New England States
Committee on Electricity

To: **ISO-NE/Planning Advisory Committee**
From: **NESCOE (Contact: Dorothy Capra)**
Date: **July 23, 2015**
Subject: **Comments/Edits to Draft 2015 Regional System Plan**

The New England States Committee on Electricity (NESCOE) appreciates the opportunity to review and offer comments on the draft 2015 Regional System Plan (RSP). NESCOE's comments lend themselves to redlined edits, the same form of RSP feedback many stakeholders provide to ISO-NE. However, ISO-NE classifies the entire 199 pages of the draft RSP as *Critical Energy Infrastructure Information*, which classification precludes NESCOE from sharing with stakeholders (and indeed, from sharing broadly with states) redlined comments on passages that have no connection to *Critical Energy Infrastructure Information*. To enable communication of comments on non-Critical Energy Infrastructure Information, NESCOE provides below snapshots of the draft with redlined comments. NESCOE encourages ISO-NE to mark information as *Critical Energy Infrastructure Information* when it is and not to mark information as such when it is not.

The draft RSP is very lengthy and includes many characterizations along with facts. That NESCOE does not express a view on many of the characterizations should not be interpreted as concurrence.

NESCOE appreciates ISO-NE's consideration of its comments.

Page 1:

The region has reached a turning point in addressing several key challenges to system reliability. New England is increasingly dependent on natural-gas-fired generation, which exposes the region to significant energy supply, reliability, and price issues. This dependence is the result of the expected retirements of several coal, nuclear, and oil generators, which are underway. Environmental regulations addressing air and water emissions from thermal power plants remain in a state of flux but will likely reduce the operating capability and flexibility of these plants and could prompt additional retirements.

A number of ISO actions and market responses are addressing these challenges. The ISO's 2014/2015 Winter Reliability Program and improved coordination between the electric power and natural gas systems helped provide greater fuel certainty this past winter. Although the region was exposed to high natural gas prices during the winter, the high prices led to increased liquefied natural gas (LNG) deliveries to the region and therefore additional supply. New resources are developing, and improved resource performance is anticipated beginning in 2018 in response to changes in the Forward Capacity

Author
Comment: The sentence was not correct as written. The dependence on gas is unrelated to limited infrastructure or presence of contracts, though that of course may make the situation more problematic.

Author
Deleted: the limited natural gas pipeline infrastructure that does not have firm contracts with regional power generation facilities and

Page 2:

Public policies that promote energy efficiency and variable energy resources are reducing the need for more traditional resources. The operation of new VERs and EE in New England is assisting the region in meeting air and water regulations. Several new ties to eastern Canada, which are in various stages of development, could also bring additional hydroelectric energy into the region if they move forward and become operational, and help meet future regional environmental requirements as well as capacity and energy needs.

Author
Deleted: would

Page 13:

The results of the Strategic Transmission Wind Analysis will be used in the 2015 economic studies of onshore wind development in Maine. These studies will show the economic benefits of relieving transmission constraints in the Keene Road area and other areas of Maine. The results also may be used to identify the need for future Market-Efficiency Transmission Upgrades and for projects facilitating the integration of wind resources. A third 2015 economic study will examine the interconnection of offshore wind resources along the southeastern coast of New England.

1.3.9 Federal, State, and Regional Initiatives that Affect System Planning (Section 11)

The ISO continuously works with a wide variety of policymakers and other regional and interregional stakeholders on initiatives that influence electric power system planning. These groups include the New England Conference of Public Utilities Commissioners (NECPUC), the New England States Committee on

Author
Comment: The process to determine needs for public policy projects is in Attachment K and is based on laws and regulations. The requests are not informed by economic studies.

Author
Deleted: to inform public policy requests

Page 13:

The Connecticut Department of Energy and Environmental Protection (CT DEEP), the Massachusetts Department of Energy Resources (MA DOER), and the electric distribution companies of Massachusetts and Rhode Island are in the process of issuing a request for proposals for clean energy and transmission.[28] The purpose of the three-state procurement is to identify projects that could help the procuring states meet their clean energy goals in a cost-effective manner and that bring additional regional benefits, such as lower costs to consumers. The soliciting parties decided to act jointly to open the possibility of procuring large-scale projects that no one state could procure on its own.

