

**COMMENTS OF NORTHERN PASS TRANSMISSION LLC  
ON DRAFT ENVIRONMENTAL IMPACT STATEMENT  
PROPERTY VALUE IMPACT ANALYSIS**

Northern Pass Transmission LLC (“Northern Pass” or “the Project”) submits this comment on the issue of the impact of high voltage transmission lines (“HVTL”) on property values. This comment incorporates by reference and attaches hereto a report by Dr. James Chalmers entitled *High Voltage Transmission Lines and New Hampshire Real Estate Markets: A Research Report, June 30, 2015* (the “Chalmers Report”) that was commissioned by Northern Pass to support its application to the New Hampshire Site Evaluation Committee. The Chalmers Report provides a detailed analysis of the 11 different studies on the impacts of HVTL on property values that are the most relevant to the issues presented here.<sup>1</sup> The Chalmers Report also describes the results of three different studies that Chalmers undertook to evaluate the impact of HVTL on property values specifically in New Hampshire. It provides a strong basis for concluding that any impacts of the Project on property values in New Hampshire will be both rare and small.

**The DEIS Analysis**

Based on an averaging of four different studies, the DEIS suggests that Northern Pass will have small impacts on property values. The DEIS estimates that the construction of Northern Pass would reduce residential property values within 500 feet of the line by an average of approximately 3.5 percent, resulting in a reduction in property tax payments totaling approximately \$260,000 per year along the Project route. This would not be a large impact for such a large project. However, even this small assumed impact is overstated.

To arrive at its 3.5 percent impact on residential property values, the DEIS averages the results from two Canadian studies, one New Zealand study and one Illinois study, and it then applies them to properties within 500 feet of the Project. However, a key shared conclusion of the literature represented by those studies is that property value effects from a transmission line cannot be assumed. Effects have been found in some studies, but not in others, and other factors tend to determine whether HVTL will have an impact on property values. Moreover, nowhere in the literature that the DEIS relies upon – nor in the larger body of analytical on this topic – is it suggested that the results of one or more studies are sufficiently consistent or broadly applicable that they can be applied to unstudied areas. Thus, to average the results of four individual

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<sup>1</sup> A copy of the Chalmers Report accompanies this comment. The back-up data for the report is available at <http://www.northernpass.us/assets/filings/Volume%20XXXV/Appendix%2046%20High%20Voltage%20Transmission%20Lines%20and%20Real%20Estate%20Markets%20in%20New%20Hampshire.pdf>.

studies done in regions quite distinct from New Hampshire to conclude there is an “average effect” on property values is to misstate what the literature indicates.

The DEIS property value impact analysis also only addresses the impact of the Project in isolation. It does not ask the question that is most relevant in this case: What is the incremental impact of the Project on surrounding properties where there is already an existing ROW that contains one or more transmission lines? DOE acknowledges this flaw, but it does nothing to correct for it, except to note that the DEIS “likely overstates the adverse impact for segments of the Project that would parallel existing transmission lines.” More appropriately framed, because of this flaw, the DEIS certainly overstates the impact. Except for 32 miles of the northern-most 40 miles of the Project, where there are only few and widely dispersed residential properties, the entire overhead portion of the Project is in an existing ROW that already contains one or more 115 kV lines. The DEIS also does not take into account that property owners whose properties are subject to an easement for the existing ROW were compensated for that encumbrance and that subsequent purchasers presumably paid a price that reflected any impact associated with the encumbrance.

Both of these considerations undercut the conclusion contained in the DEIS that Northern Pass would have even a small effect on property values in the particular setting where the Project is to be built.

### **The Chalmers Report**

The Chalmers Report recognizes that the published literature can contribute valuable insights to the consideration of what impacts, if any, a project like Northern Pass will have on property values. He undertook an analysis of 11 prominent studies in the published professional literature, and he also undertook three New Hampshire-specific research initiatives, namely, Case Studies, Subdivision Studies and Market Activity research:

- The Case Studies analyze 58 individual sales of New Hampshire residential properties crossed or bordered by a HVTL.
- The Subdivision Studies examine the timing and pricing of lot sales in 13 New Hampshire subdivisions where some lots are crossed or bordered by a HVTL and others are not.
- The Market Activity Research compares sale price to list price ratios and days on market for residential sales in different New Hampshire locations relative to a HVTL corridor.

Before Dr. Chalmers discusses either the established body of professional literature or the New Hampshire-specific research initiatives, however, he addresses the important issue of the difference between what intuition or subjective judgment might say about the impacts and what the empirical data shows.

### *Distinguishing Between Public Perception and Empirical Data*

At the outset of his Report, Dr. Chalmers emphasizes the importance of distinguishing between the empirical evidence and the public perception of real estate value effects. The empirical evidence described in the remainder of the Chalmers Report makes it clear that real estate value effects cannot be presumed and that, while there will be effects in some cases, these cases are infrequent and the effects are generally small. On the other hand, the public's perception of HVTL often seems to be that negative effects of HVTL on the value of real estate are a self-evident fact.

