Rhode Island State Energy Plan

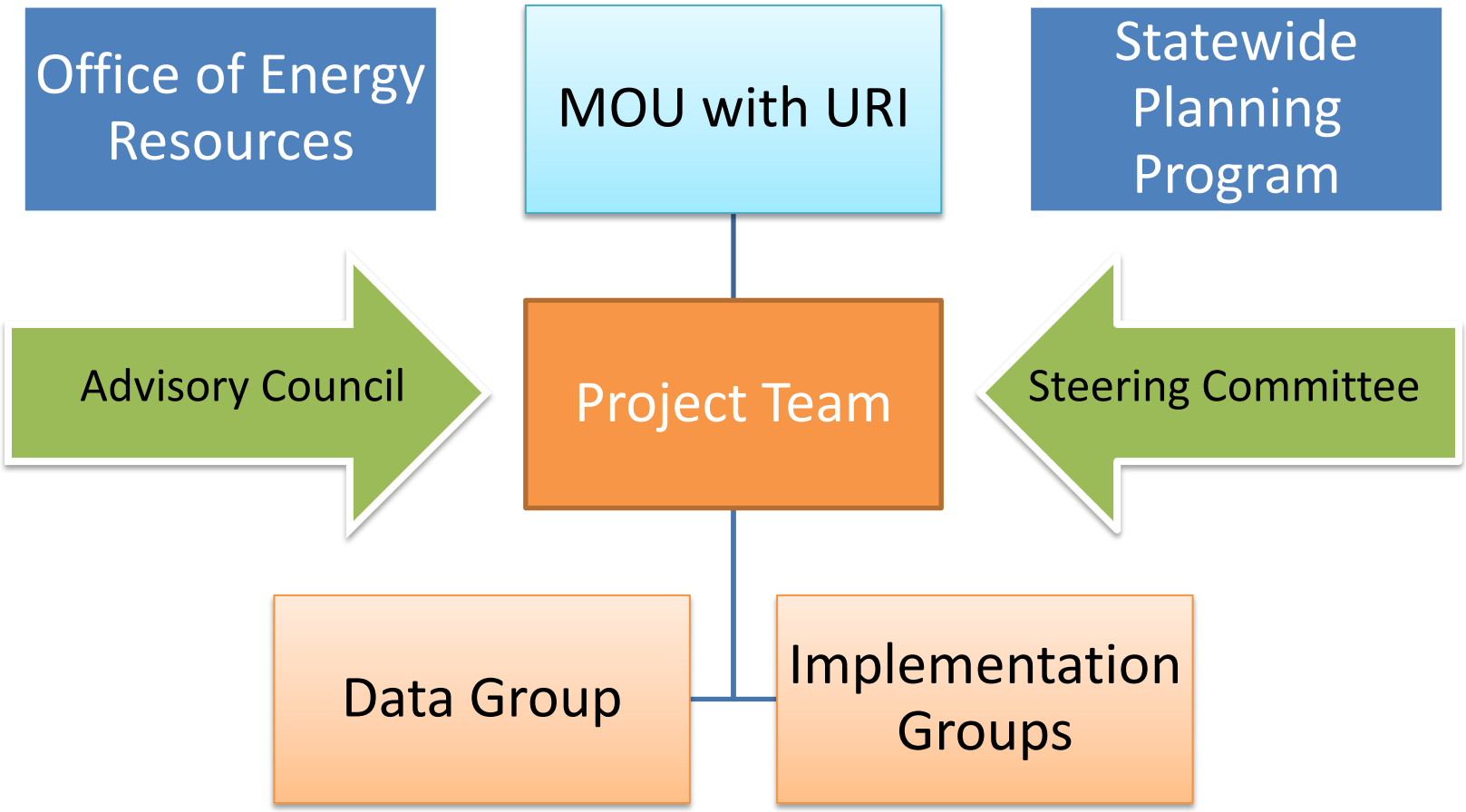
Advisory Council Meeting #2

December 20, 2012

The Rhode Island State Energy Plan

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 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

