Introduction and Qualifications

Q 1. Please state your name, business address, and affiliation.

A 1. My name is George E. Sansoucy. My business address is 7 Greenleaf Woods Drive, Unit 2, Portsmouth, New Hampshire 03801. I am the owner of George E. Sansoucy, P.E., LLC.

Q 2. Describe your educational background and professional qualifications to appear in this proceeding?

A 2. I have a Bachelor and a Master of Science Degree in Civil Engineering and I am a Registered Professional Engineer in New Hampshire and a certified general appraiser in New Hampshire, and a certified assessing supervisor by the NH Department of Revenue Administration. My firm, George E. Sansoucy, P.E., LLC, provides valuation, consulting and engineering services to clients throughout the United States. The firm's two primary services are 1) consultation services on energy and regulatory matters involving the public and private utilities sector in the United States, and 2) the valuation of public utility infrastructure, energy projects, and complex industrial properties. Over the years, I have testified in legal and regulatory proceedings in New Hampshire and elsewhere before state and federal courts and administrative agencies throughout the United States, including the Federal Energy Regulatory Commission and the Nuclear Regulatory Commission, and the NHPUC.

I have previously attached my resume as Exhibit 1.

Q 3. What documents have you reviewed in preparation for your testimony?

A 3. I have reviewed the application and supporting documentation, testimony and exhibits of Julia Frayer, James Chalmers, Lisa Shapiro, and the siting witnesses, and the construction witnesses.

Q 4. What areas of testimony are you providing related to your review of the testimony referenced above?

A 4. In total, my testimony is related primarily to the following items:

1. Northern Pass Route Selection – Quinlan, Muntz
2. Financial Feasibility – Frayer
3. Impact on surrounding Property Values – Chalmers and Shapiro
4. Value of Utility Assets – Shapiro
5. Underground Construction
6. Property Value Impacts – Chalmers & Shapiro
7. Adequate Alternative Route Economics and Analysis - Frayer

Purpose and Summary

Q 5. What is the purpose of your testimony?

A 5. The purpose of my testimony is to represent and express the technical opinions and concerns regarding the construction of Northern Pass in New Hampshire in total as well as specifically for and in the towns of Northumberland, Whitefield, Littleton, Sugar Hill, Franconia, Woodstock, Plymouth, Ashland Water & Sewer, Bridgewater, Bristol, New Hampton, Concord, Pembroke, and Deerfield. Additionally, the purpose of

my testimony is to express my disagreement with the Northern Pass testimony before the Committee regarding the above listed subject matter at this time.

Exhibits

Q 6. Have you already sponsored and are you sponsoring more in this testimony?

A 6. Yes. I have already sponsored 8 previous exhibits listed below from November 15, 2016 and are sponsoring 13 new exhibits in this testimony:

- Exhibit – 1: Resume
- Exhibit – 2: USPAP 6 & Preamble
- Exhibit – 3: NH State Standards for utility taxation
- Exhibit – 4: Photo of Hydro Quebec Phase 1 and Phase 2
- Exhibit – 5: FERC Form 1 - New England Electric Transmission Corporation, and New England Hydro-Transmission Corporation 2015/Q4
- Exhibit – 6: FCA #10
- Exhibit – 7: Ventyx Documents
- Exhibit – 8: Google Earth Map

Testimony

Q 7. In your testimony herein, whose testimony are you referring to and rebutting as part of this testimony?

A. 7. The beginning of my testimony I am rebutting the Frayer testimony, which selects the Northern Pass route as a given, and does not consider alternative routes, costs, impacts, and mitigations to Northern Pass.

Q 8. What in general are your concerns regarding the company's proposal to construct Northern Pass as proposed and London Economics' report and study as to the feasibility and economic benefits of Northern Pass?

A 8. In general, Northern Pass and London Economics has failed to adequately justify and explain the need to open a new energy corridor in the State of New Hampshire by proposing Northern Pass. The new NPT energy corridor proposed can be seen on my Exhibit 9 which is a map of certain existing and proposed New England energy corridors. The white line is Northern Pass as currently proposed from the Canadian / New Hampshire border at the northeast corner of Vermont, through to Deerfield, New Hampshire and then onto the existing 345,000-volt line into Massachusetts. My concern is that Northern Pass, at this time, is premature, not necessary, not justified, and should not be approved or constructed, at this time. Furthermore, Northern Pass has not seriously investigated the use of current existing and other alternative energy corridors through northern New England, nor has Northern Pass recognized the impact of competing Canadian import proposals surrounding the northern three states.

Q 9. Using Exhibit 9, please describe in general the energy corridors, both existing and proposed, that the Committee should consider in deliberating on the approval of the construction of Northern Pass and the opening of a new energy corridor.

A 9. The Committee is fully aware of the controversy and hardship that is created by opening a new energy corridor in New Hampshire or elsewhere in New England. The issues and controversy, as well as impacts to individuals, communities, etc., are no better demonstrated than these very proceedings on Northern Pass. It is my opinion that the company has not investigated thoroughly the maximization and efficient use of the existing energy corridors or opening additional energy corridors which are less controversial than Northern Pass. Eversource or London Economics has not presented to this Committee adequate facts, figures, and analyses related to the existing energy corridors for the Committee's consideration as to whether or not it should approve the opening of a new energy corridor in New Hampshire.

Q 10. Please describe each energy corridor you are referring to in Exhibit 9, provide some detail as to what it is, and how it can be considered as an alternative to Northern Pass at this time, if Northern Pass is even needed.

A 10. Exhibit 9 is a map of Vermont, New Hampshire, Maine, northeastern New York, and northern Massachusetts which shows the proposed and existing energy corridors in the region that relate to Northern Pass and this testimony. While there are other energy corridors, such as the east/west 345,000-volt transmission system from the seacoast of New Hampshire to Hinsdale, New Hampshire and Vernon, Vermont

which serves nearly 2/3 of the state of Vermont's electric needs, these are not shown on this map as they are not, at this time, necessarily germane to this testimony and recommendations.

There are six existing and/or proposed energy corridors shown on Exhibit 9. These are Northern Pass in white, the Champlain Hudson Power Express in yellow, the Northeast Energy Link in blue, the current and existing Hydro Quebec Phase 1 and Phase 2 in purple and pink, the existing Portland Crude Oil Pipeline in red, and the Interstate 93 Highway corridor in orange.

Q 11. Please describe the Northern Pass Transmission corridor for summary purposes as it is going to relate to the other five corridors.

A 11. The Northern Pass electric transmission corridor is a new high-voltage electric transmission corridor proposed in these proceedings. It travels from Pittsburg, New Hampshire and the Quebec/New Hampshire border to the Deerfield, New Hampshire substation and then on an expansion of the Eversource 345,000-volt line which travels south from Deerfield and connects to Scobie Pond. This new NPT corridor is on virgin right-of-way, existing and expanded Eversource right-of-way, buried in a number of municipal and state roads, excluding Interstate 93, constructed adjacent to the existing 115,000 volt electric rights-of-way owned by Eversource, and on 345,000 volt electric rights-of-way owned by Eversource. New easements and fee land have been purchased to extend the existing lower voltage and older electric rights-of-way to Canada in, but the proposal is reliant upon the need to place a

significant portion of the NPT line in town and state roads. The current proposal is to convert the DC electricity from 320,000 volts DC to 345,000 Volts AC in Franklin, New Hampshire, and build a new AC above ground transmission line from Franklin to Deerfield. The entire length from Pittsburg to Deerfield is 192 miles, not all of which is in Eversource's rights-of-way. A portion of the proposed line is buried, and a portion is above ground.

Q 12. Please explain the Champlain Hudson Power Express.

A 12. The new proposed Champlain Hudson Power Express is a 333-mile-long 1000 MW high-voltage DC electric transmission intertie with Quebec at the Vermont / New York border. It crosses into the United States and goes under and through Lake Champlain, exits out of the lake east of Lake George near the Vermont border, and then down to the New York City area. This project reinforces the electrical capacity of the upper and lower Hudson Valley, which in turn reinforces the electric ties into southern New England from New York. The project has received a number of critical permits and is moving along in good order at this time. By reinforcing the electrical capacity in the Hudson Valley, this project participates in reinforcing the ability to export, from New York into southern New England, additional electricity which will compete with the import of electricity from Northern Pass. This project is ahead of Northern Pass in its approvals and its probability of final construction.

Q 13. What is the Northeast Energy Link?

A 13. The Northeast Energy Link is a buried HVDC proposal to bring Maritime Canadian electricity through New Brunswick into the Orrington, ME substation and then buried down the Interstate 95 right-of-way. The State of Maine has paved the way in the northeast on the use of the interstate corridor and right-of-way as an energy corridor. At this time, the State of Maine has legislatively approved the use of the corridor, (See Exhibit 10). The Department of Transportation has approved the use of the corridor, and the corridor is essentially open for business. The State of Maine will receive rent for the right-of-way from anyone who proposes to construct an electric line in the corridor in the future. The Northeast Energy Link is a proposal sponsored largely by National Grid and others in Maine to bring 1,100 MWs of electricity into the Boston and New England market via the I-95 corridor using a buried 320,000-volt DC line all the way to Tewksbury, MA. The Northeast Energy Link is a direct competitor of Northern Pass using a right-of-way that is now available as a new energy corridor in the northern three states of New England. As an energy corridor, I-95 is not limited to 1,000 or 2,000 MW, but is capable of supporting multiple proposals. Upwards of 2,000-5,000 MW of electricity from the Maritime provinces, including Labrador and Newfoundland could be accommodated in the I-95 right-of-way.

Q 14. In your previous testimony, you mentioned the Hydro Quebec Phase I and 2 energy corridor. Could you please elaborate more on this corridor as it relates to the State of New Hampshire and Northern Pass?

A 14. Yes. The Hydro Quebec Phase 1 and 2 energy corridor was constructed from 1986 to 1990 and travels from the Vermont border with Quebec in the Northeast Kingdom into New Hampshire at Littleton, and from Littleton through the entire state to the Hudson, NH border with Massachusetts. This energy corridor was originally constructed from 1926 – 1930 to carry the hydroelectric capacity of Fifteen Mile Falls, i.e., the Comerford, McIndoes, and Moore Dam hydroelectric developments on the Connecticut River in northern New Hampshire. The original construction was the development of two (2) 230,000-volt AC electric transmission lines completed in 1930 at a rated capacity of 345 MW each. These electric lines went from New Hampshire to Massachusetts to serve the Massachusetts market and are owned by New England Power Company (Nat Grid). New England Power Company developed it as a 350-foot-wide easement corridor. Hydro Quebec Phase 1, construction in the 1980s, expanded that original corridor from Littleton northward to the Vermont/Canadian border in the Northeast Kingdom. The Hydro Quebec Phase 1 and 2 was the first major northeast hydroelectric DC tie with Hydro Quebec (See exhibit 4). A 450,000-volt DC line was constructed in the center of this right-of-way at an operating capacity of 2,000 MW. The first phase went from the Vermont border in the Northeast Kingdom to Monroe, NH where a converter was built. Power was temporarily converted from DC to AC and then transmitted in the 230,000 volt lines to Massachusetts. During this temporary period of conversion, the balance of the line, which is called Hydro Quebec

Phase 2, was constructed from Monroe, NH down the existing right-of-way to Massachusetts. This line currently exists, is in operation, and is part of the capacity availability in New England at this time. (See Exhibit 11 for the finding of 959 MW of capacity reserve and CELT Exhibit 12 the CELT Report). As referenced in my testimony of November 15, 2016, Eversource owns 33.71% of Hydro Quebec I and 2 (exact ownership for each Phase is slightly different), and New England Power Company owns 53.7%. A number of other New England utilities and municipalities own the balance.

Q 15. What was the original Hydro Quebec Phase 1 and 2 designed for?

A 15. Hydro Quebec Phase 1 and 2 was designed to transmit 2,000 MW of electricity. There is additional information from Canada which indicates that it has been upgraded to be able to handle upwards of 2,500 MW. For purposes of this testimony, we are utilizing 2,000 MW as the transfer capacity of Hydro Quebec Phase 1 and 2.

Q 16. How much capacity is currently being utilized by the utilities and New England ISO for Hydro Quebec Phase 1 and 2?

A 16. Hydro Quebec Phase 1 and 2, at this time, is supplying 959 MW of capacity transfer credits to ISO New England. Its actual use is far less than 959 MW at this time, and is only approximately 400MW as seen in Exhibit 11. Furthermore, other than capacity support, ISO New England is not projecting significant use of Hydro Quebec Phase 1 and 2 in their forward projections because its capacity is not needed at this

time. (See exhibit 12, CELT Report). The utilities are paying existing support payments for Hydro Quebec Phase 1 and 2 capacity, but it appears that the utilities are not taking any substantive amount of electricity from Hydro Quebec at this time. (See Exhibit 12 regarding Hydro-Quebec Phase 1 and 2.

Q 17. As an energy corridor, what does Hydro Quebec Phase 1 and 2, i.e., the New England Power Company's 350-foot-wide New Hampshire energy corridor offer to the state and to Northern Pass at this time?

A 17. First, the 350-foot-wide corridor, shown on Exhibit 4, the statewide transmission map is large enough to handle two (2) Northern Pass' if it wanted to. At this time, it appears that there is existing available electrical capacity on the existing 450,000-volt DC line equal to all of Northern Pass. Furthermore, there is information available that indicates there may be even more capacity, i.e., another 500 MW available, on a reinforced Hydro Quebec Phase 1 and Phase 2. Secondly, there is room to construct underground, all of Northern Pass entirely within the 350-foot-wide right-of-way. Northern Pass could be buried between the 450,000-volt DC line and the 230,000-volt line on either side of the 450,000-volt line, or it could be buried on the east or west side of the right-of-way. Lastly, the 230,000-volt line could be reconstructed and re-conducted to be on a single pole, opening up one side of the corridor completely for a brand new 320,000-volt DC line. There are many options available to the regional utilities in considering the use of the Hydro Quebec Phase 1 and Phase 2 lines or right-of-way. While owned by New England Power Company, and Eversource, the line and right-of-way is under-utilized at this point in time in New

Hampshire. There is no plausible explanation why this option has not been fully and thoroughly explored in lieu of constructing a new energy corridor at this time.

Q 18. Isn't it true that Eversource will forego the earnings and cash flow of constructing a new line if it utilized the existing lines of Hydro Quebec Phase 1 and 2?

A 18. Yes. Eversource will forego those earnings and cash flow, but it would efficiently use the resources and energy corridor that it, Eversource, already owns part of and the rate payers have already paid for.

Q 19. You mention the Portland Pipeline Energy Corridor. Please explain what the Portland Pipeline Energy Corridor is?

A 19. The Portland Pipeline Energy Corridor is one of the older energy corridors in New England and parallels one of the earliest northern railroad corridors in New England that goes through the White Mountains from Portland, Maine to Montreal. This corridor, shown in red on Exhibit 9, goes from Portland, Maine to Shelburne, and Gorham, New Hampshire following the Androscoggin River and branching off and passing to the east of Lake Sebago. When it comes through the New Hampshire border, it goes through Shelburne, Gorham, Randolph, Jefferson, and Lancaster. This is the path north of the Mount Washington range and north of the Crawford Notch pass. Railroads have used this path since the 1800s and Public Service uses this path for the Coos Loop for the electric transmission system in northern New Hampshire. During WWII, the crude oil pipeline was built from Portland, Maine to Montreal, to

move crude oil shipped into Portland from overseas to refineries which were protected inland in Montreal. This also allowed refined products and crude oil during the summer to barge into the Montreal refineries on the St. Lawrence Seaway. Over the decades, this crude oil pipeline has been expanded into a complete crude oil port facility in South Portland, ME and two additional pipelines, an 18" pipeline built in the 1950s, and a 24" pipeline built in the 1960s. At this time there are three pipelines in the right-of-way, pump stations, and cleaning and pigging facilities from Portland to Montreal. The original 12" line has been discontinued in its use, but exists. The 18" line still exists and is capable of carrying crude oil, and the 24" line still exists and is capable of carrying crude oil.

Q 20. Why do you believe that Northern Pass should consider the Portland Pipeline energy corridor at this time?

A 20. Before the SEC permits the opening of a new energy corridor in New Hampshire, it should consider the existing corridors, existing alternatives, and the maximization of these resources weighed against the impacts of opening a new energy corridor, especially in the White Mountain region. Portland Pipeline Company and the transfer of crude oil from overseas to Montreal has been active since the early 1940s or approximately 75 years of operation. The crude oil and refined petroleum market has changed immeasurably since 1940. While there were multiple refineries constructed and utilizing crude oil from Portland Pipeline for decades in Montreal, with the construction of tar sands oil fields in Canada, the change in the politics of oil, the refining capability throughout the various coasts of the world, and the excess oil and

gas found in North America, the economics of importing, pumping, and refining crude oil in Montreal have become very marginal. At this time, only one refinery remains that handles the Portland Pipeline crude oil. The refinery owns the majority of the Portland Pipeline; whose parent company is now EXXON through its purchase of Imperial Oil. The utilization of Portland Pipeline has dropped by approximately 85% in the last nine years. At this time there is an increasing probability that Portland Pipeline will go out of business, and that its impact in the New England energy market place is marginalized. The Portland Pipeline energy corridor through New Hampshire, Maine, and Vermont is therefore highly under-utilized at this point. The lines themselves are conduits and Northern Pass should consider, in lieu of its current proposal for a new energy corridor, utilizing the Portland Pipeline as the conduit for the high-voltage transmission line from Canada to Portland. At Portland, Eversource will have the opportunity to come off of the pipeline and onto Central Maine Power's high-voltage electric right-of-way to New Hampshire, onto I-95 renting from the State of Maine, or go underwater with the high-voltage DC from Portland into the Seabrook Nuclear Plant substation, and then into the existing New Hampshire 345,000-volt system, or continue on underwater and go into the substation at Salem Harbor and into the electric system in the greater Boston area. Before the Committee approves Northern Pass, use of the Portland Pipeline energy corridor should be fully explored as a conduit for the high-voltage DC from Canada to Massachusetts, which is already buried.

Q 21. Your last energy corridor is, in fact, the Interstate 93 right-of-way in New Hampshire. Please explain your concerns and proposals regarding the I-93 corridor.

A 21. Yes. If Eversource is interested in opening a new energy corridor and the SEC feels compelled to agree, the State of New Hampshire should consider and emulate what the State of Maine has paved the way for, and that is the use of the Interstate corridor as an energy corridor. The state can lease the rights to use this corridor to energy/telecommunication companies for a right-of-way to bury various types of infrastructure property. The I-93 corridor goes from Littleton, NH to the Massachusetts border and offers a complete route for a high-voltage DC buried electric system from Canada to Massachusetts. The entrance to I-93 can be at Littleton at the crossing with Hydro Quebec Phase 1 and as the northern leg, could travel along Hydro Quebec Phase 1 route, or it can start at Bethlehem at the intersection of the existing proposed Northern Pass route from Pittsburg to Bethlehem. In any case, the line should be buried from the Canadian border to the Massachusetts border and buried along I-93. While it is highly probable that Eversource will disparage this concept, it is a 21st century concept that should be considered by the State of New Hampshire. The State of Maine has paved the way on how to prepare legislation, how to deal with the Department of Transportation, how to lease, and how to value the use of the I-95 corridor, and currently has the I-95 corridor available. The State of New Hampshire does not have to recreate this wheel and could emulate what the State of Maine has already performed and accomplished. The enabling legislation is provided herein as Exhibit 13 as an example. The I-93 corridor could be made available for

Northern Pass, if and when Northern Pass is even necessary, to provide a quick solution in comparison to the time it has already taken to prepare Northern Pass to this point. There will be many reasons raised why one cannot use the I-93 right-of-way, but they are largely technical interferences that can be solved. The use of I-93 corridor represents a very substantial reduction of impacts to a wide variety of people and communities in NH if a new power line is to be built. It would still provide a tax base to the communities which I-93 goes through, and it would be invisible. It is possible that the project could be switched now to I-93 and Northern Pass remain on schedule due to the simplicity of use of I-93. NH legislative and executive branch support of this option is necessary. The State could receive lease payments for the use of the right-of-way that would help the general fund and pave the way for additional uses of the I-93 right-of-way to the benefit, both environmentally and economically, to the State of New Hampshire in the future.

Q 22. Please summarize your Exhibit 9, and your concerns and considerations regarding the energy corridors in northern New England for the Committee that you believe London Economic has failed to address and analyze.

A 22. In summary, Northern Pass at this time is not necessary or needed. This testimony is to follow. But, more importantly, if it is to be built, the opening up of a new energy corridor in NH is premature and ill-conceived. It appears that the reason for the opening of a new corridor is financial and self-serving to develop substantial new rate base and returns on equity, and that the consideration of other alternatives

and/or the risks from other competitive proposals which are ahead of Northern Pass are not being taken seriously by Eversource. The State of New Hampshire and this Committee has other options in front of it that are already developed, under-utilized, and superior to the proposal of Northern Pass with far less disruptions of the citizens and businesses of the State. These additional immediate energy corridor options are:

- Hydro Quebec Phase 1 and 2
- Portland Pipeline energy corridor
- Interstate 93

By way of completeness, the northern energy corridor in NH for Portland Natural Gas Transmission line from Canada to Portland Maine, in my opinion, does not present as simple and easy an option for NPT than the existing corridors mentioned in this testimony. Also, Portland Natural Gas Transmission already uses a significant amount of electric transmission easement at this time from Eversource. It appears that Hydro Quebec Phase 1 and 2 has substantial remaining capacity equal to or greater than the proposed Northern Pass and that, if utilized to its full extent, can negate the need for Northern Pass and begin transmitting power at any time over the line to Massachusetts. It also appears that other corridors and other options, including the Portland Pipeline route and the, I-93 option, are superior to the proposed Northern Pass option and the opening up of a new energy corridor at this time. Additional supporting exhibit for these options are provided as Exhibit 14.

Testimony

Chalmers

Q. 23. Mr. Sansoucy have you reviewed the Chalmers Report and supporting work papers, regarding the effect of Northern Pass on property values in our communities in New Hampshire?

A. 23. Yes, I have reviewed the Chalmers Report. We have not been able to access and open the work papers provided which are alleged to support the Chalmers study. Northern Pass has not provided easy access the various work papers referenced in the Chalmers Report. Therefore, I anticipate supplementing my testimony on Chalmers at such time that we are able to actually get, read, and consider these work papers.

Q. 24. What are your overall concerns and recommendations related to the Chalmers Report?

A. 24. In general, my overall concern is related to the Chalmers Report are the following:

- The entire literature search of the report for which Chalmers wishes the Committee to consider is irrelevant to Northern Pass and is highly dated in its application and does not relate to the current proposal for Northern Pass at this time in New Hampshire.
- The case studies referenced and proposed for consideration by Chalmers are not available to the reader and some are outside of New Hampshire and irrelevant.

- The sub-division analyses provided in the Chalmers Report are extremely dated, and largely irrelevant as they are not similar to the high voltage DC line being proposed by Northern Pass. Also, they are in parts of the State where high voltage DC lines would not be constructed.
- The Chalmers Report suggests that nothing has changed in the last 30-40 years as it relates to the valuation of property and the effect of high voltage transmission lines. The statements are unsupported. The report essentially uses dissimilar low voltage electric facilities as a proxy for a high voltage DC line, with the exception of its limited analysis related to Hydro-Quebec Phase 1 and 2.
- The Chalmers Report essentially tries to measure the diminution from properties which are already affected and reduced.

Q. 25. Please summarize your concern related to section 1 of the Report, the literature survey that Mr. Chalmers wants the committee to consider and give weight to.

A. 25. I have prepared a table, Exhibit 15 which tabulates all of the literature surveys mentioned in the Chalmers Report, the State for which they are related to, and the year of the report. As one can see, nearly all of these reports are outside of New England and none in the State of New Hampshire. All valuation is local. Valuation in New Hampshire is even more local due to our local taxation system, and fair market value standards. The studies cited, range from 49 years old to 3 years old (1967 to 2013) and are in States that have no relationship to the

State of New Hampshire, with different tax laws, and different valuation methodologies in some States. The entire presentation is irrelevant to the present deliberations on Northern Pass, misleading, and disingenuous. The municipalities urge the Committee to reject any consideration of the dated information provided in the Chalmers Report as it relates to New Hampshire and Northern Pass.

Q. 26. Please provide an overview of the concerns regarding the case studies.

A. 26. The case studies are inaccessible and will require supplementation of this testimony.

Q. 27. Please describe your concerns regarding the sub-division study.

A. 27. The sub-division studies in the Chalmers report are irrelevant to Northern Pass. The sub-division studies are extremely dated, relate to sub-divisions of a by-gone era and by-gone generations, and they relate to sub-divisions built prior to the construction of ultra-high voltage electric transmission systems in the area. These sub-division studies have no place of relevance in these proceedings and should be discounted in their entirety. Also, Exhibit 16 provides a breakdown of these sub-divisions studies and the year for which they were originally sub-divided, and most importantly the type of easement through these sub-divisions and the size of the electric line through these sub-divisions. The Committee should note that none of these electric lines are at all comparable

and most are largely ordinary distribution lines that would be anticipated to be required to serve homes as the local carrier. The committee should disregard these sub-division studies in total. Furthermore, these sub-division studies add to the disingenuous nature of this report.

Q. 28. In general, does the Chalmers Report have any relevance to the task of assessing the impacts of Northern Pass?

A. 28. No. This report simply restates aged information that is already known and outdated in an attempt to measure the effect of a new electric transmission line, but also it relies on New Hampshire property that already has diminished value because it is already effected by an existing transmission line. For example, a property considered today that was constructed on land near or adjacent to an electric transmission line in the past has already built into the value, the impact of the electric transmission line today. Any analysis regarding subsequent sales for valuation always carry with it the diminution created by the electric transmission line in the first instance. Statistical and empirical attempts to try to measure the impact of the valuation using these historic analyses, is made moot by the fact that existing properties next to transmission lines already have the impact imbedded in the value created. Attempting to extract a measurement of additional diminution against a property which already has diminution accomplishes nothing.

Q. 29. What are the required property assessment and valuation procedures necessary by the Towns for the valuation of property in the State?

A. 29. The and Cities in the State of New Hampshire are subject to administrative rules under RSA 21-J:13 & 21-J:11, namely Chapter 600 Property Tax Assessment. The entire chapter is provided as our data response to question 5. The 600 rules and regulations are the ones Towns and Cities must follow for the valuation of properties for Tax assessment. These rules are for the appraisal work and mass revaluation under USPAP 6 guidelines, i.e., mass appraisal guidelines developed by the Appraisal Foundation authorized by Congress and adopted by the State of New Hampshire. USPAP compliant reports are required and standards are established by the Appraisal Standards Board in that State of New Hampshire pursuant to RSA 21-J:14-B,I(c). The important and relevant listing conditions, as they relate to electric transmission systems in New Hampshire, are the reporting requirements and valuation considerations of a number of items that can impact the valuation of property. Our 600 rules require that property be inspected, and data collected, including attributes. State data collection requires at least the following:

- Number of acres;
- Road frontage;
- Water frontage;
- Water access;

- Views;
- Topography
- Access;
- Neighborhood;
- Betterments;
- Approvals;
- Easements;
- Deeded restrictions; and
- Other factors that might affect the market value, including the effect of easements on property.

Under State guidelines for mass revaluations, easements are generally attributed to the land, but in some cases assessors will attribute portions to the dwellings, in the form of obsolescence. Improvements must also be valued, with a variety of attributes that must be listed and considered in the valuation. A market analysis must be completed, and neighborhood areas established which determine the underlying base value of properties in a particular neighborhood. Individual items that impact the value of property from the base neighborhood average must be accounted for. The required market analysis and base valuation of property within the market neighborhood, sets the standard in New Hampshire by which impacts are then assessed. For commercial properties, in addition to the market sales study, the income approach may be used for the valuation also. For residential properties, the market value of the land is considered separately from the market

value for the improvements. The improvements are valued by the cost approach with the appropriate deprecation extracted from the total value leaving the market value of the land. The market value of the land is calibrated against the raw land sales to determine that the appropriate deprecation on the improvements has occurred. This process, used by all of the Town and Cities in the State and codified by the State, establishes the base line values in various neighborhoods and in various communities. Easements, view, etc. which may have an impact on the value of existing properties then can be measured against the base line value established in the neighborhood.

Q. 30. How do the Town and Cities establish the impact of value of an electric easement for example, and an electric line on their tax valuation system?

A. 30. The impact of an electric easement on property will be measured on the tax cards in two ways; (1) will be the impact on the land for the underlying easement and will be so notated if considered significant on the tax card, and the reduction calculated for the land values, (2) if there are additional visual impacts that the appraiser for the community, and/or the mass revaluation company feels are warranted, an additional reduction in the value on the tax card will be entered either in the form of deprecation on the improvements as land does not depreciate, or an additional reduction in market value of the land or both. These types of reductions are based on the appraiser's judgement of the visual impacts, physical impacts, the restraints, and controls placed on the land, or the

general curb appeal and desirability of the property. The values derived are reviewed and calibrated against actual market sales. The New Hampshire's Department of Revenue Administration annually reviews the market sales in each community and reports to the Towns and Cities the co-efficient of dispersion for the equalization rates. It is through the statistical analyses of actual arm's length market sales that significant deviations can include properties impacted by electric easements and trigger the Department of Revenue Administration to require the community to source the problem, review, and correct. Under current New Hampshire rules, we are required to prepare the full-blown revaluations every five years at this time. Five year revaluations have a tendency to correct the deviations and dispersions before the number becomes too great.

Q. 31. Have you prepared Exhibits demonstrating samples as how the Towns and Cities measure the impacts of electric transmission easements around the State.

A. 31. Yes, I have. I have prepared data response to question 4. These are tax cards from various communities in New Hampshire along major transmission corridors. These tax card demonstrate the methodology for assessing the impact of electric transmission lines by some communities in New Hampshire. Dunbarton is presented in complete format and measures the total impact. The remaining communities are samples of sections of impacts in the community. The impacts are measured against the base line value in the

neighborhood so that equitability of the tax system recognizes the diminution caused by the transmission line and easement.

Q. 32. What conclusions do you draw from your Exhibits?

A. 32. Our Exhibits demonstrate the appropriate methodology and impacts of the diminution created by existing transmission lines and what can be expected from the construction of Northern Pass.

Q. 32. How do your conclusions differ from those of Mr. Chalmer?

A. 32.

My conclusions are in real time and relate to the actual communities in the state of New Hampshire affected by actual high voltage transmission lines. They are not aged, speculative, or remote conclusions from all over North America which do not relate to New Hampshire.

Q. 33. Going back to your testimony regarding London Economics and the alternative routes, do you have additional concerns regarding the testimony of Julia Frayer?

A. 33. Yes

Q. 34. What are they?

A. First, the Frayer testimony is not complete and is going to be revised and supplemented in February. My testimony regarding Frayer at this time relates to information we believe the committee should consider independent of London

Economics revisions. The balance of my testimony will address the revised testimony of Frayer.

