



Rhode Island State Energy Plan (RISEP)

State Planning Council Technical Committee

June 11, 2015

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

Rhode Island State Energy Plan

- **The Rhode Island State Energy Plan (RISEP) is a long-range energy planning and policy document**
 - Statute requires five-year revisions; last update was in 2002
 - In 2013-14, OER worked with a twenty-member Advisory Council, stakeholder groups, and a consultant team to complete a 10-year update
 - The planning horizon goes out to 2035

RISEP Stakeholders

Project Team

- **Office of Energy Resources (OER)** - Project Management & Report Authorship
- **Division of Planning (DOP)** - Guidance on State Guide Plan Integration

Consultant Team

- **ENE (Environment Northeast)** - Business-as-Usual Forecast
- **Navigant Consulting** - Scenario Modeling

Advisory Council

- Twenty members with subject matter expertise in energy
- Representatives from policy-making bodies, regulatory bodies, utility providers, energy users, municipalities, environmental advocacy groups, and industry

Implementation Group

- Stakeholders with subject matter expertise in each energy sector: electricity, thermal, and transportation

RISEP Advisory Council

- **Twenty members with subject matter expertise in energy:**
 - policy makers
 - regulatory bodies
 - utility providers
 - energy users
 - municipalities
 - environmental advocacy groups
 - industry

Advisory Council Member	Affiliation
1. Abigail Anthony	<i>Acadia Center¹</i>
2. Anthony Paolantonio	<i>House Policy Office</i>
3. Bill Ferguson	<i>The Energy Council of Rhode Island (TEC-RI)</i>
4. Ben Swanson²	<i>RGS Energy</i>
5. Cynthia Wilson-Frias³	<i>RI Public Utilities Commission (RIPUC)</i>
6. Doug McVay	<i>RI Department of Environmental Management (RIDEM)</i>
7. Ian Springsteel	<i>National Grid</i>
8. Jack Leyden	<i>RI Building Code Commission (RIBCC)</i>
9. Jeff Broadhead	<i>Washington County Regional Planning Council (WCRPC)</i>
10. Jerry Elmer	<i>CLF (Conservation Law Foundation)</i>
11. John Gilbrook	<i>National Grid</i>
12. Jon Hagopian	<i>RI Division of Public Utilities and Carriers (RIDPUC)</i>
13. Julian Dash	<i>Clean Energy Development LLC</i>
14. Julie Gill	<i>Oil Heat Institute</i>
15. Kenneth Payne	<i>RI Agricultural Partnership</i>
16. Larry Chretien⁴	<i>People's Power & Light (PP&L)</i>
17. Linda George	<i>Senate Policy Office</i>
18. Melissa Long	<i>RI Department of Transportation (RIDOT)</i>
19. Robert Tormey	<i>NERC Solar</i>
20. Sheila Dormody	<i>City of Providence Office of Sustainability</i>

Philosophy of Approach

- No crystal ball can predict the future
- Directional approach to reflect uncertainties with forecasting a dynamic energy systems
- Scenario modeling sought to understand order-of-magnitude impacts and sensitivities
- Goals and performance measure targets are quantitative at a high level
- Policies and strategies are comprehensive but require further study in order to develop policy and program designs

