budgets, it is anticipated that either or both of the Generator Lead Lines may be acquired by a third party at some point in the future. The decommissioning budget assumes that transformers would be sold for reuse and that all other scrapable metal materials would be sold as scrap in the Bangor, Maine area. The decommissioning budget describes the methodology for determining the scrap values.

Table 29-1. Summary of Decommissioning Costs Turbine Area

Category	Decommissioning Cost	Scrap Value	Net Cost
Project Management	\$4,817,700	\$0	\$4,816,500
Site Work/Civil	\$ 930,800	\$0	\$ 930,800
Wind Turbine Foundations	\$ 327,400	\$0	\$ 327,400
Wind Turbine Generators / Met Towers	\$5,904,300	\$6,543,600	\$ (646,400)
Electrical Collection System	\$ 910,000	\$ 93,100	\$ 816,900
Project Electrical Substation	\$ 354,800	\$ 520,300	\$ (165,500)
Operations and Maintenance Building	\$ 245,500	\$0	\$ 245,500
Total	\$13,490,500	\$7,157,000	\$6,333,500

Table 29-2. Summary of Decommissioning Costs North Line

Category	Decommissioning Cost	Scrap Value	Net Cost
North Line	\$445,800	\$168,200	\$277,600
Total	\$445,800	\$168,200	\$277,600

Table 29-3. Summary of Decommissioning Costs Bridal Path Line

Category	Decommissioning Cost	Scrap Value	Net Cost
Bridal Path Line	\$390,400	\$83,300	\$307,100
Total	\$390,400	\$83,300	\$307,100

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29.1.5 Financial Assurance

As described in Exhibits 29-A, 29-B, and 29-C, the total decommissioning costs are estimated to be \$6,909,900. The Applicant will demonstrate financial assurance to MDEP through a performance bond, surety bond, or letter of credit prior to the start of construction.

If a third party (excluding a utility) acquires either the Bridal Path Line, and/or the North Line, separate from the Turbine Area, any decommissioning obligations and associated costs will be transferred to such third party; the Applicant's decommissioning costs will be calculated based on the Project components it continues to own. If a utility acquires either the Bridal Path Line, and/or the North Line, separate from the Turbine Area, those assets shall become a permanent part of the utility infrastructure; as such, those assets will not be subject to decommissioning obligations, but rather will be subject to standard utility plant maintenance obligations. The Applicant's decommissioning costs will be calculated based on the Project components it continues to own.

To identify any changes in the estimated net cost of decommissioning, the Applicant will reassess both removal costs and salvage values on or prior to the end of calendar years 5, 10, and 15 of Project operations. The Applicant will provide updated information to MDEP based on these assessments.

The financial assurance will remain in place until the decommissioning work has been completed, provided that, to the extent liquid funds are available, the financial assurance may be used to offset the costs of decommissioning.

29.1.6 Continued Beneficial Use

In the event that, at or prior to decommissioning, the current owner provides evidence to MDEP of a plan of continued beneficial use of any of the Project components, such items would be exempted from the requirements of decommissioning and financial assurance and the existing license would be amended to reflect such revisions. If a third party (excluding a utility) acquires either the Bridal Path Line, and/or the North Line, separate from the Turbine Area, such third party will be responsible for providing evidence of a plan of continued beneficial use for relevant Project components.

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EXHIBIT 29-A DECOMMISSIONING BUDGET TURBINE AREA

Katie Chapman, Project Manager
Number Nine Wind Farm, LLC
via e-mail: Katie.Chapman@edpr.com

March 16, 2015

Subject: Number Nine Wind Farm, LLC - Decommissioning Budget

Dear Katie:

Sewall was requested to develop this Decommissioning Budget for the Number Nine Wind Farm LLC project located west of the Bridgewater area in Aroostook County, Maine. The budget represents an opinion of probable cost (OPC), in today's dollars, for decommissioning based on the assumption that the wind turbine generators (WTGs), towers, and other project components will be disassembled and disposed following completion of use of the WTGs. The budget is also built on the assumption that the cost of decommissioning will be fully or partially offset by the scrap/salvage value of the towers and turbine components.

The project will include the following primary components as part of the Turbine Area: up to 119 turbines, four (4) permanent MET towers, associated 34.5-kilovolt (kV) electrical collector lines (collector line) and access roads, a project collector substation, and an Operations and Maintenance (O&M) building. We understand that the 119 Gamesa WTGs will consist of 17 G114-2.0MW WTGs and 102 G114-2.1MW WTGs, all on 93 meter towers.

Based on information provided from the Number Nine Wind Farm LLC project team, we have assumed that all project roads will remain.

