

ADVISORY COUNCIL MEETING

RHODE ISLAND STATE ENERGY PLAN (RISEP)

Monday April 1, 2013

1:00 PM-3:00 PM

Narragansett Room

RI Economic Development Corporation

315 Iron Horse Lane

Providence, RI

ATTENDANCE:

Advisory Council Members: Bob Chew, Abigail Anthony, Julie Gill, Linda George, Melissa Long, Jeff Broadhead, Julian Dash, Doug McVay, Jack Leyden, and Jon Hagopian, Jerry Elmer

Steering Committee & Project Team Members: Marion Gold, Nancy Hess, Chris Kearns, Hannah Morini, Rachel Sholly, and Danny Musher

Other Attendees & Members of the Public: Rachel Henschel, Karina Lutz, Charles Hawkins, Varun Kumar, Jamie Howland, Peter Healey, Lisa Frantzis, Lea Poquerusse, Ben Barrington, Pat Prendergast, Patrick Cavanagh, Pam Mandler, Charity Pennock, and Kristina DiSanto

AGENDA:

- 1:00 Welcome & “Baseline”: Preliminary Findings – *Danny Musher, RIOER*
- 1:15 “Forecast”: Preliminary Findings – *Jamie Howland & Varun Kumar, ENE*
- 1:45 Questions & Discussion
- 2:00 Introduction to Scenario Characterization – *Ben Barrington, Navigant Consulting*
- 2:30 Questions & Discussion
- 2:50 Public Comment
- 3:00 Adjourn

MINUTES:

The meeting was called to order at 1:15 PM.

Danny M introduced new Advisory Council (AC) members Doug McVay of the Department of Environmental Management (DEM) and Jack Leyden, the RI Building Commissioner. He then briefly explained the RI State Energy plan (RISEP) process.

Baseline Preliminary Findings

Right now the AC is in Phase 1—gathering and analyzing data. The baseline metrics will look at consumption, expenditure and carbon emissions. During the last year of complete data, 2010, RI consumed about 200,000 BTUs of energy which cost \$3.6B and generated 11 million tons of CO2 emissions. The usage is basically even among the three sectors and the numbers are based on Energy Information Agency (EIA) data. Danny M. then showed a pie chart that documented 2010 fuel consumption in RI. The renewable slice was small with hydro in the lead. He then gave a breakdown of consumption, expenditure and emissions in all three sectors. RI electric generation is mostly natural gas, but regionally nuclear and coal are in the mix. RI historic record of electric peak demand occurred in August of 2006 at 1960 MWs. In the transportation sector, Rhode Islanders drove about 8,280,000 vehicle miles with gasoline making up 76% of the fuel consumption.

Bob C. wanted to know if the 3,124 MWhs generated by wind was small, Portsmouth itself generated 3,000 MWhs. Danny M. said he believed the data included Portsmouth but even if generation from other existing turbines was omitted, it would not change the overall generation pie chart. Danny M. then introduced Environment Northeast's (ENE) Jamie Howland and Varun Kumar to give their business as usual (BAU) forecast.

Forecast Preliminary Findings

At the last AC meeting Varun presented a preliminary forecast for the RISEP using high and low cost oil and gas price scenarios that also included a model if there is a carbon fee. Data is forecasted from 2011-2035 and for each forecast, RI energy consumption, price, expenditure and emissions are derived using historical data from EIA and New England (NE) specific data from the EIA's annual energy outlook (AEO). Results were adjusted to include RI policy impacts like Least Cost Procurement, RGGI and the Renewable Energy Standard). AEO results are region specific and are available in aggregated form for NE. RI specific results were derived by analyzing historical relationships between NE & RI. A logarithmic trend line was used to capture recent trends which stabilize in the future. Forty years of historic data was used.

Danny M. asked what the axes represent. Jamie H. said the Y-axis was the number of data points and it is the relationship between RI prices and NE prices. Jerry E. said that when you say you have forty years of data that appear random, what you really mean is volatile. Random means there is no reason for them, fluctuating gas prices have a number of reasons but they are volatile. Jamie H. said it is not the prices that are random but the relationship between RI prices and NE prices.

Slides were then presented that showed the policy impact of EE targets on the forecast. This data was derived from the 2012-14 National Grid Energy Efficiency Program Plan (EEPP), from 2015-20 from the KEMA Opportunity Report to the EERMC, and from 2020 onward from ENE's conservative estimates based on new opportunities. The forward capacity market was also included. Jerry E. asked about the price of capacity factor going forward. The assumption is that it would stay flat.

Slides were then shown giving the summary results of the forecast. The residential natural gas forecast shows a drop in consumption from the impact of EE. A slide forecasting natural gas and oil consumption in RI buildings shows a drop in both due to more EE. A slide on the transportation sector shows a drop in gas consumption due to new CAFE standards but emissions stay constant. Jerry E. asked if these projections were in constant dollars and what year were they from. Jamie confirmed that the graph shows constant dollars and displays 2012 dollars. In the electric sector, 99% of RI's generation is from natural gas and it assumes a rise in prices. Doug M. asked if it assumed increases in gas pipeline capacity. It does on the national level but not in RI.

A key finding of the forecast is that the RGGI impact could increase emissions in RI because RI is now generating more electricity with natural gas. Doug M. said RI is already seeing this with emissions in the region going down 30% because of increased gas generation, but in RI more generation has meant increased emissions. He said this is what cap and trade is supposed to do—drive generation to the cleaner plants. You need to look at greenhouse gas (GHG) emissions regionally.