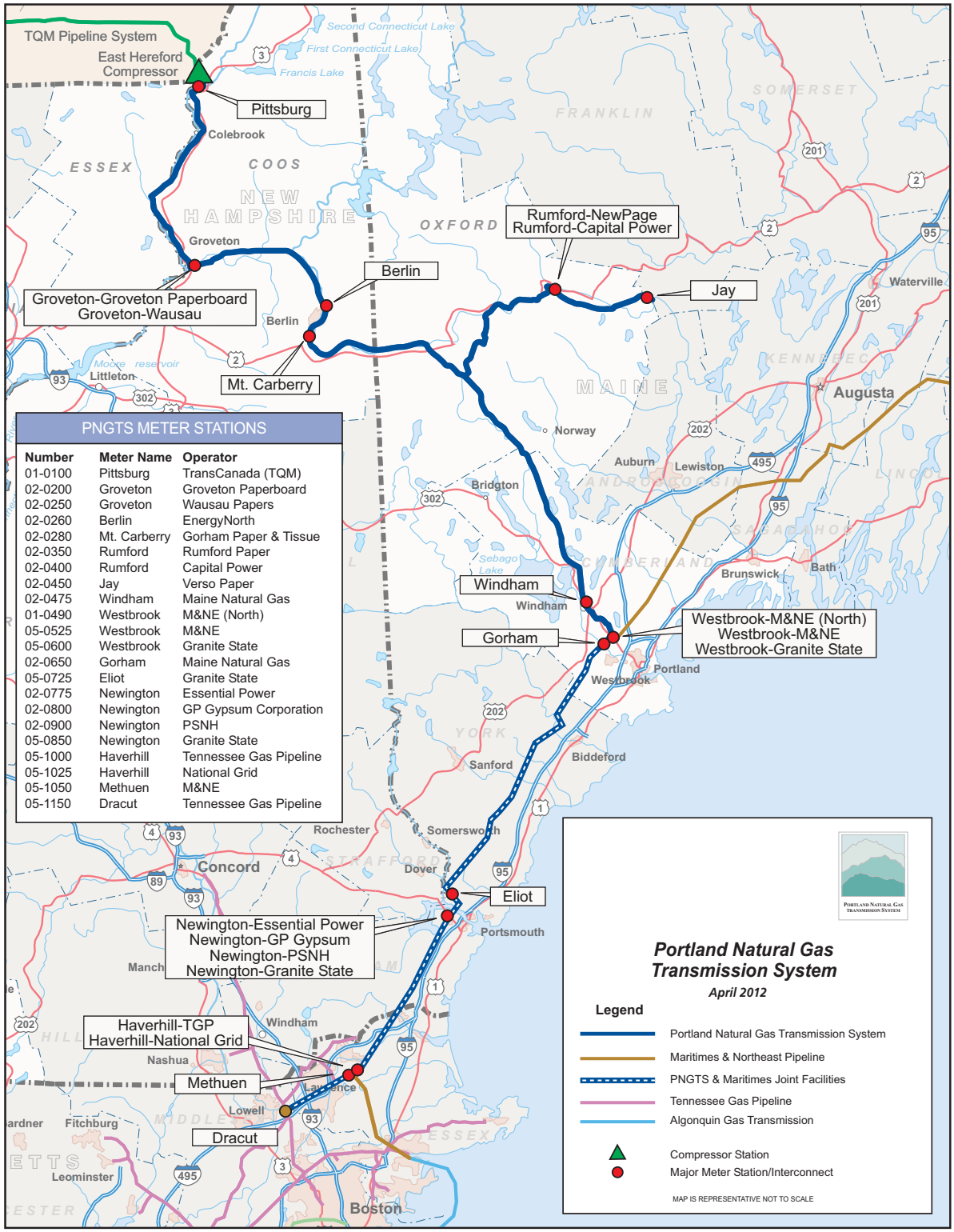
Q. 35. What information do you wish to sponsor at this time regarding London Economics?

A. 35. I am sponsoring Exhibit 11, which is the November 8, 2016 ISO New England summary of the anticipated forward capacity auction number 11 in February of 2017 outlining the cleared capacity for bidding and the anticipated conditions of the auction. This information clearly indicates that there is approximately 6,000 excess megawatts of capacity for the grid available in the system. Northern Pass is not needed at this time if it were available. I am also sponsoring Exhibit 12, which is the ISO New England Celt Report 2016-2025 Forecast Report of Capacity, Energy, Lads, and Transmission system planning. This document indicates that ISO anticipates very little export from Canada through Hydro-Quebec after 2019. Also, it indicates that even with virtually no imports from Hydro-Quebec the reserve margins are maintained or excessively high. I am also sponsoring Exhibit 17, which is opinion No. 531-A dated October 16, 2014 from FERC in case number EL11-66-001, which establishes the equity return rates for electric transmission lines in New England. This exhibit is used in my calculations of the revenue requirement for Northern Pass. I am also sponsoring Exhibit 18, which is the interconnection queue from New England ISO called Interconnection Requests for New England Control Area Generation, Elective Transmission Upgrade and Transmission Service Requests as of 12/1/2016. This document indicates some 26,000 MW of proposed projects under

study at this time in the New England queue, which will relate to the need for Northern Pass at this time. I am also sponsoring Exhibit 19 & 20, which is confidential information from Ventyx, which are forecasts of electricity and capacity and unit retirements in the region amongst other items. I am also sponsoring Exhibit_17, which is the revenue requirement for Northern Pass as proposed. I am also sponsoring Exhibit_21, which is forecasted energy margins for Northern Pass and Hydro-Quebec, as proposed now, but subject to change based on London Economics revised testimony.

Q. 36. Does that conclude your testimony?

A.36. At this time, yes.



PNGTS METER STATIONS

Number	Meter Name	Operator
01-0100	Pittsburg	TransCanada (TQM)
02-0200	Groveton	Groveton Paperboard
02-0250	Groveton	Wausau Papers
02-0260	Berlin	EnergyNorth
02-0280	Mt. Carberry	Gorham Paper & Tissue
02-0350	Rumford	Rumford Paper
02-0400	Rumford	Capital Power
02-0450	Jay	Verso Paper
02-0475	Windham	Maine Natural Gas
01-0490	Westbrook	M&NE (North)
05-0525	Westbrook	M&NE
05-0600	Westbrook	Granite State
02-0650	Gorham	Maine Natural Gas
05-0725	Eliot	Granite State
02-0775	Newington	Essential Power
02-0800	Newington	GP Gypsum Corporation
02-0900	Newington	PSNH
05-0850	Newington	Granite State
05-1000	Haverhill	Tennessee Gas Pipeline
05-1025	Haverhill	National Grid
05-1050	Methuen	M&NE
05-1150	Dracut	Tennessee Gas Pipeline

Chalmers Referenced Professional Studies

	A	B	C	D	E	F	G
Row	Age of Study	Year Published	Year(s) of Sales Studied	Town/City/County	State/Country	Author(s)	Type of Study
1	49 Years	1967	Inaccessible	Inaccessible	Inaccessible	Kinnard	Attitudinal Studies
2	49 Years	1967	Inaccessible	Inaccessible	Inaccessible	Kinnard	Attitudinal Studies
3	41 Years	1975	Inaccessible	Saskatchewan	Canada	Brown	Statistical
4	31 Years	1985	Inaccessible	Inaccessible	Inaccessible	Morgan, et al.	Attitudinal Studies
5	31 Years	1985	Inaccessible	Inaccessible	Inaccessible	Solum	Attitudinal Studies
6	31 Years	1985	Inaccessible	Inaccessible	California	Chapman	Commercial/Industrial
7				Inaccessible	Nevada		
8				Inaccessible	Utah		
9	28 Years	1988	Inaccessible	Penobscot (Town)	Maine	Kinnard, et al.	Residential
10	26 Years	1990	1968-1978	Decatur	Illinois	Colwell	Residential
11	25 Years	1991	Inaccessible	Various Neighborhoods	California	Ignelzi and Priestley	Residential
12	24 Years	1992	Inaccessible	Inaccessible	Inaccessible	Kung and Seagle	Attitudinal Studies
13	24 Years	1992	Inaccessible	Inaccessible	Inaccessible	Delaney and Timmons	Attitudinal Studies
14	23 Years	1993	Inaccessible	Vancouver	British Columbia	Hamilton and Carruthers	Residential
15	21 Years	1995	Inaccessible	Vancouver	British Columbia	Hamilton and Schwann	Residential
16	20 Years	1996	Inaccessible	Inaccessible	Inaccessible	Priestley and Evans	Attitudinal Studies
17	20 Years	1996	Inaccessible	Hudson River Valley	New York	Mitchell	Statistical
18	19 Years	1997	Inaccessible	Las Vegas	Nevada	Kinnard, et al.	Residential
19	19 Years	1997	Inaccessible	St. Charles and St. Louis Counties	Missouri	Kinnard, et al.	Residential
20	14 Years	2002	Inaccessible	Montreal	Quebec	Des Rosiers	Residential
21	13 Years	2003	Inaccessible	Portland	Oregon	Wolverton and Bottenmiller	Residential
22				Seattle	Washington		
23				Vancouver	Washington		
24	7 Years	2009	Inaccessible	Hartford	Connecticut	Chalmers and Voorvart	Residential
25				Springfield	Massachusetts		
26	6 Years	2010	Inaccessible	Inaccessible	Wisconsin	Jackson	Statistical
27	4 Years	2012	Inaccessible	Inaccessible	Wisconsin	Jackson, Pitts and Norwood	Commercial/Industrial
28	4 Years	2012	Inaccessible	Inaccessible	Milwaukee	Jackson, Pitts and Norwood	Commercial/Industrial
29	4 Years	2012a	1987-2011	Aspen/Central	Montana	Chalmers	Statistical
30	4 Years	2012a	2000-2011	Inaccessible	Montana	Chalmers	Case Studies
31	4 Years	2012a	Inaccessible	Inaccessible	Montana	Chalmers	Subdivision Studies
32	3 Years	2013	Inaccessible	Portland	Oregon	Wolverton and Bottenmiller	Residential
33				Seattle	Washington		

Chalmers New Hampshire Subdivision Studies

	A	B	C	D	E	F	G
Row	**Date of First Lot Sale**	**Date of Last Lot Sale**	**Number of Lots Studied**	**Town/City**	**Subdivision Name**	**Type**	**Easement Voltage Range (NPT is 320 kV)**
1	1967	1986	23	Holderness	Heritage Hill SD	SFD	115 kV
2	1970	1979	23	Woodstock	Lost Valley SD	SFD	115 kV
3	1976	1985	8	Canterbury	Bella Villa SD	SFD	115 kV
4	1984	1993	18	Deerfield	Haynes Farm SD	SFD	115 kV
5	1985	2003	7	Sugar Hill	Nason Farm SD	SFD	12 kV - 115 kV
6	1986	1987	10	Whitefield	John Matthews SD	SFD	115 kV
7	1989	1992	7	Newington	Coleman Estates SD	SFD	34.5 kV
8	1991	2003	12	Campton	Central Park Estates SD	MOD	34 kV - 115 kV
9	1995	2001	9	Greenland	Woodland Grove SD	SFD	34.5 kV - 115 kV
10	1996	2001	15	Easton	Pepper Brook SD	SFD	115 kV
11	1999	2004	21	Portsmouth	Tucker's Cove SD	SFD	34.5 kV
12	2001	2002	6	Franklin	Ceres Timberland Properties SD	SFD &MOD	69 kV - 115 kV
13	2001	2013	11	Allenstown	Woodridge SD	SFD	115 kV

Northern Pass Transmission LLC's
Total Annual Estimated Revenue Requirements - NPT Line
Projected First Calendar Year In-Service
Prepared by George E. Sansoucy, P.E., LLC
Based on the Revised Cost Estimate for the Total Project and
FERC Opinion No. 531-A on the Total Return on Equity

The calculation represents an annual etimate of the first full calendar year after commercial operation. Investment Base, end of year.

Line No.		Attachment B Reference Section:		Estimated	
	I. TRANSMISSION INVESTMENT BASE				
1	Transmission Plant	III(A)(1)(i)	$	1,500,000,000	A
2	General Plant	III(A)(1)(ii)		-	B
3	Intangible Plant	III(A)(1)(iii)		-	B
4	Plant Held for Future Use	III(A)(1)(iv)		-	C
5	Total Plant *(sum Lines 1 through 4)*		$	1,500,000,000	
6	Depreciation Reserve	III(A)(1)(v)		15,000,000	
7	Accumulated Deferred Income Taxes	III(A)(1)(vi)		12,000,000	
8	Net Investment *(Lines 5 - 6 - 7)*		$	1,473,000,000	
9	Regulatory Asset - Pre-COD Expense	III(A)(1)(vii)		-	D
10	Prepayments	III(A)(1)(viii)		-	E
11	Plant Materials and Supplies	III(A)(1)(ix)		8,500,000	
12	Cash Working Capital	III(A)(1)(x)		500,000	
			$	1,482,000,000	
13	Total Transmission Investment Base *(sum of Lines 8 through 12)*				
	II. REVENUE REQUIREMENTS				
14	Return on Equity	III(A)	$	86,993,400	
15	Return on Long-Term Debt	III(B)		57,205,200	
16	Federal Income Taxes associated with Return on Equity	III(C)		48,555,325	
17	State Income Taxes associated with Return on Equity	III(D)		13,250,429	
18	Depreciation Expenses	III(E)		37,500,000	
19	Amortization of Investment Tax Credits	III(F)		-	F
20	Municipal Tax Expenses	III(G)		37,500,000	
21	Payroll Tax Expenses	III(H)		-	E
22	Operation and Maintenance Expense (O&M)	III(I)		3,000,000	
23	Transmission Administrative and General Expense (A&G)	III(J)		4,000,000	
24	Taxes and Fees Charge	III(K)		-	F
25	Right-of-Way (Rental) Expense	III(L)		-	E
26	Scheduling, System Control and Dispatch Service Expense	III(M)		-	E
27	Amortization of Regulatory Asset - Pre-COD Expenses	III(N)		-	D
28	Levelized Annual Decommissioning Payment	III(O)		-	E
29	Transmission Support Expense	III(P)		-	G
30	Miscellaneous Revenues (such as Rents Received from Electric Property)	III(Q)		-	E
31	Total Revenue Requirements *(sum of Lines 14 through 30)*		$	288,004,354	

A Transmission Plant estimate includes both the DC and AC Cost, land, accrued AFUDC and capitalized property taxes.

B Currently, Transmision Plant balance estimate reflects all plant assets. Once the project is in-service, certain of the plant assets may be recorded as either general plant or intangible plant. These estimates are not available at this time.

C Current expectation is that all land, easements, and plant will be placed in service at the commercial operation date, and therefore, no Plant Held for Future Use will be recorded.

D This account is currently estimated to be zero. We anticapate this to be immaterial during construction.

E These balances are assumed to be zero, as no estimates are currently available.

F Currently, these investments are not expected to qualify for Investment Tax Credits, and therefore, not amortization of ITCs are noted above. In addition, the term "Taxes and Fees Charge" is intended to include any taxes or fees that may be imposed by any Government Authority on service provided by NPT, as defined in Attachment B of the TSA. Currently, this amount is estimated to be zero.

G No estimate is available at this time. If support agreements are required, associated expenses will then be recorded, as applicable.

Northern Pass Transmission LLC
Calculation of Investment Return and Taxes
Start Up Year

	(A) X CAPITALIZATION RATIOS	(B) Y COST OF CAPITAL	(C) = (A) x (B) WEIGHTED COST OF CAPITAL	(D) EQUITY PROTECTION
1 LONG-TERM DEBT	50.00%	7.71%	3.86%	
2 PREFERRED STOCK	0.00%	0.00%	0.00%	0.00%
3 COMMON EQUITY	50.00%	11.74%	5.87%	5.87%
4 Total Investment Return *(lines 1 + 2 + 3)*	100.00%		9.73%	5.87%
5 Return on Equity *(excluding taxes)*	5.87%			
6 Return on Long-Term Debt	3.86%			

7 Federal Income Taxes associated with Return on Equity

$$= \frac{(\text{R.O.E.} + (\text{Amoritzation of Inv. Tax Credit} + \text{Z Equity AFUDC in Depreciation Exp.}) / \text{Total Inv. Base}) \times \text{Federal Income Tax Rate})}{(1 - \text{Federal Income Tax Rate})}$$

$$= \frac{5.87\% + (+ 3{,}180{,}775 / 1{,}482{,}000{,}000 \times 35.0\%)}{1 - 35.0\%} = 3.28\%$$

8 State Income Taxes associated with Return on Equity

$$= \frac{(\text{R.O.E.} + (\text{Amoritzation of Inv. Tax Credit} + \text{Equity AFUDC in Depreciation Exp.}) / \text{Total Inv. Base}) + \text{Federal Income Tax Rate}) * \text{State Income Tax Rate}}{1 - 8.5\%}$$

$$= \frac{5.87\% + (+ 3{,}180{,}775 / 1{,}482{,}000{,}000 + 3.54\% \times 8.50\%)}{1 - 8.5\%} = 0.89\%$$

9 Cost of Capital Rate *(lines 5 + 6 + 7 + 8)* = 13.900%

	Return on Equity	**Return on Long-Term Debt**	**Federal Income Taxes**	**State Income Taxes**	**Total**
10 INVESTMENT BASE	$ 1,482,000,000	$ 1,482,000,000	$ 1,482,000,000	$ 1,482,000,000	$ 1,482,000,000
11 Assoicated Rate *(from Lines 5 through 8)*	5.87%	3.86%	3.28%	0.89%	13.90%
12 Investment Return and Income Taxes *(lines 10 x 11)*	$ 86,993,400	$ 57,205,200	$ 48,555,325	$ 13,250,429	$ 206,004,354

Notes:

(D) Represents only the Equity portion of the Weighted Cost of Capital (Preferred Stock + Common Equity); this also equals the Return on Equity (R.O.E.) used in the calculations above.

X Capitalization ratios are in accordance with Section 8.3 of the TSA.

Y Estimated cost of debt rate based on NU's current financial forecasts. Return on Equity (ROE) is based on FERC Opinion No. 531-A Docket No. EL11-66-001

Z Equity AFUDC of Depreciation Expense is calculated based on the current estimated project costs, current ROE (FERC Opinion No. 531-A Docket No. EL11-66-001), and assumed capital structure (Section 8.3)

149 FERC ¶ 61,032
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;
Philip D. Moeller, Tony Clark,
and Norman C. Bay.

Martha Coakley, Massachusetts Attorney General; Connecticut Public Utilities Regulatory Authority; Massachusetts Department of Public Utilities; New Hampshire Public Utilities Commission; Connecticut Office of Consumer Counsel; Maine Office of the Public Advocate; George Jepsen, Connecticut Attorney General; New Hampshire Office of Consumer Advocate; Rhode Island Division of Public Utilities and Carriers; Vermont Department of Public Service; Massachusetts Municipal Wholesale Electric Company; Associated Industries of Massachusetts; The Energy Consortium; Power Options, Inc.; and the Industrial Energy Consumer Group,

Docket No. EL11-66-001

v.

Bangor Hydro-Electric Company; Central Maine Power Company; New England Power Company d/b/a National Grid; New Hampshire Transmission LLC d/b/a NextEra; NSTAR Electric and Gas Corporation; Northeast Utilities Service Company; The United Illuminating Company; Unitil Energy Systems, Inc. and Fitchburg Gas and Electric Light Company; Vermont Transco, LLC

OPINION NO. 531-A

ORDER ON PAPER HEARING

(Issued October 16, 2014)

1. On June 19, 2014, the Commission issued Opinion No. 531, affirming in part and reversing in part an Initial Decision[1] addressing a complaint filed pursuant to section 206 of the Federal Power Act (FPA)[2] challenging the New England Transmission Owners' (NETOs) base return on equity (ROE) reflected in ISO New England Inc.'s (ISO-NE) open access transmission tariff (OATT).[3] In Opinion No. 531, the Commission adopted the two-step, constant growth discounted cash flow (DCF) methodology (i.e., the two-step DCF methodology) for determining the base ROE for public utilities. Because the parties in the proceeding did not litigate one of the inputs to the two-step DCF methodology, i.e., the appropriate long-term growth rate to use, the Commission instituted a paper hearing and reopened the record to provide participants an opportunity to submit briefs on that issue. In this order, we find that gross domestic product (GDP) is the appropriate long-term growth rate to use. We thus further find, consistent with Opinion No. 531, that the NETOs' existing 11.14 percent base ROE is unjust and unreasonable, that a just and reasonable base ROE for the NETOs is 10.57 percent, and that a just and reasonable total ROE for the NETOs does not exceed the top of the range of reasonable returns, i.e., 11.74 percent. Finally, we direct the NETOs to make refunds, with interest, accordingly.

[1] *Coakley, Mass. Attorney Gen. v. Bangor Hydro-Elec. Co.*, 144 FERC ¶ 63,012 (2013) (Initial Decision).

[2] 16 U.S.C. § 824e (2012).

[3] *Coakley, Mass. Attorney Gen., et al. v. Bangor Hydro-Elec. Co., et al.*, Opinion No. 531, 147 FERC ¶ 61,234 (2014) (Opinion No. 531). Requests for rehearing of Opinion No. 531 are currently pending before the Commission.

I. Background

2. The NETOs recover their transmission revenue requirements through formula rates included in ISO-NE's OATT.[4] The revenue requirements for Regional Network Service[5] and Local Network Service[6] that the NETOs provide are calculated using the same, single base ROE. On October 31, 2006, the Commission, in Opinion No. 489, established that base ROE at 11.14 percent.[7] On September 30, 2011, the Complainants[8] filed a complaint alleging that the NETOs' 11.14 percent base ROE is unjust and unreasonable because capital market conditions have significantly changed since that base ROE was established in 2006. On May 3, 2012, the Commission issued an order on the complaint, establishing hearing and settlement judge procedures and setting a refund effective date of October 1, 2011.[9]

[4] ISO-NE's OATT is section II of ISO-NE's Transmission, Markets, and Services Tariff (Tariff). *See* ISO-NE, Tariff, § II.

[5] Regional Network Service is the transmission service over the pool transmission facilities described in Part II.B of the OATT. ISO-NE, Tariff, § I.2 (50.0.0); *see also* ISO-NE, Tariff, § II.B Regional Network Service (0.0.0), *et seq.*

[6] Local Network Service is the network service provided under Schedule 21 and the Local Service Schedules of ISO-NE's OATT. ISO-NE, Tariff, § I.2 (50.0.0); *see also* ISO-NE, Tariff, Schedule 21 Local Service (1.0.0), *et seq.*

[7] *Bangor Hydro-Elec. Co.*, Opinion No. 489, 117 FERC ¶ 61,129 (2006) (Opinion No. 489), *order on reh'g*, 122 FERC ¶ 61,265 (2008), *order granting clarification*, 124 FERC ¶ 61,136 (2008), *aff'd sub nom. Conn. Dep't of Pub. Util. Control v. FERC*, 593 F.3d 30 (2010).

[8] Complainants include Martha Coakley, Mass. Attorney Gen.; Conn. Pub. Utilities Regulatory Auth.; Mass. Dept. of Pub. Utilities; N.H. Pub. Utilities Comm'n; Conn. Office of Consumer Counsel; Me. Office of the Pub. Advocate; George Jepsen, Conn. Attorney Gen.; N.H. Office of Consumer Advocate; R.I. Div. of Pub. Utilities and Carriers; Vt. Dept. of Pub. Serv.; Mass. Mun. Wholesale Elec. Co.; Associated Indus. of Mass.; the Energy Consortium; Power Options, Inc.; and the Indus. Energy Consumer Group.

[9] *Coakley, Massachusetts Attorney Gen. v. Bangor Hydro-Elec. Co.*, 139 FERC ¶ 61,090 (2012) (Hearing Order). The refund period in this proceeding, established pursuant to section 206 of the FPA, is the 15-month period from October 1,

3. On August 6, 2013, following an evidentiary hearing in which each party submitted its own ROE analysis, the presiding Administrative Law Judge (Presiding Judge) issued the Initial Decision, finding the NETOs' current 11.14 percent base ROE to be unjust and unreasonable.[10] On June 19, 2014, in Opinion No. 531, the Commission issued its order on the Initial Decision. In Opinion No. 531, the Commission determined that, while the Commission has historically used a one-step DCF methodology for determining the base ROE for public utilities, it is appropriate to adopt for public utility ROE cases the two-step DCF methodology that the Commission has long-used in natural gas pipeline and oil pipeline cases.

4. Although the parties did not use the two-step DCF methodology in their ROE analyses, the Commission found that the initial proxy group the NETOs used for their one-step DCF methodology was consistent with Commission precedent and that the record contained all the financial data necessary to conduct a DCF analysis of that proxy group using the two-step DCF methodology, except for a projection of long-term growth, which is an input in the two-step DCF methodology but not in the one-step DCF methodology. The Commission tentatively found that the long-term growth projection for public utilities should be based on projected long-term growth in GDP, which the Commission also uses as the long-term growth projection in natural gas and oil pipeline cases. However, because the parties in the proceeding did not litigate the issue of the appropriate long-term growth rate, the Commission instituted a paper hearing and reopened the record to provide participants an opportunity to submit briefs on that issue.

5. The Complainants, NETOs, and Commission Trial Staff (Trial Staff) each submitted Initial Briefs and Reply Briefs in the paper hearing.

II. Summary of Pleadings

6. All participants in the paper hearing agree that the estimated long-term growth in GDP is the appropriate growth rate to use as the long-term growth component of the two-step DCF methodology for public utilities;[11] that the Commission's reliance on data from the Energy Information Administration, Social Security Administration, and IHS Global

2011 through December 31, 2012.

[10] Initial Decision, 144 FERC ¶ 63,012 at P 544.

[11] Complainants Initial Brief at 2-3; NETOs Initial Brief at 4; Trial Staff Initial Brief at 8.

Insight to determine the GDP growth rate estimate is appropriate;[12] and that the Commission properly calculated the GDP growth rate in this case to be 4.39 percent.[13]

7. Complainants assert that 4.39 percent should be the uppermost limit of the long-term growth component in the two-step DCF methodology in this proceeding, because real GDP growth of more than 4.39 percent is likely a high estimate.[14] The NETOs contend that the GDP growth estimate should be considered a floor for the long-term growth rate estimate, because assigning a one-third weighting to the long-term GDP forecast in the two-step DCF methodology underestimates investors' expectations of growth for the public utility industry.[15] The NETOs assert that the use of GDP as the long-term growth rate estimate, therefore, also supports the Commission's determination to establish a base ROE above the midpoint of the zone of reasonableness.

8. In their reply brief, Complainants assert that, because all parties agree that 4.39 percent is the appropriate long-term growth projection in this proceeding, the NETOs' arguments that 4.39 percent should be the minimum value are superfluous.[16] Complainants state that the NETOs' arguments that long-term GDP forecasts underestimate investor expectations are unsupported and based on an incomplete data analysis, and that a complete review of the data indicate that long-term GDP forecasts represent an upper limit on the long-term growth rate for public utilities.[17] Complainants state that because all parties agree that 4.39 percent is the appropriate long-term growth rate estimate, the Commission should therefore fix the just and reasonable base ROE for the NETOs at 10.57 percent.[18]

[12] Complainants Initial Brief at 4; NETOs Initial Brief at 4-5; Trial Staff Initial Brief at 9-10.

[13] Complainants Initial Brief at 7; NETOs Initial Brief at 9; Trial Staff Initial Brief at 11.

[14] Complainants Initial Brief at 7.

[15] NETOs Initial Brief at 5-8.

[16] Complainants Reply Brief at 1-2.

[17] *Id.* at Appendix, 4.

[18] *Id.* at 2.

9. In their reply brief, the NETOs contend that Complainants' arguments that the 4.39 percent GDP growth rate is likely a high estimate and should represent an upper limit are unsupported.[19] Trial Staff, in its reply brief, states that there is no basis to conclude that long-term GDP forecasts, or the Commission's one-third weighting thereof, understate the long-term growth rates for public utilities.[20] Trial Staff therefore contends that the long-term GDP estimate should not establish a floor for the long-term growth component of the two-step DCF methodology, and also that the one-third weighting of GDP should not be a factor in placing the base ROE within the zone of reasonableness.

III. Commission Determination

10. We find that the projected long-term growth in GDP is the appropriate long-term growth projection to be used in the two-step DCF methodology for determining the NETOs' ROE. We further find that, in this proceeding, 4.39 percent is the appropriate projection of long-term GDP growth.[21] In Opinion No. 531, the Commission concluded that using 4.39 percent as the projection of long-term GDP growth would produce a base ROE of 10.57 percent; however, as the Commission explained, "the specific numerical just and reasonable ROE" for the NETOs remained subject to the outcome of the instant paper hearing on the appropriate long-term growth rate.[22] Based on our finding here that 4.39 percent is indeed the appropriate long-term growth rate to be used in this proceeding, we now find, pursuant to FPA section 206, that the NETOs' existing 11.14

[19] NETOs Reply Brief at 3-5.

[20] Trial Staff Reply Brief at 7.

[21] The Commission instituted this paper hearing to address "the limited issue of the appropriate long-term growth projection to be used in the two-step DCF methodology." Opinion No. 531, 147 FERC ¶ 61,234 at P 154. The Commission did not extend the paper hearing to include whether and how the Commission's two-step DCF methodology, or the Commission's ROE analysis more generally, may be impacted by the chosen long-term growth rate projection. There is no disagreement on the limited issue the Commission set for paper hearing, as all participants in the paper hearing agree that 4.39 percent is the appropriate long-term growth rate projection to use in this proceeding. Arguments beyond that limited issue, including the parties' arguments regarding whether projected long-term GDP growth rate represents an upper or lower limit on the long-term growth component of the two-step DCF methodology, are beyond the scope of the paper hearing. Therefore, we will not address those arguments.

[22] Opinion No. 531, 147 FERC ¶ 61,234 at P 152.

percent base ROE is unjust and unreasonable and that a just and reasonable base ROE is 10.57 percent.

11. As the Commission previously explained in Opinion No. 531, "when a public utility's ROE is changed, either under section 205 or section 206 of the FPA, that utility's total ROE, inclusive of transmission incentive ROE adders, should not exceed the top of the zone of reasonableness produced by the two-step DCF methodology."[23] Using a projected long-term GDP growth rate of 4.39 percent in this proceeding produces a zone of reasonableness for the NETOs of from 7.03 percent to 11.74 percent.[24] We, therefore, also find that the NETOs' total or maximum ROE, including transmission incentive ROE adders, cannot exceed 11.74 percent.

12. The NETOs are directed to make refunds, with interest, as ordered below.

The Commission orders:

(A) The NETOs' base ROE is hereby set at 10.57 percent with a total or maximum ROE including incentives not to exceed 11.74 percent, effective on the date of this order, as discussed in the body of this order.

(B) The NETOs are hereby directed to submit a compliance filing with revised rates to be effective the date of this order reflecting a 10.57 percent base ROE and a total or maximum ROE not exceeding 11.74 percent (inclusive of transmission incentive ROE adders), within thirty (30) days of the date of this order, as discussed in the body of this order.

(C) The NETOs are hereby directed to provide refunds, with interest calculated pursuant to 18 C.F.R. § 35.19a (2014), within thirty (30) days of the date of this order, for the 15-month refund period from October 1, 2011 through December 31, 2012, as discussed in the body of this order.

(D) The NETOs are hereby directed to file a refund report detailing the

[23] *Id.* P 165.

