

SEABROOK STATION

2019 COMPREHENSIVE REPORT



***APPLICATION OF NEXTERA ENERGY SEABROOK, LLC FOR APPROVAL OF UPDATED
DECOMMISSIONING COST AND TRUST FUNDING SCHEDULES***

Steven C. Hamrick, Esq.
NextEra Energy Seabrook, LLC
801 Pennsylvania Ave. NW Suite 220
Washington, DC 20004
Tel: 202-349-3496
Fax: 202-347-7076
E-Mail: steven.hamrick@nexteraenergy.com

Christopher T. Roach, Esq.
Roach Hewitt Ruprecht Sanchez &
Bischoff, P.C.
66 Pearl Street
Portland, ME 04101
Tel: 207-747-4870
E-Mail: croach@roachhewitt.com

Attorneys for Applicant NextEra Energy Seabrook, LLC

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I. INTRODUCTION

Pursuant to RSA 162-F and the Final Report and Order from the New Hampshire Nuclear Decommissioning Financing Committee (“NDFC” or the “Committee”) in Docket No. 2018-1, NextEra Energy Seabrook, LLC (“NextEra” or “NextEra Energy Seabrook”), in its capacity as Managing Agent of the Seabrook Nuclear Power Station (“Seabrook Plant” or “the Plant”), hereby submits to the Committee an application for approval of (1) the updated cost to decommission the Plant, assuming a March 15, 2050 license life coincident with the current license of the Plant; (2) funding date of March 15, 2050 to coincide with the current license of the Plant; and (3) the funding schedules to be effective January 1, 2020 for all Joint Owners of the Plant (“Joint Owners”).¹ The funding schedules and investment analysis were prepared by LCG Associates, Inc. (“LCG”), the updated cost to decommission the Plant was prepared by TLG Services, Inc. (“TLG”) and the cost escalation analyses were conducted by TLG, with review by IHS Markit. This application contains:

- definitions of certain relevant terms (Attachment A);
- a description of the roles and responsibilities of those managing the Seabrook Nuclear Decommissioning Financing Fund (“Trust” or “Fund”) and the investment guidelines (Attachment B);
- a report on the status of the Fund by LCG with Funding Runs 1 through 3 (Attachment C);
- Order from the Nuclear Regulatory Commission extending Seabrook Station’s operating license from March 15, 2030 to March 15, 2050 (Attachment D);

¹ The Joint Owners and their respective ownership shares are as follows:

| | |
|--|------------------|
| NextEra Energy Seabrook, LLC | 88.22889% |
| Massachusetts Municipal Wholesale Electric Company | 11.59340% |
| Taunton Municipal Lighting Plant | 00.10034% |
| Hudson Light & Power Department | <u>00.07737%</u> |
| | 100% |

- the proposed funding schedule designed to meet the targeted Trust balances by the time the decommissioning costs become due (Attachment E, Funding Run 1);
- TLG report of the updated cost to decommission the Plant (Attachment F);
- escalation analysis prepared by TLG (Attachment G); and
- affidavit from IHS Markit reflecting review of TLG escalation analysis (Attachment H).

A. Overview and history since last comprehensive update in 2015

i. Seabrook Station’s License Has Been Extended to March 15, 2050

The primary change since the last comprehensive update in 2015 is that the Plant’s license has been extended from March 15, 2030 to March 15, 2050. On March 12, 2019, the Nuclear Regulatory Commission issued an order approving the Plant’s request for approval of this license extension. In so doing, the NRC – through a lengthy and very thorough process – determined that the Plant remains capable of operating in a safe and reliable manner through the end of its current license life, March 15, 2050.

The implications of the NRC’s approval are significant.

Under the current (2050) operating license, the Trust is projected to be over-funded by more than \$100 billion. NextEra alone is projected to be over-funded by \$95 billion. (*See* Funding Run #1.) These amounts do not take into account that, under the agreement between NextEra and the Department of Energy (“DOE”), the DOE will reimburse the costs incurred by the Plant for spent fuel storage until DOE takes title to the spent fuel and removes it from the site. Those costs account for approximately 30% of the total cost to decommission the Plant (*i.e.*, upwards of \$300 million of the \$1.076 billion cost estimate). To this same point, the TLG report reflects that the decommissioning costs have actually increased by only 2.02% since the last comprehensive update. TLG’s current cost escalation analysis reflects that costs are projected to escalate annually by 2.60% going forward. Using that cost escalation factor, the

joint owners would be over-funded by \$116 billion, creating an additional buffer of \$16 billion in the estimate that the joint owners propose for approval.

Given the significant over-funding of all Joint Owners, the above figures also do not take into account the amounts in the escrow account. Given that its purpose is no longer necessary and the Plant has indeed achieved license extension, for the reasons explained more fully in Section F below, NextEra requests that the Committee release these funds, maintaining an amount in those accounts that is required to keep the accounts active in the unlikely event that they become useful in the future.

ii. High Level Overview of Trust performance

The Trust is invested generally in three different assets classes: fixed income, opportunistic and equities. Fixed income is comprised of Core and Core Plus, with earnings assumptions of 5.65% and 5.75%. Earnings assumed for the opportunistic and equity investments are 7.5% and 8.5%, respectively. When the last comprehensive update was submitted in 2015, the Trust and Escrow balance was \$634 million at year-end 2014. While those balances were \$745.2 million by year-end 2018 with a poor 4th quarter market performance, the markets rebounded in the first quarter of 2019 and, as of May 2019, the Trust and Escrow balances are at \$835 million, approximately \$200 million more than year end 2014. Analysis of current fund performance is set forth in the report by LCG.

ii. The Funding Assurance Escrow

To address overfunding, the Committee created the Escrow concept, a funding assurance mechanism that is within the Committee's sole control and is not subject to the limitations on the Trust, including the requirement that funds must remain in the Trust until decommissioning is complete no matter by how much the balance in the Trust exceeds the projected costs. In keeping with this concept, the Committee has allowed the contributions to go to the Escrow

rather than the Trust. Because it is within the Committee's control, Escrow funds may be released to the Joint Owners. The Committee exercised that discretion in allowing the release of approximately \$5 million to NextEra in 2008 in response to NextEra having achieved certain funding milestones. Since that time, the Escrow balance has grown to over \$35 million, all of which is available for the Committee to release at any time, to the extent the Committee so determines. The potential return of those monies to the Joint Owners – rather than requiring the funds to sit idle in an account for decades as required of funds in the Trust – is a significant benefit to the Joint Owners. The Joint Owners respectfully suggest that the time has now come to release these funds to those Joint Owners who so desire.

Based on prior orders, the funding schedules assume that the amounts in the escrow are transferred to any Joint Owner that is projected to be over-funded. With all Joint Owners projected to be overfunded, the escrow is not included in the calculation of the \$100 billion in over-funding. For its part, NextEra's escrow account balance has grown over time to \$24.5 million. This additional funding assurance is no longer necessary:

- NextEra is projected to be over-funded by \$95 billion;
- Based on its robust Trust balance (\$730 million as of May 2019) and overfunded status, NextEra is not required to make any contributions;
- There remain significant funding assurances in place to assure NextEra's share of the cost to decommission the Plant will be paid when due; and
- NextEra as an entity is financially far stronger today than when the Committee adopted the funding assurances that are in place.

NextEra respectfully requests that the Committee authorize the release of its escrow fund balance. [INSERT IF OTHER JOS WANT RELEASE]

B. Process for determining decommissioning cost funding

Before describing in more detail the content of the TLG decommissioning cost and cost escalation studies, as well as the supporting letter from IHS Markit, and the LCG funding status analysis, it is important to make clear the roles that each play in this proceeding and how those roles relate to the other components of the filing.

