Wind Project Decommissioning Plan

PrairieWinds SD1 (Crow Lake Wind Project)

Prepared for
Basin Electric Power Cooperative

May 2021

4300 MarketPointe Drive, Suite 200
Minneapolis, MN 55435
952.832.2600
www.barr.com

PrairieWinds SD1 (Crow Lake Wind Project)

Decommissioning Plan May 2021

Contents

List of Tables

List of Figures

Certifications

Joel E Bahma

Joel Bahma, PE

May 25 2021

Date

1.0 Introduction

The PrairieWinds SD1 also known as Crow Lake Wind Project (Project), began full operation in 2011. The Project was constructed, owned and operated by PrairieWinds SD 1, Inc. a wholly owned subsidiary of Basin Electric Power Cooperative (Basin Electric). In early 2018 the subsidiary PrairieWinds SD 1, Inc. was merged into Basin Electric, which took over ownership/operations of the project.

Basin Electric Power Cooperative operates the PrairieWinds SD1 Wind Project in Jerauld, Brule and Aurora County, South Dakota, approximately 7 miles northeast of Kimball, South Dakota. The Project consists of 108 General Electric (GE) 1.5-megawatt (MW) wind turbine generators (WTG or turbine) with a total nameplate capacity of 162 MW. (Figure 1).

The decommissioning objective is, to the extent feasible, to restore and reclaim the site to its preconstruction condition. The Public Utility Commission of South Dakota (SDPUC or Commission) issued PrairieWinds SD1, Inc a Wind Energy Facility Permit on June 4, 2010. This plan has been drafted in response to section 38 and 40 of the permit.

Section 38, of the permit states.

> Decommissioning will involve removal of towers, turbine generators, transformers, overhead and underground cables, foundations, buildings and ancillary equipment down to a depth of 4 feet below grade. The access roads will be removed unless the affected landowner provides written notice that the road or portions of the road will be retained. Additionally, disturbed surfaces will be graded, reseeded and restored as nearly as possible to preconstruction condition within 18 months of Project decommissioning.

Section 40, of the permit states.

> On or before June 1, 2021, Applicant shall submit a Project status report, an updated decommissioning plan for the Project and financial information for Applicant in accordance with ARSD 20:10:22:13.01 for the Commission's review and approval. At such time, the Commission will determine whether Applicant shall be required to provide a bond, letter of credit, guarantee or other security to assure adequate funding is available to fully perform decommissioning obligations as provided in ARSD 20:10:22:13.01.

This Decommissioning Plan provides a description of the decommissioning and restoration phase of the Project, including a list of the primary wind farm components, dismantling and removal activities, and disposal of or recycling materials. A summary of estimated costs and revenues associated with the decommissioning phase is also included.

1.1 Wind Farm Components

The main components of the proposed Project include:

- Turbines (tower, nacelle, hub, rotor, and three rotor blades per WTG)
- Turbine foundations
- Step-up transformers
- Access roads
- Crane pads
- Underground electrical collection system
- Overhead electrical collection system
- Meteorological (MET) tower
- Substation equipment and foundations
- Operation and maintenance (O&M) building and foundations

1.2 Expected Lifetime and Triggering Events

The anticipated Project life is 30 years from the date of construction. Depending on market conditions and Project viability, Basin Electric reserves the right to extend the life of the Project as well as explore alternatives regarding Project decommissioning. Retrofitting of components and power systems with upgrades to new technology may allow the wind farm to produce power efficiently and successfully for many more years. In the event that the turbines are not retrofitted, or at the end of the Project's useful life, the turbines and associated components will be decommissioned and removed from the site.

Turbine components that have resale value may be sold in the wholesale market. Components with no wholesale value will be salvaged and sold as scrap for recycling or disposed at an offsite licensed solid waste disposal facility (e.g., landfill). Decommissioning activities will include removal of the turbines and associated components as listed in Section 1.1 and described in Section 2.

