

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

PUBLIC UTILITIES REGULATORY AUTHORITY

GOVERNOR'S EXECUTIVE ORDER NUMBER 59: DEEP AND PURA JOINT PROCEEDING

DOCKET NO. 17-07-32 - DEEP AND PURA JOINT PROCEEDING TO IMPLEMENT THE GOVERNOR'S EXECUTIVE ORDER NUMBER 59

NOTICE OF REQUEST FOR WRITTEN COMMENTS  
(AUGUST 23, 2017)

The Department of Energy and Environmental Protection (DEEP) and the Public Utilities Regulatory Authority (PURA) opened the above-referenced uncontested proceedings for administrative purposes for DEEP and PURA to jointly conduct a study and produce a report in accordance with the attached Executive Order Number 59 issued by Governor Malloy on July 25, 2017 (Executive Order) (attached hereto). DEEP and PURA are seeking written comments on the questions grouped by topic below.

**GENERAL COMMENTS**

1. Please provide any comments on the study topics identified in the Executive Order Number 59.
2. Please provide any comments on the study topics identified in Attachment 1: Proposed Scope of Study Outline.
3. Please provide any other information or analysis that will assist DEEP and PURA with implementing the Executive Order.

**MODELING APPROACH**

1. What should be the renewable and/or hydropower penetration in the base case and sensitivities analysis for the modeling?
2. Should there be other sensitivities used in the modeling other than those listed in Attachment 1: Scope of Study Outline?
3. Is it appropriate to use 2018-2035 as a timeframe for the study?

**MODELING ASSUMPTIONS FOR THE BASE CASE**

***Electric Demand Assumptions***

4. DEEP and PURA intend to use the Independent System Operator of New England's (ISO-NE) 2017 Forecast Report of Capacity, Energy, Loads, and

Transmission (2017 CELT Report) for demand modeling. What adjustments, if any, should be made to the assumptions contained in the 2017 CELT report? How should the load forecast trends be extrapolated following the 10-year forecast period?

### ***Resource Additions/Retirements (New England & New York)***

5. How should “at risk” resources identified by ISO-NE be modeled in the forecast? Under what conditions should these units be treated as retired? If all units are not retired, what standard or metric should be used to identify the at-risk units that are retained in the resource mix?
6. Should the base case assume any incremental hydropower imported from Canada over one or more new transmission lines, for example?
7. What criteria should be used for firm new generation in the base case? Should a project have already cleared the Forward Capacity Market, signed and Interconnection Service Agreement, or some other criteria before it is assumed to be existing in the base case?
8. Should the public policy resource procurement objectives in the New England states with existing authority beyond what has already been exercised be assumed to be fully realized, and over what time frame? For example:
  - a. Connecticut Public Acts 13-303 (Sections 6 through 8, as amended) and 15-107
  - b. Massachusetts Section 83C and 83D procurements
  - c. Battery storage to meet the recommendations in the Massachusetts State of Charge report
9. Should the current renewable portfolio standards (RPS) targets for all New England states be maintained over the forecast period or should changes to RPS targets over time be considered? What changes should be considered, if applicable? Should the model assume Connecticut’s RPS is 30% Class I renewable by 2030, as recommended by Connecticut’s Draft Comprehensive Energy Strategy? What should be assumed for the RPS after 2030?
10. DEEP and PURA will assume that the nuclear units in upstate NY (Ginna, Fitzpatrick, and Nine Mile) will continue to operate through 2035 but Indian Point 2/3 nuclear units in downstate NY will retire in the early 2020’s. The Hudson Transmission Project into NYC will be deactivated in 2018. Please provide any comments on this approach.

### ***Fuel Price Assumptions***

11. What forecast should be utilized as the basis of fuel commodity price? NYMEX? AEO? Other sources?

12. What assumptions should be used regarding natural gas pipeline capacity utilization, LNG imports/exports, and basis differential costs in New England over the forecast period?
13. The study will assume natural gas pipeline expansions that are planned or currently anticipated for gas local distribution companies only, and not by any New England state action for the benefit of electric ratepayers, subject to adjustment as information from the ISO New England Study on Regional Fuel Security becomes available. Please provide any comments on that assumption.

