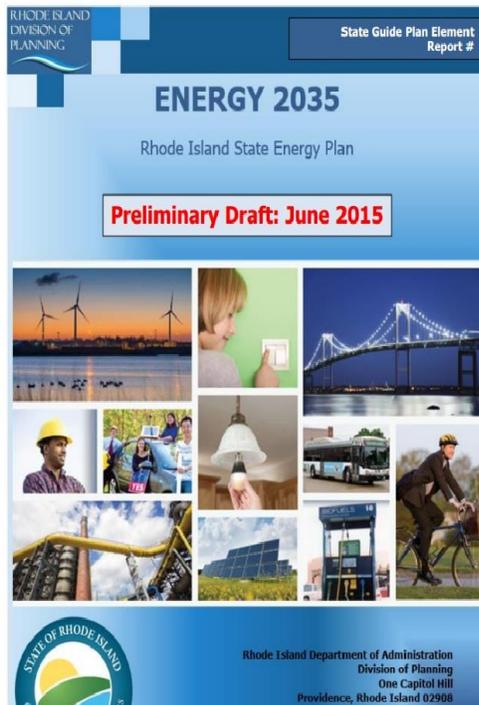


ENERGY 2035

RI State Energy Plan Public Comment and Hearing Report August 2015



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I. Introduction

This is a report on the two public hearings and comment period held by the Division of Planning (DOP) on behalf of the State Planning Council (SPC) to consider adoption of a new Element, *Energy 2035*, of the State Guide Plan. The report also reflects the input of the RI State Planning Council and Technical Committee (TC). Two public hearings were held on behalf of the State Planning Council to accept comments on the Draft State Guide Plan Element: *Energy 2035*, the Rhode Island State Energy Plan. This Report outlines the comments made by the SPC and TC, as well as the attendance at the hearings, and the public comments received. The written statements and comments submitted are included as well as recommendations for revisions to the Plan to respond to the comments submitted.

The Hearings were conducted in accordance with the State Planning Council rules of procedure and the Administrative Procedures Act. The public comment period ran from August 25, 2015 through Tuesday, September 1, 2015. Two public hearings were held as follows:

- Tuesday, August 25th, 2015 at 11:00 AM at the Department of Administration William E Powers Building Conference Room A, One Capitol Hill, Providence Rhode Island 02908
- Tuesday, August 25th, 2015 at 6:00 PM at the Department of Administration William E Powers Building Conference Room B, One Capitol Hill, Providence Rhode Island 02908

Notice of the two public hearings and opportunity to comment on the draft plan were provided in English and Spanish through advertisement in the Providence Journal, posting on the Statewide Planning website, a direct mailing to the over 380 planning and transportation contacts in Statewide Planning's database, and notifications to OER's list of contacts. The hearings were scheduled to begin with a 20 minute informational presentation followed by opportunity for public comment. All persons were invited to present their views on the draft document in person at the public hearings, through a representative, or by filing a written statement with the Secretary of the State Planning Council. Written statements could be mailed or e-mailed to Kevin Flynn, Associate Director, Division of Planning, One Capitol Hill, Providence, RI 02908, or submitted at a hearing.

These hearing locations were accessible to individuals with disabilities. Any individual with physical or sensory impairments requiring assistance for a reasonable accommodation in order to participate in these hearings were able to make requests for accommodation. Any individual requiring the services of a spoken language interpreter to participate in these hearings were also able to make requests for accommodation. In total, 20 people attended the two hearings, and 7 people gave spoken comments. Over the course of the public comment period, 13 people or organizations submitted written comments.

II. Summary of Formal Comments, Responses, and Edits Made

Generally

The formal public comment portion for this draft State Guide Plan Element development was generally supported. There were fifteen people who submitted verbal and/or written comments. All expressed support for the broad vision and the goals of the draft and policy options, and asked for an expeditious adoption of the Element. Most of the commenters were involved with the draft development in some way either by serving on the advisory council, working within an implementation group or are staff of an agency or group which was consulted during the outreach process. A few of the commenters work within the energy industry and are proponents for the development of renewable energy, particularly wind energy.

How the Comments are Organized

The public comments received have been summarized under the major topics heard and are followed by responses and recommended changes to the draft. The actual written comments are included in Appendix A of this Report. There were a number of common comments which expressed concerns and opinions about major components of the draft. The major topics are identified by themes below and were; Greenhouse Gas Emissions, Least Cost Procurement/ Efficiency, Social Equity, Diversification, Renewable Energy/ Renewable Energy Standard, Wind Energy, Energy Infrastructure/Expanding Natural Gas, Regulatory Reform/ Reducing Soft Costs for Renewable Energy, Vehicle Miles Traveled, Performance Measure Targets, and the Purpose/ Role of the Plan. This report captures what was heard under each of these major themes. The responses and changes to the draft summarize the recommendations of the Division of Planning for plan revisions that were formulated in consultation with the Office of Energy Resources and address the summarized comments. Commenters also brought up a few technical concerns and offered minor suggestions related to updated facts in the draft that are reflected in track changes in the final draft. Some of the themes are similar to themes voiced by the State Planning Council and the Technical Committee during their review of the draft and authorization to hold the formal public hearing. These are indicated by an asterisk after the theme name (*). The format to address the major themes below is as follows:

Theme Name

What was Heard

Response

Changes to the Draft (where necessary)

Summary of Comments & Responses

Greenhouse Gas (GHG) Emissions

What Was Heard - The vast majority of people who commented on issues of climate change and greenhouse gas emissions were happy to see them referenced in the draft, and asked that they be emphasized even more. Support was expressed for the need to reduce supply side emissions by displacing fossil fuels with more renewables and adding carbon pricing as an implementation strategy. Some specific concerns expressed were expanding on why we need to reduce greenhouse gas emissions, discussing the public health implications of

GHG, and that the plan should consider a more ambitious target of being carbon neutral by 2030 (at least in the electric sector).

Response - The importance of reducing GHG emissions is highlighted throughout the document, most notably on the following pages: 50-54, 68, and 146-153. Greenhouse gas emissions reduction is one of the three main performance measure targets of the Plan. The target is 45% below 1990 levels, which is consistent with Rhode Island law for long-term greenhouse gas reductions (i.e. the Resilient Rhode Island Act), as well as New England Governors/Eastern Canadian Premiers (NEG/ECP) regional targets. The public health implications of greenhouse gas emissions reduction are summarized on page 50, including both air quality and water quality impacts.

The greenhouse gas emissions reduction target for the Plan was developed using detailed scenario modeling, with assumptions and inputs informed by extensive stakeholder feedback. Three scenarios were modeled, and the target was selected from the scenario with the most aggressive reductions in greenhouse gas emissions. Strategy #19 “Develop a carbon reduction strategy” highlights the need to develop a further detailed implementation strategy specifically for greenhouse gas emissions reduction, building off of the information compiled in this Plan. The Executive Climate Change Coordinating Council (EC4) will be commissioning exactly such a study beginning in Fall 2015. The study will consider strategies such as increased renewables procurement and carbon pricing, and as per the Resilient Rhode Island statute, evaluate “the possibility of meeting higher targets through cost-effective measures”.

Changes to the Draft – None proposed.

Least Cost Procurement/Efficiency

What Was Heard - This theme had several comments related to support for and expansion of least cost procurement, support for energy efficiency and ongoing renewable energy procurement strategies. Overall, support was expressed for least cost procurement as the most cost-effective resource for the State, along with a need to strengthen existing programs, and to expand it into non regulated fuels like oil and propane. The majority of commenters agreed with prioritizing energy efficiency in all use sectors as a top priority for the draft. The State was complimented for being a leader in this field.

There were two opposing viewpoints. One disagreed with the general consensus and felt that prioritizing more renewables would provide greater benefits than efficiency. A second viewpoint was that a proponent for renewable energy felt that instead of relying on publically mandated efficiency and “poorly defined” least cost procurement programs that it would be preferable to redesign the current business model to be one where private institutional investor capital underwrites investments in energy savings rather than focusing on efficiency.

Response – The Plan’s strategies for energy efficiency are discussed on pages 60-62 and 83-104 (including extending Least-Cost Procurement and expanding LCP to unregulated fuels).

Regarding the first opposing viewpoint, page 59 “Overview of Policies and Strategies” highlights that the Plan recommends an “all-of-the-above” clean energy framework. This framework strongly emphasizes both energy efficiency (pages 60-62) and renewable energy (pages 62-63). Regarding the second opposing viewpoint,

Strategy #13 “Modernize the grid” addresses this concern. This strategy is currently being implemented by OER in coordination with the Energy Efficiency Resource and Management Council, the Distributed Generation Board, and National Grid. The group is looking at a range of utility of the future issues including: rate design; utility incentive design and performance regulation, including for energy efficiency; grid modernization technologies; and integration of distributed energy resources.

Changes to the Draft – None proposed.

Social Equity *

What was Heard - One set of comments had a particular focus on ensuring equitable access to energy efficiency programs statewide. It was felt that current energy programs are best suited for single-family homeowners, yet all rate-payers are funding the programs. There was a desire to see more discussion on social equity and the availability of programs to other types of users, especially low and moderate income users.

Response - Energy Efficiency Programs are discussed in pages 60-62, 77, 83-89, 98-104. Because all customers pay into the state’s energy efficiency programs, the programs are designed to serve all sectors and customers. As noted on page 84, the annual energy efficiency plans develop a portfolio of programs serving the residential, income-eligible, and commercial/industrial sectors. Each sector, including low-income customers and renters, face different barriers to participation and investment in energy efficiency. The annual plans address, in great detail, strategies to reach and serve each sector, including low-income customers and renters. The 2013 Energy Efficiency Program Plan is footnoted on page 84 ([http://www.ripuc.org/eventsactions/docket/4366-NGrid-2013EEPP\(11-2-12\).pdf](http://www.ripuc.org/eventsactions/docket/4366-NGrid-2013EEPP(11-2-12).pdf)), and the multifamily and low-income sections begin on page 106 of that pdf (Attachment 1, page 9). The Department of Human Services works closely to integrate and align federal weatherization program funds with the efficiency programs administered by National Grid. See also the response under Part III, Edits Made as a Result of State Planning Council and Technical Committee Input under the same theme.

Changes to the Draft – None proposed.

Diversification *

What Was Heard – There was a general concern that while the plan addresses renewables, it does not go far enough. The plan should go further in addressing diversification. Goals should be more specific and have more ambitious actions for diversification to ensure a secure future. Many felt there should be more emphasis on renewables versus the current dependence on natural gas. Some felt that the State should increase renewable energy production especially in the electric sector to meet additional demand and to expeditiously replace natural gas capacity. Also, it was felt that that the draft should set supply goals by sector, and point of origin.

Response – The importance of energy diversification is highlighted on pages 37-44. The Plan defines energy diversification as “a risk management strategy that seeks to mitigate the potentially harmful effects of disproportionate reliance on certain fuels by expanding the portfolio of demand and supply sources used to provide energy services” (page 37). Energy diversification is one of the three main performance measure

targets of the Plan. The target is a measurable increase in fuel diversity levels above 2013 levels by 2035, as measured by reliance on the dominant fuel, natural gas.

The section “Theme #1: Security” on pages 37-44 presents the in-depth data and analysis concerning Rhode Island’s ability to diversify our fuel supply. The section concludes that “viable demand- and supply-side options exist for Rhode Island to increase in-state fuel diversity [...] by shifting away from dependence on fuels like natural gas”. The section also highlights Rhode Island’s challenges in diversifying away from natural gas from a state and regional perspective (page 43).

Page 7 and page 59 in the Plan explain why more granular diversification goals—by sector or technology, for instance—were not included. The Plan includes goals and targets that were “quantitative enough for meaningful measurement, but not specific enough to risk immediate irrelevance” (page 7). This Plan is a twenty-year Plan, therefore, it is long-range and high-level in orientation. Energy markets and technology commercialization, however, can change quickly. Therefore, it is appropriate to provide high-level, economy-wide goals for long-term diversification, based on the best available information and projections, but not specific targets for individual sectors or technologies.

Lastly, with regard to the relative emphasis of renewable energy versus natural gas, the Plan recommends that all cost-effective strategies should be pursued to address our regional energy challenges. Strategy #17 “Address high and volatile regional energy costs”, for example, states that Rhode Island should coordinate with New England to give “thorough consideration to the range of available options—from customer-side investments in energy efficiency, combined heat and power, renewable heating, and distributed renewable generation to infrastructure investments in the region’s electric and natural gas transmission systems—as they develop coordinated plans” to address regional energy needs (page 144). See also the response under Part III, Edits Made as a Result of State Planning Council and Technical Committee Input under the same theme.

Changes to the Draft – None proposed.

Renewable Energy /Renewable Energy Standard (RES) *

What Was Heard - This theme had the most numerous comments. The majority of commenters expressed appreciation that renewable energy is a component of the plan. Several advocates’ primary concern related to supporting and expanding the Renewable Energy Standard (RES) to a more aggressive standard (suggested was 50%) and increasing the percent procured from existing sources to create a more sustainable and carbon neutral future for the State. Other questions and opinions that were submitted were about the technical modeling, expanding Distributed Generation (DG), expanding terrestrial and off-shore wind energy, expanding long term contracting, and addressing renewable markets.

There was a desire to justify certain assumptions made by the modeling described in the supporting technical papers upon which the strategies are based. For example, an alternative modeling technique was referenced and one commenter felt there were unrealistic assumptions used which dramatically overstated the costs of increasing renewable generation. Commenters wanted to know that the State is basing policy decisions in the draft on current facts and that the assumptions for the renewable energy costs modeled are accurate.

Other comments on renewables addressed a desire to mature the renewable thermal market, a request to include the renewable sources of geothermal for heating and cooling and tidal energy in the draft, and finally to allow existing projects to be eligible for long term contracts. It was also felt that there is a need to better promote the advantages of educating the public on the need for renewable energy.

Response – The Plan’s strategies for renewable energy are discussed on pages 62-63 and 105-112 (RES, DG, and long-term contracts, including offshore wind). The Plan recommends aggressive targets of increasing the RES by $\geq 40\%$ by 2035 and increasing renewable energy procurement to at least 500 MW by 2035. These targets were developed from the results of the scenario modeling performed as part of the Plan development, based on extensive stakeholder input and review. All inputs and assumptions were based on the best available information at the time. Energy markets change quickly and technologies can mature rapidly and decrease in cost. This dynamic is acknowledged by the Plan on pages 7 and 59. Therefore, “to reflect the uncertainties associated with forecasting for a dynamic energy system, the Project Team and Advisory Council deliberately chose a directional approach, rather than a specific approach, in establishing the Plan’s vision, goals, and strategies” (page 7). The Plan will be reviewed and updated as necessary every 5 (five) years. See also the response under Part III, Edits Made as a Result of State Planning Council and Technical Committee Input under the same theme.

The plan references geothermal energy on page 14. The need to mature the renewable thermal market, including geothermal for heating (ground-source heat pumps), is discussed on pages 113-116.

Changes to the Draft – The following language was added to the Plan on page 14: Currently commercially-available renewable energy technologies in Rhode Island include wind, solar, hydropower, and biomass. In the future, markets may develop for emerging technologies such as wave and tidal power, however, at present, no such installations exist in the state.

Wind Energy *

What Was Heard - A specific renewable energy source received several comments. This was renewable energy produced from wind. Proponents of wind development felt that the draft under characterized on-shore wind potential, that the draft failed to ensure a significant role for offshore wind and that the State should increase the amount of renewable procurement from off shore wind. Increasing the amount of off-shore wind capacity will help the State achieve its clean energy goals, leading the transition to a clean energy economy. There was also a preference for establishing adopting uniform and as-of-right siting requirements for wind energy systems.

Response – The resource potential for onshore wind and offshore wind is described on pages 15-16 and 40-41. The resource potential figures were developed for the scenario modeling by expert consultant support through a review of existing literature, potential studies, and best available information.

Pages 108-112 discuss long-term contracting, renewable procurement, and offshore wind. The Plan’s scenario modeling accounts for procuring 180 MW of offshore wind, including 150 MW of a future federal offshore wind project.

Pages 69-70 discuss recommended municipal energy implementation actions, which include “adopting zoning and siting standards for renewable energy projects”. See also the response under Part III, Edits Made as a Result of State Planning Council and Technical Committee Input under the same theme.

Changes to the Draft – None proposed.

Energy Infrastructure / Expanding Natural Gas

What Was Heard – This theme had the most diverse comments submitted ranging from supporting the use of natural gas as a cleaner bridge to a better energy future than one based on oil or coal to a position of total opposition to the expansion of any natural gas infrastructure in the State. There were many commenters whose primary concern related to the overreliance on natural gas and continuing with any investments which increased capacity that could be construed as inconsistent with the overall diversification goal of the draft. Concerns were expressed about under explaining the negative climate, economic, and health impacts from natural gas, creating stranded assets, that the modeling under estimates future gas pricing. A few comments focused on improving the energy system by modernizing the Grid to handle distributed generation rather than increasing natural gas capacity and other fossil fuel energy sources. An opinion was offered in opposition to the conclusion that the gas constraints are leading to high electricity prices, when its dependence on gas that is creating the problem. Finally, a comment was offered that the draft does not treat energy storage in depth, which could enhance benefits from renewable generation, resulting in lower cost and lower overall capacity needs.

Response - The section “Theme #1: Security” on pages 37-44 presents the in-depth data and analysis concerning Rhode Island’s ability to diversity fuel supply. The section concludes that “viable demand- and supply-side options exist for Rhode Island to increase in-state fuel diversity [...] by shifting away from dependence on fuels like natural gas”. The section also highlights Rhode Island’s challenges in diversifying away from natural gas from a state and regional perspective (page 43).

Strategy #17 “Address high and volatile regional energy costs” recommends that all cost-effective strategies should be pursued to address our regional energy challenges. The Plan does not suggest that natural gas should be pursued at the expense of alternative options such as energy efficiency and renewable energy. The strategy states that Rhode Island should coordinate with New England to give “thorough consideration to the range of available options—from customer-side investments in energy efficiency, combined heat and power, renewable heating, and distributed renewable generation to infrastructure investments in the region’s electric and natural gas transmission systems—as they develop coordinated plans” to address regional energy needs (page 144).

Strategy #13 “Modernize the grid” also addresses these comments. This strategy is currently being implemented by OER in coordination with the Energy Efficiency Resource and Management Council, the Distributed Generation Board, and National Grid. The group is looking at a range of utility of the future issues including: rate design; utility incentive design and performance regulation; grid modernization technologies; and integration of distributed energy resources.

Scenario modeling for the Plan examined the benefits of energy storage; Scenario 1 modeled the deployment of 200 MW of storage and Scenario 3 modeled the deployment of 150 MW of storage. Because the major markets for energy storage are regional in nature, stakeholders involved in the development of the Plan agreed

that a separate strategy for promoting storage was not necessarily warranted at this time. However, storage is mentioned as an important energy resiliency and grid modernization technology in both Strategy #12 “Enhance energy emergency preparedness” and Strategy #13 “Modernize the grid”.

Changes to the Draft – None proposed.

Regulatory Reform/ Reducing Soft Costs for Renewable Energy

What Was Heard – Comments were offered to support reducing the soft costs of renewables installations and that capital of all scales needs to be mobilized for renewables and efficiency. Some opinions and suggestions that the state’s regulations and regulatory processes as they relate to the development of renewable energy are not business friendly. It was felt that there are too many onerous regulations and they dampen the ability of businesses to thrive in the State. The plan should include a general goal of regulatory reform to better align business needs and state utility plans with state procedures. Some suggestions from a business viewpoint were made to help further reduce the soft costs of renewables by addressing the need for consistent taxation of renewable energy infrastructure across municipalities, mobilizing capital, and reducing interconnection delay costs which was felt to be the most significant hurdle to date.

