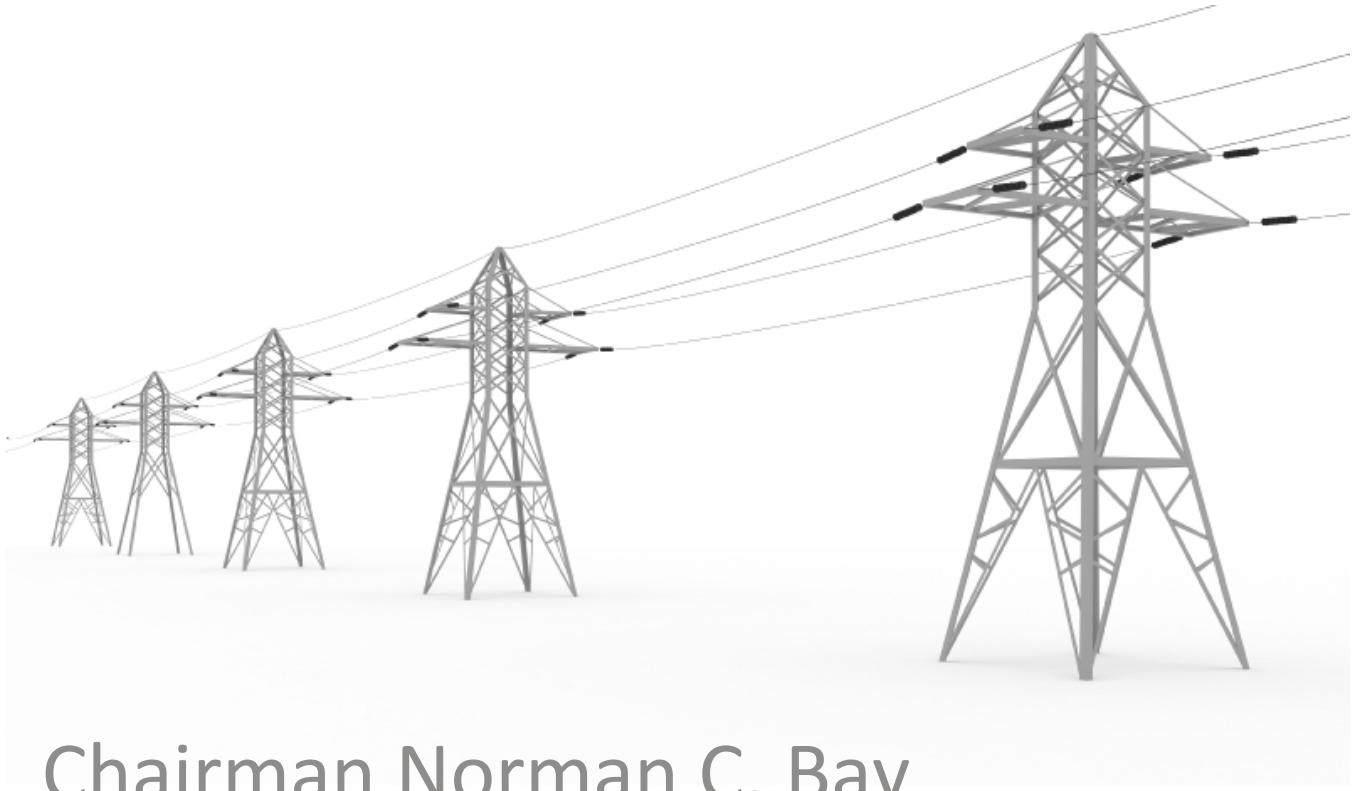
68th Annual NECPUC Symposium

June 8, 2015



Chairman Norman C. Bay

Regional Transmission Investment

Déjà Vu, All Over Again …

Power Grid Upgrades

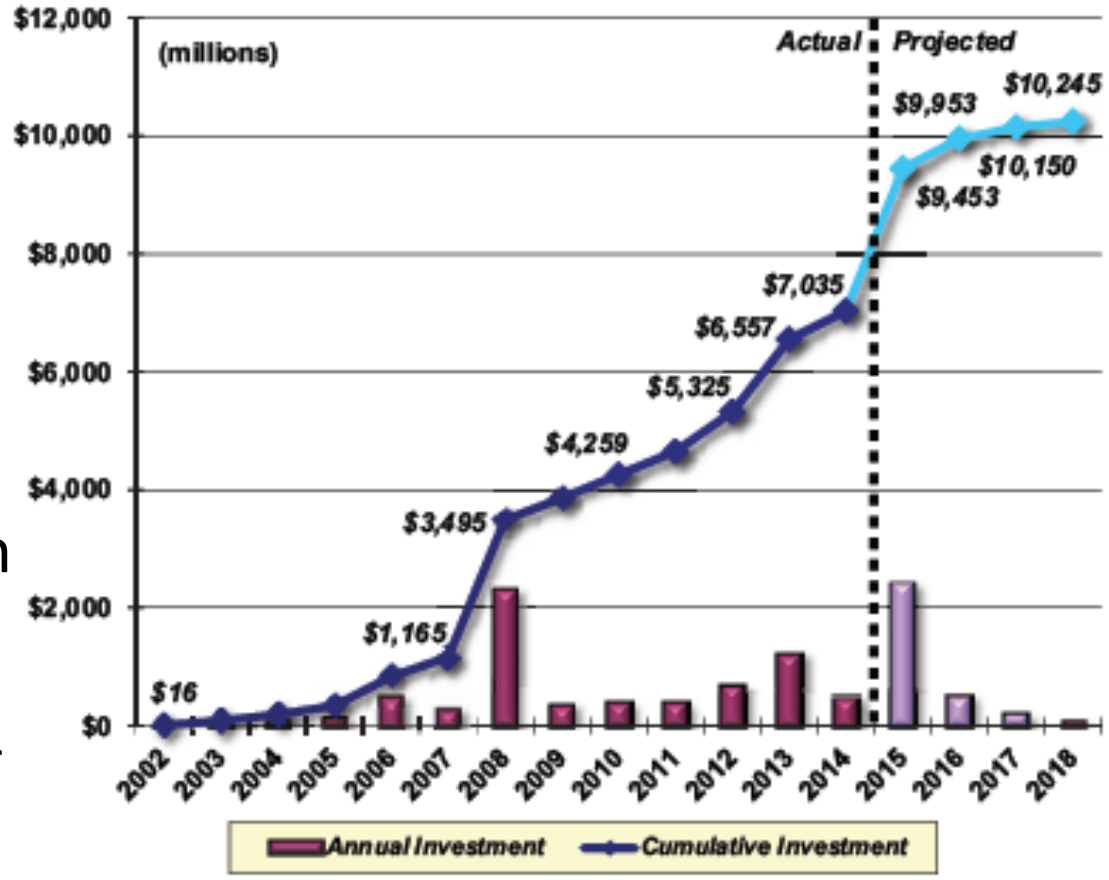
- From 2005 to 2009, the region invested heavily to relieve congestion in S.W. Connecticut and Greater Boston
- Boosted reliability and virtually eliminated chronic congestion

Natural Gas Pipeline System Needs Additional Investment

- Increased use of gas has outstripped capacity during peak periods
  - Creating stressed markets and reliability concerns
- Necessitated out-of-market Winter Reliability Program

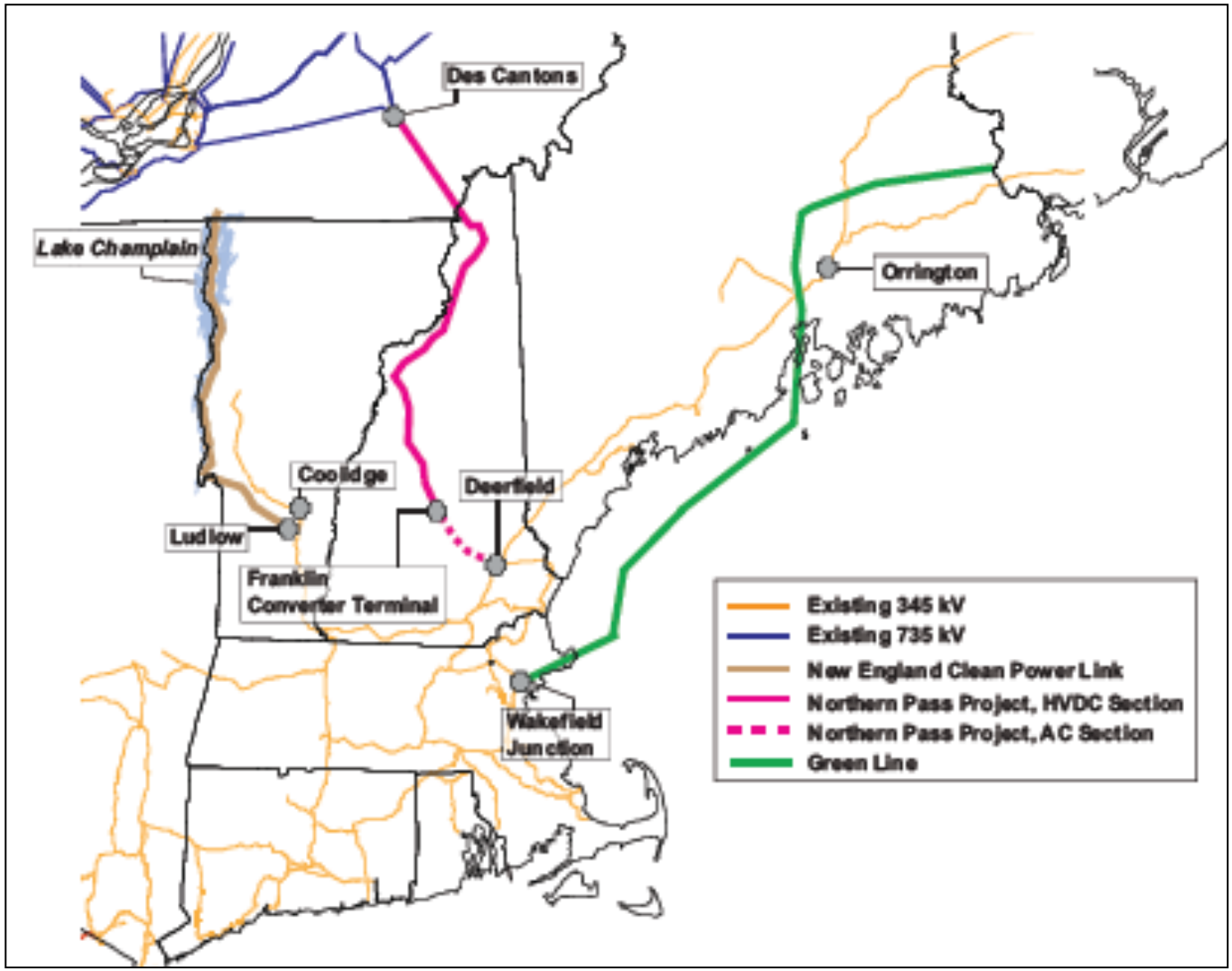
Transmission Investment 2002-2019

- $7 billion of new investment from 2002-14
  - These upgrades virtually eliminated transmission congestion
- Regional System Plan calls $3.2 billion of new investment from 2015-19
  - Most of this to enter service in 2015



