

1 **DRAFT Subject to Approval**

2 **Nuclear Decommissioning Citizen's Advisory Panel (NDCAP)**

3 **Thursday, December 1, 2016**

4 **Brattleboro Area Middle School – Multipurpose Room- 109 Sunny Acres, Brattleboro, VT**
5 **Meeting Minutes**

6
7 NDCAP Members Present:

- 8 • Christopher Recchia, Commissioner of Public Service, ex officio
- 9 • George Desch, Deputy Commissioner, Department of Environmental Conservation
- 10 • Dr. William Irwin, Department of Health, Agency of Human Services
- 11 • Chris Campany, Executive Director of the Windham Regional Commission (WRC)
- 12 • Stephen Skibniowsky, representing the Town of Vernon
- 13 • David Andrews, International Brotherhood of Electric Workers (IBEW); representing
- 14 present & former employees of Vermont Yankee
- 15 • Kate O'Connor (Brattleboro), Chair, citizen appointee of Governor Shumlin
- 16 • Martin Langeveld (Vernon), Vice-Chair, citizen appointee of Governor Shumlin
- 17 • Derrick Jordan (Putney), citizen appointee of Speaker of the House Shap Smith
- 18 • Jim Matteau (Westminster), citizen appointee of Senate President Pro Tempore John
- 19 Campbell
- 20 • James Tonkovich (of Wilder), citizen appointee of Senate President Pro Tempore John
- 21 Campbell
- 22 • Jack Boyle, Decommissioning Director, Entergy Nuclear Vermont Yankee (ENVY)
- 23 • Mike McKenney, Technical Coordinator for Decommissioning, Entergy Nuclear Vermont
- 24 Yankee (ENVY)
- 25 • VT State Senator Mark MacDonald, member of the Senate Committee on Natural
- 26 Resources and Energy

27
28 The following NDCAP members were connected to the meeting via teleconference:

- 29 • Lucy Leriche, Secretary, Agency of Commerce and Community Development
- 30 • Diane Becker, Chief of Technological Hazards, New Hampshire Emergency Management
- 31 and Homeland Security
- 32 • David Deen, (Westminster), VT State Representative, citizen appointee of Speaker of the
- 33 House Shap Smith

34
35 The following NDCAP members were absent from the meeting:

- 36 • Michael Hebert (Vernon), VT State Representative, member of the House Committee on
- 37 Natural Resources and Energy
- 38 • Paul W. Mark, MA State Representative, (Peru, MA), representing the Towns of
- 39 Bernardston, Colrain, Gill, Greenfield, Leyden, Northfield, and Warwick, Massachusetts

40
41 Meeting called to order at 6:00 pm

42 **INTRODUCTION OF THE PANELISTS AND OVERVIEW OF THE AGENDA:**

43 The Panel introduced themselves and the Chair gave an overview of the agenda.

1 **PRESENTATION ON PROPOSED SALE OF ENTERGY NUCLEAR VERMONT YANKEE TO**
2 **NORTHSTAR GROUP SERVICES, INC: T. Michael Twomey, VP, External Affairs, Entergy**
3 **Wholesale Commodities, and Scott E. State, Chief Executive Officer, NorthStar Group**
4 **Services, Inc. (Complete presentation is available at www.vydecommissioning.com and**
5 **www.publicservice.vermont.gov.)**
6

7 Mike Twomey: Entergy is selling Entergy Nuclear Vermont Yankee (ENVY) to NorthStar Group
8 Services. Demolition and decommissioning is NorthStar's core business and they bring with
9 them a team of expert resources. The transaction is contingent upon approval from the NRC
10 and the Vermont Public Service Board.

11
12 The request for license transfer will be filed with the NRC in the first quarter of 2017. The NRC
13 will consider two fundamental questions: (1) Is NorthStar and their team technically qualified?
14 and (2) Is NorthStar financially capable?
15

16 The Public Service Board will determine if the transaction is in the public interest. The Public
17 Service Board will set and NorthStar must adopt appropriate site restoration standards to meet
18 State requirements. All is subject to review and comment from the Public Service Board.
19

20 NorthStar will start the decommissioning process by 2021 and complete by 2030. The schedule
21 of transaction timeline was reviewed and can be found in the presentation slides.
22

