

STATE OF VERMONT
PUBLIC SERVICE BOARD

Joint Petition of NorthStar Decommissioning)
Holdings, LLC, NorthStar Nuclear)
Decommissioning Company, LLC, NorthStar)
Group Services, Inc., LVI Parent Corp., NorthStar) Docket No. []
Group Holdings, LLC, Entergy Nuclear Vermont)
Investment Company, LLC, and Entergy Nuclear)
Operations, Inc., and any other necessary)
affiliated entities to transfer ownership of Entergy)
Nuclear Vermont Yankee, LLC, and for certain)
ancillary approvals, pursuant to 30 V.S.A. §§ 107,)
231, and 232)

SUMMARY OF PREFILED TESTIMONY OF STEVEN SCHEURICH

Mr. Scheurich, the Vice President of Nuclear Decommissioning for Entergy Wholesale Commodities and a Manager of Entergy Nuclear Vermont Yankee, Inc., first describes the process by which Entergy selected NorthStar as its counterparty on this transaction, and second explains the approximate timing of decommissioning and site restoration under the status quo of Entergy's continued ownership of Entergy Nuclear Vermont Yankee, LLC.

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PREFILED TESTIMONY OF STEVEN SCHEURICH

1 Q1. **Please state your name and business address.**

2 A1. Steven Scheurich, 639 Loyola Avenue, New Orleans, Louisiana 70113.

3 Q2. **What is your occupation?**

4 A2. I am the Vice President of Nuclear Decommissioning for Entergy Wholesale
5 Commodities and a Manager of Entergy Nuclear Vermont Yankee, LLC (“ENVY”). My
6 specific responsibility is to lead the planning process for decommissioning nuclear plants
7 in Entergy’s merchant fleet.

8 Q3. **What is your educational and professional background?**

9 A3. I have worked for Entergy companies since 1989. Over nearly three decades, I have
10 served in a variety of financial and strategic planning roles. Most recently, I served as
11 Finance Director for Entergy Louisiana, LLC from 2002 to 2007, reporting to the CEO
12 and leading efforts directed to strategic and regulatory planning, financial planning and
13 budgeting, and capital investment planning. I next became the Vice President of

1 Customer Service and External Affairs for Entergy Louisiana, LLC and Entergy Gulf
2 States Louisiana, LLC, reporting to the CEO and directing the customer service,
3 commercial and industrial account management, and local community and external
4 affairs teams. I then served in several business strategy roles, including working on
5 restructuring Entergy's regulated utility business before transitioning to work on
6 decommissioning issues in May 2014. I currently serve as Director of Entergy Nuclear
7 Vermont Finance Company, Manager of Entergy Nuclear Vermont Investment Company,
8 LLC ("ENVIC"), Manager of ENVY, and Director of TLG Services, Inc.

9 My educational background includes a Bachelor of Science degree in Accounting
10 and a Bachelor of Science degree in Business Administration and Management from
11 Louisiana State University. I also earned a Master of Business Administration from
12 Tulane University.

13 **Q4. What is the purpose of your testimony in this proceeding?**

14 A4. The purpose of my testimony is to address two issues: *first*, to explain the process that
15 Entergy, which owns and operates generating facilities, undertook in deciding to sell
16 ENVY to NorthStar, a specialty demolition and remediation company, and, *second*, to
17 explain the projected timing of radiological decommissioning and site restoration if
18 Entergy continued to own ENVY.

19

1 **I. Entergy's Selection of NorthStar for Purchasing ENVY and Decommissioning the**
2 **VY Station Site**

3 **Q5. What involvement have you had with the proposed transaction to transfer ENVY to**
4 **NorthStar VY?**

5 **A5.** As Vice President of Nuclear Decommissioning, I played a key role in the process that
6 resulted in this transaction.

7 **Q6. How did that process begin?**

8 **A6.** Entergy believes that its actions have to balance the interests of its four stakeholders: its
9 owners, its customers, its employees, and the communities in which it operates. We
10 recognized that the State and local communities impacted by the plant's closure have a
11 strong desire to decommission the site and return it to economic industrial/commercial
12 use sooner than the SAFSTOR decommissioning scenario reflected in the ENVY Post-
13 Shutdown Decommissioning Activities Report ("PSDAR"). We also recognized that our
14 core business is operating generating facilities and participating in the energy markets,
15 not in decommissioning. We believed that an entity with expertise in decommissioning
16 as its core business (as opposed to nuclear power generation) could provide an
17 opportunity to accelerate the schedule to allow for completion of decommissioning and
18 site restoration sooner than Entergy's projected schedule would allow.

