
Preliminary Economic and Fiscal Impacts of the Proposed Northern Pass Transmission Project

**Prepared for
Northern Pass Transmission LLC**

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Summary

The Northern Pass transmission project is a proposal for a transmission line to bring 1,200 MW of competitively priced, low carbon, renewable energy (predominantly hydropower) from Canada into the Northeast region. HQ Hydro Renewable Energy, Northeast Utilities, and NSTAR are partnering on the proposed Northern Pass Transmission project, and have received preliminary approvals from the Federal Energy Regulatory Commission on the proposed funding model. The Northern Pass transmission project is proposed to be located in about 30 communities in New Hampshire, where it will interconnect system power, primarily from hydro sources into the regional power grid. The project is still in the design, engineering, and business deal phase. Federal permitting processes are expected to begin this fall, and state permitting in late 2011.

The preliminary conceptual cost estimate for the Northern Pass transmission project proposal is \$1.1 billion. It would involve a major New Hampshire construction project over the projected primary construction period of 2013 – 2015, subject to all regulatory approvals. Upon completion, this new utility property would add to the taxable property base in over 30 communities, several counties, and the state. The purpose of this report is to provide preliminary estimates of the economic impacts to New Hampshire during the development and construction phases of the project, and the property tax payments to local communities, counties, and the State of New Hampshire from the project when operational. Results of this analysis are summarized below and covered in more detail in this report.

- Summary of Preliminary Estimates - Economic and Fiscal Impacts of Proposed Northern Pass Transmission Project New Hampshire

Development and Construction Phase

- New Hampshire Employment – Annual Average 2013–2015, 1,100 – 1,300 Jobs
- New Hampshire Household Earnings – Cumulative 2010–2015, \$204-\$249 Million
- New Hampshire Economic Output – Cumulative 2010–2015, \$259-\$316 Million

See Pages 3 – 5 for more detail.

Operational Phase

Annual Property Tax Payments in New Hampshire – TOTAL: \$15 to \$20 Million

- Local - \$9–12 Million
- State - \$5–6 Million
- County - \$1–2 Million

See Pages 5 – 6 for more detail.



Background

The Northern Pass transmission project is a proposal for a transmission line to bring 1,200 MW of competitively priced, low carbon, renewable power (predominantly hydropower) into the region in order to meet carbon emissions reduction goals (as separate and distinct from renewable portfolio standard requirements). HQ Hydro Renewable Energy, Northeast Utilities, and NSTAR are partnering on the proposed Northern Pass Transmission project, and have received preliminary approval from the Federal Energy Regulatory Commission (FERC) on the participant funded model for the project. This novel funding model means that only those that purchase power will pay for the cost of the transmission line, through a bundled rate that includes the energy charge and the cost of the line at a competitive rate.¹

Work to develop alternative siting routes is underway, with the permitting processes to begin this fall and into 2012. Approximately 180 miles of transmission line, a converter terminal and substations would be constructed in New Hampshire. The primary construction phase is currently targeted for 2013 through 2015, subject to all regulatory approvals.

The preliminary conceptual cost estimate for the project is \$1.1 billion. The purpose of this Report is to provide preliminary estimates of the economic impacts to New Hampshire during the development and construction phases of the project, and the fiscal impacts from property tax revenues once the project is in-service.

The estimates developed are by definition preliminary as they rely on conceptual cost estimates, regional and industry average allocations for local versus non-local labor and materials budgets, assumptions about job types and average wages, and simple static multipliers (RIMS II). This report is being prepared in order to provide a first order approximation of the economic impacts of a \$1.1 billion transmission construction project on employment, output, and household earnings in New Hampshire. When more refined cost estimates and siting routes are available, a more detailed economic impact analysis could be conducted to update these preliminary estimates.

For the fiscal impact analysis on New Hampshire communities, estimated annual property tax payments were developed using a range of assumptions on property tax rates and budget levels for municipalities, counties, and the state.

¹ Federal Energy Regulatory Commission Order Granting Petition for Declaratory Order, Docket No. EL09-20-000, Issued May 22, 2009.



Estimated Economic Impacts from Construction

The proposed Northern Pass transmission project is a major construction project and would be one of the largest energy infrastructure projects in recent New Hampshire history. A large transmission construction project utilizes in-state contractors and workers as well as out-of-state specialized contractors and workers. Competitive bidding is utilized for many subcontracts. This preliminary report relies on industry and regional average allocations: about one-third of the total direct expenditures are assumed to be made to New Hampshire workers and firms for these preliminary estimates. It is expected that there will be extensive New Hampshire jobs related to clearing and site work, harvesting, construction and materials, including electrical, professional, and technical services.

