

STATE OF VERMONT
PUBLIC SERVICE BOARD

Amended Petition of Entergy Nuclear Vermont)
Yankee, LLC, and Entergy Nuclear Operations, Inc.,)
for amendment of their certificate of public good and)
other approvals required under 30 V.S.A. § 231(a) for) Docket No. 7862
authority to continue after March 21, 2012, operation)
of the Vermont Yankee Nuclear Power Station,)
including the storage of spent nuclear fuel)

SUMMARY OF PREFILED TESTIMONY OF HARRY L. DODSON

Mr. Dodson's testimony evaluates the impacts upon aesthetics, natural areas and historic sites associated with continued operation of the VY Station after March 21, 2012. His testimony also includes evidence relevant to Act 250 criteria, including shorelines, and public investments, in terms of the aesthetic impact of the VY Station and its impact on views of the VY Station from certain vantage points in the area, including the Connecticut River. Finally, his testimony addresses whether continued operation of the VY Station will unduly interfere with the orderly development of the region.

Mr. Dodson sponsors the following exhibits:

Exhibit EN-HLD-1	Resume of Harry L. Dodson
Exhibit EN-HLD-2	Aerial Photo depicting locations of Governor Hunt House and Vernon Grange
Exhibit EN-HLD-3	Viewshed Maps "Vermont Yankee Visual Analysis/Visibility of Reactor Complex in Summer", "Vermont Yankee Visual Analysis/Visibility of Stack in Summer" dated 11/30/07 and "Vermont Yankee Plume Visual Analysis Spring/Fall Viewshed" dated 2/18/2003
Exhibit EN-HLD-4	Existing Conditions Photographs
Exhibit EN-HLD-5	Vermont Yankee Cooling Tower Plume Visual Analysis dated February 18, 2003

Exhibit EN-HLD-6	2009 Vernon Town Plan excerpts
Exhibit EN-HLD-7	Windham Regional Town Plan excerpts
Exhibit EN-HLD-8	Town of Hinsdale Master Plan excerpts
Exhibit EN-HLD-9	Vernon Planning Commission Letter dated December 8, 2007 and June 26, 2012
Exhibit EN-HLD-10	Vernon Selectboard Letter dated December 4, 2007 and June 26, 2012

As explained in more detail in Entergy VY's Motion For A Declaratory Ruling Prescribing Scope Of Proceeding, filed on June 21, 2012, the Board's reliance on certain factors that may be considered under Sections 231(a) (which governs Entergy VY's amended petition) and 248(b) (which may be consulted only by analogy) is preempted or precluded by federal law, and therefore any discussion by Mr. Dodson of those factors is in the alternative to Entergy VY's primary position that the factors are preempted or precluded from the Board's consideration. Entergy expressly preserves its right to argue that those factors are preempted or precluded in connection with its June 21 motion and at other points in this proceeding and, if necessary, on appeal.

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PREFILED TESTIMONY OF HARRY L. DODSON

I. Background; Purpose of Testimony

- 1 Q1. State your name.
- 2 A1. Harry L. Dodson.
- 3 Q2. What is your position, and by whom are you employed?
- 4 A2. I am a principal at Dodson and Flinker, Inc., landscape architects and planners.
- 5 Q3. Please describe your education and employment background.
- 6 A3. I received a masters degree in landscape architecture from the Harvard Graduate School
- 7 of Design in 1980. I was chief landscape architect at the Massachusetts Department of
- 8 Environmental Management from 1980 to 1986 where I co-authored the Massachusetts
- 9 Landscape Inventory, the first comprehensive, state-wide scenic landscape inventory in
- 10 the United States. In 1986 I founded Dodson Associates, Ltd., (now, Dodson and
- 11 Flinker, Inc.) where I have completed over 20 visual evaluation and assessment projects
- 12 including: the development of New York State's coastal scenic assessment methodology

1 for the New York Department of State; the Hudson River Scenic Landscape Assessment;
2 the East Hampton, NY Scenic Landscapes Preservation Plan; Scenic Byways Assessment
3 Programs for Vermont, Nevada and British Columbia and the visual assessment of a
4 major development proposal in the Adirondacks for the Adirondack Council in 2011. I
5 have testified on numerous occasions on aesthetic impacts before Vermont Act 250
6 district commissions, the former Environmental Board, the Adirondack Park Agency
7 Board and the Vermont Public Service Board, including providing the 2003 Vermont
8 Yankee Uprate Plume Visual Analysis in Docket No. 6812 and testifying as the
9 intervening parties' aesthetic witness regarding the UPC Sheffield Wind Turbine
10 Complex in Docket No. 7156. I also provided testimony in connection with the original
11 petition in Docket No. 7440 that Entergy Nuclear Vermont Yankee, LLC, and Entergy
12 Nuclear Operations, Inc. (to which I refer in my testimony as "Entergy VY") submitted in
13 2008, seeking authorization for continued operation of the Vermont Yankee Nuclear
14 Power Station (to which I refer in my testimony as "Vermont Yankee," the "VY Station"
15 or "Station") after March 21, 2012. Exhibit EN-HLD-1 is a copy of my resume.

16 Q4. What is the purpose of your testimony?

17 A4. In 2008, I was retained by Entergy VY to evaluate the impacts upon aesthetics, natural
18 areas and historic sites, under 30 V.S.A. § 248(b)(5), associated with the continued
19 operation of Vermont Yankee after March, 2012.

20
21 Specifically, I addressed Act 250 Criterion 8 (scenic or natural beauty, aesthetics and
22 historic sites) and provided evidence relevant to Act 250 Criteria 1(F) (Shorelines) and

1 9(K) (Public Investments) in terms of the aesthetic impact of the VY Station and its
2 impact on views of the VY Station from certain vantage points in the area, including the
3 Connecticut River. I also addressed the VY Station's compliance with the first Section
4 248 criterion, which addresses whether continued operation of the VY Station will
5 unduly interfere with the orderly development of the region.

6
7 I understand that Entergy VY has submitted an amended petition seeking authority for
8 continued operation of Vermont Yankee under 30 V.S.A. § 231. I have been retained by
9 Entergy VY to address the impact of the VY Station's operation until March 21, 2032, on
10 aesthetics, historic sites, scenic or natural beauty, scenic resources, shorelines, and
11 orderly development of the region.

12
13 **II. Scenic or Natural Beauty, Aesthetics and Historic Sites**

14 Q5. Please describe the examination that you undertook of the VY Station facilities that are
15 proposed to be relicensed in this proceeding.

16 A5. I have reviewed the existing VY Station site plans prepared by Entergy VY and filed as
17 Exhibit EN-JG-4, which describe the VY Station as a whole. I understand continued
18 operation of the VY Station, the subject of this proceeding, does not involve or require
19 any changes to the current Station, the Station site or operations affecting scenic or
20 natural beauty, aesthetics, or historic sites.

21

1 I most recently visited the VY Station site and surroundings on May 30, 2012 and
2 June 22, 2012, and am familiar with the characteristics of the site and location, changes
3 that have occurred at the site since 2009, the character of the surrounding area and the
4 locations from which the Station can be seen. I have previously reviewed the impact of
5 the plume generated by the cooling towers at the VY Station in Docket No. 6812, and I
6 previously reviewed the impact of continued operation of the site past 2012 in Docket
7 No. 7440. I have met recently with Entergy VY's engineers and representatives to
8 discuss changes that have occurred at the station since 2009 and what changes, if any, are
9 expected to be associated with the Station facilities if it is relicensed.