Response – Strategy #16 “Reduce the soft costs of renewable energy” addresses streamlining simplifying, or eliminating regulatory requirements for renewable energy projects in the state. Strategy #15 “Expand financing and investment tools” addresses mobilizing capital for promoting more energy efficiency and renewable energy investments in the state. Furthermore, the municipal actions listed on pages 69-70 provide suggestions for cities and towns to use expedited application and permitting processes for renewable energy; adopting zoning policies and standards for projects; and taking other measures to reduce costs such as exempting systems from property taxes. Interconnection costs are being addressed as part of OER’s implementation of Strategy #13 “Modernize the grid”.

Changes to the Draft – None proposed.

Vehicle Miles Traveled (VMT) *

What Was Heard – Advocates for public transportation expressed support for the plan’s VMT focus and appreciated the work done to date to integrate the links between VMT, transportation and GHG emissions into the draft, but hoped it could be emphasized even more. In particular, it was noted that the Plan should make stronger connections to State Guide Plan Element, *Transportation 2035*, as well as more recognition of the role that public transit could play in reducing VMT. It was also suggested that a statewide transit plan and financing strategy be developed by RIPTA looking at the whole state and its range of service needs and opportunities.

Response - Strategy #3 “Reduce vehicle miles traveled” notes the several existing policies, plans, and programs in Rhode Island that address VMT reductions. These include: the State Guide Plan Element: *Transportation 2035 the Growing Smart with Transit*, Transit 2020 Working Group Report, the *Providence Metropolitan Transit Enhancement Study*, commissioned by the Rhode Island Public Transit Authority (RIPTA) with support from the City of Providence, and the Rhode Island State Land Use Policies and Plan: *Land Use 2025. Transportation 2035* offers specific recommendations regarding VMT reductions, chiefly in the sections named *Transit, Bicycle,*

Pedestrian, Intermodal, and Land Use and Corridors. A comprehensive state-wide transit plan by RIPTA is contingent on sufficient and sustainable funding sources, and as the Plan mentions on page 93, “Broader structural problems with transportation infrastructure funding are persistent at the state and national levels. It is beyond the scope of this [Plan] to recap the issues in depth”. See also the response under Part III, Edits Made as a Result of State Planning Council and Technical Committee Input under the same theme.

Changes to the Draft – None proposed.

Performance Measure Targets

What Was Heard - There was also a desire to see more specific information on the generally stated goal to produce economy wide net benefits. It was felt that the performance measure target of producing economy wide net benefits is too vague to guide policy decisions.

Response - Page 7 and page 59 in the Plan explain why more granular cost-effectiveness goals were not included. The Plan included goals and targets that were “quantitative enough for meaningful measurement, but not specific enough to risk immediate irrelevance” (page 7). This Plan is a twenty-year Plan, therefore, it is long-range and high-level in orientation. Energy markets and technology commercialization, however, change quickly. Therefore, it is appropriate to provide high-level, economy-wide goals for cost-effectiveness, based on the best available information and projections, but not specific targets for individual sectors or technologies.

Changes to the Draft – None proposed.

Purpose/ Role of Plan

What Was Heard - A written statement was submitted which provided an analysis which promotes adoption of the Element per the responsibilities of the State Planning Council as outlined in Rhode Island General Law. Some additional clarifying language was also supplied to improve the comprehension of the role and purpose of the Plan as a State Guide Plan Element.

Response – The Plan is designed to ensure the all Rhode Islanders have safe, secure and sustainable energy to use. The role of this plan, is not to change any laws, set any regulations, promote individual infrastructure projects, or change any tax policy. It is meant to provide guidance to the General Assembly, state agencies and cities and towns, for decisions and actions on the laws, regulations, infrastructure projects, or policies that affect the energy system we all rely upon.

Changes to the Draft - Additions were made to the Abstract, the Executive Summary, and Part 1, Introduction containing the commenter’s suggested language and clarifying the use and purposes of the Plan as a State Guide Plan Element.

The following text was added at the end of the second-to-last paragraph on page 7: At the same time, the Plan’s long-range orientation is not meant to preclude near- and intermediate-term steps that can be taken to ensure the optimal maintenance of Rhode Island and New England’s energy system. The following text was added before the last sentence on page 59: Additionally, although many of the Plan’s strategies are long range

in nature, the Plan also presents near- and intermediate-term actions to ensure that Rhode Island's energy needs are served in a secure, cost-effective, and sustainable manner.

III. Edits Made as a Result of State Planning Council and Technical Committee Input

Renewable Energy Siting

What Was Heard – There were concerns expressed regarding whether there is an intent to mandate municipal support for the siting of renewable energy facilities.

Response – Municipalities are not required to support the siting of renewables in specific locations, but are encouraged to adopt local siting standards that best fit their municipal energy needs, resources and capacities.

Changes to the Draft - In the third paragraph on page 69 , additional text was added stating that municipalities are not required to support the siting of renewables in specific locations, but are encouraged to adopt local siting standards that best fit their municipal energy needs, resources and capacities.

What Was Heard – The siting of renewable energy systems is a land use issue and the plan should contain guidance for renewable energy zoning and siting standards.

Response – Renewable Energy is addressed in Part 1, *Energy Supply and Assets, Renewables*. In this part, the various types of renewable sources available within the state are identified and discussed including current policy and regulatory influences. Page 16 outlines the current guidance documents and resources that have been developed for municipalities for wind siting. Strategy #16 “Reduce the soft costs of renewable energy” (page 140) also describes these resources. In addition, see responses under “Technical Assistance” in this Section for additional language regarding OER’s municipal support and outreach efforts related to renewable energy zoning and siting.

Changes to the Draft - Additional text was added to this section and page 141 to explain the current guidance documents available on wind energy systems. Further text was added to explain that OER will coordinate with the DOP on these guidelines and issue future updates to wind siting guidance for municipalities as new data and information on siting impacts emerge.

Energy Diversity

What Was Heard – The Plan lacks details explaining why energy diversity is needed. The need for renewables is poorly explained and should be more clearly articulated for the public to better understand the value.

Response – The importance of energy diversification is highlighted on pages 37-44. The costs and benefits of renewable energy are explained in detail on page 62-63 and page 107. The explanation of ratepayer costs for renewables can be found on page 112. The Plan defines energy diversification as “a risk management strategy that seeks to mitigate the potentially harmful effects of disproportionate reliance on certain fuels by expanding the portfolio of demand and supply sources used to provide energy services” (page 37). Energy diversification is one of the three main performance measure targets of the Plan. The target is a measurable increase in fuel diversity levels above 2013 levels by 2035, as measured by reliance on the dominant fuel, natural gas.

In addition, see response under “Technical Assistance” below for additional language regarding OER’s municipal support and outreach efforts related to education on energy issues.

Changes to the Draft – None proposed.

Least Cost Procurement/Efficiency/Equity

What Was Heard – Many of our existing programs are focused on single family, owner occupied homes. The low and moderate income renters do not have the same access to energy efficiency programs. The plan should also address overcoming the energy inefficiencies that exist in an aging housing stock. Existing energy efficiency & weatherization housing programs provided with Federal funding should also be addressed.

Response – The existence of Energy Efficiency Programs is a primary concern, particularly with and older housing stock. These programs are discussed in pages 60-62, 77, 83-89, 98-104. Because all customers pay into the state’s energy efficiency programs, the programs are designed to serve all sectors and customers. As noted on page 84, the annual energy efficiency plans develop a portfolio of programs serving the residential, income-eligible, and commercial/industrial sectors. Each sector, including low-income customers and renters, face different barriers to participation and investment in energy efficiency. The annual plans address, in great detail, strategies to reach and serve each sector, including low-income customers and renters. The 2013 Energy Efficiency Program Plan is footnoted on page 84 ([http://www.ripuc.org/eventsactions/docket/4366-NGrid-2013EEPP\(11-2-12\).pdf](http://www.ripuc.org/eventsactions/docket/4366-NGrid-2013EEPP(11-2-12).pdf)), and the multifamily and low-income sections begin on page 106 of that pdf (Attachment 1, page 9). The Department of Human Services works closely to integrate and align federal weatherization program funds with the efficiency programs administered by National Grid.

Changes to the Draft –None proposed.

Technical Assistance

What Was Heard – The plan should note the barriers and gaps in capacity that exist at the municipal levels in moving the plan forward. The plan should identify the technical assistance that is needed by municipalities.

Response – Actions for municipalities are discussed in Part 3: Policies and Strategies, Lead by Example and Appendix B, Strategy # 20, Lead by Example. In addition, OER performs regular outreach to municipalities to offer technical assistance on energy issues. OER convenes a regular working group for municipal planners and officials to learn about statewide energy programs and policies, as well as provide feedback to state officials on municipal issues of importance related to energy. The working group allows OER to promote the awareness of currently available funding and technical assistance opportunities for cities and towns; solicit input as OER develops new programs and guidance materials for municipalities; and share information about best practices related to the implementation of clean energy projects and programs throughout Rhode Island. .

Changes to the Draft – A recognition of the barriers and gaps in municipal capacity was added to page 69, along with text which describes how OER currently performs regular outreach to municipalities for technical assistance on energy issues.

Public Education

What Was Heard – More public education is needed for encouraging energy efficiency and diversity.

Response – Part 1 “Overview of Energy in Rhode Island” provides a basic overview of the fundamentals of Rhode Island and New England’s energy system. OER has developed a new website that helps further organize this information and present it in a clear, easy-to-understand manner, through the use of visuals, FAQ’s, and fact sheets. OER is currently working with DoIT to launch this new site with a target release date of end of 2015. OER will direct all stakeholders including general citizens, municipal officials, policymakers and industry partners to this website in order to answer their questions about energy.

Changes to the Draft -A new paragraph after the second paragraph on page 69: Another key aspect of leading by example is public education on energy issues. State government has a role to help promote public education on energy issues. Although current resources are limited to offer formal programs, the State does provide educational material through the information presented in this Plan and on OER’s website

Vehicle Miles Traveled (VMT)

What Was Heard – A specific comment requesting revised language was submitted concerning using land use policy as a strategy to reduce VMT. A request was made to change Strategy 6 on page 70 to better support efforts to reduce vehicle miles traveled by implementing sustainable development practices.

Response – In response additional text was added to the strategy on pages 70 and 90 as requested along with additional language to clarify this point and establish stronger cross referencing between this energy plan and SGP Elements *Transportation 2035* and *Land Use 2025*.

Changes to the Draft - Municipalities can support efforts to reduce vehicle miles traveled (VMTs) by implementing land use policies that encourage sustainable development practices. Tools such as adopting zoning regulations that encourage compact growth and mixed use development can help. Several existing State Guide Plan Elements already provide goals and polices in this area including *Transportation 2035* and *Land Use 2025*. The 2015 challenge grant product from the Division of Planning and DEM, *Village Guidance: Tools and Techniques for Rhode Island Communities*, provides more detailed guidance for the implementation of compact growth and mixed use development.

Off-Shore Wind

What Was Heard – The plan should be clear in confirming that the references to wind energy development are related to terrestrial wind only and that it defers to the CRMC’s OCEAN SAMP for siting of off-shore wind development.

Response – After consultation with CRMC, additional clarifying text was added to the draft for clarification in Part 1, Energy Supply and Infrastructure Assets: Renewable Energy, and Appendix B, Strategy #8.

Changes to the Draft - On page 16 the existing paragraph on the Ocean SAMP was revised: The Ocean Special Area Management Plan (SAMP)²¹ is a planning and regulatory development process conducted by the Coastal Resources Management Council (CRMC) to promote, protect, enhance, and honor existing human uses and natural resources in the coastal waters of Rhode Island, while encouraging economic development, creating renewable energy siting zones and facilitating the coordination of state and federal decision making bodies. Adopted October 19, 2010, the Ocean SAMP informed the siting of Rhode Island's first offshore wind farm in state waters off Block Island and is set to direct the future siting of utility-scale wind farms in Rhode Island Sound.

On page 112, a third paragraph was added under "Design or Implementation Issues" that states With the exception of the 30 MW Block Island Wind Farm under development by Deepwater Wind LLC, all other future offshore wind development is proposed in federal waters off Rhode Island.

IV. Public Hearing Proceedings

Hearing #1

Mr. Flynn called the first hearing scheduled for 11:00 A.M. at the Rhode Island Department of Administration to order at 11:02 A.M.

Attendance - Eighteen persons attended the hearing, as well as staff from the Division of Planning and the Office of Energy Resources.

Division of Planning Staff in attendance included Mr. Kevin Flynn, Associate Director, Mr. Jared Rhodes, Chief of Statewide Planning, Ms. Nancy Hess, Supervising Land Use Planner and Mr. Paul Gonsalves, Senior Land Use Planner. RI Office of Energy Resources (RIOER) staff in attendance included Dr. Marion Gold, Commissioner, Mr. Danny Musher, Chief of Program Development.

Opening Statements - Mr. Flynn explained that the draft of *Energy 2035*, the Rhode Island State Energy Plan, was accepted for public hearing by the State Planning Council on June 11, 2015. Notice of these hearings was mailed to the chief elected officials and planning officials of all municipalities in the State, and to more than 380 persons, agencies, and groups who have requested such notice. Notice of these hearings in both English and Spanish was published in the Providence Journal on July 24th, 2015.

Mr. Flynn explained the hearing procedures. He stated that the hearing would be conducted in accordance with the Rules of Procedure adopted by the State Planning Council and the Administrative Procedures Act and that he would first call upon Dr. Marion Gold and Danny Musher of the RI Office of Energy Resources, to provide a brief informational presentation (See Section IV: Informational Presentation) on the purpose and content of the Plan.

Public Comments - Mr. Flynn opened the hearing for public comment. The following people spoke:

- 1) Mr. Abel Collins, South Kingston Town Council President - Mr. Collins stated that there needs to be a clarification of the metrics used to measure greenhouse gas (GHG) emission in the state, as the method used to account for GHG emission is production based. He also stated that a new 900 megawatt gas powered production facility would make it difficult to meet the GHG targets if we are measuring emissions with that method. Regarding the Transportation sections of the plan, he stated that "mass-transit" should be mentioned as a way of addressing energy efficiency. It is also important to get alternative fuel vehicles out there as much as possible to help with efficiency.
- 2) Mr. Kenneth Payne, Richmond, RI - Mr. Payne provided written comments (See Appendix A. Written Comments) as well as verbal comments. Mr. Payne stated that he has served as an expert witness before the RI Public Utilities Commission. He also currently serves on the RI Distributed Generation Service Contracts Board Mr. Payne went on to describe that as an element of the State Guide Plan, the Energy Plan will function as a standard of review for projects that come before the (1) the Energy Facilities Siting Board, (2) Commerce RI as well as (3) guidance for municipalities as they update their Comprehensive Community Plans. He then stated that the Energy Plan fits the description of what is required by state law. The content of the plan is consistent with adopted public policy. He finished by

stating that a significant investment has been made through public, staff, consultant, advisory member and public stakeholder efforts and that the plan should be adopted to validate those efforts.

- 3) Mr. Timmons Roberts of Brown University - Mr. Roberts started by commending the plan's working group for devising a bold and visionary document. Mr. Roberts submitted formal written comments (See Appendix A. Written Comments) and he spoke in favor of the plan and stated that the plan will need to be flexible as we learn more about the further impacts of climate change. There are five strategies in the plan that he highlighted and further commented on:
 - a. Maximize Energy Efficiency in All Sectors – Mr. Roberts stated that this is the correct approach and we can reduce energy use by 75% - 90% by adopting the best technology.
 - b. Promote Local and Regional and Renewable Energy – He stated that wave and tidal power should be pursued in the state. He also mentioned that geothermal energy is not thoroughly discussed in the plan and it should be, as it has significant potential.
 - c. Make Strategic Investments in Energy Infrastructure – He expressed concern involving long term investments in natural gas pipelines and natural gas power plants as these could become stranded assets, because there is a strict limit as to how much carbon dioxide can be emitted into the air on an annual basis.
 - d. Mobilize Capital and Reduce Costs – He was in agreement with this strategy.
 - e. Reducing Greenhouse Gas emissions- He believes that this strategy should be the focus of this plan. He added that we may want to be more aggressive and strive to become carbon neutral by as soon as 2030 or 2035.

- 4) Seth Handy, Principal at Handy Law in Providence - Mr. Handy stated that he is a strategic advisor to the Renewable Energy Coordinating Board as well as a member of the Narragansett Bay Commission, but stated that he was in attendance to testify on behalf of his firm only. He was also a stakeholder in the development process of the Plan. He submitted written comments (See Appendix A. Written Comments) and spoke in favor of the plan. He mentioned that this plan should be supported as it deals with extremely complex issues that have not been addressed in other previous state plans. As an example, he stated that the energy issues in the transportation and thermal sectors had not been addressed in the previous plan. He highlighted the consultant study where return on investment for renewable energy was studied. Along with quick adoption of the plan, he called for a strong action plan to implement any needed changes in policy.

- 5) Barry Schiller, North Providence, RI - Mr. Schiller spoke in favor of maximizing energy efficiency. He mentioned that energy conservation should be encouraged. He said that "lifeline" rates should be considered in the electric sector. He explained that these rates are set up in a way where the rate is kept relatively low for the first tier of electricity consumed, then increases the rate per kilowatt hour as higher amounts of electricity are used. He also mentioned that there is a connection to land use, as people tend to use less energy if they live in more dense environments. His final comment was about transportation. He said that these policies should influence RIDOT (RI Department of Transportation) and other state entities where parking costs are covered for workers, but mass transit is not incentivized. He also said that the state should support electrifying the commuter rail fleet.

Mr. Flynn asked if anyone else wished to be recognized to speak on the Plan. No others wished to speak.

Adjournment- Mr. Flynn thanked everyone for their comments. He stated that the Statewide Planning staff would document the comments received and provide them to the State Planning Council for its consideration in adopting a final version of the Plan. He indicated that written statements made relative to any aspect of the proposed Plan would be accepted until the close of business on Tuesday, September 1, 2015. He adjourned the hearing at 11:44 A.M.

Hearing #2

Mr. Rhodes called the second hearing scheduled at the Department of Administration, Conference Room B on 08/25/15 to order at 6:07 P.M.

Attendance - Three persons attended the hearing. Among the members of the public in attendance who provided comments were Ms. Sue Anderbois of the New England Clean Energy Council (NECEC) and Ms. Priscilla De La Cruz of People's Power & Light.

Division of Planning Staff in attendance included Mr. Jared Rhodes, Chief, Statewide Planning Program, Ms. Nancy Hess, Supervising Land Use Planner and Mr. Paul Gonsalves, Senior Land Use Planner. RI Office of Energy Resources (RIOER) staff in attendance included Dr. Marion Gold, Commissioner, Mr. Danny Musher, Chief, Program Development.

Opening Statements - Mr. Rhodes explained that the draft of *Energy 2035*, the Rhode Island State Energy Plan, was accepted for public hearing by the State Planning Council on June 11, 2015. Notice of these hearings was mailed to the chief elected officials and planning officials of all municipalities in the State, and to more than 380 persons, agencies, and groups who have requested such notice. Notice of these hearings in both English and Spanish was published in the Providence Journal on July 24th, 2015.

Mr. Rhodes explained the hearing procedures. He stated that the hearing would be conducted in accordance with the Rules of Procedure adopted by the State Planning Council and the Administrative Procedures Act.