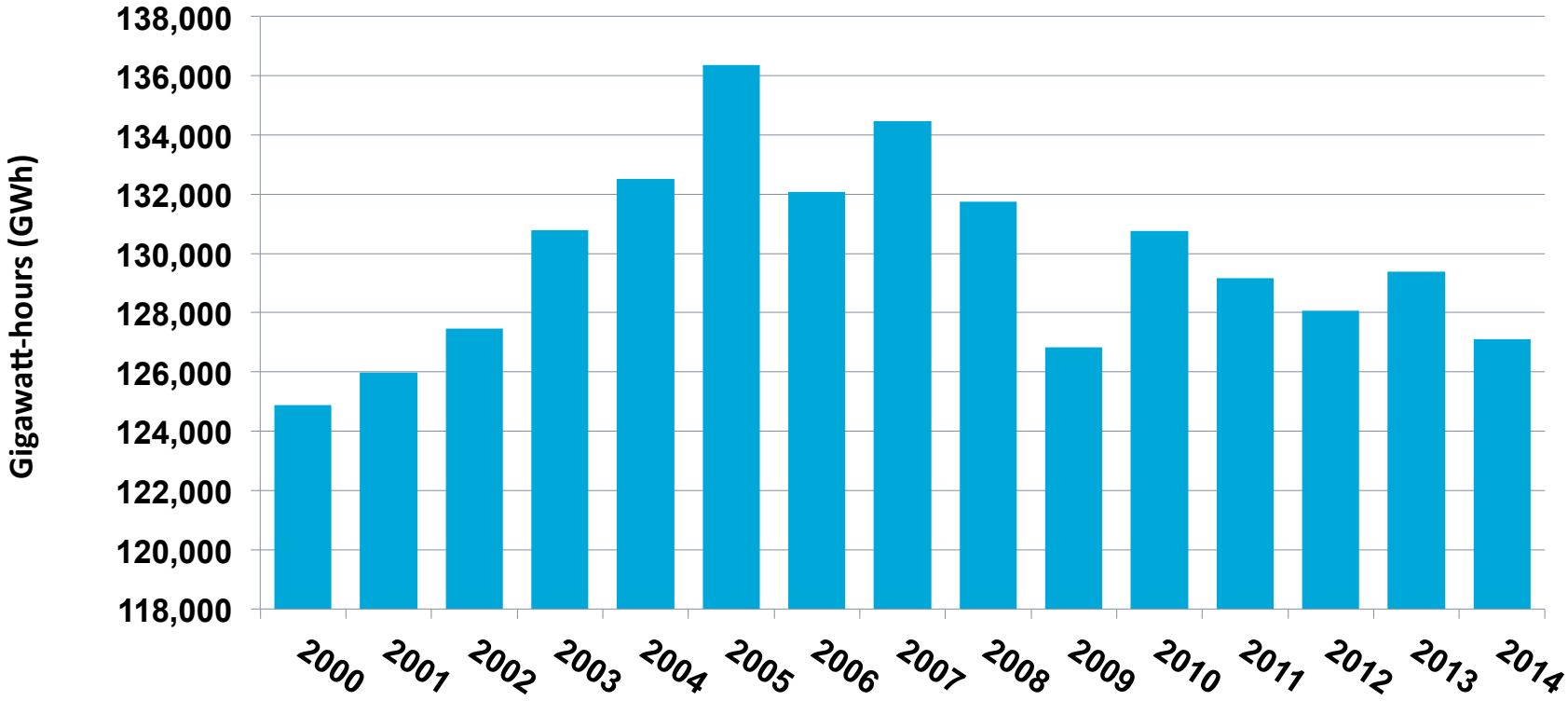
Source: ESAI

Proposed Transmission Projects



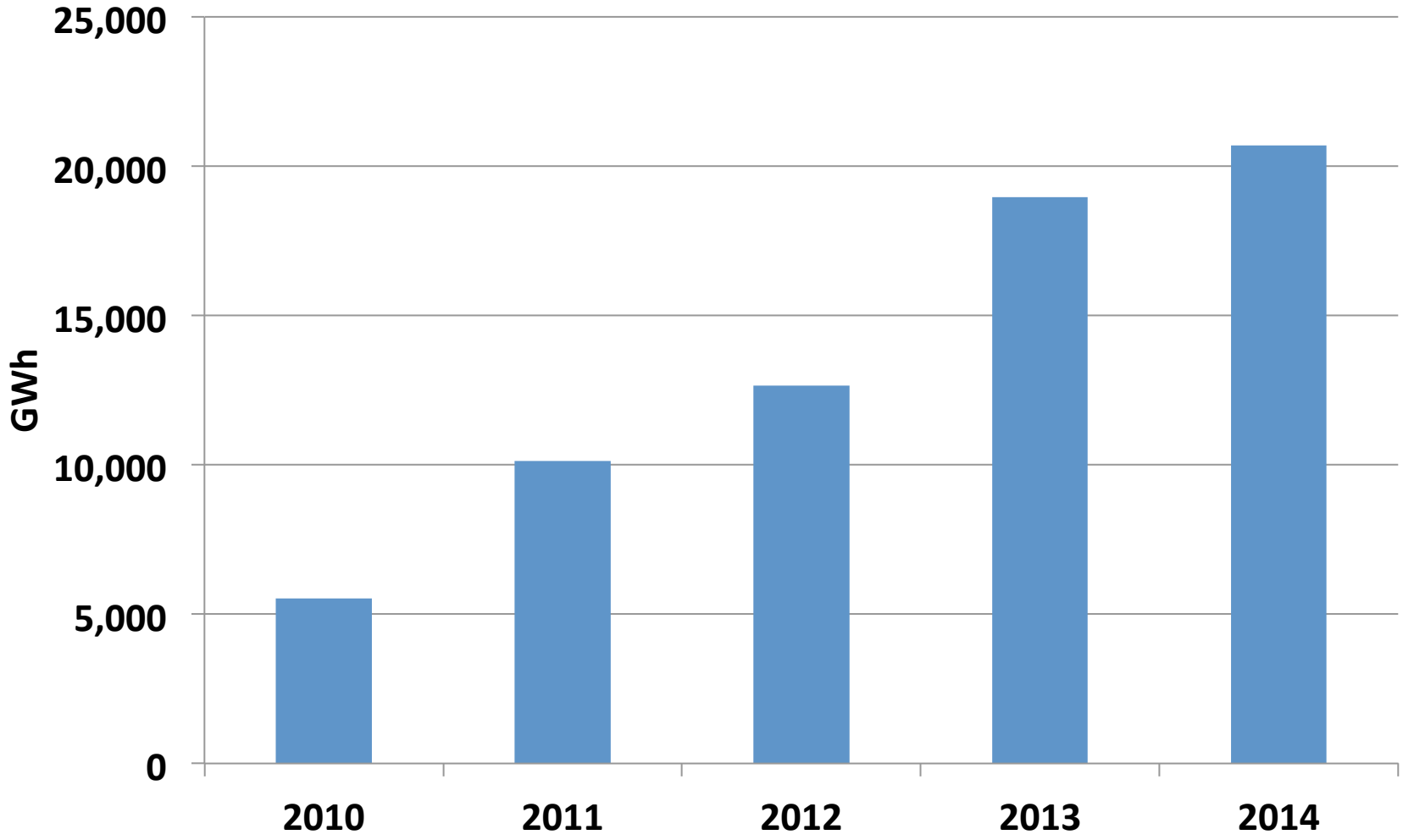
Source: ESAI

Power Consumption Declining



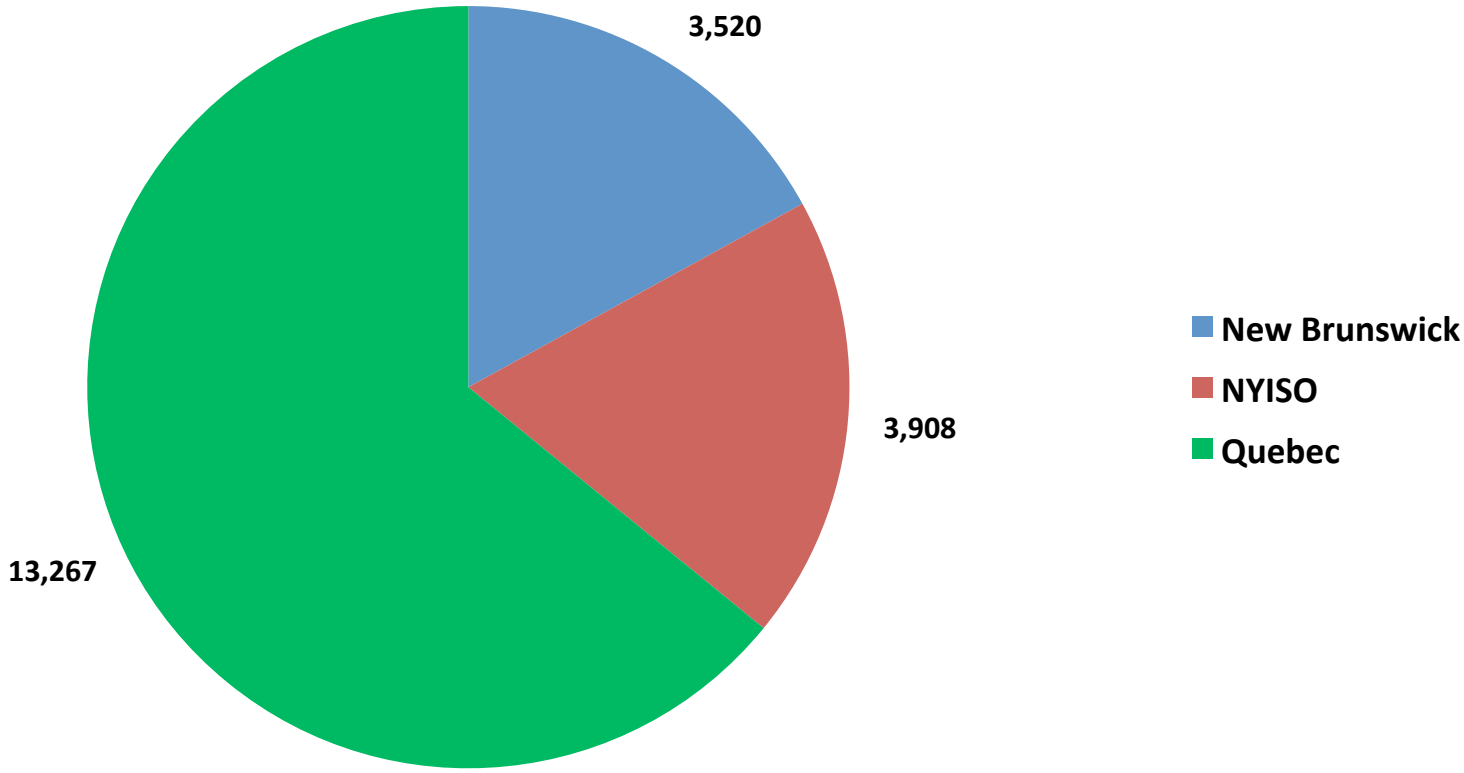
Source: IHS and ISO-NE

