

Infrastructure Needs for Reliability and Affordability

DOE Quadrennial Energy Review
Providence, Rhode Island
Monday, April 21, 2014

Marion S. Gold, Ph.D.
Commissioner
Rhode Island Office of Energy Resources

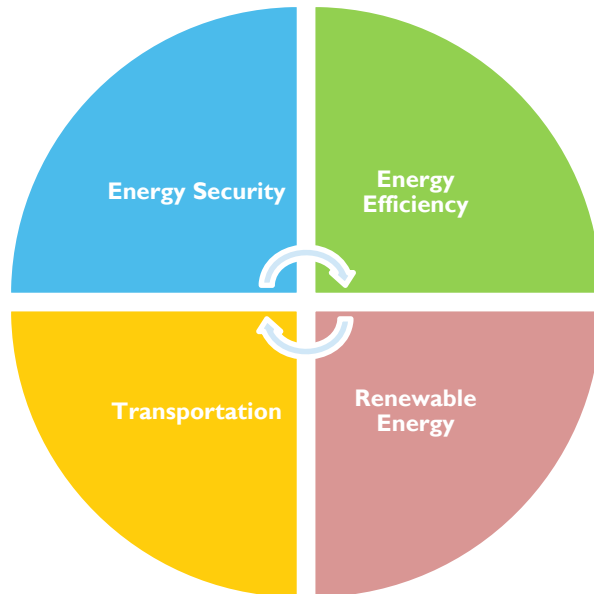


STATE OF RHODE ISLAND

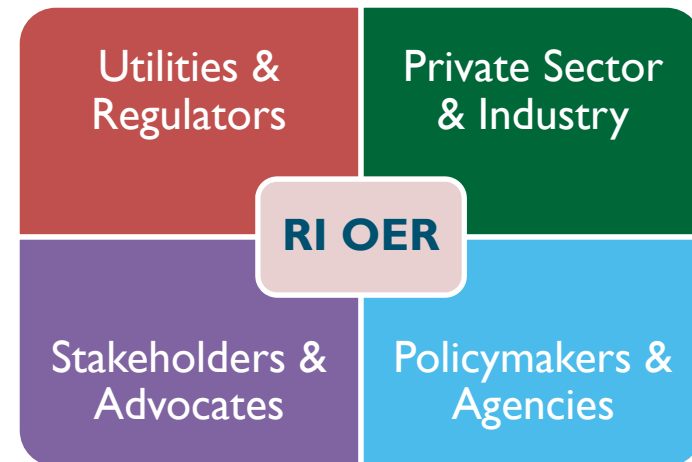
**OFFICE OF
ENERGY RESOURCES**

RI Office of Energy Resources (OER) Overview

“Leading Rhode Island to a secure, cost-effective,
and sustainable energy future.”