23 Scott State, CEO of NorthStar: NorthStar is a decommissioning company. NorthStar will be the
24 owner of the plant, as well as the licensee and will ultimately be responsible for the release of
25 the property for unrestricted use. He introduced NorthStar's partners: Areva - will do vessel
26 and internal segmentation/spent fuel support; Burns McDonnell – will do engineering and
27 license transfer/termination support to owner; and WCS - will do waste management,
28 packaging, transportation and disposal.
29

30 NorthStar will use a guaranteed fixed payment system. They know the value of the VY
31 decommissioning trust fund and broke the project into 900 elements. A fixed payment is
32 assigned for each piece of work. They will never draw from the trust more money than the
33 amount assigned to do that piece of work. The price is for 100% of the removal of the plant
34 with the exception of the ISFSI. Vermont has statutory rights for disposal of waste and
35 NorthStar will work on site restoration and radiological decommissioning simultaneously.
36

37 Scott State reviewed the original timeline for decommissioning under SAFSTOR and compared it
38 to NorthStar's accelerated proposal, which can be found in the slide presentation. NorthStar's
39 timeline is to complete fuel transfer, decommissioning period, and partial site release no later
40 than 2030 – this does not include removal of the ISFSIs. Once the nuclear material is off site
41 NorthStar will focus on full site release. He assured the Panel that NorthStar's overall objective
42 is to work through all components of the decommissioning process and maintain consistency
43 with the State's standards - not look to take short cuts or be unprofessional. To that end the

1 standards they are looking for are related to end use of the property; i.e., light industrial use
2 such as a solar energy facility.

3

4 **COMMENTS AND QUESTIONS FROM THE PANEL ON PRESENTATION:**

5

6 *Question from Chris Recchia: He had clarifying questions to help panel and audience. Can*
7 *Entergy explain a little more why transferring the spent fuel earlier is safe, and how you are able*
8 *to move spent fuel two years sooner? Originally we were keeping the spent fuel for 5 years for*
9 *sufficient decay prior to going into dry cask. Answer by T. Michael Twomey: We were able to*
10 *work with our partner, Holtec, and found with technological improvements we could move into*
11 *dry cask sooner. There are important savings to the trust fund by being able to transfer the fuel*
12 *sooner.*

13

14 *Question from Chris Recchia: The sale and decommissioning also includes site restoration,*
15 *correct? Answer: Yes.*

16

17 *Question from Chris Recchia: This is the first nuclear power plant you have done in the United*
18 *States, correct? Scott State: This would be the first turnkey nuclear power plant.*

19

20 *Question from Chris Recchia: Explain why you can do the decommissioning for less than the*
21 *original price and what is in the trust fund? Answer: Original plan included spent fuel storage*
22 *and management which with NorthStar's proposal will be addressed more efficiently and takes*
23 *into account trust fund growth.*

24

25 *Question from Chris Recchia: Can you clarify the fixed price reimbursement concept? Is it that a*
26 *given work task will have a fixed price associated with it and that work task needs to be fully*
27 *completed even if costs are twice as much as what the fixed contract price is for, and they will*
28 *not be able to get reimbursed for the difference and not get reimbursed unless work is*
29 *completed?*

30

31 *Answer from Scott State: Yes, each element is broken down in milestones and as each is*
32 *achieved then there is payment and it will never be less or more than that.*

33

34 *Question from David Andrews: Do you have an estimated amount as to what the actual strike*
35 *price may be, and if the mark is not met will the difference be made up by Entergy?*

36

37 *Answer from Mike Twomey: The question is appreciated, although it is confidential between*
38 *Entergy and NorthStar. We have done the calculations and are comfortable with that mark. If*
39 *return on the fund is going to be less than expected the difference will be made up by Entergy.*

40

41 *Question from Steve Skibniowsky: The Town of Vernon worked out a tax agreement with*
42 *Entergy that goes out to 2022. What is your current position on that and should we expect*
43 *changes or negotiations? Vernon would like to touch base about the environmental monitoring*
44 *during deconstruction. What traffic do you expect on Route 142 in terms of highway usage?*

1 *What about use of the property - we are particularly interested in the historical aspects of the*
2 *Governor Hunt House?*