Power Imports on the Rise



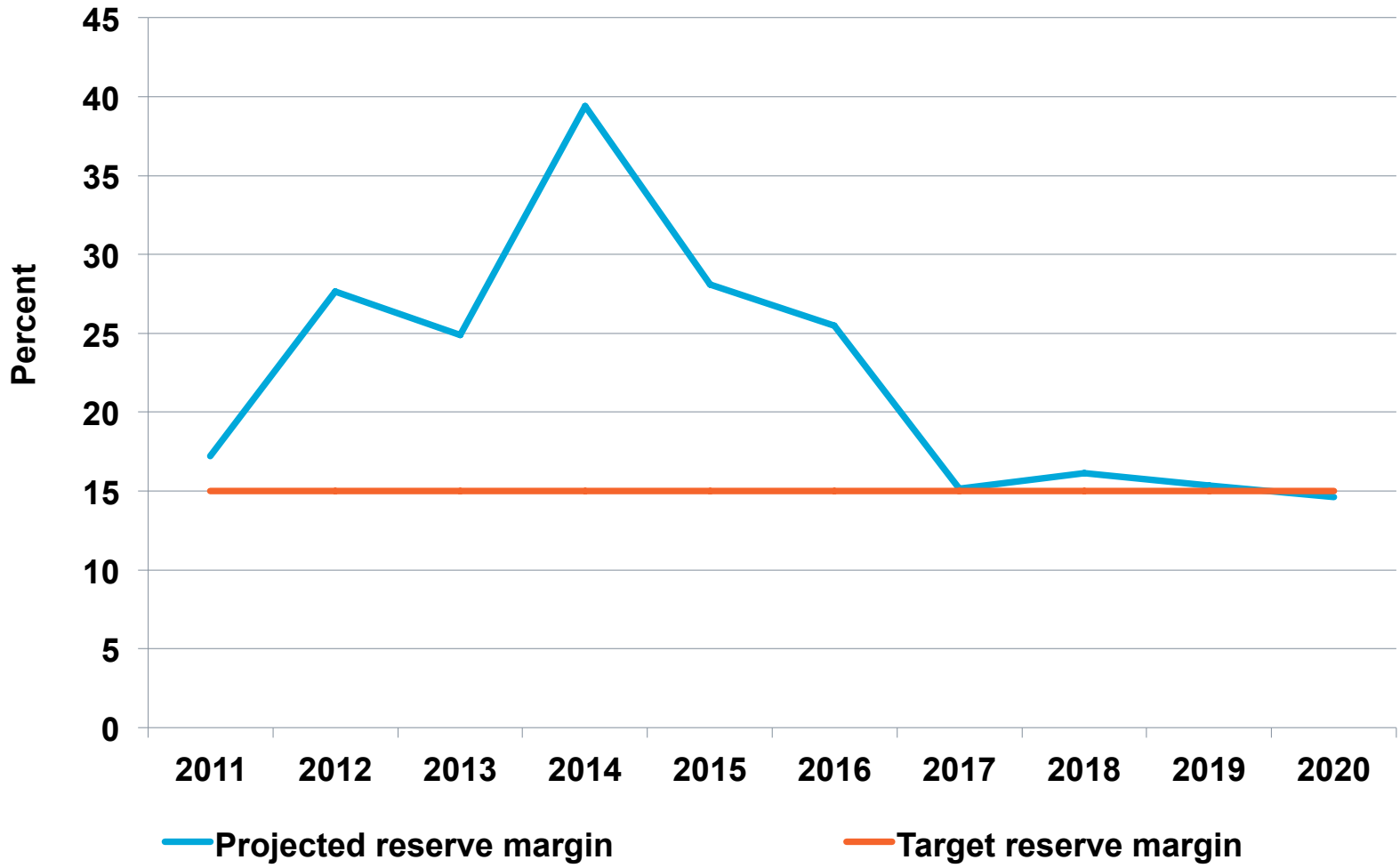
Source: ISO-NE

Majority of Imports from Canada



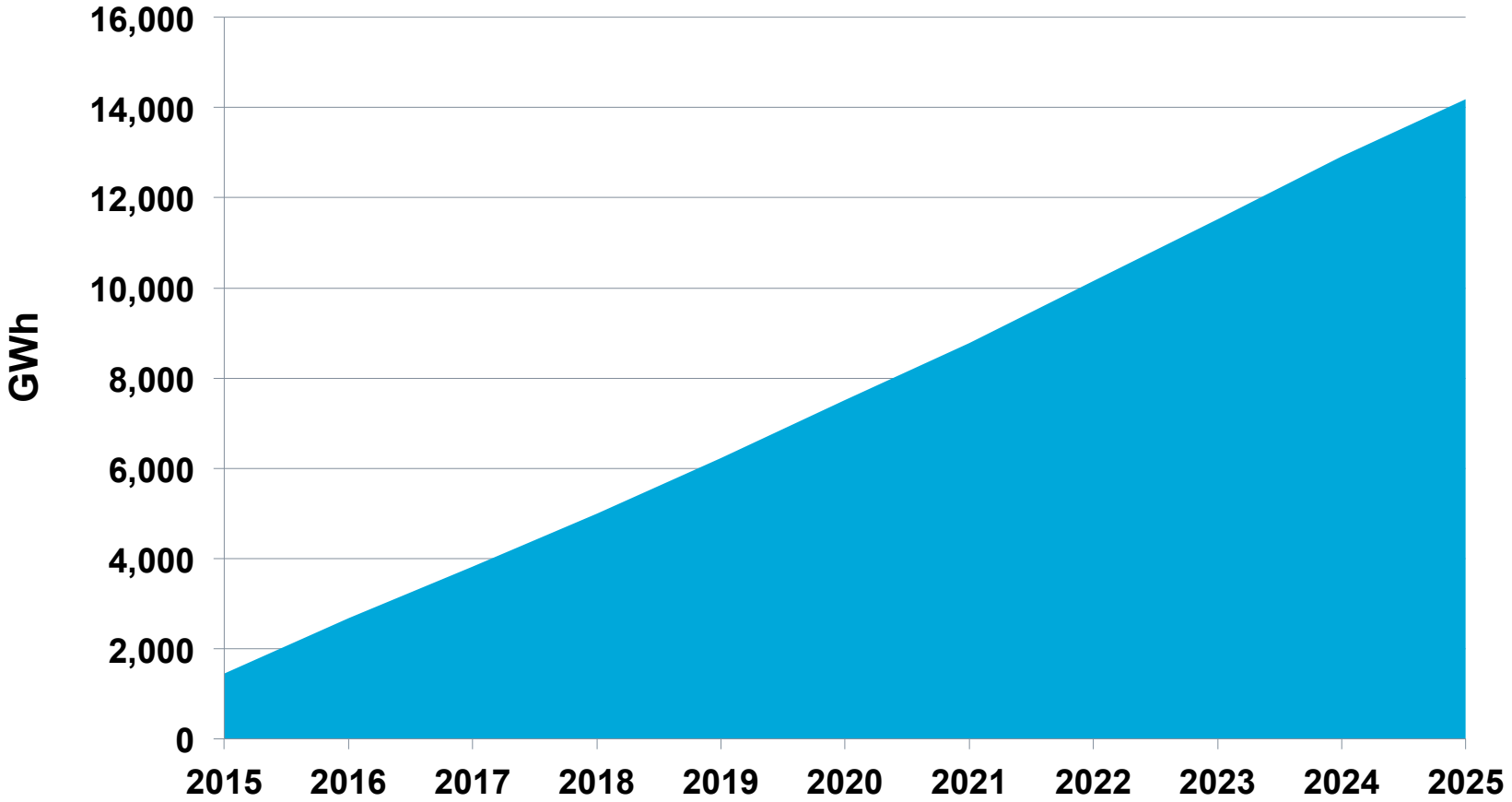
Source: ISO-NE
GWh in 2014

CERA Forecasts Drop in Reserve Margins



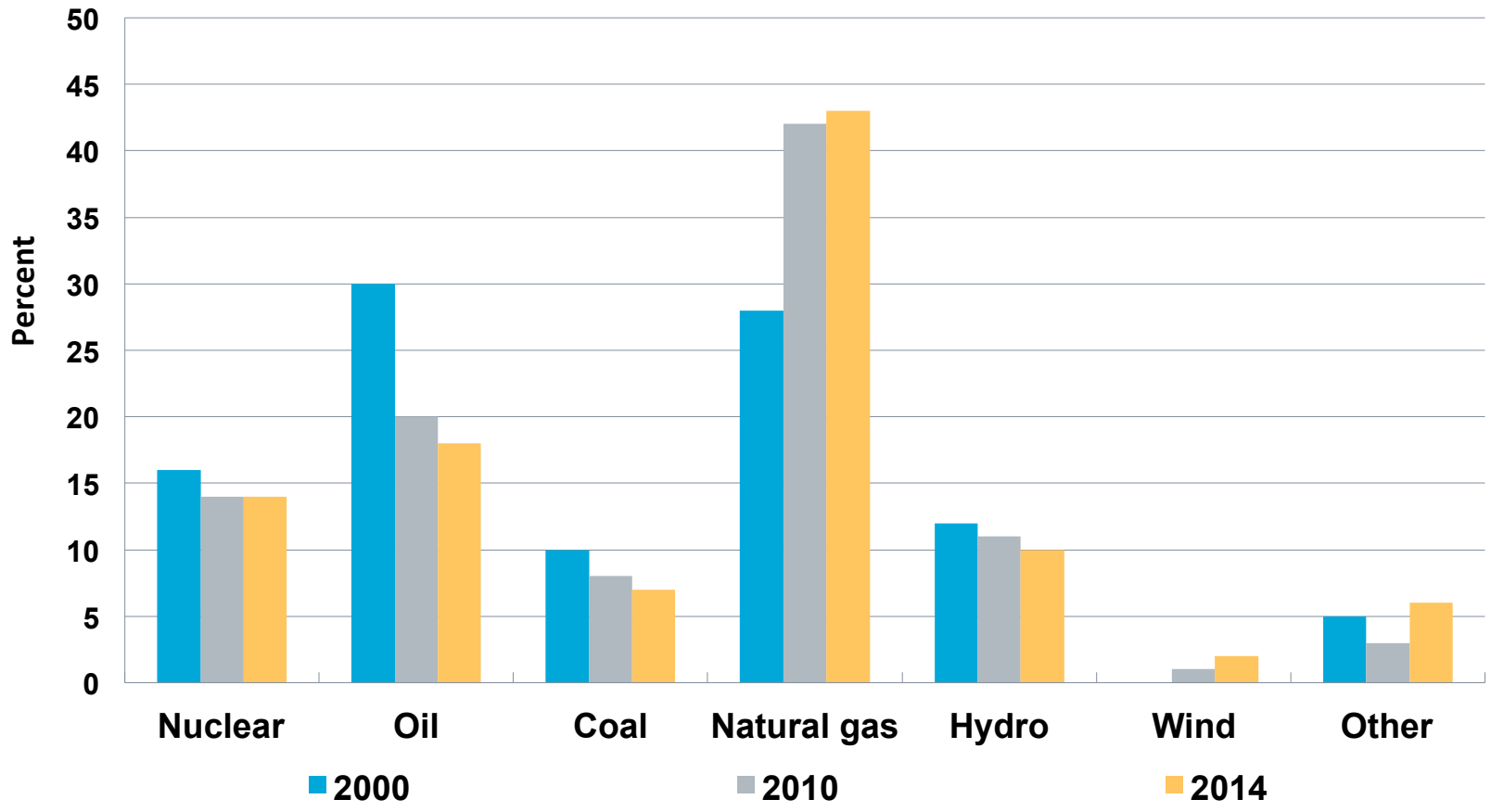
