



# PILGRIM NUCLEAR POWER STATION ANNOUNCEMENT

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OCTOBER 13, 2015

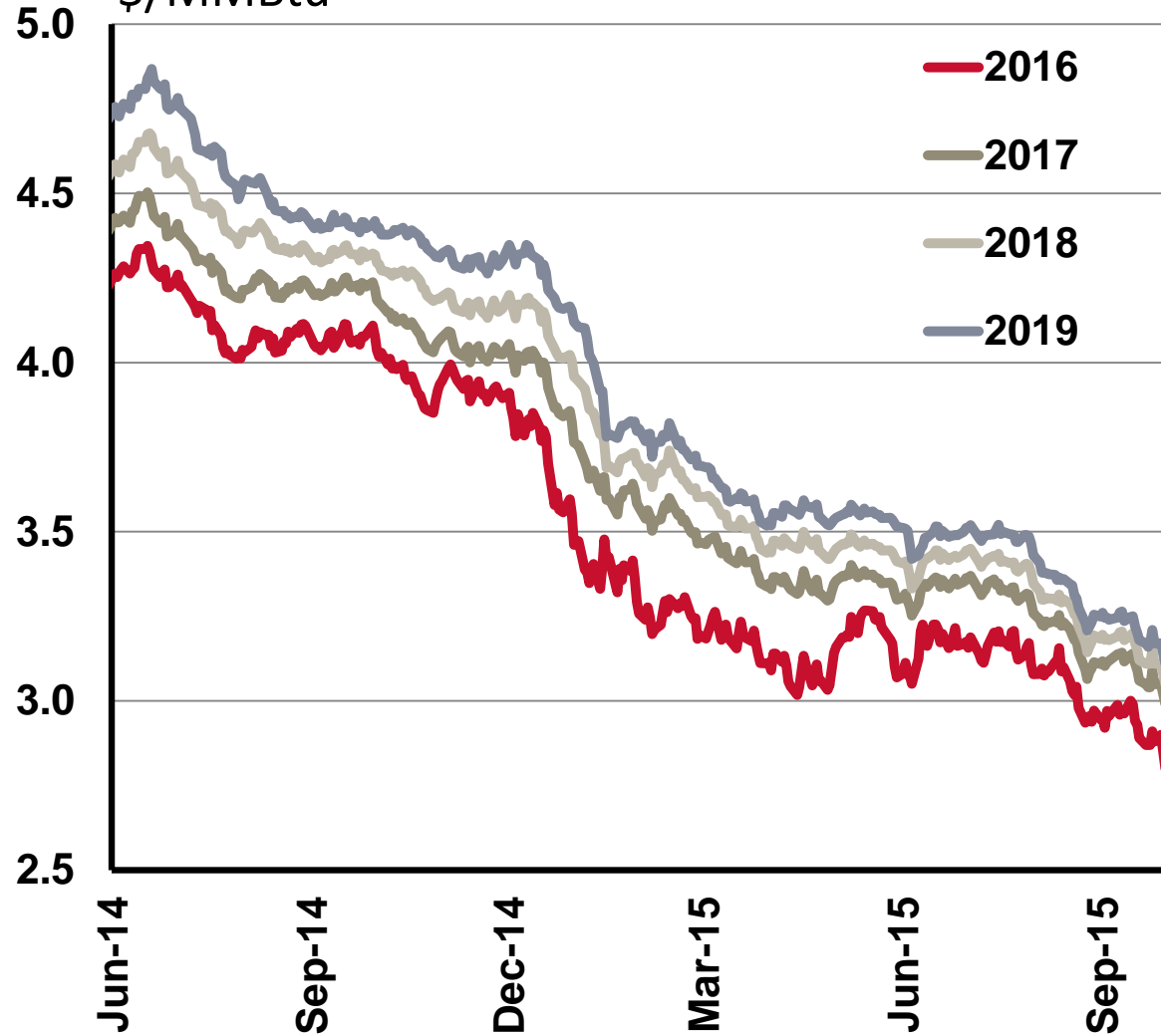
# Pilgrim Shutdown Decision: Key Factors