19 An early assessment process to consider decommissioning options started before
20 plant closure in 2014, after reaching agreement on the December 23, 2013 Memorandum
21 of Understanding approved in Docket 7862. At that time, nuclear plant decommissioning
22 options were evolving at several plants: the Kewaunee Nuclear Station in Wisconsin, the

1 Crystal River Nuclear Power Plant in Florida, and the San Onofre Nuclear Generating
2 Station in California had recently been, or had announced plans to, permanently shut
3 down, in addition to the Vermont Yankee Nuclear Power Station (“VY Station”).

4 One step we took to speed up the time at which we would be able to initiate
5 decommissioning was to evaluate and ultimately fund certain dry fuel storage costs from
6 funds other than funds in the decommissioning trust, allowing the trust to continue to
7 grow and decommissioning to commence earlier. Additionally, we held exploratory
8 discussions with a number of companies to consider options for decommissioning the VY
9 Station. It became clear to us through these discussions that companies with core
10 competencies in demolition and remediation were developing a specific focus on the
11 nuclear plant decommissioning business and were interested in exploring earlier
12 decommissioning options for the VY Station.

13 Based on what we had learned through these exploratory discussions, we initiated
14 a formal selection process in 2015, culminating in a Letter of Intent with NorthStar on
15 September 4, 2015, which provided a period of exclusivity for due diligence and
16 commercial negotiations. On November 7, 2016, we entered into the Membership
17 Interest Purchase and Sale Agreement between the parties.

18 **Q7. How did Entergy determine to transfer ownership of ENVY instead of hiring a**
19 **decommissioning operations contractor?**

20 **A7.** Of the nuclear generation stations that were decommissioned in the 1990s and early
21 2000s, most of the owners of those facilities either hired a decommissioning operations
22 contractor (“DOC”) or “self managed” the decommissioning themselves through

1 acquisition of specific decommissioning expertise. While our PSDAR and
2 accompanying site-specific decommissioning cost estimate (“DCE”) that we submitted to
3 the U.S. Nuclear Regulatory Commission (“NRC”), discussed below, are based upon the
4 traditional DOC model, we also considered other options. One of the options that we
5 considered seemed to make the most sense. It was based on a project in Illinois in which
6 Exelon transferred ownership of two nuclear units that had shut down in the 1990s, Zion
7 Units 1 and 2, along with their NRC operating licenses and the responsibility for their
8 decommissioning, to a separate company instead of hiring a DOC.

9 Exelon had placed the units in SAFSTOR and had not yet begun
10 decommissioning more than a decade after shutting down the plants. In 2010, Exelon
11 transferred the Zion NRC operating licenses to a company named *ZionSolutions*, which
12 also acquired all of the plant assets, with the exception of the spent nuclear fuel (“SNF”)
13 and the land on which the facility is located, and leased the land from Exelon so that it
14 could decommission the site. We undertook a case study of this approach, identifying
15 how Exelon approached the transaction and why Exelon did it.

16 **Q8. How does the structure of the Zion transaction compare to the structure of the**
17 **NorthStar transaction at issue here?**

18 **A8.** The structure of the two transactions is very similar except that, in the Zion transaction,
19 the parties agreed that Exelon would retain ownership of SNF. As a result, after
20 *ZionSolutions* completes decommissioning and restoring the portion of the site that is not
21 related to SNF, *ZionSolutions* will transfer the NRC licenses back to Exelon, and Exelon
22 will resume ownership of the Zion site and have responsibility for ongoing SNF

1 management. According to the license transfer application filed with the NRC for the
2 Zion transaction, Exelon and *ZionSolutions* agreed to that arrangement because they
3 determined that any attempted assignment of the Zion portion of the SNF contract
4 between Exelon and the U.S. Department of Energy (“DOE”) would create complications
5 for the ongoing generation of SNF at other Exelon operating sites governed by the same
6 contract.¹ That consideration does not apply in the case of the VY Station because
7 ENVY’s contract with DOE for the removal of its spent fuel is specific to the VY Station
8 and will transfer to NorthStar as part of the transfer of ownership of ENVY.

