

**THE STATE OF NEW HAMPSHIRE
BEFORE THE
SITE EVALUATION COMMITTEE
DOCKET NO. 2015-04**

PRE-FILED DIRECT TESTIMONY OF JAMES CHALMERS

**APPLICATION OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
D/B/A EVERSOURCE ENERGY
FOR A CERTIFICATE OF SITE AND FACILITY FOR CONSTRUCTION OF A
NEW 115 kV TRANSMISSION LINE**

THE SEACOAST RELIABILITY PROJECT

April 12, 2016

1 sales in 13 subdivisions where some lots in a subdivision are crossed by, or are bordered
2 by, a HVTL and others are not; and the Real Estate Market Activity Research—looking
3 at sale price to list price ratios and days on market for residential sales in different
4 locational zones relative to a HVTL corridor.

5 **Literature Review**

6 **Q. Please summarize the literature review that you conducted.**

7 A. The published literature is extensive. It is based on comparing the sales of
8 properties potentially affected by a HVTL to the sale of properties unaffected by HVTL.
9 These studies are carried out using different methods (statistical studies, subdivision
10 studies, case studies). The findings of these studies can be summarized as follows. For
11 residential properties, about half of the studies found some measure of negative proximity
12 effects, and half found none. Where effects were found, they tended to be small, usually
13 in the 1-6% range. Additionally, where they were found, they tended to decrease rapidly
14 with distance from the HVTL. Effects seldom extended beyond 500 feet from the HVTL.
15 Two of the studies found that where there were effects, they dissipated over time as well.
16 Once proximity was accounted for, visibility generally had no additional, independent
17 effect in the statistical studies. Finally, encumbrance frequently had no effect on market
18 value. Where there was an effect, it was small relative to the size of the encumbrance.

19 For commercial /industrial properties, there were no effects unless development
20 of the site was constrained in a way that reduced the income producing potential of the
21 property.

22 For vacant land, there were generally no effects. Exceptions include properties
23 where development of the land was constrained by the ROW or where the HVTL were
24 the principal differentiating feature of otherwise very similar parcels.

25 There is also published literature on attitudinal studies based on survey research
26 methodology. Homeowners report concerns with HVTL on health effects, aesthetics and
27 property value issues. Of those buyers of homes affected by HVTL, two of the studies
28 found that over 70% of the respondents reported that their purchase decision and the price
29 paid were not affected by the lines.

1 **Q. Does the existing knowledge base with respect to the effects of HVTL**
2 **on real estate markets have relevance to New Hampshire?**

3 A. Yes. The results are sufficiently consistent across geographies and
4 development patterns that one would expect applicability. In addition, two of the studies
5 have particular relevance because the study area investigated is close to New Hampshire.

6 Dr. Frank Voorvaart and I carried out statistical studies of over 1,600 property
7 sales in four neighborhoods in Connecticut and Massachusetts and found no market value
8 effects associated with either proximity to, or visibility of, HVTL. The areas studied have
9 similarities to many parts of southern New Hampshire.

10 Similarly, Dr. William Kinnard analyzed both home sales and raw land sales in
11 Penobscot County, Maine. This was a statistical study that concluded no market value
12 effects of HVTL proximity.

13 **Q. What additional research did you undertake to address possible**
14 **HVTL effects on New Hampshire real estate markets?**

15 A. As identified above, there were three initiatives—Case Studies,
16 Subdivision Studies and Market Activity Analysis.

17 **The Case Studies**

18 **Q. What was the methodology used in the Case Studies research?**

19 A. The Case Studies research is based on an analysis of 58 sales of properties
20 either crossed by, or abutting, a HVTL ROW. HVTL corridors were selected that
21 represented much of the State of New Hampshire. These included two major north/south
22 HVTL corridors (referred to below as Corridor #1 and Corridor #2) and several short
23 corridors in and around Portsmouth locations (referred to as Study Area #3). All recent
24 sales in each corridor were identified from either assessor tax cards or multiple listing
25 services. The universe of sales was then filtered to eliminate sales that did not meet the
26 definition of a “fair market sale”, defined as an arm’s length transaction between
27 knowledgeable and typically motivated parties. The sales most frequently eliminated
28 included foreclosures, “short” sales, liquidation sales and sales between related parties.