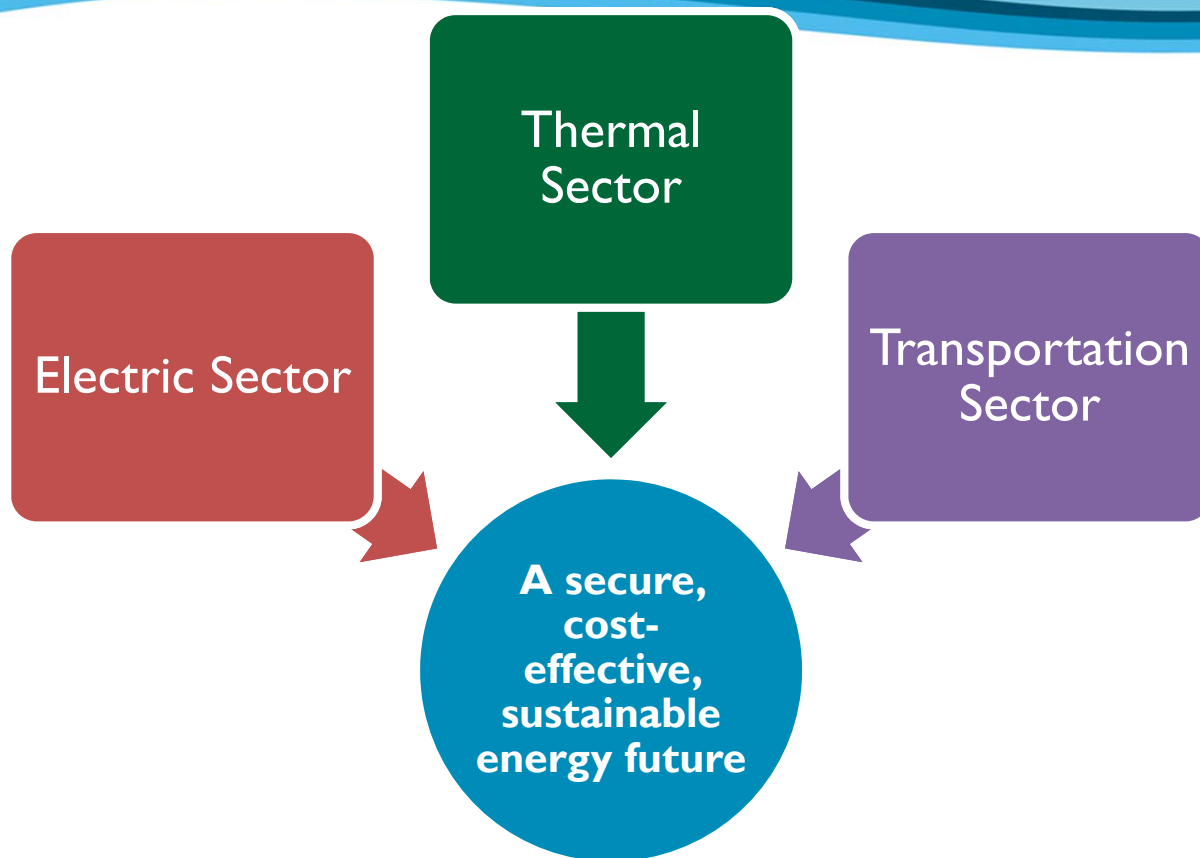
The OER is the lead state agency on energy policy and programmatic matters



The OER works closely with diverse partners to advance Rhode Island as a national leader in the new clean energy economy

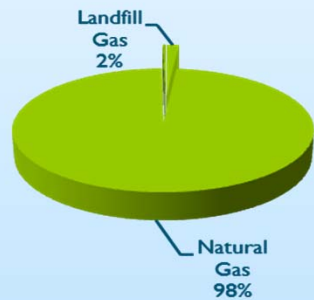
RI State Energy Plan

A Vision for RI's Energy Future



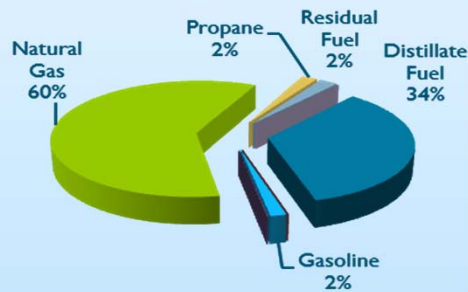
*"In 2035, Rhode Island provides energy services across all sectors—**electricity, thermal, and transportation**—using a **secure, cost-effective, and sustainable** energy system."*