9 **Q9. Once you identified the possibility of a transfer of ownership of ENVY to a**
10 **specialized decommissioning company, how did you proceed?**

11 A9. We explored that possibility with interested counterparties for over a year. Each of the
12 potential counterparties undertook comprehensive analyses to obtain an understanding of
13 the VY Station, the nuclear decommissioning trust (“NDT”) and site restoration trust
14 (“SRT”), and the regulatory issues associated with a transfer of ownership. We held
15 strategic discussions with the potential counterparties and solicited proposals for an
16 ownership transfer from them. While NorthStar and another potential counterparty both
17 proved to be viable options, NorthStar emerged as the best candidate, providing the most
18 certainty on cost and schedule for the VY Station decommissioning. After selecting
19 NorthStar as our preferred candidate, we worked with its management to develop the

¹ *Application for License Transfers and Conforming Administrative License Amendments*,
EXELON, NRC Accession No. ML080310521, Attachment 1 at 12-13 (Jan. 25, 2008),
<http://www.nrc.gov/docs/ML0803/ML080310521.pdf> .

1 structure and details of the transaction that is being presented to the Board in this
2 proceeding.

3 **Q10. Did ENVY consider hiring NorthStar as a DOC to decommission the VY Station site**
4 **instead of transferring ownership of ENVY to NorthStar?**

5 A10. No. During the selection process, NorthStar Chief Executive Officer Scott State
6 specifically indicated that NorthStar was not interested in serving as a DOC. I
7 understand that NorthStar also chose not to participate in the bid process for the San
8 Onofre Nuclear Generating Station because the owners of that site were seeking to
9 engage a DOC rather than solicit an ownership transfer. Mr. State's testimony describes
10 why NorthStar's business model involves ownership rather than performing as a DOC.

11 **Q11. How did Entergy assess whether NorthStar could complete decommissioning and**
12 **site restoration sooner than Entergy could?**

13 A11. A key requirement of our consideration of ownership options was the counterparty's
14 ability to complete decommissioning and site restoration earlier than could be achieved
15 under the status quo. This meant we needed a high level of confidence in NorthStar's
16 ability to execute, which was satisfied through the combination of contractual
17 arrangements NorthStar had developed with other well-known and experienced
18 counterparties in the industry and through financial assurances that we believed would
19 meet or exceed NRC requirements to successfully complete the license transfer. Entergy
20 undertook a thorough due diligence effort to examine NorthStar's ability to deliver on its
21 proposed decommissioning plan. This required detailed review of NorthStar's

1 decommissioning plan by not only our internal experts (including Entergy affiliate TLG
2 Services) but also external experts (including PricewaterhouseCoopers) familiar with
3 decommissioning activities, the NRC process, and the Zion project.

4 Another key factor in this due diligence review was NorthStar's ability to obtain
5 necessary regulatory approvals. We therefore engaged in a rigorous review of NorthStar's
6 ability to meet the standards required at the state and federal level, including whether
7 NorthStar possessed the requisite financial and technical ability to complete
8 decommissioning on time and on budget.

9 **Q12. What did this due diligence entail?**

10 A12. We initially reviewed NorthStar's work history, confirming that NorthStar is a leading
11 provider of abatement and demolition services, with significant nuclear sector experience
12 and a proven track record of decommissioning university and research nuclear facilities.
13 We confirmed that NorthStar had successfully undertaken many other complex
14 demolition and remediation activities, such as the decommissioning of large fossil-fuel
15 plants, clean-up of the Pentagon site after the September 11 attacks, and the demolition of
16 the old Yankee Stadium. We also studied NorthStar's teaming partner structure with
17 fixed-price and fixed-unit contracts, which ensured expertise and experience for all key
18 areas of decommissioning, further reducing risk and providing cost and schedule
19 certainty.