29 Each of the remaining sales was then the subject of a case study that had four
30 basic components -- the facts of the sale, the physical relationship of the property to the
31 HVTL, interviews with transaction participants, and appraisal evidence based on an

1 estimate of value at the time of sale (“Retrospective Appraisal”) absent the influence of
2 HVTL, i.e. using comparable sales not influenced by HVTL.

3 Based on these four categories of evidence, conclusions were drawn with respect
4 to the effect, if any, of the HVTL on the sale price and the marketing period in the
5 transaction.

6 **Q. What were the findings of the Case Studies research?**

7 A. The findings of the Case Studies for the three study areas were as follows.
8 Sale price effects in the 24 Corridor #1 Case Studies were infrequent, small and only
9 occurred where there was very close proximity, i.e. less than 100 feet from the house to
10 the edge of the ROW, combined with clear HVTL visibility. Proximity of that degree in
11 the absence of clear visibility appeared not to be an issue nor was substantial visual
12 intrusion in the absence of very close proximity. Marketing time effects were even less
13 frequent. In only two cases did marketing time appear to be affected by the HVTL. There
14 were several comments with reference to reduction in buyer interest due to the HVTL,
15 but rarely did there appear to be any material effect on the marketing period. Further,
16 there were references to several buyers who saw the corridor as an asset to the property.

17 Sale price effects in the 28 Corridor #2 Case Studies were also infrequent and
18 only occurred where there was a combination of very close proximity and clear HVTL
19 visibility. Like Corridor #1, proximity without clear visibility and clear visibility without
20 proximity did not result in sale price effects. Marketing time effects were found in seven
21 cases and suggested as possible in three others. In eighteen cases it was found that the
22 HVTL did not affect marketing time.

23 Of the six case studies in Study Area #3, there were sale price effects in two cases
24 and sale price effects were suggested as possible in one other. Effects on marketing time
25 were found in one case and suggested as possible in one other. The results are similar to
26 those for Corridors #1 and #2. The two properties for which sale price effects were found
27 were located adjacent to the ROW, in one case, and 11 feet distant in the other, with both
28 having clear visibility of the HVTL.

1 **Q. Overall, what conclusions can be drawn from the New Hampshire**
2 **Case Studies?**

3 A. The Case Studies represent a broad spectrum of properties crossed by, or
4 adjacent to, a HVTL in New Hampshire. There is variety in terms of property location,
5 size and value and in the way in which the property is physically affected by the HVTL.
6 While the results of any single case study are necessarily anecdotal, useful
7 generalizations can be drawn when considering the results from all 58 case studies. These
8 include the following. Sale price effects are infrequent—10 cases out of 58 found a sale
9 price effect with another 11 cases suggesting a possible sale price effect. Thirty-seven
10 cases or 64% found no sale price effect. Where sale price effects were found, they appear
11 to have been small. Sale price effects decrease very rapidly with distance. Only one of the
12 10 cases had a house located more than 100 feet from the edge of the ROW (it was 106
13 feet from the edge of the ROW) and seven were within 30 feet. With only one exception,
14 close proximity had to be combined with clear visibility of the HVTL for there to be a
15 sale price effect. Of those properties that combined close proximity and clear visibility,
16 eight of the 14 had a sale price effect and six did not. The cases with sale price effects not
17 only had homes close to the ROW but they were often forced to be close to the ROW
18 because the developable portion of the lot was constrained by the location of the ROW on
19 the property. Marketing time effects were also infrequent. In 41 of the 58 cases, there was
20 no marketing time effect of the HVTL.

21 **The Subdivision Studies**

22 **Q. How do the Subdivision Studies differ from the Case Studies?**

23 A. The Case Studies focus on individual sales of improved residential
24 properties, i.e. properties on which homes have been built. The Subdivision Studies
25 analyze the sale of unimproved lots before homes have been built. They analyze the
26 original sale of the lots by the subdivision developer. Subdivisions are selected where
27 some of the lots are crossed by, or abut, a HVTL while others are not.

28 **Q. What was the methodology used in the Subdivision Study research?**

29 A. An attempt was made to identify a subdivision in each of the towns
30 crossed by Corridor #2 that had reasonably homogeneous lots, some crossed or abutting a
31 HVTL, some not. No more than one subdivision was selected in any one town and a total

1 of ten were identified. Corridor #1 did not lend itself to Subdivision Studies because of
2 the more rural character of the area it crosses. In addition, an attempt was made to
3 identify candidate subdivisions in the towns in Study Area #3. A total of three was
4 identified.