1.3 Decommissioning Sequence

Decommissioning of the Project facilities will commence no later than 12 months from the time the Project ceases to operate. Decommissioning will be completed within 18 months from the time the Project ceases to operate. In accordance with Stipulation number 37, the Commission will be notified prior to any decommissioning activities. Monitoring and site restoration may extend beyond this period to ensure successful revegetation and rehabilitation. The anticipated sequence of decommissioning and removal is described as follows; however, overlap of activities is expected:

- Conduct site investigation
- Contact landowners and confirm final decommissioning property-specific plans
    - This will include coordination of final arrangements of the Agreement for Land Lease, Access and Wind Easement; confirming how Basin Electric will comply with Article IV, Section 1 Term and Termination stipulations around disassembling, dismantling and removing property and fixtures from the property and any pending payments for crop damage)
- Public road condition assessment
- Site access road assessment
- Prepare site by site decommissioning sequence and schedule
- Negotiate decommissioning contractor terms and conditions
- Confirm avoidance areas relevant to the decommissioning activities (e.g., it is anticipated that previously-identified cultural resource areas and native prairie areas will require established avoidance areas)
- Determine applicable permitting requirements for decommissioning activities and obtain necessary permits and approvals (e.g., a Construction Stormwater Permit)
- Provide Notice to Proceed for Decommissioning Contractor
    - Mobilize and prepare field staff yard and offices
    - Implement erosion control measures and site plans
    - Mobilize construction equipment (cranes, lowboys, graders, utility trucks, etc.)
    - Begin site access road maintenance and, where necessary, modify roads to facilitate equipment access
    - Identify and secure laydown area at each site to process decommissioned equipment and material
    - De-energize facility, locate, disconnect, and secure electrical equipment from public power grid
    - Secure rotating machinery in preparation of disassembly
    - Begin fluid removal and processing
    - Mobilize crane(s)
    - Remove blades and place in laydown area for site processing

- Remove nacelle and place in laydown area for processing (including draining oils, fuels, solvents and process chemicals for offsite disposal). or alternately, load directly to shipping and move to remote site for processing
- Disassemble tower and place in laydown area for site processing
- Mobilize crane to next site (this may be overland if possible, to negotiate with landowners to speed disassembly and avoid multiple over road transport and erection operations)
- Process blades and load for disposal/recycle
- Process tower and load for transport to scrap yard
- Remove underground cable where surfaced
- Remove tower foundation to a depth of 4 feet below final grade using approved means and methods
- Haul tower foundation material to disposal site for reprocessing (concrete to be crushed, rebar for recycle)
- Remove overhead power structures and cable
- Remove underground cable were surfaced to a depth of 4 feet below final grade
- Remove O&M and maintenance building and foundations
- Remove MET tower
- Remove access road and surfacing (gravel) where required
- Haul surfacing material to approved stockpile for reclaim or sale
- Regrade site to appropriate contours
- Prepare soil for seeding
- Seed site
- Site restoration, final clean up

2.0 Decommissioning Components and Activities

The wind farm components and decommissioning activities necessary to restore the Project area, as near as practicable, to pre-construction conditions are described within this section. Basin Electric will dismantle and remove all towers, turbine generators, transformers, overhead and underground cables, foundations, buildings, and ancillary equipment to a depth of 4 feet. To the extent possible the permittees will restore and reclaim the site to its pre-project topography and topsoil quality and prepare it for cultivation if requested by the landowner.

Estimated quantities of materials to be removed and salvaged or disposed are included in this section. Public roads damaged or modified during the decommissioning and reclamation process will be repaired upon completion of the Project.

2.1 Wind Farm System Overview

Table 1 presents a summary of the primary components included in this decommissioning plan.

Table 1 Primary Components of Wind Farm to be Decommissioned

Component	Quantity	Unit of Measure
Wind Turbines (including 1 tower, 1 nacelle, 1 hub, and 1 rotor with 3 rotor blades, per turbine)	108	Each
Wind Turbine Foundations	108	Each
Crane Pads or Mats	108	Each
Access Roads	180,500	Lineal Foot (estimated)
Overhead gen-tie cable and structures	69,200	Lineal foot (estimated)
Substation	1	Each
Operations & Maintenance Building	1	Each

2.2 Wind Turbine Generators

The GE 1.5 MW SLE model wind turbine generators are primarily comprised of a modular steel tower, nacelle, and rotor with three rotor blades attached to a hub. The hub height of the turbines is 80 meters with a 77-meter rotor diameter. The components are modular in design, allowing for ease of construction, replacement, and disassembly during decommissioning. Turbine components in working condition may be refurbished and sold in a secondary market yielding greater revenue than selling as salvage material. For the purposes of this report, estimates will be based on the salvage value, as this will be the most conservative estimate of revenue.

Turbine Tower - The turbine towers are painted modular monopole steel structures approximately 80m long. Each tower contains approximately 138 tons of steel. It is estimated that the tower sections will be cut down to transportable size and sent to a scrap metal facility for processing.