1. TLG prepares the current-year cost to decommission the Plant

First, TLG provides the estimated cost to decommission the Plant to the standards established both by the NRC and the Committee. While assuming the NRC-approved operating life through 2050 with decommissioning to start thereafter, TLG provides the cost in dollars as of December 31, 2019 and, consistently, the estimates are based on current technology, regulatory requirements, decommissioning experience, decommissioning methodology, waste disposal costs, and labor rates. TLG does not include in its estimate any assumption that future advances in technology or decommissioning techniques will reduce the cost to decommission the Plant. Rather, the current projected cost is based on the best available current data and is expressed in year-end 2019 dollars.

Relative to the industry, the Seabrook Station is in the early stages of its operational life as it is one of the last plants licensed for operation in the United States. Seabrook's place in the order of nuclear plant construction is noteworthy both because the Plant was built using the then existing state of the art technology and because if the Plant's operational life is consistent with industry performance and long-term planning, Seabrook will be one of the very last existing plants to be decommissioned. Accordingly, those planning and carrying out the decommissioning of the Seabrook Station will have the benefit of having observed a significant number of nuclear plant decommissioning projects and learned both the best practices from the standpoint of safety, efficiency and cost, as well as how to avoid pitfalls in the process. Although the decommissioning studies provided with this application assume no advancements

in decommissioning technology and process, consistent with the rapid advances in the process for refueling and maintaining nuclear plants, the Joint Owners anticipate significant advancements in the decommissioning process by the time the Seabrook Station is actually decommissioned.

In addition, if the Seabrook Station were actually decommissioned beginning in 2050 (*i.e.*, does not receive additional license extensions), NextEra would also be in the position of decommissioning the Seabrook Station after having learned lessons from decommissioning several other units in the NextEra/FPL nuclear fleet. *See* TLG Report, Executive Summary p. xviii.

2. Determining the appropriate rate by which each of the decommissioning cost components is expected to escalate through the decommissioning period

Second, because the Committee must approve funding schedules that are designed to pay decommissioning costs that will not begin to arise until the Plant closes, the current decommissioning cost estimate must be escalated to convert the December 31, 2019 estimate into 2050 dollars. This is accomplished by determining the percentage by which the decommissioning costs are expected to increase annually (the “cost escalation factor”). Following the last comprehensive update in 2015, the Committee established 3.50% as the appropriate factor by which to escalate the decommissioning cost estimate. As is explained below in Section D, in addition to the comprehensive update of the cost to decommission the Plant, TLG also prepared a detailed cost escalation analysis. (*See* Attachment G.) That analysis reflects that the 3.50% cost escalation factor is substantially higher than the rate by which the decommissioning costs have risen since the last update (2.02%), and are actually expected to increase going forward. More specifically, based on TLG’s independent analysis – confirmed by IHS Markit – the decommissioning costs are expected to increase annually by 2.60% over the

entire duration of the operating life and through the decommissioning period. In developing these calculations, TLG followed the same methodology as it has for other plants in the industry and verified the results internally through independent analyses. The submission from IHS demonstrates that the underpinnings of TLG's cost escalation analysis are sound and reflect the best estimate of the rate by which the decommissioning costs will escalate over time. Although a materially lower factor is thus supported, as will be explained more fully below, the Joint Owners are not requesting a change to the 3.50% cost escalation factor previously approved by the Committee. Doing so creates substantial conservatism in the decommissioning funding process. More specifically, escalating the 2019 costs at the TLG/IHS factor of 2.60% yields overfunding that is more than \$16 billion greater than if escalated at the currently-approved 3.50% rate. This in effect creates a \$16 billion buffer between the expected decommissioning cost and the target to which the Joint Owners will fund the Trust.

3. LCG calculates the funding schedules necessary to achieve the targeted Trust balances

Finally, once the total cost stream is determined by applying the cost escalation factor to the TLG estimate, LCG develops the proposed payment schedules that will achieve Trust balances sufficient to pay the decommissioning costs when due.

For the reasons set forth more fully in Part III, Section J, the Joint Owners propose that the Committee approve funding schedules that incorporate the NRC-approved funding date and maintain the other assumptions in the last docket (*i.e.*, 2050 funding date and spent fuel on site through 2100), (*see* Attachment E, Funding Run #1), subject to the December re-set. The only proposed change is LCG's recommendation to increase the Escrow earnings assumption from 1.50% to 2.25%. Given that each Joint Owner is projected to be overfunded and the amounts in the Escrow are assumed to be distributed to the Joint Owners, accordingly, this change has no

material effect on the funding runs. As demonstrated below, both the TLG study and the LCG analysis follow methodologies previously approved by the Committee and both are based on reasonable assumptions, the application of which ensures that the projected cost to decommission the Plant is bounded.

C. Decommissioning cost estimate results

TLG has prepared decommissioning cost estimates that incorporate the NRC-approved 2050 operating life, resulting in a cost estimate of \$1.076 billion in December 31, 2019 dollars.²

D. Analyses of cost escalation

In this Application, the Joint Owners have included cost escalation analyses by TLG and a submission from IHS regarding the TLG analysis. *See* Attachments G and H. As set forth therein, TLG calculated escalation factors assuming a 2050 license life (composite cost escalation factor of 2.60%). TLG calculated the composite factor by first analyzing each category of cost and then using industry forecast data that is consistent with NRC guidance to develop the best estimate of the rate by which the decommissioning costs are expected to escalate each year from now until the end of the decommissioning period. Pursuant to NextEra's Low Level Radioactive Waste ("LLRW") disposal agreement, the escalation of the "burial" cost component is based on an indexed escalation rate. The submission from IHS confirms that the indices TLG relied upon in developing the escalation factors for the remaining cost components (labor, equipment and materials, energy, and other) were all appropriate. The report also confirms that TLG's use of the indices was appropriate and the methodology and resulting composite factor of 2.60% is reasonable.

² For easy comparison to prior studies, TLG also presented a summary of the costs assuming a 2030 shutdown:\$1.171 billion. *See* TLG Study, Table 1.B.

It bears noting that TLG and IHS are both highly respected in their respective fields and have reputations for developing accurate, reliable forecasts of decommissioning costs and cost inflation forecasting, respectively. The cost escalation analysis was developed independently and without input from the Joint Owners, other than the directive to prepare the cost escalation analyses using their professional expertise. As such, the 2.60% cost escalation factor reflects the best estimate of the rate by which the decommissioning costs are expected to increase annually from now through the end of the decommissioning period.

Because of the long duration remaining before the Plant and independent spent fuel storage installation (“ISFSI”) are finally decommissioned, the cost escalation factor has a significant effect on the calculation of necessary funding. For example, the escalated cumulative decommissioning cost using the current 3.5% cost escalation factor is \$5.1 billion. Using the TLG/IHS 2.60% factor reduces the total cost to \$3.3 billion, a difference of over \$1.8 billion.

Notwithstanding these factors, the Joint Owners recommend that the Committee maintain the 3.5% as the cost escalation factor. While all of the data support the 2.60% cost escalation factor, the Joint Owners remain comfortable that the 3.5% factor is reasonable. As noted above, using a 3.5% cost escalation factor creates a buffer of more than \$1.8 billion between the actual assumed cost (\$3.3 billion) and the target cost (\$5.1 billion) used for funding purposes.

E. Reimbursement for spent nuclear fuel and Greater-Than-Class-C Waste (“GTCC”) costs

The costs of transfer and storage of spent nuclear fuel (“SNF”) and other high level radioactive waste (“HLRW”) account for approximately 30% of the total decommissioning cost estimate (*i.e.*, approximately \$300 million of the \$1.076 billion estimate). The Department of Energy (“DOE”) is obligated to accept delivery of SNF and HLRW from all U.S. nuclear plants, including Seabrook Station. As the Committee is aware, in 2009 the Joint Owners settled litigation with the U.S. Government that resulted from DOE’s delay in accepting transfer of SNF

and HLRW from the Plant. Under the DOE Settlement, costs incurred by the Joint Owners that are related to DOE's failure to accept delivery of SNF and HLRW are reimbursed to the Joint Owners. These costs include, but are not limited to, the costs of development and ongoing operations of the ISFSI at the Plant for so long as SNF and HLRW remain on-site pending transfer to DOE.

