

Office of the Public Advocate Presentation to Energy, Utilities and Technology Committee

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Overview

- Understanding of actual cost impact to Mainers of existing renewable energy policies
- The principles we use evaluating renewable energy policy proposals
 - Clearly Defined Goals
 - Targeted
 - Equitable
 - Sustainable

Bill Impact of Renewables Policies

- What do our existing renewable energy policies cost Maine ratepayers?
- If fully implemented, what could they cost?
- Actual monthly bill impact (as opposed to per kWh charge)
 - Representative residential, commercial and industrial bills
 - For each T&D utility, where applicable
- Omitted Ocean Energy

Bill Impact Summary (Current)

	Residential	Small Commercial	Medium C&I	Large C&I	
CMP	RPS	\$0.35	\$0.70	\$10.40	\$400
	Long Term Contracts	\$0.23	\$0.39	\$5.99	\$235.13
	CBRE	\$0.00	\$0.00	\$0.00	\$0.00
	Net Billing	\$0.03	\$0.05	\$1.33	\$52.16
	Total	\$0.62	\$1.14	\$17.10	\$663.13

Bangor Hydro	RPS	\$0.35	\$0.70	\$10.40	\$400
	Long Term Contracts	\$0.12	\$0.21	\$3.19	\$125.13
	CBRE	\$0.13	\$0.22	\$3.39	\$133.27
	Net Billing	\$0.02	\$0.04	\$0.60	\$23.39
	Total	\$0.62	\$1.17	\$17.57	\$681.78

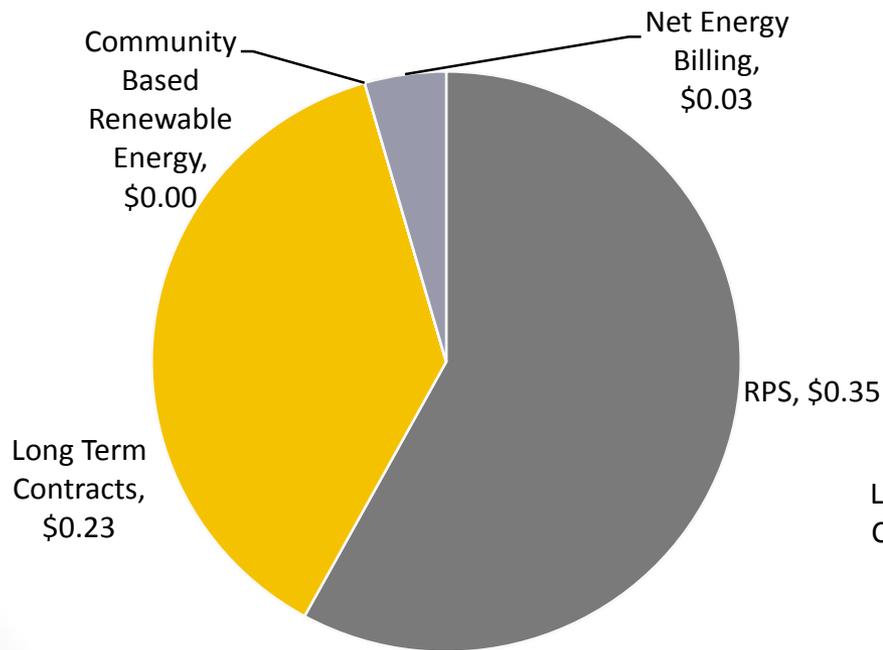
Bill Impact Summary (Projected)

	Residential	Small Commercial	Medium C&I	Large C&I	
CMP	RPS	\$0.35	\$0.70	\$10.40	\$400
	Long Term Contracts	\$0.23	\$0.39	\$5.99	\$235.13
	CBRE	\$0.17	\$0.30	\$4.60	\$180.83
	Net Billing	\$0.03	\$0.05	\$1.33	\$52.16
	Total	\$0.78	\$1.44	\$21.70	\$843.96