[24] *Id.* P 125.

principal amounts plus interest paid to each of their customers within forty five (45) days of the date of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Interconnection Requests for New England Control Area
Generation, Elective Transmission Upgrade and Transmission Service Requests

Projects as of 12/1/2016

Request Status	
C	Commercial
W	Withdrawn
A	Actively Under Study or Developing IA

Request Type	
G	Generator Interconnection Request
ETU	Elective Transmission Upgrade Interconnnection
TS	Transmission Service Request

Interconnection Service Type Requested	
MIS	Minimum Interconnection Standard
CNRIS	Capacity Network Resource Interconnection Service
NRIS	Network Resource Interconnection Service
CNIIS	Capacity Network Import Interconnection Service
NIIS	Network Import Interconnection Service

General	
N/A	Not Applicable
TBD	To Be Determined

RSP Zone Definitions	
BHE	Northeast Maine
ME	West and Central ME/Saco Valley NH
SME	Southest Maine
NH	N, E, and Central NH / Eastern VT
VT	Vermont / SW New Hampshire
BOST	Greater Boston, including N. Shore
CMA	Central MA / NE MA (CMA / NEMA)
WMA	Western Massachusetts
SEMA	SE Mass / Newport, Rhode Is.
RI	Rhode Is. / bordering Massachusetts
CT	North and East Connecticut
SWCT	Southwest Connecticut
NOR	Norwalk / Stamford, Connecticut

Deviation Definitions	
BL	Backlog
CD	Customer Delay
PD	Project Dependency

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89	9/25/2015	G	6/6/2001	Cape Wind Turbine Generators	WT	WND	454	454	454	N/A	MA	12/31/2018	10/1/2018	Near Barnstable 115 kV Substation	NR	Yes	Yes	ISO-NE		SEMA
178	10/13/2015	G	11/2/2006	Brockton Combined Cycle	CC	NG DFO	332	332	371	Plymouth	MA	5/31/2019	1/25/2019	115 kV F19 and E20 lines	NR	Yes	Yes	ISO-NE		SEMA
273	7/22/2016	G	8/3/2008	Palmer Renewable Energy	ST	WDS	36.7	36.7	37	Hampden	MA	7/15/2019	6/15/2019	115 kV line near E. Springfield substation	NR	Yes	Yes	ISO-NE	BL	WMA
300	7/1/2016	G	5/14/2009	Canton Mountain Winds	WT	WND	19.25	19.25	19.25	Oxford	ME	12/1/2017	11/1/2017	229 Line near Riley Substation	NR	Yes	Yes	ISO-NE	PD	ME
333	10/5/2015	G	5/14/2010	Bingham Wind	WT	WND	184.8	184.8	184.8	Somerset	ME	12/31/2016	8/15/2016	CMP Guilford Substation	CNR	Yes	Yes	ISO-NE	PD	ME
349	8/17/2015	G	10/20/2010	Pisgah Mountain	WT	WND	9	9	9	Penobscot	ME	12/31/2016	11/1/2016	BHE Line 66	NR	Yes	Yes	ISO-NE	PD	BHE
384	10/27/2014	G	12/29/2011	CPV Towantic Energy Center	CC	NG DFO	745	745	775	New Haven	CT	6/1/2018	1/1/2018	CL&P 115 kV	CNR	Yes	Yes	ISO-NE	PD	SWCT
387	12/31/2014	G	1/13/2012	Footprint Combined Cycle Unit	CC	NG	715.6	715.6	715.6	Essex	MA	5/31/2017	1/20/2017	NGRID 115 kV Salem Harbor Substation	CNR	Yes	Yes	NGRID	BL	BOST
390	7/27/2015	G	1/30/2012	Spruce Ridge Wind Farm	WT	WND	50.82	50.82	50.82	Grafton	NH	10/31/2017	9/18/2017	NGRID 230 kV Comerford/Dunbarton Line	NR	Yes	Yes	ISO-NE	PD	NH
396	3/23/2016	G	8/28/2012	Berkshire Wind Increase	WT	WND	4.8	19.8	19.8	Berkshire	MA	1/1/2017	12/1/2016	WMECO 23 kV from Partridge substation	NR	Yes	No	NU	BL	WMA
397	3/1/2016	G	8/30/2012	Hancock Wind Project	WT	WND	51	51	51	Hancock	ME	12/31/2016	10/1/2016	BHE Line 66 - Bull Hill substation	NR	Yes	Yes	ISO-NE	PD	BHE
400	9/7/2016	G	10/3/2012	Downeast Wind	WT	WND	90	90	90	Washington	ME	12/30/2018	9/15/2018	BHE Epping Substation	NR	Yes	Yes	ISO-NE	PD	BHE
403	8/17/2015	G	12/6/2012	Pisgah Mountain Increase (see Q349)	WT	WND	0.08	9.07	9.07	Penobscot	ME	12/31/2016	11/1/2016	BHE Line 66	NR	No	No			BHE
404	4/30/2014	G	1/8/2013	MATEP -3rd CTG	GT	DFO NG	14.15	100	105.6	Suffolk	MA	6/1/2017	12/1/2016	NSTAR Brighton substation	CNR	Yes	Yes	ISO-NE	BL	BOST
406	7/1/2016	G	2/22/2013	Canton Increase and CNR (see Q300)	WT	WND	3.55	22.8	22.8	Oxford	ME	12/1/2017	11/1/2017	CMP Ludden Lane Substation	NR	No	No			ME
412	1/20/2016	G	2/28/2013	PSEG Bridgeport Harbor CCGT Expansion	CC	DFO NG	509.6	509.6	532.6	Fairfield	CT	5/31/2019	5/31/2019	UI 345 kV Singer	CNR	Yes	Yes	ISO-NE	BL	SWCT
417	2/11/2014	G	4/25/2013	Wind	WT	WND	250	250	250	Aroostook	ME	12/30/2016	9/15/2016	MEPCO 345 kV	NR	No	No		PD	BHE
420	7/22/2016	G	7/15/2013	Wind	WT	WND	72.6	72.6	72.6	Hancock	ME	12/31/2018	8/1/2018	Bull Hill Switching Station	NR	No	No		PD	BHE
421	5/31/2016	G	7/18/2013	Spruce Ridge Wind CNR (see Q390)	WT	WND	0	50.82	50.82	Grafton	NH	10/31/2017	8/18/2017	NGRID 230 kV Comerford/Dunbarton Line	NR	No	No			NH
422	11/12/2013	G	7/26/2013	Wind CNR	WT	WND	0	250	250	Aroostook	ME	12/30/2016	9/15/2016	MEPCO line in Haynesville, ME	NR	No	No			BHE
435	5/2/2016	G	1/31/2014	Wind	WT	WND	103.5	103.5	103.5	Washington	ME	12/31/2018	9/30/2018	Bangor Hydro Epping Substation, Columbia, Washington County, ME	NR	No	No		PD	BHE
438	9/1/2015	G	2/24/2014	Potter Repowering	GT	NG	-21.2	63.27	65.25	Norfolk	MA	5/22/2018	2/22/2018	BELD Station 16 Switchyard	CNR	Yes	Yes	ISO-NE		SEMA
440	2/2/2016	G	2/24/2014	Wallingford Energy Center	GT	NG	100	350	350	New Haven	CT	4/1/2018	2/1/2018	CMEEC 115 kV Wallingford Substation Generating facility.	CNR	Yes	Yes	ISO-NE		SWCT
443	10/31/2014	G	3/3/2014	Brockton Combined Cycle CNR Increase	CC	NG	0	354.9	383.9	Plymouth	MA	5/31/2019	1/25/2019	Grid 115 kV E20 and F19 Lines	NR	No	No			SEMA
444	6/27/2016	G	3/4/2014	Medway Peaker - SEMARI	GT	DFO NG	207.7	207.7	207.7	Norfolk	MA	5/31/2018	2/1/2018	Medway 115 kV station	CNR	Yes	Yes	ISO-NE	PD	SEMA
449	9/22/2016	G	3/4/2014	Canal 3	GT	DFO NG	333	333	336.2	Barnstable	MA	5/31/2019	4/1/2019	NU/NStar 345kV Canal Substation	CNR	Yes	Yes	ISO-NE		SEMA
458	9/4/2014	G	4/28/2014	Wind	WT	WND	104	104	104	Aroostook	ME	12/30/2017	9/15/2017	Haynesville substation	NR	No	No		PD	BHE
459	9/4/2014	G	4/29/2014	Wind	WT	WND	104	104	104	Aroostook	ME	12/30/2017	9/15/2017	Haynesville substation	NR	No	No		PD	BHE
460	9/4/2014	G	4/29/2014	Wind	WT	WND	104	104	104	Aroostook	ME	12/30/2018	9/15/2018	Haynesville substation	NR	No	No		PD	BHE
461	9/4/2014	G	4/30/2014	Wind	WT	WND	104	104	104	Aroostook	ME	12/30/2018	9/15/2018	Haynesville substation	NR	No	No		PD	BHE
462	9/16/2014	G	4/30/2014	wind	WT	WND	104	104	104	Aroostook	ME	12/30/2018	9/15/2018	Haynesville substation	NR	No	No		PD	BHE
470	2/19/2015	G	6/19/2014	Wind	WT	WND	600.6	600.6	600.6	Aroostook	ME	12/30/2018	11/30/2018	Primary: Orrington Substations 345kV with two alternatives: Keene Rd. Substation 345kV and the Orrington-Albion Rd 345kV line	CNR	No	No		PD	BHE
471	2/19/2015	G	6/19/2014	Wind	WT	WND	600.6	600.6	600.6	Aroostook	ME	12/30/2019	11/30/2019	Primary: Orrington Substations 345kV with two alternatives: Keene Rd. Substation 345kV and the Orrington-Albion Rd 345kV line	CNR	No	No		PD	BHE

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477	7/1/2016	G	9/19/2014	Deerfield Wind Project	WT	WND	30	30	30	Bennington	VT	12/31/2017	10/1/2017	Future GMP Putnam Road 69 kV Substation on Y-25N Line	CNR	Yes	Yes	ISO-NE		WMA
481	9/3/2015	G	11/18/2014	GRE Capacity Uprate	CC	NG	41	762	812	Rockingham	NH	5/30/2017	9/1/2015	Watts Brook, North Litchfield	CNR	Yes	Yes	ISO-NE		NH
486	3/26/2015	G	12/19/2014	Wind	WT	WND	250	250	250	Hancock	ME	12/1/2019	10/1/2019	Orrington - Pt. Lapreau 345 kV, Alt: BHE Deblois 115 kV substation	CNR	No	No		PD	BHE
489	10/24/2016	G	1/8/2015	Combined Cycle	CC	NG	1,030	1,030	1,080	Providence	RI	6/1/2019	2/1/2019	Sherman Road 345kV Station	CNR	Yes	Yes	ISO-NE		RI
492	5/9/2016	G	2/5/2015	Combustion Turbine Generator	GT	DFO NG	238	238	238	Providence	RI	5/31/2020	3/1/2020	NGRID 345 kV Sherman Road (via OSP Switchyard)	CNR	Yes	No	ISO-NE	PD	RI
496	1/22/2016	G	2/13/2015	Frequency conversion	HW	WAT	0	126	126	Penobscot	ME	12/1/2016	10/14/2016	Powersville Substation, Emera, 115kV, Line62, existing node424.	NR	No	No		PD	BHE
497	11/9/2016	G	2/13/2015	Fuel Cell	FC	NG	63.4	63.4	63.4	New Haven	CT	5/1/2019	4/1/2019	Beacon Falls Substation, 180 Cold Spring Rd, Beacon Falls, CT Junction of 115kV lines 1570-1 and 1319	CNR	Yes	Yes	ISO-NE		SWCT
498	11/22/2016	ETU	2/16/2015	150 kV HVDC Tie - Import Only	NA	N/A	400	400	400	Colchester	VT	12/31/2020	12/1/2020	NYPA 230/115 kV substation to VELCO 345 kV New Haven Substation	CNI	Yes	No	ISO-NE		VT
499	7/27/2016	ETU	2/16/2015	300 kV HVDC/AC Tie - Import Only	NA	N/A	1,090	1,090	1,090	Rockingham	NH	4/30/2019	3/30/2019	HQ Des Cantes substation to PSNH Deerfield substation	CNI	Yes	Yes	ISO-NE	PD	NH
500	5/14/2015	ETU	2/16/2015	Keene Road ETU	NA	N/A				Penobscot	ME	12/31/2016	12/15/2016	Emera Keene Road substation	N/A	No	No		PD	BHE
501	11/1/2016	ETU	2/16/2015	HVDC Tie - Import only	NA	N/A	1,000	1,000	1,000	Windsor	VT	5/31/2019	3/31/2019	HQ 735 kV substation to VELCO 345 kV Coolidge substation	CNI	Yes	Yes	ISO-NE	PD	VT
506	5/14/2015	ETU	2/16/2015	Internal HVDC - North to South flow	NA	N/A	1,000	1,000	1,000	Suffolk	MA	6/30/2019	1/30/2019	NMISA to NSTAR 345 kV K Street substation	N/A	No	No		PD	BOST
507	5/14/2015	ETU	2/16/2015	AC Tie - bidirectional flows	NA	N/A	75	75	75	Aroostook	ME	7/31/2017	7/25/2017	NMISA Mullen substation to Emera Keene Road substation	CNI	No	No		PD	BHE
508	9/28/2015	ETU	2/16/2015	HVDC from NY to WMA - bidirectional	NA	N/A	600	600	600	Berkshire	MA	8/30/2019	7/30/2019	NY Alps substation to WMECO Berkshire substation	NI	No	No		PD	WMA
527	11/22/2016	G	2/26/2015	Combined Cycle Uprate #2	CC	NG	30	219.58	230.73	Worcester	MA	10/8/2018	9/24/2018	Milford Power Switch DS-F3 115kV (Nat Grid #D-130-3) and Milford Power Switch DS-A3 115kV (Nat Grid #C-129-3).	CNR	Yes	No	ISO-NE	PD	CMA
529	5/16/2016	G	2/26/2015	Combined Cycle CNR Only	CC	NG	0	585.65	615	Worcester	MA	11/3/2017	10/20/2017	ANP Blackstone 345kV Bus 110785 Station BLK_336	CNR	No	No			CMA
530	4/25/2016	G	2/26/2015	Bridgeport Energy Wet Compression Upgrade	CC	NG	18	578	588	Fairfield	CT	6/1/2017	5/16/2017	UI Singer Substation	CNR	Yes	Yes	ISO-NE	PD	SWCT
531	5/14/2015	G	2/27/2015	Combined Cycle Uprate	CC	NG	30	546.85	582.56	Penobscot	ME	8/1/2018	7/16/2018	EMERA Maine-Graham Station via 115kv	CNR	No	No		PD	BHE
533	9/12/2016	G	2/27/2015	Combined Cycle Upgrades	CC	NG	33.21	586	637	New Haven	CT	6/5/2017	5/15/2017	115kV East Devon Substation	CNR	Yes	No	ISO-NE	PD	SWCT
534	10/25/2016	G	2/27/2015	Combined Cycle Upgrades	CC	NG	49.84	882	951	Windham	CT	12/31/2017	12/30/2016	345kV Lake Road 27E Substation	CNR	Yes	No	ISO-NE	PD	CT
535	7/30/2015	G	2/27/2015	Wind	WT	WND	4.98	4.98	4.98	Hampden	MA	6/8/2016	5/25/2016	WMECo 23 kV line 19J1 adjacent to Pine Hill Road in the town of Russell, Massachusetts	CNR	No	No			WMA
540	9/15/2016	G	3/2/2015	Combined Cycle Increase	CC	DFO NG	55.5	800.5	830.5	New Haven	CT	6/1/2018	1/1/2018	CL&P 115kV Lines 1575, 1585 & 1990	CNR	Yes	No	ISO-NE	PD	SWCT
543	9/28/2015	G	3/2/2015	wind	WT	WND	28.4	28.4	28.4	Hillsborough	NH	7/1/2017	6/15/2017	Proposed POI is to PSNH 115 kV line L163. coordinates are approximately 43º 4'' 23.99 N, 72º 0'' 29.07" W.	CNR	No	No		PD	NH
546	4/25/2016	G	3/4/2015	NEA Bell. Uprate (Northeast Energy Associates, LP)	CC	DFO NG	1.39	314.7	340.24	Norfolk	MA	5/1/2019	4/30/2019	345 kV NEA Bellingham substation	CNR	No	No			SEMA
547	9/28/2015	G	4/28/2015	Wind uprate	WT	WND	2.93	42.9	42.9	Penobscot	ME	12/15/2016	12/1/2016	Existing connection between Emera Maine 115kV lines 64 and 97	CNR	No	No		PD	BHE
552	11/9/2016	G	6/12/2015	Solar	PV	SUN	19.9	19.9	19.9	Hartford	CT	7/15/2018	7/1/2018	115kV Sitico Sub	CNR	Yes	Yes	ISO-NE		CT
554	1/27/2016	G	6/18/2015	Landfill Gas Expansion	IC	LFG	1.6	3.2	3.2	Worcester	MA	8/18/2018	7/25/2018	National Grid 413L4 (Existing facility POI)	CNR	Yes	No	NGRID		CMA
555	10/21/2015	G	8/7/2015	Wind farm	WT	WND	39.6	39.6	39.6	Oxford	ME	12/1/2019	9/1/2019	CMP Rumford-Kimball Road 115 kV	CNR	No	No		PD	ME
556	10/21/2015	G	8/7/2015	Wind Farm	WT	WND	79.2	79.2	79.2	Somerset	ME	12/1/2019	9/1/2019	CMP Wyman - Harris 115 kV	CNR	No	No		PD	ME
557	7/13/2016	G	8/10/2015	Solar	PV	SUN	78.4	78.4	78.4	Franklin	ME	7/1/2017	6/15/2017	CMP Sturtevant Substation - 115 kV	CNR	No	No		PD	ME
565	8/31/2016	G	9/8/2015	Solar	PV	SUN	19.9	19.9	19.9	Windsor	VT	8/31/2017	8/15/2017	115 kV Coolidge Substation	CNR	No	No		PD	VT

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569	12/1/2015	ETU	10/16/2015	HVDC from ME to MA (MA import only)	NA	N/A	1,200	1,200	1,200	Plymouth	MA	12/31/2021	11/30/2021	Emera Orrington 345 kV substation to Eversource Jordan Rd	N/A	No	No		PD	SEMA
571	3/29/2016	ETU	11/2/2015	Wyman Area to Larabee Rd Line	NA	N/A	850	850	850	Somerset/Androscoggin	ME	11/30/2019	10/31/2019	Wyman Area to CMP Larabee Rd 345 kV sub	N/A	No	No		PD	ME
572	1/29/2016	G	11/3/2015	Wind	WT	WND	113	113	113	Franklin	ME	10/31/2019	8/1/2019	CMP Larrabee Road 345 kV station	NR	No	No		PD	ME
573	1/29/2016	G	11/3/2015	Wind	WT	WND	245.38	245.38	245.38	Franklin	ME	10/31/2019	8/1/2019	CMP Larrabee Road Station 345 kV	NR	No	No		PD	ME
574	2/24/2016	G	11/3/2015	Wind	WT	WND	216.41	216.41	216.41	Franklin	ME	10/31/2019	8/1/2019	CMP Larrabee Road Station 345 kV	NR	No	No		PD	ME
575	11/30/2016	G	11/3/2015	Casco Bay Energy Storage	OT	OTH	16.2	16.2	16.2	Cumberland	ME	12/15/2016	11/30/2016	CMP''s PTF 115kV Upper Bus at William F Wyman Station	NR	Yes	Yes	ISO-NE		ME
576	1/29/2016	G	11/12/2015	Battery Storage	OT	OTH	52.26	241.49	241.49	Franklin	ME	10/31/2019	8/1/2019	CMP Larrabee Road station 345 kV	NR	No	No		PD	ME
577	1/29/2016	G	11/12/2015	Battery Storage	OT	OTH	25.08	270.46	270.46	Frqanklin	ME	11/9/2019	8/1/2019	CMP Larrabee Road Station,345 kV	NR	No	No		PD	ME
578	1/15/2016	G	11/20/2015	Solar	PV	SUN	152	152	152	Somerset	ME	10/31/2019	8/1/2019	CMP Larrabee Road 345 kV.	NR	No	No		PD	ME
581	8/10/2016	G	12/2/2015	Solar	PV	SUN	2.66	2.66	2.66	Worcester	MA	12/1/2017	11/1/2017	POI is the GRID 69KV switchyard at the Harrington Street Facility. 229 Harrington Street, East Brookfield, MA. National Grid has this information.	CNR	Yes	No			CMA
582	8/10/2016	G	12/2/2015	Solar	PV	SUN	3.11	3.11	3.11	Worcester	MA	12/1/2017	11/1/2017	POI is the GRID 69KV switchyard at the Harrington Street Facility. 229 Harrington Street, East Brookfield, MA. National Grid has this information.	CNR	Yes	No			CMA
583	7/13/2016	G	12/4/2015	Solar	PV	SUN	50	50	50	York	ME	9/30/2017	9/15/2017	CMP Sanford 115kV Substation	NR	No	No		PD	ME
584	12/10/2015	ETU	12/10/2015	ETU CNI only (see Q508)	NA	N/A	0	0	0	Berkshire	MA	8/31/2019	7/31/2019	NY Alps substation to WMECO Berkshire substation	CNI	No	No			WMA
585	12/14/2015	ETU	12/14/2015	HVDC Tie NB to Mystic	NA	N/A	900	900	900	Middlesex	MA	12/30/2020	11/30/2020	NB 345 kV Coleson Cove substation to NSTAR 345 kV Mystic substation	CNI	No	No		PD	BOST
588	8/31/2016	G	1/7/2016	Solar	PV	SUN	49	49	49	Windham	CT	7/1/2017	6/15/2017	Killingly to Tunnel 115 kV line (approx 5.5 miles south of Brooklyn Substation) GPS Coordinates: - 71 55' 27.9" W - 41 44' 14.21" N	CNR	No	No		PD	CT
589	10/14/2016	ETU	1/11/2016	AC Line to Pittsfield, ME	NA	N/A	550	550	550	Somerset	ME	12/31/2019	11/30/2019	CMP Section 3023 345 kV Line	N/A	No	No		PD	ME
590	10/14/2016	ETU	1/11/2016	AC Line from NMISA to Chester and Pittsfield, ME	NA	N/A	1,200	1,200	1,200	Somerset and Penobscot	ME	12/31/2019	11/30/2019	Emera Keene Rd substation and CMP Section 3023 345 kV Line	N/A	No	No		PD	ME
591	1/20/2016	ETU	1/20/2016	AC Line	NA	N/A	400	400	400	Cumberland	ME	11/30/2019	10/31/2019	CMP Surowiec Area	N/A	No	No		PD	ME
592	3/15/2016	G	1/21/2016	Pumped Storage Upgrade	PS	WAT	66	663	663	Berkshire	MA	6/2/2020	6/1/2020	GRID 230 kV Bear Swamp substation	CNR	No	No		PD	WMA
593	10/14/2016	G	1/27/2016	Wind	WT	WND	0	216.41	216.41	Franklin	ME	10/31/2019	8/1/2019	CMP''s Orrington - Albion Road 345 kV line, section 3023	NR	No	No		PD	ME
594	5/16/2016	G	1/27/2016	Wind	WT	WND	0	245.48	245.48	Franklin	ME	10/31/2019	8/1/2019	CMP''s existing Orrington - Albion Road 345 kV line section 3023	NR	No	No		PD	ME
596	10/14/2016	G	2/8/2016	Combined Cycle	CC	DFO NG	1,120	1,120	1,170	Windham	CT	6/1/2020	10/1/2019	Killingly or Lake Road 345 kV	CNR	No	No		PD	CT
597	9/2/2016	G	2/24/2016	Hydro	HD	WAT	29.5	29.5	29.5	Oxford/Franklin/Androscoggin	ME	12/1/2017	11/30/2017	CMP Section 230 (115 kV) at southeast end, high side of Verso Androscoggin substation	CNR	No	No		PD	ME
598	5/18/2016	G	3/7/2016	Combined Cycle	CC	DFO NG	575	575	588	Windham	CT	3/1/2020	9/1/2019	Killingly/Lake Road 345 kV	CNR	No	No		PD	CT
599	10/24/2016	G	4/5/2016	Solar	PV	SUN	65	65	65	Cheshire	NH	4/18/2018	4/15/2018	NGrid 115kV line from Vernon road tap to the Vernon Road Substation	CNR	No	No		PD	VT
600	7/12/2016	G	4/14/2016	Combined Cycle Uprate	CC	DFO NG	20.1	615.87	649.79	Providence	RI	7/31/2016	7/15/2016	NGRID 345kV Sherman Road (existing OSP I and II switchyard)	CNR	No	No		PD	RI
601	7/12/2016	G	4/14/2016	Combined Cycle Upgrade	CC	DFO NG	40	655.87	689.79	Providence	RI	5/31/2020	3/1/2020	NGRID 345kV Sherman Road (existing OSP I and II switchyard)	CNR	No	No		PD	RI
602	11/22/2016	G	4/14/2016	Hydro Uprate	HW	WAT	4.6	195.9	195.9	Littleton	NH	5/31/2020	3/1/2020	NGRID at Moore power station switchyard 230kV	CNR	No	No			NH
604	5/9/2016	G	4/20/2016	CNR Only (see Q534)	CC	NG	0	882	951	Windham	CT	12/31/2016	12/30/2016	345kV Lake Road 27E Substation	CNR	No	No		PD	RI

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QP	Updated	Type	Requested	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
605	7/13/2016	G	4/21/2016	Solar CNR only	PV	SUN	0	50	50	York	ME	9/30/2017	9/15/2017	CMP Sanford 115kV substation	CNR	No	No		PD	ME
606	11/9/2016	G	4/21/2016	Hydro Upgrade	HD	WAT	1.74	6.73	6.73	Chittenden	VT	2/6/2017	2/1/2017	GMP Huntington Falls Substation 46 kV Circuit Breaker BB-10	CNR	Yes	Yes		PD	VT
607	4/28/2016	G	4/21/2016	Wind CNR Only	WT	WND	0	22.8	22.8	Oxford	ME	12/1/2017	11/1/2017	CMP Ludden Lane Substation, Canton, Maine	CNR	No	No			ME
610	10/14/2016	G	4/22/2016	Steam Turbines	ST	BLQ DFO KER WDS	75	75	80	Franklin	ME	5/31/2018	5/30/2018	Central Maine Power (CMP) Riley 115kV Section 230 (K230-2)	CNR	No	No		PD	ME
611	6/28/2016	G	4/25/2016	Combustion Turbine	GT	NG	109.8	109.8	109.8	Fairfield	CT	6/1/2019	1/1/2019	Eversource Energy 115kV MiddleRiver Substation Danbury, CT	CNR	No	No		PD	SWCT
612	10/25/2016	G	4/26/2016	Hydro Uprate - CNR only	HD	WAT	0	4.78	4.78	Penobscot	ME	6/1/2020	5/31/2020	Medway Substation	CNR	No	No			BHE
618	10/21/2016	G	8/1/2016	Offshore Wind	WT	WND	800	800	800	NA	MA	5/31/2023	4/30/2022	National Grid, 345 kV Brayton Point Substation, Somerset, MA	CNR	No	No		PD	SEMA
619	9/21/2016	ETU	9/16/2016	Bi-directional AC LIne	NA	N/A				Berkshire	MA	12/31/2021	11/30/2021	NY Alps 345 kV Substation to WMECO Berkshire 345 kV substation	N/A	No	No		PD	WMA
620	10/11/2016	G	10/7/2016	Solar	PV	SUN	75	75	75	Washington	ME	6/1/2019	5/15/2019	Emera 115 kV Deblois substation	CNR	No	No	BHE		BHE
621	10/17/2016	G	10/17/2016	Wind	WT	WND	93.6	93.6	93.6	Somerset	ME	1/15/2020	12/30/2019	CMP Section 3023 345 kV line (via Johnson Mountain substation)	CNR	No	No		PD	ME
623	10/31/2016	G	10/31/2016	Solar	PV	SUN	200	200	200	York	ME	12/31/2019	12/15/2019	CMP/Eversource 345 kV Line 391 from Buxton substation to Scobie Pond substation (approx. 27.7 miles from Buxton substation)	CNR	No	No		PD	ME
624	11/9/2016	G	11/8/2016	Offshore Wind	WT	WND	800	800	800	NA	MA	7/1/2021	6/1/2021	Falmouth Sub, Falmouth Tap, Barnstable Sub, W.Barnstable Sub	CNR	No	No		PD	SEMA
625	11/14/2016	ETU	11/10/2016	345 kV AC line	NA	N/A				Bristol	MA	12/31/2023	8/31/2023	345 kV Brayton point substation	N/A	No	No		PD	SEMA

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Non-FERC Jurisdictional / Affected System

QP	Updated	Type	Requested	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
377	10/28/2016	G	9/14/2011	Harrington Street PV Project (QF)	PV	SUN	9.75	9.75	9.75	Worcester	MA	11/16/2016	2/8/2016	GRID 69 kV	N/A	Yes	Yes	NGRID		WMA
405	10/28/2016	G	1/18/2013	Block Island Wind Farm	WT	WND	29	29	29	Washington	RI	11/15/2016	11/4/2016	Grid 34.5 kV	N/A	Yes	Yes	NGRID		RI
432	5/31/2016	ETU	1/21/2014	115 KV ETU	NA	N/A				Aroostook	ME	7/31/2017	7/31/2017	MPS 69 kV Mullen substation to ME Gen Lead 115 kV line	N/A	No	No			BHE
487	8/17/2016	G	12/18/2014	Combined Cycle (QP444 in NYISO Queue)	CC	NG	1,020	1,020	1,132	Dutchess	NY	8/1/2019	12/1/2017	Pleasant Valley - Long Mtn 345 kV	N/A	No	No			
561	8/17/2016	G	8/27/2015	Solar	PV	SUN	20	20	20	Franklin	VT	8/31/2017	7/31/2017	VEC Highgate to Rock Tenn 46 kV line	N/A	No	No			VT
562	8/17/2016	G	8/27/2015	Solar	PV	SUN	20	20	20	Orleans	VT	8/31/2017	7/31/2017	VEC Irasburg H16 46 kV line	N/A	No	No			VT
568	4/6/2016	G	9/25/2015	Solar	PV	SUN	15	15	15	Rockingham	NH	9/15/2017	8/31/2017	Unitil 34.5 kV W. Port. St. sub	N/A	No	No			NH
617	7/22/2016	G	7/22/2016	Simple Cycle Gas Turbine	GT	DFO NG	61.85	61.85	67.85	Essex	MA	5/31/2020	3/1/2020	Peabody Waters River Substation	N/A	No	No			BOST
622	10/17/2016	G	10/17/2016	Cogen DG	GT	NG	43	43	43	Middlesex	MA	4/1/2019	4/1/2018	Putnum Station 831	N/A	No	No			CMA

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FERC Jurisdictional Administered Transmission System