The costs incurred during the decommissioning period are also included in the TLG decommissioning cost estimates. As a result, these costs are "funded" twice: once by the Joint Owners by virtue of their contributions to, and earnings of, the Trust and once through the reimbursement mechanism provided in the DOE Settlement.

The costs that will be reimbursed through the DOE Settlement are very significant and account for approximately 30% of the total decommissioning cost estimate; here \$300 million in 2019 dollars. This creates even greater assurance that the decommissioning costs will be paid when due (*i.e.*, because it materially reduces the annual net costs that could be owed by any Joint Owner).³

F. Proposed release of Escrow funds to NextEra

As discussed above, the Committee developed the Escrow as an alternative funding mechanism that, while assuring adequate funding, would give the Committee the discretion to release funds to one or more Joint Owner(s) when circumstances so warranted. The Committee exercised that discretion in early 2008, releasing all but \$2.5 million of NextEra's \$7.5 million Escrow balance in recognition of NextEra having achieved certain funding milestones. The

³ With license extension, all of the Joint Owners are projected to be materially overfunded, and \$100 billion in the aggregate. As a result, the likelihood of any Joint Owner having to make any actual payment during the decommissioning period has been virtually eliminated. We thus point out the effects of the DOE settlement as yet another assurance in the highly unlikely event that funding assurances of any kind are triggered during the decommissioning of Seabrook Station.

Committee has previously indicated it would consider release of funds upon license extension, which as noted above, occurred with the NRC’s order of March 12, 2019. *See* Attachment D.

At the time of the last release in early 2008, the Joint Owners had not submitted the license renewal application to the Nuclear Regulatory Commission (“NRC”) and NextEra’s Escrow balance was just under \$7.5 million. Under those circumstances, the Committee released approximately \$5 million, leaving \$2.5 million in NextEra’s Escrow as a funding assurance.

NextEra’s Escrow balance has grown to \$24.5 million. Using the NRC-approved license life, NextEra is overfunded by \$95 billion. *See* Attachment E, Funding Run #1. With NextEra’s overfunded status, all of the funding runs reflect that no further contributions would be due from NextEra. Accordingly, even if it were otherwise necessary (which it is not), the Escrow is not necessary to assure payment of NextEra’s annual contributions because none are contemplated.

NextEra respectfully requests the release of its escrowed funds, maintaining only the minimal balance necessary to keep the Escrow account active.

What follows is a summary of the Committee’s order in Docket No. NDFC 2018-1, followed by the items that the Committee indicated should be provided as part of the 2019 comprehensive report.

II. NDFC DOCKET NO. 2018-1

In addition to updated cost studies that assume 2050 and 2030 license termination dates, in the Final Report and Order in Docket No. NDFC 2018-1 the Committee requested the following information, which may be found in the referenced section or report:

| Information requested | Responsive information |
|--|---|
| A revision and update of the 2015 Escalation Cost Study. | See cost escalation report from TLG and Affidavit from IHS, Attachments G and H |
| A discussion of the insights, lessons learned, or potential impacts on the decommissioning cost estimate for Seabrook Station derived from ongoing decommissioning projects throughout | See TLG Updated Decommissioning Cost Estimate, Attachment F. |

| | |
|--|---|
| the U.S. | |
| A discussion of efforts to establish permanent or interim spent nuclear fuel storage sites outside of New Hampshire and the terms and conditions under which NextEra would ship Seabrook’s spent nuclear fuel to an interim storage location if available. | <i>See</i> TLG Updated Decommissioning Cost Estimate at Attachment F for industry perspective on interim spent fuel storage sites. <i>See</i> Section G, below for conditions under which NextEra would ship spent nuclear fuel to an interim storage location. |
| A discussion of the potential impact of climate change on the operating life of Seabrook Station including a discussion of the expected seawater level rise over the licensed life of Seabrook Station; the seawater level rise that would be required to impact the stand-by electric generation; and a summary of any contingencies or plans in place to allow Seabrook Station to continue to operate through its licensed life notwithstanding any climate change effects on the station | <i>See</i> TLG Updated Decommissioning Cost Estimate, Attachment F. <i>See</i> Section K, below for NextEra’s perspective on this issue and a summary of its flood analysis. |

The information supporting this Comprehensive Report and proposed funding schedules follow.

III. ANNUAL REPORT

A. Seabrook Station Performance

The Plant has continued to run very well since NextEra Energy Seabrook acquired a majority interest in 2002. The capability factor, the ratio of the energy generated over a period to the reference energy, is a good indicator of plant performance. The capability factor takes into account planned and unplanned energy losses such as refueling outages or forced outages. Since the acquisition, the average of the eighteen-month unit capability factors for the period from 2003 through 2018 is 90.47% (*See* Table 1).

The Plant conducted a refueling outage in the fall of 2018. The outage lasted for 27 days and included major work to support equipment reliability such as Steam Generator Eddy current testing (ECT), replacement of Service Water (SW) piping and turbine control system power

supply reliability. Plant workers successfully completed all aspects of the outage, including refueling 1/3 of the Plant and all anticipated equipment replacements.

In the area of environmental compliance, the Plant is subject to New Hampshire Department of Environmental Services (“NHDES”) and U.S. Environmental Protection Agency regulations. NHDES inspectors assess the Plant’s ability to self-monitor and comply with the effluent limits and compliance schedules in the Plant’s National Pollutant Discharge Elimination System Permit (“NPDES”) and compliance with the Title V Air Permit. NHDES completed its last NPDES evaluation of Seabrook Station in September 2018. The Plant received the top rating of 5, indicative of a highly reliable self-monitoring capability. The last Title V inspection was conducted in November 2017 and contained no findings.

In summary, the Plant continues to operate safely and reliably. NextEra makes all repairs and enhancements necessary to maintain safe and reliable performance, and there is no reason to believe the Plant will not continue to operate safely and reliably in the future.

B. Status of Independent Spent Fuel Storage Installation (“ISFSI”)

In 2008, NextEra Energy Seabrook completed construction of the ISFSI to allow for the dry storage of spent nuclear fuel (“SNF”) until such time as the Department of Energy (“DOE”) exercises its responsibility to accept the SNF. The ISFSI is subject to, and meets, all NRC design and safety requirements. The NRC conducts inspections of the ISFSI to verify that activities are conducted in accordance with NRC requirements.

The initial SNF loading campaign for the ISFSI was completed in 2008 with the loading of six canisters and installation of eight horizontal storage modules. The ISFSI consists of a concrete pad upon which NextEra Energy Seabrook places horizontal storage modules that house the dry storage canisters into which NextEra Energy Seabrook places the SNF once the spent fuel assemblies have cooled in the spent fuel pool for the appropriate amount of time. In 2013,

and 2017, campaigns were undertaken to load eight additional canisters. As of May 31, 2019, a total of 22 canisters are loaded with fuel assemblies. Each canister contains thirty-two (32) spent fuel assemblies.

The Seabrook ISFSI design is sufficient to permit continued full core offload of SNF through the end of renewed licensed operations, i.e., March 15, 2050. The concrete pad may need to be expanded in the future as more information about DOE's schedule for the transfer of spent fuel from the Plant becomes available. To that end, as a contingency, an area for future expansion was included in the site selection process and identified in the project site plan to accommodate the placement of casks to fully off load the spent fuel pool should all SNF remain on site beyond the schedule announced by the DOE. In summary, there is sufficient space on site to store SNF in the ISFSI while it awaits acceptance by DOE.