Information Sources for this Review

This review is based on the civil and electrical site plans and quantity information provided by the Number Nine Wind Farm LLC project team, 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; 2015 Fair Minimum Wage Rates, Heavy and Bridge; Aroostook County.

Decommissioning Scope

The decommissioning process reflected in this OPC is based on Decommissioning Plans prepared for similar wind projects. In summary, the decommissioning and restoration process in the Plan consists of the following steps:

- 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 lines, meteorological towers, and buildings. Below-ground structures include turbine foundations, and drainage control 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 for any materials that are not scrapped is considered incidental, unless otherwise noted.

Decommissioning Budget

The decommissioning process has been divided into 7 general work items. Quantities and unit prices for these individual work items are presented and discussed in detail in the following paragraphs.

1. Project Management (contractor costs, equipment, etc.)
2. Site Work/Civil (site reclamation)
3. Wind Turbine Foundations
4. Wind Turbine Generators and MET Towers
5. Electrical Collection Line
6. Project Electrical Substation
7. Operation & Maintenance Building

1. Project Management

1.1 Mobilization

A. Mobilization and demobilization to setup and breakdown the crane and assist crane estimated to cost a flat fee of \$95,000 per one-way trip, for a total of:	\$ 190,000.00
B. In addition, it is estimated that the cranes will be re-mobilized an additional 35 times at an estimated cost of \$60,000 per move to reach all of the turbine sites for a total of:	\$ 2,100,000.00
C. Mobilization and demobilization of ancillary equipment (i.e. bull dozers, backhoes, etc.) is estimated to be:	\$ 54,000.00
Total estimate for mobilization is:	\$ 2,344,000.00

1.2 Project Oversight. Oversight of the decommissioning is estimated at: \$ 714,000.00

1.3 Incidentals. A budget of approximately 5% of the decommissioning scope is recommended for project incidentals: \$ 586,600.00

1.4 Contingency. A contingency of approximately 10% of the decommissioning scope is recommended to cover unknowns: \$ 1,173,100.00

Total opinion of probable costs for **Project Management**: \$ 4,817,700.00

2. Site Work/Civil (Site Reclamation)

2.1 Re-grading of turbine sites.

A. 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. The estimated cost includes additional fill, topsoil or other organic matter to support growth, seed, and mulch.

Approximate disturbed area:	11,000 SF/turbine site
Estimated cost per 1000 SF (1 MSF):	\$ 360.00 /MSF
Total estimated re-grading material cost for all 119 turbine sites:	\$ 471,300.00

B. This re-grading and restoration work is estimated to take a dozer and operator approximately eight (8) hours to complete at each turbine site.

Labor & equipment rate:	\$	220.00 /hour	
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Total re-grading and restoration work for all 119 turbine sites:	\$	209,500.00	
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Total estimate for re-grading turbine sites is:	\$		680,800.00

2.2 Road Maintenance. Approximately 1% of the \$25 million estimated for road construction is recommended to address dust control, road maintenance, and post construction road repairs

	\$		250,000.00
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The total opinion of probable costs for **Site Work/Civil:** **\$ 930,800.00**

3. Wind Turbine Foundations

3.1 Removal of WTG foundation to 2 FT below grade. Removal of the turbine foundations is assumed to require a hydraulic excavator equipped with hydraulic ram (hoe-ram), an additional excavator with bucket for loading, and various dozers and loaders.

Total estimated labor & equipment cost:	\$	1,870.00 /site	
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Total estimate for WTG foundation removal labor for all 119 turbine sites:	\$		222,600.00

3.2 Transportation of rubble and disposal. Concrete demolition rubble generated at each turbine site is estimated to be approximately 17 cubic yards (based on a removal depth of 2 feet below grade). As it is assumed the steel rebar will 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 project boundaries, in comparison to other decommissioning costs, are assumed to be negligible. However, 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 requirement of two (2) dump truck trips for each turbine site and transported to a location within 2 hours (one-way) at an equipment and labor rate of \$110/hr.

Total estimated labor & equipment cost:	\$	440.00 /dump truck trip	
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Total estimate for WTG foundation transportation costs for all 119 turbine sites:	\$		104,800.00

The total opinion of probable costs for removal of **WTG Foundations:** **\$ 327,400.00**

4. Wind Turbine Generators and MET Towers

4.1 Disassembly of turbine generators:

A. Disassembly costs for the WTGs are based on the assumption that it will take a 10-man crew 20 hours to disassemble each tower and turbine, which is roughly equivalent to the labor effort required for tower and turbine assembly.

Estimated labor rate:	\$	20.00 /man-hour	
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Total estimate for WTG disassembly for all 119 turbines:	\$		476,000.00

- B. Based on an assumption that the two cranes (erector and assist cranes) can disassembly two (2) turbines a week, the crane rental is estimated to be 60 weeks. Eight (8) weeks are added for wind day delays.

