Rhode Island State Energy Plan

Advisory Council Meeting #2

December 20, 2012
### VISION STATEMENT

“In **2035**, we will provide energy services across all sectors—residential, commercial & industrial, municipal, power generation, and transportation—using safe, reliable, affordable, environmentally sound, sustainable, and where appropriate, in-State resources”
Advisory Structure

Advisory Council

• Meets on a monthly basis
• Evaluates and provides feedback on research to assist staff in preparing a Preliminary Draft Plan
• Recommends Preliminary Draft Plan to the State Planning Council’s Technical Committee for forwarding to the State Planning Council for public hearing, revision, and adoption
### Timeline

#### Project Phases

<table>
<thead>
<tr>
<th>Phase I: Research &amp; Data Collection (December 2012 – May 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gather and synthesize the best available energy data; Set measurable goals based on expert and stakeholder feedback; Design an actionable implementation strategy</td>
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</table>

<table>
<thead>
<tr>
<th>Phase II: Preparation of Preliminary Draft Plan (June 2013 – September 2013)</th>
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<tbody>
<tr>
<td>Distill research developed during Phase I into a Preliminary Draft Plan</td>
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<table>
<thead>
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<tbody>
<tr>
<td>Vet Preliminary Draft Plan through a technical and public review process; Adopt Plan as State Guide Plan Element</td>
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Advisory Structure

Advisory Council

- Proposed Topic Schedule:

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<th>Date</th>
<th>DATA GROUP</th>
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December Meeting

Agenda:

• Introduction to detailed scope of work for Baseline
• Review of Advisory Council comments on Data & Implementation Scopes
• Review of Advisory Council suggestions for Goals

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<th>Date</th>
<th>DATA GROUP</th>
<th>IMPLEMENTATION GROUP</th>
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<td>Scope</td>
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Setting Goals - *Methodology*
VISION STATEMENT

“In **2035**, we will provide energy services across all sectors—residential, commercial & industrial, municipal, power generation, and transportation—using safe, reliable, affordable, environmentally sound, sustainable, and where appropriate, in-State resources”
Our criteria for delivering energy services

- Safety
- Reliability
- Affordability
- Environmental Protection
- Sustainability
- Geography

VISION STATEMENT

“In 2035, we will provide energy services across all sectors—residential, commercial & industrial, municipal, power generation, and transportation—using safe, reliable, affordable, environmentally sound, sustainable, and where appropriate, in-State resources”

→ We want to deliver energy services in a manner consistent with these criteria
• It is unlikely that we can maximize every criteria simultaneously – i.e. there will be tradeoffs, or choices

→ Therefore, how can we best make informed decisions regarding goal-setting? By understanding the nature and degree of the tradeoffs, or choices, we face.
STEP 1 – ESTABLISH DIRECTIONAL OBJECTIVES
Refine criteria from RISEP vision statement into a set of directional objectives (RISEP Project Team and Advisory Council).

STEP 2 – DEFINE SCENARIOS
Propose and characterize rational, justifiable scenarios comprised of a set of strategies for each sector of Rhode Island’s energy economy considered by this Plan: electricity, thermal energy (including natural gas), and transportation (Consultant Team TBD).
STEP 3 – SCENARIO MODELING
Recommend and execute a modeling analysis quantifying the degree to which each set of strategies meets the directional objectives of the Plan (Consultant Team TBD).

STEP 4 – SET GOALS
Based on the results of the scenario analyses, the RISEP Project Team and Advisory Council will further define Plan goals, policy recommendations and strategies (RISEP Project Team and Advisory Council).
### Modeling Analytical Framework

#### Scenario A
- **Sector**
  - Electricity
  - Thermal Energy
  - Transportation
- **Strategy**
  - Strategy
  - Strategy
  - Strategy
  - Strategy

#### Scenario B
- **Sector**
  - Electricity
  - Thermal Energy
  - Transportation
- **Strategy**
  - Strategy
  - Strategy
  - Strategy
  - Strategy

#### Scenario C
- **Sector**
  - Electricity
  - Thermal Energy
  - Transportation
- **Strategy**
  - Strategy
  - Strategy
  - Strategy
  - Strategy