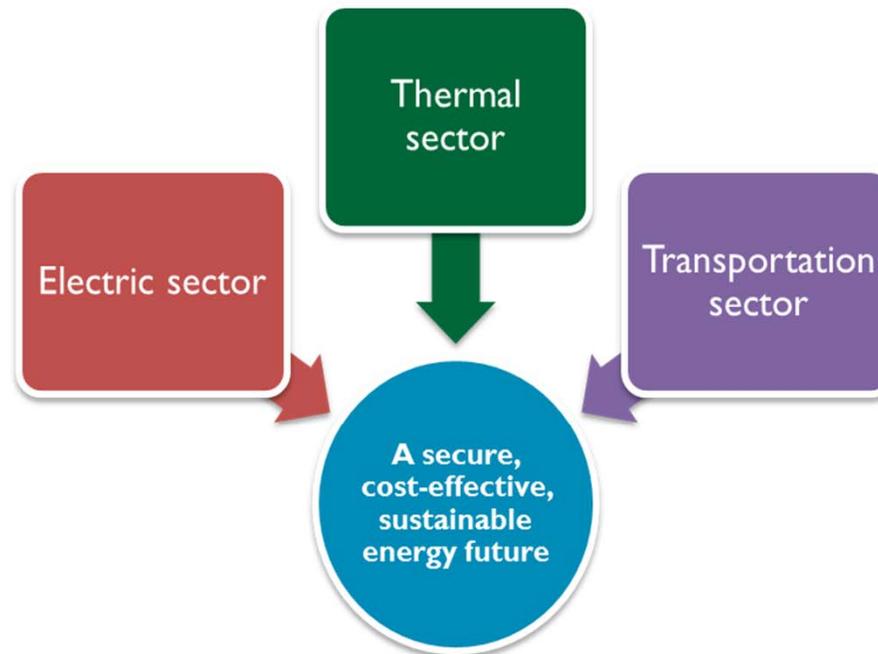
Contents of the Plan

- **Introduction and Vision**
- **Part 1: Overview of Energy in Rhode Island**
- **Part 2: Goals and Performance Measure Targets**
- **Part 3: Policies and Strategies**

- **Appendix A: Rhode Island Energy Laws**
- **Appendix B: A Portfolio of Strategies**

- **Technical Report #1: Business-as-Usual Forecast (ENE)**
- **Technical Report #2: Scenario Modeling (Navigant Consulting)**

Introduction and Vision



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

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Part 1: Overview of Energy in Rhode Island

- This section presents information on energy usage in Rhode Island—the types, amount, cost, and environmental effects of major fuels and energy resources used in all sectors of Rhode Island’s economy
- The section also summarizes the major components of Rhode Island’s existing policy framework for addressing energy issues

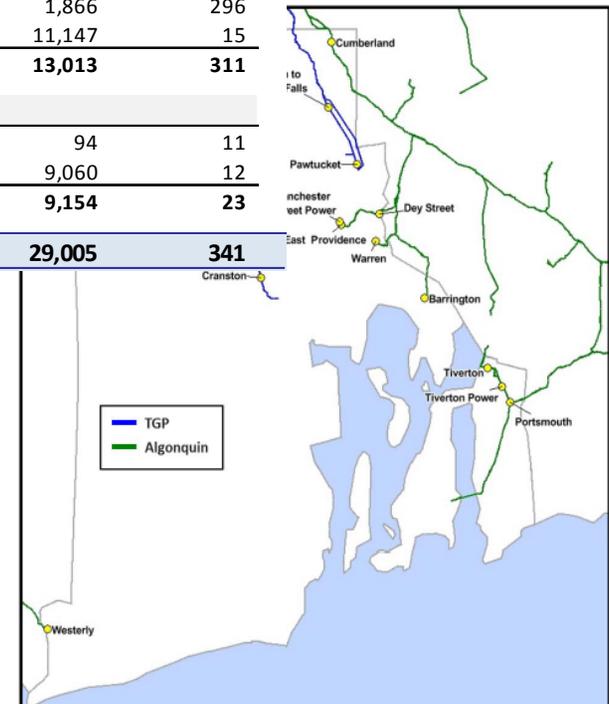
Part 1: Overview of Energy in Rhode Island