Dr. Chalmers explains that, part of the problem stems from the fact that, if you focus solely on HVTL, most people would expect the direction of the effect on market value to be negative. But it does not follow that there is a discernible effect on market value. The effect on market value, if any, depends on the weight given the HVTL effect relative to all the other positive and negative variables that shape a property purchase decision. All other things being equal, the property without the HVTL might be preferred, but all other things are never equal. The published research shows that, even though transmission line issues have been a concern in most of the communities studied, and even though the direction of effect on real estate value is generally negative, the presence of HVTL is apparently not given sufficient weight by buyers and sellers of real estate to have had any consistent measurable effect on market value. Ultimately, Dr. Chalmers notes, the existence of an effect has to be inferred from market data.<sup>2</sup>

In addition, as Dr. Chalmers points out, there are different perspectives on these issues. There is the "Market Value" perspective which investigates whether the price arrived at in a fair market sale is affected by an HVTL. This is an objective concept based on market data and is the perspective on which Dr. Chalmers' Report is based. A second perspective can be referred to as the "Owner" perspective. This is the subjective perspective of the owner of an affected property who has an opinion of the personal implications of the HVTL. This might include a scenario where the removal of a tree has great personal significance or where a portion of a

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<sup>2</sup> A Comment submitted by Carl Martland purporting to find that HVTL have significant effects on property values may be seen as an example of Owner perspective Dr. Chalmers describes. He notes that the developer of the Owl Nest development in Campton asserts that Northern Pass caused him to lose \$9 million. Martland at 1. That may well be his perspective on the matter. However, a New Hampshire court evaluating that claim concluded that the developer had failed to show a connection between Northern Pass and decreased property sales and dismissed his lawsuit. <http://www.unionleader.com/apps/pbcs.dll/article?AID=/20141124/NEWS05/141129568>.

HVTL structure becoming visible causes harm in the subjective opinion of an individual property owner. In both of these scenarios, however, it is entirely possible that a prospective buyer, or, more generally, the market, would be oblivious to the change. A third perspective is that of a non-owner who enjoys an affected resource (while hiking or driving for example) and feels that their use or enjoyment is impaired by the HVTL. This perspective can be referred to as the “Public” perspective.

Dr. Chalmers does not dispute that both the Owner and the Public perspectives are genuine, but he notes that those perspectives are often confused with market value effects. Again, whether the market value of a property has been affected by proximity of HVTL is an empirical question that must be answered with market data. Based on the professional literature and the evidence, Dr. Chalmers finds that the subjective Public and Owner perspectives are frequently not reflective of what actually occurs in real estate markets.

### *The Published Literature*

The published literature is extensive and compares the sales of properties potentially affected by a HVTL to the sale of properties unaffected by such lines. These studies were carried out using different methods (statistical studies, subdivision studies, case studies). The 11 studies Chalmers includes in his literature review were the most widely referenced by researchers in the field, use the most widely accepted methodologies, are focused on the United States and Canada and carry publication dates of 1988 or later. Chalmers summarizes key conclusions of this literature review as follows:<sup>3</sup>

- For residential properties about half of the studies find some measure of a negative impact on the value of the property resulting from proximity to HVTL, while half find none.
- Where effects were found, they were usually in the range of a 1-6% reduction in value, and any effect declined rapidly as distance from the lines increased.
- Where effects were found, they were very small beyond 200 feet from the HVTL, and seldom extended beyond 500 feet.
- Once the effect of proximity has been accounted for, visibility generally has no additional, independent effect on market value.
- Encumbrances frequently have no effect on market value; where there is an effect, it is small relative to the size of the encumbrance.

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<sup>3</sup> Chalmers Report at 8 – 15.

- HVTL generally have no effect on the value of commercial/industrial properties unless development of the site is constrained in a way that reduces the income producing potential of the property such as by reducing the size of the improvements that can be built on the site.
- The market value of vacant land is generally not affected by HVTL, although there may be some impact on value if the development of the land is constrained by the ROW, or if the HVTL are the principal differentiating feature of otherwise very similar parcels.
- Where there are effects, there is some evidence that they dissipate over time.

Dr. Chalmers concluded that the results in the published literature are sufficiently consistent across geographic areas and development patterns that there was no reason to expect a different result in New Hampshire. Nevertheless, Dr. Chalmers undertook three research initiatives to test whether that conclusion was confirmed by the data. He found that they were.

### *Case Studies*

The Case Studies represent a broad spectrum of properties crossed by, or adjacent to, a HVTL in New Hampshire including variations in property location, size and value and in the way in which the property is physically affected by the HVTL. While the results of any single Case Study are necessarily anecdotal, useful generalizations can be drawn when considering the results from the 58 Case Studies involving three different HVTL corridors and sales that occurred between 2010 and 2014. These include the following: sale price effects are infrequent, occurring in only 10 cases out of 58, or 17%. Despite significant encumbrances of many properties crossed by a HVTL ROW, highly visible structures and, in some cases, extreme proximity to the ROW, the effects on sale prices appear to be small and the effect is reduced substantially with distance of the residence from the line.