5 A representative group of crossed or abutting (“Subject”) lots and lots not crossed
6 or abutting (“Control”) were identified for each subdivision. Chain of title was
7 established for each lot back to the original sale of the unimproved lot by the developer.
8 The date and sale price for the original lot sale was recorded. This provided the basis for
9 analyzing differences, if any, in the pricing and marketing time of the Subject lots relative
10 to the Control lots.

11 **Q. What were the findings of the Subdivision Study research?**

12 A. For the 10 subdivisions crossed by Corridor #2, 133 lot sales were
13 identified. Fifty-one of these sales involved encumbered or abutting lots. Seven of the 51
14 were abutting and 44 were encumbered. Five of the 10 subdivisions had some sales after
15 the year 2000 while the others were fairly evenly divided between the 1970’s, 80’s and
16 90’s. The extent of the encumbrance varied but there were several instances of lots
17 encumbered in the 30% to 70% range.

18 Of the 51 lots either encumbered or abutting the ROW of Corridor #2, only four
19 showed any evidence of price effects. In three of the four cases where there was an effect,
20 development of the lots was severely compromised by the ROW. Further, in every case,
21 the percentage discount was less than the percentage of the lot encumbered. In seven of
22 the subdivisions, the encumbered or abutting lots sold at the same rate, or in some cases
23 faster, than the Control lots.

24 In Study Area #3, there were 34 lot sales in the three subdivisions identified for
25 study; 22 of these lots were encumbered by a ROW.² The time periods involved included
26 the early 1990’s, the late 1990’s and the early 2000’s. In two of the subdivisions, there
27 were price effects for the encumbered lots although the price effects were small
28 compared to the reduction in the development area of the affected properties. Overall, the

² Two of the subdivisions in Study Area #3 were encumbered by a 100 foot wide ROW containing a 34.5 kV distribution line. The other subdivision in Study Area #3 and all 10 of the subdivisions in Corridor #2 were crossed or bordered by HVTL.

1 lots in Study Area #3 were smaller (one to two acres), were of greater value and did not
2 have acreage in addition to the home site (what we called excess acreage) which was
3 characteristic of many of the subdivisions studied in Corridor #2.

4 There were timing effects observed at two of the three subdivisions studied. In
5 those two subdivisions, the heavily encumbered lots sold less quickly than the
6 unencumbered lots.

7 **Q. Overall, what conclusions can be drawn from the New Hampshire**
8 **Subdivision Studies?**

9 A. Lot sales were studied at 13 subdivisions where some lots were crossed or
10 bordered by a HVTL ROW and others were not. The response of the market to the two
11 categories of lots was analyzed both in terms of sale price and marketing time.
12 Investigation of the lot sale history along Study Corridor #2 indicates a general lack of
13 marketability issues associated with lots encumbered by, or abutting, a HVTL ROW.
14 Timing issues were apparent in three of the ten subdivisions and two of those were minor.
15 Price effects were even less frequent.

16 The absence of price and timing effects in the Corridor #2 subdivisions appears to
17 be due to the fact that the used and value generating portion of the lot is generally a small
18 enclave at the front of the lot where the residence is developed. The rear of the lot plays
19 little role in the value calculation and the presence, therefore, of a HVTL ROW in the
20 rear portion of the lot apparently has little impact on the marketability of the lot. In each
21 of the four cases where there was a price effect, the lot was bisected and the development
22 area of the remaining portion of the lot between the ROW and the lot frontage was
23 constrained.

24 The findings for the three subdivisions in Study Area #3 appear to reflect the
25 reality in the Portsmouth area of smaller lots, higher land prices and a general lack of
26 lower valued, "excess" land. In the two subdivisions where price effects were observed,
27 the encumbered lots sold for 10% to 30% less than the unencumbered lots despite the fact
28 that their development area was 60% to 70% smaller. The ratio of land value to property
29 value is variable, but if land value averaged one-third of the overall property value, this
30 would translate into property value effects in the 3% to 10% range. Consistent with the
31 Corridor #2 findings, it appears that there have to be serious constraints on the

1 development options for a site before HVTL ROW encumbrance becomes a price issue.
2 Or, put another way, the encumbrance has to impinge on the portions of the lot important
3 to the siting of the home for there to be an impact on value.

4 With respect to marketing time, there was no effect identified in eight of the 13
5 subdivisions studied. In the five subdivisions where there was an effect, the effects in two
6 were small and the other three subdivisions had lots that were heavily encumbered by the
7 HVTL ROW or by a combination of the HVTL ROW and wetlands.