Estimated rental costs for two cranes:	\$	40,000.00 /week
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Total estimate for WTG disassembly equipment for all 119 turbines:	\$	2,720,000.00

- C. 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.

Estimated labor rate:	\$	15.00 /man-hour
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Total estimate for WTG dismantling for all 119 turbines:	\$	178,500.00

The total estimate for WTG disassembly is: \$ 3,374,500.00

- 4.2 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 10 transport vehicles per turbine site (note: transport of new turbine and tower components to a site requires 12 to 14 transport vehicles).

Total estimated labor & equipment cost:	\$	1,500.00 /transport trip
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Total estimate for turbine component transport for all 119 turbine sites:	\$	1,785,000.00

- 4.3 Nacelle housing, blade, and other component disposal. Disposal of the nacelle housing, blades, and other non-scrapable components are based on an estimated 103,420 lbs/turbine. Disposal fees are generally based on weight (in tons).

Total estimated weight of blades and nacelle:		52 tons
Disposal fee (based on Central Aroostook area landfill rates):	\$	115.00 /ton
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Total estimate for nacelle housing and blade disposal for all 119 turbine sites:	\$	711,700.00

- 4.4 MET Tower disassembly/removal/restoration:

- A. Disassembly costs for the MET towers are based on the assumption that it will take a 5-man crew 16 hours to disassemble each MET tower. We have assumed that removal of associated 6-ft chain link fence at each MET site will take an additional 4 hours.

Estimated labor rate:	\$	20.00 /man-hour
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Total estimate for MET disassembly labor cost for four (4) towers:	\$	8,000.00

- B. Additionally, equipment rental is estimated at approximately 16 hours for each MET tower to assist with the disassembly, partially remove foundations, and reclaim the site.

Total estimated labor & equip. rate:	\$	220.00 /hour
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Total estimate for MET disassembly equipment cost for four (4) towers:	\$	14,100.00

C. The decommissioning plan includes restoring each of the MET 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 MET site or from off-site sources. The estimated cost includes:

Approximate disturbed area:		1,800 SF/MET site	
Estimated cost per 1000 SF (1 MSF):	\$	360.00	/MSF
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Total estimated re-grading material cost for four (4) towers:	\$	2,600.00	
Total estimate for MET tower disassembly/removal/restoration for four (4) towers is:	\$		24,700.00

4.5 Transportation of MET tower components to disposal/reclamation site.

A. Cost to transport the MET tower and associated components to facilities for scrap, recycling or disposal are based on an estimated requirement of one (1) truck trip for each MET tower.

Total estimated labor & equip. cost:	\$	960.00	/trip
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Total estimate for MET component trucking cost for four (4) towers:	\$		3,900.00

B. Removal of the MET foundations to 2 FT below grade is assumed to require a hydraulic excavator equipped with hydraulic ram (hoe-ram), an additional excavator with bucket for loading, and various dozers and loaders.

Estimated rubble per site:		6	CY
Labor & equipment cost:	\$	110.00	/CY
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Total estimated labor & equipment cost:	\$	660.00	/site
Total estimate for foundation removal for all four (4) MET sites:	\$		2,700.00

C. 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. However, 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 for an estimated one (1) dump truck trip per MET tower site and transported to a location within 2 hours (one-way) at an equipment and labor rate of \$110/hr.

Total estimated labor & equip. cost:	\$	440.00	/dump truck trip
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Total estimate for MET foundation transportation cost for four (4) towers:	\$		1,800.00
Total estimate for MET tower disposal for four (4) towers is:	\$		8,400.00

The total opinion of probable costs for **WTGs and MET Tower removal:** **\$ 5,904,300.00**

5. Electrical Collection Line

Note that as the direct-buried underground collector is buried deeper than 2 ft, it will not be removed but be abandoned in place. Also note that transformers are internal to each WTG and their removal cost is included in the disassembly costs above.

5.1 Disassembly of overhead collector lines and associated components:

- A. Disassembly and spooling costs for the overhead collector 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 wire.

Estimated total length of overhead lines:		386,905 feet
Estimated labor rate:	\$	32.00 /man-hour
Total estimate for overhead collector lines disassembly:	\$	149,000.00

- B. Equipment rates are estimated at the following rate for approximately 194 days.

Estimated equipment rates:	\$	1,800.00 /day
Total estimate for overhead collector lines disassembly:	\$	349,200.00

- C. Pole removal and filling of remaining hole, based on the following approximate quantities:

Amount of poles:		1,600 each
Removal labor and equipment costs:	\$	170.00 /pole
Total estimate for overhead collector pole removal:	\$	272,000.00

Total for disassembly of overhead collector lines: \$ 770,200.00

5.2 Transportation of collector lines and associated components

- A. The cost to transport the collector line 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, and a capacity of eight (8) spools per truck.