Public Comments – As all individuals in the room had previously assisted with the development of the OER Informal Presentation, Mr. Rhodes dispersed with that item and opened the hearing for public comment. The following persons spoke:

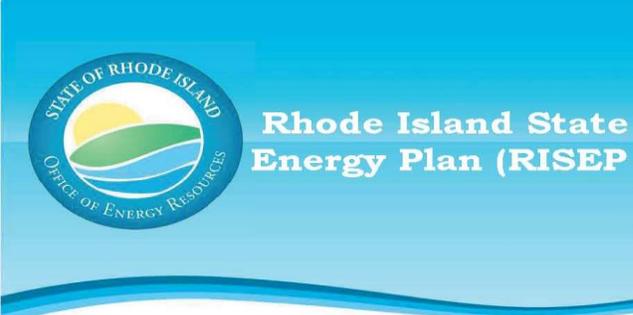
- 1) Ms. Sue Anderbois, New England Clean Energy Council- Ms. Anderbois submitted written comments (See Appendix A. Written Comments)in lieu of verbal comments and mentioned that the comments were in support of the plan
- 2) Ms. Priscilla De La Cruz, Marketing & Membership Director for People's Power and Light (PPL) (part of the Energy Consumers Alliance of New England) - Ms. De La Cruz submitted written comments (See Appendix A. Written Comments)and mentioned that PPL was in support of the plan, as PPL's Director, Larry Chretien was a member of the plan's advisory council.

Mr. Rhodes asked if anyone else wished to be recognized to speak on the Plan. No others wished to speak.

Adjournment - Mr. Rhodes thanked everyone for their comments. He stated that the Statewide Planning staff would document the comments received and provide them to the State Planning Council for its consideration in adopting a final version of the Plan. He indicated written statements made relative to any aspect of the proposed Plan would be accepted until the close of business on Tuesday, September 1, 2015. He adjourned the hearing at 8:00 P.M.

V. Informational Presentation

Danny Musher, Chief of Program Development, RIOER, Power Point Presentation



Rhode Island State Energy Plan (RISEP)

“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
 - 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 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 groups
 - Industry
- Met nine times during the course of the Plan development

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

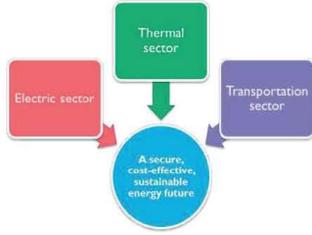
Philosophy of Approach

- No crystal ball can predict the future**
 - The team took a directional approach to reflect uncertainties with forecasting a dynamic energy system
- Goals are quantitative at a high level**
 - Scenario modeling sought to understand order-of-magnitude impacts and sensitivities
- Policies and strategies are comprehensive but require further study in order to develop policy and program designs**
 - The Plan offers a departure point for stakeholders and policymakers

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

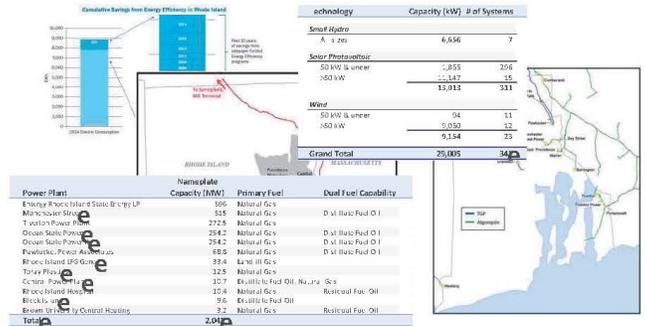
- This section presents information on energy usage in Rhode Island—the types, amount, cost, and environmental effects of major fuels and energy resources used in all sectors of Rhode Island's economy
- The section also summarizes the major components of Rhode Island's existing policy framework for addressing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

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Part 1: Overview of Energy in Rhode Island

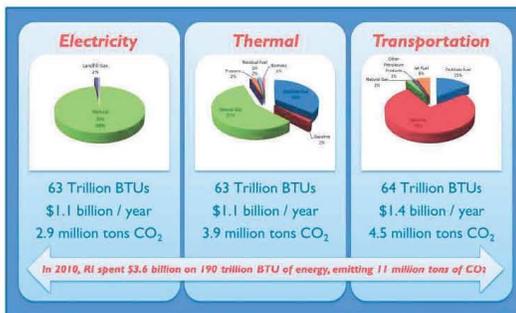
- Energy Supply and Infrastructure Assets



Part 1: Overview of Energy in Rhode Island

Part 1: Overview of Energy in Rhode Island

- Energy Use and Historical Trends



11

- 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 Target

- 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

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Part 2: Goals & Performance Measure Targets

- RISEP Goals



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Part 2: Goals & Performance Measure Targets

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

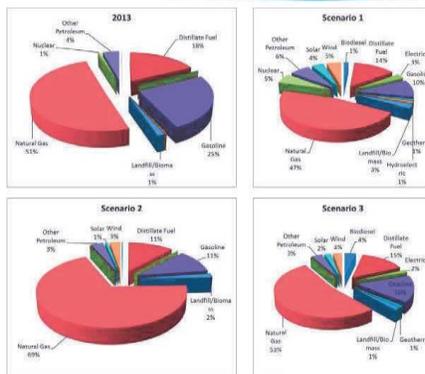


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Energy Security: Fuel Diversity

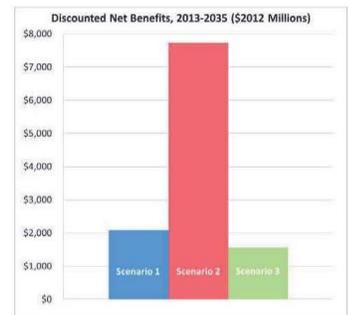
- Fuel diversity gains are achievable



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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

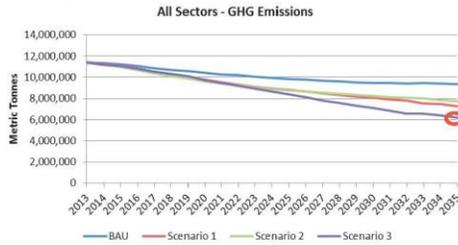


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Sustainability: GHG Reductions

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



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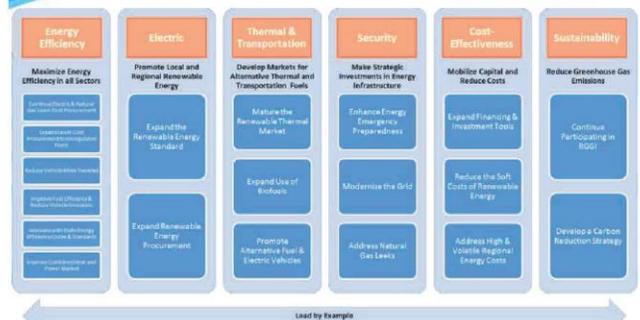
Part 3: Policies and Strategies

- 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

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Part 3: Policies and Strategies



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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



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Part 3: Policies and Strategies

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



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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



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Part 3: Policies and Strategies

- **Make Strategic Investments in Energy Infrastructure**

- Enhance Energy Emergency Preparedness
- Modernize the Grid
- Address Natural Gas Leaks



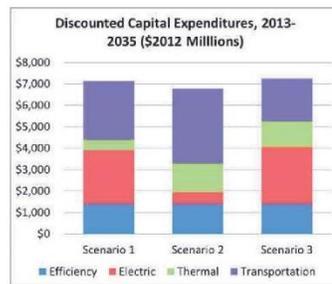
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Part 3: Policies and Strategies

- **Mobilize Capital and Reduce Costs**

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



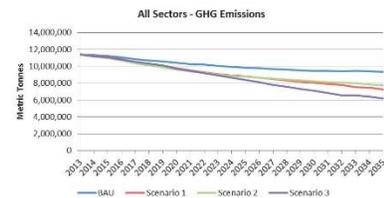
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Part 3: Policies and Strategies

- **Reduce Greenhouse Gas Emissions**

- Continue Participating in RGGI
- Develop a Carbon Reduction Strategy



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Part 3: Policies and Strategies

- **Lead by Example**

- State & Municipal
- Energy Efficiency
- Renewable Energy
- Transportation

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Thank You

Danny Musher
Office of Energy Resources
danny.musher@energy.ri.gov

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Supplemental Slides

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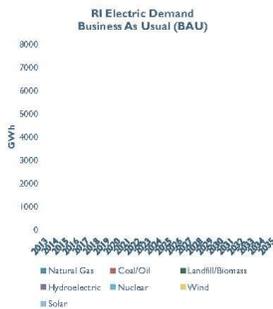
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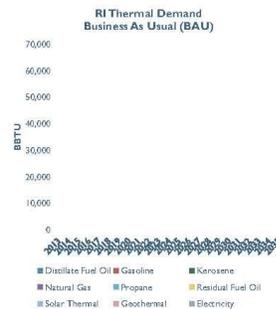
Business as Usual Forecast

- **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



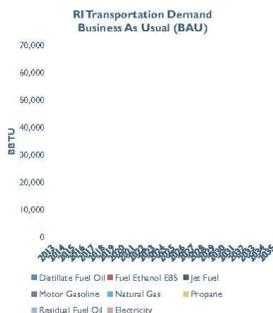
Business as Usual Forecast

- **Thermal Demand Decreasing**
 - Least-Cost Procurement of all cost-effective natural gas energy efficiency
 - ~20% projected energy reductions
 - Biofuel Blends
 - 5% biofuel blend mandate



Business as Usual Forecast

- **Transportation Demand Decreasing**
 - Federal Corporate Average Fuel Economy (CAFE) Standard
 - >10% projected GHG reductions
 - 17% project decrease in gasoline consumption
 - Zero Emission Vehicle (ZEV) MO
 - 3.3 million ZEVs in participating states



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Scenario Modeling

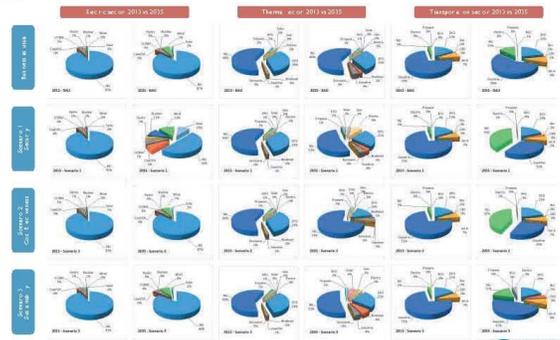
- The RISEP scenario modeling analyzed the impacts of three unique alternative energy futures
- Three scenarios focused on each of the three RISEP themes energy security, cost-effectiveness, and sustainability
- Each scenario considered different changes to Rhode Island's demand and supply resource portfolio and evaluated resulting impacts

Scenario 1 (Security)	• Prioritizes energy security through fuel diversification and grid modernization
Scenario 2 (Cost Effectiveness)	• Prioritizes cost-effectiveness and economic development while hitting key targets for GHG reduction
Scenario 3 (Sustainability)	• Prioritizes the sustainability of Rhode Island's energy economy through the widespread deployment of renewables, thermal alternatives, and vehicle electrification

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Scenario Modeling



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Source: ENE business-as-usual forecast, Navigant scenario modeling



VI. Copy of Public Notices

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Rhode Island Department of Administration
Division of Planning, Statewide Planning Program
State Planning Council

NOTICE OF PUBLIC HEARINGS & COMMENT PERIOD

In accordance with the General Laws, Section 42-11-10(e) and Chapter 42-35, the State Planning Council has under consideration adoption of a draft plan entitled "*Energy 2035*", an Element of the State Guide Plan. This draft plan describes the existing energy system in Rhode Island. It sets goals, and polices to improve energy security, cost-effectiveness, and sustainability in all sectors of energy production and consumption in order to advance effective public and private stewardship of the energy resources of the State.

Notice is hereby given that two public hearings will be held on the adoption of this Plan at which time the opportunity shall be given to all persons interested to be heard upon the matter. The Plan will update and replace the existing State Guide Plan Element 781, *Rhode Island Energy Plan* adopted in 2002.

The date, time and locations of the hearings are:

Tuesday August 25, 2015

11:00 AM to 1:00 PM
Conference Room **A**, 2nd Floor
Department of Administration
One Capitol Hill
Providence, Rhode Island

Tuesday August 25, 2015

6:00 to 8:00 PM
Conference Room **B**, 2nd Floor
Department of Administration
One Capitol Hill
Providence, Rhode Island

Each hearing will begin with a brief informational presentation about the draft plan followed by the opportunity for public comment. Written statements relative to any aspect of the proposed Plan can be submitted in writing prior to, at the time of the hearing, or mailed by September 1, 2015 to: Kevin Flynn, Associate Director, Division of Planning, One Capitol Hill, Providence, Rhode Island 02908.

The draft plan may be viewed at Statewide Planning's website at: <http://www.planning.ri.gov/>

Also a copy of the draft plan is available for review during business hours (8:30 AM to 4:30 PM) at the Department of Administration, Division of Planning, One Capitol Hill, 3rd Floor, Providence, Rhode Island (401-222-7901).

These meeting places are accessible to individuals with disabilities. Any individual requiring a reasonable accommodation in order to participate in a meeting should contact Thomas Mannock at 222-6395 (voice) or #711 (R.I. Relay) at least five (5) business days prior to the meeting date. Any individual requiring the services of an interpreter to participate in a meeting should contact Michael Moan at 222-1236 (voice) at least three (3) business days prior to the meeting date.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Rhode Island Department of Administration
Division of Planning, Statewide Planning Program
State Planning Council

AVISO DE AUDIENCIAS PÚBLICAS Y PLAZO PARA COMENTARIOS

El consejo de planificación estatal, State Planning Council, está considerando aprobar un proyecto de plan titulado "**Energy 2035**" (Energía 2035) de conformidad con las Leyes Generales, Sección 42-11-10(e) y Capítulo 42-35, el cual será un elemento del plan de guía estatal: State Guide Plan. Este proyecto de plan describe el sistema existente de energía de Rhode Island, y establece metas y políticas para mejorar la seguridad, rentabilidad y sostenibilidad energéticas en todos los sectores de producción y consumo de energía a fin de fomentar una administración pública y privada de los recursos energéticos del Estado eficaz.

Por este medio se avisa que habrá dos audiencias públicas sobre la aprobación de este plan. Todas las personas interesadas en expresarse respecto al plan tendrán la oportunidad de hacerlo en su debido momento. Este plan actualizará y reemplazará el existente Elemento 781 del plan de guía estatal, plan energético de Rhode Island aprobado en 2002.

Fecha, horario y sitios de las audiencias:

Martes 25 de agosto, 2015

De 11:00 a.m. a 1:00 p.m.
Sala de conferencias **A**, 2.º piso
Department of Administration
One Capitol Hill
Providence, Rhode Island

Martes 25 de agosto, 2015

De 6:00 a 8:00 p.m.
Sala de conferencias **B**, 2.º piso
Department of Administration
One Capitol Hill
Providence, Rhode Island

Cada audiencia iniciará con una breve presentación de información sobre el proyecto de plan, tras la cual el público tendrá la oportunidad de hacer comentarios. Pueden enviarse comentarios por escrito, relacionados con aspectos del plan propuesto, antes de la audiencia o durante la audiencia, o por correo a más tardar el primero de septiembre de 2015 a la siguiente dirección: Kevin Flynn, Associate Director, Division of Planning, One Capitol Hill, Providence, Rhode Island 02908.

El proyecto de plan está disponible al público en el sitio web de Statewide Planning: <http://www.planning.ri.gov/>

Además, el público puede obtener copias del proyecto de plan en Department of Administration, Division of Planning, One Capitol Hill, 3rd Floor, Providence, Rhode Island (401-222-7901) durante horas de oficina (de 8:30 a.m. a 4:30 p.m.).

Los sitios de las reuniones son accesibles para personas con discapacidad. Quienes necesiten adaptaciones dentro de lo razonable para poder participar en las reuniones, deben comunicarse con Thomas Mannock al 222-6395 (de voz) o 711 (R.I. Relay) tan pronto como sea posible. Quienes necesiten servicios de intérprete para poder participar en las reuniones, deben comunicarse con Michael Moan al 222-1236 (de voz) tan pronto como sea posible.

Testimony of Kenneth F. Payne, Ph.D.
On
Energy 2035, Rhode Island State Energy Plan
Preliminary Draft: June 2015
At the Public Hearing Authorized by the State Planning Council
August 25, 2015

For the record, my name is Kenneth F. Payne; I am a resident of the Town of Richmond, Rhode Island. I live at 8 Pinecrest Road in the village of Carolina, 02812. I am testifying for myself and not on a behalf of any group, organization, or entity in which I participate. These comments give my professional opinion with regard to whether “Energy 2035, Rhode Island State Energy Plan Preliminary Draft: June 2015” (hereinafter the “Plan”) should be adopted as an element of the state guide plan.

My relevant professional background is as follows: I have been actively and consistently involved in energy issues in Rhode Island since the early 1970s, when nuclear power plants were proposed to be constructed in Rhode Island. In directly pertinent public service, I served as the Senior Policy Advisor to the Rhode Island Senate from 1997 through 2007 and in that in capacity provided staff support to the General Assembly in developing the Renewable Energy Standard (RIGL ch. 39-26, 2004), the Comprehensive Energy Conservation, Efficiency, and Affordability Act of 2006, which among other things created the Office of Energy Resources (RIGL ch. 42-140), and Regional Greenhouse Gas Initiative (RIGL ch. 23-82, 2007), and Net Metering (currently RIGL 39-26.4, 2007). I served as administrator of the Rhode Island Office of Energy Resources for two years, 2010 and 2011 and in that capacity was executive secretary and executive director of the Energy Efficiency and Resources Management; I represented the administration in the development of comprehensive revisions renewable energy statutes in 2011 (RIGL chs. 39-26, 39-26.2, 39-26.3 and 39-26.4). I am currently a member and gubernatorially appointed chairman of the Distributed Generation Standard Contracts Board, (RIGL ch. 39-36.2), which oversees the Renewable Energy Growth program (RIGL ch. 39-26.6). I have graduate degrees in planning (a Masters Degree in Community Planning from the University of Rhode Island, and Ph. D. in Regional Planning from the University of Massachusetts-Amherst); I have taught planning at the graduate level and am knowledgeable about planning theory and practice. The comments I am submitting are informed by this experience and education.

In my professional experience, borne out by a vast body literature, there are widely differing and not uncommonly sharply conflicting views about energy issues. Even among parties that agree on a fundamental issue such as climate change, there are quite different views about how the issue should be addressed. Accordingly, whether the Plan meets with universal approval is not the relevant question regarding whether or not it should be adopted. Universal assent to its content is very likely a practical impossibility. Rather action should be based on whether the

Plan is actually needed, whether it meets established standards for such plans, whether it is consistent with enacted purposes and policies, and whether its adoption realizes the benefits of public investments.

In summary I find submit that:

I. Adoption of the Plan is needed under Rhode Island law, and that a failure to adopt this plan as expeditiously as possible would compromise the performance of duties and obligations established by law.

II. The Plan fully meets the standards for state guide elements plan established by statute.

III. The Plan is consistent with public policy objectives set forth in law and is in fact necessary to meet established public purposes; in this regard the plan is a truly forward looking public policy document but it is also fully within the bounds of policy goals established in law; adoption of the plan would be a form of expected compliance and implementation.

IV. Adoption of the Plan expeditiously would optimize the benefits of investments in substantial staff time, research and scenario analyses by consultants, and advisory council involvement.

V. The Plan would benefit from the inclusion of language, which would not change its content or meaning, but would clarify its use regarding activities needed to keep energy systems, on which Rhode Island is currently dependent, functioning optimally.

I shall now elaborate on these five findings. My conclusion is that the Plan should be adopted as an element of the state guide plan forthwith and without major changes that would require further hearings on it under the provisions of the Administrative Procedures Act, (RIGL ch. 42-35).