## **REPLACEMENT SCENARIOS**

14. DEEP and PURA will determine the ratepayer and the environmental impacts of various Millstone replacement scenarios. A near term retirement and a mid-term retirement are contemplated. The near term retirement would assume one or both Millstone units retiring at the end of their respective refueling periods in 2018 and 2019. The mid-term retirement would assume one or both of the units are retired following the FCA #11 commitment period ending in May 2021. The starting point for Merchant Entry Replacement scenario would be new gas-fired combined cycle plants and/or gas turbines in Connecticut for all or the majority of the lost Millstone nameplate. Additional Public Policy Replacement scenario(s) would be formulated to maintain the local sourcing requirement (i.e. the minimum amount of generation that must be sited in Connecticut, as required by ISO-NE). These scenarios would model zero emitting energy resources such as Class I renewables, energy efficiency/demand response, energy storage, and/or hydropower taking the place of all or a portion of the retired Millstone capacity, and DEEP and PURA would analyze these to determine system costs and emission impacts. Please provide any comments on this approach.
15. Please comment on whether the Public Policy Replacement resources listed in 2(c)(ii)(2) are the inclusive list that should be considered as equivalent replacements for Millstone units.

## **OPTIONS/MECHANISMS**

16. Is it appropriate for the State of Connecticut to utilize any of the options listed in 3a of the Proposed Scope to ensure resource adequacy and achievement of environmental goals, including retention of existing Millstone nuclear units? If so, under what conditions should such action be taken?
17. Attachment 1: Proposed Scope of Study Outline lists several potential options, or mechanisms, that will be evaluated as part of the study, including a “no action” option; as well as factors that will be considered as part of each

mechanism evaluation. Please comment on any of these mechanisms, and the factors to be considered. Are there mechanisms not included in this list that should also be evaluated?

Initial comments may be filed on or before **4:00 p.m. EPT on Tuesday, August 15, 2017**. After the Public Meeting to be held on August 17, 2017, addendum comments may be filed by **1:00 p.m. EPT on Wednesday, August 23, 2017**. All correspondence and written comments submitted to DEEP and PURA relating to the scope of the study, including emails, will be posted on the DEEP and PURA websites.

Any filings made in these proceedings shall be submitted to both DEEP and PURA through their respective website filing systems, the process for which is explained below. All documents submitted in these proceedings should contain the above caption referencing both proceedings and should be filed in both proceedings.

When filing documents with DEEP, documents may be filed electronically on DEEP's website or submitted to [DEEP.EnergyBureau@ct.gov](mailto:DEEP.EnergyBureau@ct.gov). Persons filing electronically for the first time will be required to register prior to submission. Please create your account at least 24 hours in advance to ensure timely filing. If you have a problem with the electronic web filing system, you can contact the DEEP IT help desk at 860-424-4169 or at [DEEP.Helpdesk@ct.gov](mailto:DEEP.Helpdesk@ct.gov). All materials submitted by stakeholders in this proceeding will be posted on the DEEP website. Any questions can be directed to Debra Morrell at (860) 827-2688 and/or via e-mail at [DEEP.EnergyBureau@ct.gov](mailto:DEEP.EnergyBureau@ct.gov).

PURA encourages electronic submission of all filings through the Web Filing Account Management System at <http://www.ct.gov/pura/>. Persons filing electronically must create an account through the Authority's website under Docket Services (Make a Web Filing). Once registered, you may proceed to the Docket Database Web Filing System to log on and submit your filing. The date and time of filing shall be the date and time the Authority first receives a complete electronic version or the paper version and the required number of paper copies. If a complete electronic version of the filing is submitted through the Authority's Web Filing System, only one paper version of the filing is generally required. For exceptionally voluminous or complex filings, the Authority reserves the right to request additional paper copies. If a complete electronic version of the filing is not web filed, submit an original and one copy.

