



UMASS DONAHUE INSTITUTE



Economic Impacts of Vermont Yankee Closure

Prepared for the Franklin Regional Council of Governments

Prepared by

UMass Donahue Institute
Economic and Public Policy Research

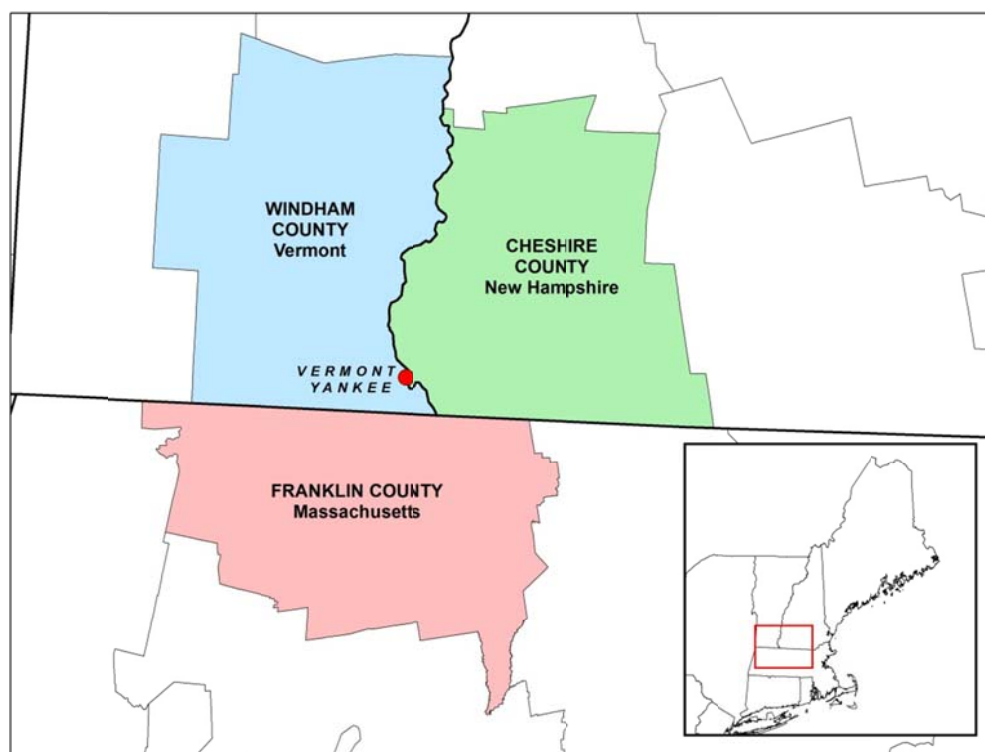
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Introduction

Entergy's Vermont Yankee Nuclear Power Station ("Vermont Yankee"), located in Vernon, Vermont along the Connecticut River, has been a crucial component of the Tri-County Region's economy for over 40 years. The Tri-County Region includes Franklin County, Massachusetts; Windham County, Vermont; and Cheshire County, New Hampshire (see Figure 1). As a fully operational electric power plant, Vermont Yankee has provided a foundation for the Tri-County economy, directly accounting for slightly less than one percent of regional jobs and a much higher share of the region's wage and salary income due to hundreds of highly-skilled, well-compensated jobs.

Figure 1. The Vermont Yankee Nuclear Power Plant and the Tri-County Region



Maintenance costs in combination with competition from other, less expensive power sources in the United States, principally natural gas, have resulted in the planned closure of numerous nuclear power plants throughout the country, including Vermont Yankee. The closure of this facility (i.e., cessation of energy production and start of decommissioning), anticipated to take place in the fourth quarter of 2014, and the loss of its high-pay and benefits to workers will have a significant impact on the largely rural Tri-County Region. This study, using available data on Vermont Yankee's employment and payroll, provides estimates of the economic and job impacts on the Tri-County Region resulting from the decommissioning of the plant.

While the economic impact results, including their multiplier effects as generated from a regional economic model, will be important as they illustrate the immediate magnitude of the closure impacts on the region, the study also assesses the ramifications of the closure as they relate to the economic and demographic

fundamentals of the Tri-County Region. This last component is important as many of Vermont Yankee's highly paid and skilled workers are expected to move to other locations. Recent evidence indicates the plant's skilled technicians are already leaving for other parts of the country even before power generation operations at Vermont Yankee have stopped. The three-county region does not presently offer sufficient depth in job prospects to retain a large portion of Vermont Yankee's employees, meaning the income, wage, and salary losses from the plant closure will likely take years to recover.

