Maine Public Utilities Commission

Presentation to the Committee on Energy, Utilities and Technology
April 1, 2021
Philip L. Bartlett II, Chair

Renewable Energy Goals:

(Signed into law 6/26/19)

80% of retail electricity sales by 2030

100% of retail electricity sales by 2050

Decarbonization Goal:

(Exec. Order 9/23/19)

Maine to be carbon neutral by 2045

Meeting clean energy and carbon reduction goals will require significant investment, including:

- Grid scale renewables, storage;
- Distributed Energy Resources (DERs), including storage;
- Creating incentives for beneficial electrification;
- Modernizing the grid, including technologies to increase load flexibility;
- Transmission to unlock more renewables and use nearby regions as a form of storage.

Key Considerations:

How much cost can/should ratepayers absorb at any particular time?

How should those limited ratepayer dollars be allocated?

How do we maintain cost causation principles and take into account equity considerations?

- Many of the costs of clean energy transition will be borne by electric ratepayers.
- Oil, gas customers do not pay costs for energy transition.
- Rising electric rates may require additional incentives for beneficial electrification, further raising rates.

For each investment how can we get the maximum value for the lowest cost?

When evaluating particular investments or programs, consider:

- What needs to be done most quickly?
- Can non-ratepayer resources be leveraged?
- Are costs likely to increase or decrease over time?
- Over what timeframe will support be needed?
- What is the net impact on rates?
- Is this the lowest cost for achieving specific goals?
- How are economic benefits from investment balanced with rate impacts on existing businesses and consumers?

NEB Programs

kWh Program

- Customer gets a bill credit reducing both supply charges and the associated delivery charges for designated amount of supply.
- These delivery charges will then be absorbed by other customers through higher rates.
- Alternative could include rate design changes to increase fixed costs, thereby reducing cost shift.

C/I Tariff Rate Program

- Customer gets a bill credit as prescribed by statute.
- 11.9 to 14.3 cents per kWh depending on customer class and utility

NEB Project Data

Net Energy Billing Operational and Pending Projects (As of February 28, 2021)							
	MWs						
	kWh Credit Program			Tariff Rate Program			Statewide NEB - Both Programs
	CMP	Versant	TOTAL	CMP	Versant	TOTAL	TOTAL
Projects in Operation	61	13	74	29	5	33	**108**
Projects with Executed NEB Agreement (but not yet operational)	375	77	452	520	142	662	**1,114**
Projects with NEB Application Filed (but no executed NEB Agreement)	34	31	66	120	15	135	**201**
Total of Operational and Pending Projects	**470**	**122**	**592**	**669**	**161**	**830**	**1,422**

Societal Benefits:

- Environmental benefits, including reduced emissions from displaced fossil fuels;
- Economic benefits.

Avoided Costs:

- DERs can reduce the need for some costly upgrades or other investments in T&D;
- Location will impact the magnitude and timing of avoided costs.

Reduction in Supply Prices:

- DERs can place downward pressure on regional energy and capacity prices.

Observations Regarding Daymark Study

- Most of the benefits (wholesale market, environmental, economic) would also be realized from grid-scale procurements at better prices (3-4 cents/kWh).

- Environmental and economic benefits, though significant, won't reduce customer bills.

- Avoided transmission charges (RNS)
  - Daymark is correct that kWh program will reduce RNS peak
  - Some relative savings in transmission costs likely to result

- Avoided RPS Compliance Costs
  - Results from current practice of determining compliance based on "billed" rather than "metered" supply.
  - Pending proceeding open to consider changing approach.
  - RPS compliance weakened if developers sell 100% RECs from project.

- Avoided Standard Offer Costs
  - Applies to kWh Credit program, reducing load asset customer's supplier.
  - This reduces certain costs supplier assessed though wholesale market.
  - Caution: uncertainty around amount/timing of kWh credits may increase perceived risk, resulting in increase in standard offer prices, limiting impact of this benefit.

- Capacity savings in C&I Tariff Rate Program
  - FERC Order 2222 will enable DER aggregations into wholesale markets.
  - Rules for participation are still being developed by ISO-NE
  - Capacity payments come with corresponding obligation to deliver capacity with penalties for failure to do so.
  - Once rules are developed, we can better analyze potential value and risks to ratepayers.

- Daymark concluded that costs of C&I Tariff Rate Program exceed benefits.
  - 60% of NEB projects fall in this category

- We look forward to learning more from Daymark's presentation today.

Key Considerations for Pending NEB Legislation

What is your policy target for installed capacity?

- GEO's Renewable Energy Goals Market Assessment (Feb. 2021)
- Daymark Scenarios: 227 to 1,029 MW

Net Energy Billing Operational and Proposed Projects (As of January 31, 2021)			
	MWs		
	CMP	Versant	Total
Projects in Operation	89	15	**105**
Projects with NEB Agreement (but not Operational)	888	206	**1,094**
Projects with NEB Application Filed (but no Executed NEB Agreement)	158	61	**219**
Additional Projects in the Queue	945	267	**1,211**
Total of Operational and Proposed Projects	**2,080**	**548**	**2,628**

How much rate impact are you comfortable allocating to the existing program?

NEB Capacity (MW)	~Cost/year ($ Millions)	Estimated Delivery Rate Increase %
250	38.35	5%
500	76.69	10%
750	115.04	15%
1,000	153.39	20%
1,250	191.74	26%
1,500	230.08	31%
2,000	306.78	41%
2,500	383.47	51%

You have flexibility to:

- make a principled policy decision on where to draw the line for the existing program, and
- decide how to transition to a Phase 2 DER policy/program.