C. NextEra Energy Nuclear Operational Performance

NextEra Energy Nuclear operates seven other nuclear units through NextEra Energy's electric utility subsidiary, Florida Power & Light Company ("FPL") and its competitive energy subsidiary, NextEra Energy Resources, LLC ("NextEra Energy Resources"). FPL operates four nuclear units, two at Turkey Point Nuclear Plant and two at St. Lucie Nuclear Plant. In addition to Seabrook Station, NextEra Energy Resources operates the Duane Arnold Energy Center and two units at Point Beach Nuclear Plant through its subsidiaries. Each NextEra Energy Resources nuclear unit is operated by the individual company that holds its operating license: NextEra Energy Seabrook, LLC; NextEra Energy Duane Arnold, LLC; and NextEra Energy Point Beach, LLC.

The Unit Capability Factor is an 18-month running average for pressurized water reactors and a 24-month running average for boiling water reactors (Duane Arnold). The NextEra Energy Nuclear fleet average of the unit capability factors for the period from 2003 through 2018

was 89.43%. Table 1 provides the historical Unit Capability Factors for the NextEra Energy Nuclear fleet average, Seabrook Station, and the industry median.

All of the eight NextEra Energy Nuclear plants are currently in the Reactor Oversight Process's Column 1, the Licensee Response Column, indicating that Performance Indicators and any inspection findings are currently "green" (of very low safety significance) (*See* Table 2).

D. Status of Low Level Radioactive Waste ("LLRW") Disposal

The State of New Hampshire does not currently belong to a LLRW compact. Based on an agreement between NextEra Energy Seabrook and Energy Solutions, LLC, the Plant has obtained disposal capacity at the Clive, Utah facility for its Class A operational and decommissioning LLRW through decommissioning. Based on the TLG decommissioning study, just over 99% by volume of the LLRW that requires disposal will be Class A waste.⁴ Class B and C LLRW is stored onsite utilizing existing facilities and third-party agreements are utilized to provide off-site processing, storage, and disposal of Class B and C LLRW.⁵ NextEra anticipates that market forces within the nuclear industry will continue to make additional disposal facilities available in the future and long before the scheduled shutdown of the Plant. To that end, the Texas Compact Facility which is owned and licensed by the state of Texas, operated by Waste Control Specialists, LLC and hosted and supported by Andrews County, Texas received its first shipment of LLRW in 2012 and continues to operate.⁶

⁴ Class A LLRW waste is 193,626 cubic feet out of a total of 195,094 cubic feet of waste which equates to 99.2%. *See* TLG Report, Section 5, Table 5.1 (Decommissioning Waste Summary).

⁵ These agreements do not currently extend to accept Class B and C waste during the decommissioning period. As the time for decommissioning approaches, NextEra will enter into a contract for disposal of Class B and C waste during the decommissioning period. Given the developing markets, NextEra does not anticipate any difficulty in obtaining such an agreement.

⁶ This Texas facility is licensed to dispose of Class A, B and C low-level radioactive waste.

In short, as a result of the above factors, the cost of disposal of all LLRW generated during operation is not expected to have any material effect on the cost to decommission the Plant, nor will such disposal require the drawdown of any funds set aside for decommissioning purposes.

E. Status of High Level Radioactive Waste Disposal

Federal plans to provide a high-level waste repository have stalled in recent years. The U.S. Department of Energy withdrew its license application for a high-level waste repository at Yucca Mountain, Nevada from consideration before the NRC in 2010. But in August 2013, the U.S. Court of Appeals for the District of Columbia Circuit ordered the NRC to resume its review of DOE's application. The NRC has completed its safety evaluation report for the Yucca Mountain project. It identified no technical obstacles to the project, but did note that DOE has yet to obtain certain necessary land rights for the project. The NRC has also supplemented DOE's existing Environmental Impact Statement for the project, which DOE had declined to do. Prior to issuing a license to DOE for the project, NRC must hold an adjudicatory hearing. To date, it has not had adequate funding to complete that task. In March of 2019, the President proposed a budget for Fiscal Year 2020 that would authorize funding to restart the NRC licensing proceeding for the Yucca Mountain repository.

One of the recommendations of the President's Blue Ribbon Commission on America's Nuclear Future in 2012 was to identify interim spent nuclear fuel storage facilities using a consent-based process. To that end, two different consolidated interim high level radioactive waste storage facility projects are currently under review by the NRC, one in New Mexico, and one in Texas. If licensed, these facilities plan to accept spent nuclear fuel from decommissioned reactors prior to the construction of a permanent waste repository. The legal framework and

business models for these projects is not yet clear, but it is a positive sign that there is significant investment into solutions to the nation's spent fuel issue.

On May 14, 2019, a bill entitled the Nuclear Waste Policy Amendments Act of 2019 was introduced in the U.S. House of Representatives. This bill would clear certain hurdles to the development of the Yucca Mountain repository, as well as authorize interim storage of spent nuclear fuel.

Nuclear plants are an important part of the U.S. energy supply. As such, there is significant impetus for DOE to meet its statutory obligation to accept SNF from existing plants, as well as to provide a SNF disposal solution. The prospect of continued operation of numerous plants during subsequent license extensions an additional 20 years into the future underscores the need for a repository for the spent fuel that will be generated.

The Seabrook ISFSI will not be a permanent storage location for the SNF, but is instead a method to ensure that SNF is stored safely until it is transferred to DOE. While the additional costs of the ISFSI and post-shutdown transfer of SNF and other HLRW are included in the TLG decommissioning cost estimate, the federal government is contractually obligated to reimburse the Joint Owners for these costs no matter how long DOE delays in meeting its obligation to accept transfer of these wastes. While the Seabrook ISFSI provides a very safe environment in which to store and ultimately transfer SNF and "Greater than Class C" ("GTCC") waste, the Joint Owners have no interest in keeping SNF and GTCC waste on site any longer than necessary. NextEra (and TLG) anticipate that the DOE will accept transfer of the waste much earlier than assumed in the Plant's funding models, but will certainly review any alternatives – private or otherwise – provided that such alternative(s): (1) provide for safe and reliable storage, and (2) the costs of such transfer and storage are borne by the federal government.

F. NextEra Energy, Inc. Financial Performance

NextEra Energy, Inc. (NYSE: NEE) (“NextEra Energy”) is a leading clean energy company with consolidated revenues of approximately \$16.7 billion, approximately 46,000 megawatts of generating capacity in 37 states and Canada, which includes megawatts associated with noncontrolling interests related to NextEra Energy Partners, LP (NYSE: NEP), and approximately 14,300 employees as of year-end 2018. Headquartered in Juno Beach, Florida, NextEra Energy's principal subsidiaries are Florida Power & Light Company, which serves nearly 5 million customer accounts in Florida and is the largest electric utility in the State of Florida and one of the largest electric utilities in the United States, and NextEra Energy Resources, LLC, which, together with its affiliated entities, is the world's largest generator of renewable energy from the wind and sun. Through its subsidiaries, NextEra Energy generates clean, emissions-free electricity from eight commercial nuclear power units in Florida, New Hampshire, Iowa and Wisconsin. For the full year 2018, NextEra Energy reported net income attributable to NextEra Energy on a GAAP basis of \$6.638 billion, or \$13.88 per share, compared to \$5.380 billion, or \$11.39 per share, in 2017. In January 2019, NextEra Energy completed the acquisition of Gulf Power Company, a rate-regulated electric utility which serves more than 460,000 customers in eight counties throughout northwest Florida and owns approximately 2,300 MW of net generating capacity.