Rhode Island Energy Use Today



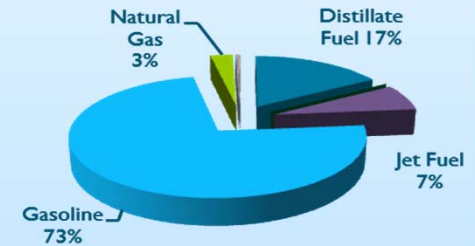
Electric

63 Trillion BTU
 \$1.1 Billion/Year
 2.9 Million Tons CO₂



Thermal

63 Trillion BTU
 \$1.1 Billion/Year
 3.9 Million Tons CO₂



Transportation

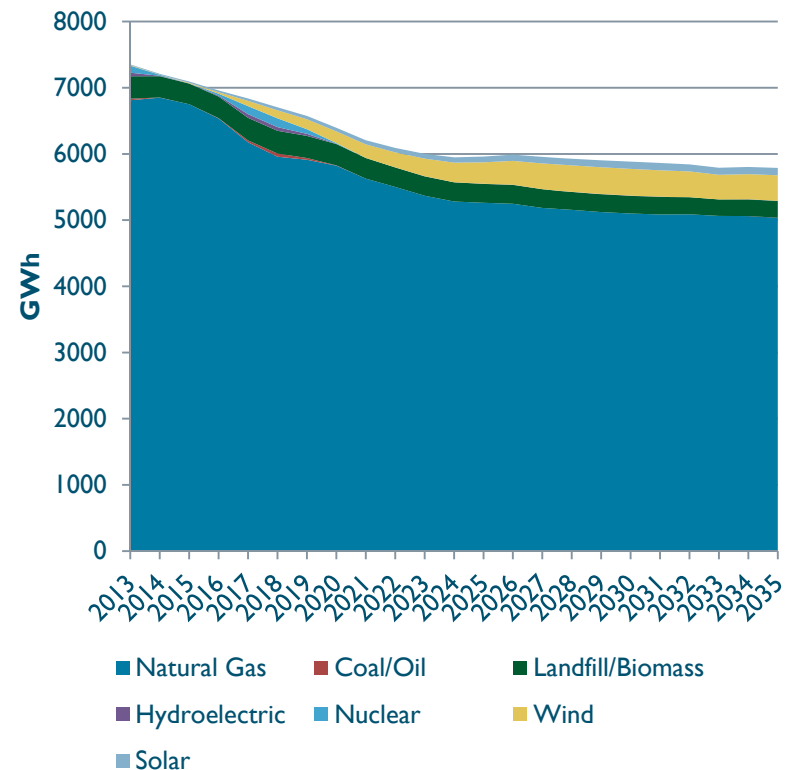
64 Trillion BTU
 \$1.4 Billion/Year
 4.5 Million Tons CO₂

RI spends \$3.6 billion annually on 190 trillion BTU of energy, emitting 11 million tons of CO₂

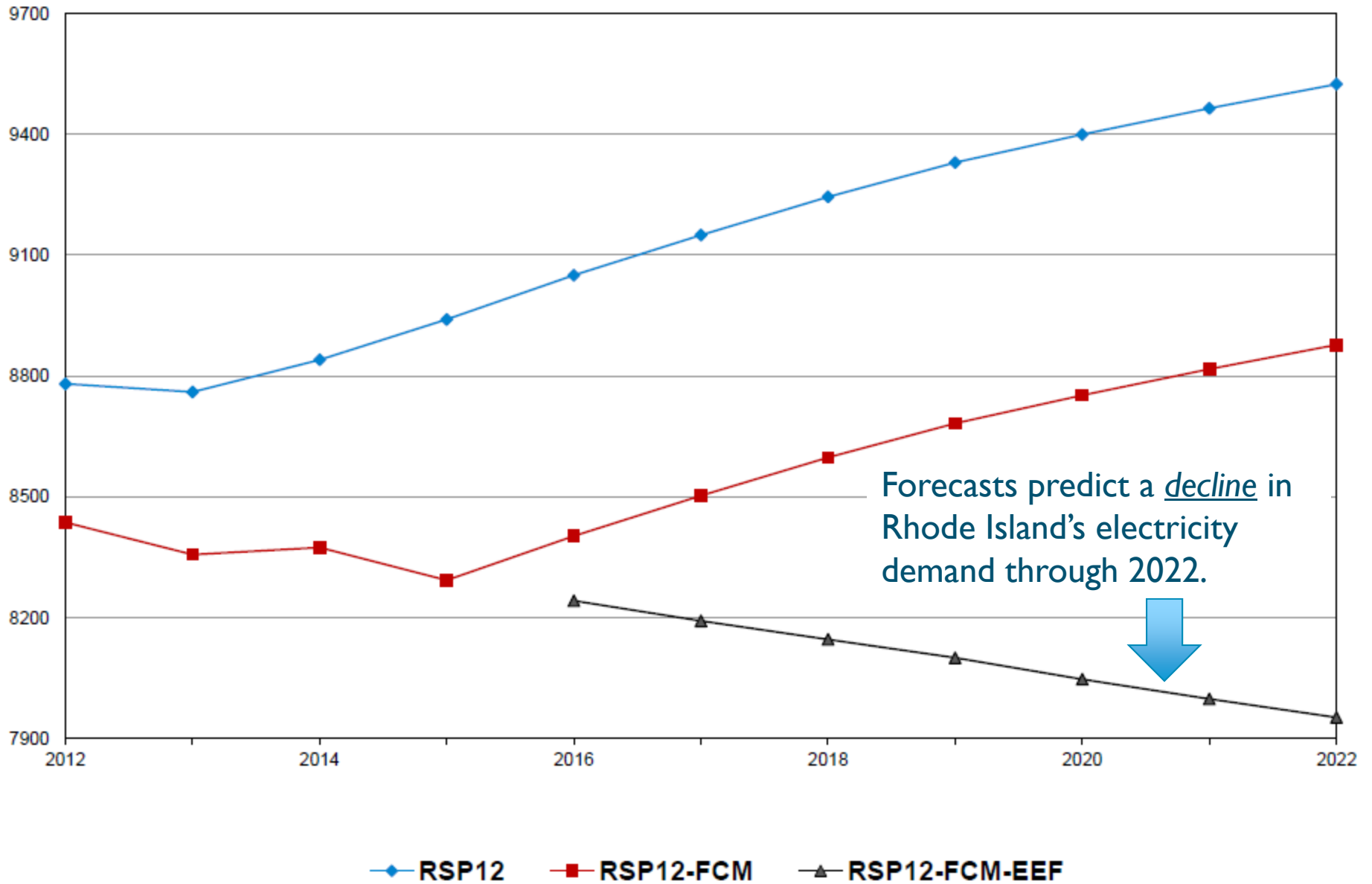
What's in store for the future?