The following analysis includes an estimate of the direct and total economic impacts generated by Vermont Yankee as a fully operational power generating, nuclear facility. It then demonstrates the progressive decline in economic impacts as fewer and fewer people are needed to work at the property as it ends power generation and goes through successive phases of decommissioning. The analysis, throughout, is based on demonstrating the economic impacts of the Vermont Yankee closure on the relatively small and contained Tri-County Region. Total economic impacts would actually be greater if measured at the state or national levels as they would capture a greater range of suppliers to the Vermont Yankee power plant.

The findings are laid out as follows: a) Vermont Yankee employment and payroll values that serve as the foundation of the analysis; b) the economic impacts of the fully operational Vermont Yankee nuclear plant and the progressive reduction of economic impacts brought about by decommissioning; and c) a broader discussion of the closure of Vermont Yankee in the context of prevailing economic and demographic trends in the Tri-County Region.

Direct Impacts of Vermont Yankee Decommissioning and Closure

Overview

The Vermont Yankee nuclear power plant is expected to close in late 2014 and thus end its 42 year run as a major supplier of electricity to New England. The closure and ensuing decommissioning process will also see Vermont Yankee's economic contributions to the Tri-County Region fall sharply over the course of five to six years to be followed by a long-period of continued but very low economic activity (especially in comparison with an operating nuclear power plant) associated with the decontamination and security of the property. This section will briefly describe and compare the jobs and payroll at the fully operational Vermont Yankee plant compared to the number of jobs expected during the decommissioning process.

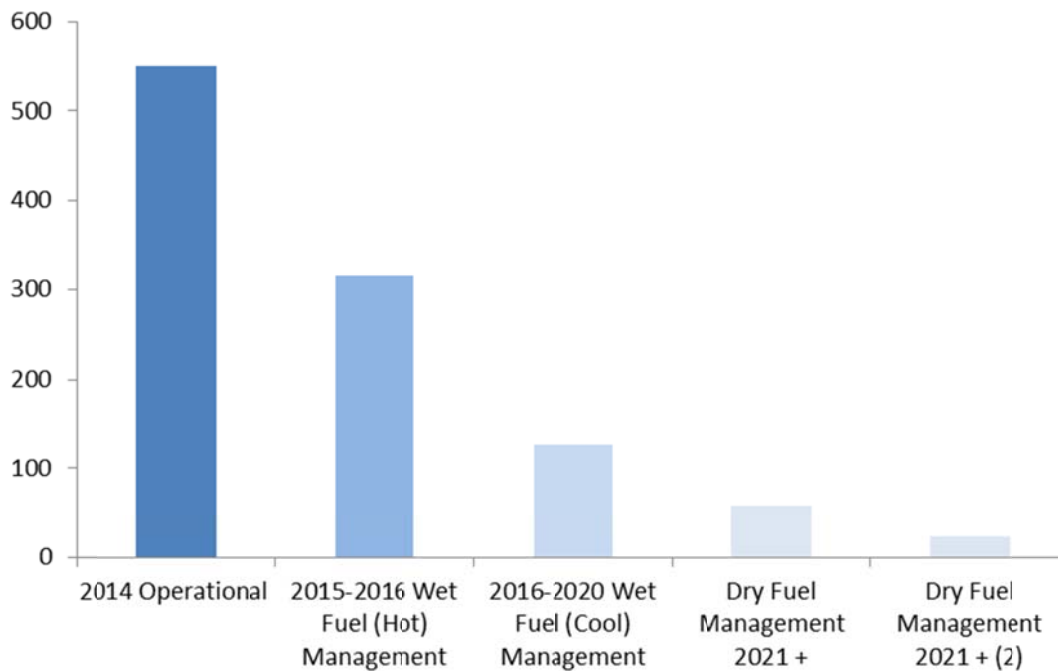
Direct Economic Activity

In 2014, Vermont Yankee employed 550 people according to Entergy. As recently as 2011, this figure was higher than 600. These employees, most requiring very specialized skills to manage and operate the nuclear power plant, receive relatively high wage and salary levels reflective of their training and responsibilities. With an estimated average annual wage per worker of approximately \$105,000, the total payroll of the operational Vermont Yankee would be about \$58 million in 2014.¹

