

Purchased Power Contracts under Regulated and Competitive Markets in Michigan

Energy Regulatory Partnership Program

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Outline of the Presentation

- Structure of Michigan's electric industry
- Regulatory statutes which electric utilities operate within
- Structure of contracts
- Cost of service
- Recap of the presentation
- Citations
- Questions

Structure of Michigan's Electric Industry

- Investor owned utilities (IOUs): 9
 - Power Plants and Distribution
- Public owned utilities (Cooperatives): 9
 - Primarily located in rural areas
 - On May 11, 1935, President Franklin D. Roosevelt signed Executive Order 7037 establishing the Rural Electrification Act (REA)
 - The REA was passed in 1936 and it provided federal assistance to accomplish rural electrification

Structure of Michigan's Electric Industry (2)

- Transmission System
 - ITC Transmission
 - Serves people in Michigan's Southeastern countries
 - Michigan Electric Transmission Company (METC)
 - Serves people in Michigan's lower peninsula
 - American Transmission Company (ATC)
 - the Upper Peninsula of Michigan, throughout the eastern half of Wisconsin and into portions of Illinois
- Alternative Electric Suppliers (AESs): 26

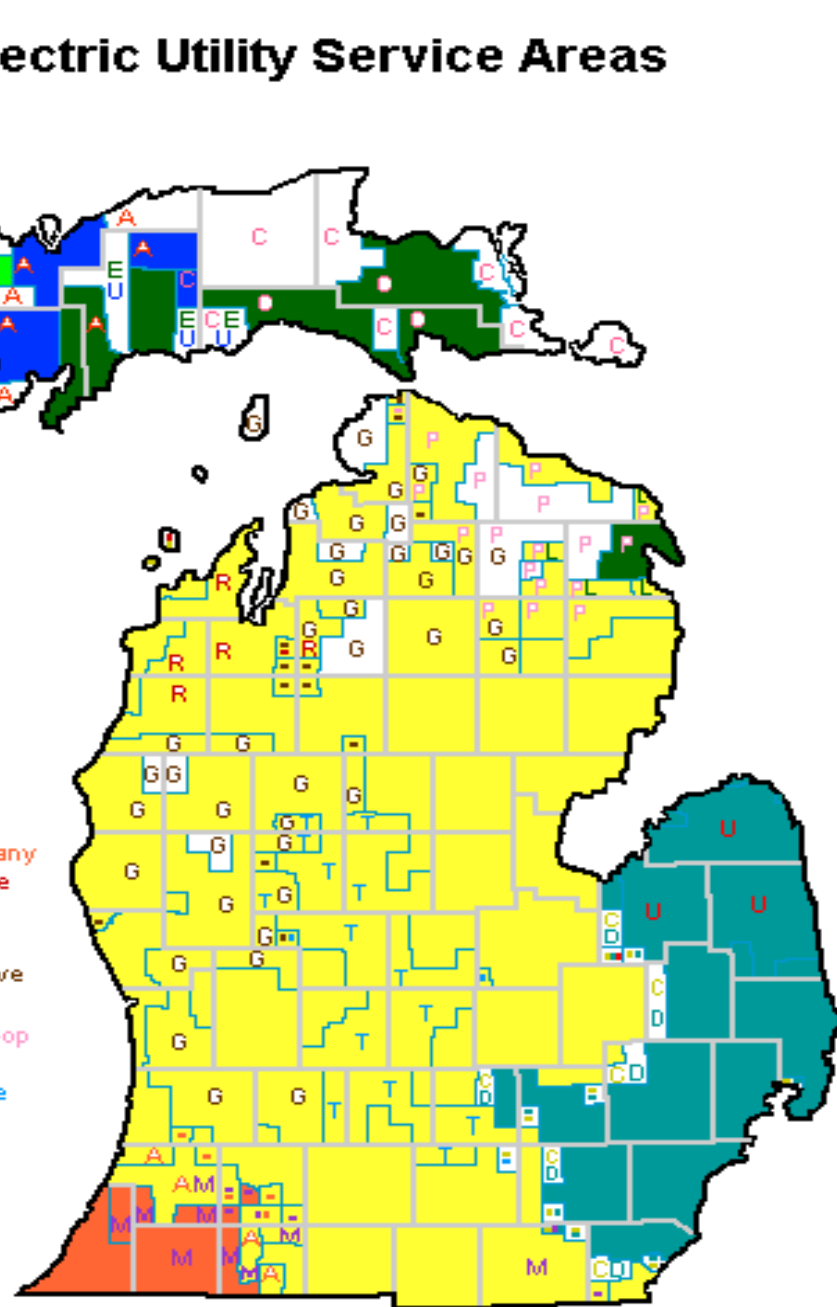
Electric Utility Service Areas

Utilities Distributing Electricity
(select for information)

- A - Alger Delta Cooperative
- C - Cloverland Electric Cooperative
- E - Edison Sault Electric Company
- X - Xcel Energy
- O - Ontonagon County REA
- U - Upper Peninsula Power Company
- W - Wisconsin Electric Power Company
- P - Wisconsin Public Service Corporation

