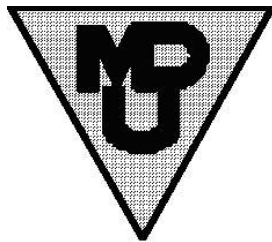


**MONTANA-DAKOTA UTILITIES CO.**  
**TEN YEAR PLAN**  
**FOR**  
**SOUTH DAKOTA ELECTRIC PROPERTIES**

For Planning Years January 1, 2010 through December 31, 2019

Submitted to

SOUTH DAKOTA PUBLIC UTILITIES COMMISSION JUNE 30, 2010



**MONTANA-DAKOTA  
UTILITIES CO.**

A Division of MDU Resources Group, Inc.

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

For Planning Years January 1, 2010 through December 31, 2019

Submitted to

**SOUTH DAKOTA PUBLIC UTILITIES COMMISSION**

June 30, 2010

**MONTANA-DAKOTA UTILITIES CO.**  
A Division of MDU Resources Group, Inc.  
400 North 4th Street  
Bismarck, North Dakota 58501

## **TABLE OF CONTENTS**

Page 2	20:10:21:04	Existing Energy Conversion Facilities
Page 3	20:10:21:05	Proposed Energy Conversion Facilities
Page 4	20:10:21:06	Existing Transmission Facilities
Page 5	20:10:21:07	Proposed Transmission Facilities
Page 6	20:10:21:08	Coordination of Plans
Page 8	20:10:21:09	Single Regional Plans
Page 9	20:10:21:10	Submission of Regional Plan
Page 10	20:10:21:11	Utility Relationships
Page 11	20:10:21:12	Efforts to Minimize Adverse Effects
Page 12	20:10:21:13	Efforts Relating to Load Management
Page 13	20:10:21:14	List of Reports
Page 14	20:10:21:15	Changes in Status of Facilities
Page 15	20:10:21:16	Projected Electric Demand (MW)
Page 16	20:10:21:17	Changes in Electric Energy (MWH)
Page 17	20:10:21:18	Map of Service Area

Exhibit A – South Dakota Electric System Map

20:10:21:04 Existing Energy Conversion Facilities

Montana-Dakota Utilities Co. (Montana-Dakota) has a 22.7 percent ownership in the 415 MW coal-fired Big Stone 1 plant located near Big Stone City, South Dakota. Otter Tail Power Company of Fergus Falls, Minnesota, operates the plant and reports all information required by 20:10:21:04.

20:10:21:05 Proposed Energy Conversion Facilities

Montana-Dakota is continually studying additional resource options to meet its customer needs along with studying renewable resource options to meet the South Dakota renewable energy objective.

20:10:21:06 Existing Transmission Facilities

Montana-Dakota has no transmission facilities of 250 kilovolts (kV) or more in South Dakota. Exhibit A shows the 115 kV and 46 kV transmission network which serves Montana--Dakota's South Dakota customers. The Exhibit also shows 47.5 miles of 230 kV line extending northwesterly from the Big Stone Plant. This line transmits electric energy from the Big Stone Plant to Montana-Dakota's transmission network. Montana-Dakota owns this portion of the transmission line. Otter Tail Power Company owns the remaining portion of the line extending north.

Montana-Dakota, Basin Electric Power Cooperative (Basin Electric) of Bismarck, North Dakota, and Western Area Power Administration (Western) of Billings, Montana, own a 230 kV transmission line extending from Miles City, Montana through Baker, Montana; Bowman, North Dakota; and Hettinger, North Dakota to New Underwood, South Dakota. Western owns the South Dakota portion of this facility.

20:10:21:07 Proposed Transmission Facilities

At this time Montana-Dakota has no plans to propose transmission facilities in South Dakota.

20:10:21:08 Coordination of Plans

Montana-Dakota has been coordinating the planning, construction and operation of electric facilities with other utilities and agencies serving South Dakota since 1945. Montana-Dakota has agreements for joint planning and common use of area facilities with Basin Electric and an agreement with Western.

Montana-Dakota and Western have an agreement that provides for mutual wheeling and coordinates construction of transmission facilities. The current agreement is in effect through 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 since, 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 to terminate. 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 the Midwest Independent Transmission System Operators (Midwest ISO or MISO) bulk transmission facilities.