NextEra Energy’s financial strength is recognized by the Rating Agencies. NextEra Energy’s credit ratings are among the highest in the industry. As of March 31, 2019, the credit ratings currently assigned by Moody’s Investors Service, Inc. (“Moody’s”), Standard & Poor’s Ratings Services (“S&P”) and Fitch Ratings (“Fitch”) to NextEra Energy, FPL, and NextEra Energy Capital Holdings, Inc. (“Capital Holdings”) are as follows:

| <u>NextEra Energy:</u> | <u>Moody's⁷</u> | <u>S&P⁷</u> | <u>Fitch⁷</u> |
|--|----------------------------|----------------------------|--------------------------|
| Corporate credit rating | Baa1 | A- | A- |
| <u>FPL:</u> | | | |
| Corporate credit rating | A1 | A- | A |
| First mortgage bonds | Aa2 | A | AA- |
| Senior unsecured notes | A1 | A- | A+ |
| Pollution control, solid waste disposal and industrial dev. revenue bonds | VMIG-1/P-1 | A-2 | F1 |
| Commercial paper | P-1 | A-2 | F1 |
| <u>Capital Holdings:</u> | | | |
| Corporate credit rating | Baa1 | A- | A- |
| Debentures | Baa1 | BBB+ | A- |
| Jr. Subordinated Debentures | Baa2 | BBB | BBB |
| Commercial paper | P-2 | A-2 | F2 |

As of March 31, 2019, all three rating agencies indicated a stable outlook. NextEra Energy remains financially very strong relative to its competitors in the industry and retains ready access to the credit markets.

In addition, NextEra Energy, including FPL, has \$8.240 billion (\$5.297 billion for Capital Holdings and \$2.943 billion for FPL) of bank revolving lines of credit as of March 31, 2019. FPL also has \$1 billion in revolving credit facilities and Capital Holdings has \$1.150 billion in revolving credit facilities. These credit facilities are for general corporate purposes and to provide additional liquidity in the event of a loss to the Companies' or their subsidiaries' operating facilities (including, in the case of FPL, a transmission and distribution property loss).

⁷ A security rating is not a recommendation to buy, sell or hold securities and should be evaluated independently of any other rating. The rating is subject to revision or withdrawal at any time by the assigning rating organization.

NextEra Energy’s financial position remains strong as demonstrated in the following table of end of quarter Funded Debt to Total Capitalization (%) Ratios calculated in accordance with NDFC Docket 2002-2:

| End of Quarter Ratio | <u>12/31/2018</u> | <u>9/30/2018</u> | <u>6/30/2018</u> | <u>3/31/2018</u> | <u>12/31/2017</u> |
|------------------------------------|-------------------|------------------|------------------|------------------|-------------------|
| Funded Debt / Total Capitalization | 47.2% | 42.5% | 43.1% | 42.7% | 45.6% |

G. Joint Owner Financial Performance

In Docket No. NDFC 2015-1, the Committee approved the Joint Owners’ proposal to update the amounts available under the support agreement provided by Capital Holdings for the operation of Seabrook Station. With the Plant’s excellent operational and financial performance, in the 16 years since acquiring its ownership interest in Seabrook Station, NextEra Energy Seabrook has not had occasion to call upon any of the amounts available under the support agreement with Capital Holdings nor does it anticipate doing so. Nevertheless, the agreement remains as part of the financial support for the Plant. The proposed updated amounts available under the support agreement are discussed in Section L, below.

The municipal owners’ (MMWEC, Taunton, and Hudson) financial position has not changed materially since the last filing.

H. Joint Owner Trust Investment Strategy

The current investment guidelines provide for a maximum allocation to equities of 70%, applied to each Joint Owner’s total asset value at the time the equity holdings are purchased.

In the Final Report and Order in Docket No. NDFC 2011-1, the Committee approved the use of a 3% bandwidth for determining each Joint Owner’s assumed equity allocation for

funding purposes. That bandwidth determination was modified (or clarified) in the Final Report and Order in Docket NDFC-2015-1. Specifically, if the Joint Owner's actual allocation as of the date determined by the Committee is within 3% of the Joint Owner's target, the targeted allocation would be assumed. Otherwise, the target or actual allocation, whichever is lower, would be used.⁸

As in the past, NextEra Energy Seabrook currently plans to allow its equity allocation to fluctuate with market movement from its targeted 65% equity allocation. NextEra Energy Seabrook plans to initiate asset transfers on a periodic basis to modify its equity allocation as desired or needed within the guidelines. Based on April 30, 2019 fund market values, NextEra Energy Seabrook's total equity allocation is approximately 66%.

MMWEC has a targeted equity allocation of 55%. Based on April 30, 2019 fund market values, MMWEC's equity allocation is approximately 65%. MMWEC requested a fund rebalancing on May 10, 2019 to bring equities back to the 55% target allocation.

Hudson has a targeted equity allocation of 30%. Based on April 30, 2019 fund market values, Hudson's equity allocation is approximately 40%.

Taunton has a targeted equity allocation of 30%. Based on April 30, 2019 fund market values, Taunton's equity allocation is approximately 34%.

I. Status of the Trust Fund and Projected Balances

The Trust and Escrow balances remain robust despite challenges in the equity markets in 2018. The poor equity market performance in 2018 resulted in a reduction in the Trust balance of \$38 million, with a year-end 2018 balance of \$710.6 million. The poor 4th quarter 2018 performance has been followed by the strongest quarter of equity market gains since 2009,

⁸ Docket 2014-1 Final Report and Order at 2.

erasing the prior quarter's losses. The Escrow balance increased by \$1.1 million as a result of Joint Owner contributions and increased escrow returns as interest rates have risen. As of year-end 2018, the Trust and Escrow balances were \$710.6 million and \$34.6 million, respectively, for a total of \$745.2 million available for decommissioning. As of May 2019, the Trust balance has grown by approximately \$90 million (to \$799.9 million) and the Escrow balance is \$35.1 million, for a total of \$835 million.

The details of the performance of the Trust and Escrow are set forth in the attached analysis from LCG, Attachment C. As set forth therein, LCG recommends making no changes to Trust earnings assumptions, despite some conservatism in the approved equity return assumption (8.5%). Given rising interest rates, LCG is recommending a modest increase in the escrow return assumption, from 1.50% to 2.25%. While this is an appropriate step that is well supported in the LCG report, this change will have no meaningful effect on the funding schedules as all of the joint owners are projected to be over-funded and, accordingly, the funding schedules assume full release of the escrowed funds to the applicable joint owner(s).

Using the assumptions the NDFC approved in the 2018-1 docket and the renewed license life to 2050 approved by the NRC, all of the Joint Owners are projected to be overfunded and would not need to make any further contributions. NextEra is projected to be overfunded by \$95 billion and would need no 2019 contribution. (*See Attachment C, Funding Run 1.*)

The proposed funding schedules are designed to achieve the targeted funding balance by the funding date, but would be re-set and resubmitted to the Committee in December 2019 to include the November 30, 2019 Trust balance, plus anticipated Trust earnings, minus Trust expenses, plus the funding assurance Escrow balance, plus anticipated earnings, minus projected expenses.

J. Proposed Funding Schedules

There have been no changes in the ownership structure of the Plant since the 2018 Annual Report. BNY Mellon Trust of Delaware remains trustee for the Trust and LCG remains the investment consultant, responsible for maintaining and modifying the funding model, as necessary, and recommending earnings assumptions and consulting with each Joint Owner on investment strategy. LCG is also ultimately responsible for generating funding schedules based on the following assumptions:

- a) The estimated cost of decommissioning the Plant, and the related expenditure schedule, in present day dollars is determined, based on decommissioning commencing at the end of the operating life of the Plant (in this case, 2050 given the NRC's approval of license extension) and using the Committee's directive that spent nuclear fuel will be transferred by 2100 and the ISFSI decommissioned in 2101. Costs related to the dismantlement of Seabrook Unit 2 are not considered in the estimated cost.⁹
- b) The 3.5% decommissioning cost escalation factor is applied to the cost estimate to determine the total cost of decommissioning to the end of the decommissioning period.
- c) The projected decommissioning cost and liability is allocated to the Joint Owners based upon their respective ownership share. A separate schedule of payments for each Joint Owner is then created. Each Joint Owner is responsible for its ownership share of the total cost.
- d) Actual market values of investments within each fund within the Trust and Escrow for each Joint Owner are factored into future funding contribution calculations. The earnings assumptions are as approved in NDFC Docket No. 2018-1, with the exception of the increase in Escrow earnings from 1.50% to 2.25% noted above. If a Joint Owner is projected to owe a contribution, the funding schedules assume that Joint Owner's Escrow balance is transferred to the Trust at year-end 2020 (*see* 2016 Final Order at 22). If instead a Joint Owner is projected to be over-funded, the funding schedules assume that Joint Owner's Escrow balance is released to the Joint Owner at year-end 2020. (*Id.*)
- e) Individual Joint Owners elect investments from the available approved investment funds. Future earnings assumptions for each fund, estimated by the Investment Consultant and submitted herein for approval by the State Treasurer, are applied to Trust and Escrow balances.

