

MONTANA-DAKOTA UTILITIES CO.
TEN YEAR PLAN
FOR NORTH DAKOTA ELECTRIC PROPERTIES

For Planning Years July 1, 2012 through June 30, 2022

Submitted to
NORTH DAKOTA PUBLIC SERVICE COMMISSION
June 29, 2012



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UTILITIES CO.**

A Division of MDU Resources Group, Inc.

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400 North 4th Street
Bismarck, North Dakota 58501

INTRODUCTION

Enclosed are data comprising the Montana-Dakota Utilities Co. (Montana-Dakota) "Ten Year Plan" for North Dakota Electric Properties filed in compliance with NDCC §49-22-04 and NDAC §69-06-02-01 and 02.

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SCHEDULE A

EXISTING ENERGY CONVERSION FACILITIES

The existing energy conversion facilities subject to this filing and located in North Dakota are the 415 MW Coyote Station near Beulah in which Montana-Dakota has a 25 percent ownership interest, the 103 MW Heskett Station in Mandan, which is wholly owned by Montana-Dakota, a 5.3 MW waste heat recovery unit located near Glen Ullin, and the 19.5 MW Cedar Hills wind project located near Rhame. Energy Information Administration Form No. EIA-923, "Power Plant Operations Report" for the R.M. Heskett Station for the year 2011 is attached as Appendix A. Otter Tail Power Company of Fergus Falls, Minnesota operates the Coyote Station and reports all information required by Schedule A.

The 10 MW gas turbine facility in Williston was retired in January 2012. No additional energy conversion facilities are committed to be retired in the next ten years.

SCHEDULE B

ENERGY CONVERSION FACILITIES UNDER CONSTRUCTION

NONE

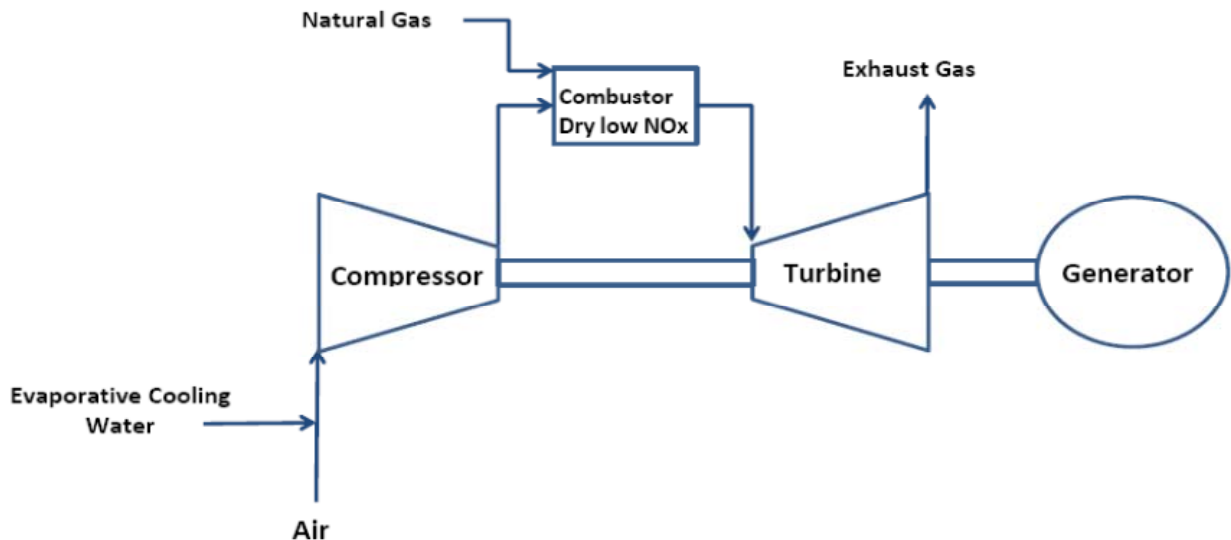
SCHEDULE C

PROPOSED ENERGY CONVERSION FACILITIES ON WHICH CONSTRUCTION IS INTENDED WITHIN THE ENSUING FIVE YEARS

To meet future capacity requirements, Montana-Dakota is planning to construct, own, and operate an 88 MW Combustion Turbine Project ("Project") at the R.M. Heskett Station site, near Mandan, North Dakota, as shown in Exhibit A. The Project consists of the construction of a simple cycle combustion turbine ("Unit 3"), the necessary transmission interconnection facilities for the turbine, and approximately 24 miles of natural gas pipeline to supply fuel to the turbine. Per NDCC Chapter 49-22, Montana-Dakota is preparing an application for a Certificate of Site