New Hampshire specific multipliers from the federal government’s Regional Input-Output Modeling System (RIMS II ²) were then applied to the preliminary estimates of the direct expenditures in New Hampshire for materials and labor during the development and construction phase of the proposal to develop the total economic impacts in New Hampshire.

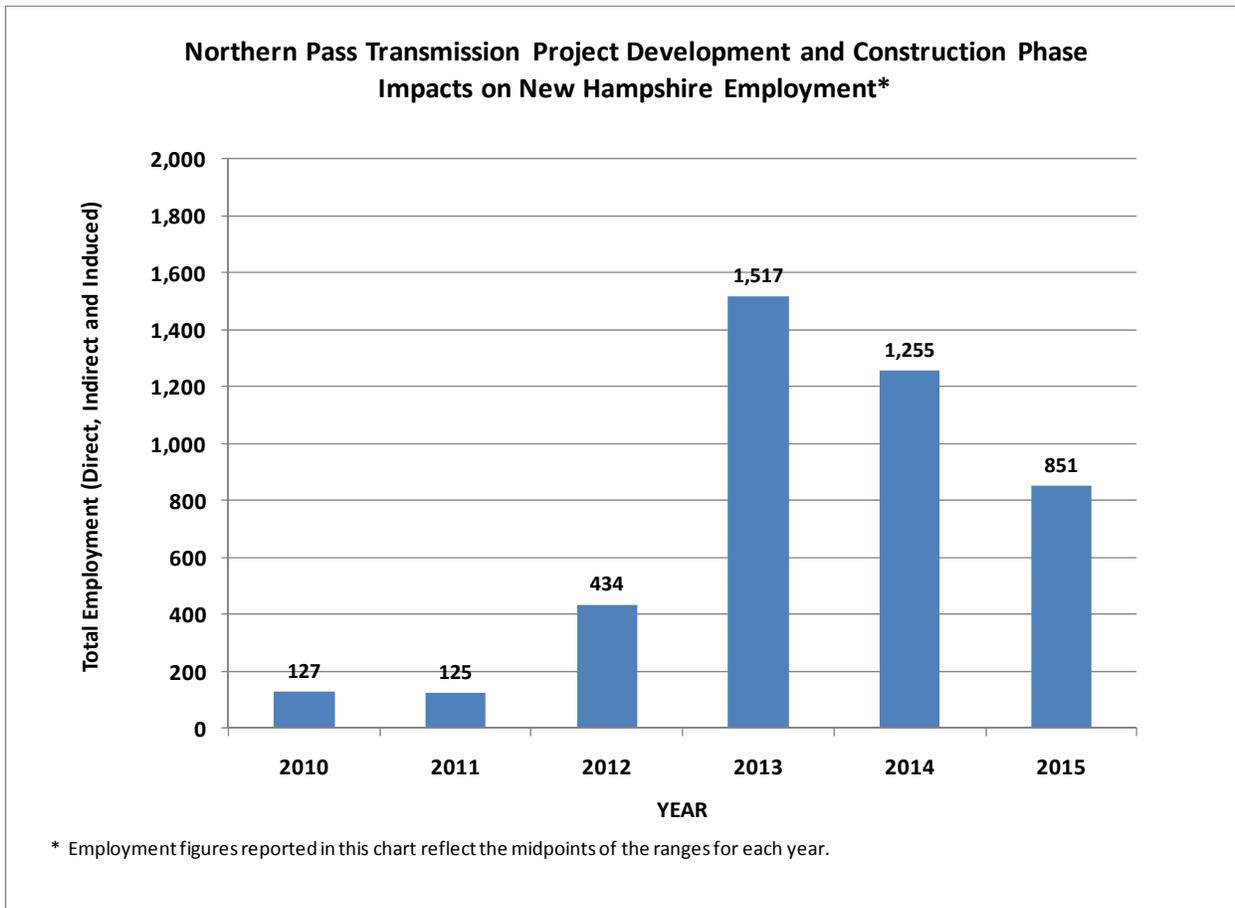
Preliminary estimates are that the project will positively impact in-state employment by an average of 1,100 – 1,300 jobs per year over the primary construction period 2013 to 2015, with peak employment impacts estimated at 1,370 – 1,670 jobs in 2013. Economic output (sales) in New Hampshire is estimated to increase by \$259 million to \$316 million over the whole planning and construction period of 2010 to 2015, with an average annual increase of \$74 million to \$91 million during the primary construction period. Household earnings for New Hampshire residents are estimated to increase by a total of \$204 million to \$249 million during 2010 through 2015, averaging an annual increase of approximately \$56 million to \$69 million between 2013 and 2015, the primary construction period.