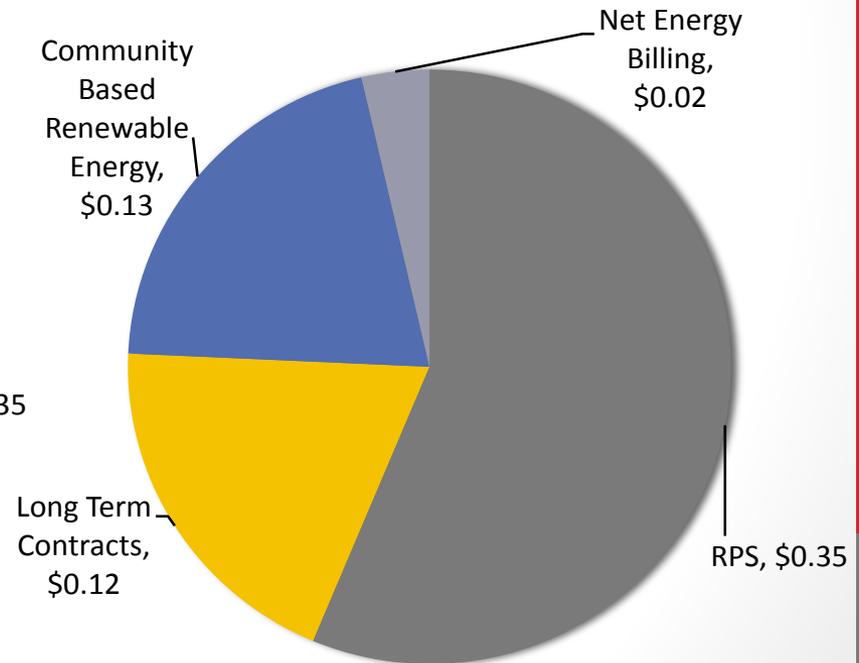
Bangor Hydro	RPS	\$0.35	\$0.70	\$10.40	\$400
	Long Term Contracts	\$0.12	\$0.21	\$3.19	\$125.13
	CBRE	\$1.38	\$2.40	\$36.46	\$1432.42
	Net Billing	\$0.02	\$0.04	\$0.60	\$23.39
	Total	\$1.87	\$3.34	\$50.64	\$1980.94

Residential Bill Impact (Current)