Phase I: Research & Data Collection (December 2012 – May 2013) Gather and synthesize the best available energy data; Set measurable goals based on expert and stakeholder feedback; Design an actionable implementation strategy
Phase II: Preparation of Preliminary Draft Plan (June 2013 – September 2013) Distill research developed during Phase I into a Preliminary Draft Plan
Phase III: Technical & Public Review (October 2013 – March 2014) Vet Preliminary Draft Plan through a technical and public review process; Adopt Plan as State Guide Plan Element

Advisory Structure

Advisory Council

- Proposed Topic Schedule:

Date	DATA GROUP		IMPLEMENTATION GROUP	
	New	**Review**	**New**	**Review**
October 31, 2012	Scope	*N/A*	Scope	*N/A*
December 2012	Baseline	Scope	Goals	Scope
January 2013	Forecast	Baseline	*N/A*	Goals
February 2013	Resources	Forecast	Transportation	*N/A*
March 2013	Justification	Resources	Thermal	Transportation
April 2013	*TBD*	*TBD*	Electricity	Thermal
May 2013	*TBD*	Justification	*TBD*	Electricity
June 2013	*TBD*	*TBD*	*TBD*	*TBD*

Today

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

Date	DATA GROUP		IMPLEMENTATION GROUP	
	New	Review	New	Review
December 2012	Baseline	Scope	Goals	Scope

Setting Goals - ***Methodology***

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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

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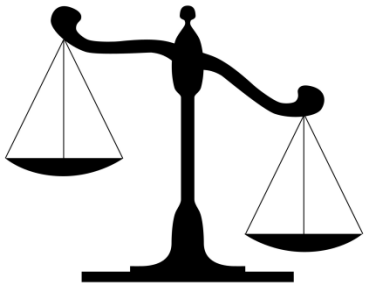
→ We want to deliver energy services in a manner consistent with these criteria

However

- 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.

Proposed Approach

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).