8 **Q. If the value of a lot is adversely affected by HVTL, does the land**
9 **owner at the time the easement was purchased, or do subsequent buyers of the lot,**
10 **suffer economic damage?**

11 A. No. The existence of market value effects does not imply economic
12 damages to the property owner. The owner at the time of easement purchase would have
13 been compensated for market value effects. Further, if there were market value effects,
14 subsequent owners would have purchased the property at a discount, so they would have
15 suffered no economic damage.

16 **The Market Activity Research**

17 **Q. What is the Market Activity Research?**

18 A. The Market Activity Research is a third New Hampshire-specific initiative
19 that examines Multiple Listing Service data to see if there is evidence of market
20 resistance to “for sale” properties based on their location relative to a HVTL corridor.

21 **Q. What was the methodology used in the Market Activity Research?**

22 A. Multiple Listing Service (“MLS”) data was collected for all residential
23 property sales within one mile of Corridor #2 ROW beginning on January 1, 2013 and
24 continuing through 2014. Data were initially collected for all sales occurring in towns for
25 which some portion of the town falls within the one mile criterion of the research. The
26 location of the property sold was determined and straight line distance to the ROW was
27 measured from satellite imagery. The sales were categorized by distance into three
28 groups—encumbered or abutting, one foot to 500 feet and 500 feet to one mile.

29 Two measures of market activity shed light on pricing and timing issues. The
30 MLS data describe both the listing price of the property and the sale price. The ratio of
31 the sale price to the listing price (“SP/LP”) is taken as an indication of the strength of the

1 market with significant shortfalls of sale prices relative to listing prices indicative of
2 buyer resistance. Second, the MLS data describe the days the property was on the market
3 (“DOM”) under the current listing and again, relatively high DOM would be an
4 indication of buyer resistance. Quarterly averages were calculated for both measures for
5 sales occurring in each of the three locational zones.

6 **Q. What were the findings of the Market Activity Research?**

7 A. The sales of the encumbered or abutting properties tend to have the same
8 or higher SP/LP ratio than either of the other two location groups. The proximate
9 properties (one to 500 feet) have a more mixed relationship to the more distant properties,
10 lower in some quarters, similar in several and higher in others. The number of
11 observations in each quarter is small so not too much should be read into these results,
12 but there is no indication of a systematic market disadvantage of the encumbered
13 properties or the proximate properties relative to the more distant group.

14 In six of the eight quarters, average DOM was the same or lower for the
15 abutting/encumbered properties compared to the other two groups. The proximate
16 properties have lower DOM than the more distant properties about half the time and
17 higher DOM about half the time. Again, caution must be used in drawing conclusions
18 based on relatively small numbers of observations, but there appears to be no systematic
19 tendency for the DOM of the abutting, encumbered or proximate properties to be greater
20 than for properties at a greater distance from the HVTL.

21 **Conclusions**

22 **Q. Having completed the Research Report, do you have an opinion on**
23 **the possible effect of HVTL on real estate markets in New Hampshire?**

24 A. Yes. Everything I have learned from the research we have carried out over
25 the past 18 months as documented in the Research Report is consistent with the basic
26 conclusions of the professional literature, namely: there is no evidence that HVTL result
27 in consistent measurable effects on property values, and, where there are effects, the
28 effects are small and decrease rapidly with distance.

1 **Q. To what do you attribute the general absence of property value**
2 **effects?**

3 A. The behavior of real estate market participants is a function of a large
4 number of considerations that influence different people in different ways. Therefore, the
5 only reliable method of assessing effects is to observe the result of the interactions of all
6 the participants as they are revealed in actual transactions. Nevertheless, based on the
7 perspective gained from the Case Studies and Subdivision Studies research, we are able
8 to identify considerations that may be responsible for the absence of market value effects.

9 HVTL corridors are often screened by vegetation or topography. Despite
10 significant encumbrance, HVTL corridors often only affect the rear of lots that contribute
11 little utility or value to the property. The character and condition of the improvements to
12 the property (house, yard, etc.) tend to dominate the attributes of the lot in determining
13 the market value of the property. With many of the larger rural acreages, other lot
14 characteristics (access, views, vegetation, water, etc.) dominate the HVTL effects. HVTL
15 effects are most likely in the situation where there are similar properties except for the
16 HVTL. This condition seldom holds in New Hampshire due to variability of terrain and
17 the generally heterogeneous housing stock. Finally, the HVTL corridors have positive
18 attributes, such as preserving open space.