Estimated spools of collector line:		397 each
Estimated labor & equipment cost:	\$	1,500.00 /truck trip
Total estimate for collector lines disassembly:	\$	75,000.00

- B. Pole removal will be transported at a rate of 30 poles per logging truck. It is assumed that poles will be sold or given away.

Amount of poles:		1,600 each
Estimated labor & equipment costs:	\$	1,200.00 /truck trip
Total estimate for overhead collector pole removal:	\$	64,800.00

Total for transportation of collector line and associated components: \$ 139,800.00

The total opinion of probable costs for **Electrical Collection Line removal:** \$ **910,000.00**

6. Project Electrical Substation

This section gives a general description of the assumptions made for the demolition costs of this item.

6.1 Disassembly of substation and associated components.

- A. Disassembly costs for the substation is based on the assumption that the labor effort required will be a 5-man crew working for approximately five (5) weeks.

Estimated labor rate:	\$	32.00 /man-hour
Total estimate for substation disassembly:	\$	32,000.00

B. The disassembly will require a variety of construction equipment; in lieu of specific equipment rates, our opinion of probable cost includes a weekly rental equipment allowance for the assumed five (5) weeks.

Estimated equipment rental rate:	\$	36,000.00 /week
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Total estimate for substation disassembly:	\$	180,000.00

Total for disassembly of substation and associated components: \$ 212,000.00

6.2 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 five (5) weeks totaling 25 truck trips from the substation site.

Estimated labor & equipment costs:	\$	1,200.00 /truck trip
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Total for transport of substation components to disposal/reclamation site:	\$	30,000.00

6.3 Removal and transportation/disposal of substation foundations.

A. Removal of the substation foundations to a depth of two (2) feet below grade will require various forms of hydraulic equipment and various dozers and loaders. Estimated foundation rubble volume is based on the assumed foundation dimensions of these facilities.

Estimated foundation rubble volume:		300 cubic yards
Estimated labor & equipment costs:	\$	110.00 /cubic yard
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Total estimate for substation foundation removal:	\$	33,000.00

B. 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. However, 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 300 cubic yards of rubble, and 10 cubic yards per dump truck trip.

Estimated labor & equipment costs:	\$	440.00 /dump truck trip
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Total estimate for substation foundation transportation:	\$	13,200.00

Total for removal and transportation/disposal of substation foundations: \$ 46,200.00

6.4 Re-grading of substation site:

A. 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 generated from the re-grading of the site or from off-site sources; associated driveways will also be restored. The estimated cost includes additional fill, topsoil or other organic matter to support growth, seed, and mulch.

Approximate disturbed area:		145,720 SF/Substation Site
Estimated cost per 1000 SF (1 MSF):	\$	360.00 /MSF
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Total estimated re-grading material cost for substation:	\$	52,500.00

B. This re-grading and restoration work is estimated to take a dozer and operator approximately eight (8) days to complete.

Labor & equipment rate:	\$	220.00 /hour
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Total re-grading and restoration work for substation:	\$	14,100.00

Total estimate for re-grading substation site is: \$ 66,600.00

Total opinion of probable costs for Electrical Project Substation removal: \$ 354,800.00

7. Operation & Maintenance Building

7.1 Building removal

Demolition of a 7,080 square foot O&M Building and a 6,000 square foot associated Garage, including labor, equipment, and transportation to facilities for scrap, recycling, or disposal is based on a removal rate of 20,100 cubic feet per day over 14 days at a daily cost of \$8,200:

\$114,800.00

7.2 Removal and transportation/disposal of building foundations.

A. Removal of the O&M Building foundation, the Garage foundation, and associated components to a depth of two (2) feet below grade will require various forms of hydraulic equipment and various dozers and loaders. Estimated foundation rubble volume is based on the approximated foundation dimensions of the two buildings.

Estimated foundation rubble volume:		390 cubic yards	
Estimated labor & equipment costs:	\$	110.00 /cubic yard	
Total estimate for Facility foundation removal:		\$	42,900.00

B. 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. However, 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 10 cubic yards per dump truck trip.

Estimated foundation rubble volume:		390 cubic yards	
Estimated labor & equipment costs:	\$	440.00 /dump truck trip	
Total estimate for Facility foundation transportation:		\$	17,200.00

Total for removal and transportation/disposal of Facility foundation: \$ 60,100.00

7.3 Re-grading of O&M site:

A. For the restoration of the O&M site, we are assuming that all excavated areas will be brought up to grade and sloped to drain with suitable fill material; associated driveways will also be restored. The estimated cost includes additional fill, topsoil or other organic matter to support growth, seed, and mulch at all disturbed areas.