Nacelle - The nacelle sits at the top of the turbine tower and has an overall weight of approximately 63 tons including the bedplate. The nacelle is comprised of approximately 80% salvageable steel along with other non-salvageable materials. Non-salvageable material within the nacelle will be disposed in a landfill.

Hub, Rotor, and Rotor Blades - The rotor and hub (without blades) have a total weight of approximately 26 tons. It is mainly comprised of steel that will be salvaged along with the tower and nacelle. The rotor blades are constructed of non-metallic materials such as fiberglass, carbon fibers, and epoxies. These materials will likely have no salvage value and will be recycled for a cost.

Other Turbine Components - In addition to the main components previously described, each WTG contains other items such as ladders and platforms, anchor bolts, and internal electrical wiring that will have additional salvage value.

Decommissioning Activity - The wind turbines will be deactivated from the surrounding electrical system and made safe for disassembly. Improvements to access roads and crane pads will be completed to allow crane access to turbines for removal of components. Liquid wastes, including gear box oil and hydraulic fluids will be removed and properly disposed or recycled according to regulations current at the time of decommissioning. Control cabinets, electronic components, and internal electrical wiring will be removed and salvaged. The hub and rotors will be lowered to the ground as a unit for disassembly. The nacelle and turbine sections will be disassembled and removed in the reverse order of assembly.

2.3 Step-Up Transformers

After deactivation, oil will be drained and recycled or disposed at an approved solid waste management facility. The transformer will then be disassembled and removed. Depending on condition, the transformers may be sold for refurbishment and re-use. If not re-used, the transformer will be salvaged for raw materials.

2.4 Wind Turbine Foundations

Typical spread footing foundations utilized for the Project turbines are predominantly located underground. Below the pedestal is the foundation base, an octagonal-shaped concrete structure. The entire foundation sits on supporting sub-grade typically around 8 feet below the ground surface.

Concrete demolition will be completed on the upper 42 inches of the pedestal. This will include the anchor bolts, rebar, conduits, cables, and concrete to the required depth. An additional 10" will then need to be removed from the base of the foundation to meet removal depth requirements. Foundation material will be demolished, processed and hauled to a landfill. The site will be back-

filled with clean fill and surface grading will be restored as near as practicable to preconstruction conditions. Topsoil will be placed on the disturbed area and revegetated or left as agricultural land. Areas will be prepared for cultivation if requested by the landowner.

2.5 Collection System and Transmission Line

The Project's underground collection system would not interfere with farming activities when placed 4 feet or more below ground surface. Hence, complete cable removal is not required at decommissioning to restore the wind farm site to its former use. Cables 4 feet or more below ground surface will be completely deactivated and abandoned in place. If, at the time of decommissioning, the salvage value of the underground cable exceeds the cost of extraction and restoration, the cables may be removed and salvaged. The transmission line from the collector substation to the point of interconnection will also be removed. The transmission structures and foundations will be removed from the ground to a depth of 4 feet and brought to a landfill or recycled. Power lines would likely be recycled at a scrap yard.

2.6 Crane Pads

Crane pads are located at the base of each turbine to support the large cranes necessary for assembly and disassembly of the turbines. Pads consist of compacted native soils and approximately one-half foot of gravel fill. After decommissioning activities are completed, the crane pad aggregate will be removed and the areas will be filled with native soil, as necessary. Land will be graded, and pre-construction contours restored to the extent practicable. Restoration will likely be performed in conjunction with the turbine foundation and/or access road restoration. Soils compacted during decommissioning construction activities will be de-compacted, as necessary, to restore the land to preconstruction land use. Labor for trucking and equipment is the primary expense for the crane pad removal.

2.7 Access Roads

Access roads are located at each turbine providing access from public roads to the turbine site. The typical width of the roads is approximately 16 feet, widening near the turbine base. The total length of Project access roads is approximately 180,500 linear feet (34.2 miles).

Basin Electric will remove all access roads unless an affected landowner requests otherwise. Basin Electric will restore the Project within 18 months after expiration of the issued permit, or upon earlier termination of operation of the Project. The estimate assumes all of the roads are to be removed and returned to preconstruction state. Decommissioning activities include the removal and stockpiling of aggregate materials onsite for salvage preparation. Local townships or farmers may accept the material prior to processing for use on local roads or field access roads; however, for the purpose of this estimate it is conservatively assumed that all materials will be removed from the Project area.

Following removal of aggregate, the access road areas will be graded, de-compacted, backfilled with native soils, as needed, and land contours restored as near as practicable to preconstruction conditions.