Source: IHS

Energy Efficiency Savings



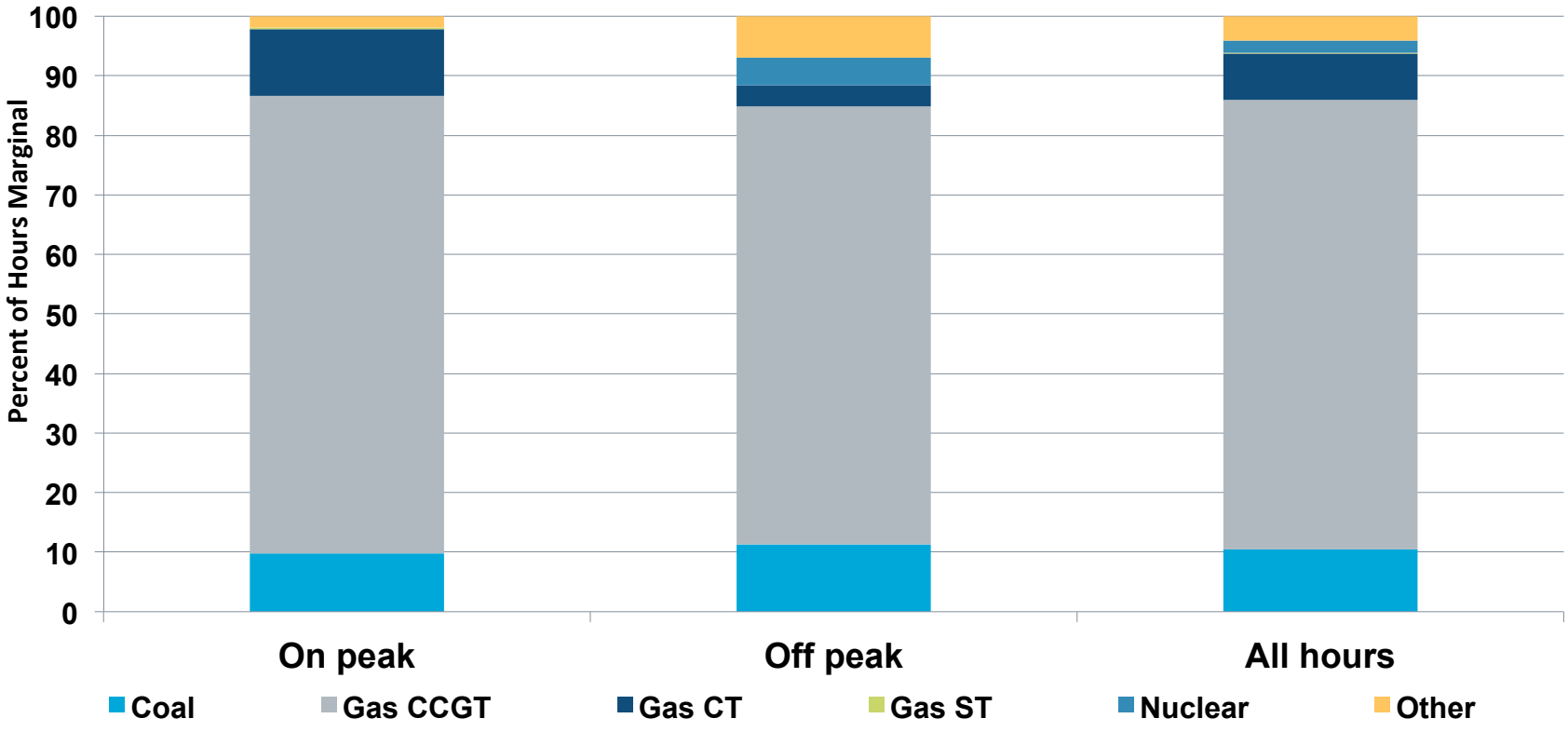
Source: IHS

Natural Gas is the Region's Dominant Fuel



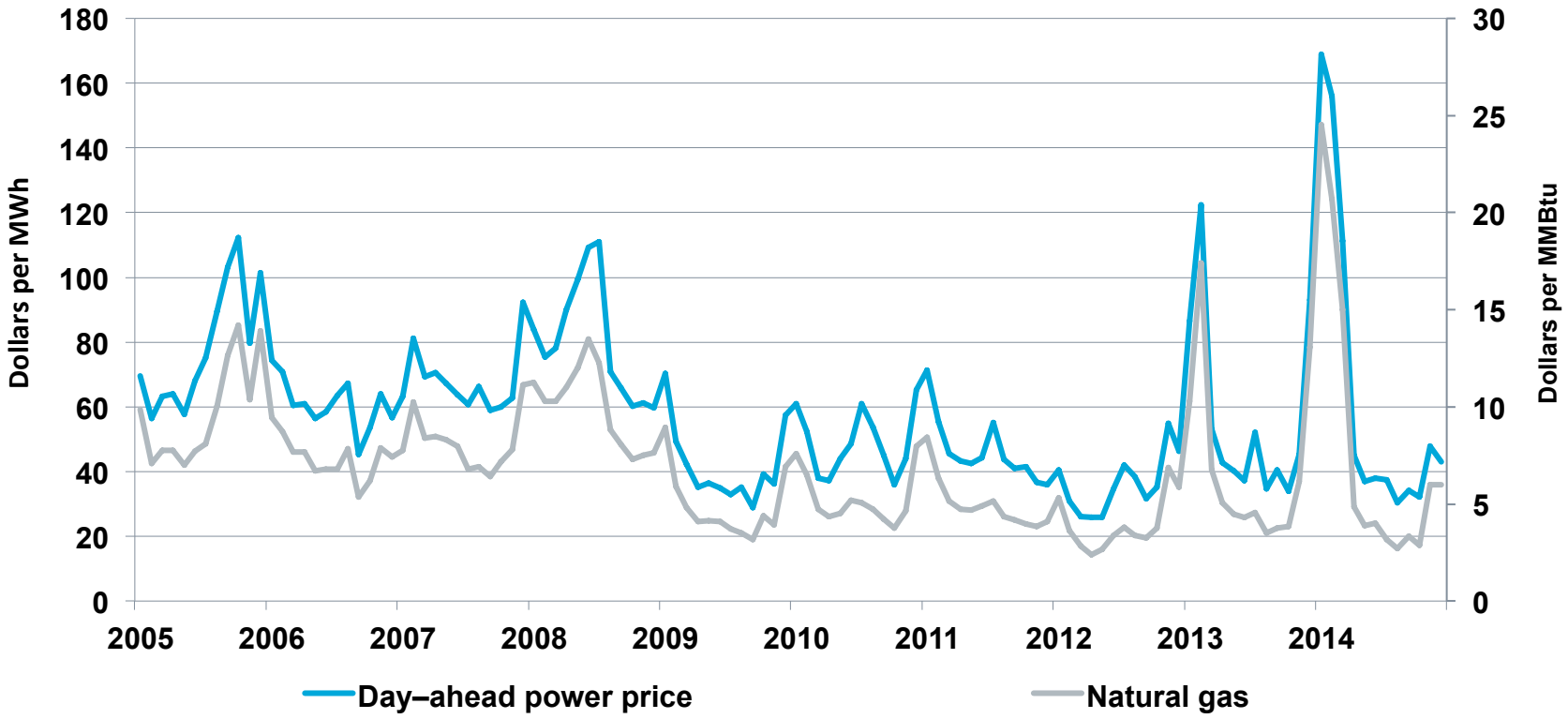
Source: IHS, EIA and Ventyx Velocity Suite

