



# New England CLG

December 1, 2016

# Current Costs of Renewable Energy Mandates



Charges for renewable/clean energy have increased significantly in recent years. Decarbonization is an important societal priority, but market integration is critical to minimize unintended consequences.

# Overview of Public Policy Related Charges

## Supply Portion of the Bill

- RGGI compliance costs
- Renewable Energy Credits (RECs)

## Distribution Portion of the Bill

- Net metering cost recovery
- Long Term contract cost recovery
  - FiTs for DERs
  - CFDs for large scale projects
- Energy Efficiency Programs

# 2016 New England RPS Mandates

Summary of New England Renewable Portfolio Standards that Use RECs							
MA	Class I (Adj for Solar)	SREC I	SREC II	Class II (Pre '98, Small Hydro)	Waste to Energy	Alternative Energy Standard	21.0%
	8.458%	1.757%	0.785%	2.532%	3.500%	4.000%	
CT	Class I	Class II (WTE/Biomass)	Class III (CHP/EE)				21.0%
	14%	3%	4.00%				
RI	New	Existing					10.0%
	8%	2%					
NH	Class I	Class II (Solar)	Class III (Biomass)	Class IV (Small Hydro)			9.2%
	6.90%	0.30%	0.50%	1.50%			
ME	Class I	Class II (Existing)					39.0%
	9%	30%					

- “Class 1” renewable eligibility requirements are largely similar across states
- Purpose is to spur development of new resources or help maintain existing resources (e.g., small hydro, pre-2000s facilities)

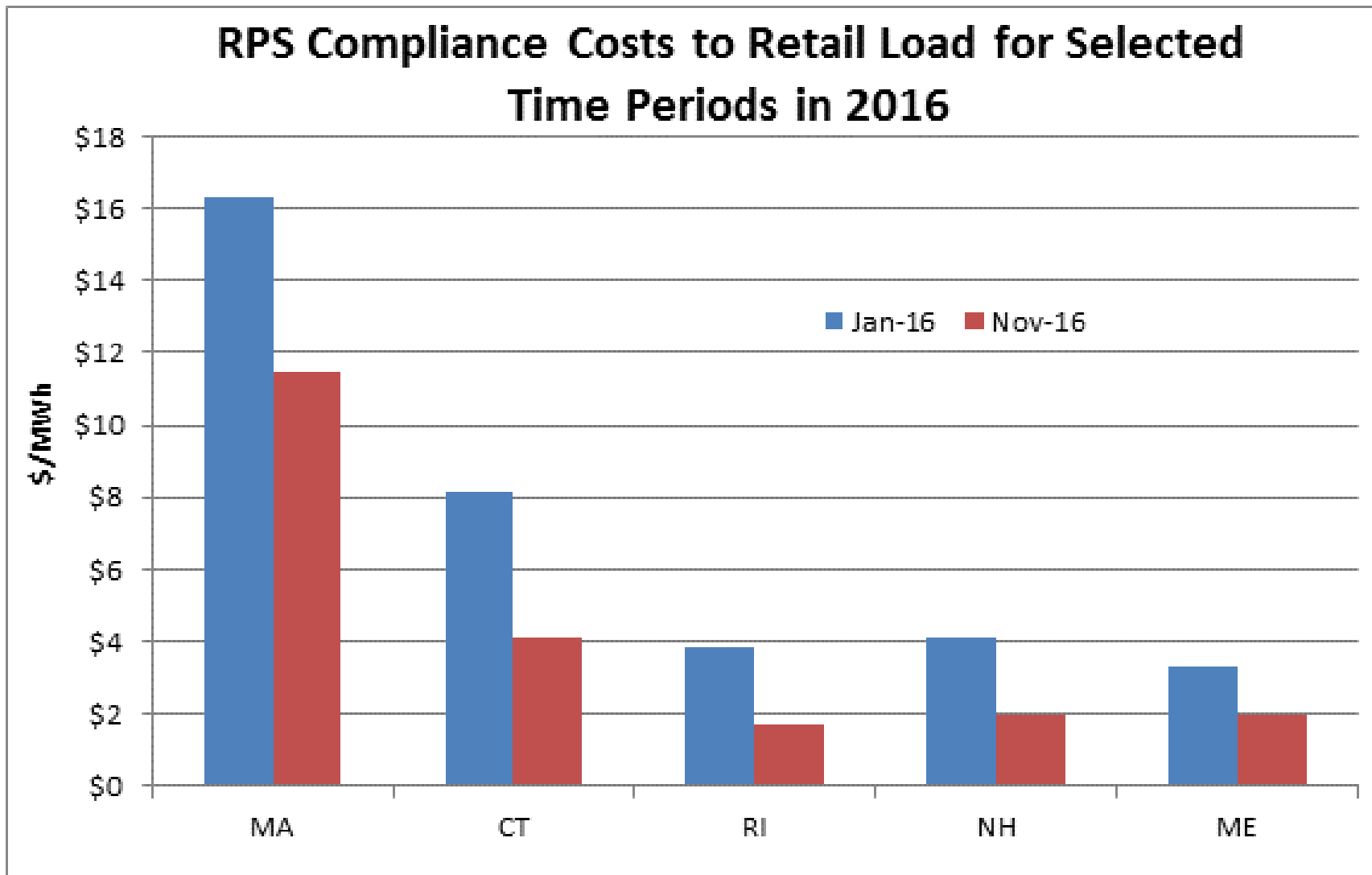
# Calculating the Costs of RPS Compliance Charges