• Energy Supply and Infrastructure Assets



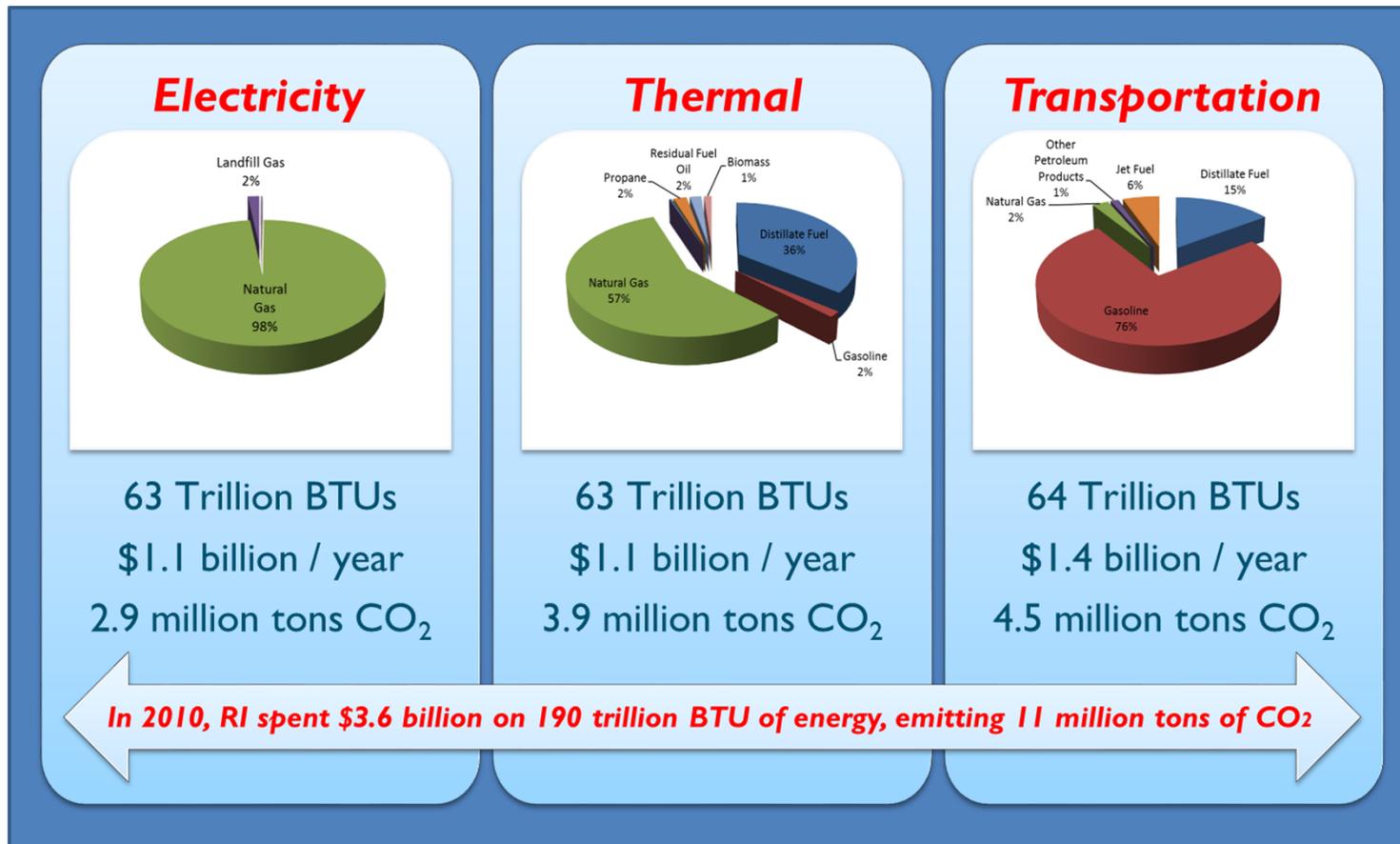
Technology	Capacity (kW)	# of Systems
Small Hydro		
All sizes	6,656	7
Solar Photovoltaic		
50 kW & under	1,866	296
>50 kW	11,147	15
Grand Total	13,013	311
Wind		
50 kW & under	94	11
>50 kW	9,060	12
Grand Total	9,154	23
Grand Total	29,005	341

Power Plant	Nameplate Capacity (MW)	Primary Fuel	Dual Fuel Capability
Energy Rhode Island State Energy LP	596	Natural Gas	
Manchester Street	515	Natural Gas	Distillate Fuel Oil
Tiverton Power Plant	272.5	Natural Gas	
Ocean State Power	254.2	Natural Gas	Distillate Fuel Oil
Ocean State Power II	254.2	Natural Gas	Distillate Fuel Oil
Pawtucket Power Associates	68.8	Natural Gas	Distillate Fuel Oil
Rhode Island LFG Genco	33.4	Landfill Gas	
Toray Plastics	12.5	Natural Gas	
Central Power Plant	10.7	Distillate Fuel Oil, Natural Gas	
Rhode Island Hospital	10.4	Natural Gas	Residual Fuel Oil
Block Island	9.6	Distillate Fuel Oil	
Brown University Central Heating	3.2	Natural Gas	Residual Fuel Oil
Total	2,041		



Part 1: Overview of Energy in Rhode Island

- Energy Use and Historical Trends



Part 1: Overview of Energy in Rhode Island

- **Current Policy Framework**
 - Major legislation: During the two decades following restructuring, Rhode Island enacted subsequent major energy legislation addressing key areas of energy policy, primarily energy efficiency and renewable energy
 - Governance structure: Public responsibilities for energy planning, management, and oversight in Rhode Island are distributed among an array of agencies, each with distinct powers, duties, and functions

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Part 2: Goals & Performance Measure Targets

- **This section sets measurable goals and performance measure targets for achieving an energy system that advances the human, economic, and environmental well-being of the people, communities, and natural resources of Rhode Island.**
- **The goals sketch a vision for an energy system that advances the human, economic, and environmental well-being of the people, communities, and natural resources of Rhode Island**