Montana-Dakota, Otter Tail Power Company, and Northwestern Energy Corporation own the 415 megawatt (MW) Big Stone generating station near Big Stone, 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 construction and operation of a large generating station and to provide the service required of it and its partners through fewer facilities.

Montana-Dakota is a transmission owning member of the Midwest ISO. The Midwest ISO is a FERC-authorized Regional Transmission Organization (RTO). MISO commenced tariff administration for the operational control of the transmission systems of its members in February 2002. 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 MISO. Montana-Dakota is actively participating in the planning processes performed by MISO, who has the obligation to coordinate the planning of transmission facilities. Two of the planning processes mandated by FERC are generator interconnection and delivery service. The third process is related to expansion planning through the MISO Transmission Expansion Plan. As part of the market operation, Montana-Dakota's generating units are dispatched by MISO.

Montana-Dakota is a member of the MAPP Regional Transmission Committee, which coordinates the Regional transmission planning with MISO through its Transmission Planning Subcommittee. Montana-Dakota is active in the Northern MAPP and Missouri Basin Sub-regional Planning Groups of the Transmission Planning Subcommittee. The objective of these subregional planning groups is to provide coordinated planning of transmission. The groups in turn coordinate with other sub-regional planning groups in MAPP to provide a coordinated regional transmission plan for MAPP.

Montana-Dakota is also a member of the Midwest Reliability Organization (MRO), which is a Cross-Border Regional Entity representing the upper Midwest of the United States and Canada. MRO is organized consistent with Energy Policy Act of 2005 and the bilateral principles between the United States and Canada.

20:10:21:09 Single Regional Plans

Montana-Dakota's memberships in the Midwest ISO and the MAPP provide coordination in operating facilities and assistance in developing joint facilities. If Montana-Dakota has any proposed facilities in sections 20:10:21:05 or 20:10:21:07 these facilities would be a part of the Midwest ISO Transmission Expansion Plan. Montana-Dakota also submits proposed facilities to MAPP for the 10-year Transmission Plan.

20:10:21:10 Submission of Regional Plan

Montana-Dakota submits to the Midwest ISO its transmission plans for inclusion into the Midwest ISO Transmission Expansion Plan, and also submits the transmission plans to MAPP to be included in the MAPP 10-Year Transmission Plan.

#### 20:10:21:11 Utility Relationships

Montana-Dakota has several agreements with other electric utilities in its service area. These are described in Section 20:10:21:08. In addition, Montana-Dakota is a member of the Midwest ISO, and MAPP which coordinates the joint operation and planning of electric facilities over the Region and permits Montana-Dakota to participate in the benefits and economics derived from large bulk electric systems. Montana-Dakota is also a member of the MRO.

20:10:21:12 Efforts to Minimize Adverse Effects

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 meet or surpass all applicable environmental laws, regulations and permit requirements.*

Montana-Dakota maintains good relationships 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 federal, state, and local laws and with the Public Utilities Commission's rules and regulations.

Montana-Dakota believes it is in substantial compliance with all federal, state, and local environmental regulations and requirements at its wholly-owned and jointly-owned generating facilities.

20:10:21:13 Efforts Relating to Load Management

Montana-Dakota uses an Integrated Resource Planning method that analyzes both supply-side options and demand-side management (DSM) programs. This planning method evaluates various means of providing electric energy to Montana-Dakota customers. Examples of supply-side options include central generating stations or alternate energy sources, while DSM programs include load management and conservation. Montana-Dakota first implemented Integrated Resource Planning in 1987 with the first integrated resource plan (IRP) being published in October 1989, and the most recent IRP was published in July 2009; both plans are on file with the Public Utilities Commission.

Currently, Montana-Dakota has 6.2 MW of demand response and conservation on its Integrated System which comprises the service territories in Montana, North Dakota, and South Dakota. Based on analysis presented in the IRPs, Montana-Dakota has selected additional demand reduction and energy saving programs to be implemented by 2011. The following is a list of all the DSM programs Montana-Dakota will be implementing:

DSM program	Implementation Date	Expected Annual kWh Savings	Expected Peak kW Savings
Residential Lighting	2011	170,853	156
New Construction Bundle	2011	70,672	84
Residential A/C Cycling	2011	156,000	1,200
<b>Total by 2011</b>		397,525	1,440

The effects of load management programs in South Dakota are, however, expected to be relatively small for the reported ten-year period. This is because the number of customers served by Montana-Dakota in South Dakota is a small percentage (approximately 8 percent in 2009) of those served on the Integrated System. In addition, a high percentage of these are residential customers located in small communities with no industry and few large commercial establishments.