20 Prior to selecting NorthStar, Entergy affiliate TLG Services, under my direction,
21 analyzed NorthStar's decommissioning cost estimate, applying TLG's knowledge from
22 developing ENVY's cost estimates, in addition to providing expert review of NorthStar's

1 model and assumptions. TLG and outside consultants also examined NorthStar's
2 decommissioning technical expertise and financial capability to ensure NorthStar would
3 be able to satisfy the NRC's requirements for approval of the NRC operating license
4 transfer. These analyses validated that NorthStar's decommissioning approach and cost
5 estimates were reasonable and sufficiently reliable to support initiating decommissioning
6 no later than 2021 and completing partial site release (*i.e.*, release of the site apart from
7 the ISFSI area) no later than 2030.

8 **Q13. What else did you do to ensure the transaction would be successful for all involved?**

9 A13. We established a principled approach, with due weight given to the importance of the
10 transaction and the expectations that reviewing regulators would have. Recognizing that
11 the NRC and this Board would engage in a careful review of the proposed transaction, we
12 pursued strong commercial terms to ensure that NorthStar would be positioned to obtain
13 the requisite regulatory approvals and to meet all of its commitments. In this regard, I
14 obtained additional financial assurances, including the \$125 million parent support
15 agreement that is more than three times the amount of the current Entergy Corporation
16 commitment to provide a parent guarantee. Even though we determined NorthStar could
17 decommission the site within the proposed budget, we sought further financial assurances
18 to provide additional confidence in this approach for our stakeholders and regulators. We
19 also worked with NorthStar to develop the transparent, NDT-protective Guaranteed Fixed
20 Payment approach, which utilizes the pay-item disbursement schedule described in Mr.
21 State's prefiled testimony, and we required bonding of tasks within that schedule, as Mr.
22 State further describes.

1 Q14. **Are there any other relevant aspects of the transaction that favored the selection of**
2 **NorthStar?**

3 A14. Yes. As I stated earlier, after applying a decision framework that considered risks, cost
4 and schedule certainty, technical qualifications, and a comprehensive financial strategy,
5 we concluded that NorthStar's proposal was superior to the other proposal we received
6 and that the terms to which it agreed provided confidence in its ability to achieve
7 significant acceleration of the decommissioning schedule. That was particularly true
8 given the other team members that NorthStar would bring to the project.

9 A key factor that weighed into the selection of NorthStar was the inclusion of
10 AREVA on the NorthStar team. AREVA will perform the reactor vessel and reactor
11 vessel internals segmentation and manage SNF on site after NorthStar's acquisition and
12 until the DOE fulfills its obligation to remove SNF from the VY Station. AREVA
13 possesses substantial experience in reactor vessel segmentation at commercial nuclear
14 plants—including the Wuergassen boiling water reactor in Germany that has a very
15 similar design to the VY Station's boiling water reactor—and AREVA is a world leader
16 in spent fuel packaging and transportation. We valued the fact that AREVA would bring
17 to the VY Station decommissioning from the Wuergassen project its project manager and
18 other personnel who worked on that project, a detailed project plan, and lessons learned
19 from that project because reactor vessel/internals segmentation is the most complex
20 activity of any nuclear decommissioning project. As part of the due diligence, I traveled
21 to France with one of my colleagues to meet with AREVA, to review its approach, and to
22 evaluate its experience, including its operations related to the complete management of

1 SNF for France's 58 nuclear reactors. I also had our internal subject matter experts and
2 external consultants from PricewaterhouseCoopers inspect the test facility (an operations
3 facility that focuses on research and development efforts) that AREVA runs in Virginia
4 and report back on AREVA's management of the facility. These interactions with
5 AREVA gave us further confidence in NorthStar's approach.

6 **Q15. Did you consider any other aspect of the transaction important?**

7 A15. We also considered NorthStar's partnership with Waste Control Specialists ("WCS") a
8 positive aspect of the transaction. WCS operates a low-level radioactive waste
9 ("LLRW") site in Andrews, Texas, which includes the Texas Compact Waste Facility.
10 The State of Vermont is a member of the Texas Low Level Radioactive Waste Disposal
11 Compact, so LLRW generated at the VY Station will be sent there for disposal. We
12 specifically considered WCS's role as the operator of the Texas Compact Waste Facility
13 a beneficial aspect of the transaction. The VY Station already has shipped some LLRW
14 to WCS so we already were familiar with WCS and its expertise in disposing of LLRW.