3
4 *Answer from Mike Twomey: We do not expect any change in the tax agreement. From Scott*
5 *State: NorthStar has every intention to fulfill that agreement and they would be in fault or*
6 *breach if they did not honor it. Environmental monitoring is extensive, we want to ensure*
7 *environmental and worker safety. Traffic over a 10-15 year period depends on what material*
8 *needs to leave the site. If we have to move material by truck that is a congested spot. We plan*
9 *to move as much as possible by rail and fully intend to invest to upgrade the rail. On future uses*
10 *the Town of Vernon is an important stakeholder. We are really at the conceptual stage and we*
11 *would like to begin with this panel or otherwise to develop strategy and plans.*

12
13 *Question from Bill Irwin: Are the Holtec casks for fresher fuel licensed at this time? Answer*
14 *from Scott State: License amendment or change of condition have been submitted to the NRC*
15 *for approval. Fuel will not be moved until we receive NRC approval.*

16
17 *Question from Bill Irwin: Is the acquisition of WCS by EnergySolutions a concern for NorthStar?*
18 *Answer from Scott State: The sale is a non issue. NorthStar knew about the proposed*
19 *acquisition when NorthStar engaged WCS and negotiated the terms for the VY project. We have*
20 *a statutory right in Vermont to send nuclear waste to WCS.*

21
22 *Question from Bill Irwin: Do you have a sense of when site characterization might take place*
23 *and to what degree? Answer from Mike Twomey: We have already done some site*
24 *characterization and NorthStar has done due diligence in negotiations around this. We do need*
25 *to discuss next steps and the right way to approach the issue.*

26
27 *Question from Bill Irwin: During efforts to come to a settlement agreement independently, there*
28 *was a lot of discussion about relationships, protocol, and the interaction with state agencies.*
29 *Can Mr. State elaborate on NorthStar's thoughts on the relationship with the State of Vermont*
30 *(departments and agencies). Answer Scott State: Our approach is full and open compliance and*
31 *transparency. We don't see this project to be different from any other of its kind and will*
32 *promptly share with regulators good or bad results. We have no safety violations and no OSHA*
33 *violations. We take pride in working in an honest and ethical way.*

34
35 *Question from Chris Campany: Are there any other assumptions or specifics you can share*
36 *regarding site restorations? Answer from Mike Twomey: We will include those specifics in*
37 *testimony filed later this month with the Vermont Public Service Board.*

38
39 *Question from Chris Campany: Do you think this will be resolved in one docket for sale and site*
40 *restoration? Answer from Mike Twomey: It is our preference.*

41
42 *Question from David Deen: Why is NorthStar interested in purchasing a plant that is not*
43 *producing revenue, has a fair amount of liability and how do you see this operation to be a*
44 *successful business? Answer from Scott State: We are not buying a plant, but buying company*

1 that owns a plant. There is a liability but they own an asset, the trust funds. We are covering
2 costs to do work and have contingency funds to do the work at an estimated cost. We make
3 profit if we do not use all the contingency.

4
5 Question from David Deen? How many projects do you have underway now with the same type
6 of arrangement? Fixed arrangement? Answer from Scott State: A few hundred. This is the
7 only project of this type on a nuclear power plant. It is a business model used for fossil plants.
8 The concept of a decommissioning trust fund is unique to nuclear power industry. This is the
9 first nuclear power plant being done in this way.

10
11 Question from Jim Matteau: Does this proposal change, hopefully reduce, Entergy's plan to
12 draw on trust fund so it grows more? If they continue as they are now the funds will be much
13 smaller than anticipated. Answer from Mike Twomey: If we stay on track and transfer to
14 NorthStar at end of 2018 we will only draw from the trust fund for next two years. We are using
15 a line of credit for moving fuel to dry cask storage. The trust fund goes down, but so does
16 remaining work. Added by Scott State: A mandatory minimum amount of money must be in the
17 trust fund when NorthStar acquires ENVY.

18
19 Question from Jim Matteau: If there is the guaranteed amount in the fund at turnover and
20 Entergy withdrawals more than the return for fund growth, will this cause delay? Answer Scott
21 State: No, and he added some detailed example of fund expectation at time of closing.

22
23 Question from George Desch: Following up on Dr. Irwin's questions in regards to site
24 restoration, when will you be doing the site characterization? Will the petition that you file with
25 the Public Service Board have detail of what you feel the site characterization will be? Answer
26 from Mike Twomey: We are still fine tuning our testimony and hope to gain insight from this
27 meeting to craft the testimony as we have not finalized site characterization.

28
29 Question from Derrick Jordan: I heard money in the trust fund has all been paid by ratepayers
30 with exception of growth. Is money left over going back to rate payers? Answer: Some portion
31 will go back to the rate payers, but not 100%.