- **Electric Demand Decreasing**
 - Least-Cost Procurement of all cost-effective electric energy efficiency
 - ~20% projected energy reductions
 - Regional Greenhouse Gas Initiative (RGGI)
 - ~20% projected electric GHG reductions
- **Renewable Energy Increasing**
 - Renewable Energy Procurement
 - 16% Renewable Energy Standard
 - >200 MW of wind & solar

RI Electric Demand
Business As Usual (BAU)



RI Annual Energy: RSP12 Forecast (GWh)



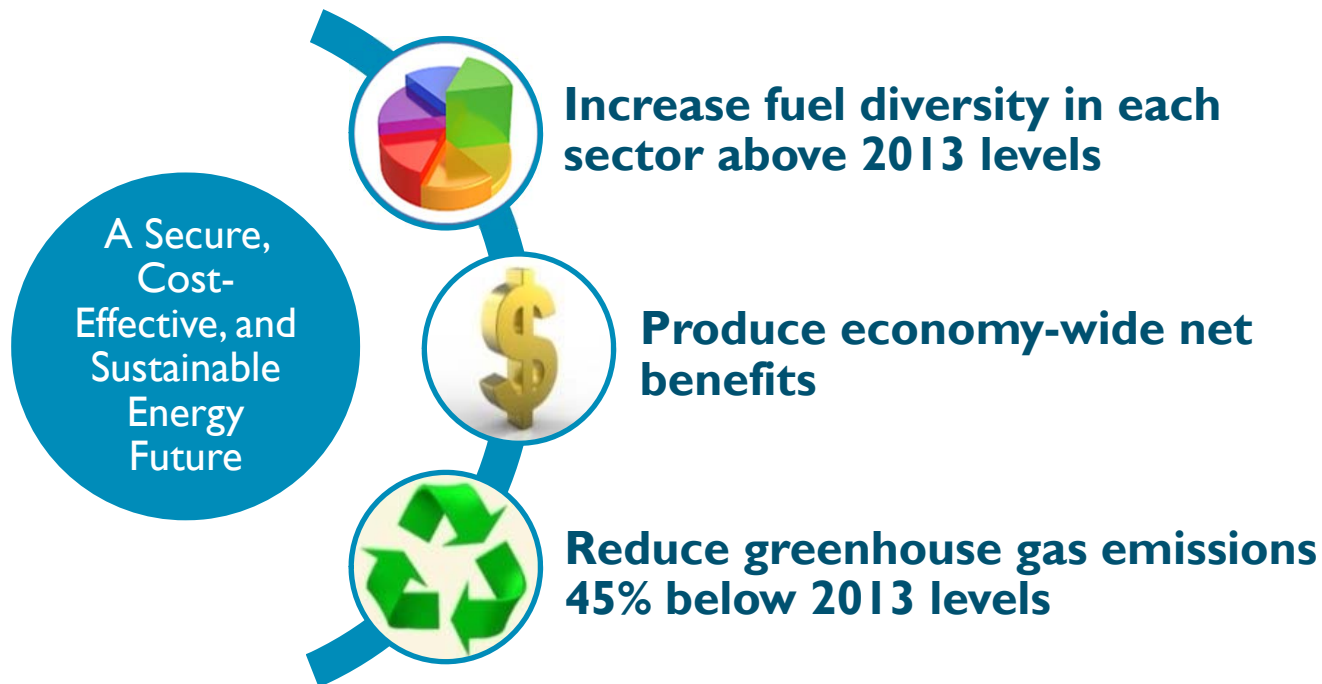
What does this mean?