Natural Gas is the Marginal Fuel in the Vast Majority of Hours

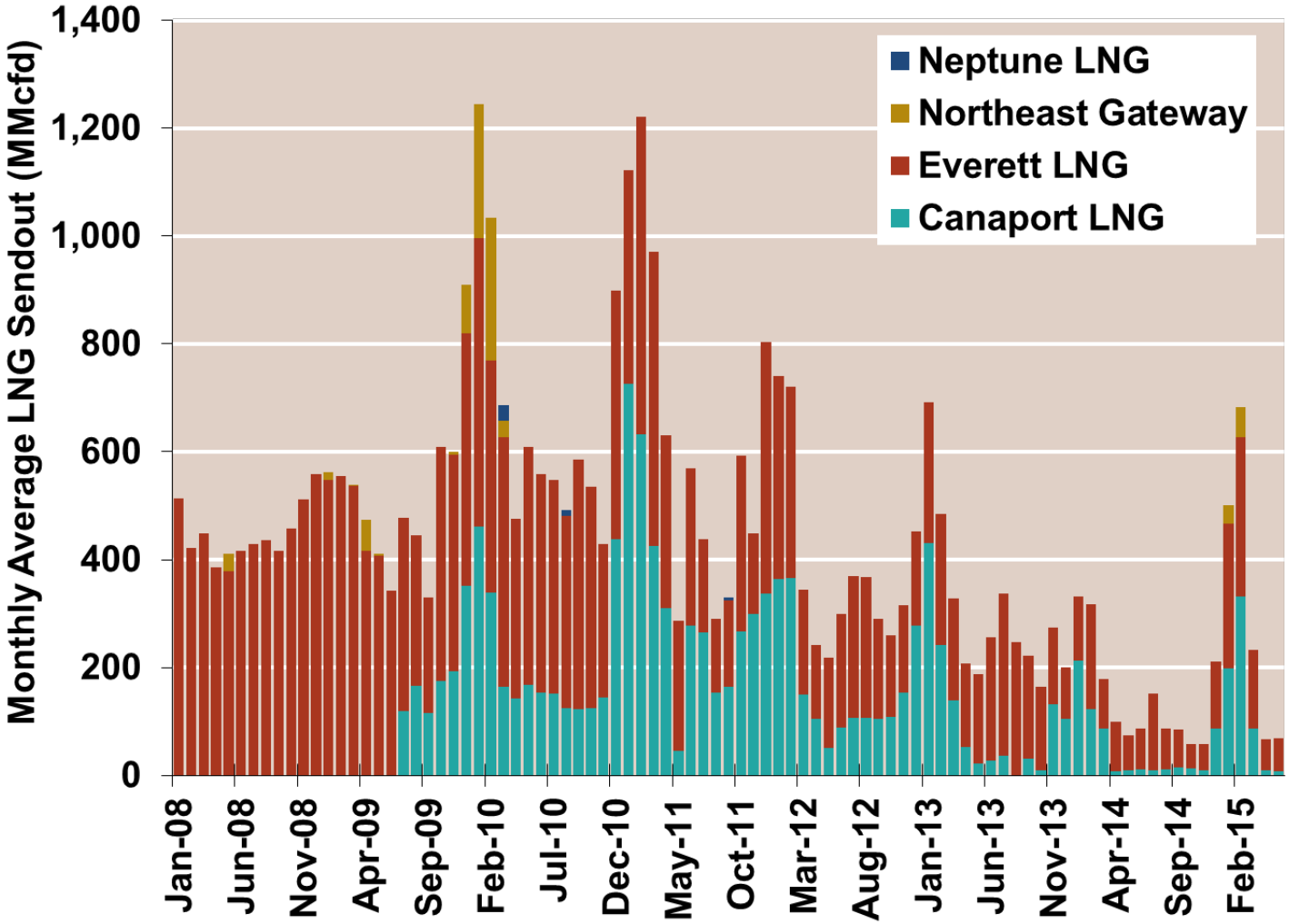


Source: IHS

Power Prices Closely Track Natural Gas

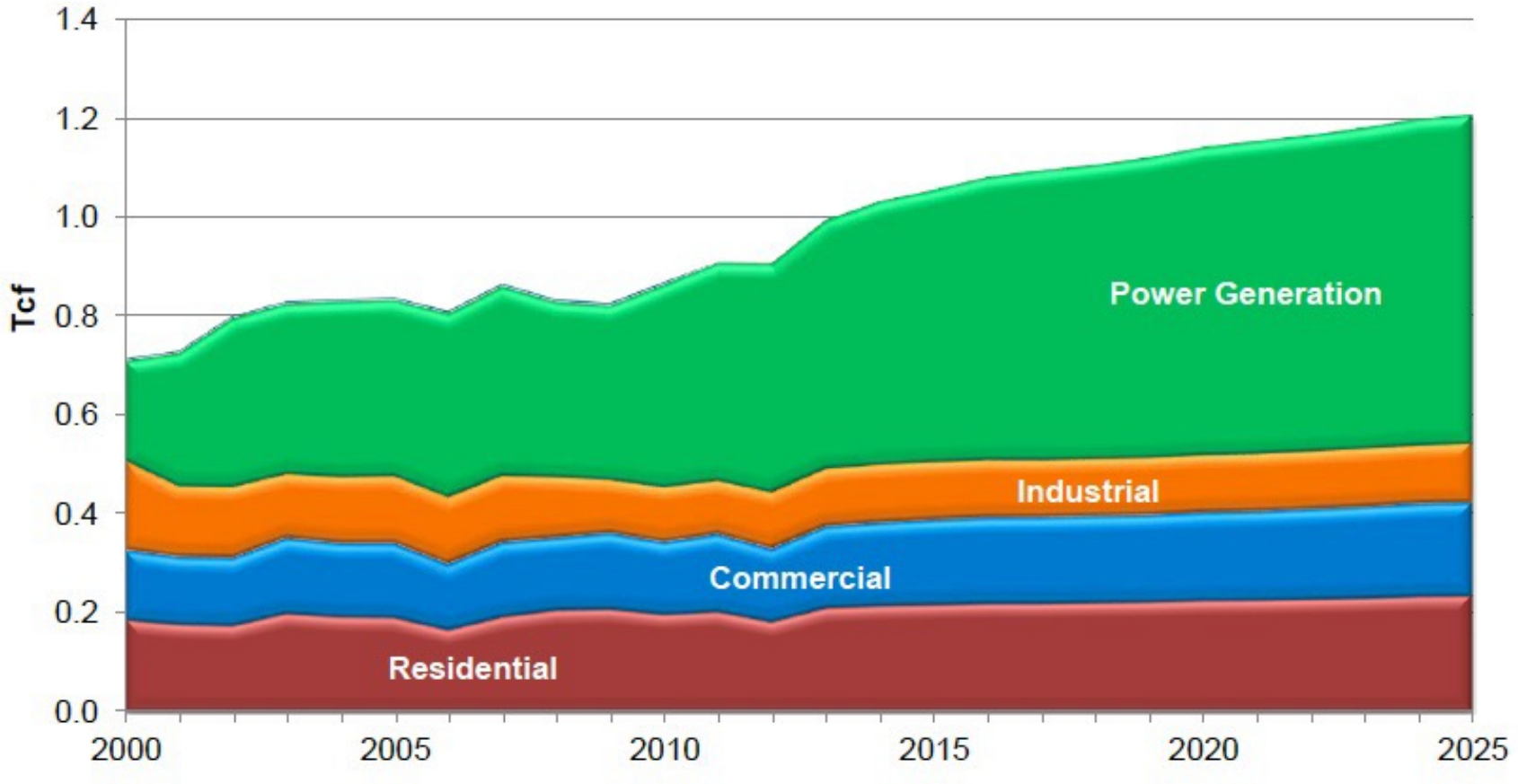


LNG Utilization Declines



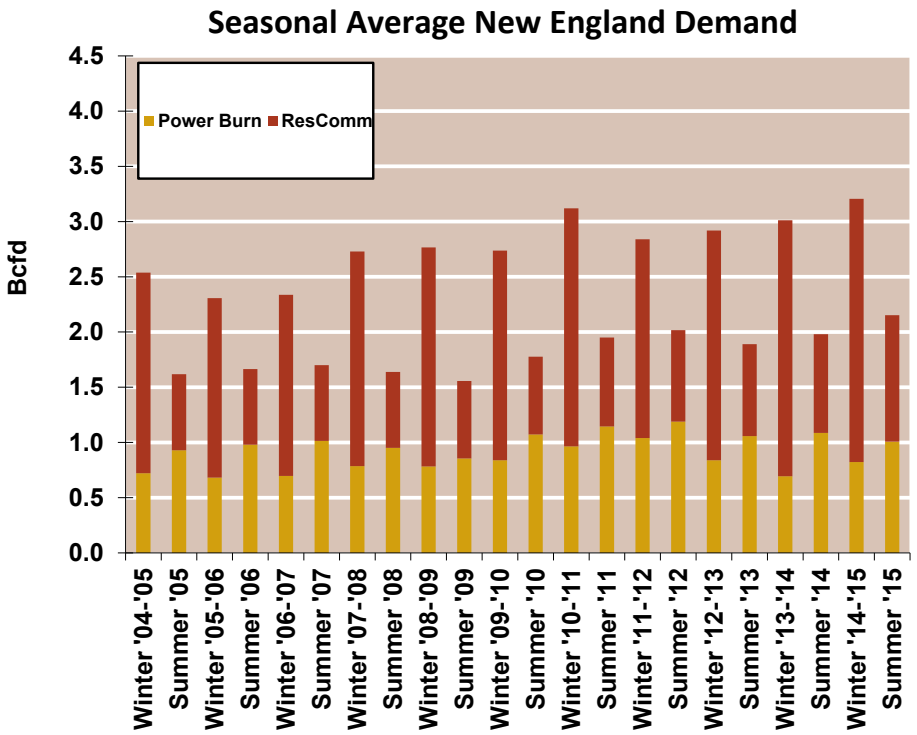
Source:
Derived from Bentek data

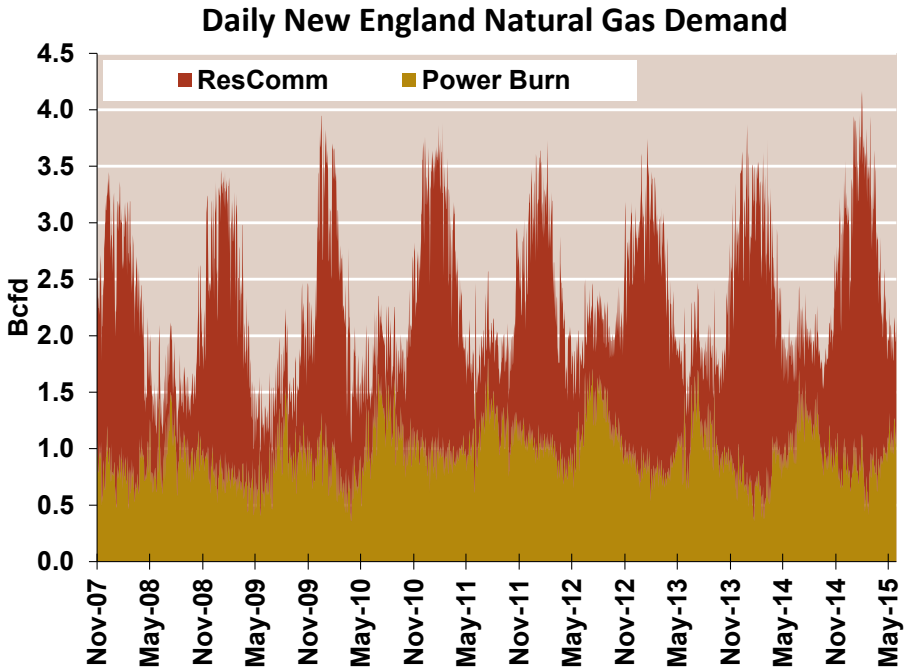