- Customers pay for the RPS regardless of their choice for default service or third party energy supplier
- REC prices are available from the following sources:
  - Market data providers (e.g., Platts, SNL)
  - Broker quote sheets
  - Default Service filings
- If supply of RECs is insufficient, then consumers pay the ACP

## Example calculation of cost to load

RPS Class	Required % of Load	REC Price (\$/REC)	Cost of RPS (\$/MWh)
Class 1	14%	\$21.41	\$3.00
Class 2	3%	\$1.09	\$0.03
Class 3	4%	\$26.71	\$1.07
<b>Total</b>			<b>\$4.10</b>

# 2016 RPS Compliance Charges in New England



REC prices have been volatile in 2016

# Renewable Charges on the Distribution Portion of the Bill

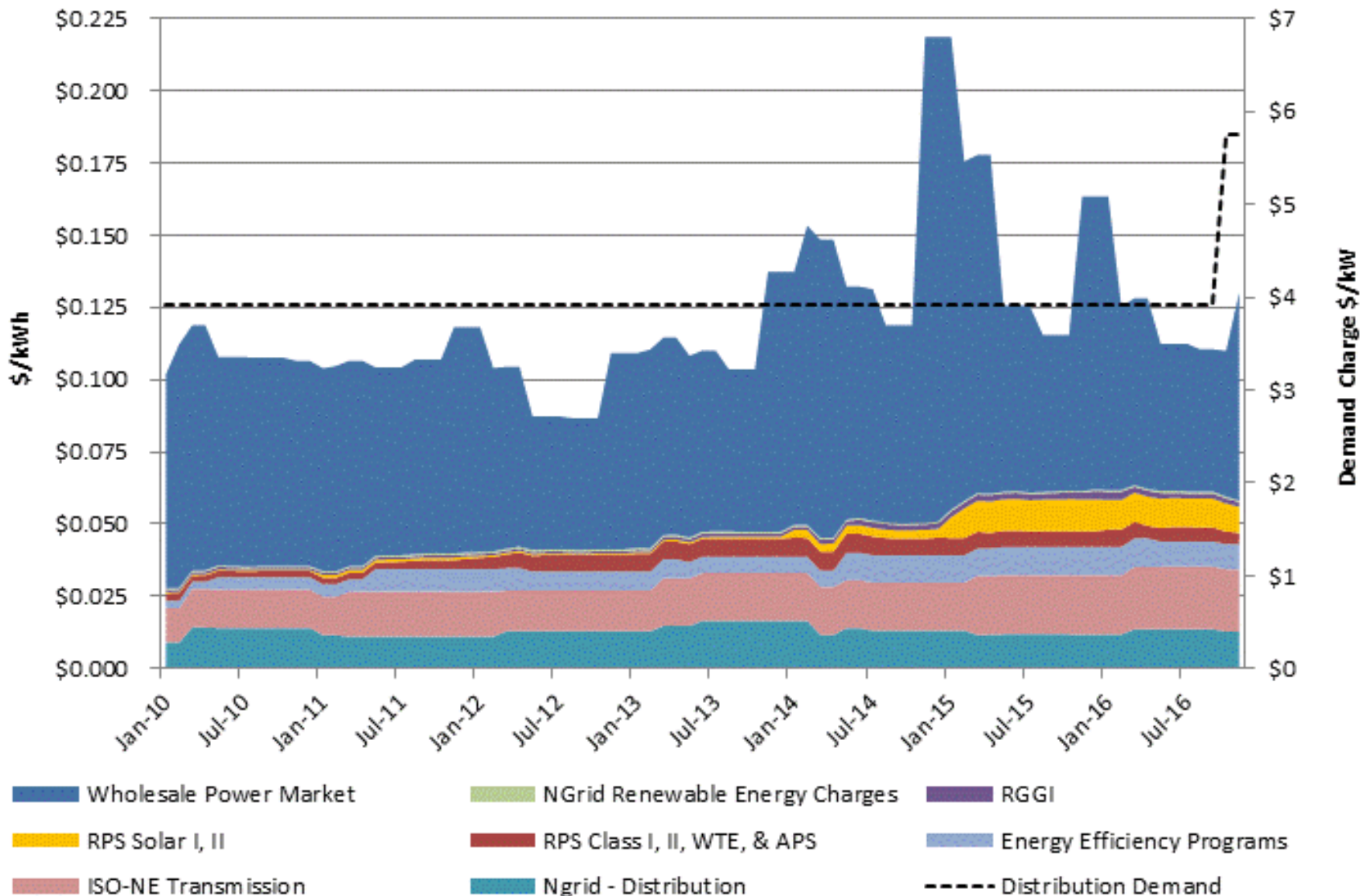
- Long term contracts w/ renewables have been recovered in distribution charges
  - MA Green Communities Act Section 83 LTCs
  - Rhode Island (Net Metering, Long Term Contracting, RE Growth)