10
11 I have reviewed both the most recent Vernon Town Plan and the most recent Windham
12 Regional Plan. I have reviewed available data to determine whether any historic, scenic
13 or significant natural sites occur in the vicinity of the Station. Finally, I reviewed the
14 viewshed analysis of the VY Station I prepared in 2007 as well as the photographs of the
15 Station from various vantage points and aerial photographs of the Station and Station site
16 assembled in 2009 and 2012.

17 Q6. In your opinion, will the VY Station's operation after March 21, 2012, have an undue
18 adverse effect on the scenic or natural beauty of the area, aesthetics or historic sites?

19 A6. I continue to believe the impacts on any of these resources will not be adverse or undue.

20 Q7. Please summarize why you believe the proposed relicensing of the VY Station will not
21 have undue adverse impacts on the scenic or natural beauty of the area, aesthetics or
22 historic sites.

1 A7. The VY Station is an existing facility that has been in more or less its current visual state
2 since the late 1960s. No changes are currently proposed as a result of, or associated with,
3 continued operation that would alter the present visual character of the VY Station and
4 the surrounding area. I understand there is a possibility that changes may be required to
5 the site as a result of the Nuclear Regulatory Commission's requirements to address
6 Fukushima-related safety concerns, but the specific nature of any such changes, and
7 consequently their visible impact, are not known at this time. Historic sites and sensitive
8 natural areas do exist in the vicinity of the VY Station, such as the Governor Hunt House.
9 The VY Station has successfully coexisted with these nearby, sensitive natural features
10 since it was built in the late 1960s. They will continue to coexist with the VY Station if it
11 continues to operate as it does today.

12 Q8. What would the visual effects of the immediate closure of the Station be?

13 A8. When closed, I understand that the facility would be placed in a condition known as
14 SAFSTOR with most of the above-ground physical elements of the Station remaining in
15 place for up to 54 years; hence minimal structural visual changes would occur to the
16 Station and its visual character for decades. The main visual change resulting from the
17 closure of the Station with SAFSTOR would be the elimination of the vapor plume. With
18 the plant operating, warm, moist air exiting the cooling towers condenses into water
19 vapor under certain atmospheric conditions, which I refer to as the vapor plume.

20 Q9. Please describe any changes to the exterior of the VY Station or its surroundings since
21 you testified in Docket No. 7440 in 2009.

1 A9. Four types of exterior changes to the station and adjacent properties have occurred since
2 2009: (1) changes visible primarily from within the Station; (2) changes visible from both
3 within and from certain areas outside the station; (3) changes to vegetation that have
4 increased the visibility of existing structures; and (4) changes to portions of the VY
5 property leased to VELCO.

6 Q10. Can you specifically describe these changes?

7 A10. Yes.

8
9 (1) Changes to the Station since 2009 visible principally from within the Station include:
10 construction of additional Security Owner Controlled Area (SOCA) fencing around
11 portions of the Station in accordance with NRC regulations; and installation of low-level
12 lighting along sidewalks and paths in the vicinity of the Station.

13
14 (2) Changes to the Station since 2009 visible both from within and from certain locations
15 outside the Station include: acquisition of a lot and residence on Governor Hunt Road
16 north of the main gate and removal of the residence and restoration of the lot to lawn; and
17 construction of a wire mesh security fence approximately 6 feet high along portions of
18 the western boundary of the Station near Governor Hunt Road.

19
20 (3) Changes to vegetation since 2009 required by security concerns that have increased
21 visibility of the Station include the selective clearing of vegetation between the Station
22 and the Connecticut River in the vicinity of the SOCA barrier. Mature trees along

1 approximately 300 linear feet of river embankment were removed, primarily to the
2 northeast of the reactor complex. These areas currently are covered with low brush to
3 allow clear sight lines for the Station's security. I understand that this vegetation will be
4 maintained at low heights in the future to maintain security standards. As a result of this
5 clearing, lower structures and features adjacent to the main reactor buildings are
6 somewhat more visible from the river and the bike trail along the Hinsdale side of the
7 river.

8
9 4) Changes to portions of the Vermont Yankee site leased to VELCO include the
10 construction of a new switchyard and associated transmission lines built on 12.32 acres of
11 land at the northern end of the property. The new switchyard was recently built as part of
12 VELCO's Southern Vermont Loop upgrades to the electric grid. These improvements
13 are not directly related to the VY Station. Upper portions of the new switchyard and
14 most portions of the transmission lines and towers are visible from Route 142, the
15 Connecticut River and the Hinsdale shoreline of the river. In conjunction with the
16 VELCO switchyard, a portion of the overflow parking lot was relocated to the northwest
17 and vegetation was planted to limit the visibility of the switchyard.

18
19 **Scenic Resources and Shorelines**

20 Q11. Please begin by describing the potential impacts of the relicensing upon scenic resources
21 and shorelines.

1 A11. Of the 148 total acres of the VY Station site, approximately 94 acres are developed, eight
2 are marginally developed and 46 are undeveloped. The operational portions of the VY
3 Station are at present covered with buildings, other improvements, pavement, stone and
4 grass. The area has been used since the late 1960s as an industrial complex. Marginally-
5 developed areas include fields beneath transmission lines and other low-intensity uses.
6 Outlying undeveloped areas of the property consist of wooded buffer areas, farm fields
7 and the wooded banks of the Connecticut River.

8
9 The existing VY Station is largely located beyond the high-water mark of the
10 Connecticut River. The Connecticut River shoreline in the vicinity of the station consists
11 of low vegetation in order to comply with security regulations. The river's banks are
12 largely vegetated with mature trees along the perimeter of the Vermont Yankee site with
13 the exception of the water area between the river intake and discharge structures and
14 extending approximately 150 feet north of the intake structure. Other than the
15 maintenance of low vegetation required by current security standards, I understand that
16 no further changes in vegetation along the shoreline are planned.

17
18 Continued operation of the Station for another 20 years would result in minimal physical
19 changes to the existing station and its surroundings and hence minimal visual impacts.
20
21

1 **Historic Sites**

2 Q12. Please explain why, in your opinion, operation of the Station after March 21, 2012, will
3 have neither adverse nor undue impacts on historic sites.

4 A12. No significant changes are proposed for the VY Station. The VY Station largely consists
5 of industrial buildings of relatively recent age. None of the buildings utilized in the
6 operation of the VY Station are classified as having local or statewide historic
7 significance.

8
9 Within the larger context, several historic sites exist along Governor Hunt Road and in
10 the village of Vernon. The Vernon Town Plan identifies two buildings in the vicinity that
11 are listed in the 1974 Historic Sites and Structures Survey. One is the so-called
12 “Governor Hunt House” or Governor Jonathan Hunt homestead, which is owned and
13 maintained by Entergy VY. Until a few years ago, this building served as the Vermont
14 Yankee Energy Information Center. The continued operation of the VY Station will not
15 change or impact the ongoing use of the Governor Hunt House, which currently serves as
16 a meeting area and is visually screened from the Station by a dense stand of evergreens.

17
18 Also nearby on the opposite side of Governor Hunt Road is the Vernon Grange Building.
19 The VY Station would continue to be located at some distance from this building with
20 several other structures separating the two buildings. Trees along Entergy VY’s property
21 line would continue to screen views of the Station from the Grange. Exhibit EN-HLD-2

1 is an aerial photograph depicting the locations of the Governor Hunt House and Vernon
2 Grange.