Regional initiatives continue developing and integrating new technologies and enhancing operating and planning procedures to improve system reliability. Several of the technology developments and

Author
Comment: MA DOER is not an issuing party but, rather, serves as an advisory participant to the EDCs. See the draft RFP for more information, at cleanenergyrfp.com.

Page 18:

- Release of locked-in generating resources
- Present-worth factors for each project specific to the owner of the project
- Present-worth period not exceeding 10 years
- Cost of the project

Analyses can include historical information from market reports and special studies, for example, and they report on cumulative net present value annually over the study period.

2.1.1.3 Public Policy Transmission Upgrades

A *Public Policy Transmission Upgrade* (PPTU) is an addition or upgrade designed to meet transmission needs driven by public policy requirements. The planning process for PPTUs includes input from the New England States Committee on Electricity (NESCOE; see Section 11.2.1) and the Planning Advisory Committee (PAC; see Section 2.1.5). The ISO is responsible for selecting PPTUs from the proposals

Author
Comment: The ISO is a RTO and does not establish public policy requirements. It commences a planning process if such requirements are identified pursuant to Section 4A.

Author
Deleted: ISO establishes public policy requirements that may drive transmission needs through

Author
Deleted:

Author
Deleted: then

Author
Deleted: s

Page 19:

submitted by interested project sponsors. The ISO must initiate the planning process for PPTUs at least once every three years, in accordance with the tariff (see Sections 2.1.7).[34]

2.1.1.4 Generator Interconnection Upgrades and Generator-Interconnection-Related Upgrades

A *Generator Interconnection Upgrade* is an addition or modification to the New England transmission system for interconnecting a new or existing generating unit whose energy or capacity capability is materially changing and increasing, whether or not the interconnection is for meeting the Network Capability Interconnection Standard or the Capacity Capability Interconnection Standard.[35] Costs of *Generator-Interconnection-Related Upgrades* typically are allocated to the generator owner in accordance with the OATT.

Author
Comment: These edits are to conform the RSP to the tariff.

Author
Deleted: plans to initiate the public policy planning process in January 2016

Author
Deleted: its compliance filing for FERC Order No. 1000

Page 24:

The March 19, 2015, order also requires the ISO to evaluate the solutions offered after a public policy transmission need is identified and to select the more cost-effective or efficient project for inclusion in the Regional System Plan.[55] For public policy projects, absent an alternative cost allocation accepted for a specific project, 70% of the costs of upgrades must be allocated throughout the region. The remaining 30% of the cost must be allotted to those states with an identified need from the public policy project. FERC reasoned that this allocation is roughly commensurate with the regional benefits of network transmission and the more localized benefits to the states whose public policies drive the transmission needs. The ISO must initiate the planning process for PPTUs at least once every three years. RSP15, however, discusses federal, state, and regional initiatives affecting the planning process and planning studies (see Section 11).

Author
Deleted: that would benefit

Author
Comment: Edit is to conform the RSP to the tariff requirement.

Click to accept change
Deleted: The ISO plans to implement the public policy portion of Order No. 1000 beginning January 2016

[51] *Third Order No. 1000 Regional Compliance Filing of ISO New England Inc. and the Participating Transmission Owners Administrative Committee*, Docket No, ER13-193-__ (May 18, 2015), http://www.iso-ne.com/static-assets/documents/2015/05/er13-196-004.pdf and http://www.iso-ne.com/static-

Page 80:

interconnection requests; see Section 10.2), substantially all the generator interconnection requests made through 2014 have completed the system impact study phase or have moved to the Interconnection Agreement and commercialization phases.

Author
Comment: What is the reason for the ME backlog? Is it sheer number of requests? If so, perhaps add data (x% of all requests are in ME). A breakdown by # of requests rather than MW may provide insight.

Table 5-4
Summary of Queue Projects as of April 1, 2015

Category of Projects	Projects	Total Capacity (MW)

Page 120:

NERC further recommends that each region investigate how changes to the resource mix in certain areas, particularly with the onset of variable energy resources, have affected their systems, including essential reliability services.

Author 7/15/15 1:51 PM
Comment: What ISO thinks NERC should do is not appropriate for the RSP.