Approximate disturbed area:		151,900 SF	
Estimated cost per 1000 SF (1 MSF):	\$	360.00 /MSF	
Total estimated re-grading cost for Facility Building:		\$	54,700.00

B. This re-grading and restoration work is estimated to take a dozer and operator approximately nine (9) days to complete.

Labor & equipment rate:		220.00 /hour	
Total re-grading and restoration work for Facility building:		\$	15,900.00

Total estimate for re-grading Facility site is: \$ 70,600.00

Total opinion of probable costs for Operation & Maintenance Building: \$ 245,500.00

Disassembly & Removal Summary

The total opinion of probable disassembly and removal costs from summing the items above: **\$ 13,490,500.00**

Scrap / Salvage Value

For the purposes of this decommissioning plan, we have assumed that transformers would be sold for reuse and all other scrapable metal materials from the project decommissioning would be sold as scrap to a recycling yard in the Bangor, Maine area. The presumed scrap / salvage values are based on the following conservative estimates:

- 1. Presumed scrap value of WTGs.** In estimating the scrap value of the WTGs, the following component weight estimates were used (all weights are in pounds). No scrap value was assumed for the blades or nacelle shell.

Bottom section:	158,800	Hub	61,200
Second section:	112,200	Nacelle *	189,300
Third section:	94,700		
Top section:	83,800		

Total estimated weight for each WTG: 700,000 lbs

Current prices for #1 steel scrap at a Bangor, Maine area metal recycling center:

#1 steel \$ 147.00 /ton

[(700,000 lbs / 2,000 lbs per ton) x \$147 per ton x 119 turbines = approx. \$6,122,600]

* Nacelle weight is prorated average between the two different WTGs

Total opinion of **presumed scrap value for all 119 WTGs:** **\$ 6,122,600.00**

- 2. Presumed value of the WTG internal transformers.** The cost of an internal transformer is approximately \$35,000. Based on our research, typical transformers have a life expectancy of 50 years. Therefore, at 20 years a transformer could have a value of approximately 50% of its original cost. However, to be conservative, we have estimated the value of the internal transformers at 10% of the original transformer cost.

Estimated original cost for internal transformers: \$ 35,000.00 each

Estimated value (10%): \$ 3,500.00 each

Total opinion of **presumed value for all 119 internal transformers:** **\$ 416,500.00**

- 3. Presumed scrap value of the MET towers.** In estimating the scrap value of the MET towers, the following component weight and steel scrap values were used:

MET tower component weight: 15,000 lbs

Average steel scrap value: \$ 147.00 /ton

Total opinion of **presumed scrap value of all four (4) MET towers:** **\$ 4,500.00**

4. **Presumed scrap value of Overhead Electrical Collector Wiring.** Quantities of overhead wire and wire sizes and lengths are based on electrical drawings prepared by Dashiell and used as a basis for estimated scrappable metal amounts. Overhead wiring consists of aluminum (steel reinforced) conductors.

Estimated linear feet of wiring:	1,160,715 ft
Estimated weight of scrappable aluminum:	465,100 lbs
Current price for aluminum scrap at a Bangor area metal recycling center:	\$ 400.00 /ton

Total opinion of **presumed scrap value of the Overhead Collector Wiring:** \$ **93,100.00**

5. **Presumed scrap value of Project 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 cost. However, to be very conservative, we have estimated the substation scrap value at 2% of the total original cost:

Original substation construction estimate, less the transformers:	\$ 6,636,000.00
Estimated substation scrap value (2%):	\$ 132,700.00

Total opinion of **presumed scrap value of the Project Substation:** \$ **132,700.00**

6. **Presumed value of Project Substation Transformer(s).** Based on our research, typical transformers have a life expectancy of 50 years. Therefore, at 20 years a transformer(s) could have a value of approximately 50% of its original cost. However, to be conservative, we have estimated the value of the substation transformer(s) at 10% of the original transformer cost:

Original substation transformer(s) cost:	\$ 3,876,000.00
Estimated value (10%):	\$ 387,600.00

Total opinion of **presumed value of the Project Substation Transformer(s):** \$ **387,600.00**

Scrap / Salvage Value Summary

The total opinion of probable scrap / salvage value from summing the items above: \$ **7,157,000.00**