3
4 There are several historic sites located along Route 119 and Prospect Street in Hinsdale,
5 New Hampshire. These include the Colonel Ebenezer Hinsdale House, the Taylor
6 Monument, Hooker Cemetery and Fort Dummer Cemetery. None of these historic sites
7 are within view of the VY Station. As the overall VY Station area was extensively
8 disturbed during construction in the late 1960s and early 1970s, and as no excavation or
9 other development activities are contemplated for the Station's extended operation, no
10 archaeological review of the Station site is warranted.

11
12 **Aesthetics**

13 Q13. What analytical criteria did you apply in making your determination that the relicensing
14 of the VY Station would not have undue adverse impacts on the aesthetics or scenic or
15 natural beauty of the area?

16 A13. I applied the so-called *Quechee* analysis, as instructed by this Board in its Order of
17 January 28, 2005, in Docket No. 6860, as follows:

18 The Public Service Board has adopted the Environmental Board's
19 Quechee analysis for guidance in assessing the aesthetic impacts of
20 proposed projects under Section 248. We have previously
21 explained the components of the Quechee analysis as follows:
22

1 In order to reach a determination as to whether the project will
2 have an undue adverse effect on the aesthetics of the area, the
3 Board employs the two-part test first outlined by the Vermont
4 Environmental Board in Quechee, and further defined in numerous
5 other decisions.

6
7 Pursuant to this procedure, first a determination must be made as to
8 whether a project will have an adverse impact on aesthetics and the
9 scenic and natural beauty. In order to find that it will have an
10 adverse impact, a project must be out of character with its
11 surroundings. Specific factors used in making this evaluation
12 include the nature of the project's surroundings, the compatibility
13 of the project's design with those surroundings, the suitability of
14 the project's colors and materials with the immediate environment,
15 the visibility of the project, and the impact of the project on open
16 space.

17
18 The next step in the two-part test, once a conclusion as to the
19 adverse effect of the project has been reached, is to determine
20 whether the adverse effect of the project is "undue." The adverse
21 effect is considered undue when a positive finding is reached
22 regarding any one of the following factors:

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1. Does the project violate a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area?

2. Have the applicants failed to take generally available mitigating steps which a reasonable person would take to improve the harmony of the project with its surroundings?

3. Does the project offend the sensibilities of the average person? Is it offensive or shocking because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area?

Q14. Please provide your aesthetic assessment.

A14. I will begin by generally describing the VY Station and its immediate surroundings, followed by a discussion of the larger context of the Station including Vernon, Vermont, and Hinsdale, New Hampshire. I will discuss whether the VY Station would fit in this context and explain further details of the colors and materials used by the Station, the locations where it can be seen and its impact on open space. From this analysis I will draw conclusions as to whether the continued operation of the VY Station would have an adverse impact on aesthetics.

1 I will then determine whether the VY Station's impacts would be undue using the three
2 prongs of the *Quechee* test: (1) does the Station violate a clear written community
3 standard intended to preserve the aesthetics or scenic natural beauty of the area; (2) does
4 it offend the sensibilities of the average person; and (3) has Entergy VY taken generally
5 available mitigating steps that a reasonable person would take to improve the harmony of
6 the Station with its surroundings.

7 Q15. Did you prepare any exhibits in connection with your visual analysis?

8 A15. Yes. Exhibit EN-HLD-2 is an aerial photograph depicting the locations of the Governor
9 Hunt House and the Vernon Grange taken on January 16, 2008. Exhibit EN-HLD-3
10 contains viewshed maps titled "Vermont Yankee Visual Analysis Visibility of Reactor
11 Complex in Summer" and "Vermont Yankee Visual Analysis Visibility of Stack in
12 Summer" dated November 30, 2007, and "Vermont Yankee Plume Visual Analysis
13 Spring/Fall Viewshed" dated February 18, 2003. Exhibit EN-HLD-4 contains
14 photographs titled "Existing Conditions Photographs – Entergy Nuclear Vermont Yankee
15 Vernon, Vermont" prepared by Dodson and Flinker and taken on May 30 and June 22,
16 2012, from the New Hampshire shoreline, from Route 142 approximately 3/8th of a mile
17 north of the VY Station and from Route 142 approximately 4.8 miles north of the Station,
18 depicting the location, context and visibility of the Station. Exhibit EN-JG-3 contains
19 aerial photographs of the Station taken on January 16, 2008.

20 Q16. Please discuss how the photographs and these visual impact analyses were prepared.

21 A16. The viewshed analysis maps show areas in the region from which the tallest components
22 of the Station—the stack, the main reactor building and the vapor plume—are partially or

1 fully visible. To determine visibility, Dodson Associates entered dimensional data on the
2 so-called Ventilation Stack, the so-called Reactor Building and the vapor plume from the
3 cooling towers in a digital terrain model of the region using ArcMap 8.2 computer
4 software. The terrain model is based on US Geological Survey's 7.5-minute quadrangle
5 maps for the region. The model calculates the extent of visibility of the structures
6 through an analysis of terrain. Vegetation was assumed to have an average height of 60'
7 with the ability to block views in the summer and in the winter at depths of 100' or
8 greater.

9 Q17. The *Quechee* analysis first requires an examination of the characteristics of the existing
10 setting. Please begin by describing the VY Station's surroundings.

11 A17. I will begin by describing the VY Station site, and then I will address the larger context
12 extending in an approximately one-mile radius around the site. I have described changes
13 to the site and surroundings since 2009 in Answers A9 and A10 above.

14
15 As I previously testified, the site, on which the VY Station would continue to operate, is
16 an industrial complex. As shown on the existing site plans prepared by Entergy VY and
17 filed as Exhibit EN-JG-4, structures at the VY Station site include the Reactor Building,
18 which measures roughly 144 feet square and is approximately 138 feet high. The Reactor
19 Building is generally grey (lower $\frac{3}{4}$ concrete portion) to beige or off-white in color
20 (upper $\frac{1}{4}$ portion). West of the Reactor Building is the green, so-called Turbine Building.
21 These two structures along with other attached buildings expand the building complex to
22 about 500 feet in width from north to south along the Connecticut River.

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To the north of the Reactor/Turbine Building complex is the so-called North Warehouse, a green, metal-sided building measuring approximately 50 feet wide by 120 feet long and approximately 24 feet high. Further north is a Low Level Radioactive Waste Storage Area, consisting of storage containers and a fenced enclosure. Directly east of the North Warehouse is the area in which the so-called Dry Fuel Storage pad (referenced in my testimony as the “DFS Pad”) is located, which has a “visual barrier” on the north and east side consisting of a wooden structure approximately 22 feet tall.

To the east of the Reactor Building along the shoreline of the Connecticut River is an intake structure designed to bring water from the Connecticut River into the VY Station for cooling purposes. The additional chain-link fence and other structures can be seen north and south along the eastern edge of the Station site.

The Ventilation Stack is located about 270 yards north of the Reactor Building. This narrow, cylindrical, concrete structure is 308 feet high and is, due to its height, the most visually prominent feature of the VY Station from a distance.

The cooling towers are located about 225 yards south of the Reactor Building and average 57 feet in height. The two rows of cooling towers are minimally visible due to their relatively low height, their dark color scheme and the fact that they are surrounded on three sides by mature trees. The cooling towers produce vapor plumes that are visible

1 an average of 20% of the time, mainly during the warm months. The visual impacts of
2 these plumes were studied by Dodson Associates, Ltd., on behalf of Entergy VY in 2003,
3 as part of the company's uprate petition before the Board. *See* Exhibit EN-HLD-5.