QP	Updated	Type	Requested	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
1		G	6/7/1996	Millennium+K117	CC	NG DFO				Worcester	MA	4/6/2001		W 123 Line	ES	Yes	Yes	NGRID		WMA
2		G	11/8/1996	EMI-Tiverton	CC	NG				Newport	RI	8/18/2000		Near Tiverton 115 kV Substation	ES	Yes	Yes	NGRID		SEMA
3		G	2/13/1997	Androscoggin Energy Center	CC	NG DFO				Franklin	ME	12/28/2000		Jay 115 kV Substation	ES	Yes	Yes	CMP		ME
4		G	4/10/1997	EMI Dighton Power Project	CC	NG				Bristol	MA	8/1/1999		U6 Line	ES	Yes	Yes	NGRID		SEMA
6		G	6/12/1997	Rumford Power Associates	CC	NG				Oxford	ME	10/16/2000		Rumford 115 kV Substation		Yes	Yes	CMP		ME
7		G	6/25/1997	Bridgeport Harbor Station	CC	NG				Fairfield	CT	7/24/1999		Pequonnock 115 kV Substation		Yes	Yes	UI		SWCT
8	10/2/2009	G	7/15/1997	ANP Bellingham Energy Project Unit 1	CC	NG				Norfolk	MA	10/24/2002		Sectionalize Line 303	MIS	Yes	Yes	NGRID		RI
8	10/2/2009	G	7/15/1997	ANP Bellingham Energy Project Unit 2	CC	NG				Norfolk	MA	12/28/2002		Sectionalize Line 303	MIS	Yes	Yes	NGRID		RI
8	10/2/2009	G	7/15/1997	ANP Blackstone Energy Project Unit 1	CC	NG				Worcester	MA	6/7/2001		Sectionalize 336 Line	MIS	Yes	Yes	NGRID		RI
8	10/2/2009	G	7/15/1997	ANP Blackstone Energy Project Unit 2	CC	NG				Worcester	MA	7/13/2001		Sectionalize 336 Line	MIS	Yes	Yes	NGRID		RI
10		G	7/24/1997	Maine Independence	CC	NG				Penobscot	ME	5/1/2000		Located at Graham Station in Veazie, ME		Yes	Yes	CMP		BHE
12		G	8/15/1997	Berkshire Power	CC	NG				Hampden	MA	6/19/2000		South Agawam Jct. 115 kV Station	ES	Yes	Yes	NU		WMA
13	10/2/2009	G	8/22/1997	Milford Power Unit 1	CC	NG DFO				New Haven	CT	2/12/2004		Devon 115 kV Substation	MIS	Yes	Yes	ISO-NE		SWCT
13	10/2/2009	G	8/22/1997	Milford Power Unit 2	CC	NG DFO				New Haven	CT	5/3/2004		Devon 115 kV Substation	MIS	Yes	Yes	ISO-NE		SWCT
17		G	12/12/1997	SEI Newington (ConEd)	CC	NG JF				Rockingham	NH	9/18/2002		Newington 345 kV Station	MIS	Yes	Yes	NU		NH
17	10/2/2009	G	12/12/1997	Lake Road Generating Units 1&2	CC	NG DFO				Windham	CT	3/15/2002		Line 347	MIS	Yes	Yes	ISO-NE		RI
17	10/2/2009	G	12/12/1997	Lake Road Generating Unit 3	CC	NG DFO				Windham	CT	5/22/2002		Line 347	MIS	Yes	Yes	ISO-NE		RI
21	10/2/2009	G	2/11/1998	Wallingford Power Units 1&3	GT	NG				New Haven	CT	12/31/2001		Wallingford 115 kV Substation	MIS	Yes	Yes	ISO-NE		SWCT
21	10/2/2009	G	2/11/1998	Wallingford Power Unit 4	GT	NG				New Haven	CT	1/23/2002		Wallingford 115 kV Substation	MIS	Yes	Yes	ISO-NE		SWCT
21	10/2/2009	G	2/11/1998	Wallingford Power Units 2&5	GT	NG				New Haven	CT	2/7/2002		Wallingford 115 kV Substation	MIS	Yes	Yes	ISO-NE		SWCT
21		G	2/11/1998	AES Londonderry (Granite Ridge)	CC	NG DFO				Rockingham	NH	4/1/2003		N. Litchfield 230 kV Station and Watts Brook 115 k	MIS	Yes	Yes	ISO-NE		NH
29		G	3/24/1998	Bucksport Energy, L.P.	CC	NG DFO				Hancock	ME	1/1/2001		Belfast 115 kV bus	MIS	Yes	Yes	CMP		BHE
33		G	3/31/1998	Westbrook Power	CC	NG				Cumberland	ME	4/13/2001		Spring St. 115 kV Substation	MIS	Yes	Yes	CMP		SME
33		G	3/31/1998	Sithe Edgar Station Expansion (Fore River)	CC	NG				Norfolk	MA	8/4/2003		Holbrook 345 kV	MIS	Yes	Yes	NSTAR		SEMA
33	10/2/2009	G	3/31/1998	Sithe Mystic Station Expansion Unit 8	CC	NG				Suffolk	MA	4/13/2003		Mystic 345 kV	ES	Yes	Yes	NSTAR		BOST
33	10/2/2009	G	3/31/1998	Sithe Mystic Station Expansion Unit 9	CC	NG				Suffolk	MA	6/11/2003		Mystic 345 kV	ES	Yes	Yes	NSTAR		BOST
37		G	4/29/1998	FPLE RISE, LLC (R.I. Hope Energy)	CC	NG				Providence	RI	11/5/2002		S 171 and S 172 Lines	MIS	Yes	Yes	NGRID		RI
45		G	7/17/1998	Kendall Repowering Project	CC	NG				Suffolk	MA	12/18/2002		Kendall Station in Cambridge	MIS	Yes	Yes	NSTAR		BOST
55		ETU	1/21/1999	Cross Sound Cable	NA	N/A				New Haven	CT	9/1/2003		HVDC terminal adjacent to East Shore 345kV Substat	MIS	Yes	Yes	TEUS		CT
64		G	11/8/1999	West Springfield Station	ST	RFO NG				Hampden	MA	6/7/2002		West Springfield 115 kV Substation	MIS	Yes	Yes	ISO-NE		WMA
85		G	4/4/2001	Pilgrim Power Uprate	ST	NUC				Plymouth	MA	8/1/2003		Increase Existing Unit Capacity	MIS	Yes	Yes	NSTAR		SEMA
90		G	6/8/2001	Cabot Station CUO Uprate	HD	WAT				Franklin	MA	5/1/2004		Increase generating capacity from 53.0 MW to 61.8	MIS	Yes	Yes	NU		WMA
95	7/12/2011	G	11/21/2001	Kleen Energy Project	CC	NG DFO	619.8	619.8	620	Middlesex	CT	7/12/2011	5/3/2011	Sectionalize 353 Line	CNR	Yes	Yes	ISO-NE		CT
96		G	12/12/2001	Great Northern - Millinocket	HW	WAT		126	126	Penobscot	ME	5/20/2003		115 kV connection to Chester 115 kV Substation	MIS	Yes	Yes	BHE		BHE

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QP	Updated	Type	Requested	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
99		G	8/8/2002	Millstone 2 Upgrade7	ST	NUC		897.5	905.7	New London	CT	3/10/2004		Increase Existing Unit Capacity	MIS	Yes	Yes	ISO-NE		CT
99		G	8/8/2002	Millstone 3 Upgrade7	ST	NUC		1,195	1,207.4	New London	CT	5/8/2006		Increase Existing Unit Capacity	MIS	Yes	Yes	ISO-NE		CT
100		G	12/12/2002	VT Yankee Nuclear Power Station Upgrade7	ST	NUC		634.5	641.5	Windham	VT	5/8/2006		Increase Existing Unit Capacity	MIS	Yes	Yes	ISO-NE		VT
101		G	1/15/2003	Seabrook Power Uprate7	ST	NUC		1,265	1,265	Rockingham	NH	10/31/2006		Increase Existing Unit Capacity	MIS	Yes	Yes	ISO-NE		NH
103		G	3/4/2003	Waterside Power	GT					Fairfield	CT	6/1/2003		Waterside 115 kV	MIS	Yes	Yes	ISO-NE		NOR
106	10/2/2009	G	3/18/2003	Ridgewood RI Generation Phase I	IC	LFG		4.2	4.2	Providence	RI	2/18/2004		Johnston Substation Distribution System	MIS	Yes	Yes	NGRID		RI
106	10/2/2009	G	3/18/2003	Ridgewood RI Generation Phase II	IC	LFG		4.2	4.2	Providence	RI	11/20/2005		Johnston Substation Distribution System	MIS	Yes	Yes	NGRID		RI
107		G	4/7/2003	SNEW Summer '03 Temporary Generator	GT	NG		19.44		Fairfield	CT	6/1/2003		Norwalk 27.6 kV	MIS	Yes	Yes	ISO-NE		NOR
108	12/27/2012	G	5/12/2003	Hoosac Wind Project	WT	WND	28.5	28.5	28.5	Berkshire & Franklin	MA	12/27/2012	12/5/2012	Line Y25S	NR	Yes	Yes	NGRID		WMA
110		G	7/7/2003	UCONN COGEN Facility		NG FO		24.9	24.9	Tolland	CT	10/19/2005		Mansfield 69 kV	MIS	Yes	Yes	ISO-NE		CT
111		G	7/21/2003	GLHA James River/Fraser Paper7		WAT		25	25	Coos	NH	6/22/2004		Berlin 115 kV	MIS	Yes	Yes	ISO-NE		NH
112		G	9/15/2003	NECCO Cogen	IC	DFO				Suffolk	MA	10/1/2003		Everett 23 kV	MIS	Yes	No	NGRID		BOST
114		G	10/2/2003	Waterside Power, LLC	GT	DFO		69.3	74.1	Fairfield	CT	6/1/2004		Waterside 115 kV	MIS	Yes	Yes	ISO-NE		NOR
121		G	6/22/2004	Third Taxing District Units 1, 2 & 3		DFO		6	6	Fairfield	CT	3/28/2005		CL&P 27.6 kV Distribution System/Norwalk 115kV	MIS	No	Yes	N/A		NOR
122		G	7/20/2004	Rand-Whitney Co-Gen		NG DFO		11.87	14.86	New London	CT	1/3/2005		CL&P Distribution System/Montville 115 kV	MIS	Yes	Yes	ISO-NE		CT
125	2/18/2008	G	11/2/2004	Cos Cob Redevelopment	GT	KER		36	45.8	Fairfield	CT	5/31/2008		Cos Cob 115 kV Substation	MIS	Yes	Yes	ISO-NE		NOR
129		G	2/28/2005	Georgia Pacific	ST	WDS		16	16	Penobscot	ME	4/4/2005		BHE's Line 5 - 46kV	MIS	Yes	Yes	ISO-NE		BHE
137	7/7/2011	G	9/23/2005	Rumford Hydro Configuration Modification	HD	WAT	0			Oxford	ME	6/21/2011	5/20/2011	CMP 115 kV Line 218	N/A	Yes	Yes	ISO-NE		ME
138	11/2/2009	G	9/26/2005	Kibby Wind Project	WT	WND	65	65	65	Franklin	ME	10/30/2009	9/30/2009	Bigelow Substation	CNR	Yes	Yes	ISO-NE		ME
138	10/26/2010	G	9/26/2005	Kibby Wind Project	WT	WND	65.5	65.5	65.5	Franklin	ME	10/26/2010	9/15/2010	Bigelow Substation	CNR	Yes	Yes	ISO-NE		ME
140	9/30/2007	G	12/13/2005	A. L. Pierce	GT	NG DFO		89.35	99.56	New Haven	CT	10/1/2007		Wallingford Electrical Division, East Street Subst	MIS	Yes	Yes	ISO-NE		SWCT
146		G	2/21/2006	Devon 10	GT	KER JF		17	20	New Haven	CT	6/29/2006		CL&P Devon Substation	MIS	Yes	Yes	ISO-NE		SWCT
148	4/16/2013	G	3/6/2006	Comerford Unit #1	HD	WAT	-17	24.3	24.5	Grafton	NH	11/30/2009	11/30/2009	NGRID Comerford Substation	CNR	Yes	Yes	ISO-NE		NH
148	3/21/2011	G	3/6/2006	Comerford Unit #3	HD	WAT	8.3	48.2	38.5	Grafton	NH	3/25/2011	2/15/2011	NGRID Comerford Substation	CNR	Yes	Yes	ISO-NE		NH
148	3/28/2012	G	3/6/2006	Comerford Unit #2	HD	WAT	8.4	48.3	48.5	Grafton	NH	3/12/2012	2/27/2012	NGRID Comerford Substation	CNR	Yes	Yes	ISO-NE		NH
148	3/26/2013	G	3/6/2006	Comerford Unit #4	HD	WAT	8.3	48.2	48.5	Grafton	NH	3/22/2013	12/25/2012	NGRID Comerford Substation		Yes	Yes	ISO-NE		NH
150	12/12/2013	G	5/25/2006	Plainfield Renewable Energy Project	ST	WDS	37.5	37.5	38.5	Windham	CT	12/12/2013	11/7/2013	CLP Fry Brook Substation	CNR	Yes	Yes	ISO-NE		CT
151		G	5/30/2006	Fitchburg Renewable Energy	IC	LFG		7.2	7.2	Worcester	MA	8/29/2007		NGRID E. Westminster Substation 13.8 kV	MIS	Yes	Yes	NGRID		CMA
152		G	5/30/2006	MATEP (Medical Area Total Energy Project)	OT	DFO NG		42	42	Suffolk	MA			NSTAR Brighton Substation	MIS	No	Yes	NSTAR		BOST
156	5/26/2011	G	6/13/2006	Salem Harbor Unit 1 Exciter Replacement	ST	BIT				Essex	MA	11/26/2006		Salem Switchyard	MIS	Yes	Yes	ISO-NE		BOST
156		G	6/13/2006	Brayton Point Unit 3 Voltage Regulator Replacement	ST	BIT				Bristol	MA	5/26/2006		Brayton Switchyard	MIS	No	No			RI
158	5/22/2009	G	6/21/2006	UTC - P&WA	CT	NG		7.5	7.5	Middlesex	CT	12/21/2007		CL&P P&WA Substation	MIS	Yes	Yes	NU		CT
161	7/16/2010	G	7/5/2006	Devon Units 15, 16, 17, 18	GT	NG KER	196.8	196.8	196.8	New Haven	CT	6/9/2010	4/1/2010	Devon Substation	CNR	Yes	Yes	ISO-NE		SWCT
161	6/27/2011	G	7/5/2006	Middletown 12, 13, 14 and 15	GT	NG JF KER	215	215	211	Middlesex	CT	6/24/2011	4/5/2011	CL&P Middletown Substation or CL&P Scovill Rock Su	CNR	Yes	Yes	ISO-NE		CT

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162	5/22/2009	G	7/18/2006	Vernon Repowering	HD	WAT		32	32	Windham	VT	3/13/2008			MIS	Yes	Yes	ISO-NE		VT
166	6/15/2015	G	8/9/2006	Granite Reliable Power	WT	WND	94.5	94.5	94.5	Coos	NH	2/15/2012	10/24/2011	PSNH W-179 115 kV line	CNR	Yes	Yes	ISO-NE		NH
171	6/30/2009	G	8/29/2006	Thomas A. Watson Generating Station	GT	NG DFO	108	108	115	Norfolk	MA	6/23/2009	3/1/2009	115 kV Potter Substation	CNR	Yes	Yes	ISO-NE		SEMA
172	10/19/2011	G	8/29/2006	Sheffield Wind Project	WT	WND	40	40	40	Caledonia	VT	10/19/2011	9/19/2011	Irasburg - St. Johnsbury 115 kV	CNR	Yes	Yes	ISO-NE		VT
179	5/22/2009	G	11/6/2006	Red Shield(Georgia Pacific/Old Town)	ST	WDS		16	16	Penobscot	ME	11/1/2006		BHE's Line 5 - 46 kV	MIS	No	No	ISO-NE		BHE
183	10/1/2010	G	11/17/2006	Increase Existing Capacity	ST	NUC	70	1,225	1,245	New London	CT	11/1/2008	11/1/2008	CL&P Millstone 345 kV Substation	MIS	Yes	Yes	ISO-NE		CT
185	2/21/2013	G	11/22/2006	Stetson Wind Phase I	WT	WND	60	58.7	58.7	Penobscot	ME	1/22/2009	12/1/2008	BHE Keene Road 115 kV substation	NR	Yes	Yes	ISO-NE		BHE
185	2/5/2013	G	11/22/2006	Rollins Wind (Stetson Wind Phase II)	WT	WND	27.8	27.8	27.8	Penobscot	ME	7/26/2011	5/1/2011	BHE Keene Road 115 kV substation	NR	Yes	Yes	ISO-NE		BHE
189	11/25/2009	G	12/15/2006	Covanta Haverhill Landfill Gas	IC	LFG		1.6	1.6	Essex	MA	12/5/2007		NGRID 23 kV circuit # 2371 from Ward Hill substati	MIS	Yes	Yes	ISO-NE		BOST
192	5/26/2011	G	1/3/2007	Salem Harbor Unit 3 Exciter Replacement	ST	BIT				Essex	MA	5/4/2007		Salem Switchyard	MIS	Yes	Yes	ISO-NE		BOST
195	9/25/2009	G	1/9/2007	Dartmouth Power Expansion	GT	NG KER	24	24	24	Bristol	MA	9/24/2009	8/14/2009	NSTAR 115 kV line #111	CNR	Yes	Yes	ISO-NE		SEMA
196	6/29/2011	G	1/16/2007	Northfield Mt Upgrade #3	PS	WAT	25	295	295	Franklin	MA	6/17/2011	6/1/2011	W. Mass Northfield 345 kV substation	CNR	Yes	Yes	ISO-NE		WMA
196	6/6/2012	G	1/16/2007	Northfield Mt. Upgrade #2	PS	WAT	25	295	295	Franklin	MA	5/25/2012	6/1/2012	W. Mass Northfield 345 kV substation	CNR	Yes	Yes	ISO-NE		WMA
196	5/21/2014	G	1/16/2007	Northfield Mt. Upgrade #4	PS	WAT	25	295	295	Franklin	MA	5/21/2014	5/21/2014	W. Mass Northfield 345 kV substation	CNR	Yes	Yes	ISO-NE		WMA
196	2/22/2016	G	1/16/2007	Northfield Mt Upgrade #1	PS	WAT	25	295	295	Franklin	MA	2/18/2016	8/31/2015	W. Mass Northfield 345 kV substation	CNR	Yes	Yes	ISO-NE		WMA
197	1/31/2012	G	1/31/2007	Record Hill Wind	WT	WND	50.6	50.6	50.6	Oxford	ME	1/31/2012	11/28/2011	115kV Rumford Substation	CNR	Yes	Yes	ISO-NE		ME
199	3/19/2010	G	2/21/2007	Waterbury Generating Facility	GT	NG	95.7	95.7	98.1	New Haven	CT	6/26/2009	5/1/2009	CL&P Baldwin 115 kV substations	CNR	Yes	Yes	ISO-NE		SWCT
209	5/22/2009	G	4/18/2007	Mount Tom Voltage Regulator Replacement	ST	BIT				Hampden	MA	6/30/2007		W Mass. Mt. Tom 115 kV Substation	MIS	No	No			WMA
210	5/22/2009	G	4/30/2007	MATEP (Medical Area Total Energy Project)-modify i	OT	DFO NG				Suffolk	MA	12/11/2007		NSTAR Coburn Substation	MIS	No	Yes	NSTAR		BOST
217	4/9/2010	G	6/13/2007	Northfield Mt. Equipment Replacement	PS	WAT	0	1,180	1,180	Franklin	MA	10/20/2008	10/20/2008	W. Mass Northfield 345 kV substation	N/A	Yes	Yes	ISO-NE		WMA
219	10/1/2010	G	7/6/2007	L'Energia	CC	NG DFO	74	74	77	Middlesex	MA	1/1/2009	11/15/2008	J162 115kV line between Tewksbury and Perry Street	MIS	Yes	Yes	ISO-NE		CMA
220	5/22/2009	G	7/10/2007	Indeck Energy Alexandria	ST	WDS	16.5	16.5	16.5	Grafton	NH	1/31/2009	9/7/2008	34.5 kV circuit from PSNH Peniwagewassett substat	MIS	Yes	Yes	NU		NH
228	2/5/2013	G	10/9/2007	Dundee Wind	WT	WND	27	27	30	Penobscot	ME	7/26/2011	5/1/2011	BHE Keene Road Substation	NR	Yes	Yes	ISO-NE		BHE
230	8/20/2009	G	10/15/2007	GMP Essex Diesel	IC	DFO		8	8	Colchester	VT	10/30/2007		GMP Essex Substation	MIS	No	Yes	N/A		VT
231	12/14/2011	G	10/25/2007	Brayton Point 3 Uprate(see 243)	ST	BIT	30	642	663	Bristol	MA	12/12/2011	12/11/2011	Brayton Point 345 kV Switchyard	NR	Yes	Yes	ISO-NE		RI
233	5/30/2013	G	11/2/2007	Rhode Island Landfill Gas Genco	CC	LFG	27.9	32.6	36.8	Providence	RI	5/25/2013	12/10/2012	NGRID 115 kV S171 line	CNR	Yes	Yes	NGRID		RI
243	12/14/2011	G	1/4/2008	Increase to Steam Turbine Capacity Uprate (See QP	ST	BIT	6	648	669	Bristol	MA	12/12/2011	12/11/2011	Brayton Point 345 kV Switchyard	NR	Yes	Yes	ISO-NE		RI
245	2/5/2013	G	1/11/2008	Stetson Wind II(Jimmey & Owl Mt.-UPC) See # 249	WT	WND	24	24	24	Washington	ME	3/12/2010	1/15/2010	BHE Keene Road Substation	NR	Yes	Yes	ISO-NE		BHE
248	11/19/2015	G	2/7/2008	New Haven Harbor 2-4	GT	NG DFO	129.6	129.6	145.8	New Haven	CT	5/23/2012	4/11/2012	UI East shore Substation 115 kV bus	CNR	Yes	Yes	ISO-NE	PD	CT
249	2/5/2013	G	2/4/2008	Stetson Wind II(Jimmey & Owl Mt.-UPC)	WT	WND	2.2	26.2	26.2	Washington	ME	3/12/2010	1/15/2010	BHE Keene Road Substation	NR	Yes	Yes	ISO-NE		BHE
251	6/18/2014	G	2/15/2008	Burgess BioPower	ST	WDS	58.7	58.7	58.7	Coos	NH	6/17/2014	10/25/2013	PSNH Eastside(Berlin) Substation	CNR	Yes	Yes	ISO-NE	PD	NH
258	11/19/2015	G	4/15/2008	Merrimack Unit 2 Uprate	ST	BIT	4.65	327.5	337	Merrimack	NH	5/26/2008		PSNH Merrimack Substation	MIS	No	No			NH
269	8/3/2011	G	7/14/2008	Indian River Power	HD	WAT	1.28	1.28	1.28	Hampden	MA	8/2/2011	3/31/2011	WMELCO 23 kV circuit	NR	Yes	Yes	NU		WMA
272	10/29/2015	G	8/1/2008	Oakfield II Wind - Keene Road	WT	WND	135.5	135.5	135.5	Aroostoock	ME	10/29/2015	7/29/2015	BHE Keene Road Substation	NR	Yes	Yes	ISO-NE	PD	BHE
281	2/12/2009	G	10/7/2008	Equipment Addition	CC	NG	45			Windham	CT	1/30/2009	6/1/2008	CL&P 345 kV Lake Road substation	MIS	No	No			RI

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284	4/10/2012	G	10/22/2008	Seabrook LP Turbine Blade replacement	ST	NUC	13	1,257	1,257	Rockingham	NH	4/5/2012	12/31/2010	345 kV Seabrook Substation	CNR	Yes	Yes	ISO-NE		NH
287	9/16/2015	G	12/18/2008	Saddleback Ridge Wind Project	WT	WND	33	33	33	Franklin	ME	9/15/2015	8/15/2015	115kV Line 229	NR	Yes	Yes	ISO-NE	BL	ME
288	9/25/2009	TS	12/18/2008	Local Service Application - 87 MW			0			Somerset	ME	9/1/2009		N/A	N/A	Yes	No	ISO-NE		ME
291	6/24/2010	G	1/21/2009	Merrimack Unit 2 Second Uprate	ST	BIT	17.18	340	353.5	Merrimack	NH	6/17/2010	6/1/2010	PSNH Merrimack Substation	CNR	Yes	Yes	ISO-NE	BL	NH
293	5/19/2010	G	1/30/2009	Red Shield Acquisition - Hydro	HD	WAT	0	5	5	Penobscot	ME	7/20/2009		BHE's Line 5 - 46 kV	CNR	No	No			ME
293	5/19/2010	G	1/30/2009	Red Shield Acquisition - Biomass	ST	WDS	0	13	16	Penobscot	ME	7/20/2009		BHE's Line 5 - 46 kV	CNR	No	No			ME
296	3/20/2013	G	3/20/2009	Salem Harbor 2 Exciter Replacement	ST	BIT	0	0	0	Essex	MA	11/15/2009	11/15/2009	Salem Switchyard	N/A	Yes	Yes	ISO-NE		BOST
299	4/10/2012	G	5/11/2009	Seabrook PSS Enabling	ST	NUC	0	0	0	Rockingham	NH	11/1/2009	11/1/2009	345 kV Seabrook substation	CNR	Yes	Yes	ISO-NE	BL	NH
301	11/19/2015	G	5/28/2009	Dundee Wind Increase	WT	WND	3.9	3.9	3.9	Penobscot	ME	7/26/2011	5/1/2011	BHE Keene Rd Substation	NR	Yes	Yes	ISO-NE		BHE
311	11/19/2012	G	9/15/2009	Kingdom Community Wind	WT	WND	61.5	61.5	61.5	Orleans	VT	11/16/2012	8/29/2012	VEC Lowell 46 kV station	CNR	Yes	Yes	ISO-NE	PD	VT
313	9/12/2012	G	10/8/2009	Gulf Island Unit 1 Increase	HW	WAT	0.98	33.94	34.17	Androscoggin	ME	8/24/2012	8/23/2012	CMP Gulf Island 115 kV	CNR	No	Yes			SME
313	5/10/2011	G	10/8/2009	Gulf Island Unit 3 Increase	HW	WAT	0.57	34.51	34.74	Androscoggin	ME	4/26/2011	12/18/2010	CMP Gulf Island 115 kV	CNR	No	Yes			SME
315	6/15/2012	G	10/20/2009	Cresent Hydroelectric Project Uprate	HD	WAT	0.67	1.67	1.67	Hampden	MA	6/8/2012		WMECO 19J1 23 kV line	CNR	No	No		BL	WMA
316	1/10/2011	G	11/2/2009	Red Shield Acquisition #5	GT	NG WDS	9.5	26.15	27.25	Penobscot	ME	10/4/2010	9/15/2010	BHE Line 5 - 46 kV	CNR	Yes	Yes	BHE		ME
317	2/5/2013	G	11/4/2009	Bull Hill Wind Phase I	WT	WND	34.49	34.49	34.49	Hancock	ME	10/31/2012	10/4/2012	BHE Line 66	NR	Yes	Yes	ISO-NE	PD	BHE
321	5/7/2014	G	12/24/2009	Rumford Falls Unit #3 increase	HD	WAT	1.3	44.1	44.1	Oxford	ME	6/1/2010	6/1/2010	CMP 115 kV Rumford Substation	CNR	No	No			ME
329	12/27/2012	G	5/7/2010	Georgia Mountain Community Wind	WT	WND	10	10	10	Chittenden	VT	12/31/2012	12/20/2012	CVPS 34.5 kV Fairfax - Milton Line	CNR	Yes	Yes	ISO-NE	BL	VT
331	1/10/2011	G	5/13/2010	Waterbury Generation Increase	GT	NG	7.5	103.6	103	New Haven	CT	10/12/2010	9/30/2010	CL&P Baldwin 115 kV substation	CNR	No	Yes			SWCT
331	5/31/2016	G	5/13/2010	Kendall #3 Back Pressure Steam Turbine	ST	NG DFO	7.5	28.5	28.4	Middlesex	MA	5/31/2016	5/31/2016	115 kV Line 875-539 to NSTAR 875 substation	CNR	No	Yes			BOST
332	2/19/2013	G	5/13/2010	RISEP Increase	CC	NG	66	613	625	Providence	RI	11/12/2012	11/15/2011	115 kV RISE substation	NR	Yes	Yes	ISO-NE	BL	RI
336	8/4/2010	G	5/14/2010	Manchester Street Station increase	CC	NG	0	471	492	Providence	RI	8/2/2010		GRID 115 kV Franklin substation	CNR	No	No			RI
337	1/20/2012	G	5/14/2010	Verso Androscoggin Energy Cogen 1, 2, & 3 Increase	CC	NG KER	26	147	180	Franklin	ME	1/13/2012		CMP Section 227	CNR	Yes	Yes	ISO-NE	BL	ME
342	6/9/2011	G	7/21/2010	Manchester Street Station Exciter Upgrades & incre	CC	NG	12	483	510	Providence	RI	6/14/2011	2/13/2011	GRID 115 kV Franklin substation	CNR	Yes	Yes	ISO-NE	CD	RI
344	9/30/2011	G	9/7/2010	Mass Power Increase	CC	NG	5	256.3	279.89	Hampden	MA	9/30/2011	9/30/2011	NU 115 kV Shawanigan	CNR	No	Yes			WMA
345	12/27/2012	G	9/8/2010	Groton Wind Farm	WT	WND	48	48	48	Grafton	NH	12/28/2012	10/31/2012	PSNH Beebe River 115 kV Substation	CNR	Yes	Yes	ISO-NE	PD	NH
346	4/7/2015	G	10/1/2010	Burgess BioPower Increase	ST	WDS	9	67.5	67.5	Coos	NH	6/17/2014	10/25/2013	PSNH Eastside (Berlin) Substation	CNR	Yes	Yes	ISO-NE	PD	NH
347	2/13/2014	G	10/7/2010	Bucksport G5	ST	WDS	25	25	25	Hancock	ME	11/15/2012	10/25/2012	CMP 115 kV	NR	Yes	Yes	ISO-NE	BL	ME
351	1/11/2012	G	12/3/2010	Gulf Island Unit 2 Increase	HW	WAT	4.4	38.92	38.92	Androscoggin	ME	4/26/2011	4/26/2011	CMP Gulf Island 115 kV	CNR	No	Yes			SME
352	5/26/2011	G	12/14/2010	Salem Harbor Station Increase	ST	BIT RFO	8	750.58	753.07	Essex	MA			Salem Switchyard	CNR	No	No			BOST
356	6/26/2012	G	2/4/2011	Altresco Increase (winter)	CC	NG DFO	0	160	192.5	Berkshire	MA	6/29/2012		WMECO Doreen 19A substation	CNR	Yes	Yes	ISO-NE	BL	WMA
357	7/1/2016	G	2/24/2011	Passadumkeag Windpark	WT	WND	39.98	39.97	39.97	Penobscot	ME	5/23/2016	4/12/2016	BHE 115 kV between Enfield and James River Substat	NR	Yes	Yes	ISO-NE	PD	BHE
358	11/17/2011	G	3/4/2011	Milford Hydro Expansion	HD	WAT	2.5	8.9	8.9	Penobscot	ME	11/4/2011	11/1/2011	BHE Milford Substation	CNR	Yes	Yes	BHE		BHE
358	10/26/2016	G	3/4/2011	Medway Hydro Expansion	HD	WAT	0.6	4	4	Penobscot	ME	4/4/2012	4/4/2012	BHE Medway substation	CNR	Yes	Yes	BHE		BHE
359	8/25/2011	G	3/7/2011	Bear Swamp AVR/PSS Unit 2	PS	WAT	0	0	0	Franklin and Berkshire	MA	7/13/2011	6/30/2011	GRID Bear Swamp 230 kV substation	CNR	Yes	Yes	ISO-NE		WMA