While there would likely be some salvage value for the aggregate surface material, this estimate assumes the value from secondary sales will be offset by costs of material to be removed from the site. Therefore, no salvage value for aggregate has been estimated or included.

2.8 Project Substation

All equipment, conductors, transformers, steel, wiring, and fencing is to be removed. Footings, underground cabling, and aggregate will be removed from the substation site to a depth of 4 feet. Electrical equipment may have value on the secondary market for refurbishment or scrap. Steel and foundations are to be removed to a depth of 4 feet and brought to the landfill. Cost of demolishing the substation was based on crews and a scheduled timeframe. No salvage cost was given to the substation.

2.9 Operations and Maintenance Buildings (O&M)

The Project includes an operations and maintenance building and parking area. Building structures, foundations, utilities, fencing, and parking area are to be removed. Footings and underground utilities will be removed to a depth of 4 feet below grade. Materials would then be recycled at a scrap yard or brought to a landfill.

The building and land could have value to commercial or industrial markets and may be sold in such a case. No salvage cost was given to the O&M or warehouse buildings.

2.10 Topsoil Restoration and Revegetation

Project sites that have been excavated and back-filled will be graded as previously described to restore land contours to as near as practicable to preconstruction conditions. Topsoil will be placed on disturbed areas and seeded with appropriate vegetation to reintegrate it with the surrounding environment. Soils compacted during de-construction activities will be de-compacted, as necessary, or as required by wind leases/easements, to restore the land to preconstruction land use. Land will be prepared for cultivation if requested by the landowner and per the Agreement for Land Lease, Access and Wind Easement.

3.0 Decommissioning Cost Estimate Summary

Expenses and revenues associated with decommissioning the Project will be dependent on labor costs and market value of salvageable materials at the time of decommissioning. Fluctuations and inflation of the salvage values or labor costs were not factored into the estimates.

3.1 Decommissioning Expenses and Revenues

Project decommissioning will incur costs associated with the disassembly, removal, excavation, and restoration of the proposed wind turbine sites and support infrastructure as described in Section 2. Table 3 summarizes the estimates for activities associated with the major components of the Project.

Revenue from decommissioning the Project will be realized through the sale of wind farm components and construction materials. Turbine components may be sold within a secondary market or as salvage. For purposes of this report, estimated recovery values were based on the salvage value, as this is the more conservative estimate of revenue.

The salvage markets are highly variable. Salvage value estimates were based on a current average price of steel, copper, and aluminum derived from online sources (scrapmonster.com) and reflect an 8-year price average. The price to value the steel used in this report is $170 per ton and accounts for scrap yard handling and processing to mill size. The price used for copper is $2.37 per pound ($4,740 per ton) and the price used for aluminum is $.59 per pound ($1,170 per ton). The nacelle is assumed to have approximately 80 percent salvageable steel content; the hub and tower 90 percent. Table 4 summarizes the potential salvage value for the wind turbine components, transformer, and construction materials.

Table 2 Estimated Decommissioning Costs 1

Activity	Decommission or Salvage	Unit	Number	Cost or Salvage Price per Unit	Total
Overhead and management (includes estimated permitting required; 12%)	Decommission	Lump Sum	1	$1,894,000	$1,894,000
Mobilization and demobilization (6%)	Decommission	Lump Sum	1	$947,000	$947,000
Access Road Prep	Decommission	Lump Sum	1	$280,000	$280,000
Crane Mob and Operations	Decommission	Each	108	$18,222	$1,968,000
Tower Disassembly	Decommission	Each	108	$57,282	$6,186,508
Blade Demo & Recycling	Decommission	Each	108	$19,410	$2,096,280
Turbine Foundation Removal	Decommission	Each	108	$14,837	$1,602,389
Collector Line Removal	Decommission	Lump Sum	1	$818,094	$818,094
Site Restoration (Roads, Turbine & Aux Sites)	Decommission	Lump Sum	1	$2,450,341	$2,450,341
O & M Removal	Decommission	Lump Sum	1	$121,326	$121,326
Substation Removal	Decommission	Lump Sum	1	$257,485	$257,485
Taxes	Decommission	Percent		$581,919	$581,919
Contingency	Decommission	Percent	10%	$1,862,142	$1,862,142
Turbine tower (steel) (total per 108 turbines)	Salvage	Tons per turbine	136	($170)	($2,496,960)
Nacelle (steel) (total per 108 turbines)	Salvage	Tons per nacelle	50	($170)	($918,000)
Rotor hub (steel) (total per 108 turbines)	Salvage	Tons per hub	23	($170)	($422,280)
Transformers/Collector Sub (total per 108 turbines)	Salvage	Per turbine	1	($5,468)	($590,544)
Copper (total per 108 turbines)	Salvage	Tons per turbine	1.5	($4,740)	($780,166)
Aluminum (total per 108 turbines)	Salvage	Tons per turbine	1.76	($1,170)	($222,394)
Oil disposal	Salvage	Per turbine	1	$1,000	$108,000
Collector Line / Gen Tie Overhead Towers (aluminum/steel)	Salvage	Lump Sum	1	($207,425)	($207,425)
Substation	Salvage	Lump Sum	1	($167,101)	($167,101)
Taxes	Salvage	Per turbine	1	($256,381)	($256,381)