Decommissioning Summary

Disassembly & Removal

1. Project Management	\$ 4,817,700.00
2. Site Work/Civil (site reclamation)	\$ 930,800.00
3. Wind Turbine Foundations	\$ 327,400.00
4. Wind Turbine Generators and MET Towers	\$ 5,904,300.00
5. Electrical Collection System	\$ 910,000.00
6. Project Electrical Substation	\$ 354,800.00
7. Operation & Maintenance Building	\$ 245,500.00

Disassembly & Removal Total **\$ 13,490,500.00**

Scrap/Salvage Value

1. Presumed scrap value of WTGs	\$ 6,122,600.00
2. Presumed value of the WTG Internal Transformers	\$ 416,500.00
3. Presumed scrap value of MET Towers	\$ 4,500.00
4. Presumed scrap value of the Overhead Electrical Collector Wiring	\$ 93,100.00
5. Presumed scrap value of Project Substation	\$ 132,700.00
6. Presumed value of the Project Substation Transformers	\$ 387,600.00

Scrap/Salvage Value Total **\$ 7,157,000.00**

The total opinion of probable **Disassembly & Removal** costs is: \$ 13,490,500.00
The total opinion of probable **Scrap/Salvage Value** is: \$ 7,157,000.00

The net estimated opinion of probable cost for decommissioning is:	\$ 6,333,500.00
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Please do not hesitate to contact us with any questions regarding the information contained in this budget. We appreciate the opportunity to work with you on this project.

Sincerely,

James W. Sewall Company



Janine S. Murchison, PE
Project Manager
jmurchison@sewall.com
Phone: (207) 492-1014

**NUMBER NINE WIND FARM
MDEP NRPA/SITE LOCATION OF DEVELOPMENT COMBINED APPLICATION**

Section 29.
Decommissioning Plan

**EXHIBIT 29-B DECOMMISSIONING BUDGET NORTH
GENERATOR LEAD LINE**

Katie Chapman, Project Manager
Number Nine Wind Farm, LLC
via e-mail: Katie.Chapman@edpr.com

March 16, 2015

Subject: North Electrical GenLead portion of the Number Nine Wind Farm, LLC - Decommissioning Budget

Dear Katie:

Sewall was requested to develop this Decommissioning Budget for the North Electrical GenLead portion of the Number Nine Wind Farm LLC project, located in Aroostook County, Maine. The budget represents an opinion of probable cost (OPC), in today's dollars, for decommissioning based on the assumption that the project components will be disassembled and disposed following completion of use. The budget is also built on the assumption that the cost of decommissioning will be fully or partially offset by the scrap/salvage value of the project components.

Information Sources for this Review

This review is based on the civil and electrical site plans and quantity information provided by the Number Nine Wind Farm LLC project team, 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; 2015 Fair Minimum Wage Rates, Heavy and Bridge; Aroostook County.

Decommissioning Scope

The decommissioning process reflected in this OPC is based on Decommissioning Plans prepared for similar wind projects. In summary, the decommissioning and restoration process in the Plan consists of the following steps:

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

The cost for disposal for any materials that are not scrapped is considered incidental, unless otherwise noted.

Decommissioning Budget

The decommissioning process has been divided into 2 general work items. Quantities and unit prices for these individual work items are presented and discussed in detail in the following paragraphs.

1. Project Management (contractor costs, equipment, etc.)
2. North Electrical GenLead Line

1. Project Management

1.1 Mobilization.

Mobilization and demobilization of ancillary equipment (i.e. electrical equipment, etc.) is estimated to be:

\$ 20,000.00

Total estimate for mobilization is: \$ 20,000.00

1.2 Project Oversight. Oversight of the decommissioning is estimated at:

\$ 20,000.00

1.3 Incidentals. A budget of approximately 5% of the decommissioning scope is recommended for project incidentals:

\$ 19,400.00

1.4 Contingency. A contingency of approximately 10% of the decommissioning scope is recommended to cover unknowns:

\$ 38,800.00

Total opinion of probable costs for **Project Management:** \$ 98,200.00

2. North Electrical GenLead Line

2.1 Disassembly of overhead GenLead lines and associated components:

A. Disassembly and spooling costs for the overhead GenLead 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 wire.

Estimated total length of overhead lines: 137,280 feet

Estimated labor rate: \$ 32.00 /man-hour

Total estimate for overhead GenLead disassembly: \$ 53,000.00

B. Equipment rates are estimated at the following rate for approximately 69 days.

Estimated equipment rates: \$ 1,800.00 /day

Total estimate for overhead GenLead disassembly equipment: \$ 124,200.00

C. Pole removal and filling of remaining hole, based on the following approximate quantities:

Amount of poles: 485 each

Removal labor and equipment costs: \$ 170.00 /pole

Total estimate for overhead GenLead pole removal: \$ 82,500.00

Total for disassembly of overhead GenLead lines: \$ 259,700.00

2.2 Transportation of GenLead lines and associated components

A. The cost to transport the GenLead lines and associated components to facilities for scrap, recycling or disposal is based on the number of spools required per GenLead line sizes and lengths for the project, and a capacity of eight (8) spools per truck.