20:10:21:14 List of Reports

As stated in Sections 20:10:21:05 and 20:10:21:07, Montana-Dakota has no new facilities to propose.

20:10:21:15 Changes in Status of Facilities

No significant changes have occurred at Montana-Dakota's South Dakota facilities.



20:10:21:16 Projected Electric Demand (Megawatts)

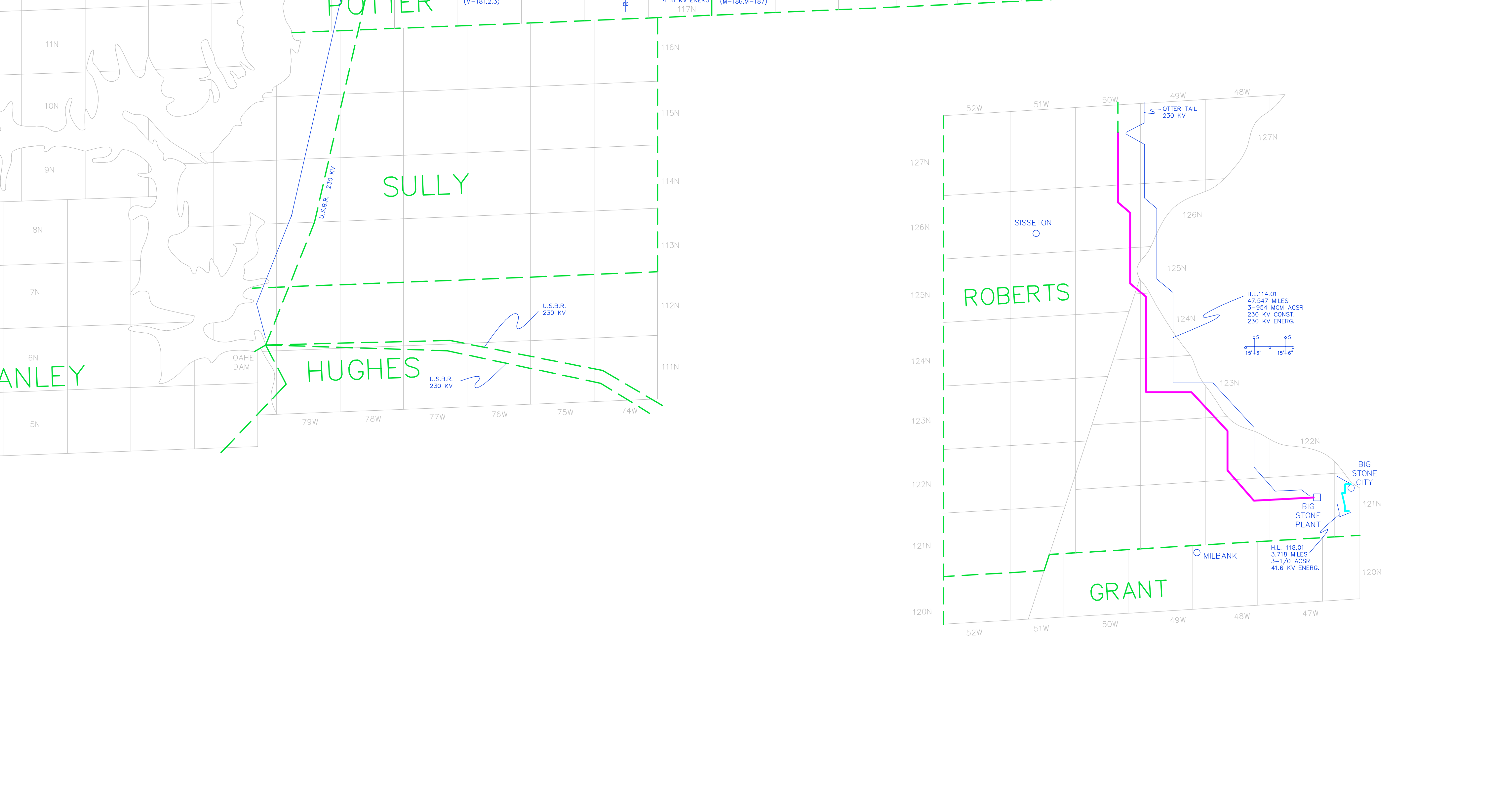
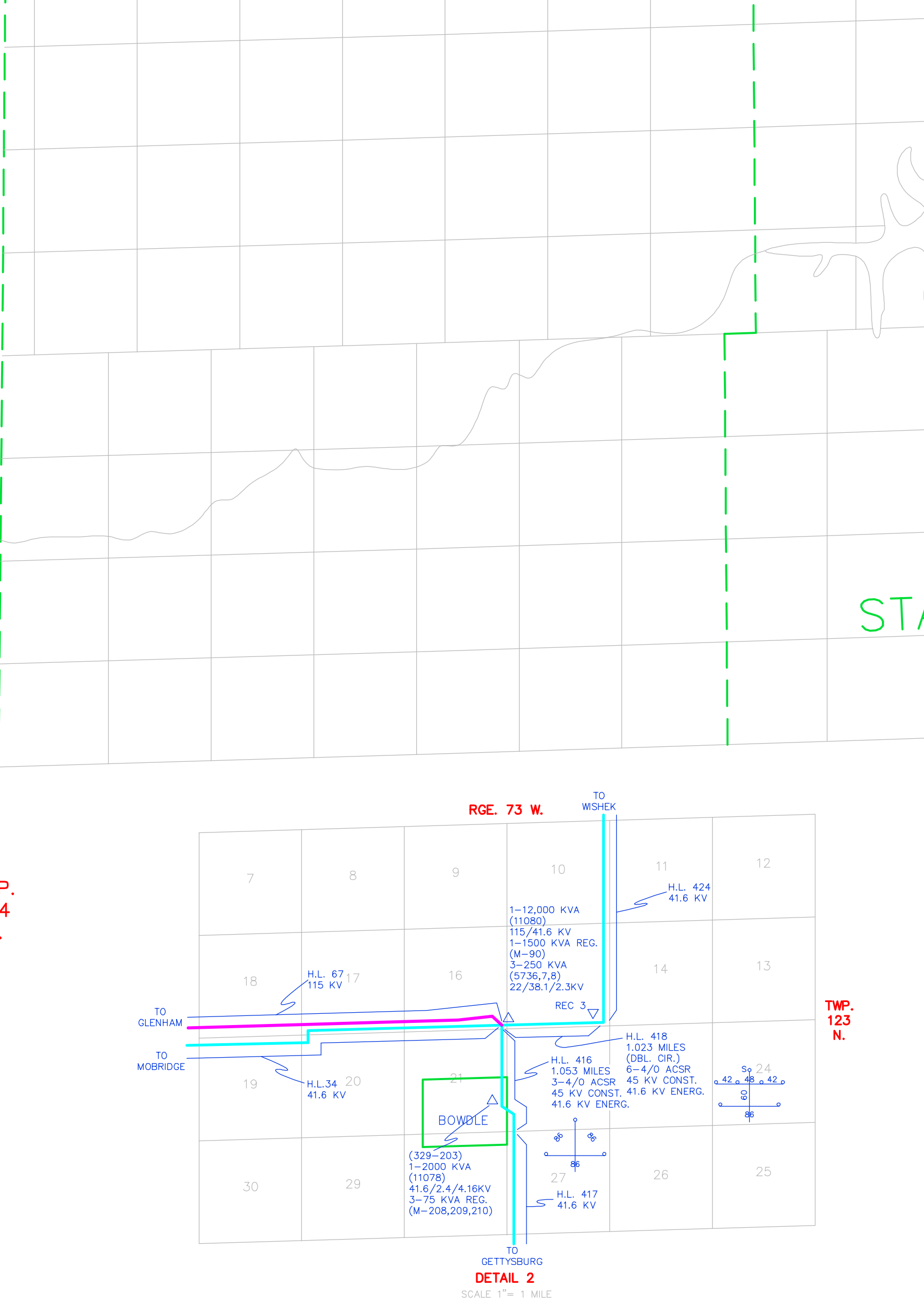
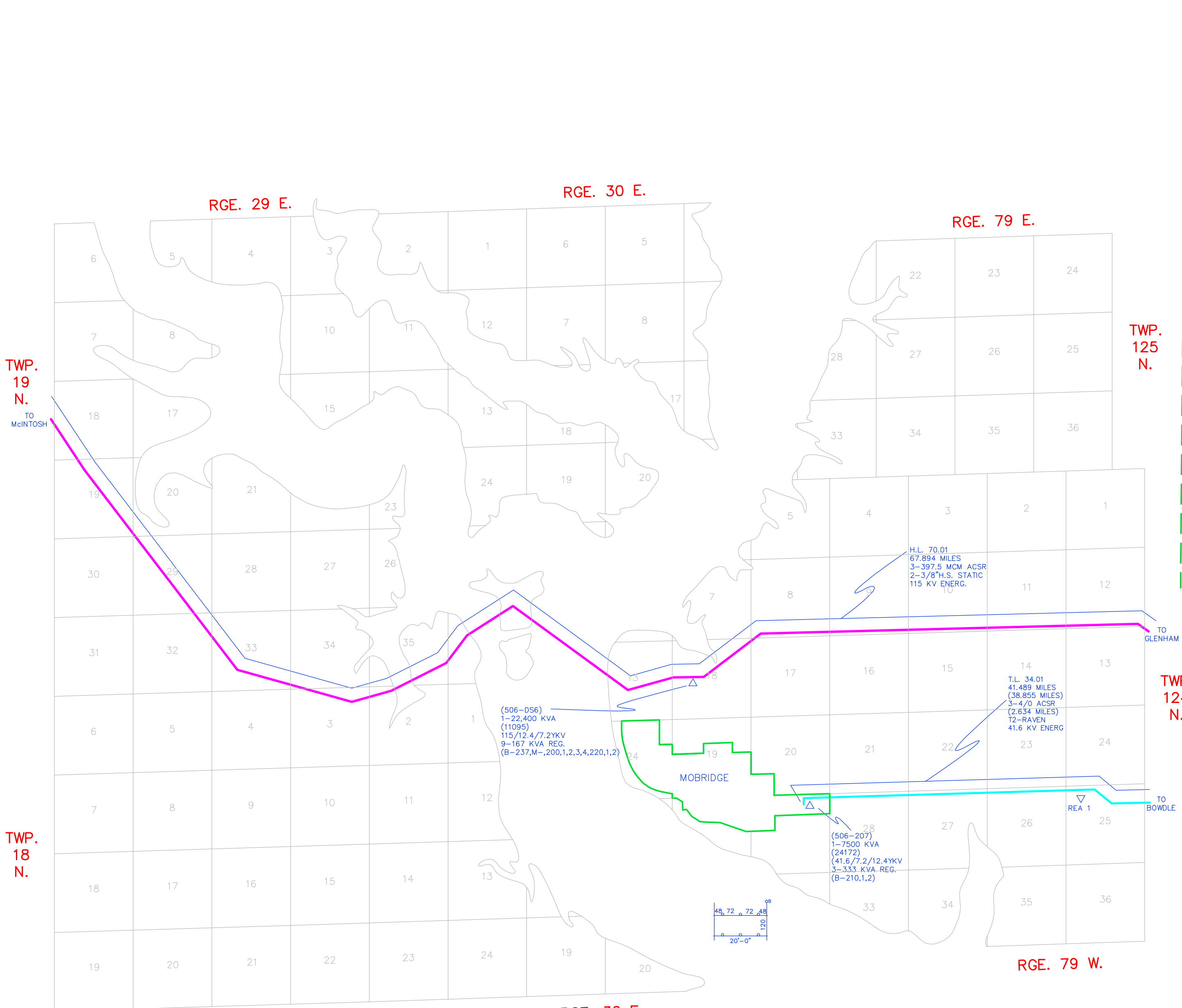
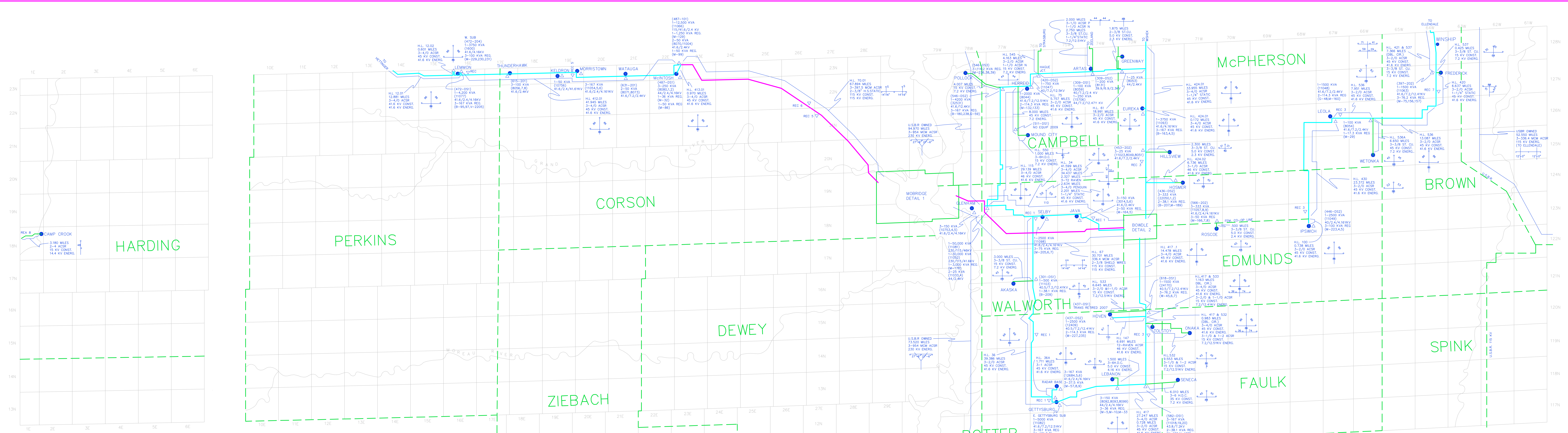
Year	South Dakota		Integrated System	
	Summer Peak Demand (MW)	Winter Peak Demand (MW)	Summer Peak Demand (MW)	Winter Peak Demand (MW)
2010	27.5	28.8	496.3	432.7
2011	27.9	29.1	503.3	438.0
2012	29.7	31.3	534.8	470.6
2013	30.6	32.4	550.8	487.0
2014	31.5	33.5	566.9	503.3
2015	32.0	34.0	576.1	511.3
2016	32.4	34.4	584.2	517.9
2017	32.9	34.9	592.4	524.8
2018	33.3	35.4	600.8	531.7
2019	33.7	35.7	607.4	536.4