Author
Deleted: The NERC Essential Reliability Services Task Force should develop additional metrics for measuring the impacts to reliability of a resource mix that is increasingly dependent on variable resources. The electric power industry should continue to examine how wind and solar plants can contribute to frequency response, and it should develop interconnection requirements for ensuring that system operators can maintain essential reliability services. NERC should consider using new approaches to evaluate the changing behavior of the bulk power system. These additional approaches should consider essential reliability services, Probabilistic metrics, and transmission adequacy assessments—in conjunction with the existing reserve margin metric—to address and evaluate potential reliability issues in the future.

7.3 IRC Activities

Created in April 2003, the ISO/RTO Council (IRC) is an industry group consisting of the nine functioning ISOs and RTOs in North America. These ISOs and RTOs serve two-thirds of the electricity customers in the United States and more than 50% of Canada's population. The IRC works collaboratively to develop effective processes, tools, and standard methods for improving competitive electricity markets across much of North America. Each ISO/RTO manages efficient, robust markets that provide competitive and reliable electricity service, consistent with its individual market and reliability criteria.

While the IRC members have different authorities, they have many planning responsibilities in common because of their similar missions. As part of the ISO/RTO authorization to operate, each ISO/RTO independently and fairly administers an open, transparent planning process among its participants. These activities include exchanging information, treating participants comparably, resolving disputes, coordinating infrastructure improvements regionally and interregionally, conducting economic planning studies, and allocating costs. This ensures a level playing field for infrastructure development driven efficiently by competition and meeting all reliability requirements.

Page 128:

8.2 Natural Gas Infrastructure

New England's natural gas supply and delivery infrastructure, and its limitations, have become an area of focus for improving the region's fuel availability. Six interstate pipelines currently serve New England:

- Four provide access to gas from the south and west:

Author
Comment: PNGTS does not originate in the south or west

Author
Deleted: originate

[234] "ISO New England Status of Non-Price Retirement Requests" (November 21, 2014), http://www.iso-ne.com/static-assets/documents/2014/09/npr_tracking_external.pdf.

Page 146:

Recent changes for increased flexibility of scheduling natural gas will allow generators to more reliably respond to system conditions. Planned improvements to the regional and interregional natural gas infrastructure also would help. Greater fuel certainty could be further improved in a number of ways:

- Firm contracts with natural gas pipelines would support the building of new natural gas pipeline capacity.
- Firm contracts with natural gas suppliers, including LNG operators, would improve the likelihood of generators procuring natural gas.

Author 7/15/15 2:35 PM
Comment: ISO should restructure the deleted sentence to conform to what ISO has said consistently about FCM and its implications for natural gas. See for example ISO letter to MA DOET dated July 6, 2015.

Author
Deleted: Longer-term solutions to meeting New England's increasing demand for natural gas to produce electric power should be achieved through recent changes to the Forward Capacity Market.

Page 175:

Each of the New England states is actively involved in the ISO's regional planning process, individually and through the New England States Committee on Electricity (NESCOE).[311] NESCOE serves as one forum for representatives from the states to participate in the ISO's decision-making processes, including those dealing with resource adequacy and system planning and expansion.

On April 23, 2015, the governors participated in the Northeast Forum on Regional Energy Solutions in Hartford, Connecticut, to discuss regional energy challenges, potential solutions, and their positions on the region's energy infrastructure needs. After the forum, they released an official statement reaffirming their commitment to work together toward regional energy infrastructure solutions.[312]

The governors also released a six-state action plan for creating a "cleaner, more reliable, and more affordable energy future."[313] The plan highlights the states' efforts to continue to support energy efficiency and distributed generation and outlines the states' use of existing authority to procure clean energy generation and transmission. The plan also reviews the states' efforts to secure individual state authority to address infrastructure challenges. Refer to Section 11.2.3 for a discussion of the partnership between Massachusetts, Connecticut, and Rhode Island to issue a request for proposal (RFP) for clean energy resources.

NOTE: The preceding paragraphs concern ongoing discussions and will need to be updated.

In addition to NESCOE, the ISO works collaboratively with the New England Conference of Public Utilities Commissioners (NECPUC), the New England governors' offices, and the states' consumer advocates. The

Author
Deleted: a

Author
Comment: To the extent the RPS seeks to speak to policy priorities, it should refer the reader to documents, such as that referred to in the next paragraph, and not characterize them.