Estimated spools of GenLead line: 353 each

Estimated labor & equipment cost: \$ 1,500.00 /truck trip

Total estimate for GenLead lines disassembly: \$ 67,500.00

B. Pole removal will be transported at a rate of 30 poles per logging truck. It is assumed that poles will be sold or given away.

Amount of poles:		485 each	
Estimated labor & equipment costs:	\$	1,200.00	/truck trip
Total estimate for overhead GenLead pole removal:		\$	20,400.00
Total for transportation of GenLead line and associated components:		\$	87,900.00
Total opinion of probable costs for North Electrical GenLead Line removal:		\$	347,600.00

Disassembly & Removal Summary

The total opinion of probable disassembly and removal costs from summing the items above: **\$ 445,800.00**

Scrap / Salvage Value

For the purposes of this decommissioning plan, we have assumed that scrapable metal materials from the project decommissioning would be sold as scrap to a recycling yard in the Bangor, Maine area. The presumed scrap / salvage values are based on the following conservative estimates:

- Presumed scrap value of Overhead North Electrical GenLead Wiring.** Quantities of overhead wire and wire sizes and lengths are based on electrical drawings prepared by Dashiell and used as a basis for estimated scrapable metal amounts. Overhead wiring consists of aluminum (steel reinforced) conductors.

Estimated linear feet of wiring:		411,840	ft
Estimated weight of scrapable aluminum:		840,900	lbs
Price for aluminum scrap at a Bangor, Maine area metal recycling center:	\$	400.00	/ton
Total opinion of presumed scrap value of the Overhead North GenLead Wiring:		\$	168,200.00

Scrap / Salvage Value Summary

The total opinion of probable scrap / salvage value from summing the items above: **\$ 168,200.00**

Decommissioning Summary

Disassembly & Removal

1. Project Management	\$ 98,200.00
2. North Electrical GenLead Line	\$ 347,600.00

Disassembly & Removal Total **\$ 445,800.00**

Scrap/Salvage Value

1. Presumed scrap value of Overhead North Electrical GenLead Wiring	\$ 168,200.00
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Scrap/Salvage Value Total **\$ 168,200.00**

The total opinion of probable **Disassembly & Removal** costs is: \$ 445,800.00

The total opinion of probable **Scrap/Salvage Value** is: \$ 168,200.00

The net estimated opinion of probable cost for decommissioning is:	\$ 277,600.00
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Please do not hesitate to contact us with any questions regarding the information contained in this budget. We appreciate the opportunity to work with you on this project.

Sincerely,

James W. Sewall Company



Janine S. Murchison, PE

Project Manager

jmurchison@sewall.com

Phone: (207) 492-1014

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**NUMBER NINE WIND FARM
MDEP NRPA/SITE LOCATION OF DEVELOPMENT COMBINED APPLICATION**

Section 29.
Decommissioning Plan

**EXHIBIT 29-C DECOMMISSIONING BUDGET BRIDAL PATH
GENERATOR LEAD LINE**

Katie Chapman, Project Manager
Number Nine Wind Farm, LLC
via e-mail: Katie.Chapman@edpr.com

March 16, 2015

Subject: Bridal Path Electrical GenLead Line portion of the
Number Nine Wind Farm, LLC- Decommissioning Budget

Dear Katie:

Sewall was requested to develop this Decommissioning Budget for the Bridal Path Electrical GenLead portion of the Number Nine Wind Farm LLC project, located in Aroostook County, Maine. The budget represents an opinion of probable cost (OPC), in today's dollars, for decommissioning based on the assumption that the project components will be disassembled and disposed following completion of use. The budget is also built on the assumption that the cost of decommissioning will be fully or partially offset by the scrap/salvage value of the project components.

Information Sources for this Review

This review is based on the civil and electrical site plans and quantity information provided by the Number Nine Wind Farm LLC project team, 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; 2015 Fair Minimum Wage Rates, Heavy and Bridge; Aroostook County.

Decommissioning Scope

The decommissioning process reflected in this OPC is based on Decommissioning Plans prepared for similar wind projects. In summary, the decommissioning and restoration process in the Plan consists of the following steps:

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

The cost for disposal for any materials that are not scrapped is considered incidental, unless otherwise noted.

Decommissioning Budget

The decommissioning process has been divided into 2 general work items. Quantities and unit prices for these individual work items are presented and discussed in detail in the following paragraphs.