⁹ RSA 162-F does not apply to Seabrook Station Unit 2.

f) Estimated taxes and expenses for certain administrative activities of the Trust and Escrow are deducted from those respective balances. Such expenses include Trustee and Fund Manager fees, Investment Consultant billings, audit fees and routine administrative expenses of the Committee. Taxes are only paid out of the Qualified Trust funds.

g) The appropriate funding methodology and inflation estimates are applied. Contributions are escalated annually by the appropriate overall rate of inflation for the service life of the Plant. The inflation rate assumption of 2.75% is as approved in NDFC Docket No. 2018-1.

Attachment E, Funding Run 1 reflects the contributions to the Trust and Escrow based on these assumptions. As noted above, using these assumptions and current balances, all of the Joint Owners are projected to be overfunded, as follows:

| Owner | Projected balance after all decommissioning costs have been paid |
|------------------------------|---|
| MMWEC | \$5.1 billion |
| Taunton | \$38 million |
| Hudson | \$30 million |
| NextEra | \$95.2 billion |
| Total projected overfunding: | \$100.4 billion |

As a result of their overfunded status, no contributions would be due for 2020.

K. Analysis of effects, if any, of climate change on the cost to decommission Seabrook Station

For the reasons set forth in the TLG updated cost to decommission Seabrook Station, there are no costs associated with climate change that affect the cost to decommission Seabrook Station.

Flood protection is, and will continue to be, an important part of Seabrook Station’s nuclear licensing basis. With extreme weather events and rising sea level in mind, NextEra has prepared flood hazard evaluations for the site that identified flood risk and mitigating strategies.

The evaluations, which were reviewed by the NRC, concluded that only minor modifications were needed to protect critical areas from local intense precipitation and hurricane-induced storm surge. The company also identified preemptive actions for dealing with site flooding. The modifications identified, including adding flood protection features, have been completed. They do not impact operations, nor will they impact the eventual decommissioning of the plant.

The NRC's regulatory framework provides for its licensees to review new hazard information, such as rising sea level, that becomes available and, as necessary, consideration and resolution of that new information. This type of information is considered in a variety of ways, including the formal corrective action programs and in formal operability determinations. In the event sea level rise exceeds what is accounted for in Seabrook Station's licensing basis and current site flooding analysis, NextEra will evaluate the new information and take appropriate corrective action if necessary. Based on this framework, NextEra does not anticipate sea level rise impacting the long-term operability of Seabrook Station.

L. Update of NextEra Energy Seabrook Support Agreement Amount

Pursuant to Section 9.3 of the Stipulation of the Parties entered in NDFC Docket 2002-2, the NextEra Energy Seabrook Support Agreement is updated during the four-year comprehensive review:

The amount available for outages of less than a nine-month duration shall equal one-half of the average annual operations and maintenance expense (as defined by the elements set forth in the "Operating Expense" columns in Exhibit 5) for FPPE's share of Seabrook Station during the immediately preceding three-year period and the most recent projection for the succeeding three years as attested to by sworn application to the NDFC at the time of the hearing. The additional commitment in Paragraph IV.B.2 above for outages lasting more than nine months' duration shall equal one-half of the average annual operations and maintenance expense for NextEra Energy Seabrook's share of Seabrook Station as described in the immediately preceding sentence.

NextEra has determined that, as of the date of the filing of this four-year report, one-half of the average annual operations and maintenance expense (as defined by the elements set forth

in the “Operating Expense” columns in Exhibit 5 of the Stipulation in NDFC Docket 2002-2) for NextEra Energy Seabrook’s share of Seabrook Station during the immediately preceding three-year period 2016-2018, and the most recent projection for the succeeding three years 2019-2021 is \$129,804,000. The additional commitment for outages lasting more than nine months’ duration shall equal \$129,804,000. NextEra will present the specific cost elements in a confidential exhibit along with the anticipated Stipulation of the Parties.

IV. CONCLUSION

For the reasons set forth herein, the Joint Owners respectfully request that the Committee approve the (1) updated cost to decommission the Plant beginning in 2050; and (2) funding schedules based on the updated, 2050 cost estimate with the remaining assumptions as approved in Docket No. 2018-1, with the exception of increasing the Escrow earnings assumption from 1.50% to 2.25%. *See* Attachment E, Funding Run #1.

Respectfully submitted this ___th day of May, 2019.

/s/ Steven C. Hamrick
Steven C. Hamrick, Esq.
NextEra Energy Seabrook, LLC
801 Pennsylvania Ave. NW Suite 220
Washington, DC 20004
Tel: 202-349-3496
Fax: 202-347-7076
E-Mail: steven.hamrick@nexteraenergy.com

/s/ Christopher T. Roach
Christopher T. Roach, Esq.
Roach Hewitt Ruprecht Sanchez &
Bischoff, P.C.
66 Pearl Street
Portland, ME 04101
Tel: 207-747-4870
E-Mail: croach@roachhewitt.com

Attorneys for Applicant NextEra Energy Seabrook, LLC

ATTACHMENT A

Definition of Terms

Decommissioning — As defined in RSA 162-F:14, decommissioning of a nuclear electric generating facility means, but is not limited to, any or all of the following, as may be required by any federal or state agency with jurisdiction, when any radioactive portion of the facility is permanently removed from service:

- a. Safe removal of the land, facility, or site from service, including, but not limited to, decontamination, stabilization, removal, relocation, shipment, containment, demolition, dismantling, or storage, or a combination thereof, of any buildings, structures, systems, components, materials, or debris containing activation products or radioactive contamination. This includes reduction of residual radioactivity to a level that permits release, by the NRC, of the property including land and structures for unrestricted use, and termination of the license issued by the NRC. Included is the removal of nuclear fuel, removal of the reactor containment building, and the dismantling of non-contaminated components required to obtain access to contaminated components.
- b. Restoration and rehabilitation of the site, including the physical and aesthetic appearance of the site, that is subject to the requirements of 6.a, above, to permit non-nuclear commercial, industrial, or other similar use, consistent with the orderly development of the region with due consideration having been given to the views of municipal and regional planning commissions and municipal governing bodies.
- c. Perpetual, continual control or surveillance of land and structures that the NRC has not released for unrestricted use.

The decommissioning cost estimates for the Plant upon which the current and proposed funding schedules are based provides for the removal of structures and decontamination to the extent that the facility operator may have unrestricted use of the site with no requirement for a 10 CFR 50 NRC plant operating license, and also provides for removal of other site buildings, structures, and features with the exception of those projected to have commercial or industrial value after the completion of the decommissioning process. The estimate also assumes that there will be a need for a 10 CFR 72 NRC-licensed on site dry storage facility for spent nuclear fuel (“SNF”) for several years after the release of the 10 CFR 50 NRC operating license and includes costs to operate this facility and to decommission this facility after all spent nuclear fuel has been removed from the site.

Commercial-Industrial — An approach to decommissioning for which certain of the buildings, structures, and physical features constructed for the plant that are judged to have future value are excluded from the scope of the decommissioning.

Inflation — An estimate of the overall rate of inflation in the economy looking forward to the time of decommissioning. The decommissioning funding schedules are designed such that Joint Owner contributions increase by the overall inflation rate each year.