Compatibility for Unit 3, and an application for a Certificate of Corridor Compatibility and Energy Transmission Facility Route Permit for the gas pipeline. A Certificate of Public Convenience and Necessity was submitted in Case No. PU-11-396 with an Order on Settlement issued by the Commission on April 11, 2012.

Unit 3 will be a natural gas-fired heavy-duty (Frame) type combustion turbine equipped with dry low nitrogen oxide (NO_x) combustion for emissions control and evaporative inlet air cooling for power augmentation as depicted below. Unit 3 is primarily a capacity resource that will be utilized during peaking conditions and is expected to have relatively low annual capacity factors. Montana-Dakota anticipates construction of the Project to begin in the second quarter of 2013 and commercial operation to begin on or before March 15, 2015. The Project milestone schedule is provided in Exhibit B.



On May 4, 2012, Montana-Dakota submitted an application to the North Dakota Department of Health (NDDH) for a Prevention of Significant Deterioration Permit to Construct (“Air Permit”) for the Project. This application contains detailed information on air pollutant emissions estimated for the Project. Overall, nitrogen oxides, carbon monoxide, carbon dioxide, particulate matter, sulfur dioxide, and volatile organic compound pollutants will be emitted. Modeling results submitted in the Air Permit application demonstrate that emissions from the turbine do not contribute to any violation of ambient air quality standards, and also that concentrations of potential hazardous air pollutants are less than North Dakota’s established hazardous air pollutant thresholds.

There will be a periodic need to supply water to Unit 3 for evaporative cooling of the inlet air, water washing of the rotating compressor, and charging of the fire protection system. The water supply source will be either the regional rural water system or the existing Heskett Station water treatment system, which utilizes water from the Missouri River under an existing State Water Commission water appropriations permit. There will be no wastewater discharged from Unit 3, and therefore, no National Pollutant Discharge Elimination Permit limits are applicable.

Synergies will be realized by locating Unit 3 at the existing Heskett Station, which has existing water resources, transmission facilities, equipment, supervision, labor, and other required infrastructure. These synergies allow Montana-Dakota to cost-effectively utilize available resources.

SCHEDULE D

PROPOSED ENERGY CONVERSION FACILITIES DURING THE NEXT TEN-YEAR TIME PERIOD

Montana-Dakota routinely studies additional resource options to meet its customer needs. These options are addressed in Montana-Dakota's Integrated Resource Plan (2011 IRP) filed with the Commission on May 12, 2011 and designated as Case No. PU-11-158.

SCHEDULE E

EXISTING TRANSMISSION FACILITIES (ELECTRIC)

Exhibit C is a system map of North Dakota showing the location of existing transmission facilities.

There are no retirements of any North Dakota transmission facilities planned within the next ten years.

SCHEDULE G

PROPOSED TRANSMISSION FACILITIES ON WHICH CONSTRUCTION IS INTENDED WITHIN THE ENSUING FIVE YEARS (ELECTRIC)

The Midwest Independent Transmission System Operator (MISO) has established a new classification of transmission expansion projects called Multi-Value Projects (MVPs). Cost allocation for MVPs will be shared across the entire MISO footprint on a per MWh basis. There is one MVP project that will connect to Montana-Dakota's transmission system. This MVP project consists of a new substation near the existing Ellendale Junction Substation, a 345 KV line, and a new substation near the existing Big Stone Substation in South Dakota. Montana-Dakota will be a part owner of this MVP line which is scheduled to be placed in-service by December, 2019.