- ✓ **Revenues**
- ✓ **Market Conditions**
- ✓ **Operational Costs**

# Key Factors: Gas and Power Futures

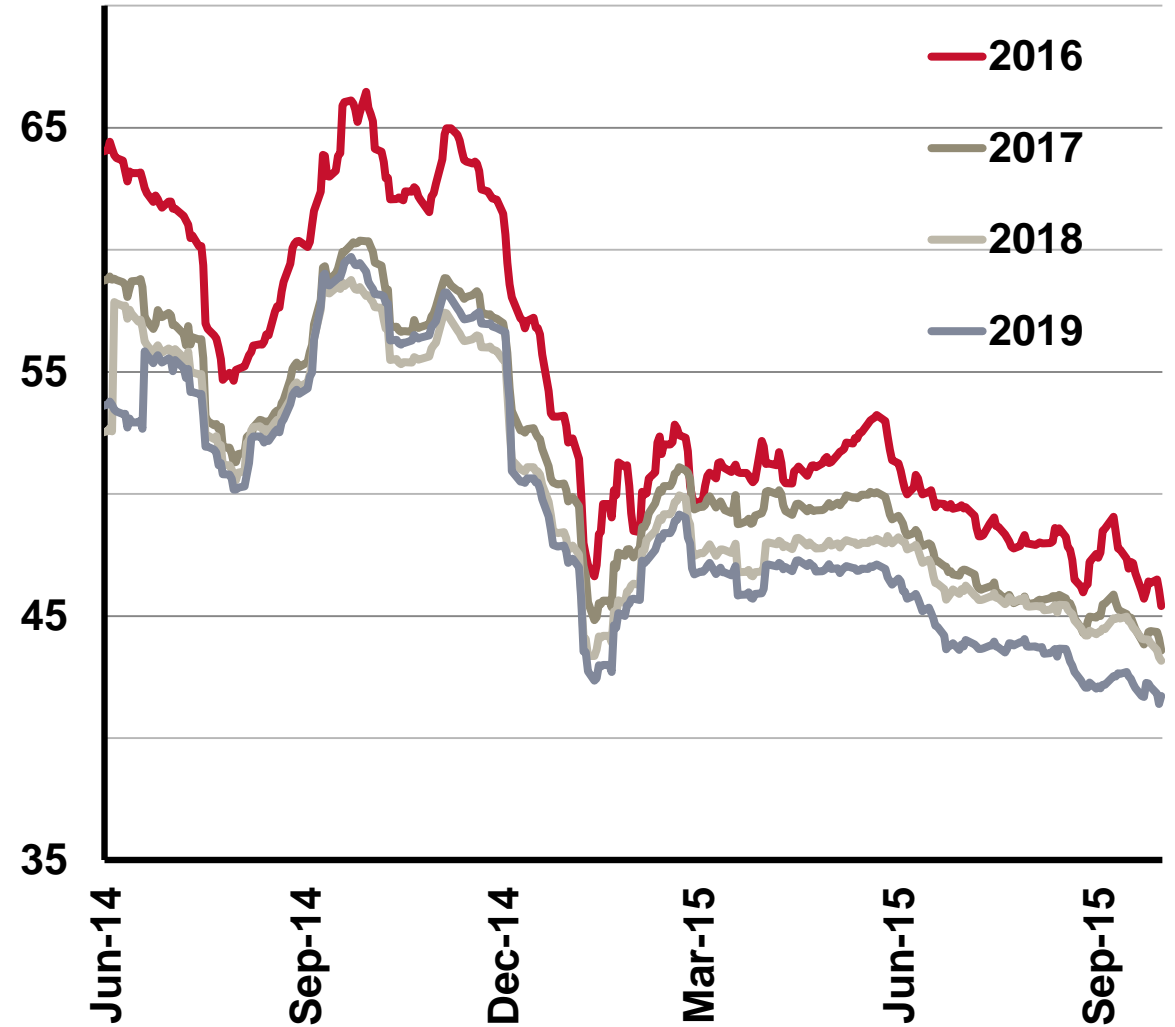
## Henry Hub Gas Futures Prices <sup>1</sup>