  - Connecticut (Project 150 in FMCC)

Cost Recovery for Renewables

## Excerpt from RI PUC Tariff No. 2095 with NGrid's T&D Charges

THE NARRAGANSETT ELECTRIC COMPANY Summary of Retail Delivery Rates														
Rate	Charge Description	Distribution Charge	Operating & Maintenance Exp Charge	O&M Reconciliation Factor	CapEx Charge	CapEx Reconciliation Factor	RDM Adj Factor	Pension Adjustment Factor	Billing Distribution Charge	Net Metering Charge	Long-Term Contracting	Renewable Energy Distribution Charge	RE Growth Charge	LIHEAP Enhancements Charge
A	B	C	D	E	F	G	H	I	J=C+D+E+F+G+H+I	K	L	M=K+L	N	O
A-16 Basic Residential Rate RIPUC No. 2100	Customer Charge kWh Charge Effective Date	\$5.00 \$0.03664 2/1/13	\$0.00154 4/1/16	(\$0.00022) 10/1/16	\$0.00307 4/1/16	(\$0.00001) 10/1/16	\$0.00085 7/1/16	\$0.00091 10/1/16	\$5.00 \$0.04278	\$0.00007 4/1/16	\$0.00337 7/1/16	\$0.00344	\$0.22 10/1/16	\$0.7 1/1/16
A-60														