Part 2: Goals & Performance Measure Targets

- **RISEP Goals**



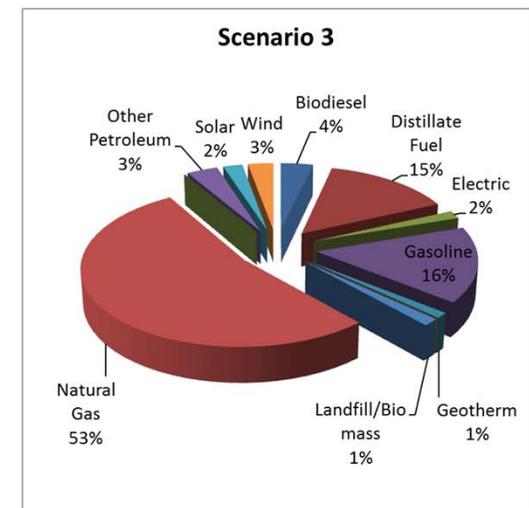
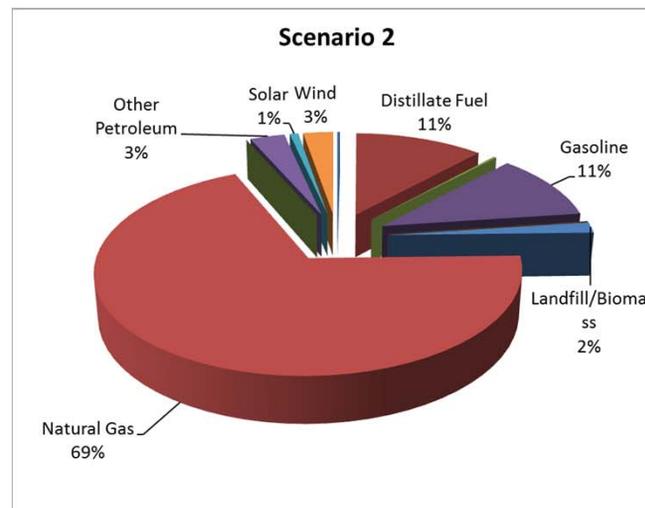
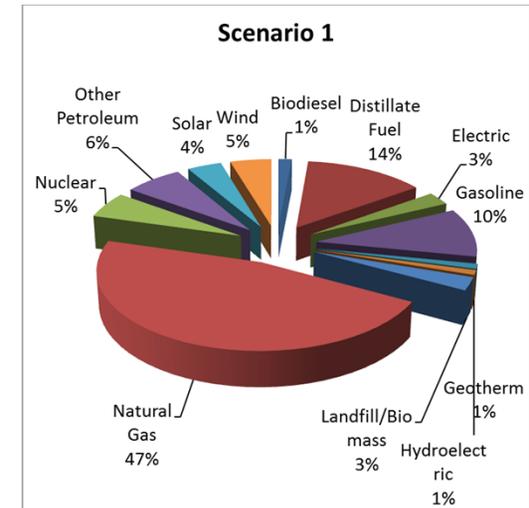
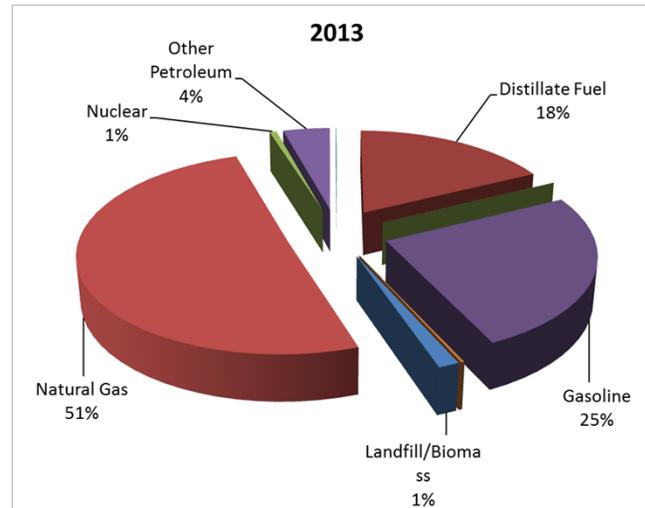
Part 2: Goals & Performance Measure Targets

- **RISEP Performance Measure Targets**
 - Scenario modeling shows Rhode Island can:



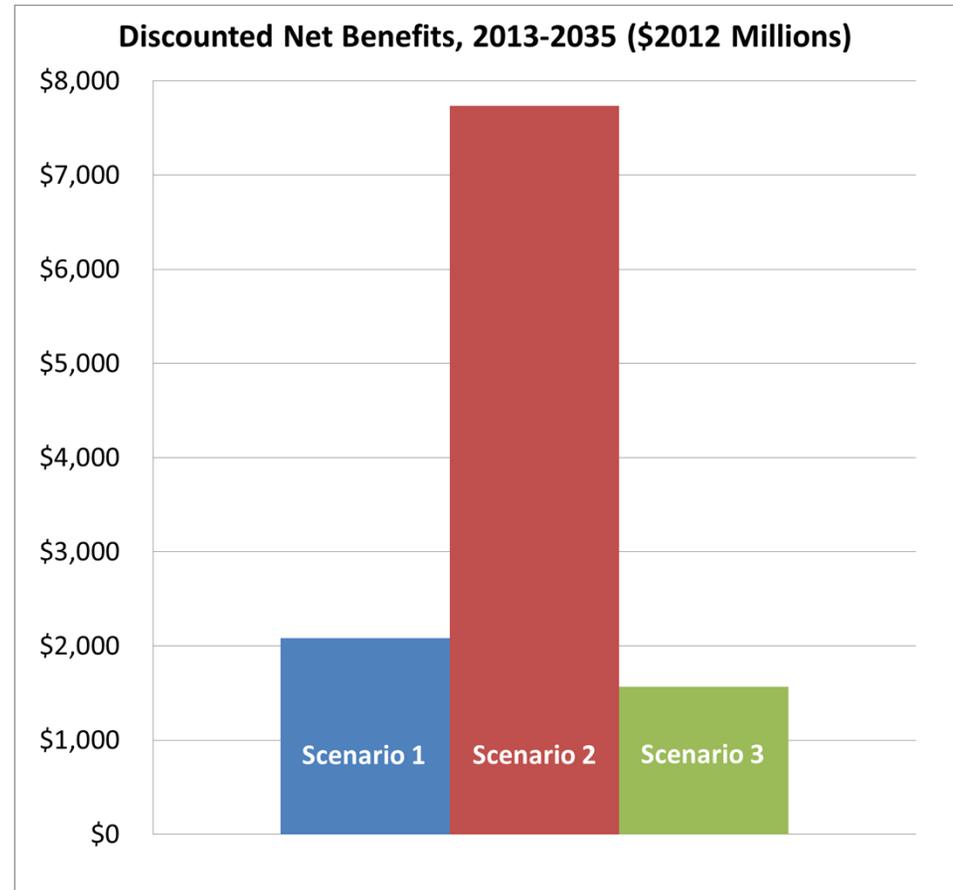
Energy Security: Fuel Diversity

- Fuel diversity gains are achievable



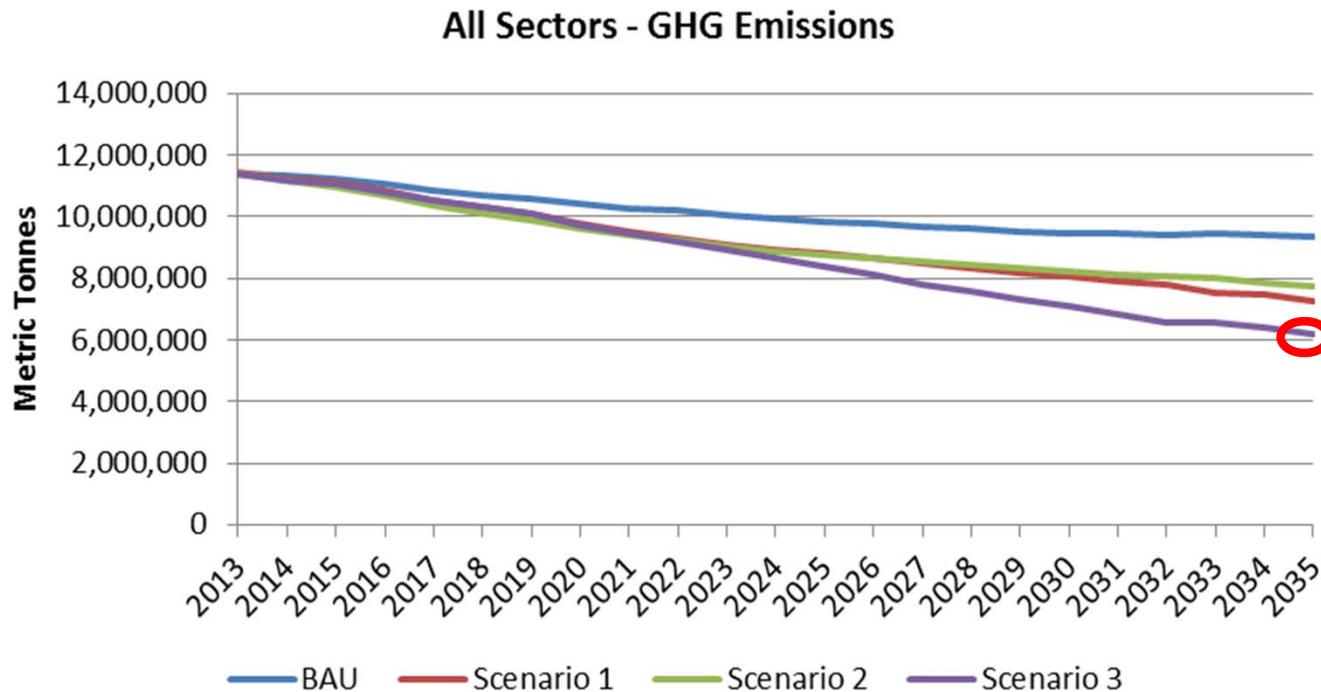
Cost-Effectiveness: Net Benefits

- **Business-as-Usual is RI's most expensive path**
- **All scenarios are anticipated to provide economy-wide net benefits**