**Proposed Northern Pass Transmission Project
Preliminary Select Annual Economic Impacts on New Hampshire
Primary Construction Phase, 2013-2015
(2010 Dollars)**

Economic Indicator	Average Per Year
New Hampshire Employment	1,100 – 1,300 Jobs
New Hampshire Economic Output / Sales	\$74 Million - \$91 Million
New Hampshire Household Earnings	\$56 Million - \$69 Million

² Additional information about the US Department of Commerce’s Bureau of Economic Analysis’ RIMS II multipliers can be found at <http://www.bea.gov/regional/rims/index.cfm>

The estimated employment impacts reflect direct New Hampshire employment in the in-state professional, technical services, site work, and construction industries associated with the design and construction of the project, and the indirect and induced in-state employment through the multiplier effect. Indirect and induced jobs are associated with the purchases of New Hampshire goods and services stemming from the project's direct in-state expenditures as well as the spending by New Hampshire employees who are directly and indirectly employed due to the project. Economic activity may also result when people from out-of-state who are working on the project come to New Hampshire and spend money (for example, at gas stations, restaurants, hotels and stores), although the economic impacts from these expenditures on specialized materials and labor are not included in the estimates reported here.



Economic output, or sales, captures all of the intermediate goods purchased as well as all of the final goods and services that are captured in Gross State Product. Based on preliminary estimates, New Hampshire's annual sales are estimated to increase by approximately \$89 million to \$109 million in 2013, with the average increase in annual sales estimated at \$74 million to \$91 million during the period 2013



through 2015. Based on the estimated increases in sales each year during the period 2010-2015, the state’s output could be an estimated \$259 million to \$316 million higher, on a cumulative basis, than it would be in the absence of the proposed Northern Pass transmission project.

**Proposed Northern Pass Transmission Project
Development and Construction Phase
Impacts on New Hampshire Economic Output
(Millions of 2010 Dollars)**

2010	2011	2012	2013	2014	2015	Total
\$7 - \$8	\$6 - \$8	\$22 - \$27	\$89 - \$109	\$80 - \$97	\$54 - \$66	\$259 - \$316

The employment impacts and economic activity estimated to result from the proposed Northern Pass transmission project will in turn lead to greater household earnings for New Hampshire households. Based on preliminary estimates, New Hampshire household earnings are estimated to increase by a total of \$204 million to \$249 million during the period 2010 through 2015, averaging an annual increase of approximately \$56 million to \$69 million between 2013 and 2015, the primary construction period. Annual household earnings are likely to peak in 2013, at an estimated \$73 million to \$89 million due to heightened construction activity.

**Proposed Northern Pass Transmission Project
Development and Construction Phase
Impacts on New Hampshire Household Earnings
(Millions of 2010 Dollars)**

2010	2011	2012	2013	2014	2015	Total
\$7 - \$8	\$6 - \$8	\$22 - \$27	\$73 - \$89	\$57 - \$70	\$39 - \$47	\$204 - \$249

Estimated Fiscal Impacts (Property Tax Payments) Upon Completion

The Northern Pass transmission project, subject to all regulatory approvals, would add a significant amount of taxable property value in communities in which it would be located, and to multiple counties and the whole state. Rough allocations of costs for the major equipment installations, and per mile cost allocations were provided based on conceptual designs and cost allocations. The 2009 estimated full value tax rates for communities for municipal and local supplemental education expenditures, county expenditures, and the statewide utility property tax were then applied to the allocations. Sensitivities for growth in tax bases and expenditures at the aggregate level were modeled as well.

The resulting estimates are that the Northern Pass transmission project will yield overall property tax payments of \$15 million to \$20 million a year in local, county, and state property taxes in New Hampshire. The chart below shows the estimated breakouts, based on the preliminary conceptual design cost estimate for the Northern Pass transmission project.