After the cessation of power generation at Vermont Yankee in late 2014, job levels at the site will decline as the plant begins the decommissioning process. Presently, the planned timeline for the decommissioning expects on-site jobs to fall from 550 in 2014 to as few as 24 during an extended period of dry fuel management. The drop in jobs over only six or seven years between the operational phase of Vermont Yankee in 2014 to the dry fuel management phase beginning in 2021 will be sharp (see Figure 2). In 2015 and 2016, jobs are expected to decline to 316 during a period of wet fuel (hot) management. For about four years, 2016-2020, the former Vermont Yankee nuclear power plant will be in a wet fuel (cool) management phase which will require fewer workers (approximately 127). Finally, beginning in 2021, a longer period of dry fuel management could bring employment levels on-site down to as few as 24. During at least the initial wet fuel management phases of the decommissioning, Vermont Yankee will continue to employ its existing, highly compensated workers. For this reason, total payroll, though only a fraction of previous levels, will continue to be significant through at least 2020 (i.e., payroll in 2020 could be as high as \$13.5 million in 2020 if the wage and salary levels of Vermont Yankee's operation phase are maintained through that time). After 2021, the significantly lower job levels at the Vermont Yankee site may be accompanied by lower relative wage levels as occupations shift from technical workers to a higher proportion of workers in such jobs as grounds security while the site goes through what may be more than a decade of dry storage.

¹ Payroll and wage data were not available for 2014, but an estimate of over \$105,000 per worker developed for 2011 was vetted for this study among regional and labor experts familiar with Vermont Yankee and deemed consistent with likely 2014 compensation levels.

Figure 2. Worker Numbers at the Vermont Yankee Site Will Decline as Power Generating Operations End and the Decommissioning Phases Begin



Source: Entergy, September 2014.

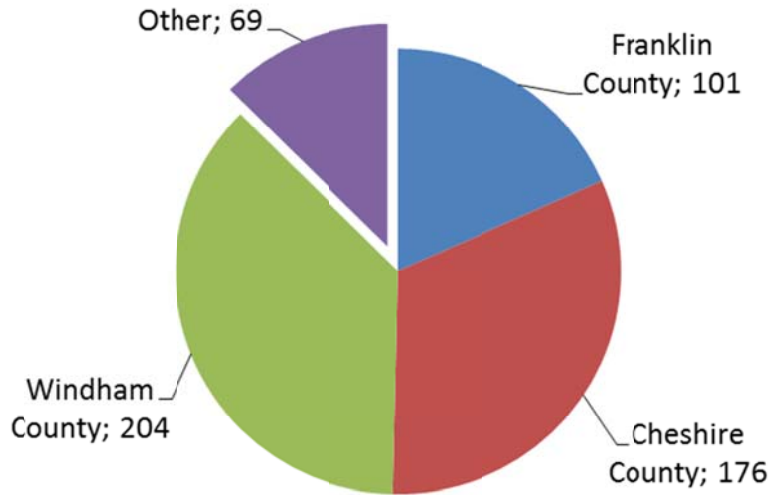
Note: The transition from wet fuel (hot) to wet fuel (cool) management is anticipated to occur during 2016, as depicted in a slide describing Vermont Yankee's staffing transition to decommissioning.²

Vermont Yankee's employees live and spend a large part of their earnings where they reside. Current Vermont Yankee workers live overwhelmingly within the Tri-County Region (see Figure 3), a reflection of the plant's location close to the center of the 2,250 square mile region. The residency of Vermont Yankee employees is an important piece of this analysis as their buying power is significantly greater than average for the region (see Figure 6 on page 11) and their spending whether on homes, restaurants, groceries, or entertainment reverberates through the Tri-County Region, providing critical support to the regional economy. The Tri-County region was home to 481 of Vermont Yankee's 550 employees, accounting for 89 percent of the total in 2014 prior to the plant closure. In 2014, an estimated 204 Vermont Yankee employees lived in Windham County, 176 in Cheshire County, and 101 in Franklin County.³ In this economic impact analysis, the shares of Vermont Yankee employees by county of residence are held constant in future years (e.g., if the region had 89 percent of 550 employees in 2014 while the plant was operational, it will have 89 percent of 127 employees in 2020 during decommissioning).