- **All scenarios are net positive first order job creation**



Sustainability: GHG Reductions

- 45% GHG reductions below 1990 levels by 2035 are achievable



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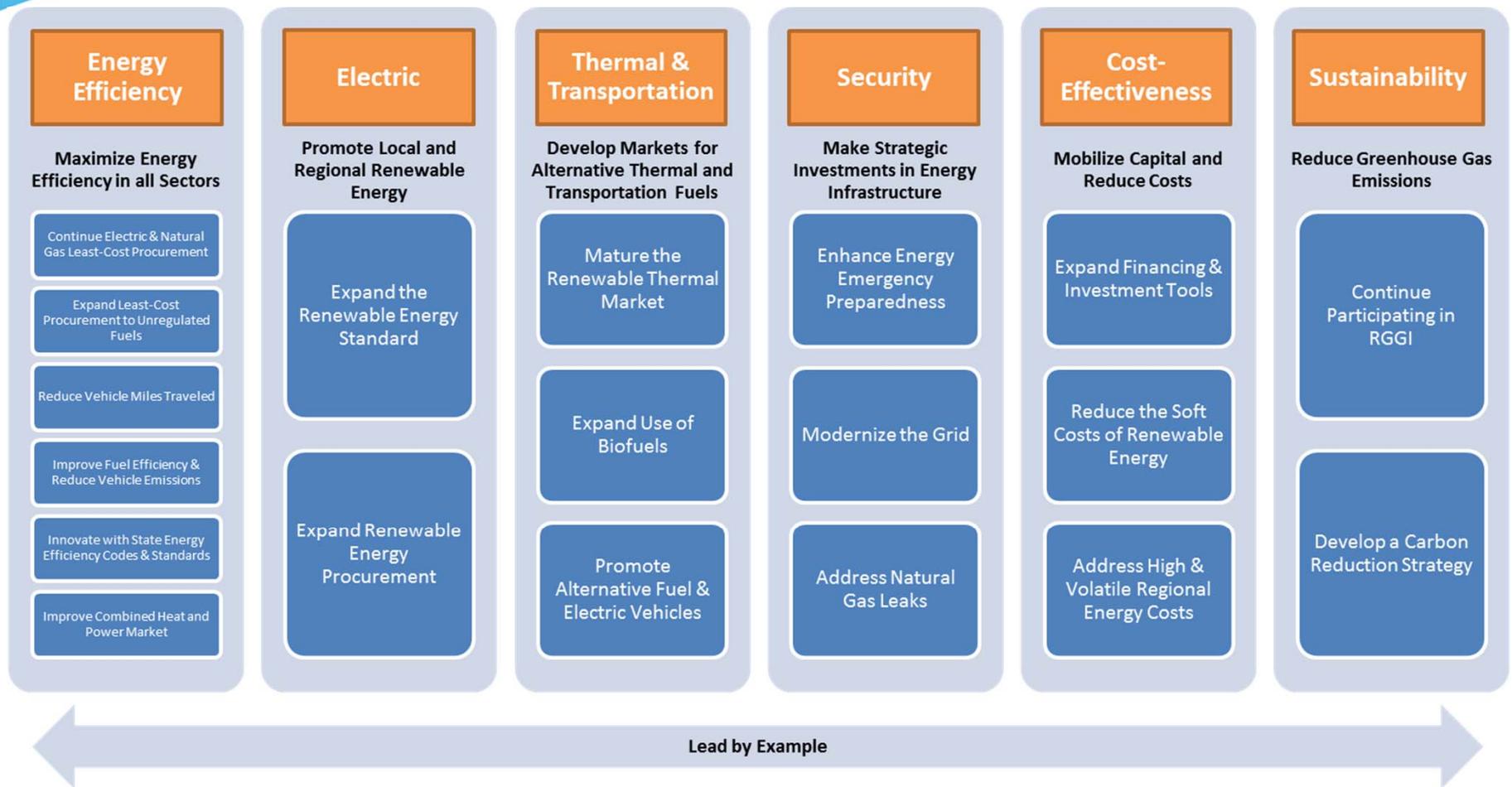
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Part 3: Policies and Strategies