Monthly cost for Residential Customer (CMP): \$0.61

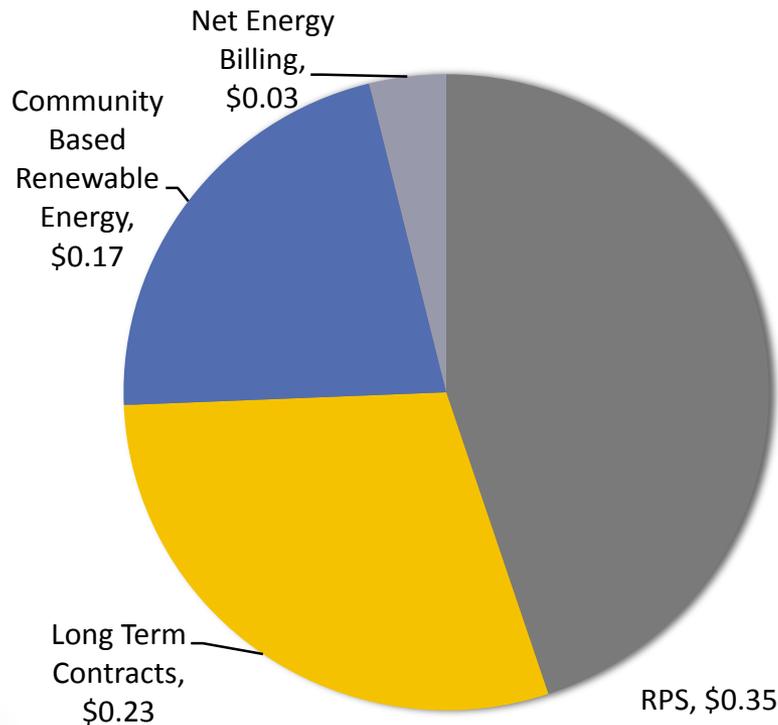


Monthly cost for Residential Customer (BHE): \$0.62

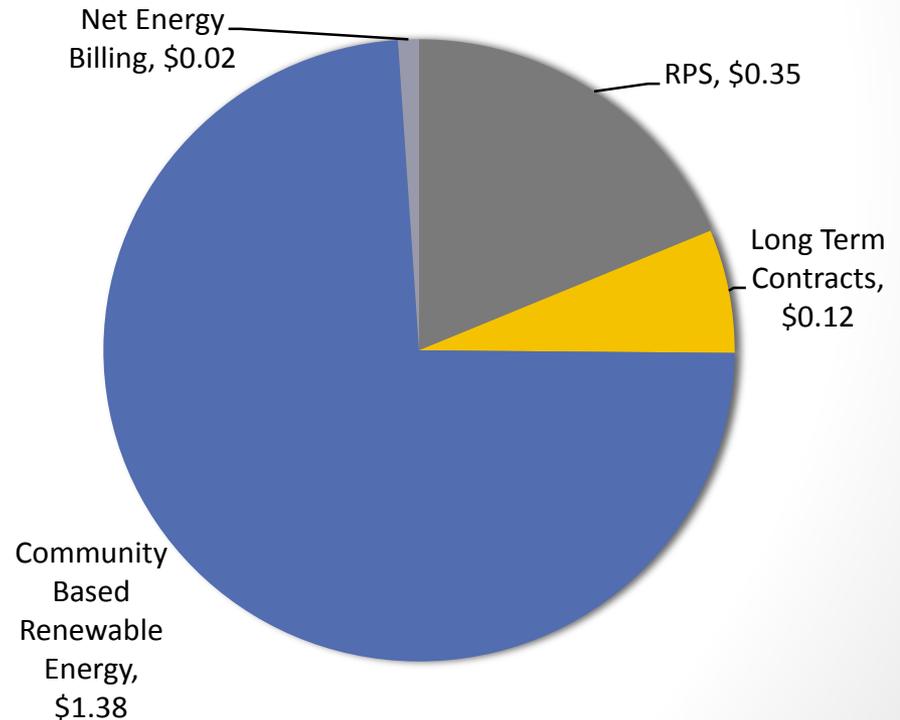


Residential Bill Impact (Potential)

Monthly cost for Residential Customer (CMP): \$0.78



Monthly cost for Residential Customer (BHE): \$1.87



Renewable Portfolio Standard

Monthly Cost per Customer Class

Residential	\$0.35
Small Commercial	\$0.70
Medium C&I	\$10.40
Large C&I	\$400

Source: MPUC

Long Term Contracts (Section 3210-C)

Monthly Cost per Customer Class

CMP	
Residential	\$0.23
Small Commercial	\$0.39
Medium C&I	\$5.99
Large C&I	\$235.13

Bangor Hydro	
Residential	\$0.12
Small Commercial	\$0.21
Medium C&I	\$3.19
Large C&I	\$125.13

- CMP includes 80% of Rollins, Verso REC contracts
- BHE includes 20% of Rollins only
- CMP values likely understate ratepayer benefits of Verso REC contract (RI qualification)
- Does not include term sheet recently approved by MPUC
- No contracts currently allocated to Maine Public Service
- Source: MPUC stranded cost filings

Community-Based Renewable Energy

Monthly Cost per Customer Class

CMP	Current	Projected
Residential	\$0.00	\$0.17
Small Commercial	\$0.00	\$0.30
Medium C&I	\$0.00	\$4.60
Large C&I	\$0.00	\$180.83

Bangor Hydro	Current	Projected
Residential	\$0.13	\$1.38
Small Commercial	\$0.22	\$2.40
Medium C&I	\$3.39	\$36.46
Large C&I	\$133.27	\$1432.42

- Projections of above market costs based on contract price, average wholesale price, and representative capacity factors for contracts authorized to date by the MPUC
- Maine Public Service projected to be about halfway between CMP and BHE