# Evolution of Cost Components for NGrid MA (G-3) Rate<sup>1</sup>



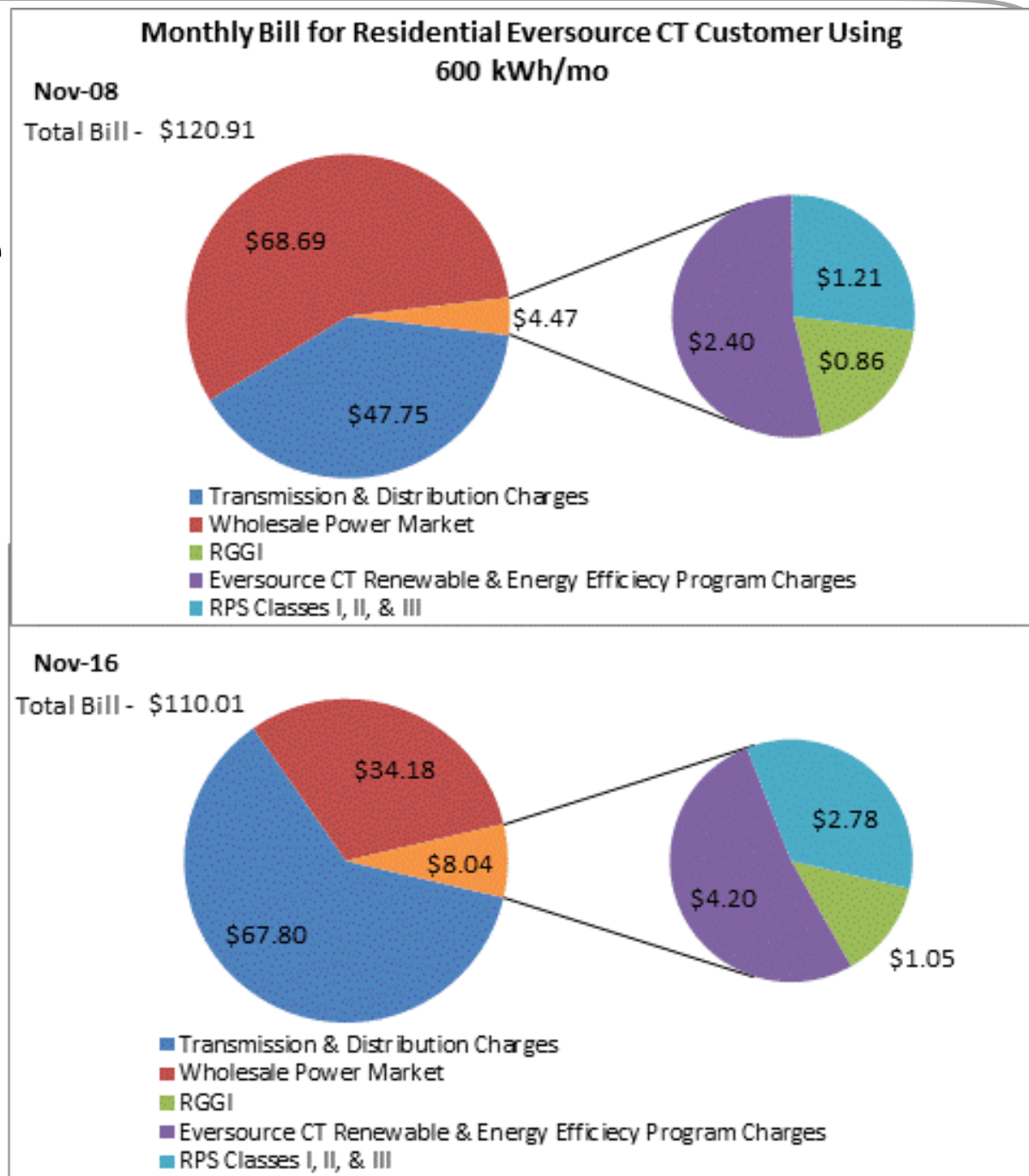
<sup>1</sup> - Does not show fixed charge of \$223/mo



# Low Natural Gas Prices Have Helped Ameliorate Consumer Cost Pressures

Example to the right shows how a typical residential customer in CT has a lower bill today than 8 yrs ago

But...notice how proportion of charges has changed



# Difficult Questions

- Can markets accommodate more public policy driven resources without breaking?
- Will consumers tolerate increasing non-market charges?
  - What about vulnerable consumers like low income or trade exposed manufacturers?
- Does policy leeway evaporate if natural gas prices recover?
- Does our current path create unintended consequences like...
  - Precluding large end users from pursuing bilateral PPAs (why hedge if the state has done it for you?)
  - Reducing market price signals to consumers
  - Diminishing the ecosystem of competitive energy suppliers
  - Incenting every developer to rely on state/utility contracts as opposed to pursuing merchant build
  - Revenue adequacy issues for existing units
  - Lots of others.....but my 10 min is up

# Thank You



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