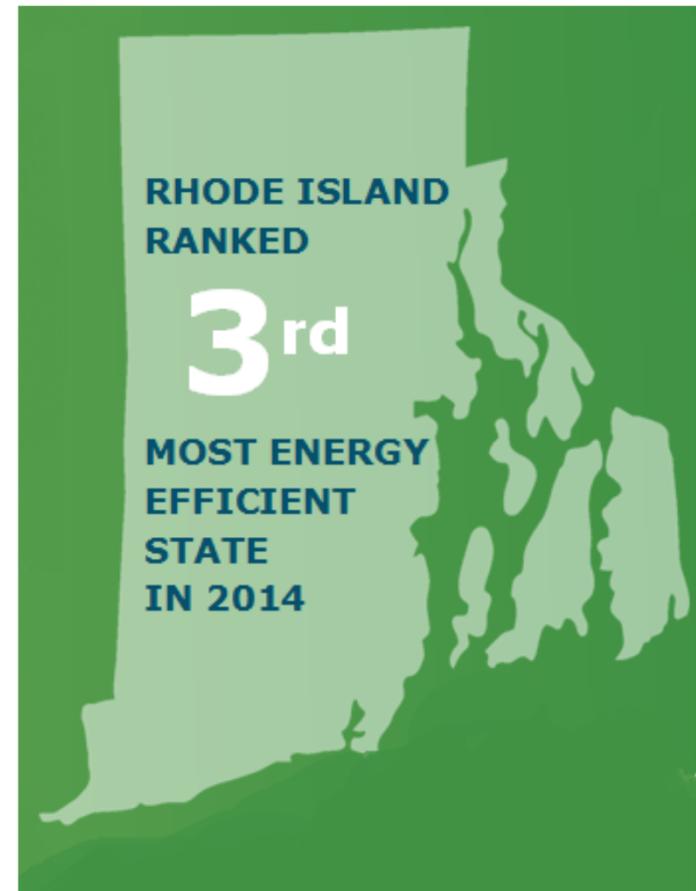
- This section lays out a comprehensive implementation plan for meeting the Plan’s goals and performance measure targets
- The policies and strategies are meant to provide decision makers with a complete picture of the near- and long-term actions Rhode Island should consider in each sector of the economy—electric, thermal, and transportation

Part 3: Policies and Strategies



Part 3: Policies and Strategies

- **Maximize Energy Efficiency in all Sectors**
 - Continue Electric & Natural Gas Least-Cost Procurement
 - Expand Least-Cost Procurement to Unregulated Fuels
 - Reduce Vehicle Miles Traveled
 - Improve Fuel Efficiency & Reduce Vehicle Emissions
 - Innovate with State Energy Efficiency Codes & Standards
 - Improve Combined Heat and Power Market



Part 3: Policies and Strategies

- **Promote Local and Regional Renewable Energy**
 - Expand the Renewable Energy Standard
 - Expand Renewable Energy Procurement



Part 3: Policies and Strategies

- **Develop Markets for Alternative Thermal and Transportation Fuels**
 - Mature the Renewable Thermal Market
 - Expand Use of Biofuels
 - Promote Alternative Fuel & Electric Vehicles