3.2 Net Decommissioning Cost Summary

The following is a summary of the net estimated cost to decommission the Project, using the information detailed in Sections 3.2 and 3.3. Estimates are based on 2021 prices, with no market adjustments or inflation considered.

Table 3 Net Decommissioning Cost Summary 1

Item	Cost
Decommissioning expenses	$21,065,483
Potential revenue - salvage value of components and recoverable materials	($5,953,251)
Net Decommissioning Cost	**$15,112,233**
Per Turbine Decommissioning Cost (based on 108 turbines)	**$139,928**

Class IV, per AACEI cost estimate classification system 17R-97

3.3 Salvage Value

Salvage values are considered to be the most variable component of the decommissioning study. Depending on the material, equipment, and salvage opportunities, the means and methods used by the contractor would vary from scrapping materials completely to selling equipment in the secondary market and processing materials and equipment, onsite or at a facility, for future use or scrap value.

Assumptions in the salvage values were based on current conditions and processing applications. Many materials that are non-recyclable will likely be sent to a landfill, such as concrete debris, wood, or turbine blades.

3.3.1 Pricing assumptions

Material salvage pricing is derived from online scrap pricing (scrapmonster.om) and is representative of an 8-year average. In order to capitalize on these prices, material would need to be shipped to a mill and be cut to size prior to shipment. For decommissioning, most components were assumed to be disassembled in a process similar to erection and cut to shippable size onsite. Ability to reclaim all scrap at full pricing is not likely. Factors were taken to account for handling, processing, and grade of scrap.

The following pricing assumptions were used to calculate scrap and waste value. Weights are in gross tons:

- Steel $170/ton
- Copper $4,740/ton
- Aluminum $1,170/ton

Salvage weight has been estimated, scaled, or has been taken from manufacturer's technical data sheets. Some resale value of components is likely. In this case, certain transformers and electrical components would be considered to have immediate value on the market because of their longer design life. It is likely that newer components may be installed during the lifetime of the wind farm due to maintenance or failure of older components. This estimate does not make attempts to quantify resale of equipment to a secondary market, rather it assumes that all salvage costs will come from scrapping of raw materials.

3.4 Markups

The following typical contractor markups were applied to the Demolition Cost Estimate only:

- Contractor Project Management/Overhead 12%
- Mobilization/Bond/Insurance 6%

3.5 Escalation Rate

Barr Engineering Co. (Barr) has not changed, scaled, or accounted for escalation of costs in the future. Considering the volatility of several markets, construction, energy, and labor, an update to this cost estimate prior to actual decommissioning is recommended. This study quantifies the Project in today's current market and estimates cost in 2021 dollars.

3.6 Estimate Classification

This concept-level (Class IV, per AACEI cost estimate classification system 17R-97) cost estimate is based on current drawings and material takeoffs and is meant for budgeting and feasibility uses. Costs will change with further scope or design changes. Class IV estimates are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. The estimated accuracy range for the Total Project Cost as the project is defined as -20% to +30%. The accuracy range is based on professional judgment and understanding of the project, the complexity of the project and the uncertainties in the decommissioning project as scope.

3.7 Cost Resources

The following is a list of the various cost resources used in the development of the cost estimate:

- R.S. Means
- scrapmonster.com
- Barr historical data
- Vendor quotes on scrap and shipping associated costs
- Estimator judgment

3.8 Estimate Methodology

Costs were estimated from crews and equipment over an estimated schedule as well as contacting industry professionals for quotes and pricing. studies.

3.9 Labor Costs

The estimate is based upon national labor rates.