Author
Comment: At this time, work associated with natural gas infrastructure development is occurring in the context of individual state regulatory and/or other proceedings

Author
Deleted: NESCOE has identified natural gas and electric power interdependence and natural gas infrastructure constraints in New England as policy priorities. To help address these issues, NESCOE is supporting discussions among the six New England governors to develop new natural gas infrastructure and attract additional sources of power into New England. ¶

Page 176:

The Connecticut Department of Energy and Environmental Protection (CT DEEP), the Massachusetts Department of Energy Resources (DOER) [see earlier comment on DOER] and the electric distribution companies of Massachusetts and Rhode Island issued a *Request for Proposals for Clean Energy and Transmission*.[318] The purpose of the three-state procurement is to identify projects that could help the procuring states meet their clean energy goals in a cost-effective manner and that bring additional regional benefits. The soliciting parties in the three states decided to act jointly to open the possibility of procuring large-scale projects that no one state could procure on its own.

The RFP allows the states to consider projects for the delivery of clean energy through any combination of the following: (1) traditional power purchase agreements that do not require transmission upgrades, (2) power purchase agreements that require transmission, and (3) transmission projects containing clean energy delivery commitments but without any associated power purchase agreements.

The soliciting parties released a draft RFP for public comment in early 2015 and expect to issue a final RFP later in 2015 following regulatory approvals in Massachusetts and Rhode Island relative to the proposed solicitation.

Author
Deleted: final

Click to reject change
Deleted: spring

Author
Deleted: of the contracts associated with the solicitation by 2016.

[316] Additional information on the CLG is available at http://www.iso-ne.com/committees/consumer-liaison.

[317] ISO New England and Consumer Liaison Group Coordinating Committee, *2014 Report of the Consumer Liaison*

Page 179:

11.4 State Initiatives, Activities, and Policies

The New England states have worked together continually to identify, discuss, and address energy issues of common interest.

Even with this history of cooperation, each state has a unique set of energy policy objectives and goals. This section presents several of the recently implemented laws, policies, and initiatives in the six New England states that affect regional system planning.

11.4.1 Connecticut

In 2015, the Connecticut General Assembly passed legislation, *An Act Concerning Affordable and Reliable Energy*, to secure cost-effective energy resources to serve several purposes.[326] One is for providing more reliable electricity service for the state's electricity ratepayers, and a second is for meeting the state's energy and environmental goals and policies established in the Integrated Resources Plan and the Comprehensive Energy Strategy.

The legislation gives the Commissioner of the Department of Energy and Environmental Protection the authority to issue multiple solicitations for a variety of resources, including, demand-response resources, Class I renewable energy resources, and interstate natural gas transportation capacity.[327] It also allows DEEP to direct the state's electric power distribution companies to enter into long-term contracts for any combination of these resources, provided that the benefits of these contracts to electricity customers

Author
Comment: To the extent the RSP needs to discuss state matters, it should refer the reader to state documents or quote them rather than characterize them.

Author
Comment: Many of the policies noted here have been in place for much longer than the last few years.

Author
Comment: Does consistently mean all states? This is not accurate as drafted.

Author
Deleted: Over the past few years, the New England states have implemented numerous and varied energy policies and initiatives that have consistently focused on advancing energy efficiency, mitigating costs through long-term contracting, increasing the development of renewable resources, and reducing pollutants from certain generating facilities.

Page 190:

The ISO is conducting three economic studies in response to stakeholder requests. The studies of onshore wind development in the Keene Road area and other areas of northern Maine and the effects of relieving transmission system constraints will provide metrics that could lead to Market Efficiency Transmission Upgrades. The economic studies of onshore wind development in Maine and the study of offshore wind development also may be used to evaluate the need for projects facilitating the integration of wind resources. These studies could lead to analysis of Public Policy Transmission Upgrades under Order No. 1000.

Author
Comment: Same comment as above. Studies will not result in public policy requests. Attachment K describes the process.

Author
Deleted: inform public policy requests

12.8.2 Photovoltaics

Photovoltaic resources are rapidly developing in New England and are predominately situated in southern New England. The large-scale development of photovoltaic and other distributed resources poses particularly complex issues that the ISO is beginning to address with stakeholders. The ISO cannot directly observe or control most of these resources, which may respond differently to grid disturbances

Page 191:

The RSP15 is compliant with the requirements of FERC Order No. 1000, and the region is successfully implementing revisions to the planning process.

Author
Comment: What does this mean?