SCHEDULE I

PROPOSED TRANSMISSION FACILITIES DURING THE NEXT TEN YEAR TIME PERIOD (ELECTRIC)

NONE

SCHEDULE J

REGIONAL COORDINATION

Montana-Dakota has been coordinating planning, construction, and operation of electric facilities with other utilities and agencies serving North Dakota since 1945. Montana-Dakota has agreements for joint planning and common use of area facilities with Basin Electric Power Cooperative (Basin Electric) and Western Area Power Administration (Western).

Montana-Dakota and Western have an agreement that provides for mutual wheeling and coordinates construction of transmission facilities. The agreement is in effect through the year 2015. Montana-Dakota originally entered into this agreement with Western's predecessor, the

United States Bureau of Reclamation, in 1945 and the agreement has been renewed several times since then. Over the years, cooperation among Montana-Dakota, Western, and rural electric cooperatives has resulted in numerous interconnections between Montana-Dakota's and Western's systems, avoiding duplication of hundreds of miles of transmission facilities.

Montana-Dakota has an agreement with Basin Electric that provides for joint planning and common use of transmission facilities. This agreement, first signed in 1972, is perpetual until terminated by one of the parties with a five year notice required prior to termination. Joint planning involving Montana-Dakota and Basin Electric and its member cooperatives continues to provide maximum utilization and benefit of existing and new transmission facilities. Load flow studies provided for under this agreement assure that adequate facilities will be provided to meet expected long-range demands.

Montana-Dakota has interconnection agreements with Otter Tail Power Company, NorthWestern Energy Corporation, and Minnkota Power Cooperative, Inc. These agreements, along with the Basin Electric and Western agreements, provide for the interconnection of Montana-Dakota's bulk transmission facilities with the Mid-Continent Area Power Pool (MAPP) and MISO bulk transmission facilities.

Montana-Dakota, Otter Tail Power Company, and NorthWestern Energy Corporation own the 415 MW Big Stone generating station near Big Stone City, South Dakota, and associated bulk transmission facilities. Montana-Dakota owns 22.7 percent of the Big Stone Plant. In addition, Montana-Dakota is a participant in another joint venture with Minnkota Power Cooperative, Inc. (agent for Northern Municipal Power Agency), Otter Tail Power Company, and NorthWestern Energy Corporation. This is the 415 MW Coyote generating plant near Beulah, North Dakota, and associated bulk transmission facilities. Montana-Dakota currently owns 25 percent of the Coyote Station. These cooperative efforts permit Montana-Dakota to realize economic benefits from ownership in a large generating station and to provide the electrical generation required of it and its partners using fewer facilities.

Montana-Dakota is a transmission owning member of the MISO. The MISO is a FERC-authorized Regional Transmission Organization (RTO). The MISO commenced tariff administration for the operational control of the transmission systems of its members in February 2002. The MISO commenced its energy market on April 1, 2005. The MISO Ancillary Services Market started on January 6, 2009 at which time Montana-Dakota became a Local Balancing Authority within the MISO. Montana-Dakota actively participates in the planning processes

performed by the MISO, which has the obligation to coordinate the planning of transmission facilities. Two of the planning processes mandated by FERC are generator interconnection and delivery service. A third process is related to expansion planning through the MISO Transmission Expansion Plan.

Montana-Dakota is a member of the MAPP Transmission Planning Committee, which develops the MAPP regional plan and is responsible for interregional coordination. Montana-Dakota has provided notification to the MAPP that it will withdraw as a member of the MAPP effective December 31, 2013, as transmission planning in the Dakotas is performed by the MISO.

Montana-Dakota is also a member of the Midwest Reliability Organization (MRO). MRO is one of eight regional entities in North America operating under authority from regulators in the United States and Canada through a delegation agreement with the North American Electric Reliability Corporation (NERC). The primary focus of MRO is developing and ensuring compliance with regional and international standards and performing assessments of the grid's ability to meet the demands for electricity.