3.10 Sales Tax

The estimate includes state sales tax of 4.5% on services and materials and a 2% contractor excise tax on gross cost.

3.11 Soft Costs

The cost estimate does not include any soft costs. Soft costs that would likely be associated with the Project would be engineering, design, permitting, land, legal, and other fees.

3.12 Major Assumptions

The estimate assumes the work will be done on a competitive bid basis and the contractor will have a reasonable amount of time to complete the work. All contractors are equal, with a reasonable project schedule, no overtime, work performed as under a single contract, and no liquidated damages.

This estimate was prepared in May 2021. As with all estimates, it represents a snapshot in time of what is known about the Project and expected to occur. The commodities and energy markets are highly variable. Changes in either could have dramatic effects on this estimate. Therefore, this estimate should be viewed in that light and if more than 180 days have passed or there have been significant changes in the commodity markets, this estimate should be updated and reevaluated.

- Commodity prices for steel, copper, and aluminum were sourced from scrapmonster.com cost index and adjusted based on discussions with scrap vendors.
- The Project site is readily accessible.
- Only minor repairs to access roads will be necessary to accommodate crane access.
- Turbine blades will be disposed or recycled. Materials will be brought to an approved disposal site within 60 miles.
- Turbine towers will be recycled. Materials will be brought to an approved disposal site within 120 miles.
- Only turbine foundation pedestal sections and a portion of the footing is to be removed to 4 feet below grade.
- 90% of tower steel was estimated to be recoverable.

- .5% of the wind turbine generator weight is salvageable copper.
- .75% of the wind turbine generator weight is salvageable aluminum/alloys.
- Contractor will be allowed to stage construction to obtain the most efficient workflow possible.
- Contractor will not be required to perform work using the same means or methods used to produce this estimate.
- Contractor will be allowed to use the most appropriate, safest, and efficient methods available to them at the time of performing the work.
- Contractor will secure and provide any required demolition permits or certificates.
- Demolition contractor will load salvage materials in appropriate sizes and weights at each site to recycling buyer's vehicle.
- Assumed 180,500 linear feet (34.20 miles) of access road, 16 feet in nominal width.
- Turbine and tower dismantling production is 1.5 workdays per turbine.
- Crane movement and setup is separate from dismantling operation.
- Site restoration includes roadway removal and regrading of site, including deep tilling to remove compaction of soils at the road and tower site. 30% of restored land to be seeded.
- Salvaged roadway material is stockpiled or delivered within a 30-mile radius of each turbine site. Assumed resale value offsets freight fees.
- One day of decommissioning preparation per site, including oil removal, is allocated prior to crane dismantling.
- All recycled material is processed to manageable sizes for transport from site.
- Sales tax (4.5%) is applied to services and materials, estimated to be 25% of construction costs

3.13 Excluded Costs

The cost estimate excludes the following costs:

- Non-construction or soft costs for design, services during construction, land, legal, and owner administration costs.