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359	3/9/2012	G	3/7/2011	Bear Swamp AVR/PSS Unit 1	PS	WAT	0	0	0	Franklin and Bershire	MA	3/8/2012	3/6/2012	Bear Swamp 230 kV substation	CNR	Yes	Yes	ISO-NE		WMA
360	8/3/2011	G	3/14/2011	Indian River Power Supply CNR	HD	WAT	0	1.3	1.3	Hampden	MA	8/2/2011		WMECO 23 kV circuit	CNR	No	No			WMA
360	1/13/2015	G	3/14/2011	Turners Falls Hydro CNR	HD	WAT	0	0.95	0.95	Franklin	MA	5/29/2012	5/29/2012	WMECO 13.8 kV	NR	No	No		BL	WMA
360	1/11/2012	G	3/14/2011	Woronoco Hydro CNR	HD	WAT	0	2.7	2.7	Hampden	MA	1/6/2012		WMECO 23 kV	CNR	No	No			WMA
362	11/17/2011	G	3/22/2011	Milford Hydro Expansion Increase (Q358)	HD	WAT	0.18	9.08	9.08	Penobscot	ME	11/4/2011	11/1/2011	BHE Milford substation	CNR	Yes	Yes	BHE		BHE
365	11/14/2011	G	4/27/2011	Bridgeport Harbor #3 CNR Increase	ST	SUB DFO	5	385	385	Fairfield	CT	10/31/2011		UI Pequonnock 115 kV substation	CNR	No	Yes			SWCT
366	3/30/2016	G	5/23/2011	Wyman Hydro Uprate U1	HW	WAT	2.5	30	30	Somerset	ME	3/30/2016	3/24/2016	CMP 115 kv Wyman	CNR	Yes	Yes	ISO-NE	PD	ME
366	3/25/2015	G	5/23/2011	Wyman Hydro Uprate U2	HW	WAT	0	29.9	29.9	Somerset	ME	3/23/2015	3/23/2015	CMP 115 kV Wyman	CNR	Yes	Yes	ISO-NE	PD	ME
366	3/30/2016	G	5/23/2011	Wyman Hydro Uprate U3	HW	WAT	4.3	30	30	Somerset	ME	3/30/2016	3/24/2016	CMP 115 kV Wyman	CNR	Yes	Yes	ISO-NE	PD	ME
367	11/19/2012	G	5/26/2011	Kingdom Community Wind Increase (see Q311)	WT	WND	3.08	64.57	64.57	Orleans	VT	12/16/2012	8/29/2012	VEC Lowell 46 kV station	CNR	Yes	Yes	ISO-NE		VT
370	10/15/2012	G	7/1/2011	Shepaug AVR Upgrade	HW	WAT	0	0	0	New Haven	CT	10/16/2012	9/23/2012	CL&P 69 kV bus at Shepaug	CNR	Yes	Yes	ISO-NE		SWCT
372	1/7/2014	G	8/3/2011	Skelton Station Modernization Phase 1	HD	WAT	1.08	21.08	21.08	York	ME	12/28/2013	12/19/2013	CMP 34.5 kV Louden substation	CNR	Yes	Yes	ISO-NE		ME
372	1/7/2014	G	8/3/2011	Skelton Station Modernization Phase 2	HD	WAT	1.08	22.2	22.2	York	ME	12/28/2013	12/14/2013	CMP 34.5 kV Louden substation	CNR	Yes	Yes	ISO-NE	BL	ME
374	6/7/2012	G	8/24/2011	Brayton Pt. 1 Exciter Replacement	ST	BIT	0	0	0	Bristol	MA	5/20/2012	5/12/2012	GRID 345 kV Brayton Pt Switchyard	CNR	Yes	Yes	ISO-NE		RI
376	7/30/2012	G	9/8/2011	Algonquin Power Windsor Locks CNR Increase	IC	NG	0	0	0	Hartford	CT	7/20/2012	6/28/2012	CL&P Windsor Locks 23 kV Substation	CNR	Yes	Yes	ISO-NE	BL	CT
386	2/5/2013	G	1/12/2012	Westbrook Energy Center Expansion	CC	NG	9.5	538	597	York	ME	1/31/2013	1/31/2013	CMP 115 kV Westbrook Substation	CNR	Yes	Yes	ISO-NE	CD	SME
391	10/9/2015	G	2/2/2012	Weston Station Uprate U4	HD	WAT	1.6	14.81	14.81	Somerset	ME	7/31/2015	7/30/2015	CMP 34.5 kV Weston Substation	CNR	Yes	Yes	ISO-NE	BL	ME
391	12/17/2013	G	2/2/2012	Weston Station GSU/AVR Replacement U1	HD	WAT	0	14.81	14.81	Somerset	ME	12/14/2013	12/14/2013	CMP 34.5 kV Weston Substation	CNR	Yes	Yes	ISO-NE	BL	ME
391	10/9/2015	G	2/2/2012	Weston Station AVR Replacement U2-4	HD	WAT	0	14.81	14.81	Somerset	ME	7/31/2015	7/30/2015	CMP 34.5 kV Weston Substation	CNR	Yes	Yes	ISO-NE	BL	ME
398	11/15/2013	G	9/4/2012	Dighton Power Uprate	CC	NG	5	180	197	Bristol	MA	12/5/2013	12/5/2013	GRID 115 kV U6 Line	CNR	Yes	Yes	ISO-NE	CD	SEMA
402	1/17/2014	G	10/16/2012	Mechanicsville Hydro Increase	HD	WAT	0.31	0.31	0.31	Windham	CT	3/1/2013	3/1/2013	CL&P 23 kV at Mechanicsville	CNR	No	No			CT
407	9/16/2015	G	2/27/2013	Saddleback Increase and CNR (see Q287)	WT	WND	1.2	34.2	34.2	Franklin	ME	9/15/2015	8/15/2015	CMP Ludden Lane Substation	CNR	No	No			ME
414	6/24/2014	G	3/26/2013	EP Newington Energy Capacity Increase	CC	NG	21.2	568.2	594.8	Rockingham	NH	6/17/2014	5/31/2014	PSNH Newington 345 kV substation	CNR	Yes	Yes	ISO-NE	BL	NH
415	1/25/2016	G	4/12/2013	Jericho Wind	WT	WND	8.55	8.55	8.55	Coos	NH	1/23/2016	10/16/2015	PSNH Berlin Substation	CNR	Yes	Yes	ISO-NE	BL	NH
433	4/30/2014	G	1/24/2014	MATEP (Combined Cycle) Increase	CC	DFO NG	1.7	62.08	66	Suffolk	MA	4/21/2014	3/21/2014	At existing point of interconnection for MATEP (Combined Cycle)	CNR	No	No			BOST
437	1/25/2016	G	2/10/2014	Jericho Wind expansion	WT	WND	3.5	12.05	12.05	Coos	NH	1/23/2016	10/16/2015	PSNH Berlin Substation Bus 1 Breaker 3521.	CNR	Yes	Yes	ISO-NE		NH
441	12/1/2015	G	2/25/2014	Glendale Hydroelectric Expansion Project	HD	WAT	0.2	1.29	1.29	Berkshire	MA	11/1/2015	11/1/2015	GRID 13.8 kV	CNR	Yes	No	NGRID		WMA
447	7/1/2016	G	3/4/2014	Passadumkeag Windpark CNR Only	WT	WND	0	39.97	39.97	Penobscot	ME	7/1/2016	4/12/2016	115kV line between James River and Enfield substations on Line 64	CNR	No	No			BHE
467	11/18/2014	G	5/29/2014	MASSPOWER CNR Recovery	CC	NG	0	256.1	279.9	Hampton	MA	11/10/2014	11/10/2014	115kV Shawinigan Substation	CNR	No	No			WMA
468	3/16/2015	G	6/2/2014	Manchester Street Station Increase and CNR	CC	NG	27	510	510	Providence	RI	3/12/2015	3/2/2015	CTGs NGrid 115 kV Franklin Square Substation. STGs NGrid 11.5 kV distribution substation	CNR	Yes	Yes	ISO-NE	PD	RI
469	6/23/2015	G	6/16/2014	Bridgeport Energy Uprate	CC	NG	84	560	588	Fairfield	CT	6/5/2015	3/31/2015	UI Singer Substation	CNR	Yes	Yes	ISO-NE	PD	SWCT
483	3/30/2016	G	11/21/2014	Wyman Hydro CNR only	HW	WAT	0	89.9	89.9	Somerset	ME	3/30/2016	3/24/2016	Interconnection of Buyer's 115 kV gang operated disconnect switch BS ½ to CMP's 115 kV Bus No. 2 located in the 115 kV switchyard	CNR	No	No			ME
484	11/16/2015	G	12/4/2014	Newington Gas Turbine Uprate	CC	NG	27.9	596.1	634.8	Rockingham	NH	10/30/2015	10/30/2015	Public Service New Hampshire Newington Switchyard - Gosling Road, Newington, NH	CNR	Yes	Yes	ISO-NE		NH

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490	5/31/2016	G	1/15/2015	Kendall Reconfiguration Project	CC	DFO NG	1.88	75	75	Middlesex	MA	5/31/2016	5/31/2016	Where line 875-539 interconnects with TO''s 115 kv bus at station 875	CNR	No	No			BOST
491	1/26/2016	G	1/16/2015	Fore River CNR Increase	CC	DFO NG	0	800	843	Norfolk	MA	1/20/2016	1/20/2016	NSTAR Edgar 115kv substation	CNR	No	No			SEMA
522	7/9/2015	G	2/20/2015	Plainfield 2.3 MW Capacity Restoration (CNR Only)	ST	WDS	0	38.5	38.5	Windham	CT	7/1/2015	7/1/2015	Frybrook substation, 115 KV	CNR	No	No			CT
525	11/8/2016	G	2/25/2015	Tiverton Power LLC Upgrade	CC	NG	21.5	287.5	305.5	Newport	RI	11/4/2016	11/2/2016	near Bell Rock and Somerset on NGRID 115kV lines L14 and M13.	CNR	Yes	Yes	ISO-NE		RI
539	1/29/2016	G	3/2/2015	Hoosac Wind Project CNR Only	WT	WND	0	28.5	28.5	Franklin	MA	1/19/2016	1/19/2016	Hoosac 69 kV Substation	CNR	No	No			WMA
544	8/18/2015	G	3/3/2015	Increase RISEC Winter CNR	CC	NG	0	613	625	Providence	RI	8/17/2015	8/17/2015	115 kV RISE substation	CNR	No	No			RI
545	6/29/2015	G	3/3/2015	Proctor Hydroelectric Station Uprate	HD	WAT	3.24	9.84	9.84	Rutland	VT	6/25/2015	5/2/2015	GMP Proctor Substation 46kV Circuit Breaker BB8	CNR	No	Yes			VT
570	5/31/2016	G	10/21/2015	Kendall Revised Reconfiguration Project	CC	DFO NG	0	250	250	Middlesex	MA	5/31/2016	5/31/2016	Where line 875-539 interconnects with TO''s 115KV bus at station	CNR	No	No			BOST
586	10/28/2016	G	1/4/2016	Hemphill Increase	ST	WDS	3.36	17.5	17.5	Sullivan	NH	10/28/2016	10/28/2016	34.5 Kv PSNH 316 Utility Line	CNR	Yes	Yes	ISO-NE		NH
595	10/28/2016	G	2/8/2016	Bridgeport Energy PSS Tuning	GT	NG	0	578	588	Fairfield	CT	10/28/2016	10/28/2016	UI Singer Substation	CNR	Yes	Yes	ISO-NE		SWCT
603	10/28/2016	G	4/15/2016	Essential Power Newington - CNRC Increase	CC	DFO NG	0	596.1	634.9	Rockingham	NH	10/28/2016	10/28/2016	Public Service New Hampshire Newington Switchyard - Gosling Road, Newington, NH	CNR	No	No			NH

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77	5/31/2011	G	10/2/2000	Berkshire Wind Power Project	WT	WND	15	15	15	Berkshire	MA	5/28/2011	5/6/2011	WMECO at Brodie Mt. In Lanesboro MA	N/A	Yes	Yes	NU		WMA
120		G	5/10/2004	Univ. of NH - CHP						Strafford	NH			PSNH Dist. Sys./Madbury 115 kV	MIS	No	No			NH
127	5/22/2009	G	11/15/2004	Lempster	WT	WND	24	24	24	Sullivan	NH	11/10/2008	9/4/2008	PSNH 34.5 kV circuit from Newport Substation	MIS	Yes	Yes	NU		NH
155	5/22/2009	G	6/2/2006	Fairfield University	CT	NG		5	5	Fairfield	CT	12/11/2007		UI Ash Creek Substation	MIS	No	No			SWCT
196	5/22/2009	G	1/26/2007	UMass Gas Turbine	GT	NG	10.4	8.5	11.4	Hampshire	MA	1/29/2009	5/6/2008	WMECO Podick substation 13.8 kV feeders	MIS	Yes	Yes	NU		WMA
206	5/22/2009	G	4/3/2007	Kimberly Clark-Unit 1	CT	NG		28	28	Litchfield	CT	5/5/2008		CL&P Rocky River Substation	MIS	Yes	Yes	NU		SWCT
206	5/22/2009	G	4/3/2007	Kimberly Clark-Unit 2	CT	NG		10.8	10.8	Litchfield	CT	10/1/2008		CL&P Rocky River Substation	MIS	Yes	Yes	NU		SWCT
206	5/22/2009	G	4/3/2007	Kimberly Clark-Unit 3	CT	NG	4	4	4	Litchfield	CT	1/5/2009	11/15/2008	CL&P Rocky River Substation	MIS	Yes	Yes	NU		SWCT
224	2/17/2010	G	8/10/2007	VPPSA Swanton Gas Turbine #1	GT	NG DFO	21	21.2	27.6	Franklin	VT	2/12/2010	12/16/2009	Swanson Village 46 kV System	N/A	Yes	Yes	ISO-NE		VT
224	5/24/2010	G	8/10/2007	VPPSA Swanton Gas Turbine #2	GT	NG DFO	21	21.2	27.6	Franklin	VT	5/24/2010	5/1/2010	Swanton Village 46 kV System	N/A	Yes	Yes	ISO-NE		VT
234	5/22/2009	G	11/7/2007	Moretown Landfill	IC	LFG	4.8	4.8	4.8	Washington	VT	9/4/2008	9/4/2008	Green Mountain Power 34 kV feeder	MIS	No	No			VT
250	11/30/2011	G	2/13/2008	Hamilton Sundstrand	GT	NG	5	4.9	6.1	Hartford	CT	10/1/2011	9/30/2011	CL&P Windsor Locks Substation	N/A	No	Yes			CT
252	7/30/2010	G	2/13/2008	Foxwoods Central Plant	GT	NG	13.2	13.2	17.6	New London	CT	7/15/2010	4/30/2010	CL&P 23 kV feeders from Tunnel and Mystic Substati	N/A	Yes	Yes	NU		CT
289	11/10/2011	G	1/8/2009	Sikorsky Aircraft	GT	NG	10.27	10.27	10.27	Fairfield	CT	10/5/2011	7/24/2011	UI's Trap Falls substation	N/A	Yes	Yes	UI		SWCT
289	6/2/2010	G	1/8/2009	Yale University - Sterling Power Plant	GT	NG	17.6	17.6	17.6	New Haven	CT	5/26/2010	5/1/2010	UI's Water Street substation	N/A	Yes	Yes	UI		SWCT
290	12/21/2011	G	1/15/2009	Spruce Mountain Wind	WT	WND	18	18	18	Oxford	ME	12/21/2011	11/30/2011	CMP Woodstock substation	N/A	Yes	Yes	ISO-NE		ME

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Commercial Projects as of 12/1/2016

Non-FERC Jurisdictional / Affected System

QP	Updated	Type	Requested	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
318	5/13/2010	G	11/24/2009	Algonquin Power Windsor Locks Cogeneration Facilit	GT	NG DFO	0	47.5	47.5	Hartford	CT	4/14/2010	4/14/2010	CL&P Windsor Locks Substation	CNR	No	No			CT
323	12/21/2011	G	1/21/2010	Spruce Mountain Wind Increase	WT	WND	2	20	20	Oxford	ME	12/21/2011	11/30/2011	CMP Woodstock substation	N/A	No	Yes			ME
394	12/23/2013	G	7/25/2012	Bridgeport Fuel Cell I	FC	NG	5.6	5.6	5.6	Fairfield	CT	12/22/2013	11/24/2013	UI 13.8 kV Ash Creek substation	N/A	Yes	Yes	UI		SWCT
394	12/23/2013	G	7/25/2012	Bridgeport Fuel Cell 2	FC	NG	5.6	5.6	5.6	Fairfield	CT	12/22/2013	11/24/2013	UI 13.8 kV New Congress I substation	N/A	Yes	Yes	UI		SWCT
394	12/23/2013	G	7/25/2012	Bridgeport Fuel Cell 3	FC	NG	4.15	4.15	4.15	Fairfield	CT	12/22/2013	11/24/2013	UI 13.8 kV New Congress II Substation	N/A	Yes	Yes	UI		SWCT
411	7/16/2014	G	2/28/2013	Gas Turbine Increase	GT	NG DFO	10.9	39.4	45.8	Essex	MA	12/31/2013	12/31/2013	Peabody B-154S line	N/A	No	Yes			BOST

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Withdrawn Projects as of 12/1/2016

FERC Jurisdictional Administered Transmission System

QP	Updated	Type	Requested	W/D Date	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
5		G	5/9/1997		Brayton Pt						Bristol	MA	12/31/2001		Brayton Point 345 kV Station	MIS	Yes	Yes	NGRID		RI
9		G	7/22/1997		IDC Bellingham						Norfolk	MA	12/31/2002		Sectionalize 336 Line	MIS	Yes	Yes	NSTAR		RI
11		G	8/5/1997		Wareham						Plymouth	MA	2/28/2001		Adjacent to the Tremont Substation		No	No			SEMA
13		G	8/22/1997		Summit Power						Hampden	MA	3/31/2001		1302 Line		No	No			WMA
14		G	9/30/1997		Cabot Power						Middlesex	MA	6/30/2000		Mystic 345 kV Station	ES	Yes	Yes	NSTAR		BOST
15		G	10/9/1997		South Norwalk						Fairfield	CT	1/1/2000		Norwalk 115 kV Substation		Yes	No	ISO-NE		NOR
16		G	10/24/1997		ANP Gorham						Cumberland	ME	7/1/2000		S. Gorham 345 kV Substation	MIS	Yes	Yes	CMP		ME
18		G	1/13/1998		Versaille Energy Center						New London	CT	12/31/2000		Tunnel 115 kV Substation		No	No			CT
18		G	1/13/1998		White Mountain Cogen.Center						Coos	NH	12/31/2000		Lost Nation 115 kV Substation		No	No			NH
18		G	1/13/1998		Sprague Newington (Piscataqua Power)						Rockingham	NH	1/1/2000		Newington 345 kV Station	MIS	No	No			NH
19		G	1/14/1998		Livermore Falls						Androscoggin	ME	12/1/2000		Livermore Falls 115 kV Substation		No	No			ME
20		G	1/20/1998		Housatonic Power						Fairfield	CT	1/1/2001		398 Line		No	No			CT
22		G	2/16/1998		Meriden Power						New Haven	CT	6/30/2003		Sectionalize 362 Line	MIS	Yes	Yes	ISO-NE		CT
23		ETU	2/19/1998		HQ-Surowiec						Cumberland	ME	12/31/2002		Surowiec 345 kV or MEPCO	MIS	Yes	No	CMP		ME
24		G	2/25/1998		Orrington Generation						Penobscot	ME	6/30/2001		Orrington 345 kV Station		No	No			ME
25		G	2/27/1998		Patriot Power						Bristol	MA	3/31/2001		Bridgewater 345 kV Line		No	No			SEMA
26		G	3/6/1998		S&P Cogeneration						Essex	MA	12/31/2001		Lynn 115 kV		Yes	No			BOST
27		G	3/13/1998		AES Carpenter						Hartford	CT	12/31/2001		Southington 345 kV Substation	MIS	No	No			CT
28		G	3/18/1998		Newington Energy Center						Rockingham	NH	3/31/2001		Newington 345 kV Station		No	No			NH
30		G	3/25/1998		Norwich Power Station						New London	CT	12/31/2000		Bean Hill Substation		Yes	No	NU		CT
30		ETU	3/25/1998		Engage Energy LTF PtP						N/A		12/31/2000		Import from New Brunswick via MEPCO	ES	Yes	No	CMP		

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31		G	3/26/1998		North Smithfield						Providence	RI	6/30/2002		W. Farnum 345 kV	MIS	Yes	No	NGRID		RI
32		G	3/30/1998		Towantic Energy						New Haven	CT	12/31/2002		Beacon Falls 115 kV	MIS	Yes	Yes	ISO-NE		CT
33		G	3/31/1998		Sithe Framingham Station Expansion						Middlesex	MA	12/31/2001		Framingham 230 kV		No	No			BOST
33		G	3/31/1998		Sithe Medway						Norfolk	MA	12/31/2001		Existing Medway Station 345 kV	MIS	Yes	Yes	NSTAR		RI
34		G	4/1/1998		WEG-Norwich						New London	CT	6/30/2005		Montville 115 kV Substation		No	No			CT
35		G	4/2/1998		Mason						Lincoln	ME	12/31/2000		Mason 345 kV Substation	MIS	No	No			ME
35		G	4/2/1998		Wyman A						Cumberland	ME	1/2/2000		Wyman 115 kV Station	MIS	No	No			SME
35		G	4/2/1998		Wyman B						Cumberland	ME	1/3/2000		Wyman 115 kV Station		No	No			SME
36		G	4/14/1998		FPL Energy (Bedford)						Bristol	MA	11/30/2000		Industrial Park 115 kV Substation	MIS	No	No			SEMA
38		G	5/8/1998		Rocky River Power						Litchfield	CT	7/31/2001		Long Mountain 345 kV Station	MIS	No	No			CT
39		ETU	5/28/1998		CVPS/GMP LTF PtP						Clinton	NY	12/31/2001		Import from NY via PV20	MIS	No	No			VT
39		ETU	5/28/1998		HQ Highgate2 HVDC						Franklin	VT	12/31/2001		Located on the Hydro Quebec sys. N. near Highgate,	MIS	No	No			VT
40		G	6/1/1998		Glen Charlie Unit One						Plymouth	MA	3/31/2001		Wareham 115 kV Substation		No	No			SEMA
41		G	6/4/1998		Canal 2 Repowering						Barnstable	MA	6/30/2001		Canal 345 kV Station	MIS	No	No			SEMA
42		G	6/5/1998		Wiscassett						Lincoln	ME	10/1/2001		Maine Yankee 345 KV	MIS	No	No			ME
43		ETU	6/8/1998		Tractebel LTF PtP						N/A		12/31/2002		Import from the New Brunswick System		No	No			
44		G	7/10/1998		Brockton Power Project						Plymouth	MA	1/31/2001		Industrial Blvd.	MIS	Yes	Yes	NGRID		SEMA
46		G	8/18/1998		Campello Power Co.						Plymouth	MA	6/30/2002			MIS	No	No			SEMA
47		G	8/26/1998		Nickel Hill Energy Project						Middlesex	MA	6/30/2001		Tewksbury 230 kV Substation	MIS	No	No			BOST
48		G	9/9/1998		Bennington Energy Park						Bennington	VT	11/30/2001		TBD		No	No			VT
48		G	9/9/1998		Rutland Energy Park						Rutland	VT	11/30/2001		TBD		No	No			VT
49		ETU	9/14/1998		Irving Oil LTF PtP						N/A		4/1/2001		Import from NB Via MEPCO	ES	No	No			
50		G	10/29/1998		Patriot Cabot Street Station						Hampden	MA	12/31/2001		Holyoke Substation		No	No			WMA
51		ETU	10/30/1998		MEPCO-New England Interface Expansion						N/A		1/1/2000		Import Capability from MEPCO	MIS	No	No			ME
52		G	11/13/1998		Haddam Station						Middlesex	CT	12/31/2002		Site of the Former CT Yankee Plant	MIS	No	No			CT
52		G	11/13/1998		Haddam Station Phase II						Middlesex	CT	12/31/2002		Site of the Former CT Yankee Plant		No	No			CT
53		ETU	11/30/1998		Tractebel LTF Int + Internal PtP						N/A		5/1/2002		Import from the New Brunswick System	ES	No	No			
54		G	1/5/1999		Redington Mountain Wind Farm						Franklin	ME	12/31/2002		Bigelow 115 kV Substation	MIS	No	No			ME
56		ETU	2/25/1999		New York Interface Import Expansion						N/A		5/1/1999		Increase Import Capability from New York		No	No			
57		G	6/4/1999		Norwich Power Station						New London	CT	1/1/2002		Bean Hill Substation	MIS	No	No			CT
58		ETU	8/5/1999		CPS LTF Pt to Pt In Svc.						N/A		11/1/1999		Increase Import Capability from NY		No	No			
59		G	8/18/1999		Milford Power Uprate						New Haven	CT	6/30/2001		Increase Existing Unit Capacity	MIS	No	No			SWCT
59		G	8/18/1999		Berkshire Power Uprate						Hampden	MA	6/30/2001		Increase Existing Unit Capacity	MIS	No	No			WMA
60		ETU	9/1/1999		Sithe LTF Pt to Pt In Svce.						N/A		3/1/2000		Increase Import Capability from NY		No	No			
61		ETU	9/15/1999		New York Interface Import Expansion						N/A		12/1/1999		Increase Import Capability from NY		No	No			

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62		ETU	10/5/1999		New York Interface Import Expansion						N/A		1/1/2000		Increase Import Capability from NY	MIS	No	No			
63		ETU	11/4/1999		WESC LTF Pt to Pt In Svce						N/A		2/1/2000		Increase Import Capability from NY		No	No			
64		G	11/8/1999		Seabrook Unit One Uprate						Rockingham	NH	5/1/2002		Increase Existing Unit Capacity	MIS	No	No			NH
65		ETU	12/2/1999		EPMI LTF Pt to Pt In Svce.						N/A		1/1/2002				No	No			
66		G	12/20/1999		AEC Expansion						Franklin	ME	6/30/2001		Riley Road 115 kV Substation	MIS	No	No			ME
67		G	2/25/2000		Lowell Power Expansion						Middlesex	MA	5/1/2001		Lowell Power 115 kV Station	MIS	Yes	Yes	NGRID		CMA
68		ETU	3/9/2000		Bridgeport Long Island HVDC						Fairfield	CT	5/1/2003		HVDC to Long Island, NY from Bridgeport, CT	MIS	No	No			SWCT
69		ETU	4/20/2000		Neptune HVDC Cable Project						N/A		3/31/2004		HVDC from Maine/ Maritimes to Boston Area and CT S	MIS	No	No			
70		ETU	4/25/2000		New York Interface LTF PtP Out Service						N/A		7/31/2003		Increase Export Capability to New York	MIS	No	No			
71		G	5/22/2000		New Haven Harbor						New Haven	CT	6/1/2003		East Shore Substation	MIS	No	No			CT
71		G	5/22/2000		Bridgeport Harbor Station						Fairfield	CT	6/1/2003		Pequonnock 115 kV Substation	MIS	No	No			SWCT
72		G	6/28/2000		Tewksbury Power						Middlesex	MA	6/30/2004		Tewksbury 345 kV Station	MIS	No	No			CMA
73		G	7/7/2000		Norwalk Harbor A						Fairfield	CT	12/31/2003		Norwalk 115 kV Station	MIS	No	No			NOR
73		G	7/7/2000		Norwalk Harbor B						Fairfield	CT	6/30/2004		Norwalk 115 kV Station	MIS	No	No			NOR
73		G	7/7/2000		Devon A						New Haven	CT	12/31/2003		Devon 115 kV Substation	MIS	No	No			SWCT
73		G	7/7/2000		Middletown A						Middlesex	CT	12/31/2003		Middletown Station	MIS	No	No			CT
73		G	7/7/2000		Middletown B						Middlesex	CT	12/31/2005		Middletown Station	MIS	No	No			CT
73		G	7/7/2000		Montville A						New London	CT	9/30/2004		Montville Station	MIS	No	No			CT
73		G	7/7/2000		Somerset Diversity						Bristol	MA	3/31/2004		Somerset 115 kV Station	MIS	No	No			SEMA
73		G	7/7/2000		Somerset A						Bristol	MA	12/31/2003		Somerset 115 kV Station	MIS	No	No			SEMA
75		ETU	8/16/2000		New York Interface LTF PtP Out Service						N/A		1/1/2001		Increase Export Capability to New York	MIS	Yes	Yes	ISO-NE		
76		ETU	8/31/2000		New York Interface LTF PtP Out Service						N/A		1/1/2001		Increase Export Capability to New York	MIS	No	No			
78		ETU	12/13/2000		Norwalk-Northport HVDC						Fairfield	CT	6/30/2003		HVDC Norwalk CT and Northport NY	MIS	No	No			NOR
79		ETU	12/18/2000		Milford CT - New York HVDC						New Haven	CT	6/30/2003		HVDC Devon CT 115 kV	MIS	No	No			SWCT
80		G	12/27/2000		Berlin Energy Project						Coos	NH	1/1/2002		Berlin 115 kV Substation (PSNH)	MIS	No	No			NH
81		G	1/2/2001		Berwick Energy Center						York	ME	1/1/2002		Dover 115 kV Substation	MIS	No	No			NH
82		G	2/14/2001		Cape Cod Offshore Wind Project						Barnstable	MA	12/31/2004		South of Barnstable 115kV Substation	MIS	No	No			SEMA
83		ETU	3/12/2001		Neptune Phase3 Boston Import from NB or NS						Suffolk	MA	3/31/2004		Kingston St. 115/345 kV and K St. 115 kV Substatio	MIS	No	No			BOST
83		ETU	3/12/2001		Neptune Phase4 CT Import from NB or NS						Fairfield & New Haven	CT	3/31/2004		Glenbrook 115 kV and E. Shore St. 115/345 kV (sep.	MIS	No	No			NOR
83		ETU	3/12/2001		Neptune Phase5 ME Yankee Export to Boston, CT or N						Lincoln	ME	3/31/2004		Maine Yankee 345 kV (Bi-Polar HVDC Terminal)	MIS	No	No			ME
83		ETU	3/12/2001		Neptune Phase7 Wyman Export to Boston, CT, NYC or						Cumberland	ME	3/31/2004		Wyman 345 kV (Bi-Polar HVDC Terminal)	MIS	No	No			SEMA
84		G	3/13/2001		Phase 1 - Nantucket Shouls Wind						Barnstable	MA	12/31/2007		Near Barnstable 115kV Substation	MIS	No	No			SEMA
84		G	3/13/2001		Phase 2 - Nantucket Shouls Wind						Barnstable	MA	12/31/2008		Near Barnstable 115kV Substation	MIS	No	No			SEMA