Rhode Island is already poised to make significant progress towards **a secure, cost-effective, and sustainable energy future**

...but can we do better?

State Targets

- Scenario modeling shows Rhode Island can:



Investments will be Needed...

- OER's State Energy Plan analysis supports the need for both *local* and *regional* investment. To meet goals:
 - Robust energy efficiency (20%); and
 - Local renewable generation (350 – 600 MW); and
 - Expansion of Renewable Energy Standard (40%); and
 - Development of utility-scale offshore wind; and
 - Access to low carbon Canadian hydropower; and
 - Significant local investments in the transportation and thermal sectors;
 - Strategic investments to insure power resiliency & reliability
- “All of the above” clean energy strategy – potential for \$8.8 - \$14.5 billion in NPV benefits

High energy costs jeopardize ability to meet these goals



“The “overwhelming majority” of the increase, the utility said, is derived from a rise in the cost of wholesale production of electricity — costs that National Grid does not control...”

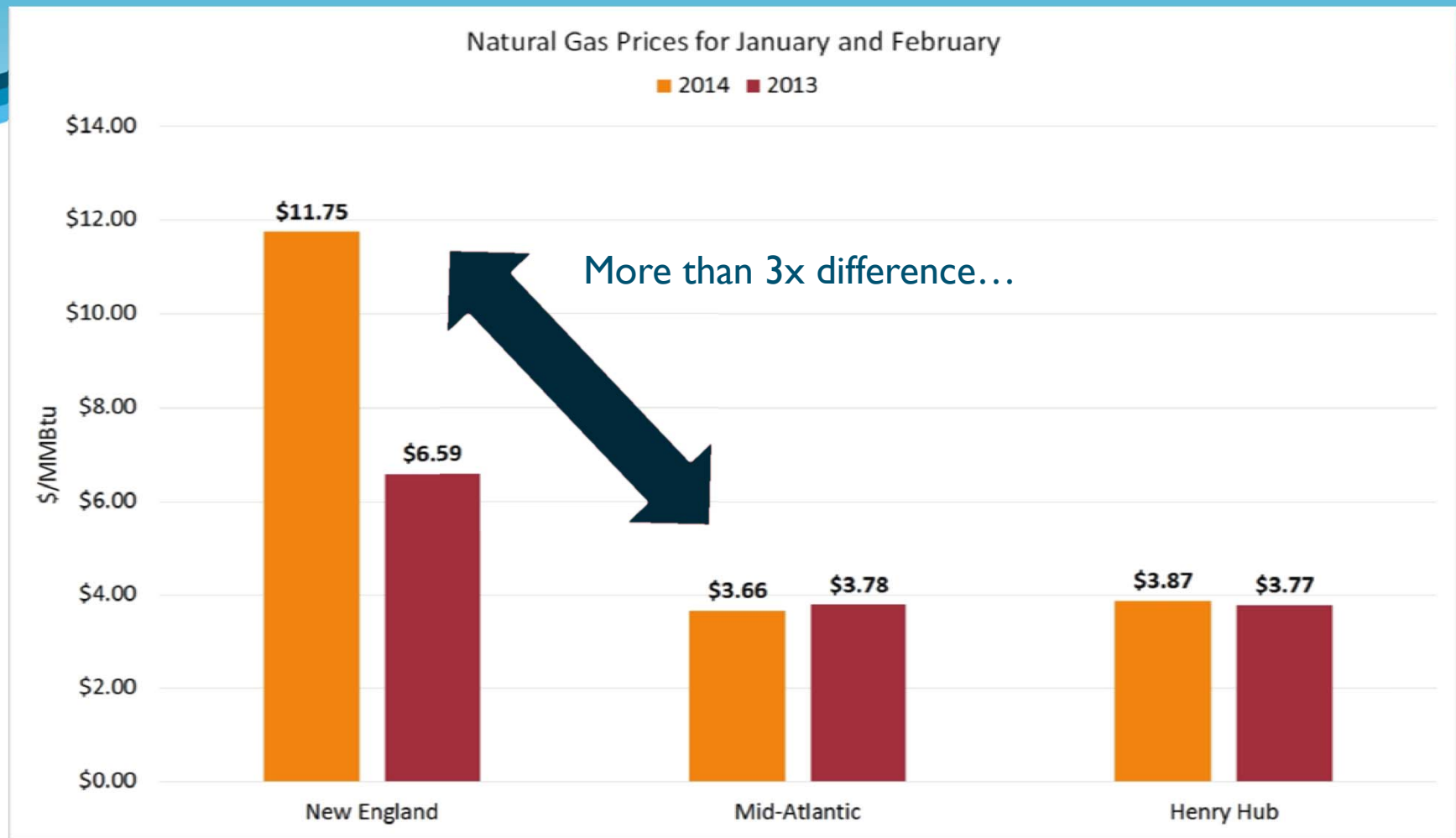
“Utilities panel approves 12.1 percent rate hike for electricity”