New England Natural Gas Demand Forecast



Source: RBN Energy

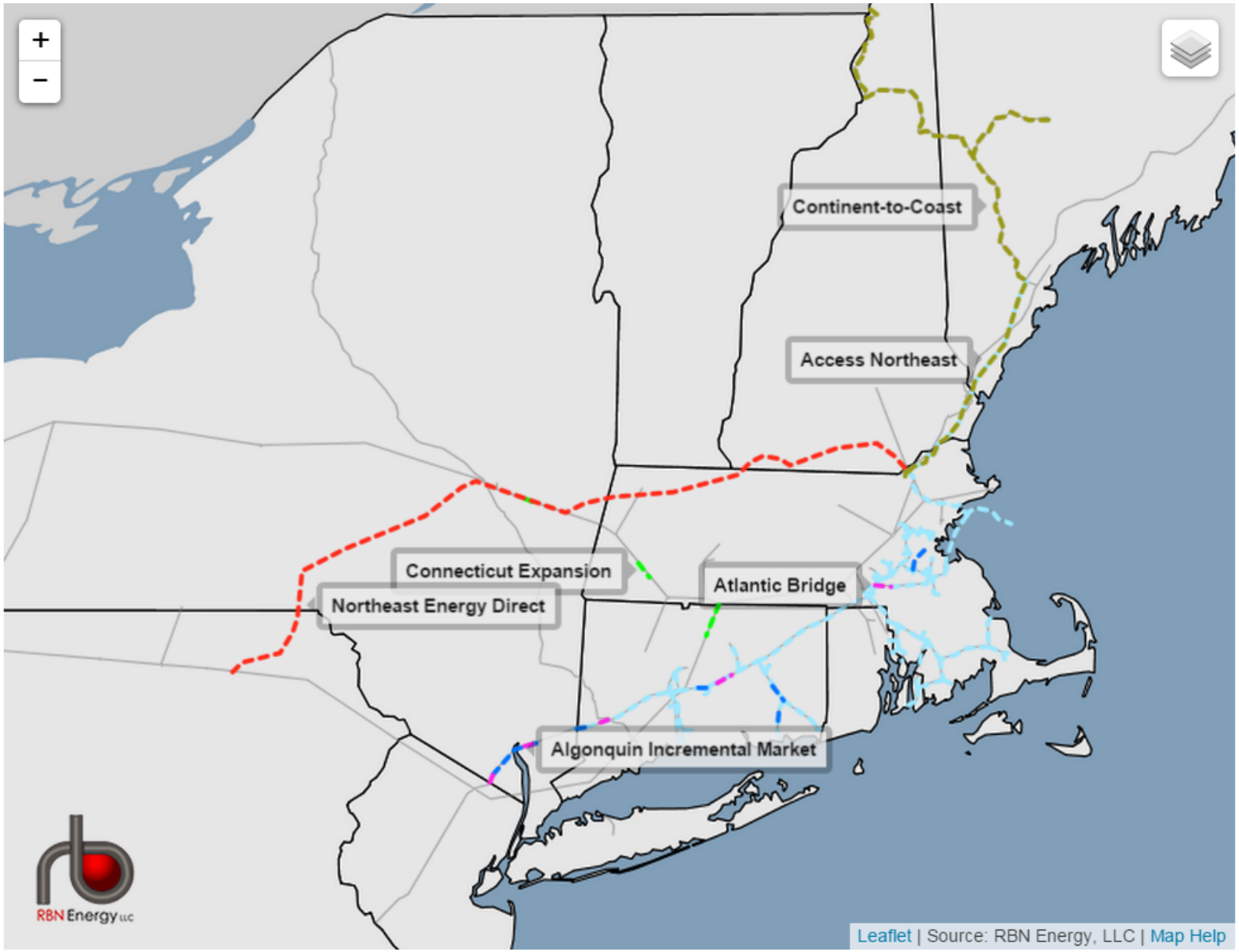
Residential and Commercial Sectors Dominate Gas Demand



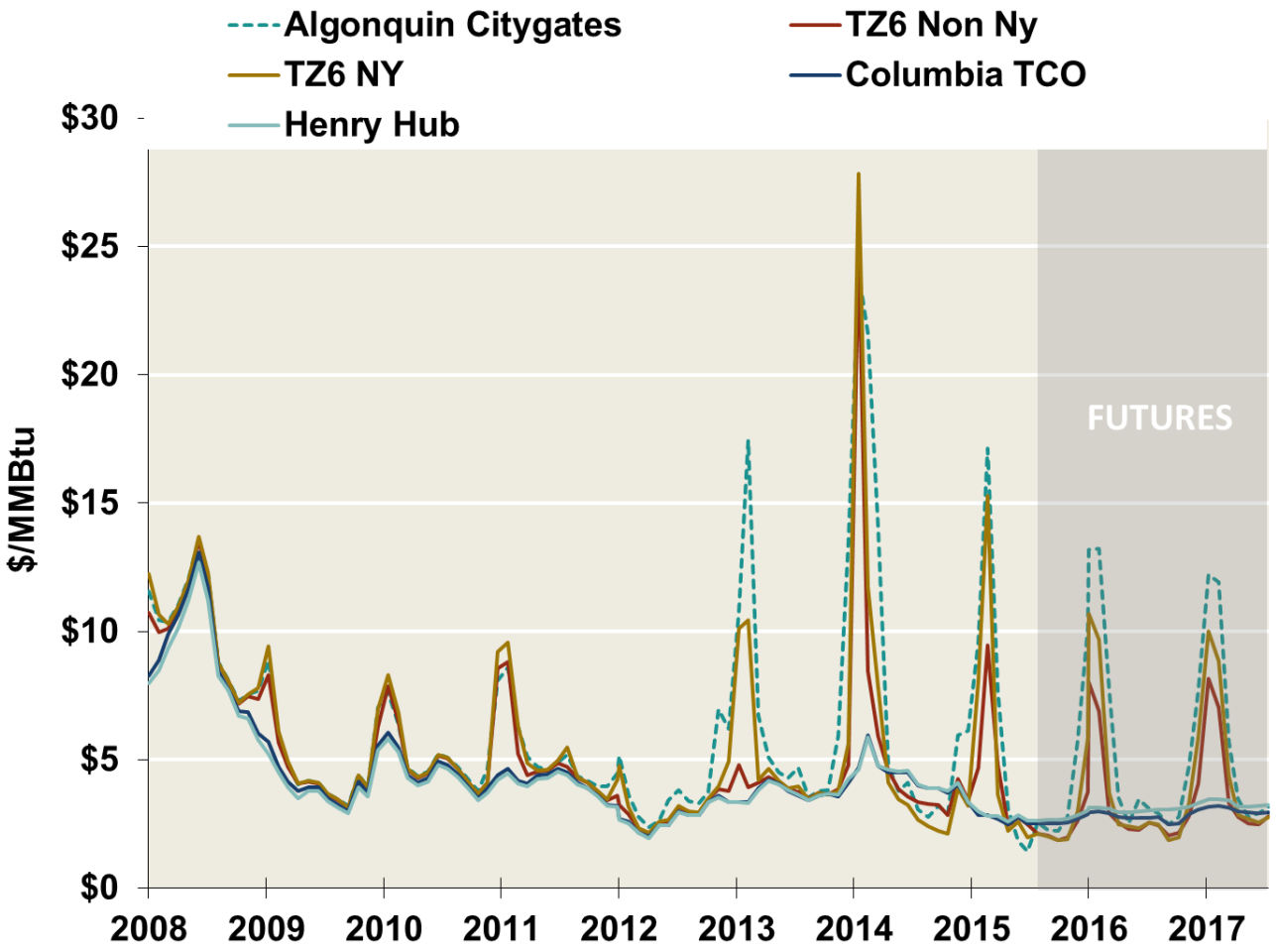


Source: Derived from Bentek Energy data

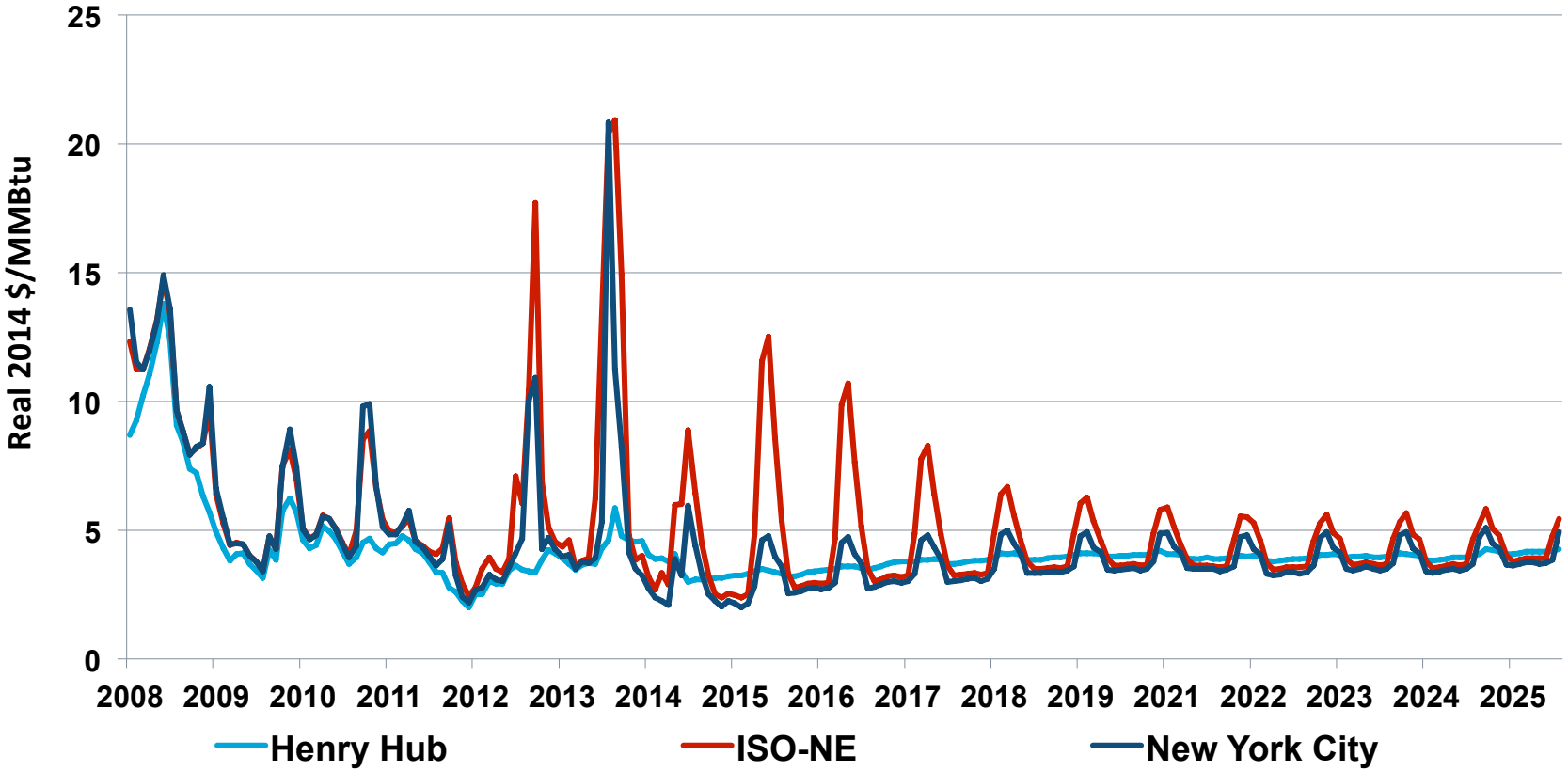
Proposed New England Pipeline Expansions