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QP	Updated	Type	Requested	W/D Date	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
84		G	3/13/2001		Phase 3 - Nantucket Shouls Wind						Barnstable	MA	12/31/2009		Near Barnstable 115kV Substation	MIS	No	No			SEMA
84		G	3/13/2001		Phase 4 - Nantucket Shouls Wind						Barnstable	MA	12/31/2010		Near Barnstable 115kV Substation	MIS	No	No			SEMA
84		G	3/13/2001		Phase I - Nantucket Sound Wind Project						Barnstable	MA	12/31/2004		Near Barnstable 115kV Substation	MIS	No	No			SEMA
84		G	3/13/2001		Phase 2 - Nantucket Sound Wind						Barnstable	MA	12/31/2005		Near Barnstable 115kV Substation	MIS	No	No			SEMA
86		ETU	5/21/2001		New York Interface LTF PtP Out Service						N/A		1/1/2002		Increase Export Capability to New York	MIS	No	No			
87		ETU	5/24/2001		Stage II Cross Sound Cable HVDC Interconnection						New Haven	CT	7/1/2003		HVDC terminal adjacent to East Shore 345kV Substat	MIS	No	No			CT
88	1/2/2008	ETU	6/1/2001		Increase Orrington South Transfer Limit	NA	N/A				N/A		12/1/2007		N/A	MIS	Yes	Yes	BHE		ME
91		ETU	6/12/2001		New York Interface LTF PtP Out Service						N/A		6/1/2002		Increase Export Capability to New York	MIS	No	No			
91		ETU	6/12/2001		New York Interface LTF PtP Out Service						N/A		6/1/2003		Increase Export Capability to New York	MIS	No	No			
92		ETU	6/26/2001		Sithe Mystic 4,5,6 Reconfiguration of Interconnect						Middlesex	MA	3/31/2003		Reconfigure Mystic 4,5,6 Interconnection from Myst	MIS	No	No			BOST
93		ETU	7/6/2001		New York Interface LTF PtP Out Service						N/A		1/1/2002		Increase Export Capability to New York	MIS	No	No			
93		ETU	7/6/2001		New York Interface LTF PtP Out Service						N/A		1/1/2002		Increase Export Capability to New York	MIS	No	No			
93		ETU	7/6/2001		HVDC Interconn. betw. Norwalk Stat, CT & Shore Rd						N/A	CT	5/1/2004		Interconnection between Norwalk Stat, CT & Shore R	MIS	No	No			NOR
93		ETU	7/6/2001		HVDC Interconn. betw. Norwalk Stat, CT & Shore Rd						N/A	CT	5/1/2004		Interconnection between Norwalk Stat, CT & Shore R	MIS	No	No			NOR
94		G	7/17/2001		CPV New Britain LLC						Hartford	CT	7/1/2005		Interconnection South New Britain CT 115 kV Corrid	MIS	No	No			CT
97		ETU	12/26/2001		Western Maine Area Export Enhancement						N/A				Increase Export Capability from Rumford Power Asso	MIS	No	No			ME
98		G	6/3/2002		Redington Wind Farm Phase II						Franklin	ME	12/1/2005		Bigelow 115 kV Substation	MIS	No	No			ME
102	10/14/2008	G	2/4/2003	10/14/2008	Peabody Power	GT	NG DFO		97.2	97.2	Essex	MA	5/1/2008	2/1/2008	C155 & B154 - 115 kV Lines	MIS	Yes	Yes	NGRID		BOST
104	7/16/2010	G	3/6/2003	7/12/2010	Waterside Power - 180 MW	GT	NG DFO	203.9	203.9	207.2	Fairfield	CT	12/31/2011	9/30/2011	Waterside 115 kV	CNR	Yes	Yes	ISO-NE	PD	NOR
105		G	3/10/2003		Evergreen Wind Power - Bagley Mountain						Penobscot	ME	7/1/2004		Chester 115 kV	MIS	No	No			BHE
105		G	3/10/2003		Evergreen Wind Power - Blueberry Barrens						Washington	ME	10/1/2004		Deblois 115 kV	MIS	No	No			BHE
113		G	9/29/2003		Sheffield Wind Power Project						Caledonia	VT	12/31/2005		TBD	MIS	No	No			VT
115	12/31/2008	G	10/27/2003	12/31/2008	SNEW Summer '04 Temporary Generator	GT	DFO	0	23.8		Fairfield	CT	6/1/2004		Norwalk 27.6 kV	MIS	No	No			NOR
117		G	12/8/2003		Waterside Power - 23 MW						Fairfield	CT	6/1/2004		Waterside 115 kV - Norwalk/Stamford	MIS	No	No			NOR
118		G	12/29/2003		Bridgeport Harbor Units 5 & 6						Fairfield	CT	5/1/2005		Paquonnock 115 kV Substation	MIS	No	No			SWCT
118		G	12/29/2003		New Haven Harbor Units 2 & 3						New Haven	CT	5/1/2005		East Shore 115 kV Substation	MIS	No	No			SWCT
119	10/19/2007	G	1/16/2004	10/19/2007	Ridgebury Power						Fairfield	CT	6/1/2004		CL&P Distribution System	MIS	No	No			SWCT
123		G	10/4/2004		GenPower Athens						Somerset	ME	6/1/2006		Gorbell Tap of CMP's Detroit-Wyman Hydro 66 - 115	MIS	No	No			ME
124		G	10/27/2004		Hardscrabble Mountain Project						Caledonia	VT	3/31/2006		St. Johnsbury- Irasburg 115 kV Line	MIS	No	No			VT
125	2/16/2010	G	11/2/2004	2/16/2010	Norwalk Harbor Station Redevelopment	GT	KER	322.5	322.5	330	Fairfield	CT	2/28/2013	12/31/2012	Norwalk 345 kV Station	CNR	Yes	No	ISO-NE	BL	NOR
125		G	11/2/2004		Devon Station Redevelopment						New Haven	CT	7/15/2010		Devon 115 kV Substation	MIS	No	No			SWCT

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126		G	11/9/2004		Biomass	ST	WDS		40		Cheshire	NH	7/1/2007		N-186, 115kV line between Vernon Road Tap and bor	MIS	No	No			NH
128		G	2/11/2005		Biomass	ST	WDS		39	42	Litchfield	CT	7/31/2007	5/31/2007	TBD	MIS	No	No			TBD
130		G	5/24/2005	9/22/2006	Wind Project	WT	WND		53	53	Caledonia	VT	9/1/2007	8/1/2007	Irasburg - St. Johnsbury 115 kV	MIS	No	No			VT
131	2/18/2008	G	6/21/2005	9/25/2008	Wind Project	WT	WND		90	90	Franklin	ME	12/31/2010	6/1/2010	Bigelow Substation	MIS	Yes	Yes	ISO-NE		ME
132	6/30/2008	G	7/21/2005	6/30/2008	Wind Project	WT	WND		9	9	Bennington	VT	12/31/2007	6/1/2007	Bennington - Brattleboro 46 kV	MIS	No	No			VT
133		G	8/1/2005		Combined Cycle	CC	DFO		115	124	Orleans	VT	1/31/2010	12/31/2009	Newport 115 kV Substation	MIS	No	No			VT
134	2/18/2008	G	8/3/2005	8/19/2008	Wind Project	WT	WND		45	45	Bennington	VT	12/30/2010	9/29/2010	Y-25 North, 69 kV line between Searsburg and Benni	MIS	No	No	ISO-NE		VT
135	4/24/2012	G	8/19/2005	3/15/2012	Russell Biomass	ST	WDS	55	55	55	Hampden	MA	8/1/2015	3/1/2015	Blanford - Southwick - Elm 115 kV line	CNR	Yes	Yes	ISO-NE		WMA
136	4/3/2007	G	8/19/2005	4/3/2007	Biomass	ST	WDS		39	40	Somerset	ME	12/31/2008	9/30/2008	Gorbell Tap of CMP's Detroit-Wyman Hydro 66 - 115	MIS	No	No	ISO-NE		ME
139	5/15/2009	G	10/14/2005	4/29/2009	Lowell Power Generators	GT	NG	99	99	99	Middlesex	MA	6/1/2010	4/1/2010	J162 115kV line between Tewksbury and Perry Street	MIS	Yes	Yes	ISO-NE		CMA
141	2/7/2007	G	12/14/2005	2/7/2007	Gas Turbine	GT	NG DFO		200	200	Middlesex	MA	9/30/2009	8/31/2009	115 kV O 167 line between Everett and Mystic Subst	MIS	No	No	ISO-NE		BOST
142		G	12/21/2005	4/13/2006	Wind Project	WT	WND		48	48	Windham	VT	5/31/2008	3/31/2008	CVPS Londonderry Substation 46 kV	MIS	No	No			VT
143		G	1/16/2006	4/25/2006	Land Fill Gas	IC	LFG		25	25	Providence	RI	6/30/2007	6/1/2007	Johnston Substation Distribution System	MIS	No	No			RI
144		G	2/6/2006		Biomass	ST	WDS		25	27.5	Windsor	VT	4/30/2009	2/28/2009	VELCO Coolidge Substation	MIS	No	No			VT
145	8/31/2007	G	2/13/2006	6/20/2008	Wind Project	WT	WND		51	51	Windham	CT	12/31/2009	12/1/2009	CL&P 115 kV 1607 line	MIS	No	No	ISO-NE		CT
147	8/31/2007	G	2/28/2006	11/2/2007	Gas Turbine	GT	DFO		168.2	168.2	Suffolk	MA	6/1/2010	4/1/2010	NSTAR Chelsea Substation	MIS	No	No	ISO-NE		BOST
149	12/4/2007	ETU	3/10/2006		Transmission Expansion	NA	N/A				N/A	CT	11/1/2006		N/A	N/A	No	No	ISO-NE		CT
154		G	5/31/2006		Gas Turbine (Additional Capacity)	GT	DFO		29	0	Suffolk	MA	8/1/2008	6/1/2008	NSTAR Chelsea Substation	MIS	No	No			BOST
155	4/16/2009	G	6/2/2006		Gas Turbine	CT	NG DFO	160	120	130	Middlesex	MA	5/1/2011	3/1/2011	NSTAR Mystic Substation	MIS	No	No	ISO-NE		BOST
157	12/29/2009	G	6/21/2006	12/29/2009	Billerica Power	GT	NG WO	311	311	341	Middlesex	MA	6/15/2011	5/15/2011	J-162 line to Tewksbury Substation	CNR	Yes	Yes	ISO-NE		CMA
159	11/12/2008	G	6/30/2006	10/22/2008	Gas Turbine	GT	NG	325	325	375	Fairfield	CT	9/30/2010	6/30/2010	UI 345 kV Singer Substation	MIS	Yes	Yes	ISO-NE		SWCT
159		G	6/30/2006	10/25/2006	Fuel Cell	FC	NG		30	30	Fairfield	CT	12/31/2008	3/31/2008	NU Triangle Substation 11A	MIS	No	No			SWCT
159		G	6/30/2006	10/25/2006	Fuel Cell	FC	NG		30	30	Fairfield	CT	12/31/2008	3/31/2008	UI Congress Street Substation 2C	MIS	No	No			SWCT
160	11/26/2008	G	6/30/2006	11/26/2008	Gas Turbine	GT	NG DFO	82.2	82.2	94.8	Middlesex	CT	5/31/2011	4/30/2011	CL&P Middletown Substation	MIS	Yes	No	ISO-NE		CT
161	2/15/2011	G	7/5/2006	2/10/2011	Middletown 11	GT	NG JF KER	107.5	107.5	110	Middlesex	CT	6/1/2011	4/1/2011	CL&P Middletown Substation	CNR	Yes	Yes	ISO-NE		CT
161	4/15/2009	G	7/5/2006	4/7/2009	Combined Cycle	CC	NG	223	630	690	New London	CT	5/31/2013	2/1/2013	Montville Substation	MIS	No	No	ISO-NE		CT
163	7/16/2009	G	7/24/2006	7/14/2009	Mirant Kendall Jet 2	GT	JF	18	18	22	Middlesex	MA	1/31/2010	1/15/2010	Kendall Station in Cambridge	MIS	Yes	Yes	NSTAR		BOST
164	12/15/2009	G	8/1/2006	12/14/2009	Combined Cycle(see # 201)	GT	NG	320	158	196	Providence	RI	6/1/2012	12/31/2011	345 kV RISE Substation	CNR	No	No		BL	RI
165	4/17/2009	G	8/3/2006	4/10/2009	Combined Cycle(See # 226)	CC	NG	563	563	616	Rockingham	NH	6/30/2013	12/31/2012	345 kV Seabrook Substation	MIS	No	No	ISO-NE		NH
169		ETU	8/15/2006		Transmission Expansion	NA	N/A				N/A	VT	6/30/2009		VELCO Coolidge Substation	N/A	No	No			VT
169		G	8/15/2006	11/2/2006	Biomass	ST	WDS		25	27.5	Windsor	VT	6/30/2009	4/30/2009	New Ludlow 115 kV Substation	MIS	No	No			VT
170	4/16/2009	G	8/25/2006	4/9/2009	Gas Turbine Capacity Increase (see #155)	CT	NG DFO	0	40	55	Middlesex	MA	5/1/2011	3/1/2011	NSTAR Mystic Substation	MIS	No	No	ISO-NE		BOST
173	2/11/2009	G	9/21/2006	1/21/2009	Wind Project	WT	WND	60	60	60	Rutland	VT	10/30/2010	9/15/2010	115 kV West Rutland substation	MIS	No	No			VT
174	8/9/2012	G	10/13/2006	8/10/2012	Combined Cycle	CC	NG DFO	280	280	280	Hampden	MA	7/1/2015	5/1/2015	345 kV Stony Brook Substation	CNR	Yes	Yes	ISO-NE	BL	WMA

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175	5/15/2009	G	10/20/2006	5/13/2009	Gas Turbine	GT	NG DFO	175	175	203.6	Fairfield	CT	6/1/2010	2/1/2010	345 kV line # 321	MIS	No	No	ISO-NE		SWCT
176	12/31/2008	G	10/20/2006	12/29/2008	Wind	WT	WND	145.5	145.5	145.5	Coos	NH	12/30/2008	11/30/2008	PSNH 115 kV Whitefield substation	MIS	No	No	ISO-NE		NH
177	12/31/2008	G	10/23/2006	12/23/2008	Gas Turbine	GT	NG DFO	190	190	190	Worcester	MA	6/1/2011	3/1/2011	115 kV bus at Millbury substation	MIS	No	No	ISO-NE		CMA
180	5/31/2007	ETU	11/8/2006		Transmission Expansion	NA	N/A				N/A	CT			CL&P Killingly 115 kV Substation	N/A	No	No			CT
180	2/16/2007	ETU	11/8/2006		Transmission Expansion	NA	N/A				N/A	CT			CL&P Card 345 kV Substation	N/A	No	No			CT
181	9/2/2009	ETU	11/9/2006		Transmission Expansion	NA	N/A	0			N/A	CT			Lake Road 345 kV Substation	N/A	Yes	No	ISO-NE		CT
182	5/15/2009	G	10/20/2006	5/13/2009	Gas Turbine Capacity Increase (See queue position	GT	NG DFO	0	0	18.4	Fairfield	CT	6/1/2010	2/1/2010	345 kV line # 321	MIS	No	No	ISO-NE		SWCT
184	5/23/2007	G	11/17/2006	5/23/2007	Gas Turbine Capacity Increase(#157)	GT	NG DFO		140	140	Middlesex	MA	12/1/2008	9/1/2008	337 Sandy Pond - Tewksbury 345 kV Line	MIS	No	No	ISO-NE		CMA
186	6/1/2009	G	12/1/2006	5/29/2009	Gas Turbine	GT	DFO KER	78	78	93	New Haven	CT	12/31/2011	10/30/2011	CL&P Shepaug 115 kV substation	MIS	No	No	ISO-NE		SWCT
186	6/1/2009	G	12/1/2006	5/29/2009	Hydro	HD	WAT	6.5	48	48	New Haven	CT	12/31/2011	10/30/2011	CL&P Shepaug 115 kV substation	MIS	No	No	ISO-NE		SWCT
188	2/1/2007	G	12/7/2006	2/1/2007	Gas Turbine Capacity Increase(#178)	CC	NG DFO		69	0	Plymouth	MA	6/1/2010	4/1/2010	115 kV F19 and/or E20 lines	MIS	No	No			SEMA
190	5/15/2009	G	12/22/2006	5/28/2009	Gas Turbine	GT	NG DFO KER	156	156	200	Hampden	MA	1/31/2010	10/30/2009	W Mass. Mt. Tom 115 kV Substation	MIS	No	No			WMA
190	5/12/2009	G	12/22/2006	5/7/2009	Gas Turbine	GT	NG DFO KER	39	39	50	New London	CT	1/31/2010	10/30/2009	CL&P Tunnel 115 kV Substation	MIS	Yes	No	ISO-NE		CT
190	5/15/2009	G	12/22/2006	5/11/2009	Gas Turbine	GT	NG DFO KER	39	39	50	Litchfield	CT	1/31/2010	10/30/2009	CL&P Falls Village 69 kV Substation	MIS	Yes	No	ISO-NE		CT
190	5/15/2009	G	12/22/2006	5/7/2009	Gas Turbine	GT	NG DFO KER	39	39	50	New Haven	CT	1/31/2010	10/30/2009	CL&P Stevenson 115 kV Substation	MIS	Yes	No	ISO-NE		SWCT
191	5/14/2007	G	12/22/2006	5/14/2007	Gas Turbine	GT	NG		100	100	Fairfield	CT	5/31/2010	3/31/2010	UI 115 kV line #8909	MIS	No	No			SWCT
191	9/14/2010	G	12/22/2006	9/13/2010	Biomass Project	ST	WDS	26	26.25	26.75	Litchfield	CT	3/1/2013	12/14/2012	CL&P 115 kV line #1238	CNR	Yes	Yes	ISO-NE		SWCT
192	3/26/2007	G	12/28/2006	3/26/2007	Combined Cycle	CC	NG DFO		496	550	Litchfield	CT	6/1/2010	4/1/2010	CL&P Frostbridge Substation	MIS	No	No			CT o
192	6/30/2008	G	12/28/2006	7/30/2008	Combined Cycle	CC	NG DFO		496	550	Fairfield	CT	6/1/2013	4/1/2013	CL&P Plumtree Substation	MIS	No	No			SWCT
193	3/13/2012	G	1/5/2007	3/13/2012	Ansonia Generation	CC	NG	60	60	67	New Haven	CT	9/9/2013	7/10/2013	UI Ansonia 115 kV substation	CNR	Yes	Yes	ISO-NE		SWCT
194	5/1/2007	G	1/8/2007	5/1/2007	Gas Turbine	GT	NG		177.1	189.3	New Haven	CT	3/31/2010	1/15/2010	UI 115 kV line # 8200	MIS	No	No			SWCT
198	5/7/2008	G	2/8/2007	5/7/2008	Biomass Project	ST	WDS		56.4	67.5	Coos	NH	6/1/2009	4/1/2009	Near PSNH Lost Nation substation	MIS	No	No			NH
201	12/15/2009	G	2/26/2007	12/14/2009	Converts QP 164 to combined cycle facility and inc	CC	NG	0	162	162	Providence	RI	2/26/2014	12/31/2013	345 kV RISE Substation	CNR	No	No			RI
202	10/22/2010	G	2/27/2007	10/22/2010	Combined Cycle	CC	NG	250	250	285	Windham	CT	5/31/2013	1/31/2013	CL&P 345 kV Lake Road substation	CNR	No	No		PD	RI
204	4/24/2007	G	3/30/2007	4/27/2007	Gas Turbine	GT	NG DFO		40	48	Hartford	CT	12/31/2009	12/31/2009	CL&P Windsor locks substation	MIS	No	No			CT
205	10/3/2007	G	4/2/2007	10/3/2007	Gas Turbine	GT	NG		8.1	9.1	Penobscot	ME	6/1/2007	6/1/2007	BHE's Line 5 - 46 kV	MIS	No	No			ME
207	1/30/2012	G	4/3/2007	1/27/2012	Towantic Energy	CC	NG DFO	452	452	540	New Haven	CT	12/31/2014	6/30/2014	CL&P 115 kV lines between Baldwin Junction and Bea	CNR	Yes	Yes	ISO-NE		SWCT
208	12/12/2007	G	4/13/2007	8/21/2008	Gas Turbine	GT	NG		100	100	Norfolk	MA	6/1/2011	12/31/2010	345 kV NEA Bellingham substation	MIS	No	No			RI
211	11/20/2007	G	5/8/2007	11/20/2007	Combined Cycle	CC	NG DFO		496	550	Bristol	MA	6/1/2010	2/1/2010	NSTAR 115 kV line #111	MIS	No	No			SEMA
212	6/1/2009	G	5/15/2007	5/28/2009	Biomass Project	ST	WDS	45	45	45	Hillsboro	NH	2/28/2010	12/31/2009	PSNH K-165 115 kV line	MIS	No	No			NH
213	3/3/2010	G	5/15/2007	3/3/2010	Gas Turbine	GT	NG	159	158.5	184.7	Worcester	MA	6/1/2013	2/1/2013	ANP Blackstone 345 kV substation	CNR	No	No		PD	RI
213	11/20/2008	G	5/15/2007	10/21/2008	Gas Turbine	GT	NG	159	158.5	184.7	Worcester	MA	6/1/2010	2/1/2010	ANP Milford 115 kV substation	MIS	No	No			RI

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214	10/15/2007	G	5/21/2007	10/27/2007	Biomass Project	ST	WDS		41	41	Coos	NH	8/31/2010	6/30/2010	PSNH 34.5 kV circuit from Lost Nation or Whitefiel	MIS	No	No			NH
214	10/15/2007	G	5/21/2007	10/15/2007	Biomass Project	ST	WDS		41	41	Coos	NH	8/31/2010	6/30/2010	PSNH 115 kV S136 line	MIS	No	No			NH
215	10/15/2008	G	5/30/2007	10/27/2008	Combined Cycle	CC	NG DFO	578	578	558	Norfolk	MA	6/1/2013	2/1/2013	NGRID 345 kV 344 Line	MIS	No	No			SEMA
215	12/19/2011	G	5/24/2007	12/14/2011	Longfellow Wind	WT	WND	50	50	50	Oxford	ME	12/1/2013	10/1/2013	CMP 115 kV Rumford Substation	CNR	Yes	Yes	ISO-NE	PD	ME
216	6/2/2010	G	6/8/2007	5/28/2010	Combined Cycle	CC	NG DFO	244	244	294	Bristol	MA	12/31/2013	11/1/2013	Cleary 115 kV substation	NR	Yes	Yes	ISO-NE	BL	SEMA
218	2/12/2009	G	6/27/2007	1/30/2009	Biomass Project (Also see queue position #223)	ST	WDS	62	41	48	Berkshire	MA	12/1/2010	9/1/2010	Doreen 115 kV substation or F132 115 kV line	MIS	No	No			WMA
221	2/4/2011	G	7/18/2007	2/4/2011	Wind Project	WT	WND	34.9	34.9	34.9	Penobscot	ME	12/30/2012	10/30/2012	115 kV line between Enfield and James River substa	NR	Yes	Yes	ISO-NE		BHE
222	5/30/2012	G	7/16/2007	5/30/2012	Meriden Gas Turbines	CC	NG DFO	510	510	560	New Haven	CT	6/1/2015	12/1/2014	Haddam Neck-Southington 345 kV line	CNR	Yes	Yes	ISO-NE	BL	CT
223	11/19/2015	G	7/25/2007	1/30/2009	Increase to biomass project in queue position 218	ST	WDS	0	20.5	24	Berkshire	MA	12/1/2010	9/1/2010	Doreen 115 kV substation or F132 115 kV line	MIS	No	No			WMA
223	11/7/2007	G	7/25/2007	11/7/2007	Gas Turbine	GT	NG		159	185	New Haven	CT	5/6/2010	3/24/2010	East Shore-Grand Ave 115 kV line	MIS	No	No			SWC T
225	10/22/2010	G	8/13/2007	10/22/2010	Combined Cycle Capacity Increase (See QP #202)	CC	NG	161	411	412	Windham	CT	5/31/2013	1/31/2013	CL&P 345 kV Lake Road substation	CNR	No	No		PD	RI
226	7/23/2009	G	9/5/2007	7/14/2009	Combined Cycle Capacity Increase/ Generator Change	CC	NG	904	904	1,010	Rockingha m	NH	6/30/2013	12/31/2012	345 kV Seabrook Substation	MIS	No	No			NH
227	9/23/2010	G	9/26/2007	9/23/2010	Bear Swamp Uprate - First Unit	PS	WAT	43	333	333	Berkshire	MA	3/31/2012	3/17/2012	Bear Swamp 230 kV Substation	NR	Yes	Yes	ISO-NE		WMA
227	9/23/2010	G	9/26/2007	9/23/2010	Pump Storage Capacity Upgrade	PS	WAT	43	333	333	Berkshire	MA	3/30/2013	3/16/2013	Bear Swamp 230 kV Substation	NR	Yes	Yes	ISO-NE		WMA
227	3/14/2008	ETU	9/28/2007		Increase Transfer South From Wyman Hydro	NA	N/A				N/A	ME			N/A	MIS	No	No			ME
229	9/8/2008	G	10/15/2007	9/8/2008	Biomass Project	ST	WDS		41	41	Coos	NH	12/31/2013	12/31/2013	PSNH 34.5 kV circuit from Lost Nation or Whitefiel	MIS	No	No			NH
229	10/19/2011	G	10/15/2007	10/11/2011	CPD Berlin	ST	WDS	29.5	29.5	29.5	Coos	NH	8/31/2013	7/31/2013	PSNH 115 kV Berlin Substation	CNR	Yes	Yes	ISO-NE	PD	NH
232	1/29/2008	G	11/1/2007	1/29/2008	Gas Turbine	GT	NG DFO		250	275	Hartford	CT	6/1/2010	4/1/2010	CL&P 329 345 kV line or 1895 115 kV line	MIS	No	No			CT
235	3/15/2008	G	11/15/2007	2/27/2008	Gas Turbine	GT	NG		58	65	New Haven	CT	1/31/2010	1/1/2010	CL&P 46 kV circuit from Baldwin Substation	MIS	No	No			SWC T
235	6/30/2008	G	11/15/2007	6/30/2008	Gas Turbine	GT	NG DFO		170	196	New London	CT	5/31/2010	5/1/2010	CL&P Card Street substation	MIS	No	No			CT
236	11/13/2012	G	11/30/2007	11/1/2012	Pioneer Valley Energy Center	CC	NG DFO	353	353	421	Hampden	MA	9/28/2015	4/29/2015	115 kV line between Buck Pond and Pochassic substa	CNR	Yes	Yes	ISO-NE	BL	WMA
237	1/14/2010	G	12/5/2007	1/14/2010	Combined Cycle	CC	NG	285	285	300	Newport	RI	12/1/2014	8/1/2014	115 kV Tiverton Substation	CNR	No	No		PD	RI
238	6/24/2010	G	12/7/2007	6/17/2010	Barre Mass Landfill Gas	IC	LFG	1.6	1.6	2	Worcester	MA	3/11/2011	2/11/2011	13.8 kV distribution circuit	NR	Yes	Yes	ISO-NE		WMA
239	11/12/2008	G	12/12/2007	10/22/2008	Gas Turbine Capacity Increase (See queue position	GT	NG DFO	35	360	436	Fairfield	CT	9/30/2010	6/30/2010	UI 345 kV Singer Substation	MIS	No	No			SWC T
240	10/27/2010	G	12/18/2007	10/27/2010	Gas Turbine	GT	NG KER	94	94	98	New London	CT	6/1/2013	1/1/2013	Montville Substation	CNR	No	No		BL	CT
241	1/30/2012	G	12/31/2007	1/27/2012	Towantic Energy increase	CC	NG DFO	38	489	557	New Haven	CT	12/31/2014	6/30/2014	CL&P 115 kV lines between Baldwin Junction and Bea	CNR	Yes	Yes	ISO-NE		SWC T
242	9/25/2009	G	1/3/2008	9/18/2009	Biomass Project	ST	WDS	20	20	20	Cheshire	NH	10/30/2013	6/30/2013	PSNH 115 kV N186 circuit	CNR	No	No			NH
244	3/23/2012	G	1/3/2008	3/21/2012	Wind	WT	WND	117	117	117	Somerset	ME	12/30/2013	10/1/2013	CMP 115 kV Wyman substation	CNR	Yes	Yes	ISO-NE	BL	ME
246	12/31/2008	G	1/29/2008	12/31/2008	Gas Turbine	GT	NG	77	77	87	Worcester	MA	6/1/2011	3/1/2011	115 kV bus at Millbury substation	MIS	No	No			CMA
247	4/17/2009	G	1/31/2008	4/2/2009	Reconnect Existing Hydro	HD	WAT	0	4.1	4.1	Orleans	VT	5/31/2010	5/1/2010	VELCO Newport Substation 46 kV bus	MIS	No	No			VT
247	4/17/2009	G	1/31/2008	4/2/2009	Diesel generation	IC	DFO	10.3	10.3	10.3	Orleans	VT	5/1/2009	5/1/2009	VELCO Newport Substation 46 kV bus	MIS	No	No			VT
253	6/17/2009	G	3/11/2008	6/1/2009	Combined Cycle	CC	DFO	269	269	310	Fairfield	CT	6/1/2011	2/1/2011	CL&P 115 kV 1876 line	MIS	No	No			SWC T