Even out of the 14 cases that combined close proximity of the house to the ROW and clear visibility of transmission structures, eight showed a sales price effect, while six did not. Only one of the 10 cases where there appeared to be an effect on sales price involved a residence located more than 100 feet from the edge of the ROW. In those instances in which an effect on sale price was noted, the properties were not only close to the ROW, but were forced to be close to the ROW because the developable portion of the lot was constrained by the location of the ROW on the property.

Of particular note, portions of what Chalmers designates as Corridor #2 are proposed to be the location of the southern 103 miles of overhead Northern Pass HVTL.<sup>4</sup> The Project began receiving publicity in 2010, the beginning of the period covered by the Case Studies, and thus the Case Studies for this corridor may include any effects on the real estate market of the Northern Pass. Yet, only 4 of 28 properties in this Corridor showed a sales price effect. All four had clear visibility of one or more transmission structures, and two of the four properties were more than 60% encumbered by the ROW. For eight other properties, real estate brokers suggested that the HVTL had a price effect, but the appraisal evidence did not support that conclusion.<sup>5</sup>

### *Subdivision Studies*

Chalmers studied 170 lot sales in 13 different subdivisions throughout New Hampshire where some lots were crossed or bordered by a HVTL ROW and others were not. The objective was to identify residential subdivisions that were representative of the diversity in land use and development patterns across the state. Since the lots were unimproved, if HVTL had effects on the marketability of the lots, those could be detected without distortion arising from differences in the value of improvements. Additionally, prior to improvement, close substitutes to those lots encumbered by or abutting HVTL were available. The response of the market to the two categories of lots, those crossed or bordered by HVTL and those that were not, was analyzed both for sale price and marketing time effects.

The lot sale history indicates a general absence of impact on marketability associated with lots encumbered by or abutting a HVTL ROW. Eight of the 13 subdivisions studied showed no differential sale price or marketing time effect associated with the HVTL. In those cases where there were price effects, the lots were heavily encumbered by the ROW, and frequently the area in which improvements could be sited on the lot was constrained. Thus, for example, a five-acre lot in Sugar Hill showed a significant price effect, but because it was so heavily encumbered by the ROW, there was only one acre that had access to the street and could be developed, while other lots that still had significant encumbrances showed no price effect.<sup>6</sup> Looking at all of the subdivision evidence, Chalmers concludes that the ROW encumbrance has to impinge on portions of the lot important to siting of a home for there to be an impact on value.<sup>7</sup>

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<sup>4</sup> The Martland Comment criticizes the DEIS for basing its analysis on the literature and “not upon analysis of any properties that would be affected by the project.” Martland at 2. That criticism does not apply to Chalmers Report. However, Martland’s case study is of Sugar Hill, which will not be affected by the Project given that the proposed Northern Pass route is now designed to be entirely underground in public roads in the area of Sugar Hill.

<sup>5</sup> Chalmers Report at 25 – 28.

<sup>6</sup> Id. at 77 – 85.

<sup>7</sup> Id. at 85.

### ***Market Activity Research***

Finally, for Corridor #2, Chalmers analyzed Multiple Listing Service sales data for 2013 and 2014 to compare the ratio of listing price to sales price and days on market of properties at different distances from HVTL. Data were collected for all sales occurring in towns for which some portion of the town fell within one mile of a HVTL. The sales were categorized by distance into three groups, encumbered or abutting, 1 foot to 500 feet, and 500 feet to one mile from the ROW. Multiple Listing Service data on sale price to list price ratios and days on market were then analyzed to see if there was market resistance to the properties in locations closest to the HVTL. All told, Chalmers analyzed 650 New Hampshire property sales. The analysis indicated no systematic market disadvantage of the encumbered or abutting properties relative to the more distant group with respect to either sale price or time on the market. Specifically, the data showed that sales of encumbered properties tended to have the same or higher sale price to listing price ratio than more distant properties, and in six out of the eight quarters studied, the average days on market of the abutting or encumbered properties was the same or lower than for the more distant properties.<sup>8</sup>

### **Conclusion**

Approaching the question from four distinct angles – the published literature and three New Hampshire-specific market studies – Dr. Chalmers makes a convincing case that there is no evidence that HVTL result in systematic or widespread effects on real estate markets, whether in New Hampshire or elsewhere. Effects typically occur only when the HVTL involves both close proximity and clear visibility. Impacts appear most likely when those factors combine with the existence of an encumbrance that significantly impairs the ability of an owner to develop a property. Because Northern Pass will be located in an existing ROW, the proximity of residential properties relative to the ROW will not change. Likewise, constraints on the development of property located near the ROW will be unaffected by NPT's use of existing ROWs. Chalmers therefore properly concludes that the Project will not have a discernible effect on property values or marketing times in local or regional real estate markets.

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<sup>8</sup> Id. at 86 – 88.