Proposed Approach

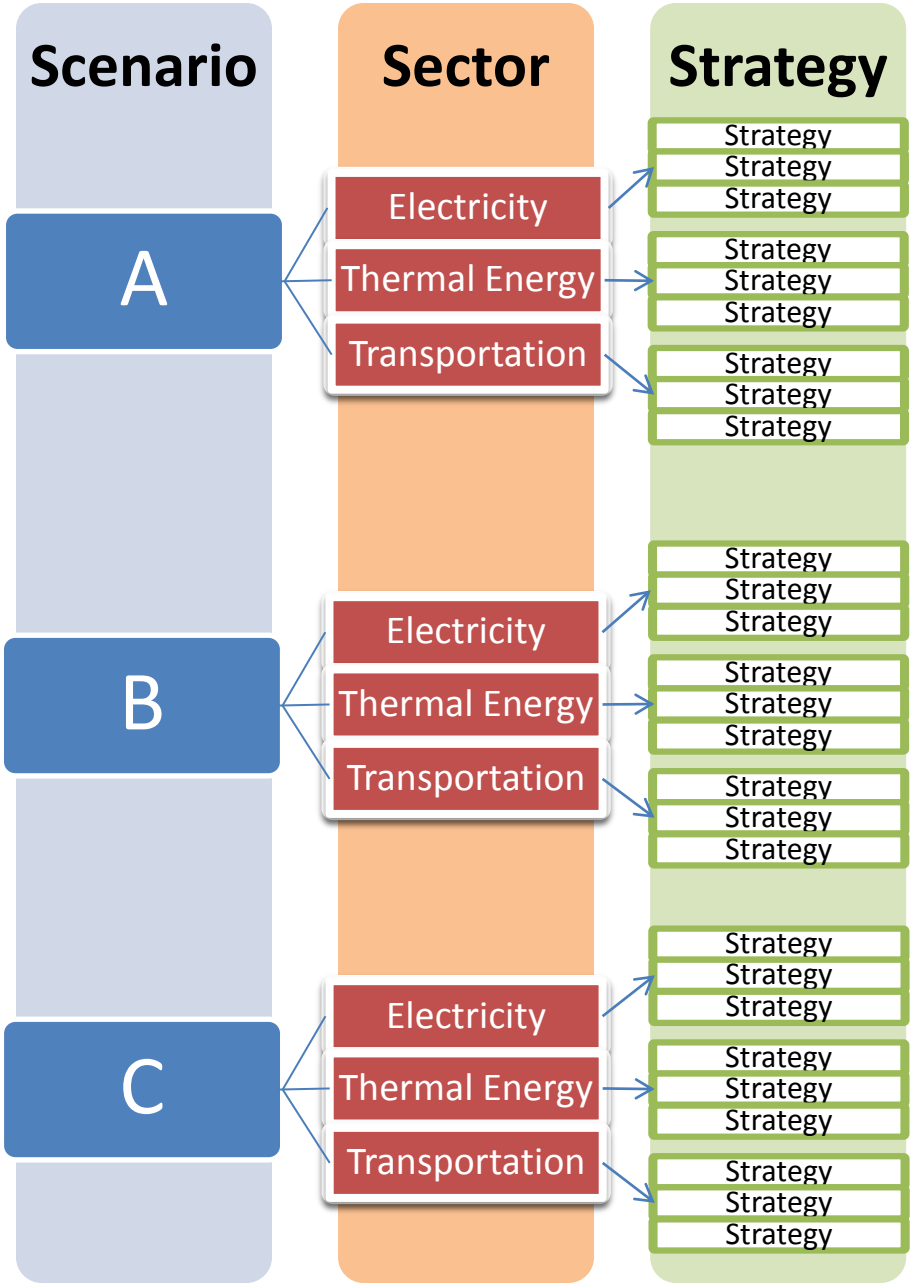
STEP 3 – SCENARIO MODELING

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



Directional Objectives (Criteria)

1	2	3	4	5
+	-	+	+ +	- -
+ +	+ +	-	-	-
+	- -	- -	+ +	+
-	+ +	-	+	+
+ +	- -	- -	+ +	-
+	- -	-	+	+
+	+	+ +	-	-
-	+	+ +	- -	-
+ +	+ +	-	-	+

Directional Objectives

- 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.)