Elaboration of Findings.

Finding I. Adoption of the Plan is needed under Rhode Island law.

A. Having a state guide plan element pertaining to energy is required by law and consideration of climate change issues are an obligation established in law and applicable to the adoption and maintenance of state guide plan elements. Section 42-11-10 of the Rhode Island General Laws provides for the preparation and adoption of the elements of the state guide plan by the state planning council. Subsection (d) states that "The state guide plan shall be comprised of functional elements or plans dealing with . . . energy supply, including the development of renewable energy resources in Rhode Island, and energy access, use, and conservation." The Resilient RI Act of 2014 specifies that "Consideration of the impacts of climate change shall be deemed to be within the powers and duties of all

state departments, agencies, commissions, councils, and instrumentalities, including quasi-public agencies, and each shall be deemed to have and to exercise among its purposes in the exercise of its existing authority, the purposes set forth in this chapter pertaining to climate change mitigation, adaption, and resilience in so far as climate change affects the mission, duties, responsibilities, projects, or programs of the entity.” (RIGL § 42-6.2-8, emphases added). The state planning council has been established with a responsibility for adopting elements of the state guide, which includes specifically includes an energy element and since 2014 it has an affirmative purpose to take climate change issues into account.

B. Specific uses of the state guide plan are established in law. State guide plan elements need to be maintained in a manner that the facilities the performance of these legally established uses of guide plan elements.

(1) The Rhode Island Commerce Corporation must find that its projects are in conformity with applicable elements of the state guide plan before those projects can be undertaken (RIGL § 42-64-10 (a)(1)(v)). A specifically authorized area of project activity by the RI Commerce Corporation includes by definition energy facilities and renewable energy facilities (RIGL § 42-64-3 (20)), and the Corporation has specific duties regarding renewable energy development (RIGL § 42-64-13.2).

(2) The state guide plan is a standard of review for projects by the Energy Facility Siting Board (RIGL § 42-98-9(e)).

(3) Cities and towns are to take the state guide plan into account in preparing and amending their local comprehensive plans (RIGL § 45-22.2-9 (a)), which are reviewed for consistency with state guide plan (RIGL § 45-22.2-9 (c)). Local comprehensive plans “must consider energy production and consumption” (RIGL § 45-22.2-6(8)). Currently all local comprehensive plans must be brought into conformity with the requirements of RIGL chapter 45-22.2 by June 1, 2016. The chief of division of planning needs to find that local comprehensive plan, and any amendment or up-date, is “consistent with, and embodies the goals and policies of . . . the laws of the state.” (RIGL § 45-22.2-9 (d)(3)).

C. The current state guide plan element for energy is out of date and thus has little use as a guidance document. There is currently in effect an existing state guide element plan for energy, element 781, adopted in 2002. In many respects it is a solid piece of work, but it is seriously dated. As an example element 781 describes oil coming into the Port of Providence by barge, however shortly after its adoption shipping channel dredging was completed. What is more, element 781 is of almost no value in describing the legal landscape pertaining to energy efficiency, renewable energy, and the organization structures within state government pertaining to energy. As a historical document element 781 is interesting; as planning guidance it now has very little value. It truly needs to be replaced. During the decade 2004 – 2014 the following transformation took place:

(1) In 2004, the Renewable Energy Standard was established which sets the goal of having sixteen percent (16%) of Rhode Island electricity come from renewable energy resources by 2019 and which creates a renewable energy fund in the RI Commerce Corporation to administer “alternative compliance payments when renewable energy procurement goals are not met by the electric distribution company.

(2) In 2006, the Office of Energy Resources and the Energy Efficiency and Resources Management Council were created and the “least cost procurement” program was established to substantially increase the levels of energy efficiency efforts in the state. Since the enactment of least cost procurement, Rhode Island has moved into the top tier of states in terms of energy efficiency efforts by the rankings of the American Council for Energy Efficient Economy.

(3) In 2007, Rhode Island’s participation in the Regional Greenhouse Gas Initiative (RGGI) was authorized by statute, and (4) a broad based net metering program was created within the renewable energy standard.

(5) In 2008, net metering was expanded, and (6) the demand side management (dsm) program supported by a charge of .3 mills per kilowatt on electric bills was moved from the Office of Energy Resources to the RI Commerce Corporation, thus giving the Corporation a regular role in supporting renewable energy projects.

(7) In 2009, the Long Term Contracting Standard was established with goal of having 90 MW of renewable energy capacity (nameplate capacity adjusted by a capacity factor) under long term by December 31, 2014.

(8) In 2011, Distributed Generation Long Term Contracts program was created to provide for 40 megawatts nameplate capacity of grid connected renewable energy facilities of diverse types and sizes.

(9) In 2013, Property Assessed Clean Energy (PACE) program was enacted to enable homeowner to finance renewable energy projects through their property tax bills.

(10) In 2014, the Renewable Energy Growth Program converted the Distributed Generation Long Term Contracts program to a tariff based program, extended its life through 2019 and increased the name plate capacity by 160 megawatts, and (11) the Resilient Rhode Island/Climate Change Coordinating Council Act was passed giving statutory goals for greenhouse gas emission reductions, creating planning/oversight and advisory bodies, and making addressing climate change a responsibility of all state agencies in the exercise of their authority.

Finding II. The Plan meets standards for state guide plan elements.

The Plan meets the standards for state guide plan elements contained in RIGL § 42-11-10 (d). The Plan does constitute “a means for centralizing, integrating, and monitoring long-range goals, policies, plans, and implementation activities related” to “energy supply, including the development of renewable energy resources in Rhode Island, and energy access, use, and conservation,” (emphasis added). The Plan was prepared with in-put from an advisory and from public meetings. The lead involvement of the Office of Energy Resources, the use of expert consultants, the formation of a diverse stakeholder inclusive advisory council, and the holding of public meetings were consistent long-established practices for state guide plan element development by the division of planning.

Finding III. The plan is consistent with goals and public purposes set forth in Rhode Island law.

A. Goals for renewable energy procurement and development are set forth RIGL chapters 39-26, the Renewable Energy Standard; 39-26.1, Long Term Contracting Standards; 39-26.2, Distributed Generation Standard Contracts; 39-26.4, Net Metering; and 39-26.6 the Renewable Energy Growth Program, and RIGL § 42-64-13.2, Renewable Energy Investment Coordination.

B. Purposes and goals for energy efficiency are contained in RIGL §§ 39-1-27.7 System reliability and least-cost procurement; 23-27.3-100.1.5.4 State energy conservation code, and 39-27-2, Energy and Consumer Savings Act of 2005 (also known as the “appliance efficiency act”), Findings.

C. Purposes for air pollution control and greenhouse gas emissions reductions are contained RIGL §§ 23-23-2, Air Pollution, Findings; 23-82-2, Implementation of the Regional Greenhouse Gas Initiative, Legislative findings; 31-47.1-1, Motor Vehicle Emissions Inspection Program, Legislative findings, and 42-6.2-2 (1) Climate Change Coordinating Council, Purposes of the council.

The Plan does not push beyond the area defined by these statements of policy and purpose. It does address them integratively and present the implications of their collective direction; the plan does suggest ways in which Rhode Island’s future could be significantly different from its present

Finding IV: The Plans should be adopted to realize the value of the investments made in its preparation.

The Plan was prepared through very substantial investments (i) of effort by the staff of the Office of Energy Resources and the Division of Planning, (ii) in consulting services, and (iii) in the contributed time and expertise of advisory council members. Because energy issues and the study of the effects of climate change are dynamic, the underlying bodies of information and knowledge change. Thus it is vital to concretize work efforts while the information and knowledge that informs those work efforts is current. This realizes the value of the investments that have been made.

“Bounded rationality” is a long recognized, foundational concept in planning theory. Plans need to be adopted even though conditions are dynamic and all possible analyses have not been undertaken.

Importantly the Plan is responsive to the Resilient Rhode Act of 2014, which addresses climate change. The analyses contained in the Plan are not yet dated. According the Plan should be adopted with the recognition that that it will need to be revisited and up-dated periodically to reflect changes in condition and public policy.

Finding V: The Plan would benefit from an explicit clarification of what it does not do.

Plans have their meaning in so far as they are used to guide actions. The legal expectation for guide plan elements under RIGL§ 42-11-10 (d) is that they should be long range in their orientation. The Plan, as has been previously discussed, appropriately meets this expectation. However a good of the deal of the action that can be informed by a plan is in the intermediate range, i.e. three to seven years. While the Plan is strongly oriented to meeting established goals for energy efficiency, renewable energy development, and greenhouse gas emissions reductions, it does not preclude taken actions to assure that the energy systems, on which Rhode Islanders depend, are maintained so that Rhode Island is served in a reliable, environmentally and socially responsible, and cost effective manner. A brief statement might be added to both the executive summary and the introduction and vision sections of the Plan clarifying that it is not a purpose of the Plan to impede actions that are needed, responsible and prudent in having and maintaining reliable energy systems in and for Rhode Island and the New England region.

Conclusion.

My professional conclusion is that the Plan should be adopted forthwith with such clarifying language as would make it more useful in accomplishing its legal purposes. The Plan is needed now, delay in adoption would impair the performance of duties, established by law, that rely on the use of state guide plan elements; the current guide plan element for energy is seriously out of date and needs to be replaced. The plan is consistent requirements for state guide plan elements; it is long range; it is integrative, and it was prepared in conformity with well-established practices for state guide plan element preparation. The plan is consistent with goals and public policy purposes established in law; it is genuinely informed by the sweeping group of enactments over the last decade: it is up to date.

Respectfully submitted,
Kenneth F. Payne, Ph.D.
August 26, 2015



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August 25, 2015

Kevin Flynn
Associate Director
Rhode Island Division of Planning
One Capital Hill, 4th Floor
Providence, RI 02908

Re. Rhode Island's New State Energy Plan

Dear Mr. Flynn:

I write in support of the new, proposed state energy plan and to ask for its expeditious adoption. It is the culmination of a long and well-orchestrated process of extensive research, studies and stakeholder input that has resulted in a huge step forward from Rhode Island's prior energy plan. I have long been an advocate for a vigorous energy planning process that would gather the data and input needed to provide real, sophisticated policy direction. I was an active stakeholder in the planning process. While this plan does not satisfy every hope I had for the process, it is a huge step forward from where Rhode Island's energy planning efforts stood before it began. As just one example, this plan extensively researched and considered the impacts of three different sectors of Rhode Island's energy system, electricity, thermal and transportation. That alone represents a major improvement over past plans that have not specifically addressed or planned for the implications of the thermal or transportation sectors.

It is extremely important that this plan be adopted expeditiously so it can guide our energy decisions that are made every day before we lose significant ground on implementation of the plan. We simply cannot afford to allow policy to proceed without the benefits of this level of understanding. Now is the time to develop aggressive action plans for the realization of our planning goals as soon and as effectively as possible. Every day that we fail to move forward on the goals of the plan represents a loss of economy, security and environmental protection.

I have attached my final set of comments filed on November 4, 2014, regarding the plan. I filed five other sets of comments throughout the process but rather than including all of those (some of which were addressed in subsequent versions of the plan), I provide some highlights below.

On 2.13.13 - Major energy policy decisions are being made and will be made in RI. If the excellent research & analysis you and your team has done do not ultimately find their way into a clear/transparent "plan" then those decisions may very well be made without the benefit of a plan, which would be a sad result of all this effort. Despite the obstacles (including politics), someone has to go out on a limb to plan for the right result for RI - if that kind of planning doesn't come through the information/analysis you've gathered/done loud and clear, then the politics may continue to be under-informed and subject to other, less rational forces and get RI to a sub-optimal result. As an example, a complete "energy plan" should set goals for supply by sector (efficiency v gas v. solar v wind. . .), where the energy is coming from (regional, utility scale, DG) & the strategy for getting there (ie, if gas how do we deal w pipeline capacity & what's the timing for that? If Hydro Quebec or other, regional utility-scale renewables how do



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we handle transmission & what's reasonable timing for that? if substantial solar how do we break down soft cost barriers? if wind how do we resolve siting challenges? if small scale hydro is a piece, how do we get those projects developed?). It's a whole lot to expect of this process, but in the absence of such planning these questions will be answered haphazardly w/out the benefit of data, expert analysis and well thought out strategy. I've been asked to weigh in on proposed new energy legislation and it sure would help to be able to put it in better-informed context (for example, what is the anticipated specific role for natural gas for our future sourcing so we can think through our position on gas pipeline extension?).

On 10.9.13 comments on "General Goals" - The goal of increasing fuel source diversification across all sectors is inadequate. The goal should be stated in a more specific and ambitious manner (perhaps as a specifically percentage reduction in reliance on the largest fuel source as used for OER's analysis of security impacts). For example, a 1% reduction in reliance on natural gas in favor of regional nuclear power clearly would not be sufficient implementation of the plan for enhanced security/reliability yet it would satisfy this goal.

Effective implementation of these goals across sectors will have implications and impacts across sectors. For example, the goal of fuel diversification in our transportation sector greatly increases the demand for electricity and natural gas, even such that natural gas evidently becomes a larger fuel source even than gasoline – but, meanwhile, across sectors this calls for more reliance on a fuel source from which we are aiming to diversify. The impacts across sectors should be carefully accounted for – for example, maybe diversification of our transportation fuel means we need to go even further for fuel diversification in our other sectors. This is the same effect that you have discussed on the cost issue – we need to make the investments necessary to reduce costs in our transportation and thermal sectors so that we can stomach the anticipated increase in cost for the electricity sector (though that cost analysis is yet to be fully understood).

On 10.9.13 comments on "Electric Sector" - Include a general goal of regulatory reform designed to better align our utility's business/operating plan with state policy objectives. The PUC docket on infrastructure safety and reliability may be one means to provide for better alignment (at least on the grid modernization front) but may not be sufficient on all fronts that need to be considered.

The goal of expanding renewable energy procurement and incentives is a good one but it requires more teeth. OER is in an excellent position to make specific recommendation about how our projected future energy load should be serviced. How much from demand side management/efficiency? How much from traditional fuels and how much from renewables? Within the goal for renewables, how much regional and how much local? If OER doesn't answer these questions now, no one will be better positioned to answer them in the future. While the plan is meant to have long term impact, it's not necessary to become frozen due to the prospects of change – as long as bold goals are moving reform forward, those goals and the strategies to achieve them can always be reviewed and updated along the way if/as change requires.



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I strongly support the goal of reducing soft costs and regulatory burdens for renewable energy development. Regional siting standards are essential to ensure the proper balance of state and regional procurement goals with local siting preferences. Please add the issues of consistent and sensible property taxation across the municipal landscape (eg, increased property valuation and taxation upon installation) and business structure issues (e.g., the licensed electrician issue) on the “to do” list. Please have the plans implementation measure go far beyond the formation of working groups to further study the issues. I submit that you have enough information to make specific recommendations at this time.

On 10.12.13 re “Transportation Sector” – ‘Reduce vehicle miles travelled:’ Rather than simply deferring to existing plans, we should be clear about how the energy plan informs why specific proposed reforms are essential and seek to get the force of the plan behind them. This provides a new, dynamic platform to push for policies that are already far too long in coming. I think it’s essential for RIPTA to do a much more comprehensive transit plan, looking at the whole state of RI and its range of service needs and opportunities.

Thank you for considering these comments and for all the State’s good work on this planning effort. Now let’s adopt the new plan and make it happen for the good of Rhode Island.

Sincerely,

A handwritten signature in black ink, appearing to read 'Seth Handy', with a long, sweeping underline that extends to the right.

Seth Handy



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November 4, 2014

Danny Musher
Rhode Island Office of Energy Resources
One Capital Hill, 4th Floor
Providence, RI 02908

Dear Danny:

Thank you once again for all of your tremendous work on energy planning. It truly represents a huge step forward for RI. I write to comment on the last version of the Plan presented to RISEP Advisors and stakeholders last week. I support Ken Payne's statement that we should not let perfect become the enemy of good and agree that this enormous effort moves us great strides forward in formulating our energy strategies for the coming years. Still, I feel there substantive comments to be made and considered before adoption.

First, I refer you to my prior comments and ask that they be reconsidered if/as still applicable.

The introduction is excellent. Not sure of the purpose of footnote 1 on page 3.

Energy Profile

This section provides hugely valuable background information for the context of the plan.

On page 5, it states:

As a matter of public policy, Rhode Island prioritizes the latter—energy efficiency—by requiring electric and gas distribution companies to invest in all cost-effective demand reduction measures for end-users (e.g. higher efficiency lighting, HVAC systems, and appliances; insulation; air-sealing, etc.) before acquiring more expensive, conventional supply resources. The result of this “Least-Cost Procurement” resource acquisition strategy is an energy supply portfolio that maximizes the use of the lowest-risk, lowest-cost, and arguably most sustainable energy resource available—energy efficiency. For more information on Rhode Island’s “Least-Cost Procurement” policies, see the section below “Current Policy Framework”.

Given the results of the study conducted on behalf of OER by the Brattle Group, it's now clear that this conclusion is at least uncertain, depending on how you define "cost." That study concluded that investment in locally generated renewables actually produces substantial net economic benefit. Has that impact been compared to investments in energy efficiency in order to support this conclusion? For example, the environmental benefits cited in the Brattle study (a social benefit of between \$13 million and \$54 million on a net present value basis and avoided damages between \$22 million and \$94 million on a net present value basis) are based on the double impact of clean energy production together with displaced dirty production. That double benefit is not true of efficiency which assumes capacity to save energy rather than the displacement of essential load. Indeed, because of the double benefit from renewables, they clearly have a bigger impact on the Plan's goals of diversification (eg, mitigated transmission investments and enhanced reliability) and sustainability and thus may very well be more cost effective in a comprehensive, final analysis. This comment also applies to the description of least-cost procurement beginning on page 24. I do not intend to downplay the importance or value of energy efficiency but rather to question the assumptions

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of this factual account and whether our policy approach, which has been heavily weighted toward investments in efficiency, should be better balanced with investments in and greater focus on renewable energy moving forward.

On page 6 it states: *"In 2011, natural gas-fired generation accounted for approximately 98% of in-state generation capacity¹."* This is important for later discussion of proposed additional investments in natural gas transmission and whether those investments can be squared with the Plan's important goal of diversification. It is important for us planners to understand that any investment in expanded natural gas capacity would have the likely consequence of inhibiting the investment in and market for other, diverse fuel sources by suppressing natural gas rates and making it harder for alternatives to compete. Alternatively, investment in other fuel sources would be likely to reduce the cost of natural gas by reducing demand through diversification, as contemplated by this Plan. Despite the many immediate interests in immediate rate suppression (including, admittedly our remaining industrial sector), the investment in enhanced transmission seems fundamentally inconsistent with the Plan's goal of diversification (and the longer term benefits of that strategy).

Page 10 states, *"The 2007 RIWINDS study, commissioned by the then-Rhode Island Economic Development Corporation (now the Rhode Island Commerce Corporation), concluded that over 95% of the wind energy resources available to Rhode Island are located offshore²."* RIWINDS was an ends-oriented study to support the case for off-shore wind that did not correctly study or characterizes the actual opportunity for on-shore wind.

On page 12: *"Expenditures on energy in Rhode Island have risen significantly in real terms over the past decade. As of 2010, annual expenditures in Rhode Island on electricity, thermal and transportation fuels total approximately \$3.6 billion, up nearly \$1 billion from 10 years ago."* This important data raises additional question regarding why we would invest more in natural gas transmission, given the current and historic impact of over-reliance on energy costs. Page 14 adds that *"Electricity expenditures have increased by about 25% in real terms in the residential and commercial sectors in the past decade."*

The description of long term contracting beginning on page 25 should indicate how much capacity remains in that program - my understanding is that it's negligible at this point so the program is nearly extinct.