32
33 Question from Derrik Jordan: NorthStar has incentive to do clean up as fast as possible to make
34 a profit and that is a concern. Answer from Scott State: The project is not done until the ISFSI is
35 gone. We calculated cost, measured it against the trust fund and plan to have enough money to
36 split it with the State.

37
38 Comments were made from Chris Campany and Steve Skibniowsky regarding concerns that they
39 never want a breakdown in communication between the Panel, the Public Service Board, and
40 Town of Vernon Planning Commission.

41
42 Question from Martin Langeveld: Rather than dipping into trust fund for fuel storage cost, using
43 a line of credit and then suing the federal government to get your money back, how this will
44 continue under NorthStar? Answer from Mike Twomey: We are utilizing a line of credit for

1 some fuel management cost not all. Majority is being funded by line of credit. Answer from
2 Scott State: All that happens before we take ownership, thus we will not be using such line of
3 credit. All that work will be done before we take over the site.

4
5 Question from Martin Langeveld for Mike Twomey: Understanding the profit potential for
6 NorthStar, what is in this for Entergy and why is Entergy interested in putting money in now?
7 Answer from Mike Twomey: We are not in decommissioning business. We are in business of
8 making and selling electricity. We looked at best options for Vermont, Entergy employees, Town
9 of Vernon, etc. Elimination of risk is in it for us.

10 11 **QUESTIONS FROM THE PUBLIC:**

12 Question from a member of the public: Would like an explanation of quotes from US Nuclear
13 News regarding a federal promissory note for Entergy as a result of decommissioning. Answer
14 from Scott State: The promissory note is the draw Entergy is currently taking subject to
15 recovery of funds from Dept of Energy. Source of repayment is recovery from Dept of Energy.
16 Mike Twomey added that all commercial reactors in the United States, except for one, were
17 decommissioned by the owners. There is only one other plant, the Zion plant, that is being
18 decommissioned as Vermont Yankee is. The industry is finding a more efficient way to
19 decommission plants.

20
21 Question from Leslie Sullivan-Sachs, Brattleboro: There are a lot of firsts here. Wondering how
22 regulatory hurdles will be jumped through. If regulatory process slows down your timeline due
23 to all these firsts, how will that impact NorthStar's deal? Answer from Entergy and NorthStar:
24 Not all the hurdles apply and none are new. If we did not think we could do this we would not
25 be. What is new is the process of decommissioning structure, not how we are decommissioning
26 the plant.

27
28 Question from Ed Anthony, Dummerston: Can you clarify what might be left behind? Is
29 rubblizing and removing material all part of your proposal? Answer from Scott State: We made
30 assumptions as to how far below grade would be contaminated and what needs rubblizing and
31 restoring to the overall cost of the project.

32
33
34 **ENTERGY UPDATE ON DECOMMISSIONING ACTIVITIES** Joe Lynch, Government Affairs
35 Manager, Entergy Vermont Yankee, gave an update on recent activities. (Complete
36 presentation is available at www.vydecommissioning.com and
37 www.publicservice.vermont.gov.) Joe gave an update of what was happening at the site since
38 the last meeting in October. They are continuing to drain and lay-up of abandoned systems.
39 NRC inspections continue. Focus is on dry fuel storage. All of the work is on schedule. The new
40 generator is in place. The North Warehouse has been demolished and the site ready for the
41 second ISFSI pad. Water management continues - the rate of intrusion water has been lowered
42 to the point where only one storage "frac" tank is needed. The seismic gap has been sealed
43 and reduced intrusion rates at about 50%. Approximately 400-500 gallons of intrusion water is
44 still being shipped to the facility in Tennessee.

1 Trust Fund Update was provided and can be found on the presentation slides.

2
3 **PRESENTATION ON SITE RESTORATIONS STANDARDS, VT AGENCY OF NATURAL RESOURCES,**
4 **GEORGE DESCH, DEPUTY COMMISSIONER, DEPT. OF ENVIRONMENTAL CONSERVATION**

5 *(Complete presentation is available at www.vydecommissioning.com and*
6 *www.publicservice.vermont.gov.)* George gave a broad overview of non-radiological site
7 restoration standards, which Vermont has jurisdiction over. Site restoration standards have
8 been established and it is stipulated that site restoration was to begin immediately after
9 decommissioning and dismantling. The 2014 Certificate of Public Good states the site needs to
10 be restored to unrestricted use. The State of Vermont has requested complete site assessment.
11 Parties involved discussed additional site restoration standards, but there is no agreement in
12 place to date.