Additional information is available at DEEP's website: [www.ct.gov/deep/energyfilings](http://www.ct.gov/deep/energyfilings) and PURA's website: <http://www.ct.gov/pura>. The DEEP case coordinator assigned to this proceeding is Debra Morrell, who can be reached at (860) 827-2688 or via e-mail at [DEEP.EnergyBureau@ct.gov](mailto:DEEP.EnergyBureau@ct.gov). The PURA case coordinator assigned to this proceeding is Laura Lupoli, who can be reached at (860) 827-2631 or via e-mail at [Laura.Lupoli@ct.gov](mailto:Laura.Lupoli@ct.gov).

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action and Equal Opportunity Employer that is committed to complying with the Americans with Disabilities Act. To request an accommodation, contact us at (860) 418-5910 or [deep.accommodations@ct.gov](mailto:deep.accommodations@ct.gov).

Dated at New Britain, Connecticut, this 9<sup>th</sup> day of August, 2017.

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ATTACHMENT 1: PROPOSED SCOPE OF STUDY OUTLINE

1. Background of the electricity market and the role of nuclear
  - a. Executive Order
  - b. New England and CT electric market structures
    - i. Recent market conditions
    - ii. ISO-NE market rules regarding resource retirement and de-list
    - iii. Connecticut wholesale and retail supply
  - c. Nuclear power in Connecticut and contribution to local/regional reliability, energy resource mix, and economy
  - d. Connecticut's environmental/climate goals
2. Modeling the economic viability of the Millstone units in the ISO-NE market and the expected impacts of a potential retirement of one or both Millstone
  - a. Study timeframe: 2018 until 2035
  - b. Economic viability of Millstone – annual analysis of going forward costs and profitability between 2018 and 2035
    - i. Millstone costs and revenues for the two units (Per the Executive Order, DEEP and PURA will be requesting this information from Millstone. If it is not provided, DEEP and PURA will estimate based on best available information)
    - ii. Base Case
      1. Sensitivities:
        - a. High and low gas prices in New England
        - b. High and low renewable and/or hydropower penetration
        - c. Millstone costs (including interdependency of units)
        - d. Other
  - c. Potential retirement – assuming that one or both Millstone units retire, what would be the impacts to the items identified in 2(d)?
    - i. One unit v. both units
    - ii. Replacement Scenarios
      1. Merchant Entry Replacement: Millstone unit(s) replaced with merchant entry (likely natural gas-fired generation)
      2. Public Policy Replacement: Millstone unit(s) replaced with public policy resources (zero-emission Class I, large-scale hydropower, demand reduction, storage, etc. based on local sourcing requirements)

- d. Analysis of the base case and retirement scenarios
  - i. System costs and revenues (energy, capacity, and retaining/replacement cost)
  - ii. Emissions
  - iii. Electric reliability/fuel diversity/fuel security
  - iv. Economic development
  - v. Other
- 3. Options and mechanisms to ensure resource adequacy and achievement of environmental goals
  - a. Options/Mechanisms
    - i. No action
    - ii. Contract (long-term or short-term)
      - 1. Wholesale contracts
      - 2. Contracts for retail supply
    - iii. Zero emission credits/clean energy standard
    - iv. Other non-ratepayer-funded economic incentives (e.g. tax incentives)
    - v. Reliability Must Run contract
    - vi. Emergency mechanism implementation
    - vii. Other
  - b. Factors to be considered for all options and mechanisms
    - i. Wholesale market impacts
    - ii. Price formation/competition (i.e., how well does the mechanism ensure the least cost to ratepayers)
    - iii. Standard service and retail market impacts
    - iv. Environmental impacts (achievement of GWSA reduction targets)
    - v. Gas pipeline infrastructure impacts
    - vi. Ratepayer risk (magnitude and duration)
    - vii. Legal considerations
    - viii. Economic impacts
    - ix. Use as proactive v. reactive to de-list bid
    - x. Other