On page 26, the use of the word *"small"* in the last sentence of the description of decoupling suggests bias – there's no good reason why the charge will be any smaller than any credit offered under decoupling. The plan might have been a good place to consider the actual efficacy of this provision in practice & I hope that such work will be done moving forward. In my clients' experience, incentives remain poorly aligned now, despite the utility's guaranteed profit. Perhaps that lingering misalignment has to do with the utility's substantial interest in a flourishing natural gas market.

On page 27, in the 1st sentence describing net metering, net-metered projects do not all have to be behind the meter – municipalities and other public entities can net generation at one location against consumption at another. In the 4th sentence, I'm unaware of the exception for farms and the municipal exception now

¹ Form EIA-860

² http://offshorewindhub.target.maine.edu/sites/default/files/resources/ricrmc_4-13-2007_riwindsreport_0.pdf



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applies to all public entities. The last sentence is no longer accurate, the Renewable Energy Growth legislation removed the cap on net metering.

Goals

On page 9, the plan speaks of the diversification goal as follows: *“By far, Rhode Island’s greatest available resource is energy efficiency—Rhode Island could cut economy-wide energy usage by over one third by maximizing demand reduction in all sectors. Supply-side resources with the most significant potential future contributions include offshore wind, combined heat and power, distributed photovoltaic solar power, and natural gas³.”* I disagree with this characterization of the opportunity facing RI. It continues to underestimate the role of renewable energy resources (including, most notably, specific resources like on-shore wind) and overestimate the dominant role of efficiency. It ignores the very substantial opportunity for on-shore wind.

On page 11, it notes: *“The electric sector offers the potential for the most dramatic (>30%) increases in diversity, but these changes are likely expensive under current projected market conditions.”* I do not understand the basis of this counterproductive conclusion regarding the expense of diversification of our electricity supply, especially given the results of the Brattle study (are you describing total cost or just the price tag today?) and the fact that renewable energy projects are being proposed and delivered in Rhode Island and regionally today at significantly below market rates.

On page 12, it says: *“In the three alternative energy futures modeled by Navigant, natural gas’ share of total economy-wide fuel consumption either increases, or at the most, ticks down a few percentage points (Scenario 1). The crux of the issue is a general tension between reducing natural gas’ share of total fuel consumption and simultaneously increasing fuel diversity in the transportation sector.”* Navigant missed the ball here. While natural gas will continue to have a role to play, RI’s goal should be to substantially reduce its role in each sector (which can/should largely be electric). In the last sentence, once again, I question whether the conclusion that energy efficiency is the most “cost” effective investment is accurate if considering a comprehensive total cost analysis like the Brattle Group did.

On page 13, as stated before, the generally stated goal **“Increase fuel diversity in each sector above 2013 levels”** is too vague to have teeth and substantially guide specific policy decisions in each sector.

On page 14, I like and appreciate the definition of “net benefits” and wish this kind of analysis had been conducted throughout.

On page 17, the first paragraph states: *“In the electric sector, investment costs outweigh the benefits, when measured solely on economic terms. Capital expenditures of between approximately \$550 million and \$2.6 billion in net present value terms are associated mainly with RPS compliance costs and the construction of energy storage. The cost of transmission builds is contained within the BAU. Additional incremental power and fuel expenditures of between \$26 million and \$537 million chiefly represent above market energy costs associated with the procurement of renewable energy.”* As noted above, I’d certainly contest the basis for this conclusion. I don’t see how it and the following paragraph can be



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considered consistent with the results of the Brattle study or with the rates offered by current projects under development in RI.

On page 18, the generally stated goal “*to produce economy wide net benefits*” is too vague to have teeth and substantially guide specific policy decisions in each sector.

I agree with and applaud the conclusion on page 20 that “*In order to decrease the electric sector carbon footprint further, Rhode Island must address supply-side GHG emissions—via displacement of fossil fuel generation by renewable energy generation, either through the promotion of renewable energy development in-state or out-of-state.*”

Recommendations

On page 6, recommendation #8, why would you specify regional hydropower rather than competitive regional renewable supply?

As discussed above, the first sentence on page 7, the statement “*Energy efficiency is Rhode Island’s centerpiece strategy to achieve the Rhode Island Energy 2035 Vision*” suggests a strong policy bias and is an inappropriate characterization of the true diversity of opportunity facing Rhode Island. The following support inadequately defines “least cost” as has been RI’s propensity to do for years (presumably giving rise to the bias).

On pgs 7-8, the following: “*The Least-Cost Procurement policy requires electric and natural gas distribution companies to invest in all cost-effective energy efficiency (e.g. higher efficiency lighting, HVAC systems, and appliances; insulation; air-sealing, etc.) before procuring more expensive, conventional supply resources.*” Are renewables “more expensive” than efficiency in a total cost analysis? Regardless, this should not be a competition or the subject of biased planning – for, no matter how much energy we save through efficiency, we will still have demand that must be addressed through sources that best meet the goals of our plan (diversity, cost and sustainability).

The first complete sentence on page 8 reads, “*Under the Least-Cost Procurement mandate, the state currently invests over \$100 million annually in energy efficiency programs that achieve electric savings exceeding 2.5% of load and gas savings exceeding 1% of load.*” I submit that an annual investment of \$100M in renewables might do more to serve the combined goals of this plan. At least such investment could be shared evenly. . .Our Renewable Energy Coordinating Board should be considering such opportunities and advocacy (but, alas, it is thoroughly inactive). Given our State’s policy dedication to and investment in efficiency, it’s unbelievable that Rhode Island does not even have a policy supporting public sector procurement of renewable energy. I’m glad you’ve begun to address this glaring omission in your section on Leading by Example (pg. 16).

On page 8, the language about reducing vehicle miles travelled is very important and much appreciated. The last clause of the last sentence, “*inexpensive demand-side resources are Rhode Island’s best way to secure long-term, significant net economic and environmental gains in all sectors of the energy economy*” is another example of a general statement showing unsubstantiated bias in the plan. However, “demand management” does have clearer and better supported implications for the transportation sector than it does in the electric sector.

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The 4th complete paragraph on page 12 begins with the following sentences: *“Rhode Island is already making significant progress toward upgrading the state’s energy infrastructure. The cost recovery mechanism established by the state’s decoupling statute enables National Grid to make annual investments in capital improvements to Rhode Island’s electric and natural gas distribution infrastructure, currently totaling \$66 million and \$72 million, respectively.”* Given the decoupling policy and the extent of our (the ratepayer’s) investment in distribution infrastructure, why is the utility charging interconnecting renewable energy developers for the cost of upgrading its Electric Power System (eg, the cost of 75 years of deferred substation maintenance)? The last sentence of that paragraph says: *“If investments are continued at current levels, this could represent a grand total of over \$3 billion of targeted capital investment in Rhode Island’s electric and gas distribution systems over the life of the RISEP planning horizon.”* If we (the ratepayers) are planning to spend \$3 billion on our local grid, we better be sure that such system upgrades are no longer put square on the backs of interconnecting renewable energy developers, as they are today. This should be mentioned and considered very prominently in the goal of reducing the soft cost of renewables on page 14 because the cost and time of interconnection is currently the single largest deterrent to renewable energy development in RI.

I agree wholeheartedly with the observation in the 3rd sentence under Mobilize Capital and Reduce Costs on page 13, *“The RISEP recognizes that achieving a least-cost energy future depends on a proper accounting of the lifetime net costs and benefits of energy procurement in all sectors.”* I’d like to see it reflected more generally and consistently throughout the Plan.

In the last sentence of the first paragraph on page 15, it says: *“To ameliorate the regional electricity and gas constraints and attendant soaring costs, Rhode Island should coordinate with other states to explore the range of available solutions—from local, customer-sited resources such as energy efficiency, demand response, renewable energy, combined heat and power, and storage to infrastructure investments in the region’s electric and natural gas transmission systems.”* As discussed above, our energy plan needs to think very carefully before resolving to invest in more natural gas transmission infrastructure because such an investment seems inherently antithetical to the goals of this Plan.

I applaud the resolution at #4 on the table on the bottom of page 16, *“Provide as-of-right siting in designated locations for renewable/alternative energy generation, research & development, or manufacturing facilities.”* I would like to see more specifics regarding this. I hope that this year, OER will show its support for such proposed legislation. Why doesn’t this table include pursuing public sector procurement of renewable energy?

Portfolio of Policies

On page 3, the second complete sentence says: *“To achieve the targets, National Grid develops and implements annual “energy efficiency procurement plans”⁴, working under the oversight and expert guidance of a consumer stakeholder committee, the Energy Efficiency and Resource Management Council (EERMC)⁵.”* Just imagine how well the goals of this Plan could be served if National Grid

⁴ [http://www.ripuc.org/eventsactions/docket/4366-NGrid-2013EPPP\(11-2-12\).pdf](http://www.ripuc.org/eventsactions/docket/4366-NGrid-2013EPPP(11-2-12).pdf)

⁵ <http://webserver.rilin.state.ri.us/Statutes/TITLE42/42-140.1/INDEX.HTM>



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developed a true “least cost” procurement plan, including a renewable energy component under the oversight of our (currently defunct) Renewable Energy Coordinating Board. Why wouldn’t the proposed “no wires alternative” also benefit from input from the RECB?

Again the following sentence on page 3 seems unsubstantiated – *“The mandate ensures that energy procurement decisions maximize use of the lowest-risk, lowest-cost, and arguably most sustainable resource available for supplying energy needs—energy efficiency.”* Same for the following sentence – *“Continuing the mandate to procure all cost-effective energy efficiency is perhaps the single most important step that state policymakers can take towards ensuring a secure, cost-effective and sustainable energy future for Rhode Island”* – I’d emphasize the word **perhaps**.

Page 4, *“Energy efficiency is the single most cost-effective method to improve energy security and sustainability. The Least-Cost Procurement model maximizes economic and environmental benefits to consumers and the broader economy by ensuring that cheap energy efficiency measures are used before more expensive energy supply.”* Really?

Page 5, *“the 2012 Energy Efficiency Program cost \$59.5 million.”* Where is this kind of state support for renewable energy?

On Page 10, Policy #3 (vehicle miles travelled), what we really need is a comprehensive plan for public transportation, digging into the fundamentals of RI’s traffic patterns and how RI can most efficiently and effectively move people across the State. As I’ve told them directly in abundant comments, RIPTA’s strategic plan sorely lacks this kind of comprehensive, state-wide analysis and strategy.

On Recommendation #7, while I support expanding the RES as proposed (especially given its positive impact on climate and environmental sustainability), its likely that such a policy could reduce the economic benefit of renewables for RI by maintaining significant levels of out-of- state procurement. I assume this may have influenced Navigant’s conclusions about the economics of renewables, which are certainly inconsistent with those of the Brattle group, which studied RI production of renewables. Arguably, the specific tools that are made available to developers (eg, DG contracts, net metering and public sector procurement) are more important than the RES in incenting renewables development, unless you’re specifically focused on regional, utility-scale renewables. Without the tools for domestic production, RES compliance too often comes down to imports (exported economic gain) or worse, very costly alternative compliance payments.

On page 33, the policy for procuring more renewable energy states: *“the Navigant modeling assumes that a new 1,200 MW transmission line from Canada comes online, bringing low-carbon hydropower generation into the New England regional power mix.”* Why would they assume hydropower rather than competitive utility-scale renewables? Interestingly, Figure 1 on page 33 assumes regional wind, not hydropower (which is inconsistent). I like the last sentence on page 33, *“In practice, Rhode Island policymakers will need to continually monitor the evolving renewable energy market to weigh the relative costs and benefits of localized versus regional procurements taking into account the overall necessary amount of renewable energy necessary to meet energy goals; the highly uncertain costs of transmission expansion to interconnect more distant resources; and technological and other efficiency-*

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related advancements that could tilt the balance toward more cost-effective in-state development.” It would be better for RI if the plan better reflected such an anticipated practice.

On page 34, you acknowledge that *“As renewable energy technologies and markets continue to mature and technological advancements help drive down project costs, these programs may become increasingly cost-effective and competitive with purchases of conventional power. For example, pricing for some DG program contracts have fallen by approximately 50% since the start of the program⁶. In addition, during November 2013, the Rhode Island Public Utilities Commission approved a PPA for wind power and RECs between National Grid and Champlain Wind, LLC anticipated to be nearly \$49 million below market over the length of the contract⁷. Several Massachusetts electric distribution companies also signed below-market PPAs for on-shore wind power in the fall of 2013⁸.”* These statements seem entirely inconsistent with prior conclusions about the cost of renewables (see specific comments above), and, as they say *“we ain’t seen nothing yet.”*

On page 53 (Grid Modernization), why would EERMC review system reliability plans and not also the Renewable Energy Coordinating Board? The same page states, *“In 2010, the Rhode Island General Assembly passed a bill that decoupled utility revenues from energy sales. Now Rhode Island General Law § 39-1-27.7.1⁹, revenue decoupling realigned regulatory incentives such that investing in energy efficiency and overall system reliability is in the best interest of electric distribution companies.”* In my experience, the electric distribution company is not acting on such an alignment of interests when it comes to the system benefits of developing renewable energy.

This section also states: *“The statute also requires National Grid, the state’s major electric gas distribution company, to submit an annual Electric Infrastructure, Safety, and Reliability Plan (Electric ISR Plan). The purpose of the Electric ISR Plan is to “protect and improve the electric delivery system through repairing failed or damaged equipment, addressing load growth/migration, sustaining system viability through targeted investments driven primarily by condition, continuing a level of feeder hardening and cutout replacement, and operating a cost-effective vegetation management program”¹⁰. Costs are recovered through an annual rate reconciliation mechanism.”* See my comments above regarding the utility’s efforts to put the cost and delay of system improvements on renewable energy developers. I’m not sure EERMC is focused on this problem as they review the system reliability plan every year, because their expertise is efficiency not generation.

On page 64 (Reducing Soft Cost for Renewables), the policy description doesn’t address today’s most significant hurdle to renewables development, interconnection delays and cost. I’d also submit that the RESP results for wind siting are inaccurate, misleading and the siting conclusions together with the “Interim Siting Factors for Terrestrial Wind Energy Systems” are harmful to the goals of the plan.

What is the intent of this statement on page 65, *“As Rhode Island moves toward a future with a greater amount and variety of distributed generation resources, **namely solar**, focus must shift to actions*

⁶ [http://www.ripuc.org/eventsactions/docket/4288-DGB-2014-DG-CP-Rept\(12-16-13\).pdf](http://www.ripuc.org/eventsactions/docket/4288-DGB-2014-DG-CP-Rept(12-16-13).pdf)

⁷ http://www.ripuc.org/eventsactions/docket/4437-NGrid-Ord21234_11-4-13.pdf

⁸ <http://www.mass.gov/eea/pr-2013/reneable-procurement.html>

⁹ <http://webserver.rilin.state.ri.us/Statutes/title39/39-1/39-1-27.7.1.HTM>

¹⁰ [http://www.ripuc.org/eventsactions/docket/4382-NGrid-2014-ISR-Electric\(12-28-12\).pdf](http://www.ripuc.org/eventsactions/docket/4382-NGrid-2014-ISR-Electric(12-28-12).pdf)



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designed to streamline and accelerate the diffusion of these technologies into the marketplace.” I’d suggest deleting “namely solar” if you do not want to alienate other generators.

On page 67 (Address High and Volatile Energy Costs), I take issue with the conclusion, *“These gas constraints are leading to extremely high natural gas prices, and consequently, very high wholesale electric prices.”* I’d submit that our over reliance on natural gas causes the constraints and should lead to a very different policy conclusion (diversify rather than invest in more transmission). Thus I also take issue with the subsequent statement, *“If infrastructure constraints continue to drive unprecedented increases in New England’s cost of energy supply, Rhode Island may not be able to achieve the degree of net economic benefits indicated by the targets set in the Plan.”*

On page 79 (Lead by Example), I strongly support the idea of adopting a Green Communities program for Rhode Island. I’m surprised it doesn’t specifically include public sector procurement of renewable energy.

Thank you again for considering these comments and for all your great work on this wonderful planning effort.

Sincerely,

A handwritten signature in black ink, appearing to read 'Seth Handy', with a long, sweeping underline that extends to the right.

Seth Handy



August 25, 2015

Michael DiBiase
Chair, Rhode Island State Planning Council
Department of Administration
One Capitol Hill
Providence, RI 02908

Dear Director DiBiase:

Thank you for the opportunity to comment on the Rhode Island State Energy Plan (RISEP). The New England Clean Energy Council (NECEC) views RISEP as an important document in defining the path for Rhode Island's energy future. NECEC was an active participant throughout its development and is supportive of the recommendations included in the final draft. We are glad to see the plan moving through the state approval process and are very pleased to already see traction on many of its most urgent recommendations. We respectfully recommend that the State Planning Council adopt Energy 2035 into the State Guide Plan.

NECEC is a clean energy business association whose mission is to accelerate New England's clean energy economy to global leadership by building an active community of stakeholders and a world-class cluster of clean energy companies. Council members span the broad spectrum of the clean energy industry, including energy efficiency, demand response, renewable energy, combined heat and power, energy storage, fuel cells and advanced and "smart" technologies. Our ranks also include venture investors, major financial institutions, universities, industry associations, utilities, labor and large commercial end-users. A cross-section of our members are operating and investing in Rhode Island and more are interested in doing so.

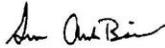
There are several elements of RISEP that we particularly support and wish to highlight below:

- NECEC supports the broad goals around create a secure, cost-effective, and sustainable energy system in 2035. We believe that these three objectives are inextricably intertwined, and applaud the State for including all three in equal measure. In particular, we also wanted to call out the importance of the definition of cost-effective. As defined here, it takes into account economic growth, reducing price volatility, and lowering energy bills – long-term views that fully evaluate costs and benefits over the long-term rather than a myopic focus on short term costs.
- NECEC further supports the seven policy areas of focus and many of the strategies categorized within them. We commend the State for already acting on several of the most urgent recommendations, including an extension of Least Cost Procurement, expansion of the Distributed Generation program, and capital mobilization through the creation of the Rhode Island Infrastructure Bank.
- NECEC also supports the strategy to expand the Renewable Energy Standard as a way to support Local and Regional Renewable Energy. We look forward to working with OER, the General Assembly, and other state offices to expand and extend the RES ahead of its expiration in 2019.
- NECEC is also supportive of working regionally to address volatile energy costs. We support Rhode Island's leadership in regional clean energy procurement and infrastructure. At the same time, we want to reinforce that we see natural gas as a

cleaner bridge fuel in comparison to oil and coal on the path to a clean energy – but not a clean energy resource in itself. Looking out 2030 and beyond, GHG emissions from natural gas generation should be declining, either through reduced generation or addition of carbon capture and sequestration technology.

Thank you for the opportunity to be involved in the development of RISEP and speak in support of its adoption. We stand ready to assist in its implementation.

Sincerely,



Sue AnderBois
RI State Coordinator



Janet Gail Besser
VP, Policy and Government Affairs



August 26,

2015

Kevin Flynn, Associate Director Division of Planning One Capitol Hill Providence, RI 02908

Re: "Energy 2035" Comments from People's Power & Light

Dear Mr. Flynn and members of the State Planning Council:

Thank you for the opportunity to submit written comments on the draft State Energy Plan (SEP) that supplement the brief oral comments I provided in person at Tuesday evening's hearing. My name is Priscilla De La Cruz. I am submitting these on behalf of People's Power & Light (PP&L), a 501(c)3 consumer advocacy and environmental advocacy organization dedicated to making energy affordable and environmentally sustainable. It was our honor to serve on the *Energy 2035* Advisory Council.