SCHEDULE K

ENVIRONMENTAL INFORMATION

The Corporate Environmental Policy of MDU Resources Group, Inc., the parent corporation of Montana-Dakota, states that:

Our company will operate efficiently to meet the needs of the present without compromising the ability of future generations to meet their own needs. Our environmental goals are:

- *To minimize waste and maximize resources;*
- *To support environmental laws and regulations that are based on sound science and cost-effective technology; and*
- *To comply with or exceed all applicable environmental laws, regulations and permit requirements.*

Montana-Dakota maintains good relations with local, state, and federal agencies involved with environmental protection and land use planning in its service area.

Transmission and energy conversion facilities will be designed and located in such a manner as to maximize operational efficiency and economic benefits and to minimize impacts on agriculture, extractable resources, health and safety, plant and animal life, communications, and the visual effect on the surrounding area. Transmission and energy conversion facilities will be sited in compliance with the federal, state, and local laws and with the Public Service Commission's rules and regulations.

Montana-Dakota strives to maintain compliance and operate its facilities in an environmentally proactive manner, while taking into consideration the cost to customers. Montana-Dakota actively monitors federal and state legislative and regulatory activity related to environmental issues, including air emissions, greenhouse gases (GHG), waste disposal, and water discharges.

The U.S. Environmental Protection Agency (EPA) has made known that it intends to issue several significant new air emissions, waste disposal and water discharge regulations aiming to reduce impacts from air emissions, including GHGs, pollutants in wastewater discharges and management of coal ash at coal-fired electric generating facilities. The culmination of all various pending environmental requirements may result in the retirement of existing coal-fired baseload units earlier than otherwise would occur. Montana-Dakota will continue to monitor the impacts from proposed regulations and will take the regulations into consideration when planning for future resource needs.

SCHEDULE L

PROJECTED DEMAND FOR SERVICE

The load data reported in this plan are the result of Montana-Dakota's *2012-2031 Electric Load Forecast* dated December 31, 2011.

1. Projected Peak Load for 2012-2022

The demand forecast was developed using an econometric model whose methodology is documented in detail in Attachment A of the 2011 IRP.

The summer peak is the highest hourly demand value for the summer months in the given year. The winter peak is the highest hourly demand value for the winter season occurring at the end of the given year or the beginning of the following calendar year. The projected demands shown in MW below represent the load at the customer level plus the demand due to system losses. System losses include energy losses on the transmission and distribution systems and energy that is unaccounted for such as power theft or stray currents. The summer peak demand given is prior to any reduction in load due to demand response and/or demand-side management (DSM) programs including interruptible large power service.

a. Integrated System

PROJECTED PEAK DEMAND (MW)

YEAR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
SUMMER	531.7	550.1	563.6	576.9	584.2	591.2	599.7	608.4	617.2	626.1	634.1
WINTER	488.3	514.6	532.1	549.0	555.5	561.3	569.7	578.2	587.0	595.8	603.0

GROWTH RATE (%)

YEAR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
SUMMER	--	3.5	2.5	2.4	1.3	1.2	1.4	1.5	1.4	1.4	1.3
WINTER	--	5.4	3.4	3.2	1.2	1.0	1.5	1.5	1.5	1.5	1.2

Historically, for the period 2006-2011 the summer peak demand increased at an average rate of 1.0 percent per year while the winter peak demand increased at an average rate of 4.7 percent per year. The projected average growth rates for the period 2012-2022 are 1.7 percent for the summer peak and 1.9 percent for the winter peak.

b. North Dakota

PROJECTED PEAK DEMAND (MW)

YEAR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
SUMMER	376.0	389.0	398.5	407.9	413.1	418.0	424.0	430.2	436.4	442.7	448.4
WINTER	337.3	355.5	367.6	379.2	383.7	387.7	393.5	399.4	405.5	411.6	416.6

GROWTH RATE (%)

YEAR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
SUMMER	--	3.5	2.4	2.4	1.3	1.2	1.4	1.5	1.4	1.4	1.3
WINTER	--	5.4	3.4	3.2	1.2	1.0	1.5	1.5	1.5	1.5	1.2

2. Projected Energy for 2012-2022

The projected annual energy, shown in gigawatt-hours (GWh), for Montana-Dakota's Integrated System is as follows:

Year	Annual Energy (GWh)	Year	Annual Energy (GWh)
2012	3,002.0	2018	3,516.7
2013	3,168.2	2019	3,570.9
2014	3,279.4	2020	3,626.5
2015	3,386.1	2021	3,681.8
2016	3,427.4	2022	3,727.4
2017	3,464.0		

Historically, for the period 2006-2011, Montana-Dakota has experienced an average annual increase of 2.8 percent for energy consumption. The projected average growth rate for the period 2012-2022 is 1.9 percent.