² Entergy presentation to the Nuclear Decommissioning Citizens Advisory Panel, September 25, 2014. Web: <http://publicservice.vermont.gov/sites/psd/files/NDCAP%20September%2025th%202014%20Presentation%20-%20Final.pdf>

³ County estimates for 2014 are based on an actual 2011 allocation applied to the 2014 employment total for Vermont Yankee.

Figure 3. Place of Residence for Vermont Yankee Employees



Source: Vermont Yankee (2014); 481 of Vermont Yankee's 550 employees reside in Tri-County Region; county numbers apply the 2011 geographic place of residence allocation to the 2014 total of 550 employees

Economic Impacts of Vermont Yankee Closure and Decommissioning

The closure and decommissioning of Vermont Yankee will reverberate through the Tri-County Region in Vermont, New Hampshire, and Massachusetts and generate impacts beyond the on-site activities taking place at Vermont Yankee. This section of the study provides estimates of the overall economic impacts and reduction in jobs associated with the decommissioning and closure of Vermont Yankee. The economic impacts presented in this section, as estimated and reported, reflect changes in economic activity – both directly and indirectly in terms of the multiplier effects to the broader economy.

The economic impacts and job effects were estimated specifically for the Tri-County area at the regional level. To conduct this analysis, we used a customized IMPLAN input-output model⁴ for the region to estimate the direct, indirect, and induced effects of the Vermont Yankee closure, in terms of employment, labor income, business sales (output), value added, and state revenue. The results are generated and reported in terms of the following:

- **Job impacts** represent a change in average annual jobs for the year indicated.
- **Labor income** consists of total employee compensation (wage and salary payments, as well as health and life insurance benefits, retirement payments and any other non-cash compensation) and proprietary income (payments received by self-employed individuals as income).
- **Value added** represents total business sales (output) minus the cost of purchasing intermediate products and is roughly equivalent to gross state/domestic product (commonly referred to as GSP or GDP). Value added is the enhancement a company gives its products before offering the product to customers. For example, an oil refinery takes crude petroleum as an input and then transforms it into refined gasoline. Simplistically, the “value added” in this instance is the difference between the greater value of refined gasoline and the lower value of crude petroleum.
- **Output** is a broader measure that consists of total business or industry sales. It includes sales to final users (e.g., the sale of gasoline at a service station) as well as intermediate good sales (e.g., the sale of crude petroleum that is required to produce the gasoline).

The **total economic impacts** as estimated by the IMPLAN model are the sum of direct, indirect, and induced impacts.