Together with our sister organization, Mass Energy Consumers Alliance, PP&L has more than 20,000 members in our voluntary Green Power and Discount Heating Oil programs. Our Executive Director, Larry Chretien serves in the Energy Efficiency Collaborative and was on the State Energy Plan Advisory Council. Through advocacy, consumer education, and program implementation, PP&L works with individuals, communities, and policy makers in Rhode Island and across the region to reduce GHG emissions by at least 25% below 1990 levels by 2020 and 80% below 1990 levels by 2050 in accordance with what science dictates is the minimum required to avoid the catastrophic effects of climate change.

We believe the Office of Energy Resources has done a thorough job of determining current conditions and policy options as put forth in the draft plan. However, we cannot emphasize enough that turning down the spigot on fossil fuels is imperative in order to create economic net benefits and to achieve critical environmental benefits. In order to do that, this administration and legislature need to take swift action.

Toward that end, we call attention to several policy recommendations that must be implemented in order to position Rhode Island to achieve its clean energy and climate objectives. They are:

- ☐ *Expand Least Cost Procurement (LCP)*
- ☐ *Expand the Renewable Energy Standard (RES) (Increase Renewable Energy Procurement)*
- ☐ *Mature the Renewable Thermal Market*
- ☐ *Promote Electric Vehicles*

☑ *Implement Carbon Pricing*

Expand Least Cost Procurement (LCP). Not only is energy efficiency a resource, it is our most cost-effective resource, capable of providing significant savings to consumers and of creating thousands of jobs in our state. Our organization shares the collective pride taken in RI's top 3 ranking by the American Council for an Energy Efficient Economy (ACEEE), but we recognize opportunities to do more.

The cheapest and cleanest energy is the kilowatt hour not consumed. Energy efficiency allows us not only to reduce energy demand, but every dollar invested in efficiency yields tremendous economic and environmental benefits! The importance of Rhode Island's *Least Cost Procurement* resource acquisition strategy cannot be underscored enough. As indicated in *Energy 2035*, "energy efficiency's contribution to Rhode Island's overall energy supply portfolio is significant...[A]s of 2013, a decade's worth of demand reduction investments made through the ratepayer funded electric energy efficiency program supply approximately 12 percent of Rhode Island's electric energy needs."

Presently, the benefits of investments in efficiency fare outweigh the costs and so we are compelled to point out that these gains have been made without exhausting or capturing all the efficiency that is cost effective or less expensive than the cost of supply. This is a point we have reiterated throughout our tenure on the Advisory Council. Furthermore, strategically leveraging demand reduction resources can also help to defer the need for expenditures on costly infrastructure, including transmission and distribution. PP&L will continue to assert that there are more cost-effective savings to be made for electricity and gas, but also for heating oil and propane. The benefits of reducing the state's dependence on oil and propane through efficiency have been well-documented in the recently submitted "Rhode Island Thermal Working Group Report". But those benefits cannot be achieved without a consistent funding source.

Expand the Renewable Energy Standard (RES). RES requires that in 2015, electricity suppliers must have 8.5% of their electricity from eligible renewable sources. This amount increases 1.5% per year until 2019 when it will be capped at 14.5%. With a 2019 cap in place, Rhode Island's *Renewable Energy Standard* does not go nearly far enough. Making permanent the incremental increase in Rhode Island's Renewable Energy Standard (RES) is an important climate strategy. Expanding the RES goes hand in hand with increasing renewable energy procurement, another recommendation in the plan that should be prioritized, because the RES sends a strong signal to renewable energy developers that they should build facilities (and create jobs!) to meet the increased demand. We now have over a decade of experience in New England with these standards and it is clear that the mandates work. Since first being introduced, these laws and similar laws in other New England states have helped to bring many renewable energy projects online.

Mature the Renewable Thermal (RT) Market. The State Energy Plan identifies key barriers to adoption of RT technologies, including high upfront costs, lack of public awareness, dominant heating/cooling industry unfamiliar with marketing or delivering products, and opaque regulatory standards. PP&L sees value in growing the renewable thermal market in RI, specifically as it relates to high efficiency cold climate air source heat pumps. These present a less carbon-intensive alternative to electric resistance heat and traditional heating fuels. When installed correctly, these technologies can be more cost-effective and efficient for consumers than traditional thermal systems.

Promote Electric Vehicles. PP&L supports efforts to accelerate the adoption of electric vehicles in Rhode Island. The

economic and carbon reduction benefits are clear. It is important for Rhode Island to gain traction in the market now while federal EV rebates remain generous. In our view, the path to widespread adoption of electric vehicles is to incorporate them into the regulatory structure of the

Page 2 of 3

“utility of the future”. This implies providing strong incentives to consumers for charging their EVs during off-peak hours.

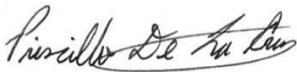
Implement Carbon Pricing. The plan is silent on the question of carbon pricing. We suggest that this topic be seriously considered as another tool to drive the state’s economy away from fossil fuels and to clean energy. A well-designed carbon pricing program, such as a carbon fee and rebate model, would provide net economic benefits to Rhode Island.

Finally, we fear that policymakers are now considering a long-term commitment of Rhode Island electricity ratepayer dollars to new natural gas infrastructure. This is the case even though there is nothing in the SEP that would support such a scheme. While we share concerns about winter electricity prices, we recommend a deep commitment to efficiency, demand response focused on winter months, wind power, and short-term purchases of LNG and oil during the few hours of winter peak demand.

Thank you again for the opportunity to provide comments. People’s Power & Light looks forward to ongoing collaboration to further refine *Energy 2035* and we gladly make ourselves available to the Council to answer questions or to provide further information.

For questions about these comments please contact me directly at Priscilla@ripower.org or 401-8616111 x 201.

Sincerely,



Priscilla De La Cruz Marketing & Membership Director

Rec'd 8/28/15

Comments by J. Timmons Roberts on State Energy Plan: "Energy 2035"

August 25, 2015

Kevin Flynn, Associate Director
Division of Planning
One Capitol Hill
Providence, Rhode Island 02908

My name is Timmons Roberts, I am a resident at 15 Grotto Avenue in Providence.

I would like to offer my sincere complements on "Energy 2035," a serious and visionary document. This is a major effort by OER, the Department of Planning, the two consulting firms, and the 20-member board. The plan is visionary and bold, and represents a quantum leap from the 2002 plan. The report says on page 5 that "we need a new approach." Indeed, we do.

I strongly agree with the plan's central point, that "Rhode Island cannot afford a business-as-usual course of action that increases energy security risks to the state, costs more than viable alternative paths, and fails to meet our obligation to mitigate the worst consequences of global climate change." Indeed, "investment choices will reverberate for decades to come," and all decisions made today may lead us to fail to meet our obligation to ambitiously address climate change.

The plan lays out 6 strategies, and I will comment briefly on these.

1. "Maximize energy efficiency in all sectors." This is absolutely the right first priority. This should be undertaken with laser focus and ambition—the effort will pay off handsomely for the state economy and our resilience. Factor 4 or factor 10 improvements are possible, as laid out in the work of Amory Lovins and the Rocky Mountain Institute. Indeed, efficiency is our "first fuel."

However serious efforts must be made to avoid "Jevon's Paradox," also known as the "rebound effect," where energy efficiency then leads to increased use, and the gains are eroded. In the area of energy and greenhouse gas emissions, this problem has been observed repeatedly, as the work of Richard York of the University of Oregon has shown. For example, more efficient cars can lead to increased mileage traveled. Rather, from the beginning of when efficiencies reduce consumption, systemic solutions need to put in place incentives to keep that consumption down. This is an important reason why explicit emissions reductions policies are needed, not merely those developed for other reasons that have the side benefit of reducing emissions or energy use.

2. "Promote local and regional renewable energy." Yes, this is also a very appropriate top priority. The plan and the documents that will follow it to bring it into concrete practice need to really scale up renewables deployment dramatically. We need a follow-on plan for that.

On page 21 the report concludes that "Few indigenous energy resources exist in Rhode Island." This is not the case. In addition to better studied offshore wind and increasingly viable solar energy, the state is awash with wave and tidal energy. The state should especially explore tidal energy, which is as predictable as the tides, and for which technology is quickly emerging. One promising example is the Kepler Energy Transverse Horizontal Axis Water Turbine, developed at Oxford's physics department. A more proven technology that could help nearly every property in the state drop our heating and cooling costs is geothermal energy, based on drilling heat-exchanger wells just outside the building and circulating water to the constant 55 degree ground temperature.

I agree with 3. "Develop markets for alternative thermal and transportation fuels." I heat my home primarily with firewood, all produced here in Rhode Island through managed forests, urban tree removal services, and by farmers clearing land. I also use a biofuel blend in my home heating oil water heater and boiler, which we use for backup. These and many other options are out there.

4. "Make strategic investments in energy infrastructure." This is crucial, but at this time such investments need to be looking ahead to improving our grid to be able to handle distributed generation and having Quebec and Labrador hydroelectric as our backup system. Give well-developed and confirmed science on climate change, we need to keep total global emissions within the total "carbon budget" before we push the Earth's system into an uninhabitable level. Natural gas pipelines and power stations will almost certainly be "stranded assets" very soon. We could gain about 30 times more jobs by steering energy infrastructure investments into renewables rather than into natural gas and other fossil fuel energy sources, and we will have a state economy that is resilient to price shocks as fossil fuels are extremely volatile in price.

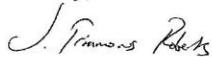
5. "Mobilize capital and reduce costs." Absolutely. RI government should arrange visits by major European and Chinese renewables firms, to offer them forward-looking business climates in which to set up their assembly and staging facilities. Eventually, these could become production and North American headquarters facilities. The "soft costs" of renewables installation indeed need to be reduced, and capital of all scales needs to be mobilized for renewables and efficiency.

6. "Reduce greenhouse gas emissions." This must be explicit and not a bottom of the list priority: far too much is at stake. The Energy 2035 plan does not explain WHY it is so important for Rhode Island to reduce its emissions, especially in the front of the report (e.g. p. 7). Explain the issues to readers/citizens, and what tough decisions we have to make.

The plan lays out expectations that we could reach 45% greenhouse gas emissions reduction by 2035. This is truly great news, but the plan should consider even more ambitious goals, such as pledging as a state to go carbon neutral by 2030, at least in the electricity sector. Protecting Rhode Island from climate change is going to take billions of dollars, that will not magically become available when seas rise and upland flooding and heat waves cause devastating impacts. We should follow the Rocky Mountain Institute's excellent new planning documents/templates, including their proposal for Fort Collins, Colorado. This included a net zero goal for electricity, about a 50% reduction in thermal energy use, and 40% in transportation by 2030. Rhode Island has a more propitious climate and culture and economy in which to make such bold pledges come true.

Thank you for your attention, and I wish you the best with your future efforts to bring our state into the leadership role we can take in forging a safer and more resilient future. It is our moral duty, and the good news is that it also will save us substantial money in the longer term.

Sincerely,



J. Timmons Roberts
15 Grotto Avenue
Providence RI



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF THE DIRECTOR

235 Promenade Street, Room 425 Providence, Rhode Island
02908

September 1, 2015

Kevin Flynn, Associate Director Division of Planning One Capitol Hill Providence, RI 02908

Re: Comments on Preliminary Draft “Energy 2035” for Public Review

Dear Mr. Flynn:

It is my pleasure to offer comments on the June 2015 Preliminary Draft of the Rhode Island State Energy Plan (“Energy 2035”). DEM is excited to see such progress being made on the Energy 2035 as it relates to key issues like RI’s energy independence, energy efficiency, resilience and climate change. It represents a very successful effort to integrate numerous cross-cutting elements into a well-organized and cohesive plan. The breadth of positive feedback offered at last week’s public hearing is a testament to the degree of coordination and inclusiveness that has surrounded the development of the plan over the past many months.

I believe Energy 2035 will assist the Rhode Island Executive Climate Change Coordinating Council (“EC4”), which was established by the Rhode Island General Assembly in 2014, in meeting many of its long-range mitigation goals. As the current chair of the EC4, I have made lowering the state’s carbon footprint and pursuing long-term sustainability goals a key priority for the Council. Rhode Island’s continued participation in the Regional Greenhouse Gas Initiative (RGGI), the nation’s first market-based cap-and-trade program designed to reduce electric power sector emissions, and aggressive pursuit of greenhouse emission reductions as mandated by the General Assembly in 2014, will make a measurable difference for Rhode Island’s energy future that will result in long-term benefits for all Rhode Islanders.

I applaud the plan’s call to maximize energy efficiency investments in all major energy use sectors. Energy efficiency is one of the most cost effective and sensible ways to combat climate change, improve the competitiveness of our businesses and reduce energy costs for consumers. DEM will

strive to integrate the efficiency strategies and policies outlined in the plan into the goals and priorities of the EC4.

In closing, I respectfully encourage a favorable review of Energy 2035. If you have any further questions, please do not hesitate to contact my office at 222-2771.

Sincerely,



Janet Coit
Director

c/ Doug McVay, RIDEM Office of Air Resources
Commissioner Marion Gold, RI Office of Energy Resources/EC4 Vice Chair

[Telephone 401.222.4700](tel:401.222.4700) | www.dem.ri.gov | [Rhode Island Relay 711](tel:401.222.4700)



September 1, 2015

Via Electronic Mail (kevin.flynn@doa.ri.gov)

Kevin Flynn
Associate Director, Division of Planning
Rhode Island Department of Administration
One Capitol Hill
Providence, RI 02908

Dear Mr. Flynn,

On behalf of our over 20,000 members and supporters in the state of Rhode Island, the National Wildlife Federation (NWF) commends your efforts to develop a comprehensive, long-term energy plan for the Ocean State. Driven by the fundamental belief that climate change poses the single greatest threat to wildlife and their habitats, we advocate strongly for the responsible development of large-scale clean energy solutions that can and must alter the course of the nation's energy future. ***We applaud the state of Rhode Island for leading the nation in pursuit of critically needed offshore wind power, and are counting on your continued leadership to ensure that the Block Island Wind Farm is truly the beginning of a new energy chapter for America.***

We have long held that Atlantic offshore wind power must play a significant role in the energy plans of Atlantic Coast states. As proud supporters of the Block Island Wind Farm, we have celebrated the recent ground breaking of that demonstration project, while pointing to this success story to build excitement and pride in the larger opportunities waiting in federal waters off of southern New England. This massive renewable energy source is uniquely capable of contributing to each of **Energy 2035's** twelve goals designed to further energy security, cost-effectiveness, and sustainability. While the draft Plan provides appropriately visionary language regarding the unmatched opportunity offshore wind power offers the Ocean State, it fails to ensure a significant role for offshore wind power in the state's energy mix through 2035.

To ensure Rhode Island maximizes the immense clean energy opportunity off its shores, we urge you to significantly increase the state's goal for offshore wind power in the final plan and include specific policy actions to reach it. Utility-scale projects are poised to advance in federal waters far off the coast and, with a bold and effective offshore wind power procurement policy, Rhode Island can ultimately unleash their economic, environmental, and

security benefits. The attached letter submitted to Governor Raimondo in May of this year highlights the broad base of support for a major offshore wind goal for Rhode Island.

Offshore wind power is essential to the long-term prosperity of the state, the region, and the country. We are fortunate to have a massive clean energy resource sitting right off our shores, and we need to be ambitious in our commitment to harnessing it – to revitalize port communities with a new and enduring industry, to increase our reliance on locally produced energy, to stabilize electric rates from the volatility of the fossil fuel market, and to protect wildlife and future generations from the dangers of climate change.

We thank you for your commitment to charting a responsible energy course for Rhode Island and urge you to enhance the role of offshore wind power in truly realizing the state’s clean energy potential.

Sincerely,

A handwritten signature in black ink that reads "C. Bowes". The signature is written in a cursive, slightly slanted style.

Catherine Bowes
Senior Manager, Climate & Energy
National Wildlife Federation
149 State Street
Montpelier, VT 05602
bowes@nwf.org
802-552-4311

May 4, 2015

The Honorable Gina Raimondo
Governor, State of Rhode Island
State House
Providence, RI 02903

Dear Governor Raimondo,

On behalf of the organizations, businesses, and individuals signed below we thank you for your recent support of the Deepwater Wind state waters project. It is so exciting that Rhode Island is poised to lead the way in developing offshore wind. We urge you to continue the State's strong commitment to developing the wind energy resource off our shores.

As you know, climate change poses an urgent threat to coastal and low-lying communities, and Rhode Island is no exception. To protect our health, wildlife, and economy – and the quality of life of future generations, we must reduce pollution and launch a new clean energy chapter for America.

The State of Rhode Island has been a national leader in developing a stakeholder-engaged, science driven model for siting offshore wind in Rhode Island Sound and off the coast of Block Island. The Deepwater Wind projects promise not only new economic growth, but they represent progress in the efforts to respond to climate change in a deliberate way. The Climate Change Coordinating Council (EC4) is actively and effectively assessing approaches to respond to the effects of climate change that we are already beginning to see, but is also charged with implementing the greenhouse gas emission reduction targets set forth in the Resilient Rhode Island Act. The work of the EC4 should continue to be priority for your administration. It is very important the EC4 meet the deadline for establishing these emission reduction targets. State agencies should continue to be directed to fully participate in the work of the EC4 and to enforce and fully implement the Resilient Rhode Island Act.

Investing in pollution-free energy sources with no fuel costs can help us reduce pollution and boost our local economies. And because offshore wind blows strongest during times of peak energy demand -afternoons, winter cold snaps and summer heat waves -it can diversify our energy portfolio with large amounts of valuable, clean power just when we need it most.

Countries around the world are already reaping the economic and environmental benefits of offshore wind power. In Europe, this booming industry currently supports 70,000 long-term, quality jobs. Now, the U.S. can benefit from more than twenty years of lessons learned across the Atlantic, including technology advancements that have lowered costs and enable development in areas far offshore where the stronger wind resource can deliver greater environmental and economic benefits.

Most renewable energy projects (like Deepwater Wind) bid in to the New England electricity wholesale energy market at zero dollars for every day and every hour that it is available. The fact that renewable energy projects bid in to the ISO's energy markets at zero means that the clearing price for all electricity for all ratepayers in New England gets lowered because of the presence of

renewable energy at the bottom of the “bid stack” (in fact, at zero). This lowering of electricity prices paid by ratepayers due to the presence of renewable energy on the grid (and its presence in the ISO’s bid stack) is called the “price-suppression effect” of renewable energy.

State leaders play a critical role in advancing offshore wind power. The federal government has made significant progress in recent years identifying appropriate locations for offshore wind development, including the Rhode Island/Massachusetts Wind Energy Areas and Block Island. We call on you to commit to the following actions and move Rhode Island toward realizing the golden opportunity over our horizon:

Implement the bold goals for offshore wind power in Rhode Island. As states move forward with strategies to implement the EPA’s Clean Power Plan, offshore wind power offers a unique and scalable pollution-free power source for meeting local carbon emission reduction target it is important to continue the support for the federal and state waters offshore wind projects already underway and ensure their viability.

Advance policies that ensure a competitive market for offshore wind power. Use Rhode Island’s voice with the New England States Committee on Electricity (NESCOE) and the ISO to push actively for the ISO to properly account for renewable energy the way FERC directs in its Order.

