Maine’s Electricity Industry

Briefing for the Energy, Utilities and Technology Committee by

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Electricity Components

• Delivery Service
  – Transmission, distribution and customer-related services
  – Provided by regulated utilities such as CMP and BHE (Transmission and Distribution utilities or “T&D utilities”)

• Power Supply
  – Generation and sale of power (energy and capacity)
  – Regional wholesale power market administered by the New England Independent System Operator (ISO-NE)
  – Generators throughout the region sell to and consumers (ultimately) purchase from this market
  – Wholesale market is not subject to state rate regulation, although there is some federal oversight by the FERC
Thirteen Electric Delivery (T&D) Utilities in Maine

- Three investor-owned utilities (IOUs)
  - CMP, BHE and MPS
- The three IOUs serve about 95% of Maine’s load
- Cont...
• Ten consumer-owned utilities (COUs)
  – Fox Islands Electric Coop.
  – Houlton Water Co. (Elect. Dept.)
  – Isle-Au-Haut Electric Power Company
  – Kennebunk Light & Power Company
  – Town of Madison
  – Matinicus Plantation Electric
  – Monhegan Plantation Power
  – Swans Island Cooperative
  – Van Buren Light & Power District
Commission Oversight of T&D Utilities

- Service availability
- Service quality
- Safety
- Rates (but not transmission)
- Other
  - CPCN for transmission lines
  - Mergers/acquisitions
Commission Oversight of Retail Electricity Suppliers

• Competitive Energy Providers (CEP) – sell directly to consumers, or facilitate sale
  – Maine law requires CEPs to be licensed by the Commission
  – About 150 currently licensed
  – Standard Offer Service
  – Electric Service
• Commission’s oversight of CEP includes:
  – Licensing
  – Consumer protection
  – General market oversight
• Compliance with state statutes and Commission rules
  – RPS for example
Retail Market in Maine

• Large C&I consumers
  – Typically arrange for their own electricity supply from a CEP
  – Some purchase directly from spot market

• Medium C&I consumers
  - Mix of both

• Residential and other small consumers
  – Options to shop for their own electricity developed over last year
  – Green product to be available per Commission process beginning in 2013

• Medium C&I consumers
  - Mix of both
Components of Electricity Prices

• Supply (e.g., standard offer service)
  – Supply includes energy, capacity, ancillaries.
  – Retail vs. wholesale

• Distribution

• Transmission

• Stranded Costs
Standard Offer Service

• Standard offer service is the supply customers receive if they don’t have their own arrangement with a CEP

• The Commission runs periodic competitive bid processes to procure standard offer service

• New standard offer service prices and other components are summarized in the following charts
Natural Gas is the Primary Driver of Energy Prices

- The wholesale market in New England is dominated by natural gas
  - Natural gas generators set the market clearing price
- Translates directly into prices Maine consumers pay for electricity
Comparison of Total Average Electricity Prices and Henry Hub Natural Gas Spot Prices

- ME Elec
- NE Elec
- Total US
- Henry Hub Spot Price ($/MMBTU)
Wholesale Market Structure

• Most of Maine is part of the New England Regional Market (ISO-NE)
  – ISO-NE operates the regional bulk transmission system and administers the wholesale competitive markets for energy, capacity and ancillary services
  – ISO-NE is responsible for regional system reliability (planning and day-to-day operations)
  – FERC has jurisdiction over the ISO-NE tariffs and market rules
  – The Commission participates in ISO-NE and FERC proceedings to advocate for Maine interests
Wholesale Market Structure (cont.)

• Northern Maine is not electrically connected to New England and is not part of the ISO-NE
  – Includes the territories of Maine Public Service, Houlton, Van Buren, and EMEC
  – Part of the Canadian Maritimes Balancing Authority area (includes New Brunswick, Nova Scotia, Prince Edward Island); New Brunswick System Operator (NBSO) has regional reliability responsibilities
  – Northern Maine Independent System Administrator (NMISA) administers the system and market
Major Current Issues

- Transmission
- Natural gas
- Smart Grid/AMI meters
- Renewable power development
Transmission

- MPRP
  - CPCN granted in 2010
- Pending cases
  - Lewiston Loop
  - Lakewood
  - Rangeley
- Regional investment; rate implications
- Regional/national issues; renewable resource development
Current and projected U.S. natural gas prices have declined

Henry Hub spot price
2010 dollars per million Btu

CMP Advanced Metering Project

- Smart meters and related systems (AMI)
- DOE grant ~ $95 million
- Commission approval
  - Overall ratepayer savings
    - Operational efficiency
    - Supply market savings (e.g., from dynamic pricing, load shifting)
- Subsequent customer complaints:
  - Health issues
  - Other safety concerns
  - Privacy
  - Opt-out program
  - Current proceeding
Map of Pending and Approved Maine Wind Power Projects

1. Mars Hill Wind Project, Aroostook County
2. Beaver Ridge Wind Project, Waldo County
3. Stetson Ridge I Wind Project, Washington County
4. Kibby Mountain Wind Project, Franklin County
5. Vinalhaven Wind Project, Knox County
6. Stetson Ridge II Wind Project, Washington County
7. Rollins Wind Project, Penobscot County
8. Record Hill Wind Project, Oxford County
9. Oakfield Wind Project, Aroostook County
10. Spruce Mountain Wind Project, Oxford County
11. Kibby Expansion Wind Project, Franklin County
12. Bull Hill, Hancock County
13. Saddleback Ridge Wind Project, Franklin County
14. Bowers Mountain, Penobscot & Washington County (pending)
15. Passadumkeag Mountain, Penobscot County (permit denied, appeal pending)
16. Canton Mountain, Oxford County (pending)
17. Hancock Wind, Hancock County (pending)