Cost Escalation Factor — The projected annual rate of increase of the estimated cost to decommission the Plant at the end of plant life. The decommissioning escalation rate is applied to the current decommissioning estimate to calculate the actual amount of money needed in the fund when dismantling commences. Decommissioning escalation is not identical to inflation since the increase in certain components of decommissioning costs may be greater or less than the overall inflation rate.

Nominal Dollars — Nominal dollars are dollars expressed in actual terms for some point in the future. Nominal dollars increase from today's dollars by inflation.

Real Dollars — These are dollars associated with escalated funding and earnings assumptions. Real dollars exclude any impact of inflation. The purchasing power of what they are paying, therefore, remains constant over time.

Low Level Radioactive Waste (LLRW) — Radioactive waste that is not classified as high level radioactive waste, transuranic waste, SNF, or byproduct material as defined in Section 11e.(2) of the Atomic Energy Act (uranium or thorium tailings and waste). All radioactive products of decommissioning the Plant are LLRW except the SNF, which is high level radioactive waste. A small volume of low-level radioactive waste, identified in the decommissioning cost estimate as "Greater than Class C" waste (GTCC), is designated for disposal along with the SNF due to the more rigorous requirements for its isolation from the environment.

High Level Radioactive Waste (HLRW) — The spent fuel, generated during plant operations, is the only high level radioactive waste addressed within the process outlined to decommission the Plant.

ATTACHMENT B

Fund Roles, Responsibilities and Investment Guidelines

State Treasurer — RSA 162-F:20 mandates that the New Hampshire State Treasurer administer each nuclear decommissioning financing fund. Responsibilities of the State Treasurer, spelled out in RSA 162-F and the Seabrook Nuclear Decommissioning Financing Fund Master Trust Agreement (Master Trust Agreement), include providing approvals for:

- Appointment and replacement of the Trustee, the Investment Consultant, one or more Fund Managers and their respective compensation fee schedules,
- Revisions of the Investment Guidelines, and
- Decommissioning Financing Fund Payment Schedule (Funding Schedule) which determines the monthly contribution of each Joint Owner.

In accordance with the Master Trust Agreement, the State Treasurer reviews and forwards the Investment Consultant's annual report to the Committee reflecting the performance of the Decommissioning Fund for the preceding year. After reviewing the Investment Consultant's report, the State Treasurer and the Managing Agent then submit a joint annual report which includes the current inflation estimate, the estimated future earnings of the Decommissioning Trust and a statement on the adequacy of the Funding Schedule. Monthly reports from the Trustee are also reviewed and retained by the State Treasurer.

Managing Agent — NextEra Energy Seabrook, LLC, a Delaware limited liability company, pursuant to the Seabrook Project Managing Agent Operating Agreement (the Managing Agent Agreement), is the Managing Agent for the Seabrook Joint Owners. NextEra Energy Seabrook, LLC is responsible, under the terms of the Joint Ownership Agreement and the Managing Agent Agreement, for operation of the Plant and for the development and modification of plans and cost estimates for the eventual decommissioning of the Plant. NextEra Energy Seabrook, LLC, an indirect wholly-owned subsidiary of NextEra Energy Resources, LLC, which is an indirect wholly-owned subsidiary of NextEra Energy, Inc. is also responsible for certain administrative duties, which include:

- facilitating the collection of funds from the Joint Owners and the depositing of such funds into the decommissioning fund,
- providing payment calculations and schedule of payments, and
- acting as spokesman for all of the Joint Owners¹ in dealings with the State of New Hampshire with respect to the Seabrook Nuclear Decommissioning Financing Fund.

¹ In some cases an owner or owners may elect to represent their individual interests directly.

Trustee — Two irrevocable trusts have been established for, and are independent of, each of the Seabrook Joint Owners for the purpose of holding and disbursing funds to be used in the decommissioning of the Plant. The Qualified Trust was established as a nuclear decommissioning reserve fund under Section 468A² of the Internal Revenue Code of 1986. The Non-Qualified Trust is not subject to the requirements of Section 468A.

Under the terms of the Seabrook Nuclear Decommissioning Financing Fund Master Trust Agreement, as amended and restated (Master Trust Agreement), Mellon Trust of Delaware, National Association, (Mellon Trust), has served as trustee for the Trust since January 1, 2006. Effective January 15, 2008, Mellon Trust merged into The Bank of New York (Delaware) and has since been renamed BNY Mellon Trust of Delaware. As no new trustee was created by the merger, under applicable fiduciary and contract law, the terms of the trust and custody agreements did not need to be amended to reflect the merger. The Trustee's responsibilities include holding, investing, reinvesting, transferring funds between the trusts, and disbursing principal and income of the trusts. Further rights and responsibilities of the Trustee are discussed in the Master Trust Agreement.

Investment Consultant — The Master Trust Agreement requires an independent investment consultant, appointed by the Managing Agent and approved by the State Treasurer. LCG Associates, Inc. was appointed to this role on effective January 1, 2012 and became responsible for the Funding Schedule beginning with the 2012-1 docket. The investment consultant cannot be the Trustee or a Fund Manager. Responsibilities of the investment consultant include:

- an annual review of the investment guidelines,
- proposed revisions to the investment guidelines, as appropriate,
- at least an annual evaluation of the Trustee's or the Fund Manager's investment performance for the State Treasurer and Managing Agent,
- annual inflation estimates and earnings projections for each Trust to the Managing Agent and State Treasurer,
- updates to the Funding Schedule, and
- independent oversight for the State Treasurer.

² NOTE: Code Section 468A relates to the tax deductibility of a contribution to a nuclear decommissioning fund. Generally, an eligible tax payer is allowed a tax deduction in the year in which a cash contribution is made to a decommissioning fund. The deduction is limited to the lesser of: i) the amount of contributions included in the taxpayer's cost of service for ratemaking purposes and actually collected from the ratepayer or; ii) an IRS ruling amount. Contributions in excess of these amounts are not deductible in that tax year. Annual earnings are taxed at 20% rather than at normal corporate tax rates, and are paid from the Qualified Trust Accounts.

Distributions from the decommissioning fund are included in gross income of the eligible taxpayer at the time of the distribution. Tax deductions are allowed for decommissioning costs in the year when economic performance occurs.

Fund Manager — The Master Trust Agreement provides the Managing Agent with the authority to appoint, subject to approval of the State Treasurer, one or more Fund Managers to manage the investment activity of a designated portion of each Trust. A Fund Manager is responsible for determining whether its investments are in compliance with the investment guidelines.

Eaton Vance Management was appointed in April 2015 as the Fund Manager of the fixed income investments, effective June 1, 2015. Eaton Vance Management, a Boston-based investment management firm, is a wholly owned subsidiary of Eaton Vance Corp. State Street Global Advisors (SSgA), a Boston-based investment management division of State Street Bank & Trust Company is the Fund Manager for NextEra Energy Seabrook’s domestic equity.

HPS Investment Partners, LLC (“HPS”), formerly known as Highbridge Principal Strategies, LLC, KKR Credit Advisors (US) LLC and Avenue Europe International Management manage direct lending/senior loan limited partnerships for NextEra Energy Seabrook’s opportunistic allocation. Effective in 2018, Apollo Capital Management, L.P. manages a private debt strategy for NextEra Energy Seabrook’s opportunistic allocation.

HPS was originally formed as a unit of Highbridge Capital Management, LLC, a subsidiary of J.P. Morgan Asset Management, and formerly known as Highbridge Principal Strategies, LLC. In March 2016, the principals of HPS acquired the firm from J.P. Morgan Asset Management. KKR Credit Advisors (US) LLC is a wholly owned subsidiary of Kohlberg, Kravis, Roberts & Co., and Avenue Europe International Management is an affiliate of Avenue Capital Group. Apollo Capital Management, L.P. is a subsidiary of Apollo Global Management, LLC.