\$/MMBtu



## Mass Hub Forward Power Prices <sup>2</sup>

\$/MWh



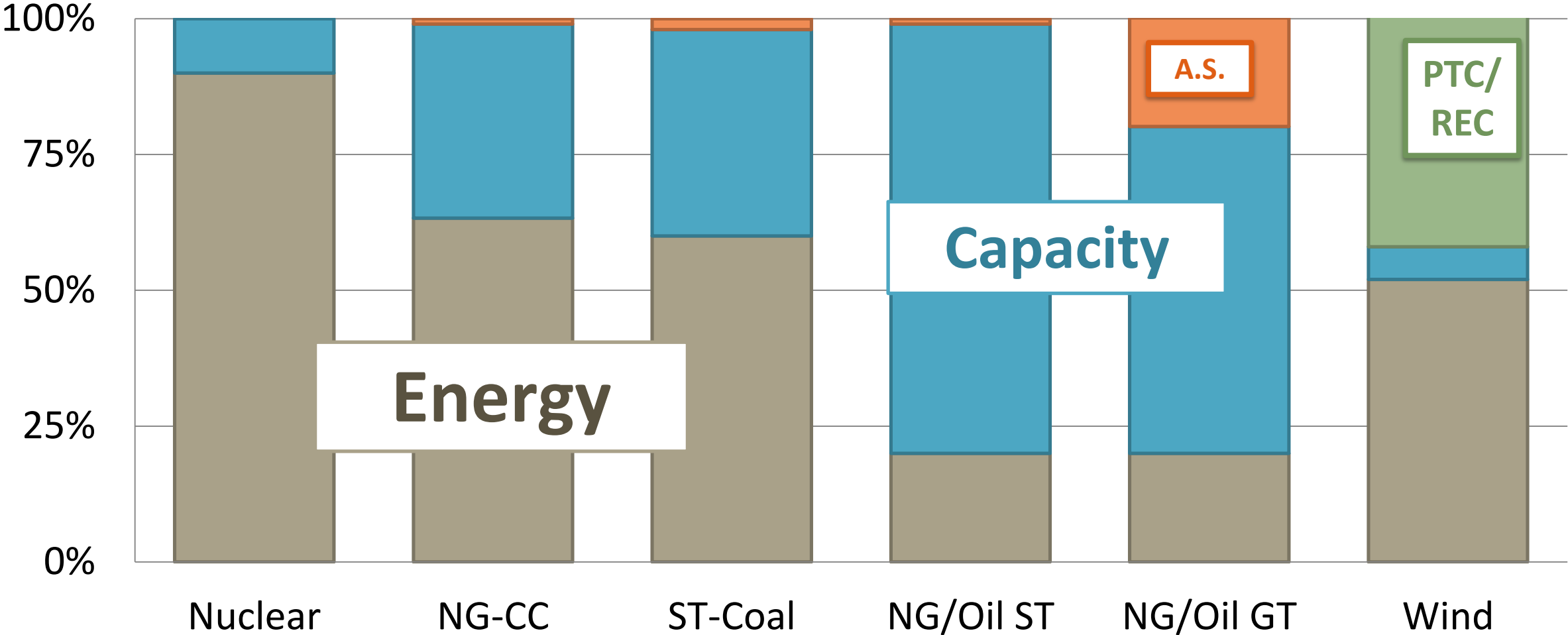
# Key Factors: Market Reforms - Progress Slow

## ISO-NE Market Design Changes

Market Design Initiative	Objective	Prospects	Effective Date for Benefits
Increased Operating Reserve Requirement and Pricing	Energy Price Formation	Implemented	2Q18+
Fast Start Pricing	Energy Price Formation	Progressing / Very Likely	1Q17+
<b>Fuel-Neutral Winter Reliability Program</b>	<b>Attributes (onsite fuel)</b>	<b>Rejected by FERC</b>	<b>Winter 15/16- Winter 17/18</b>
Co-optimized Energy and Reserves in DAM	Energy Price Formation	Potential	2018 +