- ☐ **Advance power contracts for offshore wind projects.** State leadership is essential for facilitating investment in offshore wind power and jumpstarting the markets for this emerging industry, including pursuing regional opportunities for procurement.
- ☐ **Ensure an efficient, transparent, and environmentally responsible offshore wind leasing process that protects wildlife.**
- ☐ **Invest in key research, initiatives, and infrastructure needed to spur offshore wind development.**

Rhode Islanders and the environment are depending on you for continued bold leadership in ensuring a clean energy future. We strongly urge you to recognize just how much we have to gain from harnessing our offshore wind power potential. For the sake of coastal resiliency, local jobs, increased investments in economic development and manufacturing, wildlife, and future generations of Rhode Islanders, we thank you for your commitment and your consideration of this promising clean energy solution. We look forward to working with you to develop a successful strategy to bring this transformational new power source online.

Sincerely,

Tricia K. Jedele
Vice President and Director of RI Advocacy Center
Energy
Conservation Law Foundation

Catherine Bowes
Senior Manager for Climate and
National Wildlife Federation

Jeffrey Grybowski
CEO
Deepwater Wind

Jonathan Duffy
President
Duffy & Shanley

Roy A. Coulombe
Business Manager
Secretary
Local 37 Ironworkers

Michael K Daley
Business Manager/Financial

International Brotherhood of
Electrical Workers LU 99

Jamie Rhodes
President
Environment Council of RI

Environment Council of Rhode Island's members include:

<p>Acadia Center American Chestnut Foundation MA/RI Chapter American Lung Association of the Northeast Apeiron Institute for Environmental Living Appalachian Mountain Club Arpin Group, Inc. Audubon Society of RI Blackstone River Watershed Council Buckeye Brook Coalition CCRI Students for Environmental Action Center for Environmental Studies at Brown Childhood Lead Action Project Citizens Climate Lobby RI Chapter Clean Ocean Access Clean Water Action Coastal Institute Common Fence Point Improvement Association Conservation Law Foundation Emerald Cities Providence Empire Loan Environment Rhode Island Environmental Justice League of Rhode Island Fossil Free Rhode Island Friends of India Point Park Friends of the Pawtuxet Full Circle Recycling Green Circle Design GreenWays Rhode Island Groundwork Providence Inc. Heartwood Group Inc. Herff Jones Inc. Lincoln Land Trust Mercy Ecology</p>	<p>National Education Association RI Nature Conservancy, (The) Newport Solar People’s Power & Light Providential Gardener RENEW Rhode Island Committee on Safety & Health RI Association of Railroad Passengers RICOSH RI Environmental Education Association RI Interfaith Power & Light RI Land Trust Council RI Saltwater Anglers Association RI State Nurses Association RI Student Climate Coalition RI Tree Council RI Wild Plant Society RIPTA Riders Alliance Roger Williams Park Zoo Save the Bay Save The Lakes Sierra Club of RI Southside Community Land Trust System Aesthetics LLC The Greene School Toxics Action Center Trust for Public Land (The) US Green Building Council, RI Chapter Washington County Regional Planning Council Westerly Land Trust Wood-Pawcatuck Watershed Association Woonasquatucket River Watershed Council</p>
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Mayor Jorge O. Elorza

Leah Bamberger



CITY OF PROVIDENCE

September 1, 2015

Kevin Flynn, Associate Director
Division of Planning
One Capitol Hill
Providence, RI 02908

RE: Comments on Energy 2035

Dear Mr. Flynn and members of the State Planning Council

Thank you for the opportunity to provide comments on *Energy 2035*, Rhode Island's energy plan. Both Rhode Island and the City of Providence's economies depend on the availability of clean, affordable, and reliable energy. We are already starting to see the impacts of climate change, from extreme flooding, to sea-level rise, to intense heat. *Energy 2035* demonstrates that there is a cost-saving alternative that will take us off our current trajectory of rising energy costs, increased risk, and environmental degradation.

The City of Providence is committed to doing its part to help the state achieve the goals set forth by this plan and the Resilient Rhode Island Act of 2014. We have divested our City's finances from some of the country's highest carbon pollution contributors. Mayor Elorza has called for a greenhouse gas reduction goal for the City that is at least on par with the state's goal. And lastly, Mayor Elorza has signed on to the Compact of Mayors, a global coalition of mayors and city officials that have pledged to reduce greenhouse gas emissions, enhance resilience to climate change, and publically track progress towards these goals.

If we are to achieve the state's and city's energy goals, equity must be a focus of every aspect of the plans. Current energy efficiency programs are best suited for single-family homeowners, yet all rate-payers are funding the programs. As we grow the renewable energy economy in the state, we must not ignore who has access to the benefits of the growth, and who is left on the sideline. In the final plan, the City of Providence respectfully requests that social equity be addressed.

The *Energy 2035* plan will be an invaluable document that can inform statewide policy going forward and set us on a new, more optimistic path. We commend your efforts to evaluate the balance between economic, safety and security, and environmental goals and study various paths forward. I am pleased that the results of this effort reinforce the understanding that the most economical path forward is also the most environmentally-friendly.

As clearly stated in the plan, we truly are at a crossroads, with significant energy infrastructure investment decisions pending that will decide whether we continue to rely on fossil fuels or adopt an aggressive approach to developing clean energy sources. This Plan identifies a clear path forward, but it will take strong leadership and new ways of thinking to put this Plan into action. The City of Providence will be an ally in this new approach.

Sincerely,

A handwritten signature in black ink, appearing to read "Leah Bamberger".

Leah Bamberger
Director of Sustainability

OFFICE OF SUSTAINABILITY
25 Dorrance St – Office 108
Providence, RI 02902
www.providence-ri.gov



September 1, 2015

Via Electronic Mail (kevin.flynn@doa.ri.gov)

Kevin Flynn
Associate Director for Planning
Rhode Island Department of Administration
One Capitol Hill, 3rd Floor
Providence, Rhode Island 02908

RE: Sierra Club's Comments on the June 2015 Preliminary Draft of *Rhode Island Energy 2035*

Dear Mr. Flynn:

On behalf of its more than 2,000 Rhode Island members, the Sierra Club submits these comments regarding the preliminary draft of *Rhode Island Energy 2035* ("the Draft Plan"). Sierra Club commends Rhode Island's recognition that its existing energy resources expose the state to "excessive risks, costs and environmental damage" and responding with a forward-thinking and strategic document to address these deficiencies and prepare for future challenges, including proposing to reduce greenhouse gas ("GHG") emissions by 45% below 1990 levels by 2035. With a significant update to the Regional Greenhouse Gas Initiative ("RGGI") forthcoming, the Sierra Club encourages Rhode Island to ensure that the new region-wide caps place Rhode Island on a course to achieve its 2035 GHG goals. Ultimately, it is in the State's interest to substantially reform its energy system, as the modeled business-as-usual scenario was the most expensive option presented in the Draft Plan, costing the State between \$6.6 billion and \$15.4 billion (8% to 19%) more in fuel costs, compared to alternative energy futures.

The Sierra Club supports the Draft Plan's top strategies: maximizing energy efficiency, promoting renewable energy, developing markets for alternative transportation fuels, and investing in energy infrastructure. These strategies represent the least-cost, least-risk, and most sustainable options to achieve the State's envisioned energy future. However, the Sierra Club is strongly opposed to the Draft Plan's recommendation of expanding natural gas infrastructure in the State. Instead, Sierra Club advocates for increasing renewable energy generation to meet additional energy demand, when not met by energy efficiency, and to replace natural gas capacity. Continued reliance on natural gas, particularly investments in additional gas infrastructure, will greatly hinder the State's progress towards its goals, and result in grave, immediate, and identifiable risks to both human and environmental health. Moreover, the Draft Plan

appears to have overestimated the cost of and omitted several key benefits of renewable energy generation, especially in comparison to natural gas, which may have skewed the Draft Plan's recommendations. Thus, it is essential the State adopt strategies emphasizing energy efficiency and renewable energy to meet additional energy demand, replace natural gas, and to swiftly achieve the Draft Plan's goals of building a low-cost, low-risk and sustainable energy system. Ultimately, it is important that the health, safety, and economic concerns of all Rhode Island residents be taken into account. With our large number of seniors and people of color, including many facing significant economic challenges, we need an inclusive and socially just transition.

I. The Sierra Club Welcomes Rhode Island's 2035 Greenhouse Gas Reduction Goal and Encourages the State to Ensure that the Forthcoming Updates to the Regional Greenhouse Gas Initiative Put the State on Track to Meet This Goal

Sierra Club applauds the Draft Plan for setting ambitious and measurable targets to guide and benchmark progress, including the goal of reducing GHG emissions by 45% below 1990 levels by 2035, which corresponds to a 2 to 2.5% reduction per year.¹ This pace would set the state on track to achieve approximately 80% GHG reductions by 2050, which is the generally accepted target to avoid the worst consequences of climate change and equivalent to the legislative or executive goals of every other state in the Northeast. The Sierra Club urges Rhode Island to use the State's 2035 GHG target as a benchmark for evaluating the sufficiency of revised RGGI requirements during the forthcoming 2016 RGGI program review.

II. Rhode Island Should Continue and Expand its Successful Energy Efficiency Policies to Achieve its Goals

Sierra Club supports the Draft Plan's strong emphasis on energy efficiency as the lowest cost, lowest risk and most sustainable strategy to achieve the Draft Plan's goals. The Draft Plan correctly identifies energy efficiency as "the single most cost-effective method for improving energy security and sustainability." Rhode Island has become a national leader on energy efficiency and energy efficiency plays a major role in Rhode Island's energy portfolio. Sierra Club supports the Draft Plan's recommendations to continue to increase and expand its essential role. More specifically, Sierra Club supports the Draft Plan's prioritization of energy efficiency as the primary means to meet energy needs. Accordingly, Sierra Club advocates for the renewal and expansion of the successful "Least-Cost Procurement" mandate that embodies this ideology and has already spurred major energy efficiency gains in the State. The "Least-Cost Procurement" policy implemented in 2006 has effectively ramped up energy efficiency in the State by requiring state utility providers to invest in

¹ Rhode Island Division of Planning, Rhode Island Energy 2035 – Preliminary Draft: June 2015, at 53, available at http://www.planning.ri.gov/documents/LU/energy/Energy2035_All_Preliminary_06032015.pdf ("Draft Plan").

all cost-effective energy efficiency (such as higher-efficiency lighting, HVAC systems and appliances, insulation, air sealing, etc.) before procuring additional, more expensive, conventional supply resources.² The mandate boasts over \$100 million of annual investment in energy efficiency programs that achieve electric savings exceeding 2.5% of load and gas savings exceeding 1% of load.³ Savings from the past decade of energy efficiency investments are supplying 12% of the state's electricity demand today, at an average lifetime cost of under 4 cents / kWh, and total economic benefits to the state exceed \$1 billion.⁴ Moreover, the mandate has already paved the way for many future energy efficiency gains as well: the modeled "business-as-usual" scenario for the electric sector shows energy reductions of 21% due to investments made through this mandate.⁵ Due to its success, the Least-Cost Procurement policy, expiring in 2018, should be extended.

Furthermore, the State should expand the scope of the Least-Cost Procurement mandate, as recommended in the Draft Plan, to address the State's unregulated fuel, or delivered fuel, customers. The current mandate only addresses regulated fuels—electricity and natural gas—but nearly 40% of Rhode Island homes heat with unregulated petroleum-based delivered fuels such as heating oil and propane. As a result, there is no dedicated energy efficiency program serving these customers, which leaves significant consumer, economic and environmental benefits on the table. Expanding the Least-Cost Procurement to cover these customers and address this gap would drive additional energy efficiency, fully extending the mandate's many benefits and potentially delivering 15 to 25% total energy savings by 2035.⁶

The policy's expansion will continue critical investments in energy efficiency, create economic benefits, and aid the State in progressing towards its sustainability and security goals in the most cost-effective manner. Sierra Club strongly supports the Draft Plan's overall emphasis on energy efficiency as a primary strategy to achieve its goal, and encourages the State to continue to be a leader in the energy efficiency field.⁷

III. Rhode Island Should Increase Renewable Energy Production to Meet Additional Demand to Expediently Replace Natural Gas Capacity

Sierra Club encourages the State to increase renewable energy generation—distributed and utility-scale solar and on- and off-shore wind—as a primary strategy to meet additional energy demands and replace natural gas capacity to ultimately achieve the Draft Plan's goals. Renewable energy has many benefits that are essential to the State's secure, cost-effective and sustainable energy future. Some of these benefits were identified in the Draft Plan, but several received little attention, including the advantages

² *Id.* at 60.

³ *Id.* at 61.

⁴ *Id.*

⁵ *Id.* at 37.

⁶ *Id.* at 61.

⁷ As mentioned in the Draft Plan, ACEEE lauds Rhode Island as an energy efficiency leader, ranking it 3rd in the country, according to the 2014 State Energy Efficiency Scorecard, available at: <http://aceee.org/files/pdf/state-sheet/rhode-island.pdf>.

of not being hostage to the vagaries of a volatile fossil fuel market, increased health and safety in disadvantaged neighborhoods, and attracting young professionals looking to establish themselves in a forward-looking state. The Draft Plan also omitted the lifecycle GHG and public health effects of natural gas, and did not substantially discuss replacing natural gas with renewable energy to meet its goals. The Draft Plan's modeling analysis also appears to have overestimated the cost of future renewable energy generation, while underestimating future natural gas prices, which may have skewed the Draft Plan's findings and overall recommendations.

A. Renewable Energy Provides Fuel Diversity and Price Hedging

Renewable energy is essential in diversifying the State's energy supply portfolio, which is overwhelmingly dominated by imported fossil fuels and, in particular, natural gas. The State's overwhelming reliance on natural gas, which supplies over 50% of its energy needs,⁸ poses a serious risk to its energy security. Not only does Rhode Island sit at the end of a long and complex stretch of pipeline infrastructure posing significant supply risk, but natural gas is also prone to price volatility, only further exacerbated by the region's constrained supply and limited pipeline capacity. Thus, to achieve one of the Draft Plan's primary goals of improving energy security, it is imperative for the State to massively increase renewable energy generation—especially in-state renewable generation—which not only diversifies its portfolio but also serves as a price hedge against volatile fossil fuel prices.

Moreover, instead of expanding natural gas infrastructure as mentioned in the Draft Plan, the State should develop policies that encourage and facilitate renewable energy generation, especially in the electric sector, which offers the potential for the most dramatic increases (> 30%) in fuel diversity.⁹ However, the Draft Plan's goal is relatively vague and broad, simply stating a desire to “increase fuel diversity in each sector above 2013 levels,” which is not stringent enough to substantially improve the State's energy security and resiliency. Sierra Club encourages the State to substantially increase fuel diversity, namely with renewable energy, to ensure a secure energy future.

B. Renewable Energy is a Low Cost Resource with Economic Benefits

The current energy mix is heavily reliant on imported fossil fuels, and thus sets up the vast majority of energy expenditures to flow out of the state and region. Increasing renewable generation in-state will provide the opportunity to re-route this wealth back to the state and bring a multitude of economic benefits, such as industry growth, job creation, tax revenue and more. While much of New England's land-based wind resource is found in northern New England, Rhode Island has access to a large off-shore wind resource as well as opportunities for both distributed and utility-scale solar.

The Draft Plan included unrealistic assumptions that appear to dramatically overstate the cost of increasing renewable generation. Of particular significance, the

⁸ Draft Plan at 42.

⁹ *Id.*

Draft Plan relied on “current overnight cost data on renewable energy technologies across the whole planning horizon, without any modeled decline over time.”¹⁰ This assumption is starkly at odds with recent price patterns and predictions because, as the Draft Plan acknowledges, there have been significant drops in costs of such technologies in recent years.

For example, the price of electricity sold to utilities from large-scale solar projects under long-term contracts has fallen by more than 70 percent since 2008, and the cost of installing utility scale projects dropped by more than a third since 2009.¹¹ The massive price drop extends to homeowners as well. According to the National Renewable Energy Laboratory, the cost of putting solar panels on a typical house has dropped nearly 70% since 1998.¹² The wind industry echoes these astronomical drops, with prices plummeting by more than half in recent years.¹³ Wind and solar prices have dropped so much in fact that they are now cheaper than coal and natural gas in some markets.¹⁴

Not only have wind and solar prices plunged in recent years, but recent predictions are that prices will continue to decline. For example, a 2014 Deutsche Bank report predicts that without any changes to existing policy, solar power will be as cheap or cheaper than electricity from the conventional grid in every state—including Rhode Island—except three.¹⁵ In stark contrast, natural gas prices are generally predicted to increase in various modeled scenarios, despite varying according to assumptions about domestic production, overseas demand, and trends in domestic consumption.¹⁶ Thus, the Draft Plan’s modeling greatly overestimated the cost of renewable energy generation, especially in comparison to natural gas, and the State should not ignore increased renewable energy generation as a primary option to not only meet additional energy demand but also replace natural gas capacity.

In addition, the Draft Plan barely mentions energy storage, which can enhance benefits from renewable generation, resulting in lower cost and lower overall capacity needs. Moreover, used appropriately, energy storage can increase grid efficiency, reduce the delivered cost of energy and ancillary services, increase reliability, and reduce infrastructure requirements. Recent energy storage procurement has shown that costs are lower than anticipated, and energy technology costs continue to fall as production and

¹⁰ *Id.* at 48.

¹¹ Diane Cardwell, Solar and Wind Energy Start to Win on Price vs. Conventional Fuels, *New York Times* (Nov. 23, 2014), available at http://www.nytimes.com/2014/11/24/business/energy-environment/solar-and-wind-energy-start-to-win-on-price-vs-conventional-fuels.html?_r=0 [hereinafter Cardwell].

¹² Tim McDonnell, Here Comes the Sun: America’s Solar boom, in *Charts*, Mother Jones (November 7, 2014), available at: <http://www.motherjones.com/environment/2014/11/solar-energy-power-boom-charts>

¹³ See Cardwell.

¹⁴ According to a study by the investment banking firm Lazard, the cost of utility-scale solar energy is as low as 5.6 cents a kilowatt-hour, and wind is as low as 1.4 cents. In comparison, natural gas comes at 6.1 cents a kilowatt-hour on the low end and coal at 6.6 cents. See Cardwell.

¹⁵ Tom Randall, While You Were Getting Worked Up Over Oil Prices, This Just Happened to Solar, *Bloomberg*, (October 29, 2014), available at: <http://www.bloomberg.com/news/articles/2014-10-29/while-you-were-getting-worked-up-over-oil-prices-this-just-happened-to-solar>

¹⁶ US Energy Information Administration, *Annual Energy Outlook 2015 with Projections to 2040*, (April 2015), at 6, available at: [http://www.eia.gov/forecasts/aeo/pdf/0383\(2015\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383(2015).pdf)

integration of resources increases.¹⁷ Energy storage is a vital to consider when planning increased renewable energy generation, especially to prepare for a more secure, sustainable and cost-effective energy future.

C. Public Health and Environmental Benefits

The Draft Plan did not substantially discuss the public health and GHG impacts when examining and contrasting renewable energy and natural gas. More specifically, the Draft Plan omitted many environmental drawbacks of natural gas, including lifecycle GHG emissions and the larger carbon footprint of shale gas,¹⁸ especially in comparison to renewable energy.¹⁹ Additionally, the Draft Plan did not mention any public health risks when discussing natural gas,²⁰ and did not discuss any avoided public health costs of renewable energy, especially in comparison to fossil fuels. The expansion of the liquefied natural gas facility at Fields Point illustrates some of these risks: It is located on a fault line; it is on the wrong side of the hurricane barrier; and it is located next to a toxic chemical plant in a low-income neighborhood where evacuation would be challenging.