15 In addition, WCS has submitted an application to the NRC that, if approved,
16 would permit interim storage of SNF and high-level radioactive waste ("HLRW"). While
17 no commitments regarding the interim storage of VY Station SNF at the proposed WCS
18 facility can be made until the NRC approves the application and other issues related to
19 HLRW storage are resolved, NorthStar's long-term relationships with WCS provides
20 optionality for the future. This was seen as a positive in our selection process.

21 Lastly, we considered NorthStar's engagement of the well-respected engineering
22 firm Burns & McDonnell to assist at the NRC with license termination and related issues

1 another positive aspect of the transaction. Entergy was familiar with Burns & McDonnell
2 from its work on projects for Entergy's utility business. Burns & McDonnell also is
3 involved with license termination for a former nuclear fuel production facility in
4 Oklahoma that is in the latter stages of decommissioning. That experience, together with
5 Burns & McDonnell's extensive other experience in the electric power generation
6 industry as well as Entergy's past experience with the company, made it a valuable team
7 member in our view.

8 **Q16. In the proposed transaction, how will the transfer of the membership interests be**
9 **accomplished?**

10 A16. ENVY's membership interests are currently owned by ENVIC. To facilitate Entergy's
11 sale of ENVY, ENVIC will form Vermont Yankee Asset Retirement Management, LLC
12 ("VYARM"). Prior to the closing, ENVY will transfer certain limited assets that are not
13 needed for NorthStar's decommissioning and site restoration of the VY Station to
14 VYARM. On the day before the transaction closing, ENVIC will transfer the
15 membership interests in ENVY to VYARM. VYARM will transfer the membership
16 interests in ENVY to NorthStar Decommissioning Holdings, LLC. VYARM will hold
17 the membership interests in ENVY for no more than 24 hours.

1 **II. The Current Plan for Decommissioning the VY Station Site Under Entergy's**
2 **Ownership**

3 Q17. **Please describe ENVY's obligation under NRC regulations to fund and complete**
4 **decommissioning of the VY Station.**

5 A17. ENVY is required to decommission the VY Station following its permanent cessation of
6 operations pursuant to NRC regulations.² Under NRC regulations, licensees may choose
7 from three decommissioning strategies: DECON, SAFSTOR, or ENTOMB.³ DECON
8 involves promptly removing or decontaminating portions of the facility containing
9 radioactive contaminants shortly after the plant closes. Under SAFSTOR, the site is
10 placed in a safe, stable condition and maintained in that state, allowing radioactivity to
11 decay; afterward, the facility is decontaminated and dismantled. The third option,
12 ENTOMB, allows for radioactive contaminants to be permanently encased in material
13 such as concrete, although no plant has chosen this option.

14 Decommissioning must be completed within 60 years of the plant ceasing
15 operations, and the NRC may approve a longer period only when necessary to protect
16 public health and safety.⁴

17 ENVY maintains the NDT, which was transferred as a part of its purchase of the
18 VY Station from Vermont Yankee Nuclear Power Corporation, to finance its obligation
19 to decommission the VY Station as required by the NRC.

² 10 C.F.R. § 50.51(b).

³ U.S. NUCLEAR REGULATORY COMM'N, NUREG-0586 (Supp. 1, Vol. 1), GENERIC ENVIRONMENTAL IMPACT STATEMENT ON DECOMMISSIONING OF NUCLEAR FACILITIES, at 3-16 to 3-17, <http://pbadupws.nrc.gov/docs/ML0235/ML023500395.pdf> .

⁴ 10 C.F.R. § 50.82(a)(3).

1 Q18. **Does ENVY plan to use the SAFSTOR approach to decommissioning?**

2 A18. Yes. On December 19, 2014, ENVY filed its PSDAR with the NRC, which sets forth a
3 SAFSTOR decommissioning plan with decontamination and dismantlement activities
4 scheduled to begin in 2068. The Irradiated Fuel Management Plan that ENVY filed with
5 the NRC also on December 19, 2014 shows that, assuming NDT fund growth at a 2
6 percent real return (2 percent above the rate of the growth of costs), as the NRC's
7 regulations allow,⁵ the NDT funds are adequate to pay for the costs of radiological
8 decommissioning and operational SNF management costs, with a remaining balance
9 sufficient to pay for site restoration costs. As indicated above, we also felt the need to
10 explore and identify viable alternatives to accelerate the decommissioning schedule with
11 the available funds.