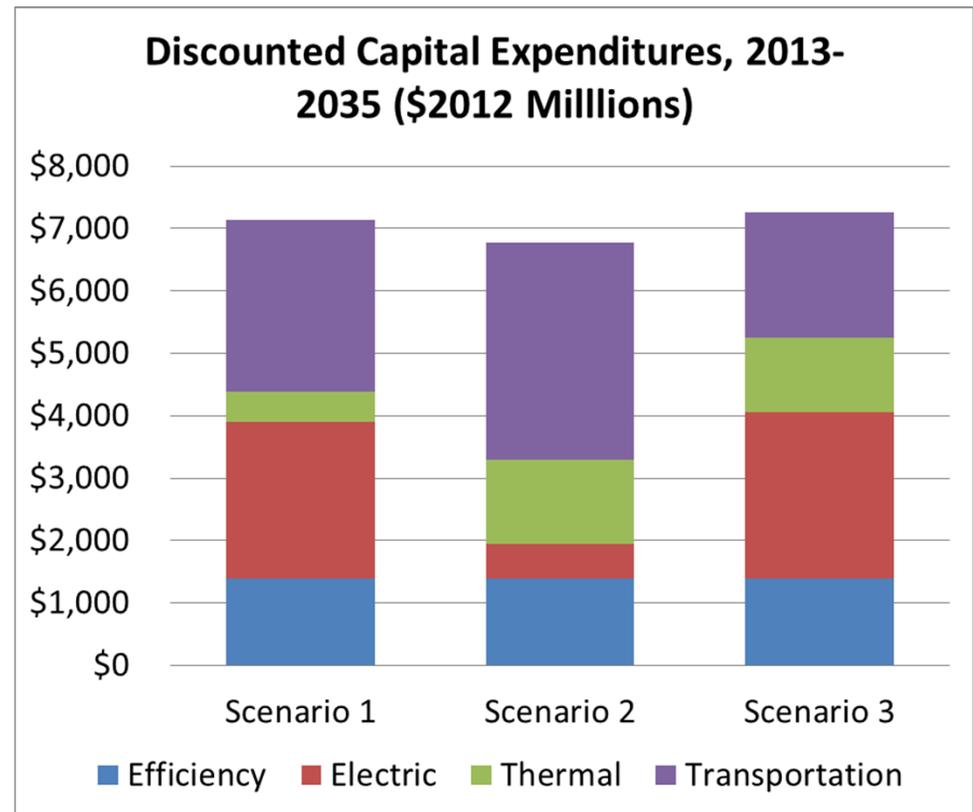
Part 3: Policies and Strategies

- **Make Strategic Investments in Energy Infrastructure**
 - Enhance Energy Emergency Preparedness
 - Modernize the Grid
 - Address Natural Gas Leaks



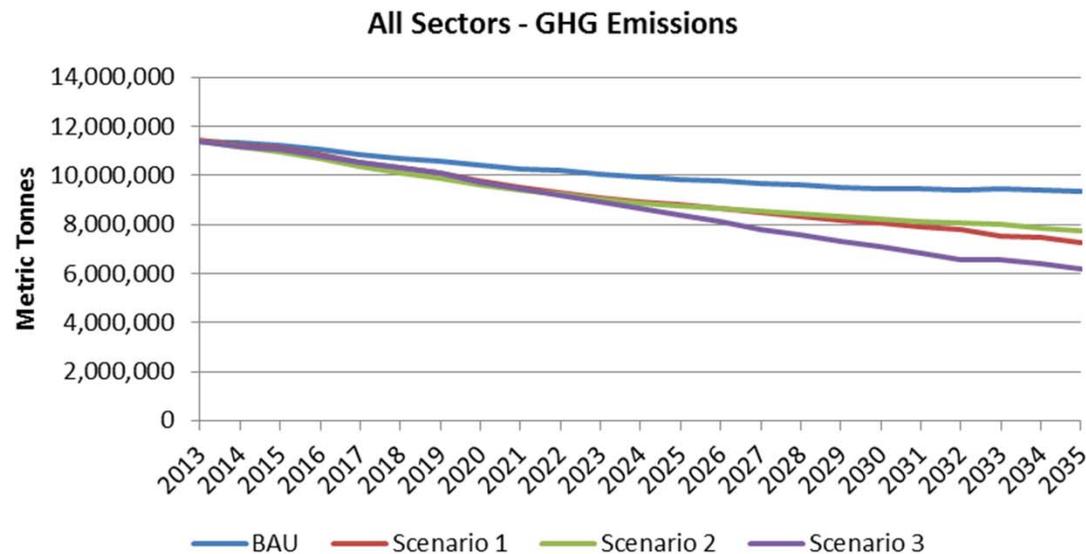
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- **Mobilize Capital and Reduce Costs**
 - Expand Financing & Investment Tools
 - Reduce the Soft Costs of Renewable Energy
 - Address High & Volatile Regional Energy Costs



Part 3: Policies and Strategies

- **Reduce Greenhouse Gas Emissions**
 - Continue Participating in RGGI
 - Develop a Carbon Reduction Strategy



Part 3: Policies and Strategies

- Lead by Example

- State
- Municipal

Municipal Energy Sectors	Sample Implementation Actions
Energy Efficiency and Buildings	Conduct a municipal energy use baseline and develop a plan to reduce public sector energy consumption
	Seek Property Assessed Clean Energy (PACE) designation for your city/town
Renewable Energy	Adopt zoning policies and siting standards for renewable energy projects
	Use an expedited application and permit process for renewable energy facilities
Transportation and Land Use	Replace end-of-life municipal-owned vehicles with high fuel efficiency and/or electric vehicles
	Adopt property tax and zoning policies that preserve open space and promote "smart growth"

Thank You!

Danny Musher
Office of Energy Resources
danny.musher@energy.ri.gov
401-574-9112