4
5 There are many other structures surrounding these existing central buildings, including
6 the 115 kV and 345 kV transmission lines and towers and the 115 kV and 345 kV
7 switchyards (to which I refer in my testimony as the "Transmission Lines" and the
8 "Switchyards"), office buildings, entry roads and parking areas. The 345 kV and 115 kV
9 transmission lines extend north and east from the VY Station. The central developed
10 areas of the Station site are currently well lit at night. Many of the exterior lights have
11 been designed with full cut-off fixtures to reduce light pollution and glare onto
12 surrounding areas. Some of the security lighting is required to be non-shielded.

13
14 In total, Entergy VY owns approximately 148 acres. Approximately 94 acres of these
15 148 acres—primarily along the Connecticut River—are used fairly intensively. Another
16 eight acres are largely open with some development, such as the fields to the north
17 around the transmission towers, and about 46 acres are undeveloped. This undeveloped
18 area lies between the residences along Governor Hunt Road and the VY Station and
19 consists of open meadows and a wooded buffer area.

20
21 A village is located just to the west of the VY Station. To the east are the Connecticut
22 River and the Town of Hinsdale, New Hampshire, directly across the river from Vernon.

1 The Vernon Dam lies just to the south of the Station. A 115 kV and two 345 kV
2 transmission lines cross the Connecticut River north of the VY Station running in a
3 northeasterly direction from the Station to the New Hampshire side of the river.

4
5 Vernon is a rural town with two centers: Vernon and Central Park. The Town Offices,
6 school, Old Grange and a park are located along Governor Hunt Road. As discussed
7 previously, the historic Governor Hunt House is on the east side of the road and is owned
8 and maintained by Entergy VY. Several other homes are clustered along Governor Hunt
9 Road. An open meadow and forested area separates the adjacent village from the Station.
10 Power lines extend north and south of the Station, but otherwise Vernon is a typical
11 Vermont rural town with homes and farms generally separated by large areas of open
12 space. VY recently acquired two house lots on Governor Hunt Road in the vicinity of the
13 Governor Hunt House. The wood frame house to the north of the Governor Hunt House
14 has been removed and donated to Habitat for Humanity in Brattleboro. The site of the
15 house has been returned to vegetation. The brick house on the lot further north of the
16 Governor Hunt House remains in place and there are currently no plans to demolish it.
17 Neither house is historic.

18
19 The New Hampshire side of the Connecticut River tends to be more uniformly wooded.
20 The old railroad bed that ran along the New Hampshire shoreline has been converted into
21 a recreation path. There is one formal boat-access area and other less formal areas that
22 provide access to fishermen in both summer and winter.

1 Q18. Please provide a summary of your viewshed analysis.

2 A18. Our viewshed analysis demonstrates that currently the VY Station and vapor plume from
3 the cooling towers are visible from the Connecticut River itself and from about two miles
4 of shoreline. The grey/beige Reactor Building, and associated building complex,
5 Ventilation Stack, the Switchyards and the Transmission Lines are visible from this
6 section of the Connecticut River and the river's banks, especially on the New Hampshire
7 shoreline. The main reactor building (138 feet in height) is mainly visible from a two-
8 mile segment of the Connecticut River in Hinsdale, New Hampshire, from the riverbank
9 opposite the VY Station and from an area one mile northwest of the Station that includes
10 a one-mile segment of Route 142. Views of the Vermont shoreline to the north of the VY
11 Station and south of the Vernon Dam are generally of forested riverbanks. Drivers on
12 short portions of Route 142 south of Brattleboro have views of the plume and stack that
13 last about one minute for typical travelers from a distance of approximately 4.8 miles.
14 Drivers on Cotton Mill Road in Brattleboro also have a short view of the stack and the
15 plume.

16
17 The plume and upper portions of the stack are more visible due to their greater height.
18 The stack is 308 feet tall, and the plume varies from 0 feet to over 500 feet in height
19 depending on atmospheric conditions and plant operating capacity. They are mainly
20 visible to the north and east of the plant, up to the southern portions of Brattleboro and
21 along the Connecticut River and the westernmost portions of Hinsdale.

22

1 The village of Hinsdale sits on a rise just east of the Connecticut River and across from
2 the VY Station. The portions of the village near the Connecticut River are generally of
3 low to moderate density and generally heavily wooded. From New Hampshire
4 Route 119, there are intermittent views of the VY Station during the winter months.
5 Route 119 is generally rural in character north of Hinsdale village with a mix of
6 residential and some commercial uses. I describe views from these areas later in my
7 testimony.

8
9 To the south, the plume and stack are not as visible due to the nature of terrain and the
10 dense vegetation in this area.

11
12 The Viewshed Analysis Map has not been updated since 2007 because the low elevation
13 changes to the site since that time have not affected the extent of visibility of the Station.
14 Changes since 2007 such as the clearing of vegetation have, in some cases, caused more
15 portions of the Station to be visible from certain nearby locations where it was previously
16 visible. But these changes have not resulted in the Station gaining new visibility in areas
17 where it was previously not visible.

18 Q19. Please discuss the viewshed from which the plume and stack can be seen.

19 A19. The vapor plume generated by the cooling towers will continue to be seen from the areas
20 depicted on the Vermont Yankee Plume Visual Analysis Spring/Fall Viewshed dated
21 February 18, 2003, as shown on Exhibit EN-HLD-3. The plume will be most prominent
22 in the fall and spring and will not be visible at all in the winter. This area includes

1 portions of Southern Brattleboro, Western Hinsdale and the higher elevations and
2 summits of hills and mountains in the region including Wantastiquet Mountain, Davis
3 and Bear Mountains in New Hampshire and Charles Hill in Vermont. In the summer,
4 views of the plume and the stack are largely blocked by vegetation depending on
5 atmospheric conditions.

6
7 The plume and stack viewshed along a one-mile section of Route 142 includes farms,
8 residences, a lumber yard, highway-commercial businesses and fields. The Vernon Town
9 Offices, the Vernon Grange and the Elementary School have partial, screened views of
10 the plume and stacks in the wintertime. Route 142 in Brattleboro provides intermittent
11 views of the plume from a distance of four to five miles and the stack from three to four
12 miles. At this distance the plume and especially the stack are a relatively small part of
13 the landscape. Local roads in Vernon, including Tyler Hill, Bemis, Stebbins, Governor
14 Hunt, Blodgett, West and Pond Road, provide intermittent views of the plume and stack
15 depending on the season. Summer vegetation will tend to obscure many of these views
16 since they are often screened by trees.

17
18 To the south, the plume and stack are not as visible due to the nature of the terrain and
19 dense vegetation in this area. Some utility corridors and hiking trails in the surrounding
20 hills as far north as Brattleboro also provide very distant views of the plume and stack.
21 Most areas in the viewshed are heavily forested hillsides where visibility is limited by

1 trees and where few people live or visit. Some trails and gravel roads traverse these
2 areas.

3 Q20. Where will the VY Station continue to be seen, for how long and at what distance?

4 A20. As depicted on Exhibit EN-HLD-3, the VY Station will continue to be visible principally
5 from the Connecticut River, from the New Hampshire shoreline and intermittently along
6 New Hampshire Route 119 during the winter months. The existing VY Station is
7 currently easily visible for approximately two miles along the Connecticut River as
8 shown by Exhibit EN-HLD-3. To the west, the steep hills limit the visibility of the VY
9 Station to the edges of the Connecticut River Valley. Public roads providing views of the
10 Station include portions of Route 142, Governor Hunt Road, Tyler Hill Road, Bemis
11 Road, West Road, Pond Road, Stebbins Road and Blodgett Road.