NextEra Energy Seabrook’s international equity exposure is provided by the Dodge & Cox International Stock mutual fund. The Vanguard S&P 500 Index mutual fund provides the Municipal Joint Owners large-cap equity exposure; the Vanguard Midcap Index mutual fund provides mid- to small-cap equities for the Municipal Joint Owners; and the Dodge & Cox International Stock mutual fund is used for international equity for the Municipal Joint Owners.

INVESTMENT GUIDELINES

Investment Guidelines have been established, pursuant to the Master Trust Agreement, to control investment risk of the decommissioning funds while maximizing potential investment gains. Currently, the objectives of the current Investment Guidelines as approved by the State Treasurer are to:

- Preserve the purchasing power of principal by achieving investment earnings in excess of inflation,
- Earn a rate of return equal to or greater than the rate assumed for funding purposes,
- Employ multiple asset classes to allow for prudent diversification and the resultant lowering of return volatility, and

- Invest all assets so as to adhere to the prudent investor standard and to maintain the Fund's tax-qualified status, where appropriate.

The Guidelines are reviewed at least annually by the Investment Consultant and all revisions are approved by the Managing Agent and the State Treasurer.

ATTACHMENT C

TLG Associates Report with Funding Runs 1 through 3

ATTACHMENT D

**Order of Nuclear Regulatory Commission
approving License Extension for Seabrook Station**

ATTACHMENT E

Joint Owner Proposed Funding Schedule (Funding Run 1)

ATTACHMENT F

Updated Cost to Decommission Seabrook Station by TLG

ATTACHMENT G

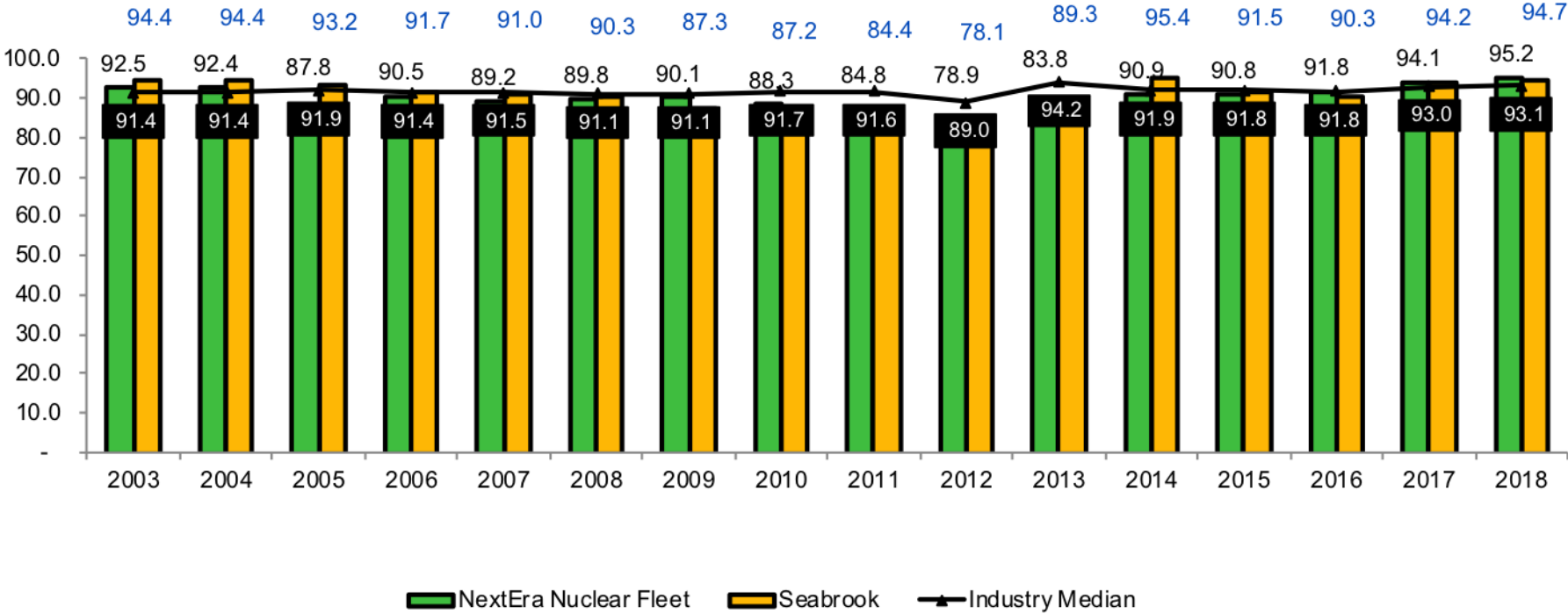
Escalation Analysis for the Seabrook Station by TLG

ATTACHMENT H

Submission of IHS Markit

Table 1: Seabrook, NextEra Nuclear Fleet and Industry Unit Capability Factors^{1,2}

Seabrook



¹ Green bars (Prior to 2006) represent combined Turkey Point Nuclear Plant and St. Lucie Nuclear Plant Performance. 2003 data reflects the addition of Seabrook, 2006 data reflects the addition of Duane Arnold and 2008 reflects the addition of Point Beach to the NextEra Nuclear fleet. Note the Industry Data is as of Fourth Quarter 2018.

² In 2012, Seabrook operated at 85% power for a portion of the year due to generator stator cooling fouling, an issue with the non-nuclear secondary side of the Plant. 2012 was also a refueling outage year. The stator issue was successfully resolved in the Fall 2012 refueling outage and operation was restored to 100%.

**Table 2: Seabrook and NextEra Nuclear NRC Safety and Reliability Performance Indicators
(As of May 8, 2019)**

NRC Performance: Indicators

| | Turkey Point Unit 3 | Turkey Point Unit 4 | St. Lucie Unit 1 | St. Lucie Unit 2 | Seabrook Station | Duane Arnold | Point Beach Unit 1 | Point Beach Unit 2 |
|---|---------------------|---------------------|------------------|------------------|------------------|--------------|--------------------|--------------------|
| Initiating Events Cornerstone | | | | | | | | |
| Unplanned Reactor Scrams per 7000 Critical Hours (Automatic and Manual) | Green | Green | Green | Green | Green | Green | Green | Green |
| Unplanned Reactor Power Changes per 7000 Critical Hours | Green | Green | Green | Green | Green | Green | Green | Green |
| Unplanned Scrams with Complications | Green | Green | Green | Green | Green | Green | Green | Green |
| Mitigating Systems Cornerstone | | | | | | | | |
| Mitigating System Performance | Green | Green | Green | Green | Green | Green | Green | Green |
| Safety System Functional Failures | Green | Green | Green | Green | Green | Green | Green | Green |
| Barriers Cornerstone | | | | | | | | |
| RCS Activity | Green | Green | Green | Green | Green | Green | Green | Green |
| RCS Leakage | Green | Green | Green | Green | Green | Green | Green | Green |
| Emergency Preparedness Cornerstone | | | | | | | | |
| Emergency Response Organization (ERO) Drill/Exercise Performance | Green | Green | Green | Green | Green | Green | Green | Green |
| ERO Drill Participation | Green | Green | Green | Green | Green | Green | Green | Green |
| Alert and Notification System Performance | Green | Green | Green | Green | Green | Green | Green | Green |
| Occupational Radiation Safety Cornerstone | | | | | | | | |
| Occupational Exposure Control Effectiveness | Green | Green | Green | Green | Green | Green | Green | Green |
| Public Radiation Safety Cornerstone | | | | | | | | |
| RETS/ODCM Radiological Effluent Occurrence | Green | Green | Green | Green | Green | Green | Green | Green |
| Physical Protection Cornerstone | | | | | | | | |
| Protected Area Security Equipment Performance Index | Green | Green | Green | Green | Green | Green | Green | Green |

Acceptable
Performance Licensee
Response Band