Regional Natural Gas Prices

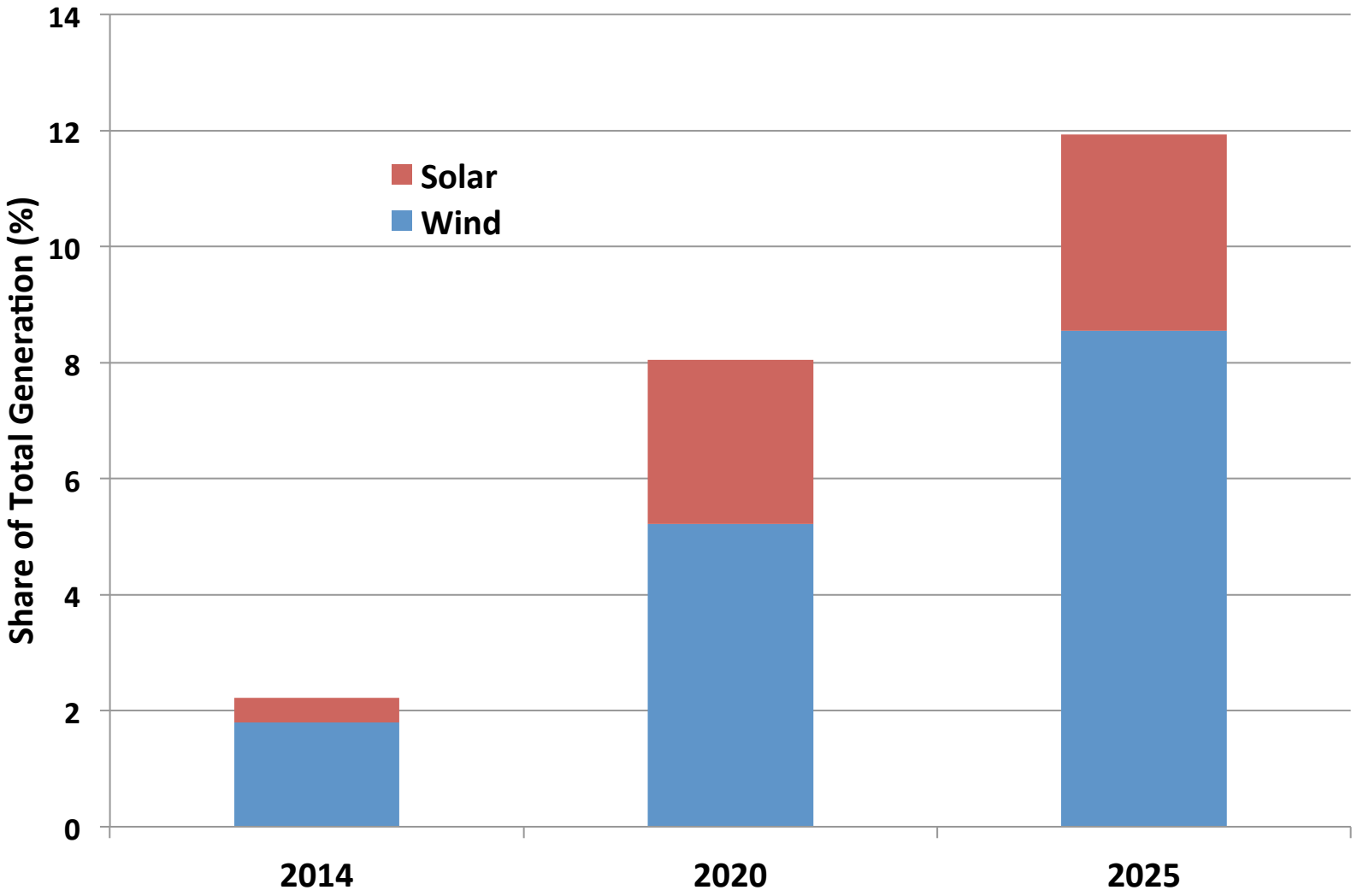


Infrastructure Investments Forecast to Ease Natural Gas Supply Issues



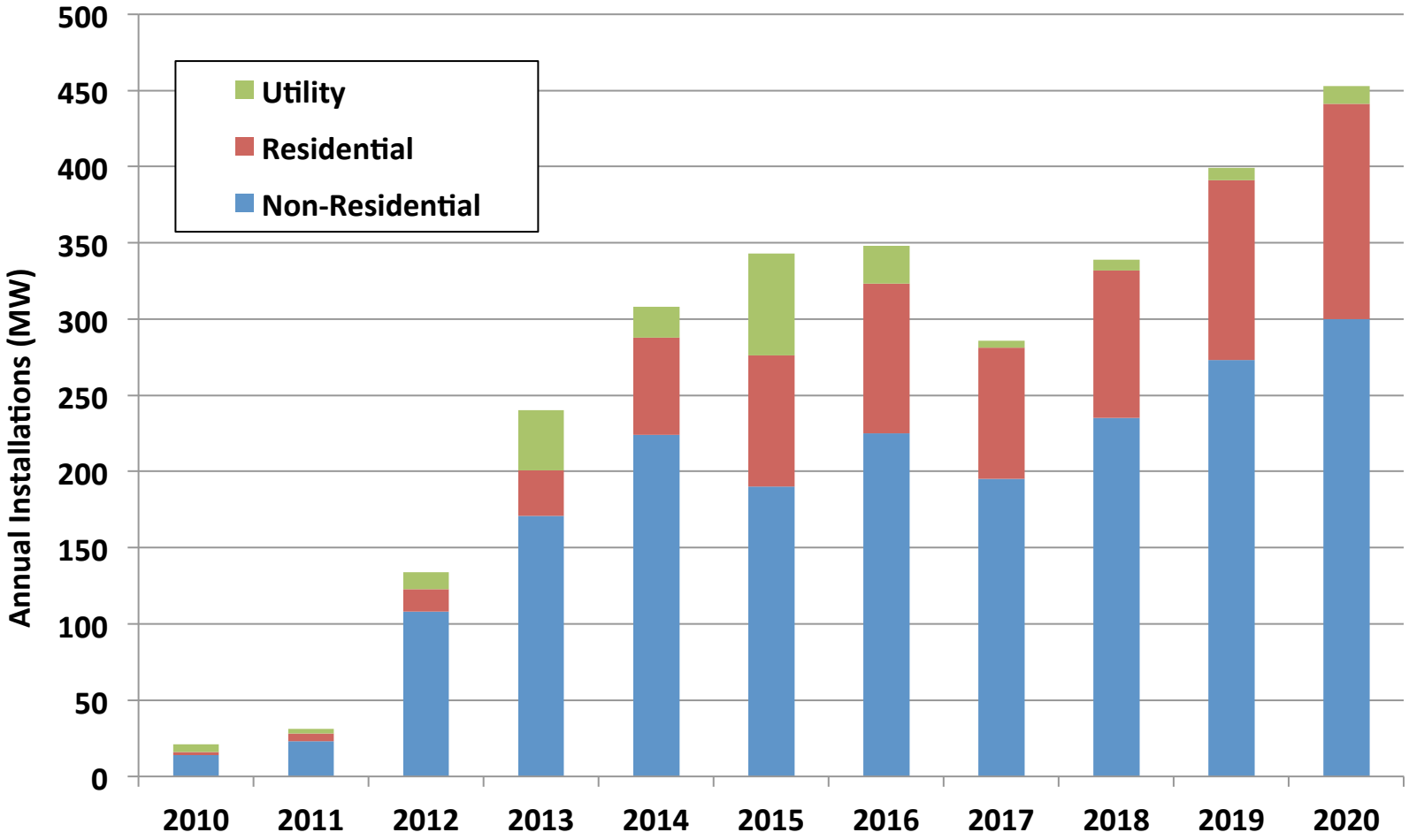
Source: IHS

Renewable Penetration to Accelerate



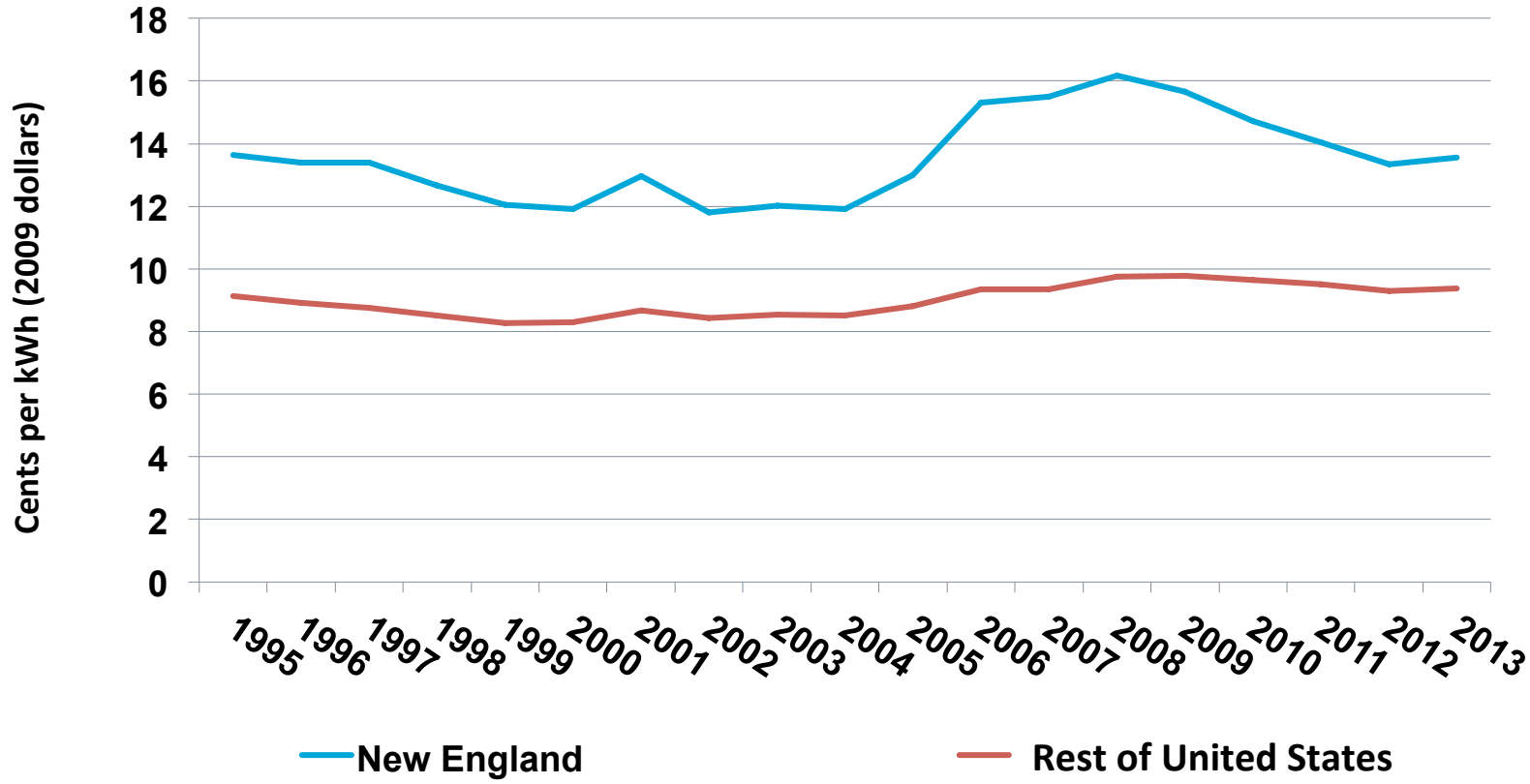
Source: IHS

Massachusetts Ranks Fourth in Solar Installations – Primarily Driven by State Policies



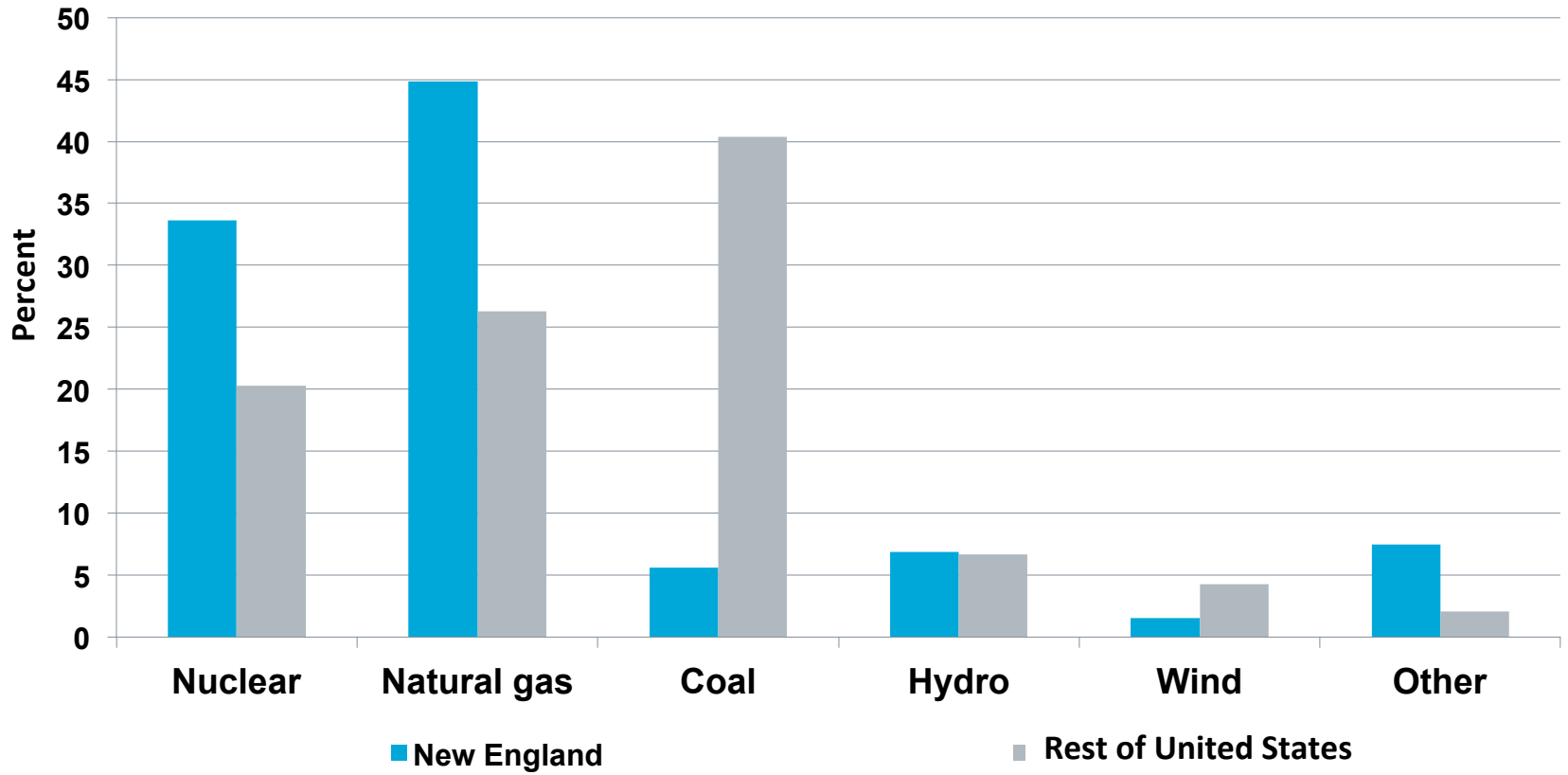
Source: SEIA

Retail Rates Higher than the National Average



Source: IHS and EIA

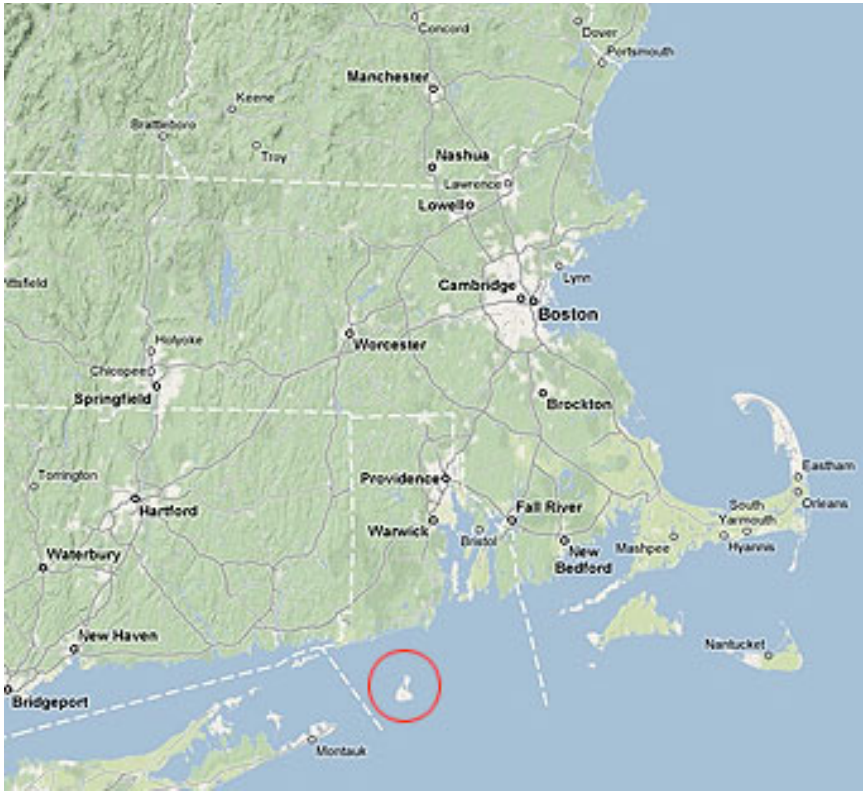
New England's Fuel Mix Differs from other Regions



Source: IHS and EIA

Deepwater Offshore Wind Project

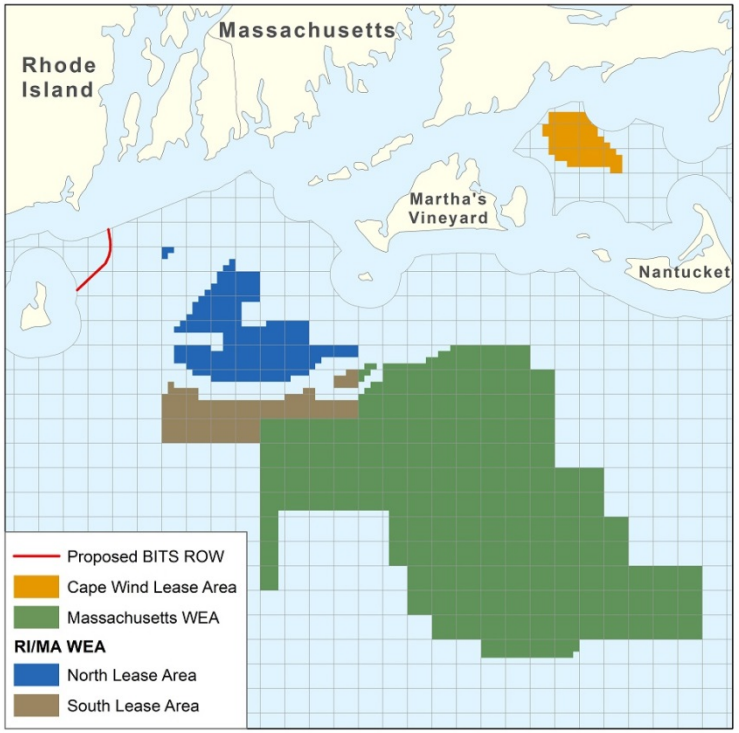
- The first offshore wind farm in the U.S.
- Located off of Block Island (26 miles from Newport)
- 30 megawatt, 5 turbine
- Milestones:
  - Financing: $290 mil. debt & $70 mil. private equity
  - “Steel in the water” is planned for this summer
  - Scheduled to be online in 2016.
- 20-year PPA, includes a year-one off-take price of $244/MWh (Currently before FERC, EL15-61-000, filed 5/11/15)



Other Offshore Wind Development

Other New England Leases

- 742,000 acres, leased Jan. '15
  - $14 mil. in lease revenue
  - 5 GW of potential capacity
- Federal jurisdiction - BOEM
- No NIMBY concerns, out of the line of sight from land
- Leases located in deep water – technically more difficult to site the turbines



Global offshore wind capacity is 5.4 GW (2012)

- U.K. 3 GW and Denmark 1 GW
- Rapid growth projected in China