Based on the forecast, Montana-Dakota's existing and committed generation resources along with DSM are adequate to serve its projected load obligations through May 2015 with

some small capacity purchases as discussed in Montana-Dakota's 2011 IRP.

Montana-Dakota is constantly reviewing its capacity addition requirements as well as the feasibility of the potential DSM programs under the IRP process. Table 3-3 in the 2011 IRP Main Report contains a full list of DSM programs expected to be implemented or continue to be implemented by Montana-Dakota.

3. Load Centers

Montana-Dakota's load centers for the Integrated System, defined as areas with 10 MW or more of load in a limited geographical area, in North Dakota are Bismarck-Mandan, Beulah, Dickinson, and Williston and in Montana are Glendive, Sidney, and Miles City.

APPENDIX A

Form EIA-923

EIA923 Power Plant Operations Report

Year: **2011** Plant: **2790** **R M Heskett**

SCHEDULE 8. PART B. FINANCIAL INFORMATION

(Instructions for SCHEDULE 8 PART B are on page15.)

If actual data are not available, provide an estimated value.

Operation and Maintenance (O&M) Expenditures During Year (Thousand Dollars)

Type	(1) Fly Ash	(2) Bottom Ash	(3) Flue Gas Desulfurization	(4) Water Pollution Abatement	(5) Other Pollution Abatement	(6) Total (1 + 2 + 3 + 4 + 5)
Collection	155	167				322
Disposal						0
Other						0

Capital Expenditures for New Structures and Equipment During Year, Excluding Land and Interest Expense (Thousand Dollars)

Type	(7) Air Pollution Abatement	(8) Water Pollution Abatement	(9) Solid/Contained Waste	(10) Other Pollution Abatement
Amount	0	82	39	0

Byproduct Sales Revenue During Year (Thousand Dollars)

Type	(11) Fly Ash	(12) Bottom Ash	(13) Fly and Bottom Ash Sold Intermingled	(14) Flue Gas Desulfurization	(15) Other Byproduct Revenue	(16) Total (11+12+13+14+15)
Amount	0	0	0	0	0	0

EIA923 Power Plant Operations Report

Year: **2011** Plant: **2790** **R M Heskett**

SCHEDULE 8. PART C. BOILER INFORMATION NITROGEN OXIDE EMISSION CONTROLS
(Instructions for SCHEDULE 8 PART C are on page 16.)

Complete a separate row for each boiler.

Note: The Boiler ID must match the Boiler ID as reported on Form EIA-860, "Annual Electric Generator Report."

No NOX Controls

Boiler ID	NOx Control In-Service (hours)	NOx Emission Rate (lbs/MMBtu)	
		Entire Year	May through September
B1			
B2	7,342	.399	.373

EIA923 Power Plant Operations Report

Year: **2011** Plant: **2790** **R M Heskett**

SCHEDULE 8. PART D. COOLING SYSTEM INFORMATION, MONTHLY OPERATIONS

(Instructions for SCHEDULE 8 PART D are on page 16.)

Note: Cooling System ID must match the ID as reported on Form EIA-860, "Annual Electric Generator Report." Complete a separate row for each cooling system.