Net Energy Billing

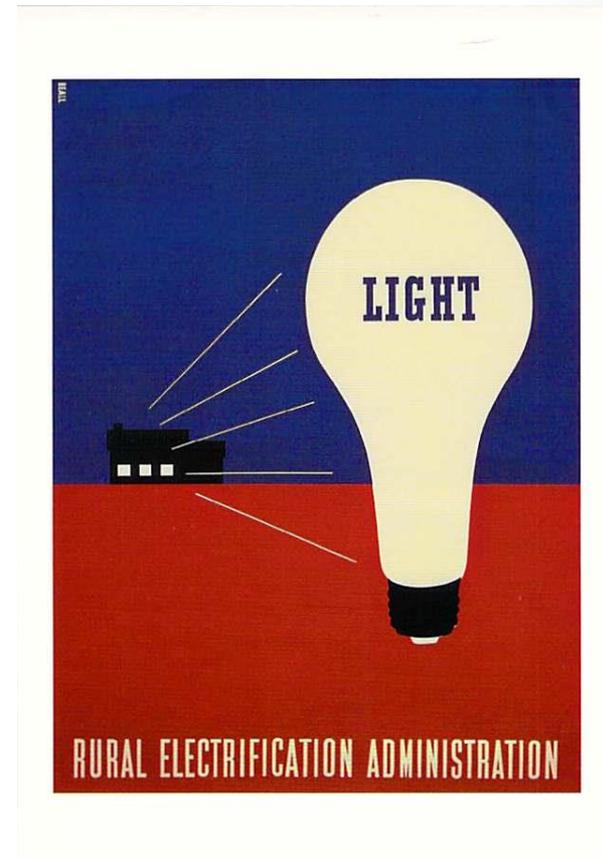
Monthly Cost per Customer Class

	CMP	BHE	MPS
Residential	\$0.03	\$0.02	\$0.05
Small Commercial	\$0.05	\$0.05	\$0.09
Medium C&I	\$0.71	\$0.60	\$1.33
Large C&I	\$28.00	\$23.39	\$52.16

- Source: estimated revenue losses in annual net energy billing filings by T&D utilities (estimated generation x T&D rate for customer)
- Does not incorporate any estimate of benefits associated with DG
- Note: costs recovered through utility rate setting and not per-kWh charge

Paying for Renewables Incentives

- In general, costs are allocated to customers on a per kWh basis
- Inherently regressive
 - Surcharge on a basic necessity of daily life
 - Limited ability to reduce usage through behavior
 - Usage does not necessarily correlate with income
 - Compare to other means of collecting revenue
- Energy costs are a core driver of costs for commercial and industrial customers



Paying for Renewables Incentives

This doesn't mean don't do it. But, do it with care.

- Clearly Defined Goals
- Targeted
- Equitable
- Sustainable

Clearly Defined Goals

“If you don’t know where you are going, you’ll end up somewhere else.” – Yogi Berra

- Necessary first step in deciding which policy is the best means to achieve that goal
- How will we know if our policies have succeeded?
- Provides guidance to Commission in implementing policy

Example: Long Term Contract Statute

- 35-A M.R.S. § 3210-C
 - “share of renewable capacity resources . . . increase by 10% by 2017”
 - “reduce electric prices and price volatility”
 - “reduce greenhouse gas emissions from the electricity generation sector”
 - “develop new capacity resources . . . to mitigate the effects of . . . capacity resource mandates”
 - Also, gives priority to “new interruptible, demand response or energy efficiency capacity resources located in this State”
 - No more than necessary to “ensure the reliability of the electric grid of this State”

Example: Maine RPS

- “In order to ensure an adequate and reliable supply of electricity for Maine residents and to encourage the use of renewable, efficient and indigenous resources, it is the policy of this State to encourage the generation of electricity from renewable and efficient sources and to diversify electricity production on which residents of this State rely in a manner consistent with this section.” 35-A M.R.S. 3210
- A goal is not enough!

Targeted

- Spend what we need to achieve our stated goals, and no more

Example: Ocean Energy

- Defined statutory targets for offshore wind and tidal technologies
- RFP process ensures that targets are met at the lowest available cost

Example: Net Energy Billing

- Per kWh benefit = combination of energy and variable T&D charges
- Rationale for paying more than wholesale price:
 - Provide additional incentive for installation of DG
 - Compensate DG owners for benefits they provide
- Amount paid through NEB bears no relation to either of these
- Compare to solar rebates
- Cost of Solar Studies

Equitable

- Ensure that those who pay the costs also receive the benefits, and vice versa
- Factors to consider:
 - Geography
 - Customer class
 - Income

Example: Community Based Renewable Energy

- If all projects whose contracts have been approved become operational, Bangor Hydro customers will pay eight times what CMP customers pay to support community-based projects
- Benefits of additional renewable energy development flow to all ratepayers
- LD 1278

Example: Net Energy Billing

- 2013 California Net Energy Metering Ratepayer Impacts Evaluation:
 - “Within the residential sector, we find that the customers installing NEM systems since 1999 have an average median household income (based on IOU-provided data at the census tract level) of \$91,210, compared to the median income in California of \$54,283 and in the IOU service territories of \$67,821.
- Acknowledge potential for distributional issues and structure programs to address these concerns

Sustainable

- Structure programs to allow us to learn from past experience and build on past success
- Provide certainty to enable market transformation and avoid boom/bust cycle
- Pilot programs should include assessments and benchmarks