-G. Wayne Miller,
Providence Journal
December 20, 2013

<http://www.providencejournal.com/breaking-news/content/20131220-utilities-panel-approves-12.1-percent-rate-hike-for-national-grid-electricity.ece>



New England's Economic Disadvantage



A Call for Regional Action

- The New England Governors believe we must act to solve the region's energy crisis and spur investment in critically-needed energy infrastructure.
- We can do so in a coordinated manner that drives cost-effective investments, preserves existing clean energy investments, protects our environment and enhances economic competitiveness.
- *Act Locally...* but also **Act Regionally**

Act Locally...

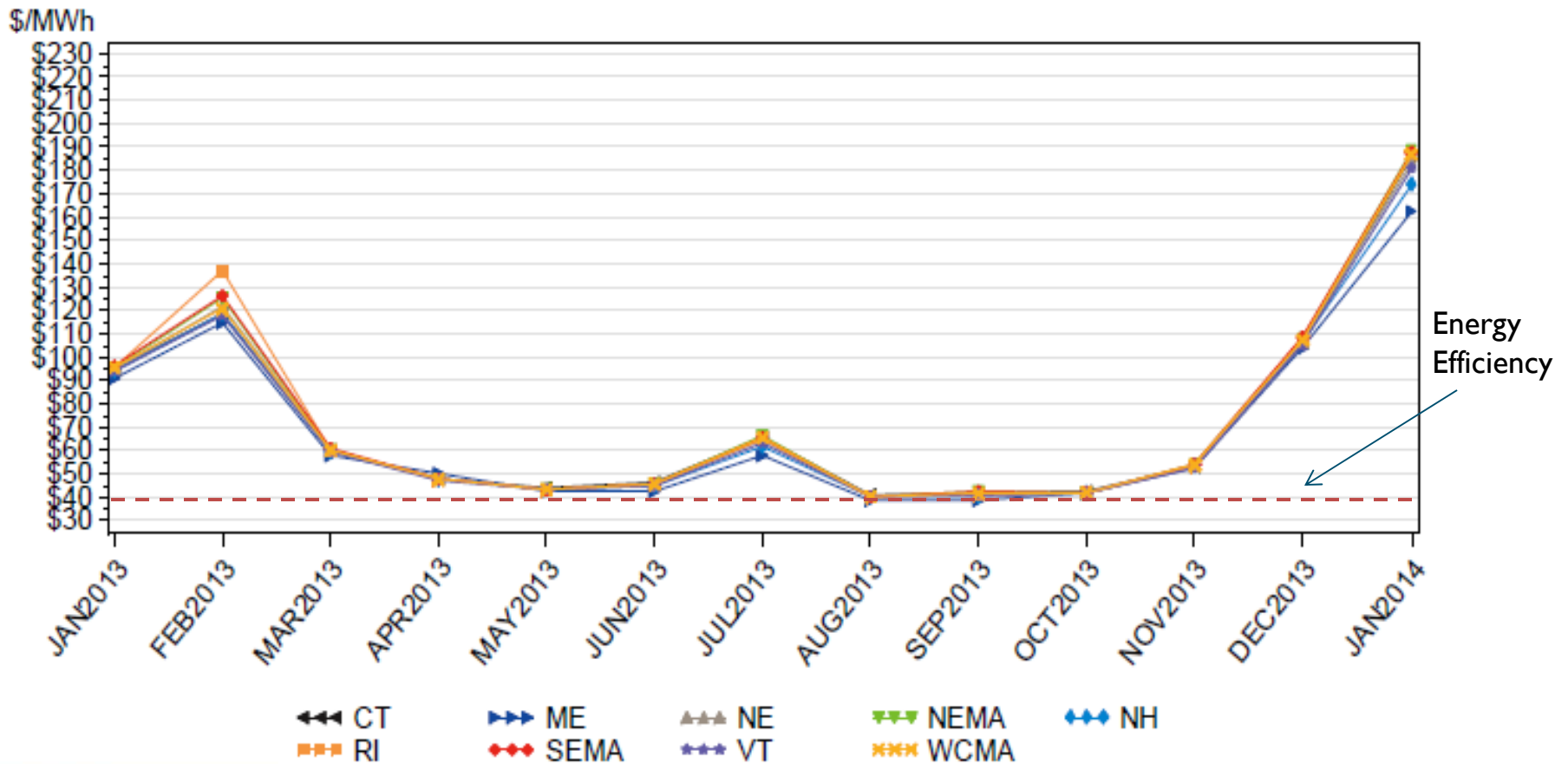
- Rhode Island must continue to robustly invest in clean energy and energy-alternative resources...
 - Energy efficiency and Least-Cost Procurement
 - Distributed Renewable Generation and Energy Storage
 - Renewable Energy Standard
 - Long-term Contracting Standard for Renewable Energy
 - Continue participation in RGGI
 - Target power resiliency investments at critical infrastructure
- Many of these investments generate local economic opportunities and create local jobs.