- L - Alpena Power Company
- A - American Electric Power Company
- R - Cherryland Electric Cooperative
- C - Consumers Energy
- D - Detroit Edison Company
- G - Great Lakes Energy Cooperative
- M - Midwest Energy Cooperative
- P - Presque Isle Electric & Gas Co-op
- U - Thumb Electric Cooperative
- T - Tri-County Electric Cooperative

Investor Owned shown in colors and letters
Cooperatives shown in letters only



Regulatory Statutes Which Electric Utilities Operate Within: Federal

- Regional Transmission Organizations (RTOs)
 - Created from the Federal Energy Regulatory Commission's (FERC) Order 2000
 - Delineated twelve characteristics and functions that an entity must satisfy in order to become a Regional Transmission Organization
- Independent System Operators (ISOs)
 - Created from FERC Orders 888 and 889
 - Benefits of having a ISO
 - Improved System Reliability
 - Better Congestion Management
 - 5 minute security constrained economic dispatch
 - Real time energy market

Regulatory Statutes Which Electric Utilities Operate Within:

Federal (2)

- Midwest Independent System Operator (MISO) is the RTO for 13 Midwestern states and the Canadian province of Manitoba
 - This market requires utilities to “offer” their generating units into the market and to “bid” in prices for their load
 - This market consists of a:
 - Day-ahead energy market
 - Real-time energy market
 - Manages congestion with locational marginal pricing (LMP), transmission loading relief (TLR) and seams agreements
 - MISO has an independent market monitor (IMM) which oversees the market activities of all participants

Regulatory Statutes Which Electric Utilities Operate Within: Michigan

- Public Act 3 of 1939
 - Regulated utilities are required to file annually a plan for power supply cost recovery (PSCR) expenditures for a 12 month period
 - Regulated utilities are required to file annually a reconciliation of PSCR costs for the previous 12 month period
 - Each mechanism is designed to allow for fuel and purchased power cost recovery
 - Costs incurred by utilities operating in MISO's Day Ahead and Real Time Markets are recovered in these mechanisms

Regulatory Statutes Which Electric Utilities Operate Within: Michigan (2)

- Regulated utilities are required to submit the following reports to the MPSC:
 - Annual reports
 - 45-Day reports
 - Summer reliability assessment reports
- Regulated utilities also provide to the MPSC:
 - Customer and system interruption data
 - Monthly fuel inventory levels
 - Audit and discovery questions and/or responses in contested cases
 - Any other data as deemed necessary by the MPSC Staff

Structure of Contracts: Special

- It is considered to be a special contract because it assumed the service is priced at a discounted rate
- The utility is taking a risk that keeping the customer outweighs the loss in revenues

Structure of Contracts: Purchase Power

- Products
 - All requirements service
 - Firm transportation
 - Peaking
 - Options
 - Interruptible service
- Price
 - Bilateral
 - Market
- Delivery Location
- Risk Management Provisions

Cost of Service

- Customer classes are a group of customers who have similar characteristics
- For all customer classes for utility services, costs can be:
 - Direct
 - Joint
 - Common

Cost of Service (2)

- Customer classes and rate schedules are suppose to make cost-based rates simplified
- Rate schedules provide the rules, regulation and prices of service
 - Each customer class can take service under a different rate schedule
 - Determine the revenue requirement for the monopoly services offered by an utility operating in both monopoly and competitive markets
 - Separate costs between different regulatory jurisdictions

Cost of Service Studies

- There are 3 methods of conducting cost studies
 - Direct assignment cost studies
 - Embedded cost studies
 - Marginal cost studies
- Embedded and marginal cost studies are done using a spreadsheet model using complex computer software
- What is done in Michigan
 - Historically : embedded cost studies
 - Currently: marginal cost studies

Recap

- Structure of Michigan's electric industry
- Regulatory statutes which electric utilities operate within
- Structure of Contracts
- Cost of Service

Citations

American Transmission Company (ATC)

<http://www.atcillc.com/A1.shtml>

Common Cost

<http://www.businessdictionary.com/definition/common-cost.html>

Cost of Service

http://www.naruc.org/Publications/Presentation_14_India_Cost_of_Service_01092009v1.pdf

Direct Cost

<http://www.businessdictionary.com/definition/direct-cost.html>

Federal Energy Regulatory Commission (FERC)

<http://www.ferc.gov/industries/electric/indus-act/rto.asp>

FERC Order 2000

<http://www.ferc.gov/legal/maj-ord-reg/land-docs/RM99-2A.pdf>

History of Electric Cooperatives

<http://www.nreca.org/AboutUs/Co-op101/CoopHistory.htm>

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ITC Transmission

<http://www.itctransco.com/aboutus/corporatefamily/itctransmission.html>

Joint Cost

<http://www.businessdictionary.com/definition/joint-cost.html>

Michigan Electric Transmission Company (METC)

<http://www.itctransco.com/aboutus/corporatefamily/metc.html>

Midwest Independent System Operator

<http://www.midwestiso.org/home>

Public Act 3 of 1939

[http://www.legislature.mi.gov/\(S\(f5mywl55exyxab551mvdwunw\)\)/mileg.aspx?page=MclP
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Questions?