# Key Factors: Energy Prices Impact Revenues

## New England Generating Plants' Revenue Source by Technology



# Key Factors: Markets Ignore Nuclear's Attributes

## Our Objectives

**Proper compensation (price signals) for nuclear's attributes:**

- Baseload energy/price stabilization
- Effectively zero greenhouse gas emissions
- On-site fuel supply for reliability

## Recent Policy Outcomes

**Inadequate compensation for nuclear plants' benefits:**

- Proposed MA Clean Energy Standard **excluded** existing nuclear generation.
- FERC **rejected** ISO-NE's winter fuel reliability program, which would have compensated nuclear power plants for onsite fuel supply.

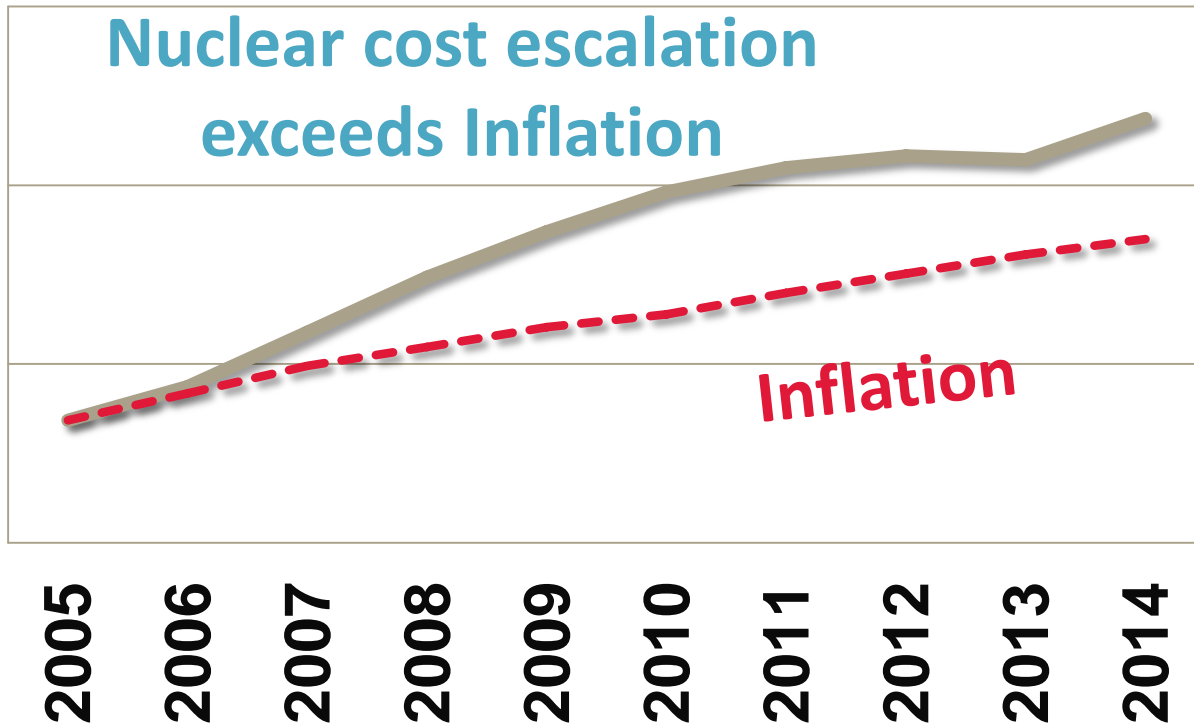
**Unfavorable MA Energy Policies:**

- Proposal to provide preference to imported Canadian Hydro power (MA Senate Bill 1965)
- Ratepayer-subsidized access to gas pipeline capacity.

# Key Factors: Increased Costs

## Operating Costs Trends (2005-2014)

\$/MWh



## Generating Costs<sup>1</sup> (2013 Average \$/MWh)

First Quartile	\$28
Multi Unit Sites	\$35
U.S. Fleet Average	\$41
Single Unit Sites	\$50





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[www.PilgrimPower.com/Operational-Update](http://www.PilgrimPower.com/Operational-Update)