Cooling System ID	Status	Annual Amount of Chlorine added to Cooling Water (1000 lbs)	Diversion	Average Annual Rate of Cooling Water (to nearest 0.1 ft /sec)				Maximum Cooling Water Temperature at Intake (F)		Maximum Cooling Water Temperature at Discharge Outlet (F)			
				Withdrawal	Discharge	Consumption	Estimation	Monthly Avg	Monthly Max	Monthly Avg	Monthly Max	Estimation	
Report Month 1													
C12	OP	0	0	76.7	76.7	0	9	41	47	64	70	1	
Report Month 2													
C12	OP	0	0	76.8	76.8	0	9	40	44	61	64	1	
Report Month 3													
C12	OP	0	0	69.3	69.3	0	9	41	51	57	63	1	
Report Month 4													
C12	OP	0	0	45.2	45.2	0	9	48	56	62	70	1	
Report Month 5													
C12	OP	0	0	73.6	73.6	0	9	45	52	63	68	1	
Report Month 6													
C12	OP	0	0	76.8	76.8	0	9	52	61	74	81	1	
Report Month 7													
C12	OP	0	0	85.5	85.5	0	9	63	67	83	85	1	
Report Month 8													
C12	OP	0	0	95.8	95.8	0	9	65	67	80	82	1	
Report Month 9													
C12	OP	0	0	74.6	74.6	0	9	62	66	77	79	1	
Report Month 10													
C12	OP	0	0	66.4	66.4	0	9	56	64	71	82	1	
Report Month 11													
C12	OP	0	0	76.8	76.8	0	9	45	52	59	66	1	
Report Month 12													
C12	OP	0	0	62.5	62.5	0	9	42	46	52	58	1	

U.S. Department of Energy
Energy Information Administration
Form EIA-923

EIA923 Power Plant Operations Report

Year: **2011** Plant: **2790** **R M Heskett**

Form Approval
OMB No. 1905-0129
Approval Expires 12/31/2013

EIA923 Power Plant Operations Report

Year: **2011** Plant: **2790** **R M Heskett**

SCHEDULE 8. PART E . FLUE GAS PARTICULATE COLLECTION INFORMATION

(Instructions for SCHEDULE 8 PART E are on page 17)

Complete a separate row for each flue gas particulate collector.

Does not Apply

Removal Efficiency of Particulate Matter (nearest 0.1% by weight)

Flue Gas Particulate Collector ID	Status	Hours in Service	Typical Particulate Emissions Rate (nearest 0.01 lb/MMBtu)	At Annual Operating Factor	At 100% Load or Tested Efficiency	Date of Most Recent Efficiency Test (e.g., 12-2005)
ESP1	OP	7,541	.04	99	99.7	08-2005
ESP2	OP	7,341	.02	97	99.9	08-2005

EIA923 Power Plant Operations Report

Year: **2011** Plant: **2790** **R M Heskett**

SCHEDULE 8. PART F. FLUE GAS DESULFURIZATION UNIT INFORMATION, ANNUAL OPERATIONS

(Instructions for SCHEDULE 8 PART F are on page 19.)

Note: Flue Gas Desulfurization ID must match the ID as reported on Form EIA-860, "Annual Electric Generator Report."
 Complete a separate row for each Flue Gas Desulfurization Unit.

ANNUAL OPERATIONS

Does not Apply

Removal Efficiency of Sulfur Dioxide (nearest 0.1% by wt)

Flue Gas Desulfurization Unit ID	FGD Unit Status	Hours In Service	Quantity of FGD Sorbent Used (to nearest 0.1 thousand tons)	Electrical Energy Consumption (MWh)	At Annual Operating Factor	At 100% Load or Tested Efficiency	Date of Most Recent Efficiency Test (e.g., 12-2005)
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OPERATION AND MAINTENANCE EXPENDITURES DURING YEAR, EXCLUDING ELECTRICITY (THOUSAND DOLLARS)