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QP	Updated	Type	Requested	W/D Date	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
254	8/31/2009	G	3/10/2008	8/25/2009	Wind	WT	WND	19.5	19.5	19.5	Penobscot	ME	11/1/2010	11/1/2010	CMP 115 kV line # 203	CNR	No	No			ME
255	12/3/2009	G	3/31/2008	9/30/2009	Wind	WT	WND	50	50	50	Grafton	NH	12/31/2010	10/1/2010	115 kV Plymouth substation	CNR	No	No			NH
259	8/19/2010	G	5/7/2008	8/11/2010	Combined Cycle	CC	NG	27	551	616.3	Providence	RI	6/1/2012	6/1/2012	115 kV RISE Substation	CNR	No	No		PD	RI
259	2/12/2009	G	5/7/2008	1/28/2009	Combined Cycle	CC	NG DFO	27	303.3	340.2	Norfolk	MA	6/1/2010	6/1/2010	345 kV NEA Bellingham Substation	MIS	No	No			RI
260	3/19/2009	G	5/8/2008	2/27/2009	Wind	WT	WND	450	450	450	N/A	RI	12/31/2013	6/30/2012	Brayton Point 115 kV bus or Dexter 115 kV bus	MIS	No	No			RI
260	3/19/2009	G	5/8/2008	2/27/2009	Wind	WT	WND	0	450	450	N/A	RI	12/31/2013	6/30/2012	Kent County 115 kV bus or Davisville 115 kV bus	MIS	No	No			RI
261	11/7/2008	G	5/19/2008	11/7/2008	Combined Cycle	CC	NG	221.6	440	497		ME	12/31/2013	6/30/2013	Yarmouth Substation 115 kV bus	MIS	No	No			ME
262	11/10/2011	G	5/23/2008	11/9/2011	Rhode Island Landfill Gas Genco Increase (see QP #	CC	LFG	6	45.9	50.1	Providence	RI	9/1/2013	9/1/2013	NGRID 115 kV S171 line	CNR	Yes	Yes	NGRID		RI
263	3/25/2010	G	5/27/2008	3/24/2010	Wind	WT	WND	385	385	385	Washington	RI	12/1/2012	6/1/2011	West Kingston Substation	CNR	No	No		BL	RI
265	12/5/2013	G	6/16/2008	1/7/2013	MATEP - Third CTG	GT	DFO NG	12.5	12.5	14	Suffolk	MA	6/1/2014	5/1/2014	NSTAR Brighton Substation	CNR	Yes	Yes	NSTAR		BOST
266	5/1/2009	G	6/19/2008	4/13/2009	Wind	WT	WND	34	34	34	Orleans	VT	12/31/2011	9/15/2011	CVPS Lowell Substation	MIS	No	No			VT
267	3/19/2009	G	6/24/2008	3/9/2009	Gas Turbine Capacity Increase (See queue position	GT	NG DFO	175	175	222	Fairfield	CT	6/1/2011	2/1/2011	345 kV line # 321	MIS	No	No			SWC T
268	5/1/2009	G	7/8/2008	4/13/2009	Wind (increase in queue position 266)	WT	WND	8.5	8.5	8.5	Orleans	VT	12/31/2011	9/15/2011	CVPS Lowell Substation	MIS	No	No			VT
270	3/31/2011	G	7/17/2008	3/31/2011	Pumped Storage Project	PS	WAT	1,000	1,000	1,000	Wiscasset	ME	6/1/2014	6/1/2014	Maine Yankee 345 kV substation	NR	No	No		BL	ME
271	5/12/2009	ETU	7/30/2008		Two terminal, 1000 MW , 500 kV, dc line	NA	N/A	0			N/A		3/31/2014		Hertel S/S in Quebec or Clay S/S in NY and Norwalk	N/A	No	No			
271	1/29/2010	ETU	7/30/2008		Two terminal, 1000 MW , 500 kV, dc line	NA	N/A	0			N/A		3/31/2014		Hertel S/S in Quebec or Clay S/S in NY and Glenbro	N/A	No	No			
271	7/16/2010	ETU	7/30/2008		Two terminal, 1000 MW , 500 kV, dc line	NA	N/A	0			N/A		3/31/2014		Hertel S/S in Quebec or Clay S/S in NY and Singer	N/A	No	No			
271	10/22/2009	TS	8/1/2008		MPS RNS Application	NA	N/A	0			Aroostoock	ME	10/1/2010		N/A	N/A	No	No			BHE
272	6/17/2009	G	8/1/2008	6/15/2009	Wind	WT	WND	64	64	64	Franklin	ME	8/1/2012	6/1/2012	CMP Rumford or Bigelow Substation	MIS	No	No			ME
272	10/3/2008	G	8/1/2008	10/3/2008	Wind	WT	WND	0	150	150	Aroostoock	ME	8/1/2011	5/1/2011	BHE Millinocket Substation	MIS	No	No			BHE
272	4/15/2009	G	8/1/2008	3/10/2009	Wind	WT	WND	0	150	150	Aroostoock	ME	8/1/2011	5/1/2011	BHE Powersville Substation	MIS	No	No			BHE
272	2/16/2010	G	8/1/2008	2/3/2010	Wind	WT	WND	85	85	85	Somerset	ME	8/1/2012	6/1/2012	CMP 115 KV LINE 222	CNR	No	No		PD	ME
272	5/1/2009	G	8/1/2008	4/21/2009	Wind	WT	WND	128	128	128	Aroostoock	ME	12/31/2013	10/31/2013	BHE 345 kV 396 line	MIS	No	No			BHE
274	10/4/2012	G	8/7/2008	10/14/2012	GMP Generator Replacement	GT	DFO NG	29.5	41.5	48.7	Chittenden	VT	6/1/2014	5/1/2014	GMP Gorge Substation	CNR	Yes	Yes	ISO-NE		VT
274	3/19/2009	TS	8/25/2008		Wind project point-to-point application	NA	N/A	0	100	100	Aroostoock	ME	10/1/2011		N/A	N/A	No	No			BHE
275	9/15/2008	ETU	8/27/2008		Two terminal, 2000 MW , 500 kV, dc line	NA	N/A	0			N/A		3/31/2014		Maine Yankee Substation, South Boston Substation	N/A	No	No			
276	9/19/2014	G	9/2/2008	9/11/2014	Deerfield Wind	WT	WND	30	30	30	Bennington	VT	12/31/2013	10/1/2013	Y-25 North, 69 kV line between Searsburg and Benni	NR	Yes	Yes	ISO-NE	BL	WMA
277	3/19/2009	G	9/12/2008	2/13/2009	Combined Cycle	CC	NG DFO	695	695	695	Fairfield	CT	6/1/2013	1/15/2013	CL&P 345 KV 321 line	MIS	No	No			SWC T
278	6/13/2014	ETU	9/26/2008	6/13/2014	Two terminal, 1000 MW , 500 kV, dc line	NA	N/A	0			N/A	MA	3/31/2017	3/31/2017	Maine Yankee Substation, South Boston Substation	N/A	No	No			BOST
280	9/24/2010	G	10/2/2008	9/24/2010	Wind	WT	WND	180	180	180	Coos	NH	9/1/2011	7/1/2011	PSNH W-179 115 kV	CNR	No	No		PD	NH
281	3/31/2010	G	10/6/2008	3/30/2010	Wind	WT	WND	85	85	85	Rutland	VT	9/1/2011	7/1/2011	VELCO 115 kV K34 line	CNR	No	No		BL	VT
282	6/29/2011	G	10/15/2008	6/28/2011	Biomass Project	ST	WDS	49.7	49.7	51.5	Franklin	MA	2/1/2014	11/1/2013	115 kV line near Montage or Fench King substations	CNR	No	No		BL	WMA
283	2/17/2015	ETU	10/20/2008	2/16/2015	1100 MW HVDC Line	NA	N/A	0			N/A	MA	6/30/2017	3/30/2017	Orrington ME and BostonMA	N/A	No	No			BOST
285	8/29/2012	G	10/24/2008	8/29/2012	Gas Turbine	GT	NG	35	35	35	Penobscot	ME	7/31/2014	6/30/2014	BHE Powersville substation	CNR	Yes	No	ISO-NE	PD	BHE

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286	9/30/2009	G	12/5/2008	9/30/2009	Gas Turbine	GT	NG	187.5	187.5	199	Worcester	MA	6/1/2012	2/1/2012	115 kV bus at Millbury substation	MIS	No	No			CMA
290	7/29/2010	G	1/15/2009	7/29/2010	Wind	WT	WND	18	18	18	Oxford	ME	12/30/2010	9/30/2010	CMP Woodstock Substation	CNR	Yes	Yes	ISO-NE	BL	ME
292	2/1/2010	G	1/30/2009	1/26/2010	Biomass Project	ST	WDS	49.7	49.7	51.5	Berkshire	MA	10/1/2013	7/1/2013	Doreen 115 kV substation of F132 115 kV line	CNR	No	No		BL	WMA
294	7/29/2015	G	2/5/2009	5/7/2009	Wind	WT	WND	20	20	20	Washington	RI	6/30/2012	4/30/2012	NGRID 34.5 kV 3302 line	NS	No	No			RI
295	7/29/2015	G	2/9/2009	5/8/2009	Combined Cycle	CC	NG	898	898	1,012	Plymouth	MA	3/1/2015	9/1/2014	345 kV 322 Line	CNR	No	No			SEMA
297	1/11/2012	G	3/25/2009	1/9/2012	Wind	WT	WND	201.6	201.6	201.6	Aroostook	ME	10/1/2013	7/1/2013	MEPCO Line at Haynesville, ME	CNR	No	No		PD	BHE
298	5/12/2009	G	4/15/2009	5/12/2009	Wind Uprate (see QP290)	WT		1.5	1.5	1.5	Oxford	ME	11/30/2010	9/30/2010	CMP Woodstock Station	NR	No	No			ME
302	4/26/2011	G	6/16/2009	4/26/2011	Wind Alternative (see 272)	WT	WND	0	150	150	Aroostook	ME	12/31/2012	9/1/2012	BHE/MEPCO Line	CNR	No	No		PD	BHE
303	8/20/2009	G	6/23/2009	8/18/2009	Biomass	ST	WDS	7.6	7.6	7.6	Cumberland	ME	3/1/2010	2/16/2010	Rigby/Pleasant Hill 34.5 kV Line	NR	No	No			SME
303	9/28/2009	G	6/24/2009	7/10/2009	Biomass	ST		9.5	9.5	9.5	Androscoggin	ME			TBD	NR	No	No			ME
304	9/28/2009	G	7/6/2009	9/16/2009	Biomass	IC	WDS	4.9	4.9	4.9	Cumberland	ME	4/30/2012	1/30/2012	CMP Moshers 34.5 kV	CNR	No	No			SME
305	11/19/2015	G	7/10/2009	10/20/2009	Internal Combustion	IC	DFO	10	15.5	15.5	Dukes	MA	5/31/2013	4/30/2013	NSTAR 23 kV Edgartown0Vineyard Haven Rd Line	CNR	No	No			SEMA
305	7/29/2011	G	7/10/2009	7/29/2011	Wind	WT	WND	66	66	66	Grafton/Merrimack	NH	12/31/2012	10/1/2012	Pemigewassett 115 kV Substation	CNR	No	No		PD	NH
306	8/4/2010	G	7/13/2009	8/4/2010	Hydro	HD	WAT	3.35	3.35	3.35	Hampden	MA	4/1/2014	1/1/2014	HG&E Prospect 24B substation	CNR	No	No			WMA
306	1/18/2013	G	7/13/2009		Overflow #3	HD	WAT	0.5	0.5	0.5	Hampden	MA	11/30/2013	10/31/2013	HG&E Holyoke Substation	CNR	No	No			WMA
307	5/30/2012	G	7/14/2009	5/30/2012	Diesel	IC	DFO	9.13	9.13	9.13	Essex	VT	5/30/2013	4/1/2013	NGRID 34.5 kV Moore/Gilman Line	CNR	Yes	No	ISO-NE	CD	VT
307	9/28/2009	G	7/14/2009	9/10/2009	Wind Expansion	WT	WND	45	45	45	Franklin	ME	10/31/2011	9/1/2011	Section 267	NR	No	No			ME
308	8/8/2011	G	8/28/2009	8/8/2011	Wind	WT	WND	28.8	28.8	28.8	Washington	RI	12/31/2012	9/30/2012	NGRID 3302 Feeder	NR	No	No		CD	RI
309	9/28/2009	G	9/1/2009	9/28/2009	Hydro Uprate	HD	WAT	0.98	34.04	34.04	Lewiston	ME	12/1/2009	11/1/2009	CMP Gulf Island 115 kV	CNR	No	No			ME
310	11/15/2012	G	9/10/2009	11/15/2012	Kibby Wind Expansion	WT	WND	33	33	33	Franklin	ME	10/15/2014	9/1/2014	Section 267 to CMP Bigalow	CNR	Yes	Yes	ISO-NE	PD	ME
312	10/19/2011	G	9/18/2009	10/18/2011	Biomass	ST	WDS	20	20	20	Cheshire	NH	10/30/2013	6/30/2013	PSNH 34.5 kV to Winchester substation	CNR	No	No		CD	NH
314	2/17/2015	ETU	10/16/2009	2/16/2015	400 MW 150 kV HVDC Line	NA	N/A				Colchester	VT	6/1/2018	6/1/2018	NYPA 230.115 kV substation in Plattsburg, NY to near VELCO 345 kV New Haven Substation	N/A	No	No			VT
314	12/3/2009	G	10/16/2009	12/2/2009	Combined Cycle	CC	NG	410	410	455	Plymouth	MA	5/1/2015	12/1/2014	NSTAR 127 and 128 Lines or new 115 kV	CNR	No	No			SEMA
314	1/27/2010	TS	10/16/2009		RNS Application	NA	N/A				Aroostook	ME	12/1/2011		N/A	N/A	No	No			BHE
317	8/22/2011	G	11/4/2009	8/22/2011	Wind	WT	WND	46.8	81	81	Hancock	ME	12/31/2013	10/1/2013	BHE Line 66	CNR	No	No		PD	BHE
319	6/9/2011	G	12/14/2009	6/9/2011	Power Station Increase	ST	NUC	29	1,253	1,260	New London	CT	11/30/2011	11/20/2011	CL&P Millstone 345 kV substation	CNR	No	No		BL	CT
320	11/1/2011	G	12/15/2009	10/31/2011	Combined Cycle Repowering	CC	NG DFO	0	0	0	Fairfield	CT	6/1/2014	1/1/2014	Norwalk Harbor 115 kV station	CNR	No	No		CD	NOR
322	6/29/2011	ETU	12/28/2009	6/29/2011	345 kV Tie Line	NA	N/A				N/A	ME	7/1/2012		Houlton to MEPCO Line	N/A	No	No			BHE
323	7/30/2010	G	1/21/2010	7/29/2010	Wind Increase (see QP290)	WT	WND	2	20	20	Oxford	ME	12/30/2010	9/30/2010	CMP Woodstock Substation	CNR	No	No			ME
324	2/17/2015	ETU	1/22/2010	2/16/2015	345kV Tie Line - Part 1	NA	N/A				N/A	ME	12/1/2016	9/1/2016	Houlton, ME to MEPCO Line	N/A	No	No			BHE
324	2/17/2015	ETU	1/22/2010	2/16/2015	345 kV Tie Line - Part 2	NA	N/A				N/A	ME	12/31/2016	9/1/2016	MEPCO to Bridgewater, ME	N/A	No	No			BHE
325	9/19/2011	G	2/10/2010	9/19/2011	Wind	WT	WND	535.5	535.5	535.5	Washington	RI	12/31/2015	9/30/2014	GRID Brayton Point 345 kV substation	NR	No	No		BL	RI
326	7/19/2010	G	4/8/2010	7/26/2010	Solar	PV	SUN	19.92	19.92	19.92	Hampden	MA	6/1/2012	4/1/2012	GRID 69 kV N-14 Line	CNR	No	No			WMA
327	8/26/2014	G	5/4/2010	8/25/2014	Wind	WT	WND	48	48	48	Penobscot/ Washington	ME	9/1/2016	6/1/2016	BHE Keene Rd Substation	NR	Yes	Yes	ISO-NE	PD	BHE
328	9/5/2013	G	5/6/2010	9/5/2013	Douglas Woods Wind Units 1-11	WT	WND	27.5	27.5	27.5	Worchester	MA	10/1/2014	8/1/2014	GRID 69 kV S19 at E. Webster Substation	NR	Yes	Yes	ISO-NE		WMA

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328	9/5/2013	G	5/6/2010	9/5/2013	Douglas Woods Wind Unit 12	WT	WND	2.5	30	30	Worchester	MA	10/1/2014	8/1/2014	GRID 69 kV S19 at E. Webster Substation	NR	Yes	Yes	ISO-NE		WMA
330	6/9/2015	G	5/10/2010	6/9/2015	Fair Haven Biomass	ST	WDS	33	33	33.3	Rutland	VT	3/30/2016	1/29/2016	CVPS 46 kV Castleton - Fair Haven	NR	Yes	Yes	ISO-NE	BL	VT
334	3/21/2011	G	5/14/2010	3/17/2011	Wind	WT	WND	30	30	30	Hampden	MA	12/31/2012	10/1/2012	Section #175 115kV line from Palmer to Little Rest	CNR	No	No		BL	WMA
335	6/30/2011	G	5/14/2010	6/30/2011	Biomass	ST	WDS	18.1	18.1	18.1	Hancock	ME	3/1/2012	2/1/2012	CMP 115 kV	CNR	Yes	No		CD	ME
339	7/22/2010	G	6/9/2010	7/21/2010	Exciter Upgrades	CC	NG	0	441	492	Providence	RI	3/7/2011	2/13/2011	GRID 115 kV Franklin substation	N/A	No	No			RI
340	3/31/2011	G	6/24/2010	3/28/2011	Biomass	ST	WDS	33	33	33.3	Bennington	VT	3/31/2013	12/31/2012	CVPS East Pownal to Bennington 46 KV line	CNR	No	No		BL	VT
341	11/15/2013	ETU	7/19/2010	11/15/2013	HVDC Line	NA	N/A	0			N/A	MA	12/31/2014	12/31/2014	MEPCO 345kV at Haynesville or MPC 345 kV/NSTAR 345	N/A	No	No			BOST
343	3/21/2012	G	8/10/2010	3/21/2012	Operating change	ST	NUC	0	0	0	Plymouth	MA			NSTAR 342 & 355 Line/345 switchyard	N/A	No	No		BL	SEMA
348	2/17/2015	ETU	10/13/2010	2/16/2015	1090 MW HVDC Tie - Import Only	NA	N/A				N/A	NH	6/1/2018	5/1/2018	HQ Des Cantons substation to PSNH Deerfield substa	N/A	Yes	Yes	NU		NH
350	10/1/2015	G	11/10/2010	11/15/2013	Wind	WT	WND	92.25	92.25	92.25	Washington	ME	12/31/2015	10/1/2015	BHE Washington County 115 kV substation	NR	No	No		PD	BHE
350	10/5/2015	G	11/10/2010	10/5/2015	Wind	WT	WND	96.9	96.9	96.9	Somerset	ME	12/31/2016	10/1/2016	CMP Wyman substation	NR	Yes	No	ISO-NE	PD	ME
353	8/8/2012	G	12/21/2010	8/8/2012	Wind	WT	WND	9.9	9.9	9.9	Plymouth	MA	12/31/2013	11/30/2013	NSTAR 115 kV Valley substation	CNR	Yes	No	ISO-NE	BL	SEMA
353	6/9/2011	G	12/21/2010	6/7/2011	Wind	WT	WND	14.9	14.9	14.9	Barnstable	MA	11/30/2012	10/31/2012	NSTAR 115 kV Valley substation	CNR	No	No			SEMA
354	2/7/2011	G	1/12/2011	2/4/2011	Combined Cycle Increase	CC	NG DFO	20.2	157.3	185.2	Berkshire	MA	4/1/2011		WMECO Doreen 19A Substation	CNR	No	No			WMA
355	12/4/2012	ETU	1/27/2011	12/4/2012	HVDC Tie	NA	N/A				N/A		6/30/2016		UI Singer 345 kV substation to LIPA Pt Jefferson 1	N/A	No	No			
358	10/6/2011	G	3/4/2011	10/5/2011	Hydro	HD	WAT	2.27	2.27	2.27	Penobscot	ME	8/15/2012	8/1/2012	BHE Stillwater 12.5 kV substation	CNR	No	No			BHE
358	4/12/2011	G	3/4/2011	4/11/2011	Hydro	HD	WAT	3.86	3.86	3.86	Penobscot	ME	8/15/2012	8/1/2012	BHE Orono 12.5 kV substation	CNR	No	No			BHE
361	5/19/2014	G	3/14/2011	5/19/2014	Grandpas Knob Wind	WT	WND	20	20	20	West Rutland	VT	12/31/2016	9/30/2016	VELCO W Rutland 115 kV Substation	NR	Yes	Yes	ISO-NE	BL	VT
363	7/29/2011	G	3/31/2011	7/29/2011	Solar	PV	SUN	6	6	6	Bristol	MA	12/31/2012	9/30/2012	NSTAR 115 kV or 13.2 kV	CNR	No	No			SEMA
364	5/26/2011	G	4/7/2011	5/18/2011	Solar	PV	SUN	4.92	4.92	4.92	Hampden	MA	3/31/2012	3/1/2012	GRID 69kV N-14 Line	CNR	No	No			WMA
368	6/10/2014	G	5/27/2011	8/23/2011	Wind	WT	WND	10	10	10	Hillsborough	NH	9/30/2012	9/1/2012	PSNH 7.2 kV to Milford Substation	CNR	No	No			NH
368	7/25/2013	G	5/27/2011	7/25/2013	Wind	WT	WND	16.1	16.1	16.1	Hillsborough	NH	10/31/2014	10/1/2014	PSNH 34.5 kV to Monadnock substation	CNR	Yes	Yes	ISO-NE	CD	NH
369	11/29/2011	G	6/8/2011	11/28/2011	Combined Cycle	CC	NG	745	745	775	Fairfield	CT	6/1/2016	1/1/2016	NU 345 kV Line	CNR	No	No			NOR
371	8/6/2013	G	8/1/2011	8/6/2013	Wind	WT	WND	33	33	33	Hillsborough	NH	7/31/2015	6/30/2015	PSNH L163 115 kV	CNR	Yes	Yes	ISO-NE	PD	NH
373	9/21/2012	G	8/12/2011	9/21/2012	CC Administrative Increase	CC	NG DFO	0	478	550	Hampden	MA			WMECO Ludlow 19S substation	CNR	No	No			WMA
374	1/28/2014	G	8/24/2011	12/4/2013	Brayton Pt. 2 Exciter Replacement	ST	BIT	0	0	0	Bristol	MA	5/30/2014	5/22/2014	GRID 345 kV Brayton Pt Switchyard	CNR	Yes	Yes	ISO-NE	BL	RI
375	9/27/2013	G	9/7/2011	9/27/2013	Wind	WT	WND	80	80	80	Merrimack/ Grafton	NH	12/31/2014	9/30/2014	GRID Comerford/Merrimack 230 kV Line	CNR	No	No		BL	NH
378	11/15/2013	ETU	10/18/2011	11/15/2013	HVDC Line	NA	N/A	0			N/A	MA	12/31/2015	12/31/2015	MEPCO 345 kV at Haynesville or MPC 345 KV/GRID 115	N/A	No	No			BOST
379	9/2/2014	G	10/19/2011	8/12/2014	CornerStone Power Monson 2	PV	SUN	4.92	4.92	4.92	Hampden	MA	11/1/2014	10/15/2014	GRID 69 kV N14 Line	NR	Yes	Yes	ISO-NE	BL	WMA
379	9/2/2014	G	10/19/2011	8/12/2014	CornerStone Power Monson 3	PV	SUN	4.92	4.92	4.92	Hampden	MA	11/1/2014	10/15/2014	GRID 69 kV N14 Line	NR	Yes	Yes	ISO-NE	BL	WMA
380	2/17/2015	ETU	11/10/2011	2/16/2015	1000 MW HVDC Line	NA	N/A				N/A	MA	6/1/2020	1/1/2020	NSTAR Carver 345 kV	N/A	No	No			SEMA
380	2/17/2015	ETU	11/10/2011	2/16/2015	1000 MW HVDC Line	NA	N/A				N/A	MA	6/1/2020	1/1/2020	NSTAR Barnstable 345 kV	N/A	No	No			SEMA
381	10/21/2013	G	11/14/2011	10/21/2013	Wind	WT	WND	11.9	11.9	11.9	Lincoln	ME	9/15/2017	9/1/2017	CMP 34.5 kV Boothbay Substation	CNR	Yes	No	CMP	BL	ME
382	11/20/2012	G	12/5/2011	11/20/2012	Wind	WT	WND	79.86	79.86	79.86	Oxford	ME	10/31/2014	7/31/2014	CMP 115 kV Rumford to Livermore Line	CNR	No	No		PD	ME

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383	7/26/2013	G	12/22/2011	7/26/2013	Wind	WT	WND	198	198	198	Franklin	ME	10/31/2016	10/31/2015	CMP Roxbury substation	CNR	No	No		PD	ME
385	5/21/2014	G	1/6/2012	5/21/2014	Wind	WT	WND	60	60	60	Calendonia and Essex	VT	12/1/2015	9/1/2015	VELCO 115 kV Lyndonville substation	CNR	No	No		PD	VT
387	3/26/2013	G	1/13/2012	3/22/2013	Gas Turbine Increase	GT	NG	13.5	250	250	New Haven	CT	2/28/2013	2/28/2013	CMEEC 115kV Wallingford Substation		No	Yes			SWC T
388	3/26/2013	G	1/13/2012	3/19/2013	Combined Cycle	CC	NG	680	680	700	Fairfield	CT	5/31/2016	3/1/2016	UI 115 kV or 345 kV		No	No		PD	SWC T
389	3/23/2012	G	1/17/2012	3/23/2012	Solar	PV	SUN	5.04	5.04	5.04	Fairfield	CT	5/31/2013	3/31/2013	CL&P 115 kV Norwalk Harbor Substation	CNR	No	No			NOR
392	7/23/2012	G	3/28/2012	7/11/2012	Wind	WT	WND	2.7	2.7	2.7	Coos	NH	10/29/2012	10/15/2012	PSNH 12.47 kV	CNR	No	No			NH
393	10/28/2015	G	5/7/2012	10/28/2015	Wind	WT	WND	84	84	84	Somerset	ME	11/1/2016	10/1/2016	CMP 115 kV W. S. Wyman Hydro Substation	NR	No	No		PD	ME
395	10/24/2012	G	7/30/2012	10/24/2012	Solar	PV	SUN	2.18	2.18	2.18	Windham	VT	6/1/2013	5/15/2013	CVPS 46 kV	CNR	No	No			VT
399	2/27/2013	G	10/1/2012	2/27/2013	Wind Increase	WT	WND	1.2	34.2	34.2	Franklin	ME	8/15/2014	6/2/2014	CMP Ludden Lane Substation	CNR	No	No			ME
401	12/11/2014	G	10/5/2012	8/14/2014	Wind	WT	WND	19.8	19.8	19.8	Washington	ME	12/31/2014	11/30/2014	BHE Epping 115 kV substation or BHE 34.5 kV	CNR	No	No		PD	BHE
408	3/23/2016	G	2/28/2013	3/17/2016	Gas Turbine	GT	NG DFO	207.7	207.7	204.4	Middlesex	MA	5/31/2018	2/1/2018	NSTAR 345 kV Mystic Station	NR	Yes	No		PD	BOST
409	3/2/2015	G	2/28/2013	3/2/2015	Gas Turbine	GT	NG DFO	207.7	207.7	204.4	Norfolk	MA	5/31/2018	2/1/2018	NSTAR 230 kV W. Medway Station	CNR	No	No		BL	BOST
410	9/2/2014	G	2/28/2013	8/25/2014	Wind CNR	WT	WND	0	48	48	Peneobscot /Washingto n	ME	8/1/2016	6/1/2016	BHE Keene Rd	CNR	No	No			BHE
413	2/17/2015	ETU	3/4/2013	2/16/2015	Keene Rd ETU	NA	N/A		0	0	Penobscot	ME	3/1/2016	11/1/2015	BHE Keene Road Substation	N/A	No	No			BHE
416	11/12/2013	G	4/23/2013	7/17/2013	Wind	WT	WND	18	18	18	Coos	NH	4/30/2017	4/12/2017	Pontook Hydro	CNR	No	No			NH
418	2/14/2014	G	5/1/2013	2/14/2014	Biomass	ST	DFO WDS	37	37	37	Windsor	VT	8/30/2015	6/30/2015	GMP L97 Line	CNR	No	No		BL	VT
419	7/3/2014	G	5/2/2013	7/2/2014	Wind	WT	WND	33	33	33	Franklin	ME	11/1/2016	10/1/2016	CMP 115 kV Bigalow Substation	NR	No	No		PD	ME
423	3/12/2014	G	9/10/2013	3/12/2014	Wind	WT	WND	74.29	74.29	74.29	Merrimack/ Grafton	NH	12/31/2016	10/1/2016	A201 Comerford - North Litchfield 230 kV line	CNR	No	No			NH
424	11/6/2013	G	9/11/2013	11/5/2013	Hydro Increase	HW	WAT	0.1	0.65	0.65	Hampden	MA	1/1/2014	1/1/2014	HGE 115 kV North Canal substation	CNR	No	No			WMA
425	2/17/2015	ETU	9/23/2013	2/16/2015	1000 MW HVDC Tie V1	NA	N/A				Windsor	VT	12/31/2018	10/31/2018	HQ 735 kV substation to Velco 345 kV Coolidge substation	N/A	No	No			VT
426	2/17/2015	ETU	10/15/2013	2/16/2015	1000 MW HVDC Tie V2 (See Q425)	NA	N/A				Rutland	VT	12/31/2018	10/31/2018	HQ 735 kV substation to Velco 345 kV W. Rutland Substation	N/A	No	No			VT
427	2/17/2015	ETU	10/15/2013	2/16/2015	1000 MW HVDC Tie V3 (See Q425)	NA	N/A				Addison	VT	12/31/2018	10/31/2018	HQ 735 kV substation to Velco 345 kV New Haven substation	N/A	No	No			VT
428	2/17/2015	ETU	11/15/2013	2/16/2015	1200 MW AC to HVDC Tie	NA	N/A				Middlesex	MA	3/31/2019	1/1/2019	NB 345 Keswick or St. Andre substation to GRID 345 kV Wakefield substation	N/A	No	No			BOST
429	1/10/2014	G	12/2/2013	1/10/2014	Offshore Wind	WT	WND	12	12	12	Lincoln	ME	11/6/2017	10/2/2017	Central Maine Power, Bristol Substation, Bristol Maine	NR	No	No			ME
430	2/17/2015	ETU	1/13/2014	2/16/2015	Coos ETU	NA	N/A				Coos	NH	7/1/2016	7/1/2016	TBD	N/A	No	No			NH
431	1/29/2014	TS	1/14/2014	1/28/2014	Local Transmission Service - 99 MW	NA	N/A	0	0	0	Coos	NH	1/1/2015	1/1/2015	NA	N/A	No	No			NH
434	2/17/2015	ETU	1/29/2014	2/16/2015	Expand Interface	NA	N/A				Aroostook	ME	11/1/2017	9/1/2017	TBD	N/A	No	No			BHE
436	11/7/2014	G	2/5/2014	11/7/2014	Gas Turbine (alt. to QP412)	GT	DFO NG	0	335	335	Fairfield	CT	5/31/2018	2/1/2018	345 kV generator side connection to the transmission grid.	CNR	Yes	No	ISO-NE	PD	SWC T
439	2/12/2015	G	2/24/2014	2/12/2015	Simple Cycle	GT	NG	478	478	483	Essex	MA	5/1/2018	1/1/2018	GRID Ward Hill – Tewksbury 345 kV line, approximately 1.8 miles from the Ward Hill	CNR	No	No			CMA
442	12/29/2015	G	2/26/2014	12/28/2015	Combined Cycle	CC	DFO NG	387.9	387.9	422.1	Hampden	MA	3/1/2019	6/1/2018	115kV Line 1302 between Buck Pond and Pochassic substations, approximately 1 mile south of Buck Pond.	CNR	Yes	Yes	ISO-NE		WMA
445	3/2/2015	G	3/4/2014	3/2/2015	Gas Turbine	GT	DFO NG	103.5	103.5	103.5	Norfolk	MA	5/31/2018	2/1/2018	Edgar 115 kV Station	CNR	No	No		PD	SEMA
446	4/1/2014	G	3/4/2014	3/31/2014	Gas Turbine	GT	DFO NG	47.5	59.5	59.5	Chittenden	VT	5/31/2018	3/31/2018	Gorge substation, No. 16, Breaker 3320.	CNR	No	No			VT