4.0 Financial Assurance

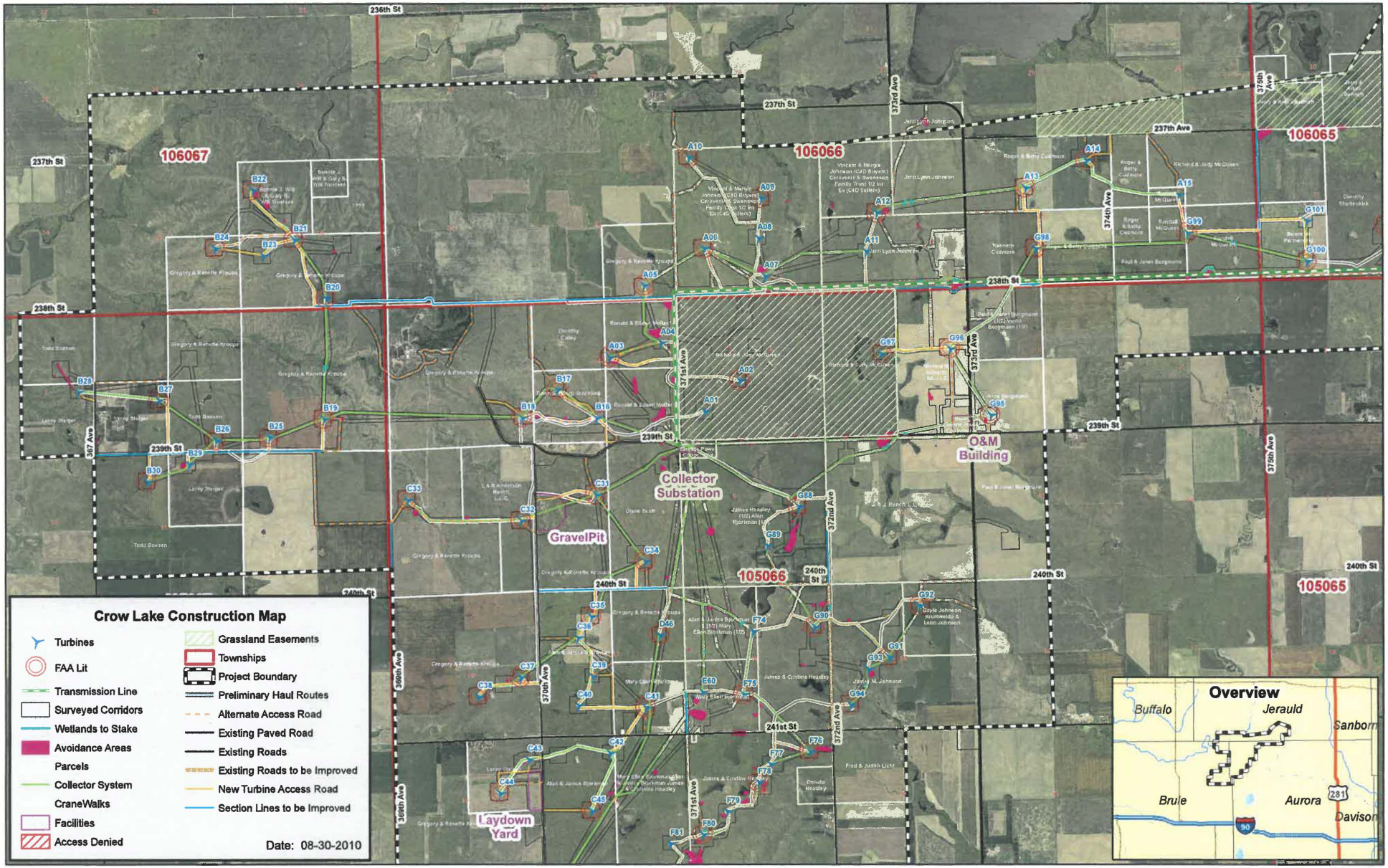
Basin Electric will establish the necessary financial surety to ensure decommission funds are available at the time of decommissioning.