12 Q19. **Does the PSDAR cover all aspects of how decommissioning of the VY Station is**
13 **likely to proceed?**

14 A19. No. As discussed in the PSDAR, under the December 23, 2013 Settlement Agreement
15 between Entergy and Vermont state agencies, which the Board referenced in its Order in
16 the Docket 7862 proceeding (concerning the application for a Certificate of Public Good
17 for continued operations, including decommissioning), ENVY and Entergy Nuclear
18 Operations, Inc. ("ENOI" and, together with ENVY, "Entergy VY") committed to file
19 with the NRC for authority to initiate radiological decommissioning "within 120 days
20 after it 'has made a reasonable determination' that it has sufficient funds to complete

⁵ 10 C.F.R. § 50.75(e)(1)(i).

1 decommissioning and remaining [SNF] management obligations.” Docket 7862, Order
2 dated March 28, 2014, at p. 89 (quoting Settlement Agreement). In addition, the NRC
3 staff previously has taken the position that ENVY may not include anticipated DOE
4 recoveries in its decommissioning funding analyses even though DOE’s liability has been
5 conclusively determined by the courts, ENVY already has recovered two judgments
6 against DOE totaling approximately \$60 million, and the issues surrounding the recovery
7 of SNF management costs have by now been largely resolved by the courts.⁶ As ENVY
8 acknowledged in the PSDAR and its October 2014 Site Assessment Study, with such
9 expected recoveries from DOE taken into account, major decontamination and
10 dismantlement activities could begin sooner than 2068, depending on the growth of the
11 NDT funds and the cost to complete decommissioning.

12 **Q20. Taking these additional considerations into account and under current assumptions,**
13 **when does Entergy VY project it will have adequate funds to begin decontamination**
14 **and dismantlement activities?**

15 A20. Using the TLG-modeled approach and, (i) after including estimated reimbursements from
16 DOE for SNF management costs, (ii) assuming the NDT grows at a real rate of 2 percent,
17 and (iii) taking into account Entergy VY’s current estimate of decommissioning costs, the

⁶ In one case, however, the NRC allowed a licensee to take into account pursuant to a settlement with DOE expected recoveries of “those costs incurred by [the licensee] for managing and storing Spent Nuclear Fuel/High Level Waste which were foreseeable in the event of DOE’s Delay, and that [the licensee] would not have incurred but for, and which are directly related to, DOE’s Delay in performance of its acceptance obligations under the Contract.” Letter from Karl Feintuch to Christopher Costanzo, NRC Accession No. ML100770505, at Enc. p. 4 (Mar. 29, 2010), <http://pbadupws.nrc.gov/docs/ML1007/ML100770505.pdf> .

1 trust would have sufficient funds to allow commencement of major decommissioning
2 activities in approximately 2053.⁷ Under the current decommissioning model, ENVY
3 would proceed first with radiological decommissioning and NRC license termination.
4 Second, upon completion of radiological decommissioning and termination of the NRC
5 license, site restoration would begin, including demolition of the decontaminated
6 structures on the site. Under these assumptions, the site, or at least that portion not
7 required for SNF storage and its associated protection if DOE has not already removed
8 the SNF from the site, would be available for future use for economic development in the
9 local community. A 2053 start date for major decommissioning activities under the
10 TLG-modeled decommissioning plan would allow for completion of radiological
11 decommissioning by approximately 2058 and site restoration by approximately 2060
12 under current schedule assumptions.

13 Because this estimate extends so far out into the future, the projected start date is
14 highly uncertain and subject to many unknowns and risks that could cause the growth rate
15 of the NDT and/or the decommissioning cost estimate to vary widely and unpredictably
16 from current estimate and assumptions. Given these many future uncertainties and risks,
17 I believe that, *today*, a tenable estimate of a potential start date for major
18 decommissioning activities is approximately 2053. Although unlikely in my view, if the
19 many uncertainties and risks were to turn out favorably, decommissioning potentially
20 could start sometime in the 2040s, as Entergy VY indicated in its Site Assessment Study,
21 which could lead to completions in the 2050s. But if the many uncertainties and risks

⁷ *Site Assessment Study*, ENTERGY 57-58 (Oct. 2014), <http://vydecommissioning.com/wp-content/uploads/2014/10/Final-VY-SAS.pdf>.

