

# The Evolving Grid

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**How fuel security concerns are affecting your costs**

Presentation to the Consumer Liaison Group

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Paul Peterson

# Synapse Energy Economics

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- Founded in 1996 by CEO Bruce Biewald
- Established leader for public interest and government clients in providing rigorous analysis of the electric power sector
- Staff of 30 includes experts in energy and environmental economics and environmental compliance
- Current projects include grid modernization issues, integration of renewable resources in all aspects of the grid, comprehensive energy planning and modeling, and cost-effective electrification options
- Over 15 years of service to numerous NEPOOL participants, mostly in the End User and Alternative Resources sectors.

# Fuel Security Issues

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- Chapter 1

  - Response to Mystic 8 & 9 retirement for FCA-13

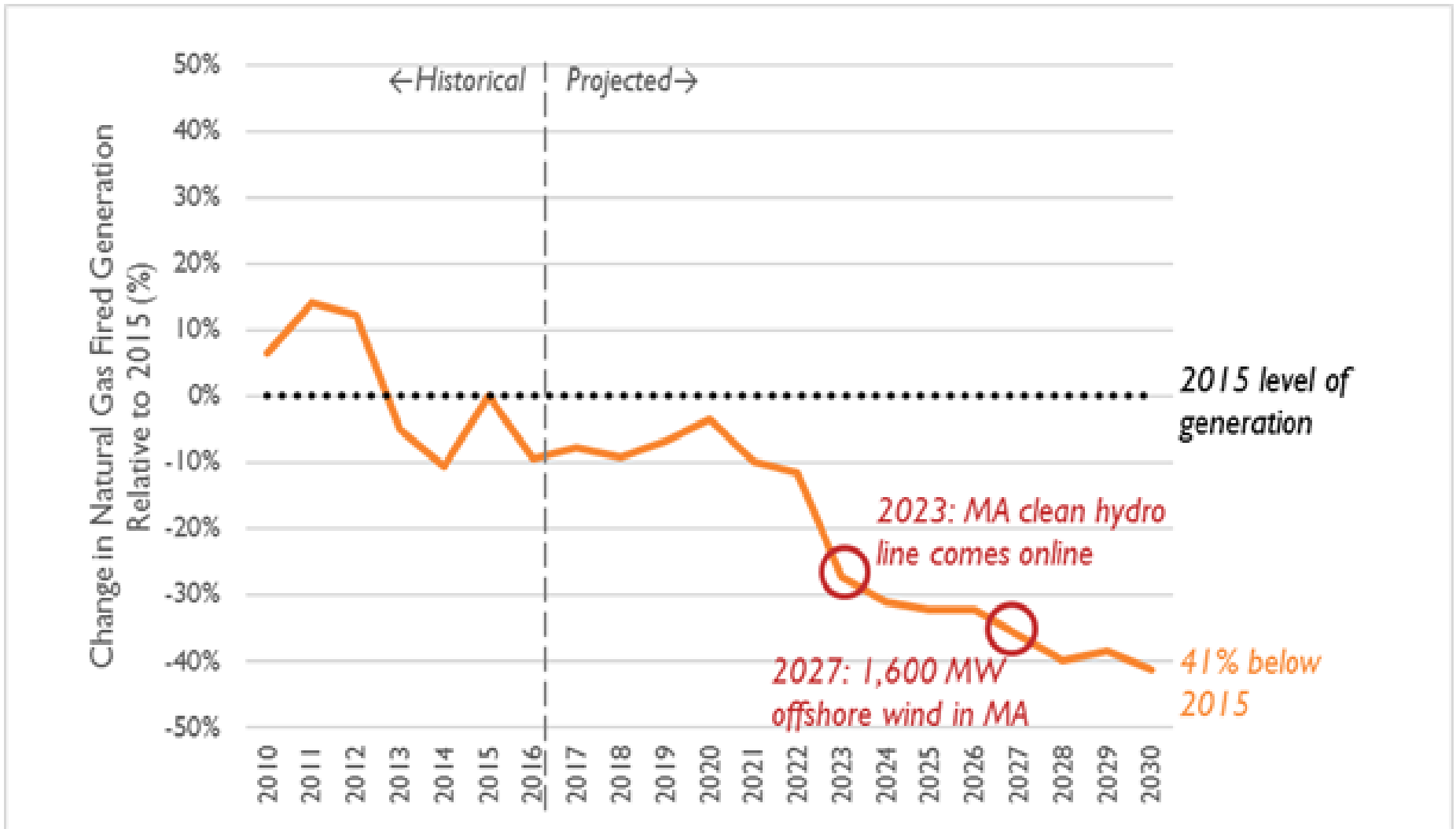
- Chapter 2

  - Retain future retiring plants for fuel security through FCA-15

- Chapter 3

  - Market-based solution to fuel security after FCA-15

# 2015-2030 Gas Use Projected to Reduce by Over 40%



• Source: “New England’s Shrinking Need For Natural Gas” (February 2017)

# Chapter 1: Mystic 8 & 9 retirement

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- FERC Order to retain Mystic 8 & 9 for two years (July 2, 2018)
- FERC accepted ISO analysis of fuel security risks as justifying retention
- Current litigation on exact terms (decision early 2019)
- Initial price-tag of approximately \$480m for two years (with offsets)