12
13 In wooded, remote mountainous areas, the VY Station will primarily be visible from
14 hiking trails along exposed ridgelines and summits and partially from certain steep,
15 wooded areas in the wintertime.

16
17 The Reactor Building is also easily visible from the Connecticut River and portions of the
18 New Hampshire shoreline due to its size and height. This visibility of the central portions
19 of the Station has been increased from the river and the Hinsdale shoreline as a result of
20 the recent clearing of vegetation near the facility for security reasons.

21

1 The 115 kV and 345 kV Transmission Lines on large metal pylons cross the river just
2 north of the Station and are fully visible from the Connecticut River, its shorelines and
3 certain upland areas along its route. From locations out of sight of the VY Station, the
4 lines tend to be seen as a part of the region's electrical network and are usually not
5 visually identified with the Station.

6
7 The recently built VELCO substation and transmission lines are visible from Route 142,
8 portions of Vernon, the Connecticut River and the Hinsdale shoreline. This facility was
9 built on land leased by VELCO from Entergy VY but in other respects is an independent
10 endeavor of VELCO with respect to that company's Southern Loop Project. If the VY
11 Station were closed, the VELCO substation and transmission lines would remain in
12 operation.

13
14 In the winter, the Station can be seen for about 1.1 miles along New Hampshire Route
15 119 and for another one-half mile along Prospect Road. The VY Station is seen through
16 trees along the roadside so that visibility will be restricted during the summer months.
17 There is a curve in the road just northwest of the village of Hinsdale where, heading
18 north, the VY Station can be seen directly ahead during the winter. The view is through
19 tree branches and is of very short duration (about two seconds).

20
21 From the Vermont side, the stack and plume (in the summer months) can be glimpsed
22 briefly from Route 142 about a mile and a half north of the VY Station and again

1 distantly and briefly from 142 southbound at 2.8 and 3.9 miles from the Station. The VY
2 Station is seen from the north beginning around Tyler Hill Road. From here a broad open
3 meadow occupies the foreground of the Station. The stack can be seen along with
4 Transmission Line structures and the top of the Reactor Building over intervening trees.
5 These trees, located to the northwest and west of the Station, will continue to provide
6 sufficient screening of the Station.

7 Q21. Would continued presence of the Station be compatible with these surroundings?

8 A21. Yes. As there would be no changes to the Station or its operations, continued operation
9 of the VY Station would, in effect, be compatible with itself. There will be no undue
10 adverse impact from the continued existence of these buildings in the context of the
11 present industrial complex that makes up the Station.

12
13 No additional lighting would be added as a result of the relicensing. Since vegetation
14 clearing for security reasons has been completed, existing trees or surrounding buildings
15 would continue to provide significant screening of the VY Station from Vernon. Routine
16 maintenance of vegetation for cleared security areas will have minor visual impacts on
17 the Connecticut River and the Hinsdale shoreline.

18 Q22. Are the colors and materials used at the Station suited to its surroundings?

19 A22. Yes. The muted grey and green colors of most of the buildings in the complex reduce the
20 VY Station's apparent visibility. As stated previously, the Reactor Building's two-tone
21 color scheme breaks up the mass and bulk of the building into two separate components,
22 reducing the apparent height of the building as well as the visibility of the most

1 prominent top one-quarter of the structure. The building materials—steel, concrete and
2 metal siding—are appropriate to the context of the site, which has been an industrial
3 complex for almost 40 years.

4 Q23. What impact would continued operation of the VY Station have on existing open space?

5 A23. The VY Station site is densely developed with limited, open space mainly along the river
6 and at the north and south ends of the site. No changes to these areas are currently
7 contemplated by Entergy VY. The agricultural fields between the Station complex and
8 the residences along Governor Hunt Road are presently farmed by a local farmer who
9 grows organic crops. No changes to the use of these fields are contemplated. In
10 summary, there are no impacts on open space contemplated in connection with
11 continuing to operate the VY Station.

12 Q24. Would continued operation have an adverse impact on the aesthetics or scenic and natural
13 beauty of the surrounding area?

14 A24. No, I do not believe the impacts would be adverse. For the reasons I have outlined
15 previously in my testimony, continued operation of the facility after 2012 does not entail
16 changes to existing conditions, and the VY Station will remain sited within an
17 appropriate context at a scale and with colors and materials that are consistent with its
18 existing surroundings. The VY Station would continue to operate as an existing
19 industrial complex that has been in place largely as is since the late 1960s.

20 Q25. Assuming *arguendo* that continued operation could be considered to have adverse
21 impacts, examine the tests for determining whether the impacts would be undue. Please

1 begin by discussing whether there are any clear, written community standards intended to
2 preserve the aesthetic and scenic natural beauty of the areas.

3 A25. I will address whether continued operation is consistent with the written standards of the
4 Town of Vernon Plan and the Windham Regional Plan applicable to scenic resources.

5
6 The Vernon Town Plan (2009) makes several statements and adopts several policies
7 addressing issues related to aesthetic characteristics of the Town. Excerpts from the
8 Vernon Town Plan are provided as Exhibit EN-HLD-6. The Plan identifies several
9 sensitive sites along Governor Hunt Road, including the Old Grange, Town Offices,
10 Town School and Governor Hunt House. These structures are either fully or substantially
11 out of sight of the Station. The VY Station's continued operation is consistent with any
12 of these broad policies.

13 The policies and my analysis follows:

14 Page 5: Statement of Objectives

15 8. To protect the rural character of the Town through careful management
16 and guidance of new development.

17 The Station is an existing facility, and the continued operation of the Station does not
18 entail new development.

19

1 Page 23: Water Courses and Shorelines

2 The most prominent body of water situated partially in Vernon is the
3 Connecticut River. Approximately ten miles of its western shoreline abut
4 the township.

5 ...

6 Policies:

- 7 1. It is a policy of the Town that watercourses and shorelines be retained and
8 maintained in a natural state.
- 9 2. Shorelines and stream banks shall be protected from uses and settlement,
10 which may reasonably be expected to cause erosion or reduce scenic
11 qualities of surface waters or cause pollution from sewage disposal
12 systems.

13 Page 30: Scenic Resources

14 Vernon enjoys a wide variety of scenic resources. Many of which are
15 typical of Vermont settlements. These resources are a significant factor in
16 the quality of life experienced in Vernon. Many of these resources are
17 highly sensitive and may be adversely impacted through careless
18 development.

19

1 Policy:

- 2 1. Recognizing the value of scenic resources, it is the policy of
3 the Town of Vernon to encourage land uses that will help to
4 protect river corridors, scenic highways and roads, scenic
5 views and other scenic resources.

6 The continued operation of the Station does not entail alteration of the Connecticut River
7 shoreline other than periodic maintenance of vegetation as required by security and
8 transmission line clearance requirements. Protection of the Connecticut River
9 environment has governed Station operations for almost 40 years, and Entergy VY and
10 previous owners have invested resources in this effort.

11
12 The Windham Regional Plan (2006) contains several statements relating to visual
13 character, scenery and aesthetics. Excerpts from the Windham Regional Plan are
14 provided as Exhibit EN-HLD-7. I believe that the VY Station's continued operation is
15 consistent with the intent of any of the following recommendations.

16 Map: Regional Development Pattern

17 This map shows the VY Station site as a developed area. Thus continued
18 operation of the VY Station would be appropriately located within the context of
19 an already-developed industrial site.