In the transportation slide, the forecast included voluntary targets set by the recent Petroleum Reduction legislation passed in the last session. Doug M. asked if the penetration of EVs were included in the forecast or if it was just BAU. The answer was no. Lisa F. said she was surprised there was not more of a reduction in transportation emissions with the growth of hybrids and EVs in the market. Danny M. asked why the consumption was going down but the emissions going up in the thermal sector. Consumption was going down for gas but increasing for distillate fuels. This power point (attached) will be sent to AC members for their review.

Revised Directional Objectives (DOs)

Danny M. distributed a handout containing draft revised DOs. The project team has done an analysis of the DOs that were discussed at the last AC meeting and consolidated the three criteria of the vision statement—security, cost effectiveness and sustainability. The DOs are then nested under these criteria. This was done using feedback from the AC.

Introduction to Scenario Characterization

Navigant Consulting, Inc. was then introduced. They won a competitive bid process that included 6 respondents. They have worked on a number of energy plans for various states. The team that will be working on the RI project includes Lisa Frantzis, Ben Barrington and Lea Poquerusse. They will be doing Tasks 3-6 in Phase 1 which include

defining scenarios, modeling scenarios, summarizing results and supporting the development of the RISEP. Ben B. has begun working on this project and will introduce some preliminary findings.

Navigant has identified strategies spanning the electric, thermal and transportation sectors, and mapped these according to their potential impact. These strategies will be bundled into different scenarios. The strategy identification process yielded over one hundred discrete tactics, policies and programs to help in developing the RISEP. Fifty-nine are electric, thirty-six are thermal and twenty-two relate to transportation. A scenario is an alternative energy future. Navigant combed over various other state energy plans to look at successful strategies. These strategies were scored based on the degree to which they meet the three high-level DOs. On Slide 6, Bob C. asked what the 5 DOs were. Ben B. noted that the figure in question was purely illustrative and came from a schematic provided by the RISEP project team. The three high level DOs are security, cost effectiveness, and sustainability and can be found on the handout.

The purpose of this meeting is for the AC to give feedback on these strategies. Navigant would like the AC to present a RI perspective and add anything that they feel may be missing. The goal is to achieve AC consensus on the scenarios. They will obtain this feedback by using a survey tool that will be circulated among the AC. Strategies will be scored based on their potential impact and how well they relate to RI specific energy concerns.

Ben B. then outlined a number of high level strategies in Slides 9-11 to achieve these goals in all three sectors. Some strategies in the thermal sector, like expanding access to natural gas or phasing out electric heat, are similar to those in the electric sector. Bob C. said you may want to expand electric heating and not phase it out. He cited storing up electric heat for applications like load shifting. Ben B. said this is the type of feedback they are looking for in the survey. Bob C. may score this differently in the survey and then provide more specifics on his concept.

In the transportation goals, Bob C. mentioned the increased use of bikes. Ben B. said that should be considered with a possible strategy of increasing rail to trails funding. Karina L. asked if Navigant had access to the Coalition for Transportation Choices Strategy, which has compiled years of valuable research. She feels there needs to be a goal to change the way transportation is funded in RI because borrowing to match federal funds is not sustainable. Using the gas tax to fund buses does not work.

Nancy H. said that it may be helpful to look at the Transportation 2035 Plan that is in the State Guide Plan. She said that when the RISEP is complete Statewide Planning will help the AC cross reference it with that plan. Melissa L. said this may be a good time to include RIPTA's critical voice in the proceedings. Jerry E. said at the first meeting there was a commitment to bring RIPTA to the table. Danny M. said invitations will go out soon for separate sector implementation groups. Representatives from RIPTA are on the list for the transportation implementation group.

Navigant created three straw-man scenarios:

1. **Least Cost Energy**—prioritizes cost effective, common-sense energy solutions to promote economic development and minimizes prices & expenditures.
2. **Environmental leader**—has a goal of cutting GHG emissions and positioning RI as an environmental leader in RE, EE, and smart grid.
3. **Balanced Approach**—strikes a balance focusing on creating long term stable energy prices and economic development while looking at long term environmental impacts.

In each scenario the strategies to obtain the DO goals are rated either BAU, moderate or aggressive. In Slides 14-16 the strategies are rated in each of the three sectors. Julian D. asked what BAU represents. Ben B. said that BAU would be simply following the current strategy. Julian D. asked if aggressive meant aggressive cost or policy or both. Ben B. said it would anything to achieve sustainable change along that specific strategy. Nancy H. said that strategies rated aggressive may be the ones you want to do first. In Scenario 2 there are a lot more strategies rated aggressive. They may not be as cost effective but they will result in an overall reduction in demand but have longer paybacks. David H. cautioned against using terms like balanced approach to define scenarios. It may appear that the other two scenarios are not balanced.

The next step is to solicit input from the AC through the survey tool which will be circulated in the next few days. Navigant would like to finalize the scenarios in the next two weeks so they can begin the modeling. Danny M said that after receiving feedback from the AC, the Project Team will revise the scenarios. Marion G. said that this is a chance for AC to help shape RI's energy future. Melissa L. asked that the survey tool be sent out ASAP with the approaching April vacations.

Lisa F. asked if different people should be assigned to do different sectors. Doug M. said that with time constraints it may be hard to get people together. Bob C. said that he finds online surveys cumbersome. He would rather just send in his feedback in written form. Julian D. said that the function allowing the user to skip questions should be enabled. Charity P. suggested having observers other than the AC fill out the survey. Marion G. liked the idea. Julian D. cautioned that having too many people fill out the survey could weaken the actual impact of the AC input.

Danny M. said the next meeting will be held on the week of May 22nd. The meeting was adjourned at 2:45 PM.