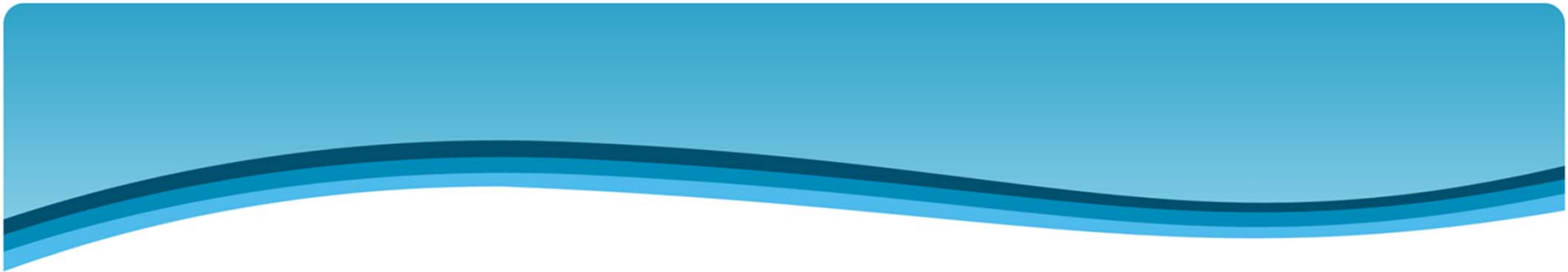
...but also act Regionally

- **Make strategic, coordinated investments in regional energy infrastructure that will:**
 - Strengthen state and regional economic competitiveness;
 - Meet common energy and environmental policy goals;
 - Diversify the region's energy supply portfolio;
 - Improve energy system reliability;
 - Increase the supply of cleaner, no-to-low carbon generation;
 - Mitigate energy price volatility;
 - Place downward pressure on long-term energy costs; and
 - *Achieve what no single state could do on its own.*

Value of Efficiency: Locks in Low Cost Energy Lowest Risk/Lowest Cost

Average Total Wholesale Load Cost- All Hours
13 Months Ending 31JAN14





Thank You.