#### Directional Objectives (Criteria)

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The Project Team took the Advisory Council’s responses for goals and identified cross-cutting themes and recurring strategies consistent with Plan criteria for providing energy services.
Advisory Council Responses

Electricity

– Energy efficiency savings (overall & peak)
– Renewable energy (regional & local)
– Fuel diversity
– Cost containment
– Energy assurance
– Natural gas
– Smart grid
– Demand response
– Carbon (reductions, RGGI, etc.)
– Demand opportunities (gas & delivered fuels)
– Buildings (weatherization & net zero buildings)
– Natural gas
– Electricity
– Renewables
Advisory Council Responses

Transportation

– Demand (more high mileage cars)
– Clean Fuels Standard
– Electric Cars
– CNG & Biofuels
– Multimodal transportation system (e.g. public transit, commuter rail, etc.)
Draft Directional Objectives
Draft Directional Objectives

• Increase **energy security** through redundancy and supply assurance strategies
• Increase **system reliability**
• Increase the **diversity of fuels** used to provide energy services in different sectors
• Increase **consumer choice and access to information** to make informed energy decisions
Draft Directional Objectives

• Lower energy costs in order to: a) increase the regional and global competitiveness of Rhode Island business and industry; and b) decrease economic impacts of energy costs on consumers

• Increase the amount of energy expenditure that stays in-State

• Increase employment

• Increase Gross State Product
Draft Directional Objectives

• Invest in any demand resources that are cheaper than supply
• Lower greenhouse gas emissions
• Decrease the amount of harmful environmental consequences occurring over the lifecycle of any provision of energy services
• Increase the probability that the energy system could function in the same manner in any day in any future year as it does today
Introduction to Scope of Work

TASK 1: BASELINE
Rhode Island State Energy Plan Objectives

- **Gather Data**: Analyze and quantify the amount, cost, supply, and environmental effects of all forms of energy resources—currently used, and potentially available to use—within all sectors in Rhode Island.

- **Set Goals**: Identify measurable targets for providing energy services using a resource mix that meets a set of criteria advancing the health, environmental, economic, and human wellbeing of the people, communities, and environment of Rhode Island.

- **Recommend Action**: Design a comprehensive implementation strategy to meet the goals of the Plan through public, private, and individual efforts, consistent with existing policy requirements at the local, state, regional, and federal level.
Step 1 - Gather Data

“What do we face?”

• Gather Data: Analyze and quantify the amount, cost, supply, and environmental effects of all forms of energy resources—currently used, and potentially available to use—within all sectors in Rhode Island.
Step 1 - Gather Data

TASK 1: BASELINE

SECTOR

METRICS

Electricity
- Amount (by type of fuel)
- Price
- Expenditure
- Emissions

Thermal Energy
- Amount (by type of fuel)
- Price
- Expenditure
- Emissions

Transportation
- Amount (by type of fuel)
- Price
- Expenditure
- Emissions
## TASK 1 - Baseline

### Electricity

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<td>Electric Capacity</td>
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<td>Net Metering</td>
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<td>Distributed Generation</td>
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<td>Electric Monitored Emissions</td>
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## TASK 1 - Baseline

### Multiple Sectors

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<td>Diesel Fuel</td>
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<td>Jet Fuel</td>
<td>EIA</td>
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<td>Transportation Alternatives</td>
<td>Amtrak, RIPTA, MBTA, Zipcar, Hertz</td>
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<td>Vehicle Miles Traveled (VMT)</td>
<td>RIDOT, Federal Highway Administration</td>
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Next Steps
Next Steps

January Meeting

Questions for the Advisory Council to answer before the meeting:

- *What changes or additions would you like to see to the proposed directional objectives?*
- *What changes or additions would you like to see to the proposed Task 1: Baseline scope of work?*

⇒ Emailed responses requested from Advisory Council by Friday, January 18
Next Meeting

January Meeting

Proposed Agenda:

• Presentation of updated directional objectives
• Presentation of preliminary results from Task 1: Baseline
• Introduction to detailed scope of work for Task 2: Forecast

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<th>Date</th>
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Next Advisory Council Meeting Dates

• January 24, 10:30am to 12:30pm
• February 19, 10:30am to 12:30pm