20

1 Page 67: Scenic Resources

2 This section identifies utility poles, telecommunications towers, gas stations and
3 streetlights as visually “incongruous with our scenic landscape.” The existing site
4 contains three of the elements I just quoted, so that the immediate site is already
5 scenically degraded. This section also discusses the problem of “sky glow” or
6 light pollution. The VY Station is already well lit for security reasons, but no
7 additional lighting would be added as a result of the continued operation of the
8 Station. Some of the exterior lighting installed at the Station for the Plant Support
9 Building (Docket No. 6054), Parking Lot (Docket No. 6976) and Dry Fuel
10 Storage (Docket No. 7082) have used cut-off light fixtures that minimize light
11 pollution.

12 Page 67-68: Natural Areas, Fragile Areas and Wildlife Resources

13 No ecological resources, rare or endangered plant species are located on the site,
14 and none would be affected by continued operation of the Station.

15 Pages 80-81: Radioactive Waste Management

16 The VY Station is specifically discussed in this section, but the discussion is
17 unrelated to the issues of natural resources, historic sites or scenic resources.

18 Page 41: Energy: Nuclear

19 The VY Station is specifically discussed in this section, but the discussion is
20 unrelated to the issues of natural resources, historic sites or scenic resources.

1 Page 115: Transportation: Scenic Roads and Vermont Byways

2 Vermont Route 142 and US Route 5 were designated Vermont Byways as part of
3 the larger Connecticut River Byway (or “CRB”) in 1999. The VY Station had
4 been a part of the Route 142 landscape for approximately 30 years when the
5 Scenic Byway designation was made. While clearly visible along short segments
6 of the road in Vernon and southern Brattleboro, the Station and plume evidently
7 have not degraded the visual landscape of the highway enough to prevent its
8 designation as a Scenic Byway under rigorous state and federal aesthetic
9 standards. The CRB stretches from the New Hampshire/Quebec border to South
10 Hadley, Massachusetts. The Windham Regional Plan states: “A ‘Vermont
11 Byway’ is a highway or other public road that has special scenic, historic,
12 recreational, cultural, archeological, and/or natural qualities and that is formally
13 designated by the Vermont Scenery Preservation Council and Vermont
14 Transportation Board in order to enable management practices and programs that
15 focus on any or all of those qualities.” The VY Station is screened from Route
16 142 by existing trees. The switchyards and the Reactor Building are currently
17 visible in the winter from a one-mile section of Route 142 along with 345 kV and
18 115 kV Transmission Lines and the Ventilation Stack. These views are
19 significantly reduced in the summer. No changes to the VY Station are proposed
20 as part of the continued operation of the Station that will affect its visibility from
21 public roads. The recently constructed VELCO switchyard and transmission lines
22 are visible from a short section of the byway in Vernon but are not directly

1 associated with the station and would continue to exist even if the Station were
2 shut down.

3 Page 30: Policies: Downtown and Villages

4 Policy 6 in this section states: "Preserve downtown and village character through
5 appropriate design and scale of commercial, industrial, residential, transportation
6 infrastructure and community structures and uses." The continued operation of
7 the VY Station would not be visible from the adjacent village and is appropriate
8 in scale and design given its industrial setting. The siting of the VY Station and
9 the planting and maintenance of dense woodland screen between Governor Hunt
10 Road and the complex have ensured that the historic village of Vernon has not
11 been visually degraded by the nearby facility.

12 Page 32: W.R.P. Policies: Resource Lands

13 Policy 12 states: "Protect green space, particularly along streams and rivers, and
14 other important lands that are valued for trails, open space, wildlife habitat and
15 scenic enjoyment." Policy 16 states: "Avoid extension of roads, energy
16 transmission or distribution facilities, or other utility services into or through
17 Resource Lands." The VY Station is adjacent to an already-developed portion of
18 the Connecticut River and is located on an already-altered site. The intake
19 structure associated with the Station is located just to the east. This section of
20 shoreline cannot be accessible to the public and is not identified as a "resource

1 land” in the Plan.

2 Page 73: W.R.P. Policies: Scenic Resources

3 Policy 1 states: “Improve sites that diminish a scenic view, particularly along state
4 and federal highways and within scenic corridors.” Portions of the existing
5 facility are visible in the winter from a one-mile segment of Route 142, a
6 designated Vermont Byway. These views are significantly diminished by trees in
7 the summer. Entergy VY does not propose any changes to the VY Station that
8 would affect scenic quality. Future improvement of the scenic character of Route
9 142 can be achieved by encouraging the growth of existing vegetation around the
10 Station and the planting of new trees where possible. Entergy VY is required to
11 maintain a forested buffer along most of the property line between the developed
12 portions of the Station site and private property along Governor Hunt Road.
13 These trees will be maintained to continue to help to screen the Station site from
14 Route 142. Closure of the VY Station would not result in an improvement of
15 scenic views because most of the structures at the facility would remain in place
16 for decades under the requirements of the Nuclear Regulatory Commission’s
17 (NRC) SAFSTOR policy. The principal visual result of the closure would be the
18 elimination of the vapor plume.

19 Page 98: W.R.P. Policies: Cultural and Historic Resources

20 Policy 6 states: “Discourage development that would adversely affect cultural
21 resources, including their destruction or alteration, alteration of surroundings, or
22 the introduction of non-harmonious visual, audible, or atmospheric elements.”

1 Policy 7 states: “Encourage rehabilitation of significant historic sites and
2 structures. Emphasize adaptive use of historic resources whenever it is
3 economically viable.” The continued operation of the Station would have no
4 adverse impacts on the historic character of the adjacent village or of any historic
5 buildings in the vicinity, as I previously testified. The Governor Hunt House, one
6 of two historic buildings in the area, was restored by the Station’s previous owner
7 and is maintained on an on-going basis by Entergy VY.

8 Q26. You have discussed the Vernon and Windham Regional Plans. Does the Town of
9 Hinsdale provide any recommendations concerning aesthetics in its Town Plan?

10 A26. Yes. The Master Plan for the Town of Hinsdale, New Hampshire (2003), includes
11 recommendations on a number of related topics. The Master Plan is provided as Exhibit
12 EN-HLD-8. The Plan records the following statements:

13
14 Page 19: Historical Sites and Points of Interest

15 “Historical sites and points of interest in Hinsdale include the following:

- 16 • The Taylor Monument is located at the intersection of Monument Road
17 and Old Brattleboro Road, and marks the site of an Indian skirmish in
18 1748.
- 19 • The Liscom House, located on Route 119, was built in 1759 by Col.
20 Ebenezer Hinsdale. Much history is documented on this house and can be
21 read in the ‘History of Hinsdale.’

- 1 • Fort Dummer Cemetery located on Old Brattleboro Road and Hooker
2 Cemetery located on Prospect Street date back to the mid 1700's.
- 3 • Homes built in the late 1700's included those owned by: Mr. & Mrs. Earl
4 Clark, Mrs. Doris Smith, Mr. & Mrs. Wesley Sprague, Mrs. Bertha
5 Herrmann, Mr. & Mrs. Edwin Smith, Mr. Paul Hubner, Sr., and the
6 'Homestead' which is now owned by William Wittmer and Patrick Gillis."

7

8 The Station will not be visible from any of these sites.

9 Page 21: Recreation Policies

10 "Protect the scenic elements of the town's natural environment such as
11 waterbodies, streams, rivers, and viewsheds."