20:10:21:17 Changes in Electric Energy (Megawatt-hours)

Year	South Dakota	
	Total Annual Energy (MWH)	Percentage of Change
2010	154,389	--
2011	156,142	1.1%
2012	159,108	1.9%
2013	161,040	1.2%
2014	164,210	2.0%
2015	166,790	1.6%
2016	169,409	1.6%
2017	172,063	1.6%
2018	174,725	1.5%
2019	176,634	1.1%

20:10:21:18 Map of Service Area

Enclosed is Exhibit A which shows Montana-Dakota's South Dakota Service Area.



**LEGEND**

- REC**
- 1 - CAM-WAL ELEC. CO-OP., INC.
  - 2 - GAHE ELEC. CO-OP., INC.
  - 3 - FEM ELEC. CO-OP., INC.
  - 4 - GRAND ELEC. CO-OP., INC.
  - 5 - MOREAU-GRAND ELEC. CO-OP., INC.
  - 6 - MOR-GRAN-SOU ELEC. CO-OP., INC.
  - 7 - NORTHERN ELEC. CO-OP., INC. (ABERDEEN)
  - 8 - SOUTHEAST ELEC. CO-OP., INC.
- SYMBOLS**
- TOWNS SERVED BY MDU CO
  - ▲ ELECTRIC SUBSTATIONS
  - ELECTRIC POWER PLANT OR SUBSTATION
  - ▽ REC TAPS

**SYSTEM MAP OF ELECTRICAL PROPERTIES IN SOUTH DAKOTA**  
**MONTANA-DAKOTA UTILITIES CO.**

DRAWN BY	DATE	APPROVED	SCALE	DRAWN No.
RAK	4-26-92	RAK	1"=6M	SDLEC.043

**REVISED**

K.O.P.P.	NO CHANGE	1-16-05	3-14-07
K.O.P.P.	NO CHANGE	3-14-07	3-14-07
K.O.P.P.	NO CHANGE	3-14-07	3-14-07
K.O.P.P.	NO CHANGE	3-14-07	3-14-07
K.O.P.P.	NO CHANGE	3-14-07	3-14-07