1 were to turn out unfavorably, decommissioning could start as late as 2068, as represented
2 in the 2014 PSDAR.

3 **Q21. How certain is the 2053 start date?**

4 A21. As I mentioned, the 2053 date included in the Site Assessment Study derives from the
5 2014 decommissioning cost estimate submitted to the NRC on December 19, 2014 and
6 the NDT balance at that time. The assumptions discussed above show that, at least
7 mathematically as of the end of 2014, the NDT would be sufficient to cover the estimated
8 costs of decommissioning, operational SNF management, and site restoration with a 2053
9 start date, with a projected remaining balance of \$139 million, which is estimated (but not
10 certain) to be adequate to account for the many uncertainties and risks over the next three
11 or four decades that could affect the start date. Under a self-management approach, an
12 exact start date will be unknown until the passage of time eventually clarifies the many
13 uncertainties and risks, the decommissioning cost estimate is updated to reflect the new
14 information that will become available in the future, and the ongoing annual assessments
15 of the adequacy of the NDT required by the NRC's regulations⁸ permit a reasonable and
16 less speculative determination that adequate funds are available to complete
17 decommissioning and remaining unreimbursed SNF management activities.

18 As illustrated by the discussion above, there are numerous factors at play,
19 including the fact that the start of decommissioning under the status quo is decades into
20 the future. Importantly, the risks and uncertainties inherent in projecting the
21 commencement of decommissioning so many years in the future are reduced significantly

⁸ 10 C.F.R. § 50.82(a)(8)(v).

1 by the proposed transaction because NorthStar will commence decommissioning within
2 the next few years (no later than 2021) and complete it no later than the end of 2030.

3 **Q22. Assuming that the proposed transaction were not approved and Entergy VY were to**
4 **decommission the VY Station, does Entergy VY commit to the Site Restoration**
5 **Standards that NorthStar proposes in Mr. State's testimony?**

6 A22. No. The standards proposed by Mr. State apply only in the event that the transaction is
7 approved. The standards that would apply to Entergy VY if the transaction is not
8 approved have not yet been established by the Board. Entergy VY reserves its right to
9 propose different standards.

10 **Q23. Assuming again that Entergy VY were to decommission the VY Station, would**
11 **Entergy VY be able to perform the decommissioning and site restoration itself on**
12 **the same schedule as NorthStar?**

13 A23. No. Entergy's core business is running a rate-regulated utility business and operating
14 nuclear generating plants as part of that utility business and of the Entergy Wholesale
15 Commodity merchant businesses, not decommissioning nuclear facilities. Because
16 Entergy is not in the decommissioning business, we do not have NorthStar's experience
17 and expertise in demolition and remediation. It is also unlikely that we would be able to
18 secure contracts for the necessary work on terms as favorable as a decommissioning
19 specialist like NorthStar can obtain. If Entergy VY performs the decommissioning and
20 site restoration of the VY Station, it would have to hire a DOC to manage the
21 decommissioning project, which would require an evaluation, selection, and review

1 process. At best, that would add an additional level of project oversight and project
2 controls with significant additional cost, and it could result in delays and even higher
3 costs due to the factors that Todd Smith describes in his testimony. NorthStar's
4 advantage over Entergy VY in decommissioning the VY Station was well stated by
5 former NRC Chairman Dale Klein after this transaction was announced: "It makes sense
6 to have a specialized company that's an expert on decommissioning do the job. . . . A
7 utility's expertise is in safely and securely operating a nuclear plant. It can build up the
8 expertise needed to do decommissioning, but that's different than for operating a plant."⁹

9 **Q24. Does this conclude your testimony?**

10 A24. Yes, at this time.

11 17148604.1

⁹ *Vermont Yankee Decommissioning Approach Could Signal Trend: Analysts*, NUCLEONICS WEEK, Vol. 57, No. 46, at 7 (Nov. 17, 2016).