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448	6/11/2014	G	3/4/2014	6/11/2014	Fuel Cell	FC	NG	5.6	5.6	5.6	New London	CT	5/31/2018	5/1/2018	NU/CL&P Montville substation, 4160V station service bus	CNR	No	No			CT
450	5/21/2014	G	3/4/2014	5/21/2014	Combustion Turbine	GT	DFO	245	245	245	Fairfield	CT	5/31/2018	5/1/2018	NU/CL&P Norwalk Harbor 115kV Substation	CNR	No	No			NOR
451	5/21/2014	G	3/4/2014	5/21/2014	Combined Cycle	CC	DFO NG	100	345	345	Fairfield	CT	5/31/2018	5/1/2018	NU/CL&P Norwalk Harbor 115kV substation	CNR	No	No			NOR
452	6/21/2016	G	3/4/2014	6/17/2016	Wind	WT	WND	85	85	85	Somerset	ME	12/30/2018	11/30/2018	Harris substation near the Town of Jackman and Misery Township Somerset County, Maine	NR	No	No		PD	ME
453	6/11/2014	G	3/31/2014	6/11/2014	Offshore Wind	WT	WND	10	10	10	Lincoln	ME	11/13/2017	9/11/2017	CMP Bristol Substation, Bristol Maine	NR	No	No			ME
454	6/21/2016	G	4/7/2014	6/17/2016	Wind Increase (see Q452)	WT	WND	0.8	85.8	85.8	Somerset	ME	12/30/2018	11/30/2018	Harris substation near the Town of Jackman and Misery Township Somerset County, Maine	NR	No	No		PD	ME
455	2/17/2015	ETU	4/17/2014	2/16/2015	1000 MW HVDC Tie	NA	N/A				Windsor	VT	12/31/2017	12/31/2017	HQ to VELCO 345 kv Coolidge substation	N/A	No	No			VT
456	2/13/2015	ETU	4/17/2014	2/12/2015	1200 MW HVDC Tie	NA	N/A				Middlesex	MA	12/31/2017	12/31/2017	HQ to NSTAR 345 kV Mystic substation	N/A	No	No			BOST
457	11/19/2014	ETU	4/17/2014	11/18/2014	500 MW HVDC Tie	NA	N/A				Chittenden	VT	12/31/2017	12/31/2017	HQ to VELCO 115 kV Essex substation	N/A	No	No			VT
463	2/17/2015	ETU	4/30/2014	2/16/2015	425 MW HVDC Tie	NA	N/A				Franklin	VT	6/30/2018	1/30/2018	HQ to VELCO Williston 115 kV substation	N/A	No	No			VT
464	2/17/2015	ETU	5/12/2014	2/16/2015	1000 MW HVDC	NA	N/A				Suffolk	MA	6/30/2019	1/30/2019	NMISA to NSTAR K Street 345 kV substation	N/A	No	No			BOST
465	2/17/2015	ETU	5/13/2014	2/16/2015	425 MW HVDC Tie	NA	N/A				Addison	VT	6/30/2018	1/30/2018	VELCO 345 kV New Haven substation	N/A	No	No			VT
466	2/17/2015	ETU	5/14/2014	2/16/2015	AC Tie	NA	N/A				Aroostook	ME	7/31/2016	2/28/2016	NMISA to Emera Keene Rd Substation	N/A	No	No			BHE
472	12/29/2015	G	6/20/2014	12/28/2015	Combined Cycle Increase	CC	DFO NG	22	409.9	441.1	Hampden	MA	3/1/2019	6/1/2018	115kV Line 1302 between Buck Pond and Pochassic substations, approximately 1 mile south of Buck Pond	CNR	Yes	Yes	ISO-NE		WMA
473	7/21/2014	TS	6/30/2014	7/21/2014	RNS Application	NA	N/A	0	0	0	Norfolk	MA	1/1/2017	1/1/2017	NU 115 kV	N/A	No	No			BOST
474	4/10/2015	G	8/1/2014	4/9/2015	CNR Increase	CC	NG	0	1,600	1,700	Middlesex	MA	5/31/2016	5/30/2016	Mystic 115 and 345 kV Stations	CNR	No	No			BOST
475	2/17/2015	ETU	8/14/2014	2/16/2015	600 MW HVDC Tie	NA	N/A				Berkshire	MA	12/30/2019	9/30/2019	Alps Sub in NY to WMECO Berkshire Sub in MA	N/A	No	No			WMA
476	6/21/2016	G	8/29/2014	6/17/2016	Wind	WT	WND	52.8	52.8	52.8	Penobscot/ Washington	ME	10/1/2017	9/1/2017	Emera Maine (Bangor Hydro) Keene Road Substation (Connecting through Evergreen Gen Lead, LLC Line 56)	CNR	No	No		PD	BHE
479	11/19/2014	G	10/17/2014	11/18/2014	Combined Cycle Increase	CC	NG	33	754	838	Rockingham	NH	3/8/2015	3/7/2015	Watts Brook, North Litchfield	CNR	No	No			NH
480	2/23/2015	ETU	11/13/2014	2/12/2015	1000 MW HVDC Tie	NA	N/A				Suffolk	MA	12/31/2017	10/31/2017	HQ to NSTAR K Street 115 kV substation	N/A	No	No			BOST
482	1/8/2015	G	11/18/2014	1/8/2015	Hydro	HD	WAT	1.32	1.32	1.32	Rutland	VT	12/12/2014	12/11/2014	GMP Power Circuit 85G2 from Ryegate Paper Substation No. 85.	CNR	No	No			VT
485	4/27/2015	G	12/10/2014	4/23/2015	Combined Cycle	CC	DFO NG	837	837	844	Hampden	MA	6/1/2019	9/1/2018	Ludlow 19S Substation, Ludlow, MA	CNR	No	No			WMA
488	10/16/2015	G	12/22/2014	10/16/2015	Wind	WT	WND	73.5	73.5	73.5	Windham	VT	12/31/2019	10/1/2019	VELCO Coolidge - Vermont Yankee 345 kV line	CNR	No	No			VT
493	2/17/2015	ETU	2/12/2015	2/16/2015	1000 MW HVDC - bidirectional	NA	N/A				Middlesex	MA	12/31/2018	9/1/2018	CMP 345 kV ME Yankee to NSTAR 345 kV Mystic	N/A	No	No			BOST
494	2/17/2015	ETU	2/12/2015	2/16/2015	1000 MW HVDC - bidirectional	NA	N/A				Suffolk	MA	12/1/2018	9/1/2018	CMP 345 kV ME Yankee to NSTAR 115 kV K Street	N/A	No	No			BOST
495	2/17/2015	ETU	2/13/2015	2/16/2015	1200 MW HVDC Tie - Import Only	NA	N/A				Rockingham	NH	12/1/2018	9/1/2018	HQ Des Cantons substation to PSNH Deerfield Substation	N/A	No	No			NH
502	4/17/2015	ETU	2/16/2015	4/17/2015	345 kV Tie - Phase 1	NA	N/A	200	200	200	Aroostook	ME	12/1/2016	12/1/2016	Houlton, ME to MEPCO 396 Line	N/A	No	No			BHE
502	4/17/2015	ETU	2/16/2015	4/17/2015	345 kV Tie - Phase 2	NA	N/A	0	0	0	Aroostook	ME	12/1/2016	12/1/2016	Bridgewater, ME to MEPCO 396 Line	N/A	No	No			BHE
503	4/15/2015	ETU	2/16/2015	4/15/2015	HVDC Tie - Import only	NA	N/A	1,000	1,000	1,000	Rutland	VT	12/31/2018	10/31/2018	HQ 735 kV substation to VELCO 345 kV W. Rutland substation	CNI	No	No			VT
504	4/15/2015	ETU	2/16/2015	4/15/2015	HVDC Tie - Import only	NA	N/A	1,000	1,000	1,000	Addison	VT	12/31/2018	10/31/2018	HQ 735 kV substation to VELCO 345 kV New Haven substation	CNI	No	No			VT
505	4/17/2015	ETU	2/16/2015	4/17/2015	HVDC Tie - Import only	NA	N/A	1,000	1,000	1,000	Windsor	VT	12/31/2017	12/31/2017	HQ to VELCO 345 kV Coolidge substation	CNI	No	No			VT
509	4/17/2015	ETU	2/16/2015	4/17/2015	HVDC Line	NA	N/A	1,100	1,100	1,100	Middlesex	MA	6/30/2017	3/30/2017	Orrington substation to NGRID Tewksbury substation	N/A	No	No			BOST

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510	4/15/2015	ETU	2/16/2015	4/15/2015	HVDC Line	NA	N/A	1,000	1,000	1,000	Plymouth	MA	6/1/2020	6/1/2020	NSTAR 345 kV Carver substation	N/A	No	No			SEMA
511	4/15/2015	ETU	2/16/2015	4/15/2015	HVDC Line	NA	N/A	1,000	1,000	1,000	Barnstable	MA	6/1/2020	6/1/2020	NSTAR 345 kV Barnstable substation	N/A	No	No			SEMA
512	4/17/2015	ETU	2/16/2015	4/17/2015	AC to HVDC Tie	NA	N/A	1,200	1,200	1,200	Middlesex	MA	3/31/2019	1/1/2019	NB 345 kV Keswick or St. Andre substation to NGRID 345 kV Wakefield substation	CNI	No	No			BOST
513	4/17/2015	ETU	2/16/2015	4/17/2015	Coos ETU	NA	N/A				Coos	NH	7/1/2016	7/1/2016	PSNH Coos area transmission	N/A	No	No			NH
514	4/17/2015	ETU	2/16/2015	4/17/2015	Expand NB/NE Interface	NA	N/A	350	350	350	Aroostook	ME	11/1/2017	9/1/2017	NB to ME interface	CNI	No	No			BHE
515	4/15/2015	ETU	2/16/2015	4/15/2015	HVDC Tie - Import only	NA	N/A	425	425	425	Franklin	VT	6/30/2018	1/30/2018	HQ to VELCO Williston 115 kV substation	CNI	No	No			VT
516	4/15/2015	ETU	2/16/2015	4/15/2015	HVDC Tie - Import only	NA	N/A	425	425	425	Addison	VT	6/30/2018	1/30/2018	HQ to VELCO 345 kV New Haven substation	CNI	No	No			VT
517	7/9/2015	ETU	2/16/2015	7/9/2015	HVDC from S. Maine to Mystic - bidirectional flow	NA	N/A	1,000	1,000	1,000	Middlesex	MA	12/31/2018	11/1/2018	CMP 345 kV ME Yankee substation to NSTAR 345 kV Mystic substation	N/A	No	No		PD	BOST
518	7/9/2015	ETU	2/16/2015	7/9/2015	HVDC from S. Maine to K Street - bidirectional fl	NA	N/A	1,000	1,000	1,000	Suffolk	MA	12/1/2018	11/1/2018	CMP 345 kV ME Yankee substation to NSTAR 115 kV K Street substation	N/A	No	No		PD	BOST
519	8/18/2015	ETU	2/16/2015	8/18/2015	HVDC/AC Tie - Import only	NA	N/A	1,200	1,200	1,200	Rockingham	NH	4/30/2019	3/30/2019	HQ Des Cantons substation to PSNH Deerfield substation	CNI	No	No		PD	NH
520	3/10/2016	G	2/17/2015	3/10/2016	Simple Cycle gas turbine	GT	DFO NG	109.8	109.8	109.8	Fairfield	CT	5/2/2018	4/4/2018	Eversource Energy 115 kv Line Middle River Substation 28M	CNR	No	No		PD	SWCT
521	3/10/2016	G	2/17/2015	3/10/2016	Combustion Turbine	GT	DFO NG	109.8	109.8	109.8	Fairfield	CT	5/2/2018	4/4/2018	CL&P (Eversource) 115 kV Middle River Substation	CNR	No	No		PD	SWCT
523	9/14/2015	G	2/23/2015	9/11/2015	Combustion Turbine	GT	DFO NG	226.5	226.5	233.5	Providence	RI	5/1/2019	1/1/2019	Both National Grid 345kV lines 328 and 332 south of the Rhode Island State Energy project	CNR	No	No		PD	RI
524	3/31/2015	G	2/23/2015	3/31/2015	Combustion Turbine (Alt to Q523)	GT	DFO NG	0	226.5	233.5	Providence	RI	5/1/2019	1/1/2019	Both National Grid 115kV lines S171 and T172 south of the Rhode Island State Energy tap.	CNR	No	No			RI
526	9/29/2016	G	2/26/2015	9/28/2016	Combined Cycle Upgrade #1	CC	NG	40.58	189.58	200.73	Worcester	MA	10/8/2018	9/24/2018	Milford Power Switch DS-F3 115kV (Nat Grid # D-130-3) and Milford Power Switch DS-A3 115kV (Nat Grid # C-129-3)	CNR	Yes	No	ISO-NE	PD	CMA
528	9/29/2016	G	2/26/2015	9/28/2016	Combined Cycle Upgrate #3	CC	NG	30	249.58	260.73	Worcester	MA	10/8/2018	9/24/2018	Milford Power Switch DS-F3 115kV (Nat Grid # D-130-3) and Milford Power Switch DS-A3 115kV (Nat Grid # C-129-3)	CNR	Yes	No	ISO-NE	PD	CMA
532	6/2/2016	G	2/27/2015	6/1/2016	wind	WT	WND	17.4	17.4	17.4	Franklin	VT	9/15/2016	9/1/2016	GMP 34.5 kV Line between North St. Albans and Sheldon Springs Substations. State Route 105, Swanton, Vermont	CNR	No	No			VT
536	12/10/2015	G	2/27/2015	12/10/2015	Wind	WT	WND	4.98	4.98	4.98	Orleans	VT	9/13/2016	9/1/2016	GMP Line 14 between Irasburg and Lowell Substations approximately 3.6 miles from Irasburg Substation adjacent to Kidder Hill Road	CNR	No	No			VT
538	4/27/2016	G	3/2/2015	4/27/2016	Internal Combustion	IC	NG	119.4	119.4	119.4	Newport	RI	5/31/2019	4/30/2019	Near Bell Rock and Somerset on NGRID 115kV lines L14 and M13. Adjacent to existing Tiverton combined cycle generator, possibly associated with existing tap.	CNR	No	No		PD	RI
541	2/17/2016	G	3/2/2015	2/16/2016	Combined cycle (alt to Q442/472)	CC	DFO NG	431	431	452	Hampden	MA	3/1/2019	6/1/2018	115kV Line 1302 between Buck Pond and Pochassic substations, approximately 1 mile south of Buck Pond	CNR	No	No			WMA
542	4/18/2016	G	3/2/2015	4/18/2016	combustion turbine	GT	DFO NG	97	97	97	Norfolk	MA	2/1/2018	12/1/2017	NSTAR 115kV Edgar substation	CNR	No	No		PD	SEMA
548	5/20/2016	G	5/28/2015	5/19/2016	Combined Cycle	CC	DFO NG	870	870	893	Plymouth	MA	5/1/2020	1/2/2020	interconnection between Carver and Tremont substations (NSTAR 115kV Lines 127/128 and 134): ALT connection 345kV Carver substation	CNR	No	No		BL	SEMA
549	7/13/2015	G	5/28/2015	7/9/2015	Combined Cycle	CC	DFO NG	870	870	893	Newport	RI	5/1/2020	1/2/2020	interconnection on NGRID 115kV M13 & L14 lines connecting to Somerset and Bell Rock substations	CNR	No	No		PD	RI
550	8/4/2015	G	6/12/2015	8/4/2015	Solar	PV	SUN	19.9	19.9	19.9	Franklin	VT	12/1/2016	11/15/2016	115 kV Highgate Sub	CNR	No	No			VT
551	8/4/2015	G	6/12/2015	8/4/2015	Solar	PV	SUN	19.9	19.9	19.9	Windsor	VT	12/1/2016	11/15/2016	115kV Coolidge sub	CNR	No	No			VT
553	8/28/2015	G	6/12/2015	8/28/2015	Solar	PV	SUN	19.9	19.9	19.9	Franklin	ME	12/1/2016	11/15/2016	115 kV Sturtevant sub	CNR	No	No		PD	ME
564	2/24/2016	G	9/4/2015	2/24/2016	Solar	PV	SUN	19.9	19.9	19.9	Franklin	VT	12/1/2016	11/15/2016	115 kV Highgate Substation	CNR	No	No		PD	VT
566	4/18/2016	G	9/9/2015	4/15/2016	Solar	PV	SUN	19.9	19.9	19.9	Rutland	VT	12/1/2016	11/1/2016	VELCO Florence Substation - 46 kV	CNR	No	No		PD	VT

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Withdrawn Projects as of 12/1/2016

FERC Jurisdictional Administered Transmission System

QP	Updated	Type	Requested	W/D Date	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
567	9/21/2015	G	9/11/2015	9/21/2015	Solar	PV	SUN	196	196	196	Franklin	VT	7/1/2017	6/15/2017	VELCO Highgate Substation - 345 kV Bus	CNR	No	No			VT
579	4/21/2016	G	11/25/2015	4/21/2016	Energy Center	OT	NG OTH	570.1	570.1	569.6	Cheshire	NH	6/1/2020	3/1/2020	Eversource (PSNH) 379 line crossing Forest Lake Road (POI will be south of Forest Lake Road), which is in close proximity to the Project site.	CNR	No	No		PD	VT
580	5/18/2016	G	11/30/2015	5/17/2016	Combined Cycle	CC	DFO NG	1,020	1,020	1,030	Worcester	MA	5/31/2020	1/15/2020	Anticipated interconnection is the National Grid 345kV line 366 between the West Farnum and Millbury substations, and/or the Eversource 345kV line 3361 between Sherman Rd and Blackstone.	CNR	No	No		PD	CMA
587	9/29/2016	G	1/7/2016	9/28/2016	Solar	PV	SUN	98	98	98	Cheshire	NH	7/1/2018	6/15/2018	115 kV Eversource Fitzwilliam Substation	CNR	No	No		PD	VT
608	5/24/2016	G	4/22/2016	5/24/2016	Combined Cycle GT	CC	NG WO	68.01	68.01	69.5	Bristol	MA	5/1/2020	12/31/2019	Located at current Cleary node 375,376 interconnected with National Grid s-8 and v-5 line, SEMA load zone.	CNR	No	No		PD	SEMA
609	6/3/2016	G	4/22/2016	6/3/2016	Gas Turbine Upgrade	GT	DFO	23.52	162	162	New Haven	CT	5/31/2020	4/21/2020	POI is the CL&P Devon 115kv Substation	CNR	No	No		PD	CT
613	7/14/2016	G	6/28/2016	7/13/2016	Solar	PV	SUN	63	63	63	Windham	CT	7/1/2018	6/15/2018	Killingly to Tunnel 115 kV line	CNR	No	No		PD	CT
614	7/14/2016	G	6/28/2016	7/13/2016	Solar	PV	SUN	78.4	78.4	78.4	Franklin	ME	7/1/2018	6/15/2018	CMP Sturtevant Substation - 115 kV	CNR	No	No		PD	ME
615	7/14/2016	G	6/28/2016	7/13/2016	Solar	PV	SUN	78.4	78.4	78.4	Cheshire	NH	7/1/2018	6/15/2018	Mondanock to Ashburnham Eversource 115 kV line	CNR	No	No		PD	VT
616	7/14/2016	G	7/1/2016	7/13/2016	Solar	PV	SUN	19.9	19.9	19.9	Windsor	VT	7/1/2017	6/15/2017	115 kV Cooolidge Substation	CNR	No	No		PD	VT

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Withdrawn Projects as of 12/1/2016

Non-FERC Jurisdictional / Affected System

QP	Updated	Type	Requested	W/D Date	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
74	2/22/2011	G	7/24/2000	2/22/2011	South Norwalk Repowering	IC	NG DFO	48.9	48.9	48.9	Fairfield	CT	6/1/2011	4/15/2011	Norwalk 115 kV Substation	N/A	Yes	Yes	ISO-NE		NOR
109	12/31/2008	G	6/12/2003	12/31/2008	AWT Fitchburg Wind Project	WT	WND	12			Worcester	MA	10/1/2004		Ashburnham No. 610 - 13.8 kV	MIS	No	No			WMA
116	6/11/2012	G	11/10/2003		East Haven Wind Farm	WT	WND	6			Essex	VT	10/30/2012		Village of Lyndonville Elec. Dept. Distribution Sy	N/A	No	No			VT
153	10/8/2007	G	5/30/2006		Fuel Cell	FC	NG		8	8	Fairfield	CT	5/31/2007	5/31/2007	CL&P Cedar Heights Substation	MIS	No	No			SWCT
155	2/11/2009	G	6/16/2006		Fuel Cell	FC	NG	14.4	14.4	14.4	Fairfield	CT	6/1/2009	6/1/2009	UI Pequonnock Substation	MIS	No	No			SWCT
161	3/28/2007	G	7/17/2006		Combustion Turbine	CT	NG					CT	4/30/2008		CL&P Rocky River Substation	MIS	No	No			SWCT
167	2/11/2009	G	8/10/2006		Fuel Cell	FC	NG	16	16	16	New Haven	CT	12/31/2009	12/31/2009	CL&P Cherry Street 13 kV substation	MIS	No	No			SWCT
168	10/1/2009	G	8/11/2006	9/16/2009	Wind Project-Phase 2(MPS Queue # 2&3)	WT	WND		250	250	N/A		9/30/2012		Maine Public Service System, upgrades include tap	MIS	No	No	MPS		
168	10/1/2009	G	8/11/2006	9/16/2009	Wind Project-Phase 3(MPS Queue # 4)	WT	WND		250	250	N/A		9/30/2011		Maine Public Service System, upgrades include tap		No	No	MPS		
187	2/11/2009	G	12/5/2006	1/27/2009	Fuel Cell	FC	NG	28.9	28.9	28.9	Fairfield	CT	6/1/2009	6/1/2009	UI Congress substation	MIS	No	No			SWCT
200	8/12/2013	G	2/21/2007	8/7/2013	Wind Project	WT	WND	34	34	34	Coos	NH	11/1/2014	8/1/2014	New Hampshire Electric Coop 34.5 kV line	N/A	No	No			NH
203	7/1/2009	G	3/20/2007	7/1/2009	Landfill Gas	IC	LFG	6.3	6.3	6.3	Coos	NH	12/31/2008	12/31/2008	34.5 kV feeder from Littleton	MIS	No	No			NH
225	8/20/2010	G	9/4/2007		Wind Project-Phase 1(MPS Queue # 6)	WT	WND	53.4	255	255	N/A		9/1/2010		Maine Public Service System, upgrades include tap	N/A	No	No	N/A		
254	9/3/2015	G	3/25/2008	9/2/2015	Wind Project	WT	WND	12.5	12.5	12.5	Berkshire	MA	11/30/2016	10/31/2016	WMECO Berkshire substation 23 kV circuit	N/A	No	No			WMA

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Non-FERC Jurisdictional / Affected System

QP	Updated	Type	Requested	W/D Date	Alternative Name	Unit	Fuel Type	Net MW	SumMW	WinMW	County	ST	OpDate	SyncDate	Interconnection Point	Serv	SIS	I39	TO Report	Dev	Zone
255	11/13/2012	G	3/31/2008		Distribution Wind Alternative	WT	WND	2	50	50	Grafton	NH	12/31/2012	10/1/2012	PSNH Ashland 34.5 kV	N/A	No	No			NH
256	3/26/2013	G	4/4/2008	3/2/2013	Steam Turbine	ST	WDS	20	20	20	Merrimack	NH	3/31/2013	12/30/2012	Unitil 34.5kV line from PSNH Garvins station to UE	N/A	No	No			NH
257	9/16/2013	G	4/14/2008	9/3/2013	Wind Project-Phase 4(MPS Queue # 8)	WT	WND	250	250	250	N/A	ME	9/1/2013		Maine Public Service System, upgrades include tap	N/A	No	No	MPS		BHE
257	9/16/2013	G	4/14/2008	9/3/2013	Wind Project-Phase 5(MPS Queue # 9)	WT	WND	150	150	150	N/A	ME	9/1/2013	9/3/2013	Maine Public Service System, upgrades include tap	N/A	No	No	MPS		BHE
264	7/10/2008	G	6/4/2008	7/10/2008	Landfill Gas	IC	LFG	0.8	0.8	0.8		NH	11/30/2008	11/1/2008	NHEC 12.5 kV circuit	MIS	No	No			NH
264	9/28/2009	G	6/11/2008	9/28/2009	Biomass Project	ST	WDS	10	10	10	Grafton	NH	6/1/2010	6/1/2010	PSNH 34.5 kV circuit #343	N/A	No	No	NH		NH
277	12/22/2014	G	9/22/2008	12/18/2014	Combined Cycle (QP310 in NYISO Queue)	CC	NG	1,002	1,002	1,115	Dutchess	NY	1/31/2018	7/1/2017	Pleasant Valley - Long Mtn 345 kV	N/A	No	No			
279	3/19/2009	G	9/30/2008	2/20/2009	Biomass	ST	WDS	30	30	30	Windsor	VT	5/1/2011	3/1/2011	CVPS 46kV circuit in Springfield area	MIS	No	No			VT
289	8/5/2013	G	1/8/2009	8/5/2013	Fuel Cell	FC	NG	9	9	9	New Haven	CT	6/15/2012	5/15/2012	UI''s Milvon substation	N/A	Yes	Yes	UI		SWCT
296	7/31/2009	G	2/20/2009	7/30/2009	Biomass	ST	WDS	30	30	30	Windsor	VT	5/1/2011	3/1/2011	CVPS 46 kV circuit in Springfield Area	MIS	No	No			VT
296	5/19/2010	G	2/23/2009		Wind Farm	WT	WND	12	12	12	Chittenden	VT	12/31/2010	12/31/2010	CVPS 34.5 kV Fairfax - Milton line	N/A	No	No			VT
305	7/29/2011	G	7/10/2009		Wind (non-FERC alternative)	WT	WND	0	66	66	Grafton/Merrimack	NH	12/31/2012	10/1/2012	Pemigewassett 34.5 kV Substation	N/A	No	No			NH
338	11/19/2012	G	5/14/2010	11/19/2012	Wind	WT	WND	0	18	18	Hillsborough	NH	12/3/2013	11/2/2013	PSNH 34.5 kV 3140 Circuit	N/A	No	No			NH
478	8/17/2016	G	10/1/2014	8/17/2016	Wind	WT	WND	9.6	9.6	9.6	Washington	ME	6/1/2016	5/1/2016	Emera 34.5kV Line 16	N/A	No	No			BHE
537	5/22/2015	G	2/28/2015	5/21/2015	Combustion Turbine	GT	NG	11.97	11.97	14.1	Middlesex	MA	11/30/2016	8/31/2016	MECO 23KV Behen St feeder load side of MTR 04034085	CNR	No	No			BOST
558	9/8/2015	G	8/12/2015	9/3/2015	solar	PV	SUN	20	20	20	Franklin	VT	12/1/2016	11/15/2016	115 kV Highgate Substation	N/A	No	No			VT
559	9/8/2015	G	8/12/2015	9/3/2015	solar	PV	SUN	20	20	20	Windsor	VT	12/1/2016	11/15/2016	115 kV Coolidge substation	N/A	No	No			VT
560	10/30/2015	G	8/27/2015	10/29/2015	Solar	PV	SUN	20	20	20	Orange	VT	12/1/2016	11/1/2016	GMP 46 kV Randolph Center Substation	N/A	No	No			VT
563	9/8/2015	G	9/1/2015	9/3/2015	Solar	PV	SUN	20	20	20	Rutland	VT	11/1/2016	10/1/2016	VELCO 46 kV bus at Florence Substation	N/A	No	No			VT

Forecasted Energy Margin - Northern Pass Transmission

Inflation Factor @ 2.5%			Row 20 of Col. B and Col. C Inflated at 2.5%/Year			
Nameplate Capacity (MW)			1,090			
	A	B	C	D	E	F
Row	Year	Forecast Annual Dispatched All-Hours Energy Price (Ventyx) ($/MWh)	Forecast Capacity Price (Ventyx) ($/kW-yr)	Capacity Revenue (C x 1,090,000)	Fix Cost (Revenue Requirement) for Transmission @ 83% Capacity Factor (Julia Frayer) ($/MW)	Forecast Energy Net Margin Available Without RECs (B - E)
1	2017	$44.99	$62.90	$68,561,000	$36.34	$8.65
2	2018	$45.12	$101.98	$111,158,200	$36.34	$8.78
3	2019	$49.38	$96.97	$105,697,300	$36.34	$13.04
4	2020	$56.82	$84.36	$91,952,400	$36.34	$20.48
5	2021	$64.15	$103.85	$113,191,889	$36.34	$27.81
6	2022	$67.99	$104.54	$113,944,910	$36.34	$31.65
7	2023	$70.00	$105.14	$114,602,442	$36.34	$33.66
8	2024	$68.83	$109.75	$119,625,078	$36.34	$32.49
9	2025	$71.83	$112.44	$122,559,129	$36.34	$35.49
10	2026	$74.88	$109.66	$119,527,452	$36.34	$38.54
11	2027	$80.65	$113.95	$124,210,436	$36.34	$44.31
12	2028	$81.69	$118.97	$129,674,362	$36.34	$45.35
13	2029	$86.04	$117.11	$127,644,857	$36.34	$49.70
14	2030	$87.01	$118.80	$129,488,063	$36.34	$50.67
15	2031	$91.89	$124.69	$135,909,774	$36.34	$55.55
16	2032	$96.45	$129.55	$141,211,727	$36.34	$60.11
17	2033	$102.96	$133.19	$145,172,206	$36.34	$66.62
18	2034	$106.51	$137.69	$150,081,302	$36.34	$70.17
19	2035	$112.85	$134.92	$147,060,523	$36.34	$76.51
20	2036	$114.37	$138.73	$151,213,032	$36.34	$78.03
21	2037	$117.23	$142.20	$154,993,358	$36.34	$80.89
22	2038	$120.16	$145.75	$158,868,192	$36.34	$83.82
23	2039	$123.16	$149.39	$162,839,897	$36.34	$86.82
24	2040	$126.24	$153.13	$166,910,894	$36.34	$89.90
25	2041	$129.40	$156.96	$171,083,666	$36.34	$93.06
26	2042	$132.63	$160.88	$175,360,758	$36.34	$96.29
27	2043	$135.95	$164.90	$179,744,777	$36.34	$99.61
28	2044	$139.35	$169.03	$184,238,396	$36.34	$103.01
29	2045	$142.83	$173.25	$188,844,356	$36.34	$106.49
30	2046	$146.40	$177.58	$193,565,465	$36.34	$110.06
31	2047	$150.06	$182.02	$198,404,602	$36.34	$113.72
32	2048	$153.81	$186.57	$203,364,717	$36.34	$117.47
33	2049	$157.66	$191.24	$208,448,835	$36.34	$121.32
34	2050	$161.60	$196.02	$213,660,056	$36.34	$125.26
35	2051	$165.64	$200.92	$219,001,557	$36.34	$129.30
36	2052	$169.78	$205.94	$224,476,596	$36.34	$133.44
37	2053	$174.03	$211.09	$230,088,511	$36.34	$137.69
38	2054	$178.38	$216.37	$235,840,724	$36.34	$142.04
39	2055	$182.84	$221.78	$241,736,742	$36.34	$146.50
40	2056	$187.41	$227.32	$247,780,160	$36.34	$151.07