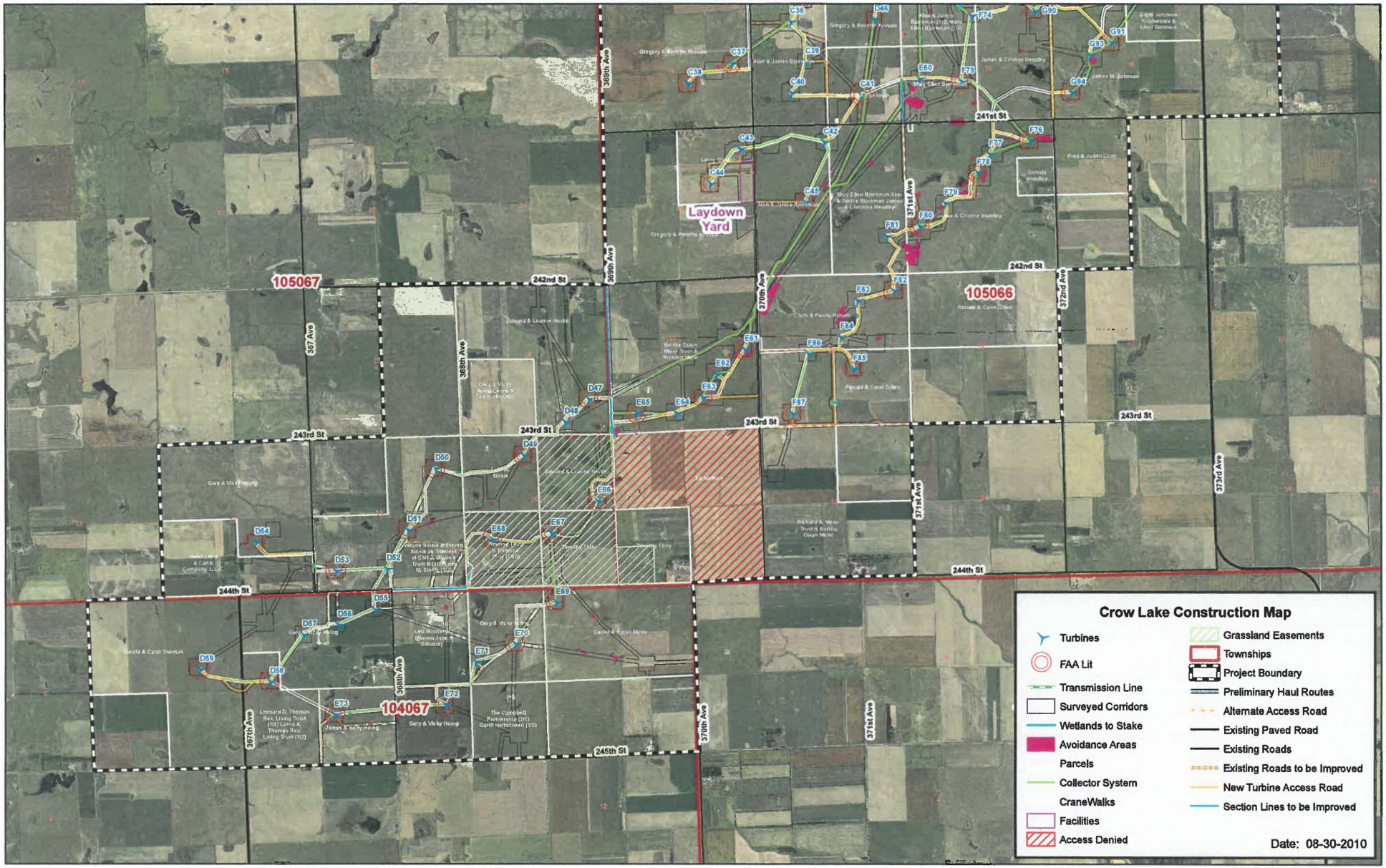
5.0 Referenced Documents

This estimate is based upon the following documents:

- Barr Engineering "Crow Lake Wind Project, Spread footing foundation plan, elevation, section & details. S-01 Rev 0" *April 13, 2010 Crow Lake S-01 Rev 0.pdf PDF File.*
- GE Energy "Commercial Documentation, Wind Turbine Generator Systems, 1.5-82.5 / 1.6-82.5, 50Hz and 60 Hz, Weights and Dimensions" *01.2 1.5_1.6-82.5 Weights and Dimensions r0.pdf PDF File.*
- Scrap Monster. "#1 HMS Scrap Price" *March 2021. https://www.scrapmonster.com/scrap-metal-prices/steel/1-hms/44*
- RMT. "PraireWinds 1 Wind Farm,Access Road and Crane Walk Details" *July 31, 2009 PrairieWinds 1 Wind Farm.* PDF File.

Figures


Crow Lake Construction Map
Turbines
FAA Lit
Transmission Line
Surveyed Corridors
Wetlands to Stake
Avoidance Areas
Parcels
Collector System
CraneWalks
Facilities
Access Denied
Grassland Easements
Townships
Project Boundary
Preliminary Haul Routes
Alternate Access Road
Existing Paved Road
Existing Roads
Existing Roads to be Improved
New Turbine Access Road
Section Lines to be Improved
Date: 08-30-2010
106067
106066
106065
105066
105065
Collector Substation
O&M Building
GravelPit
Laydown Yard
Overview
Buffalo
Jerauld
Sanborn
Brule
Aurora
Davison
236th St
237th St
238th St
239th St
240th St
241st St
237th Ave
238th Ave
239th Ave
240th Ave
241st Ave
367th Ave
368th Ave
371st Ave
372nd Ave
373rd Ave
374th Ave
375th Ave
376th Ave


Laydown Yard
105067
105066
104067
242nd St
243rd St
244th St
245th St
241st St
367 Ave
368th Ave
369th Ave
370th Ave
371st Ave
372nd Ave
373rd Ave
397th Ave
Crow Lake Construction Map
Turbines
FAA Lit
Transmission Line
Surveyed Corridors
Wetlands to Stake
Avoidance Areas
Parcels
Collector System
CraneWalks
Facilities
Access Denied
Grassland Easements
Townships
Project Boundary
Preliminary Haul Routes
Alternate Access Road
Existing Paved Road
Existing Roads
Existing Roads to be Improved
New Turbine Access Road
Section Lines to be Improved
Date: 08-30-2010