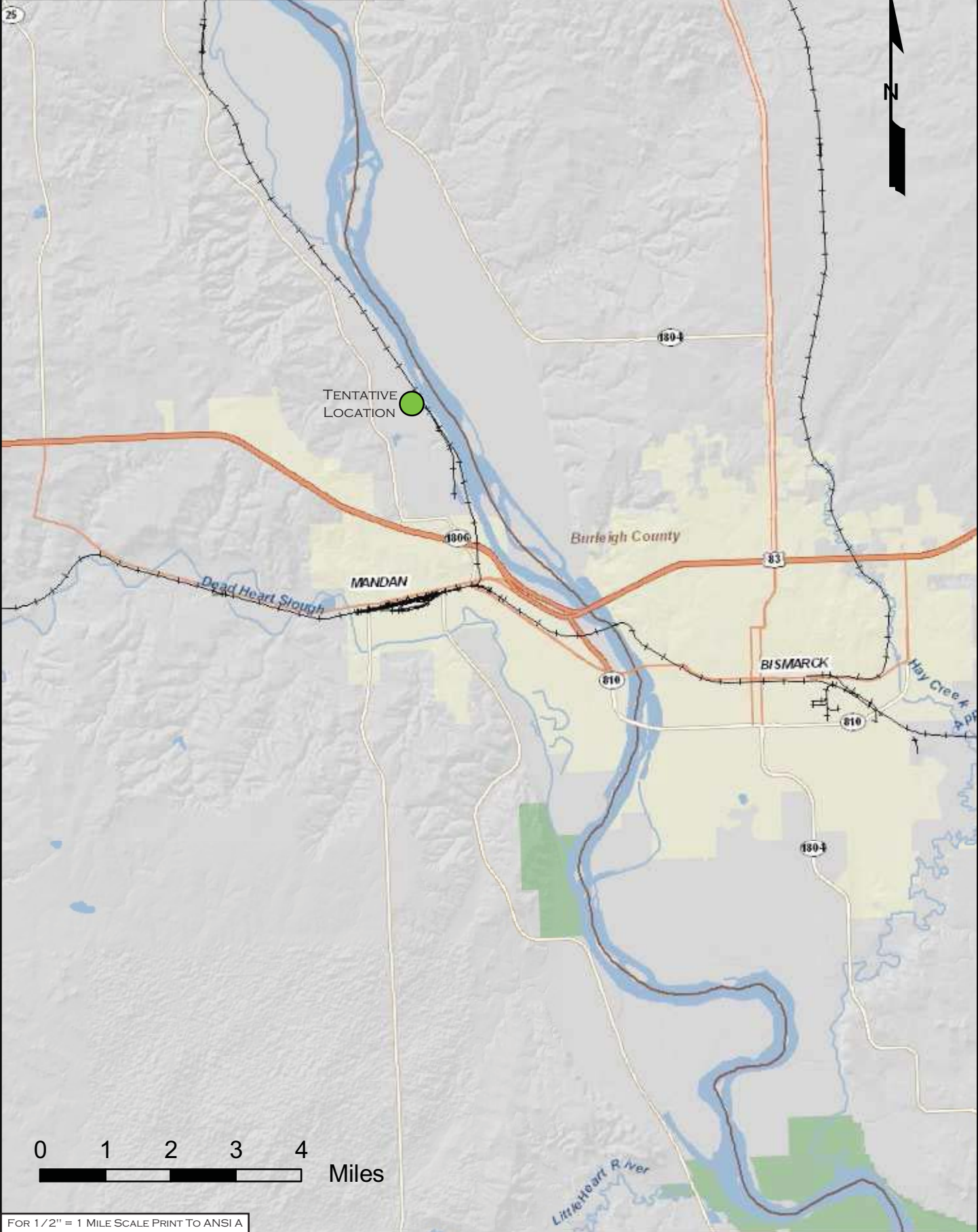
Flue Gas Desulfurization Unit ID	Feed Materials and Chemicals	Labor and Supervision	Waste Disposal	Maintenance, Materials and All Other Costs	Total
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Exhibit A

Location of Proposed Combustion Turbine

TENTATIVE LOCATION MAP FOR A PROPOSED NATURAL GAS SIMPLE CYCLE COMBUSTION TURBINE NEAR THE R.M. HESKETT STATION NORTH OF MANDAN, ND