## Chapter 2: Future retiring resources through FCA-15

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- ISO methodology to determine need to retain units for fuel security for 2024 and 2025
- Modifications to Chapter 1 fuel security analysis for Mystic
  - Changed some assumptions
  - Will update assumptions annually
- Abbreviated stakeholder process due to FERC Order
- NEPOOL alternative filing

## NEPOOL Chapter 2 Alternative

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NEPOOL alternative approved by stakeholders and filed with the FERC

- Limit Chapter 2 to FCA-14 (add FCA-15 if necessary)
- Require generators to report fuel status for winter
- Raise threshold for triggering a fuel security reliability contract
- Allocate reliability costs to transmission portion of bill to reduce risk premiums from suppliers

FERC rejected all elements of the NEPOOL alternative (Dec 3, 2018)

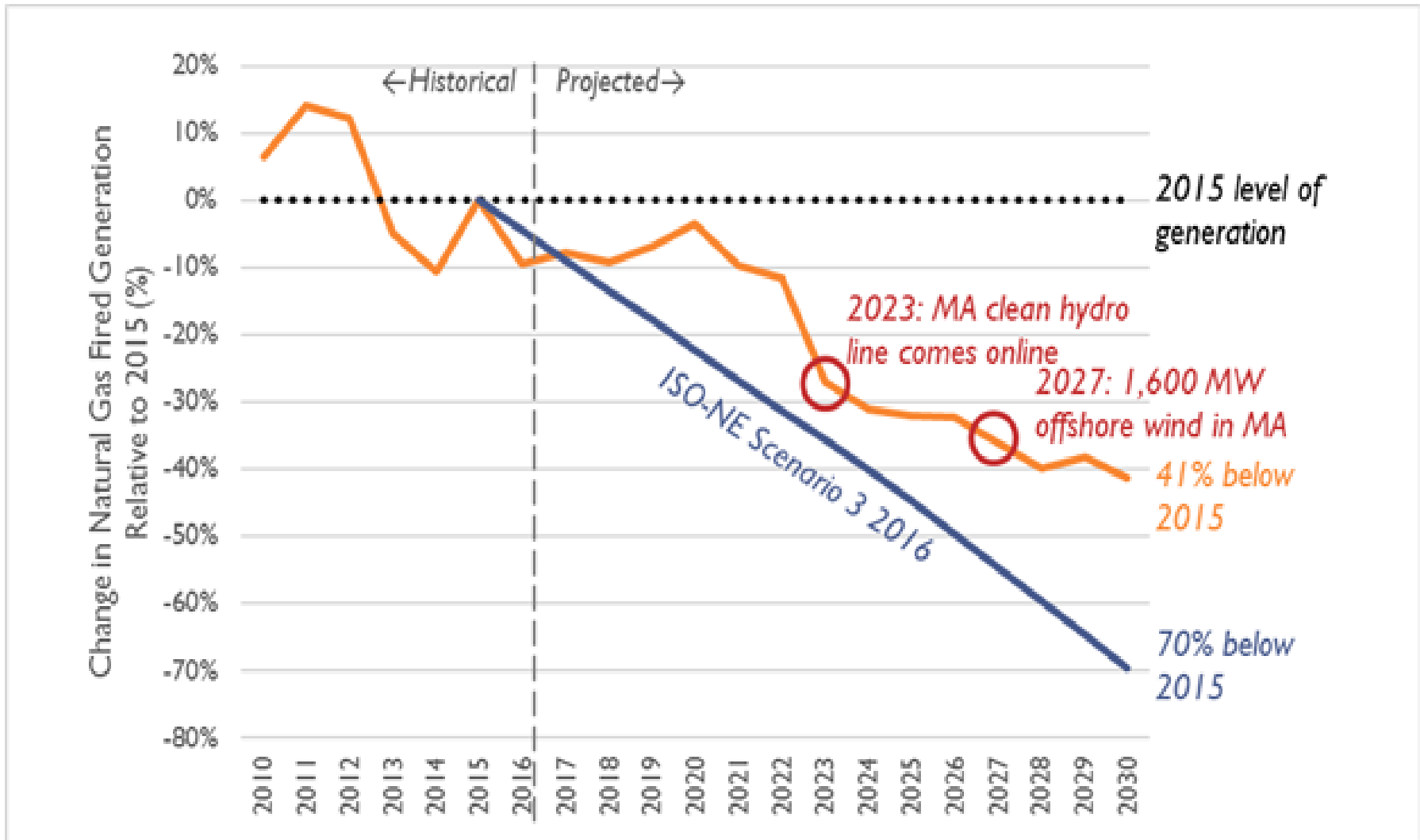
## Chapter 3: Market-based option after FCA-15 (2026)

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- ISO draft proposal
  - 7 day-ahead forward energy market (July 2019)
  - Energy inventory reserve constraint (July 2019)
  - Forward market (FCA-17 at earliest)
- Stakeholder proposed alternatives
  - New forward market
  - Add firm fuel product to day-ahead market
  - Apply enhanced “opportunity cost” to energy bids based on forecasted prices



# Carbon Goals for 2050



# Questions?

Paul Peterson

[ppeterson@synapse-energy.com](mailto:ppeterson@synapse-energy.com)