Advisory Council Responses

Thermal Energy

- 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.*

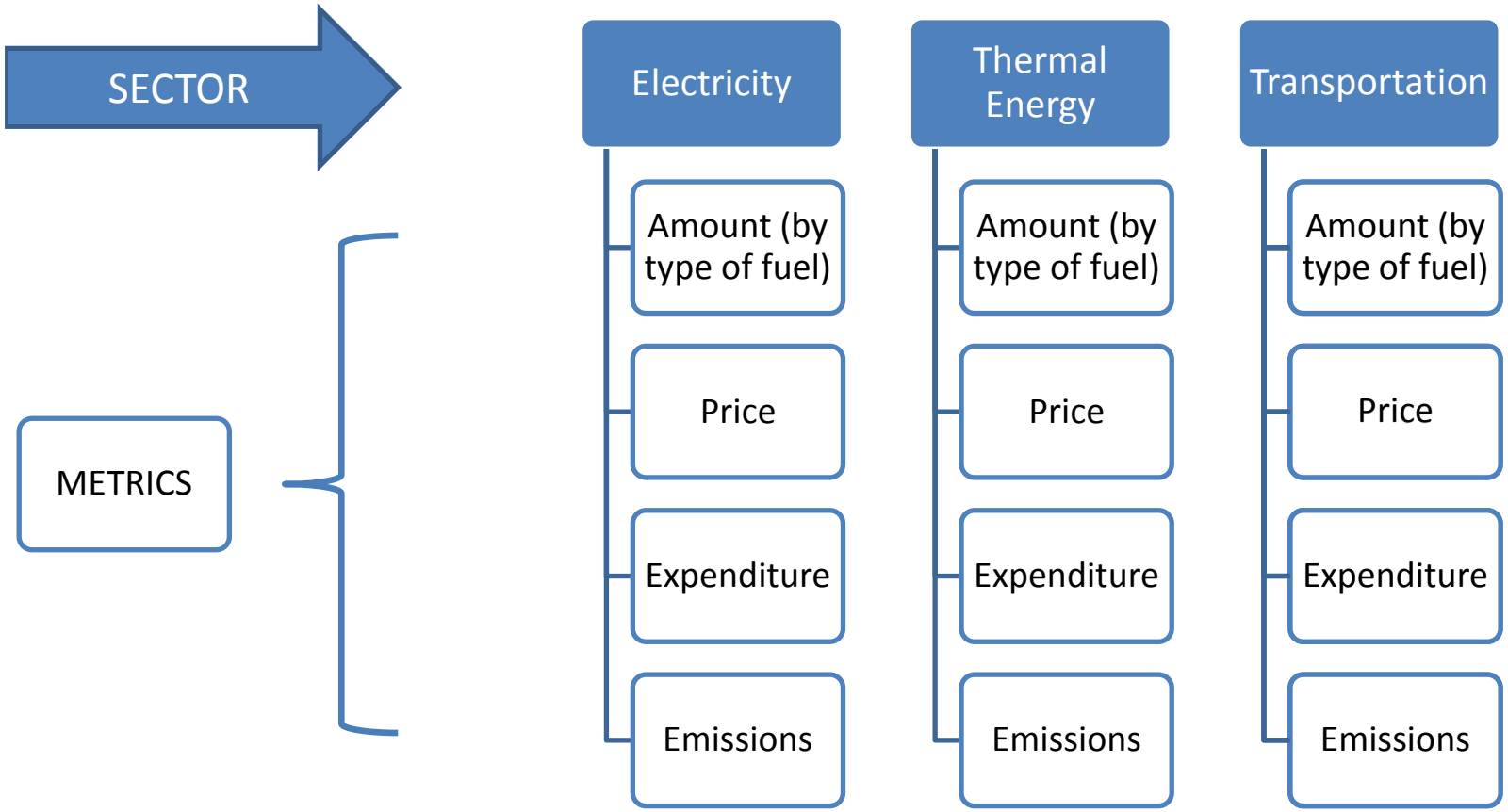
Step 1 - *Gather Data*

"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



TASK 1 - *Baseline*

Electricity

Dataset	**Source**
Electric Generation	EIA
Electric Capacity	EIA
Net Metering	National Grid
Distributed Generation	National Grid, FERC (Hydropower)
Whole SaleMarket	ISO-NE
Electricity Retail	EIA
Electric Monitored Emissions	Clean Air Market, EPA
RGGI Summary	RGGI, Inc.
Electricity Efficiency	Program Administrator Annual Reports

TASK 1 - *Baseline*

Multiple Sectors

Dataset	**Source**
Natural Gas	EIA
#2 Distillate Fuel	EIA
Residual Fuel	EIA

TASK 1 - *Baseline*

Thermal Energy

Dataset	**Source**
Kerosene	EIA
Propane	EIA
Heating Fuel Mix	Census
Natural Gas Efficiency	Program Administrator Annual Reports

TASK 1 - *Baseline*

Transportation

Dataset	**Source**
Motor Gasoline	EIA
Diesel Fuel	EIA
Jet Fuel	EIA
Transportation Alternatives	Amtrak, RIPTA, MBTA, Zipcar, Hertz
Vehicle Miles Traveled (VMT)	RIDOT, Federal Highway Administration
Registered Vehicles	Department of Motor Vehicles
Gas Tax Revenues	RIDOT

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

Date	DATA GROUP		IMPLEMENTATION GROUP	
	New	Review	New	Review
January 2013	Forecast	Baseline	*N/A*	Goals

Dates

Next Advisory Council Meeting Dates

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

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