EXHIBIT A

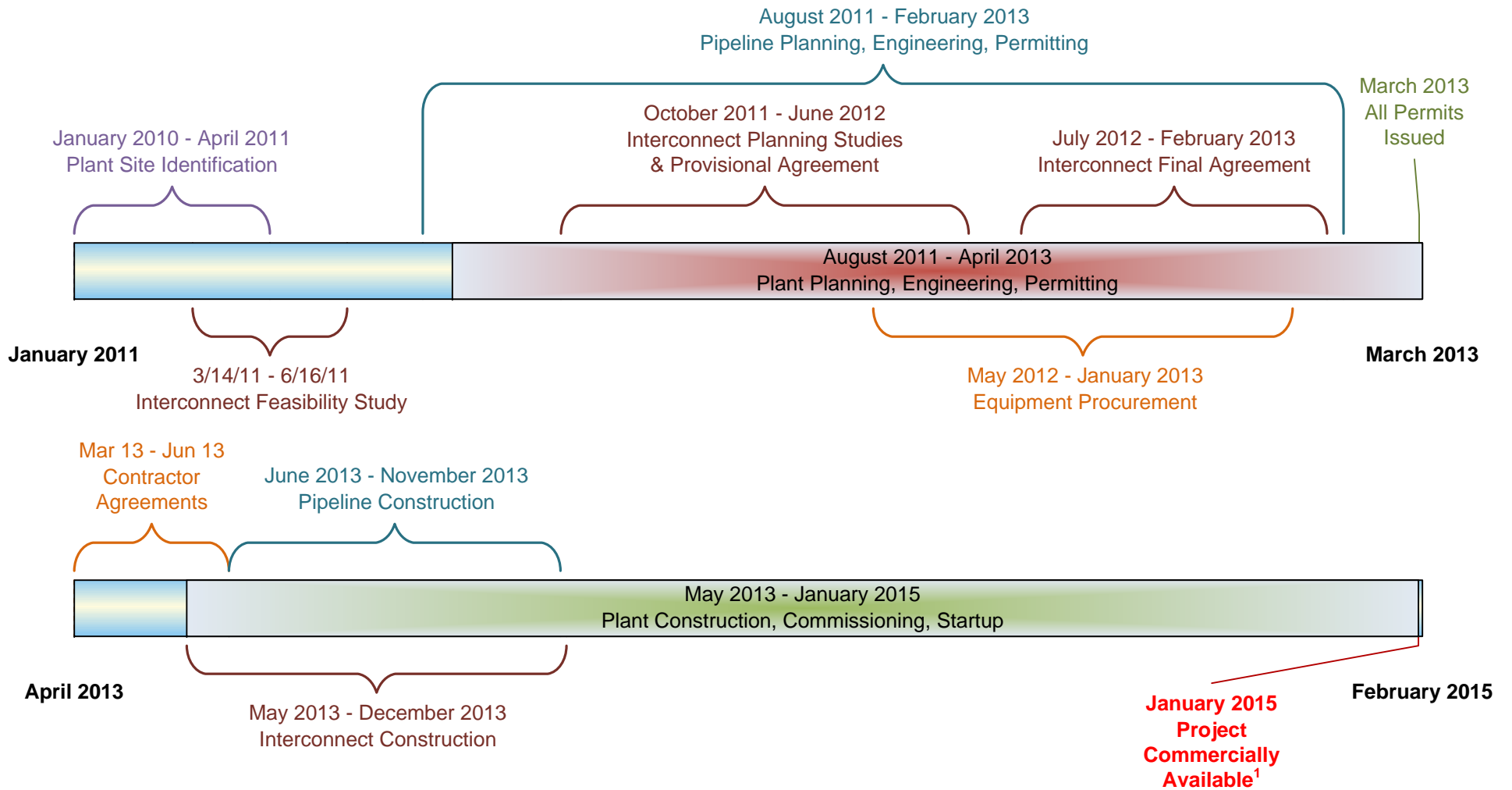


FOR 1/2" = 1 MILE SCALE PRINT TO ANSI A

Exhibit B

Timeline & Milestones for Proposed Combustion Turbine

EXHIBIT B – MILESTONE SCHEDULE R.M. HESKETT STATION – UNIT 3 88MW COMBUSTION TURBINE PROJECT



¹ Commercially Available means the plant has achieved initial commercial production at 100% of rated capacity.

The milestone schedule is preliminary and subject to change during detailed engineering.



Exhibit C

North Dakota Electric System Map