13
14 *Question from Chris Campany: How will you bring all of this to the public, not just to Public*
15 *Service Board? Answer and discussion continued: Discussion ensued over responding to the 45-*
16 *day pretrial notification. Public Service Board is to give consideration of that if there is a*
17 *substantial change and due consideration of all parties to be properly informed in a timely*
18 *manner.*

19
20 **UPDATE ON STATE FILINGS AND ISSUES MOVING FORWARD CHRIS RECCHIA COMMISSIONER,**
21 **VT DEPT OF PUBLIC SERVICE** *(Complete presentation is available at*

22 *www.publicservice.vermont.gov or www.vydecommissioning.com.)* To get state approval of the
23 sale of VY, Entergy and NorthStar will have to file with the Public Service Board. The Public
24 Service Department will reach out to get the panel's thoughts on the petition. The Department
25 will consider the pros and cons of rubbleization – will it be used to fill a void; is it clean and
26 meets standards; is it better to take it off the site or use it and reduce costs. If Entergy does not
27 file a petition by mid-December, the Public Service Department will request that they open a
28 docket for site restoration standards and then if Entergy files after that the dockets can be
29 consolidated. This is probably my last meeting in this position and I am amazed at what we
30 accomplished. I want to thank you all, on the panel, and thank you all, the citizens, who have
31 been coming here. You are a smart group and have engaged in a way that has served the best
32 interests of the region.

33
34 **QUESTIONS OR COMMENTS FROM THE PUBLIC:**

35 Question from Peter Van der Does, Brattleboro: How will we get Northstar to sign on to the
36 decommissioning activities report? Answer from Chris Recchia: NorthStar will assume
37 responsibility and obligations signed on by Entergy. Entergy did file the PSDAR. Site
38 assessment was not done the way it was supposed to. At time of filing this was not part of it.
39 NorthStar will have to re-file for this new timeline.

40
41 **APPROVE OF MINUTES**

42 The Panel agreed to include in the December 1, 2016 meeting minutes a clarification of the
43 March 24, 2016 meeting minutes. The March meeting minutes (Page 4, Line 41) read: "We
44 (Entergy) have 31 wells to monitor west to east as the water moves towards the river, and all

1 around all the wells testing is **non-detectible for tritium.**” Bill Irwin and Jack Boyle suggested
2 that the sentence be clarified to read: “We (Entergy) have 31 wells to monitor west to east as
3 the water moves towards the river, and all around the wells testing is **less than 5,000 picocuries**
4 **per liter for tritium.**” A motion to approve the March 24, 2016 and October 24, 2016 minutes
5 was made and seconded. The motion carried. Lucy Leriche abstained from voting on the
6 March meeting minutes.

7
8 **THE UPCOMING YEAR – 2017 MEETING SCHEDULE—ISSUES COMMITTEE UPDATE—ANNUAL**
9 **REPORT-REVIEW OF CHARTER AND ENABLING LEGISLATION.** Kate stated the calendar for 2017
10 was originally put together prior to knowing about the sale. She notified the Panel that the
11 Issues Committee will meet and talk about the issues moving forward. Panel agreed to meet on
12 January 26, 2017 and then they will know what Entergy filed and then the Panel can decide if it
13 is needed to meet monthly. Tentative meeting dates are (all Thursdays): February 23; March
14 23; April 27; May 25; June 22; July 27; August 24; September 28; October 26; November 16; and
15 December 21.

16
17 Kate announced she will draft the annual report for approval in January and wants to look at
18 the charter and the enabling legislation that formed the Panel. We have the ability to make
19 changes and asked for Panel input on possible changes to propose to the legislature.

20
21 **COMMENTS OR QUESTIONS FROM THE PUBLIC**

22 Comment from Leslie Sullivan-Sachs, Brattleboro: The next meeting will be after the January
23 24th NRC meeting and the Panel may want to consider having a special meeting

24
25 **WRAP UP AND ADJOURN:**

26 Next meeting: 1/26/17

27
28 **MEETING ADJOURNED AT 8:57 pm**

29
30 NOTE: Brattleboro Community Television (BCTV) created a video recording of the meeting
31 which can be found at www.BrattleboroTV.org