12

13 The VY Station is within the viewshed of the Railway Recreation Path, the
14 shoreline and the Connecticut River. The Station has been clearly visible from a
15 two-mile segment of the Railway Path since its creation. It has been a feature of
16 the visual environment of the Connecticut River and its shoreline for more than
17 40 years.

18

19

1 Page 67: Goals and Objectives – Traffic and Transportation

2 Goal: *To maintain a convenient transportation network and to allow for the safe*
3 *transfer of goods and people throughout Hinsdale while protecting the esthetic*
4 *and scenic qualities of town roads.*

5 As noted previously, the VY Station will continue to be visible in the winter from
6 about 1.1 miles of Route 119, significantly less in the summer. In all cases, the
7 views of the VY Station site will be seen through trees. The vapor plume will
8 continue to be visible from Route 119 and local roads in the western portions of
9 the village of Hinsdale.

10
11 Page 69-70: Conservation and Preservation: Objectives

- 12 • *Preserve and protect agricultural lands, environmentally sensitive lands, and*
13 *historic structures to enhance the open space and retain the characteristics of*
14 *the Town.* The continued operation of the VY Station will not affect any of
15 these areas of concern.
- 16 • *Protect the scenic elements of the Town's natural environment such as*
17 *waterbodies, streams, rivers, and viewsheds.* The existing VY Station is
18 visible from the Connecticut River and from the New Hampshire shoreline.
19 Recent clearing of vegetation along the riverbank in the vicinity of the Station
20 has somewhat increased the visibility of the Station as seen from the bike trail
21 along the Hinsdale shoreline. Periodic maintenance of this vegetation will

1 result in continued Station visibility from the Connecticut River and the
2 Hinsdale banks of the river.

3 Q27. In your opinion, would the visual appearance of the VY Station complex offend the
4 sensibilities of the average person?

5 A27. For the reasons I have stated, I do not believe VY Station's continued operation would
6 appear offensive. It would continue to be partially visible as an existing industrial site
7 from the Connecticut River, the New Hampshire shoreline, limited sections of Route 142
8 northwest of the Station and other sites identified in the Dodson Associates, Ltd.,
9 Viewshed Analysis. The VY Station in basically its current visual form has been part of
10 the region's landscape for more than 40 years. A person visiting the area for the first time
11 and unaware of the existence of the VY Station would tend to view the facility as a
12 generic industrial plant because it has not been designed with the tell-tale elements of a
13 typical nuclear power plant: the tall concrete cooling towers and the dome-shaped
14 reactor. People familiar with the fact that the Station is a nuclear-power plant would tend
15 to view the facility in a positive or a negative light depending on their attitudes about
16 nuclear power, which I understand are diverse.

17
18 Entergy VY utilizes low-profile, forced-draft cooling towers that are minimally visible
19 from locations outside of the VY Station site. The VY Station is directly north of the
20 Vernon hydroelectric generating station, which has similar looking infrastructure and
21 transmission lines. Several miles to the north of the VY Station are a number of other
22 industrial sites including two lumber mills, a waste transfer station and a wastewater

1 treatment plant. The VY Station is part of the overall industrial nature of several areas
2 along the river.

3 Q28. Has Entergy VY taken generally available mitigating steps that a reasonable person
4 would take to improve the harmony of the VY Station with the surroundings?

5 A28. As discussed previously, the continued operation of the VY Station without physical
6 changes will be in harmony with existing surroundings: an industrial complex similar to
7 those found along New England rivers. Over the past 40 years, Entergy VY and previous
8 owners have taken steps to integrate this large industrial facility with the surrounding
9 Vermont landscape. The VY Station is located in a low draw that reduces its visibility,
10 and the color schemes used on buildings and structures and the maintenance and planting
11 of vegetative screens minimize the visibility. The facility, therefore, has relatively low
12 visual impacts relative to its size and use.

13

14 **III. Orderly Development of the Region**

15 Q29. Does the VY Station's operation unduly interfere with the orderly development of the
16 region with due consideration having been given to any recommendations of the Vernon
17 Planning Commission and the Windham Regional Commission, the recommendation of
18 the municipal legislative bodies and the land-conservation measures contained in the plan
19 of any affected municipality? Has Entergy VY reviewed its plan to continue the VY
20 Station's operations after March 21, 2012, with the applicable municipal and regional
21 commissions and legislative bodies?

1 A29. Yes. By letter dated December 6, 2007, Entergy VY provided the Vernon Planning
2 Commission with plans for the continued operation of the VY Station in accordance with
3 Section 248(f) and reviewed its plan with the Vernon Planning Commission on December
4 6, 2007. By letter dated December 8, 2007 (confirmed June 26, 2012), the Vernon
5 Planning Commission stated that, upon review of the plans, it found that continued
6 operation of the VY Station will not unduly interfere with the orderly development of the
7 region or overburden municipal and governmental services in Vernon. Exhibit EN-HLD-
8 9 are the letters from the Vernon Planning Commission.

9
10 By letter dated December 3, 2007, Entergy VY provided its plans to the Town of Vernon
11 Selectboard and on December 3, 2007, Entergy VY reviewed its plans with the Vernon
12 Selectboard. By letter dated December 4, 2007 (confirmed June 26, 2012), the Vernon
13 Selectboard stated that, upon review of Entergy VY's plans for the Station site at its
14 meeting on December 3, 2007, it found that continued operation will not unduly interfere
15 with the orderly development of the region or overburden municipal and governmental
16 services in the Town. Exhibit EN-HLD-10 are the letters from the Vernon Selectboard.

17 Q30. Have you reviewed the Vernon Town Plan as it applies to the VY Station?

18 A30. Yes. The Vernon Town Plan was updated in 2009, and I have reviewed this most recent
19 version of the plan. The VY Station is noted specifically in the Vernon Town Plan on
20 several occasions. In general the Station is viewed as making a positive contribution to
21 the Town, and no concerns are expressed about the VY Station's continued operation.
22 Again, Exhibit EN-HLD-6 contains excerpts from the Vernon Town Plan.

1
2 At page 16 under Section III, Resource and Economic Development, subsection A,
3 Employment and Economic Base, the Vernon Town Plan notes that “Vernon functions to
4 a great extent with a large measure of rural independence and self sufficiency, due
5 primarily to the presence of the Entergy NE (sic)/Vermont Yankee Nuclear Power Plant
6 which contributes significantly to the community’s tax base and provide (sic) varied
7 employment opportunities for its residents.” Further down on page 16, the Plan
8 expresses concern over the economic impact of the VY Station’s license expiration in
9 2012. Concern is also expressed about the possible need to find replacement industrial
10 development that fits in with the character of the town to replace the VY Station’s
11 contribution to the local tax base.

12
13 As stated in the letters from the Vernon Planning Commission and Selectboard,
14 continued operation will not adversely impact the Town’s ability to provide adequate
15 governmental services.

16 Q31. Have you reviewed the land conservation measures of the Vernon Town Plan as
17 applicable to continued operation?

18 A31. Yes. Under Section IV, Natural Resources Use and Conservation: Specific Policies and
19 Recommendations, and Section V, Recreational, Cultural, and Scenic Resources: Specific
20 Policies and Recommendations, at pages 18-28, the Vernon Town Plan discusses natural
21 and cultural resources that are valuable to the community and policies for protecting
22 these resources.

1 Q32. Can you summarize these land-conservation policies?

2 A32. Yes. I discussed many of these policies earlier in my testimony. The natural-resource
3 policies address the protection of agricultural resources, forest land, water resources,
4 wildlife habitat, fragile areas, flood hazard areas, soils and earth resources. Recreational,
5 cultural and scenic resources include parks, trails, access to rivers, historic sites and
6 scenic roads and views.