D. Strategies to Increase Renewable Energy Generation

Bold renewable energy policies are essential in guiding Rhode Island to achieve its commendable greenhouse gas emission reduction target of 45% below 1990 levels by 2035. Sierra Club supports the Draft Plan's recommendation to significantly increase the Renewable Energy Standard as a tool to reach the Draft Plan's emission reduction goals, especially as its current target lacks far behind the targets of other northeastern states.²¹

Sierra Club supports expanding the State's successful renewable energy procurement policies, including state support for offshore wind projects and the requirement for primary electric distribution companies to enter into long-term power purchase agreements ("PPAs") with renewable energy generators. Renewable energy PPAs have been widely successful throughout the country in deploying renewables and keeping costs low. Given Rhode Island's access to a significant offshore wind resources, the Sierra Club strongly encourages the State to set targets well beyond the 150 megawatts envisioned in the Draft Plan.

¹⁷ Aachen University, *Battery Storage for Grid Stabilization* (October 2014), available at <http://www.iea.org/media/workshops/2014/egrdenegystorage/Leuthold.pdf>

¹⁸ Robert Howarth, Renee Santoro, and Anthony Ingraffea, *Methane and the Greenhouse-Gas Footprint of Natural Gas from Shale Formations*, (March 13, 2011), available at: <http://www.eeb.cornell.edu/howarth/Howarth%20et%20al%20%202011.pdf>

¹⁹ National Renewable Energy Laboratory, *Life Cycle Assessment Harmonization Results and Findings*, available at: http://www.nrel.gov/analysis/sustain_lca_results.html

²⁰ Jake Hays and Adam Law, *Public Health Concerns of Shale Gas Development*, Physicians for Social Responsibility, available at:

<http://www.psr.org/environment-and-health/environmental-health-policy-institute/responses/public-health-concerns-of-shale-gas-development.html>

²¹ Draft Plan at 18 (recognizing that "compared to existing RPS mandates and goals in other northeastern states, Rhode Island's standard of 16 percent by 2019 could be viewed as conservative.")

Moreover, the Draft Plan lacks significant mention of distributed generation and its benefits, which can be used as a relatively low-cost method of significantly increasing renewable energy generation while improving grid resiliency. In addition to the previously mentioned benefits of renewable energy such as financial risk hedging and pollution reductions, distributed generation offers a variety of well-established benefits including avoided generation, transmission and distribution capacity and costs, avoided grid support services, and reduced security risk.

E. The Sierra Club Supports the Draft Plan’s Recommendations for Overcoming Obstacles to Increased Renewable Energy Generation

One of the most frequently cited hurdles impeding the growth of renewable energy is the high upfront capital and financing costs for new renewable energy projects. Sierra Club supports the Draft Plan’s various creative recommendations to address this obstacle, such as the Property Assessed Clean Energy (“PACE”) program, which allows property owners to repay the costs of energy efficiency or renewable energy projects in conjunction with property tax payments, thus addressing the upfront costs. Sierra Club also supports the Draft Plan’s recommendation of streamlining processes to reduce the “soft,” or non-hardware, costs of renewable energy, which include the siting, permitting, zoning and interconnection. As the costs of many renewable energy technologies have steeply fallen in recent years, the “soft” costs comprise an increasing portion of project costs. Sierra Club encourages the State to continue to develop and modify these creative financing tools to facilitate the adoption of renewable energy.

III. Conclusion

Sierra Club commends Rhode Island for developing a substantial, comprehensive and long-term energy plan to not only address vulnerabilities of its energy system but transform it to become more secure, cost-effective and sustainable. Sierra Club supports the strong emphasis on energy efficiency and renewable energy to achieve these goals, and also advocates for increased renewable energy generation to replace natural gas. Preserving a livable environment for future generations is not just sound policy; it is our moral imperative.

/s/ Isabelle Riu

Isabelle Riu
Research Analyst
Sierra Club
50 F St NW, 8th Floor
Washington, DC 20001
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To: 'Musher, Danny (DOA)' <Danny.Musher@energy.ri.gov>
Cc: Michelle Carpenter <mc@wedenergy.com>
Subject: RISEP comments

Hi Danny,

... We just have a couple comments that are not earth-shattering but would make the plan stronger. Please give me a call with any questions.

- The executive summary section should be updated regarding onshore wind projects.
- There are 15 MW in development in Coventry – worth mentioning.
- Wind is not a new industry if the first turbine was built in 2006. 9 years is a pretty long time. I would get rid of the opening sentence that says “relatively new...wind energy is not so new.
- We estimate that ~20 MW of new onshore wind per year is a reasonable and modest prediction for WED’s pipeline. I think the 70MW for scenarios 1 & 3 (Figure 40) is pretty low considering that the plan is for 20 years.

That’s all. Good job. Talk to you soon.

Hannah

Hannah Morini

Project Developer



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September 1, 2015

Danny Musher
Chief Program Development
RI Office of Energy Resources
One Capitol Hill
Providence, Rhode Island 02908
Danny.Musher@energy.ri.gov

Dear Mr. Musher,

Deepwater Wind appreciates the opportunity to provide comments in response to the preliminary draft of the Rhode Island State Plan: Energy 2035. We commend the State of Rhode Island for its leadership in clean energy policy and look forward to working with the state to help transition to a clean energy economy.

In following, we provide background on Deepwater Wind, including the experience of our company, the maturation of offshore wind technology and the offshore wind resource available to serve Rhode Island. Finally, we offer suggestions on the design of the Energy 2035 Plan that can facilitate the cost-effective development of both renewable energy, and local offshore wind resources.

I. BACKGROUND

Company Experience

Deepwater Wind offers these comments not only as a proud Rhode Island based company, but also as the leading developer of offshore wind in the United States. On July 26, 2015, we installed the first foundation for our Block Island Wind Farm, the first offshore wind farm in America. This 30 MW project employs the most advanced wind turbine technology from Europe and will generate enough power for 17,000 homes. In addition to Block Island, we are developing Deepwater ONE – a regional offshore wind farm designed to serve southern New England and eastern Long Island. This 256 square mile offshore wind site has a unique combination of shallow waters, strong winds and distance from shore that allows it to deliver cost-effective clean energy without controversy. Deepwater Wind's team consists of experts in energy project development and offshore construction with an average of 20+ years of experience. Our primary owner is the D.E. Shaw group, a Manhattan-based investment and technology company with \$36 billion in assets under management.

Technology and Cost Effectiveness

Offshore wind has become a mature technology. According to the European Wind Energy Association, 3,072 offshore wind turbines, with a collective rated capacity of 10,387 MW, were in service as of July 2015. In the first six months of 2015 alone, the European market installed 584 offshore wind turbines with a combined capacity totaling 2,342 MW.

The scale of the European offshore wind market has significantly reduced the cost of offshore wind power. The UK's recent Offshore Wind Cost Reduction Pathways Study¹ estimated "a range of potential capital costs reductions of between 27-63%" that allowed for reductions in the levelized cost of energy from the established "baseline" for current projects of £140 / MWh (\$219 / MWh) to a best case of target of £89 / MWh (\$139 / MWh) for projects in 2020. A recent study from BVG Associates² found that "real, tangible advances in technology, the supply chain, and policy have combined to drive down the cost of energy for projects about to go into construction in 2015. This downward pressure is expected to continue, with offshore wind projects going into construction in 5 years that are competitive with new CCGT plant."

Rhode Island's Offshore Wind Resource Potential

The waters of the Atlantic Ocean off the coast Rhode Island have some of the greatest potential for offshore wind energy development anywhere in the world. As shown in *Energy 2035*, offshore wind has the potential to supply nearly 4,000,000 MWh of electricity.³

Offshore wind is particularly valuable as an energy resource because of its peak-coincidence. Offshore wind is fueled by temperature differentials between land and sea. This means that during particularly hot or cold periods, offshore wind is at its peak output.

As any sailor knows, the winds offshore pick up in the early afternoon hours and are sustained through the early evening hours due to the "sea-breeze" effect. This effect allows offshore wind farms to deliver energy at the time of day Rhode Island is most in need of energy. Also, because offshore wind peaks in output during the coldest winter days, it will help mitigate costly price spikes due to natural gas constraints.

II. CHALLENGES AND OPPORTUNITIES

Energy 2035 Renewable Portfolio Standard

We commend the state for its commitment to "increase sector fuel diversity, produce net economic benefits, and reduce greenhouse gas emissions by 45 percent by the year 2035." To achieve this goal, we recommend the state adopt a more aggressive Renewable Energy Standard (RES) of 50 %. As modeled in the Plan, and in addition to a greater RES, a more ambitious renewable energy procurement policy than is currently in statute will also be required to achieve a 45% reduction in greenhouse gas emissions.

¹ Crown Estate (2012). *Offshore Wind Cost Reduction Pathways Study*. The Crown Estate. June 2012. Online. Available: <http://www.thecrownestate.co.uk/media/5493/ei-offshore-wind-cost-reduction-pathways-study.pdf>

² BVG (2015). *Offshore Wind: Delivering More for Less*. BVG Associates. July 2015. Online. Available: http://statkraft.com/globalassets/4-statkraft-uk/offshore_wind_more_for_less_pages.pdf

³ Rhode Island Office of Energy Resources (2015). *Energy 2035 Rhode Island State Energy Plan*. June 2015. Energy 2035 Page 41

The Plan modeled the impacts of a 25%, 40% and 75% RPS. Although both a 40% and 75% RPS are ambitious RPS targets, the latter was the only modeled scenario in which the State of Rhode Island was able to achieve “the Energy 2035 performance measure target of 45 percent reduction in economy wide GHG emissions.” Deepwater Wind believes that achieving this forward-looking goal will establish Rhode Island as clean energy leader. However, for this to be possible, we believe that Rhode Island must procure at least 50% of its energy from renewable resources. Doing so will allow the state to both achieve its goals and maintain a position of leadership in clean energy policy.

The State of New York and the State of California have each recently released their respective plans and each state prescribed a more aggressive RPS goal. In its state energy plan released in June of this year, New York sites a goal of 50% electricity generation from renewable resources by the year 2030⁴. Additionally, the state of California has introduced legislation that would raise its RPS to 50% by the year 2030.⁵ Although each of these states is noted for both their large populations and large geographic size, both states are among the bottom four in energy consumed per capita. According to the Energy Information Administration, California ranks 48th and New York ranks 50th in energy consumed per capita with California consuming 200 million BTU per capita, and New York consuming 184 million BTU per capita. It should be noted that Rhode Island is tied with New York as the lowest consumer of energy per capita, consuming just 184 million BTU per capita.⁶ Thus, although there are more ratepayers in the aforementioned states, because all three consume a similar amount of energy per capita, each will be similarly affected by renewable energy procurement. In order for Rhode Island to stay in line with its peers, it must adopt a similar RPS.

Deepwater Wind strongly supports an RPS of 50% by the year 2035.

Expand Renewable Energy Procurement, Particularly Offshore Shore Wind

As part of the analysis for Energy 2035, the in-state power procurement and out-of-state REC purchases were modeled against RPS scenarios of 25%, 40%, and 75%. It should be noted that the Plan sites through “combining a more modest RES increase with an expansion of [the Long Term Contracting Standard for Renewable Energy (LTC), and Distributed Generation (DG) Standard Contracts Program] could result in an overall portfolio of clean energy procurement programs that combine to achieve the GHG performance measure target.”

⁴ New York State Energy Planning Board (2015). *The Energy to Lead*. New York State Energy Planning Board. September 1, 2015. Online. Available: <http://energyplan.ny.gov/Plans/2015>

⁵ Senator Kevin de Leon & Senator Mark Leno (2015). *SB 350 Golden State Standards 50-50-50*. California Senate. September 1, 2015. Online. Available: <http://focus.senate.ca.gov/sites/focus.senate.ca.gov/files/climate/505050.html>

⁶ EIA (2013). *Rankings: Total Energy Consumed Per Capita, 2013*. EIA. September 1, 2015. Online. Available: <http://www.eia.gov/state/rankings/?sid=US&CFID=18396237&CFTOKEN=7c78c65083926a45-B59CE885-25B3-1C83-5494C8EE80E0816B&jsessionid=84301233a5084ab673e06f5a44662c561b11>

However, in each of the modeled scenarios, only 180 MW of offshore wind capacity is procured. This accounts for the 30 MW Block Island Wind Farm (BIWF), and a 150MW utility scale offshore wind farm as provided under the LTC mandate. It should also be noted that Section 39-26.1-2 of the LTC mandate defines contract capacity based on the ISO-NE capacity rules which states “the capacity under contract shall be adjusted by the capacity factor of each renewable generator...by way of example, a contract with a one hundred (100) megawatt facility with a thirty percent (30%) capacity factor would be counted as providing thirty (30) megawatts to the minimum long-term contract capacity requirement.”⁷ Based on ISO-NE’s determination of capacity for an offshore wind resource, Rhode Island has the potential to procure a nearly 400 MW offshore wind farm under current statute; this resource would go a long way to helping Energy 2035’s ambitious goals.

Increasing the amount of offshore wind capacity procured under LTC will allow the State of Rhode Island to optimize its local renewable generating resources. This will not only help Rhode Island achieve its clean energy goals, but contribute to the local economy through the creation of construction and clean energy jobs, leading the transition to a clean energy economy.

Respectfully submitted,



Clinton L. Plummer
Vice President, Development
Deepwater Wind

⁷ RIPUC (2009). *Long Term Contract Standard for Renewable Energy*. RIPUC. September, 1 2015. Online. Available: <http://webservice.rilin.state.ri.us/Statutes/title39/39-26.1/39-26.1-2.HTM>

From: Scott A. Gibbs [<mailto:sgibbs@edf-ri.com>]
Sent: Wednesday, September 02, 2015 3:12 PM
To: Flynn, Kevin (DOA) <Kevin.Flynn@doa.ri.gov>
Cc: Rhodes, Jared (DOA) <Jared.Rhodes@doa.ri.gov>
Subject: Draft Energy Plan

Kevin:

I appreciated the opportunity to attend the public hearing regarding the draft State Energy Guide Plan. This Plan is a reflection of EPA 111D with the directive to increase the use of clean energy and reduce the emission of greenhouse gases. Clearly the draft plan achieves this directive.

My critique is based on the very assumption of the draft plan, which is that the current energy business model remains intact. Specifically, this energy business model is one where investor-owned utilities are guaranteed returns on their assets by the actions of the rate regulators. The current legacy model has the costs associated with energy efficiencies and renewables passed through to consumers with no concurrent direct consumer benefits. The consequences of this legacy business model are that energy consumers are disconnected from the costs/benefits of their respective actions and utilities find no motivation to innovate and improve. Its a typical government sanctioned monopolistic business model that fails to lead and innovate.

It is my opinion that to truly create a new future energy vision we must redesign the business model. The State of New York is leading in this area with the adoption of the Reforming the Energy Vision (REV). REV fundamentally reforms the way we view utilities, energy generators and consumers. Utilities play the focused role of energy grid managers including the maintenance of transmission infrastructure and smart infrastructure that enables energy consumers to fully understand, track and control their carbon footprint and energy costs. Energy generators sell into the grid at wholesale prices, which includes consortiums of adopters of energy efficiencies who can sell their generating capacity savings. Imagine entire communities and their residents taking the lead to position their respective communities as energy efficiency leaders and to realize the direct benefits of that action. Imagine commercial property owners collaborating to package their combined energy efficiency savings and selling these savings to the grid. Instead of relying upon publicly mandated efficiency programs, why not establish the mechanisms where private institutional investor capital underwrites investments in energy savings for property owners/businesses supported by power purchase agreements with the utilities. Imagine the emergence of micro grids focused around anchor institutions (e.g. hospitals) that are connected to the grid yet can operate independently through their own energy generators.

In addition to New York's REV, California has been quietly adopting elements of the REV initiative. Massachusetts recently announced its own new initiative (<http://www.utilitydive.com/news/mass-utilities-target-tou-rates-derintegration-in-grid-modernization-fil/404950/>). These initiatives are consistent with the Third Industrial Revolution, which is being conceptually adopted in Europe. I argue that the time is now to have a deep discussion about energy and how Rhode Island can establish a unique leadership position that

not only reduces carbon gas emissions, but also creates an energy system that is both environmentally resilient and system resilient. We need to create strong connections between the actions of energy consumers and the costs/benefits of those actions. In an ideal world, each and everyone of us are managers of our own energy portfolio and carbon footprint.

In summary, my critique is that the draft Energy Guide Plan in the end will not have a meaningful impact on our energy behaviors. The draft Energy Guide Plan is an exercise in counting and not advancing a combined energy intelligence.

I appreciate the opportunity to make these comments.

Best Wishes,

Scott

Brookfield

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September 1, 2015

Subject: Public Comment from Brookfield Renewable Energy Group on Rhode Island's "Energy 2035"

Rhode Island, through the State Planning Council, has invited feedback on its draft plan called "Energy 2035" as an Element of the State Guide Plan. Brookfield Renewable Energy Group ("Brookfield Renewable") is providing these brief comments on the draft plan.

Brookfield Renewable operates one of the largest publicly-traded, pure-play renewable power platforms globally. Its portfolio is primarily hydroelectric and totals over 7,000 megawatts of installed capacity. Diversified across 75 river systems and 14 power markets in North America, Latin America and Europe, the portfolio's output is sold predominantly under long-term contracts and generates enough electricity from renewable resources to power more than three million homes on average each year. Brookfield Renewable has a significant presence across the Northeast, with over 2,400 MWs in operation across 132 facilities, including hydroelectric, pumped storage, and a wind farm.

One of our Maine projects – the 3.9 megawatt Orono B run-of-the-river hydro facility, has a Power Purchase Agreement with National Grid in Rhode Island. This contract was approved and deemed economically efficient for Rhode Island ratepayers compared to other alternatives.

Brookfield Renewable supports the two Energy 2035 recommendations related to renewable energy: "Expand the Renewable Energy Standard" and "Expand renewable energy procurement", with a few comments. Brookfield Renewable, like all companies everywhere, depends on stable, predictable regulations to determine future investment. As a company, we often acquire operating renewable energy projects and upgrade existing projects based on the anticipated market, which is strongly influenced by the Renewable Energy Standards in Rhode Island and across New England.

Consider increasing the procurement of existing renewable energy:

If Rhode Island is to increase the Renewable Energy Standard, Brookfield Renewable would encourage Rhode Island to consider also increasing the percentage of existing renewable energy resources procured in future years; currently 2% of the Rhode Island Renewable Energy Standard ("RES") can come from either New or Existing Renewable Energy. Aging clean energy projects can have increases in expenses that threaten project profitability and on-going viability. For instance, this year in Maine Brookfield Renewable is spending a significant amount on projects for improvements to fish passage in order to enhance ecosystems around our facilities. As renewable energy projects across New England continue to age, having strong support for existing resources will ensure these projects stay online and deliver clean energy.

One possible way of doing this is starting in 2019, to increase the percentage in the New or Existing Renewable Energy Tier by .5% every 2 years: such as 2.5% in 2019, 3% in 2021, etc. to go up to 10% in 2035.

Allow for existing projects to be eligible for long-term contracts

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Rhode Island has recognized the value in long-term contracts for new renewable energy resources, and in the Energy 2035 proposal has proposed additional renewable energy procurement. Brookfield Renewable would encourage the state to consider allowing for existing projects to also be eligible for long-term contracts. Contracts on existing projects gives the dual benefit of predictable revenue streams for the renewable energy owner, as well as lowered costs for ratepayers. This also helps to ensure that existing renewable energy resources count towards state and federal greenhouse gas emission reduction goals. Finally, long term contracts for existing assets also assures reliability as these assets have a recognized operational record.

Thank you for the opportunity to submit these comments and I look forward to more discussions.

Jeff Bishop

A handwritten signature in black ink, appearing to read "Jeff Bishop", written in a cursive style.

Senior Director, Governmental Affairs