19 My conclusion is that even though the presence of a HVTL corridor is generally
20 perceived to be a negative attribute of a property, the weight attached to this particular
21 attribute compared to all the other considerations that go into market decisions is
22 apparently too small to have any consistent measurable effect on the market value of real
23 estate.

24 **Q. Are you familiar with the Project?**

25 A. Yes, I am.

26 **Q. Does your opinion on HVTL effects on the market value of New**
27 **Hampshire real estate and the evidence on which it is based also apply to the**
28 **Project?**

29 A. Yes.

1 **Q. Please explain.**

2 A. Nothing in the Research Report indicates any reason to expect property
3 value effects of the Project to be more common than reported in the published literature
4 or in our New Hampshire research. On the contrary, the research indicates that when
5 effects occur, proximity of the house to the ROW combined with clear visibility of the
6 HVTL are the critical variables. For the Project, the new HVTL is in an existing ROW so
7 proximity of homes with respect to the existing ROW will not change.

8 Based on the research, those properties that could potentially be affected are
9 homes very close to the ROW that do not have clear visibility of the existing distribution
10 line but will have clear visibility of the Seacoast HVTL. The number of such properties is
11 very small. Based on a proximity criterion of 100 feet, there are 19 properties potentially
12 affected. But several of these already have clear visibility of the line in the ROW and
13 others do not but will continue to be screened from the new lines. Of the remaining small
14 number of properties, our research suggests some will experience small market value
15 effects and some will not.

16 **Q. Please explain the apparent inconsistency between your opinions and**
17 **the intuitive feeling that some observers have that HVTL must have an effect on real**
18 **estate values.**

19 A. Many have an intuitive feeling that HVTL must have an effect on real
20 estate values. If you focus purely on HVTL, most people would expect the direction of
21 the effect on market value to be negative. However, it does not follow that there is a
22 discernible effect on market value. The effect on market value, if any, depends on the
23 weight given the HVTL effect relative to all the other positive and negative variables that
24 shape a property purchase decision. All other things equal, the property without the
25 HVTL would generally be preferred, but all other things are never equal. We have
26 intuition with respect to the direction of the effect but not the weight it is given by buyers
27 and sellers of homes. Ultimately that has to be inferred from market data.

28 **Q. How do you account for public concern with respect to property value**
29 **effects?**

30 A. I think it helps to keep in mind that people come to this issue from several
31 different perspectives. There is the “Market Value” perspective which investigates

1 whether the price arrived at in a fair market sale is affected by a HVTL. This is an
2 objective concept based on market data. This is the perspective addressed in the Research
3 Report and is the basis for the opinions I have offered here.

4 A second perspective is the “Owner” perspective. This is the subjective
5 perspective of the owner of an affected property who has an opinion of the personal
6 implications of the HVTL. This might include a scenario where the removal of a tree
7 could have great personal significance or where a portion of a HVTL structure becoming
8 visible causes tremendous harm in the subjective opinion of an individual property
9 owner. In both of these scenarios, however, it is entirely possible that a prospective
10 buyer, or, more generally, the market, would be oblivious to the change.

11 A third perspective is that of a non-owner who enjoys an affected resource
12 (hiking or driving for example) and feels that their use/enjoyment of that resource is
13 impaired by the HVTL. This perspective can be referred to as the “Public” perspective.

14 Both the Owner and the Public perspectives are genuine and must be respected,
15 but those coming from these perspectives often confuse the issue by claiming market
16 value effects. In fact, they may claim market value effects that are of magnitudes similar
17 to the effects they suffer from a subjective or public perspective, e.g. “the value of my
18 property will be destroyed.” This may be true from their personal, subjective perspective,
19 but the market value issue is an empirical question that must be answered with market
20 data.

21 **Q. Please provide your ultimate opinion on the issue of the Project’s**
22 **potential effect on real estate markets.**

23 A. In my opinion, there is no basis in the published literature or in the New
24 Hampshire-specific research initiatives as described in the Research Report to expect that
25 the Project would have a discernible effect on property values or marketing times in local
26 or regional real estate markets.

27 **Q. Do you have any additional comments you would like to add?**

28 A. No.

29 **Q. Does that conclude your testimony?**

30 A. Yes.