1. Project Management (contractor costs, equipment, etc.)
2. Bridal Path Electrical GenLead Line

1. Project Management

1.1 Mobilization

Mobilization and demobilization of ancillary equipment (i.e. bulldozers, backhoes, etc.) is estimated to be:

\$ 20,000.00

Total estimate for mobilization is: \$ 20,000.00

1.2 Project Oversight. Oversight of the decommissioning is estimated at:

\$ 20,000.00

1.3 Incidentals. A budget of approximately 5% of the decommissioning scope is recommended for project incidentals:

\$ 17,000.00

1.4 Contingency. A contingency of approximately 10% of the decommissioning scope is recommended to cover unknowns:

\$ 34,000.00

Total opinion of probable costs for **Project Management**: \$ **91,000.00**

2. Bridal Path Electrical GenLead Line

2.1 Disassembly of overhead GenLead lines and associated components:

A. Disassembly and spooling costs for the overhead GenLead 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 wire.

Estimated total length of overhead lines: 126,720 feet

Estimated labor rate: \$ 32.00 /man-hour

Total estimate for overhead GenLead disassembly: \$ 49,200.00

B. Equipment rates are estimated at the following rate for approximately 64 days.

Estimated equipment rates: \$ 1,800.00 /day

Total estimate for overhead GenLead disassembly equipment: \$ 115,200.00

C. Pole removal and filling of remaining hole, based on the following approximate quantities:

Amount of poles: 450 each

Removal labor and equipment costs: \$ 170.00 /pole

Total estimate for overhead GenLead pole removal: \$ 76,500.00

Total for disassembly of overhead GenLead lines: \$ 240,900.00

2.2 Transportation of GenLead lines and associated components

A. The cost to transport the GenLead lines and associated components to facilities for scrap, recycling or disposal is based on the number of spools required per GenLead line sizes and lengths for the project, and a capacity of eight (8) spools per truck.

Estimated spools of GenLead line: 213 each

Estimated labor & equipment cost: \$ 1,500.00 /truck trip

Total estimate for GenLead lines disassembly: \$ 40,500.00

B. Pole removal will be transported at a rate of 30 poles per logging truck. It is assumed that poles will be sold or given away.

Amount of poles:		450 each	
Estimated labor & equipment costs:	\$	1,200.00	/truck trip
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Total estimate for overhead GenLead pole removal:	\$	18,000.00	
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Total for transportation of GenLead line and associated components:	\$		58,500.00
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Total opinion of probable costs for Bridal Path Electrical GenLead Line removal:	\$		299,400.00

Disassembly & Removal Summary

The total opinion of probable disassembly and removal costs from summing the items above: \$ **390,400.00**

Scrap / Salvage Value

For the purposes of this decommissioning plan, we have assumed that scrapable metal materials from the project decommissioning would be sold as scrap to a recycling yard in the Bangor, Maine area. The presumed scrap / salvage values are based on the following conservative estimates:

- Presumed scrap value of Overhead Bridal Path Electrical GenLead Wiring.** Quantities of overhead wire and wire sizes and lengths are based on electrical drawings prepared by Dashiell and used as a basis for estimated scrapable metal amounts. Overhead wiring consists of aluminum (steel reinforced) conductors.

Estimated linear feet of wiring:		380,160	ft
Estimated weight of scrappable aluminum:		416,500	lbs
Price for aluminum scrap at a Bangor, Maine area metal recycling center:	\$	400.00	/ton

Total opinion of **presumed scrap value of the Overhead Bridal Path GenLead Wiring:** \$ **83,300.00**

Scrap / Salvage Value Summary

The total opinion of probable scrap / salvage value from summing the items above: \$ **83,300.00**

Decommissioning Summary

Disassembly & Removal

1. Project Management	\$ 91,000.00
2. Bridal Path Electrical GenLead Line	\$ 299,400.00

Disassembly & Removal Total	\$ 390,400.00
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Scrap/Salvage Value

1. Presumed scrap value of Overhead Bridal Path Electrical GenLead Wiring	\$ 83,300.00
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Scrap/Salvage Value Total	\$ 83,300.00
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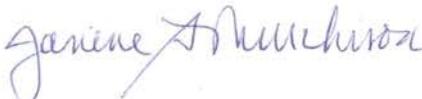
The total opinion of probable Disassembly & Removal costs is:	\$ 390,400.00
The total opinion of probable Scrap/Salvage Value is:	\$ 83,300.00

The net estimated opinion of probable <u>cost</u> for decommissioning is:	\$ 307,100.00
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Please do not hesitate to contact us with any questions regarding the information contained in this review. We appreciate the opportunity to work with you on this project.

Sincerely,

James W. Sewall Company



Janine S. Murchison, PE

Project Manager

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