7
8 Continued operation would not result in adverse impacts to these resources. Aside from
9 the existing cooling-water intake and discharge, the VY Station does not impact any
10 shorelines in their natural state, and the adjacent shoreline and river bank are protected
11 from erosion by the erosion-control and stormwater procedures discussed in witness
12 Goodell's testimony. Some periodic maintenance of trees near the Connecticut River
13 shoreline—required for security—will not have a major effect on the character of the
14 shoreline. A portion of the Station's land is used by a local farmer for agricultural
15 purposes in accordance with the plan's policies in support of agriculture described on
16 page 20 and 21.

17
18 As discussed previously in my testimony, the VY Station's continued operation will not
19 significantly reduce the scenic qualities of surface waters or alter existing recreational
20 access to the river or significantly alter existing views. The open lands now surrounding
21 the developed portions of the VY Station will not be developed by Entergy VY, allowing

1 these open meadows to continue to contribute to views from Route 142 and Governor
2 Hunt Road when entering the village of Vernon.

3 Q33. Do you have an opinion as to whether the VY Station's continued operation is in
4 compliance with the Town Plan's land-conservation policies?

5 A33. Yes, continued operation is consistent with these policies. Continued operation of the
6 VY Station will not change or adversely affect views from the Connecticut River corridor
7 or the Route 142 Scenic Byway since no changes in the visual appearance of the station
8 are proposed.

9 Q34. Have you reviewed the land-conservation policies of the Windham Regional Plan of the
10 Windham Regional Commission (or "WRC")?

11 A34. Yes. Exhibit EN-HLD-7 contains excerpts from the Windham Regional Plan. As I also
12 previously testified, the continued operation of the Station will not have an adverse or
13 undue adverse aesthetic effect.

14
15 The Land Use Policies of the Windham Regional Plan are found at pages 30 through 33.
16 While none of these policies appear to be directly applicable to the VY Station's site, the
17 policies as to Downtown and Villages, Rural Residential Lands and Productive Rural
18 Lands are most applicable. These policies provide as follows:

19
20 **Downtowns and Villages**

- 21 1. Direct new growth in the form of jobs, housing, commerce, utilities, industry,
22 community facilities, recreational facilities, and cultural activities to downtowns

1 and villages, with consideration of type and scale of development, in order to
2 keep these centers culturally, socially, and economically viable.

3 3. Target federal, state and private funding to support public transit, bridge and
4 highway repair, other transportation needs, installation of sidewalks and lighting,
5 water and sewer, community development, housing, recreation, and other
6 identified downtown or village needs.

7 6. Preserve downtown and village character through appropriate design and scale of
8 commercial, industrial, residential, transportation infrastructure and community
9 structures and uses.

10 7. Revitalize, strengthen and improve the viability of villages and downtowns
11 through using and maintaining existing historic structures whenever possible.

12 8. Construct or expand utilities including water and sewer when needed to protect
13 health and ground water resources, and to allow appropriate in-fill and
14 development of lands within villages.

15 9. Adopt clear land use plans and related implementation policies that will maintain
16 village boundaries, preserve historic settlement patterns, and prevent rural sprawl.

17
18 **Rural Lands**

19 5. Develop rural residential lands at densities that will serve to contain rural sprawl,
20 and that are compatible with existing land uses and sensitive to the limitations of
21 the land.

- 1 6. Ensure that new development is sensitive to the limitations of the land and avoids
2 important natural resource areas located within the rural residential lands.
- 3 7. Direct new rural residential development away from areas that provide critical
4 access to wildlife habitat and ensure, through planning, that wildlife habitat does
5 not become fragmented by the elimination of connections and corridors between
6 wildlife areas.
- 7 8. Ensure that new development reflects existing settlement patterns, is low in
8 intensity, and does not conflict with the use and management of forest,
9 agricultural and mineral resource lands, but rather sustains these natural resource
10 commodities.
- 11 9. Support a mix of rural land uses including, housing, home businesses, small-scale
12 commercial and industrial uses, commercial forestry and outdoor recreation, so
13 long as these uses are compatible with one another and do not cause excessive
14 noise, pollution, or disturbance.
- 15 10. Manage agricultural and forest lands to promote a long-term sustained yield of
16 crops and timber products.
- 17 11. Encourage the use of innovative land-saving techniques - such as cluster
18 development and fixed area density allocation - to protect agriculture, forest, and
19 mineral resource lands from development and fragmentation.
- 20 12. Protect green space, particularly along streams and rivers, and other important
21 lands that are valued for trails, open space, wildlife habitat and scenic enjoyment.

1 16. Avoid extension of roads, energy transmission or distribution facilities, or other
2 utility services into or through Resource Lands.

3 17. Construct corridors for new energy transmission or distribution facilities only
4 when needed, and then only within or adjacent to existing operational energy
5 transmission facility corridors to the maximum extent possible. Minimize their
6 visual impact on ridge-lines, slopes and open areas, and avoid important natural
7 and historic resources.

8
9 In my opinion, the VY Station's continued operation is consistent with these policies. It
10 is located within an existing developed area; it is a consistent use in terms of function and
11 scale; its impact on any natural resources of the surrounding area will not change; and it
12 does not involve the extension or expansion of roads, energy transmission or distribution
13 facilities.

14 Q35. What are your conclusions as to whether the VY Station's continued operation will
15 interfere with the region's orderly development as contemplated in the Vernon Town
16 Plan and Windham Regional Plan?

17 A35. Overall, the Vernon Town Plan seeks to maintain the Town's rural character, its natural
18 resources, including its undeveloped shoreline on the Connecticut River, and its scenic
19 qualities, all of which I have addressed previously in my testimony. As I have also noted,
20 the Vernon Town Plan recognizes the value of the Station to the Town of Vernon and
21 notes the potential impact on the local economy and tax base if the Station's license is not
22 renewed.

1
2 In short, I have read the Vernon Town Plan as seeking to balance the goals of
3 maintaining Vernon's rural and scenic qualities with the need to have resources—
4 specifically including the Station—that will support Vernon's economy and tax base. As
5 I testified several times previously, because continued operation will not adversely
6 impact Vernon's rural character, scenery and natural resources while allowing the Station
7 to continue operation for an additional 20 years, it is consistent with Vernon's vision of
8 the type of project that will not unduly interfere with the orderly development of the
9 community.

10
11 Similarly, the Windham Region Plan establishes land-use policies for villages, rural-
12 residential lands and productive lands. Overall, the Plan appears to encourage
13 development in existing villages and on nearby lands that avoids rural sprawl and avoids
14 taking productive lands, such as agricultural lands, out of productive use. The Plan also
15 discourages the extension of roads, energy transmission or distribution facilities into or
16 through Resources Lands as well as the construction of corridor for new energy
17 transmission or distribution facilities unless needed.

18
19 The VY Station, as I have previously testified, will not adversely impact the village
20 centers in Vernon, will not cause rural sprawl and will not take lands that are presently
21 productive out of production. As such, I do not believe that the Station's continued
22 operation will unduly interfere with the orderly development of the region, with due

1 consideration given to the policies set forth in the Windham Regional Plan that I
2 addressed previously in my testimony.

3
4 In summary, it is my opinion that the VY Station's continued operation will not unduly
5 interfere with the orderly development of the region, taking into account the land-use
6 policies and any recommendations of the Town of Vernon and the WRC.

7 Q36. Does this conclude your testimony?

8 A36. Yes.