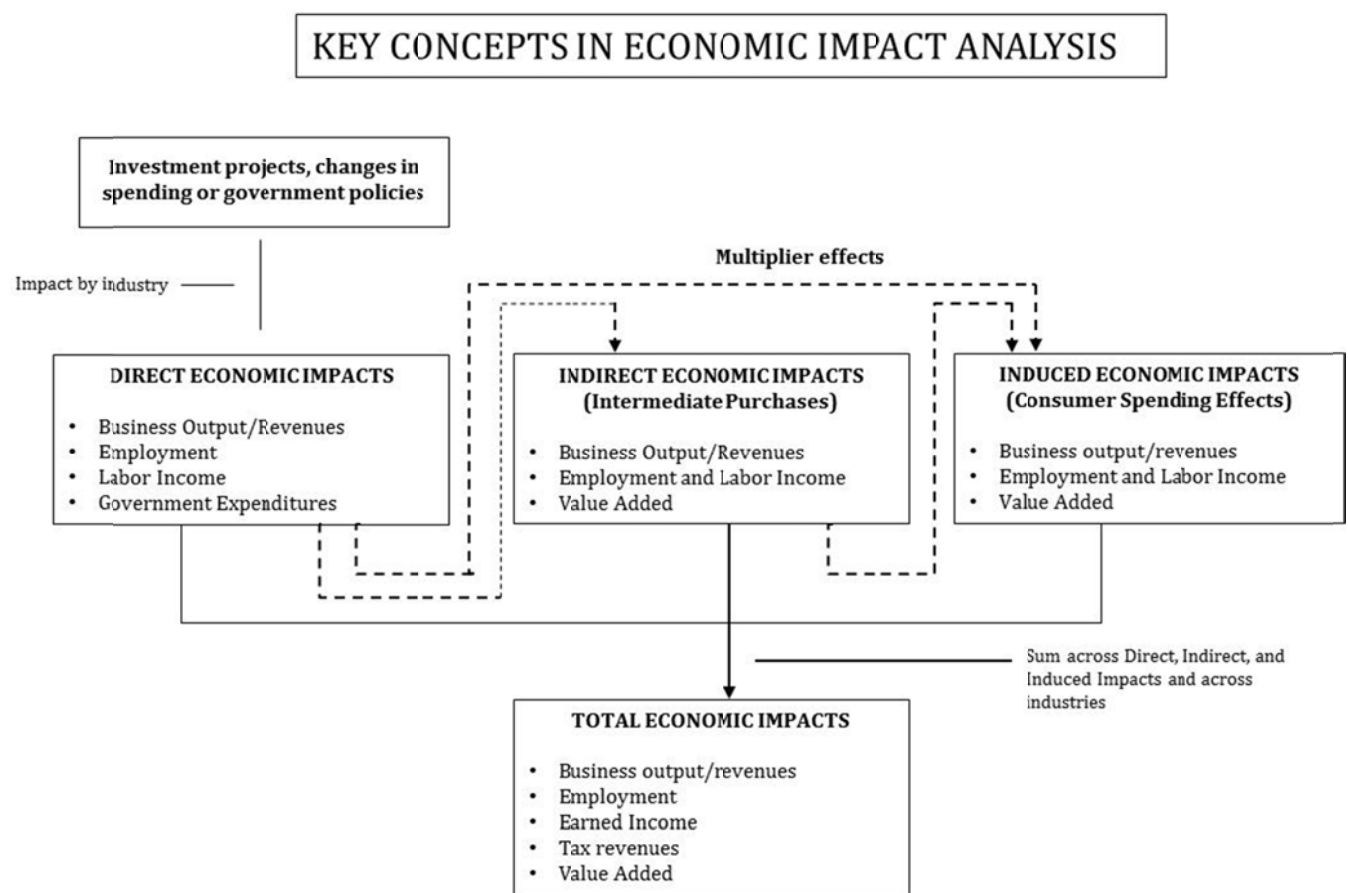
- **Direct impacts** are only those associated specifically with activities taking place at Vermont Yankee, whether during the current operational phase or the progressive downsizing during the phases of decommissioning. The direct impacts of Vermont Yankee include the employees who work at the site, their payroll, and the revenues (sales) associated with the activities taking place at the site.
- **Indirect impacts** are generated when material, equipment or other intermediate purchases are made to support the direct activity. For Vermont Yankee, indirect impacts come from the businesses supplying goods that the plant (or decommissioning process) needs to operate such as electronic equipment, building materials, specialized services, etc.

⁴ For more information on IMPLAN, see <http://www.implan.com/>

- Induced impacts** are generated by the local consumer spending, primarily from Vermont Yankee workers (whether in the operational or decommissioning phases) spending their earnings in the local economy. For example, spending by Vermont Yankee employees supports jobs in local stores, restaurants, hair salons, etc.

The lower levels of economic activity emanating from Vermont Yankee after the ending of nuclear power generation will translate to fewer dollars available to consumers for spending. The economic impact analysis includes estimates of the direct and total (sum of direct, indirect, and induced) economic impacts of Vermont Yankee by phase (e.g., the current operational phase as an active nuclear power plant as well as for four specified phases of decommissioning showing a progressive reduction of activity at the Vermont Yankee site). The economic impact methodology described above is visually presented in Figure 4.

Figure 4. Economic Impact Analysis Methodology



Vermont Yankee has been a key driver of the Tri-County Region’s economy for well over 40 years as an operational power plant. Due to the advanced nature of nuclear power generation, Vermont Yankee, while operational, employs a large number of highly-skilled engineers that receive compensation levels well beyond prevailing regional averages. During its last year of operation, 2014, Vermont Yankee directly employed 550 people with a payroll (including benefits) of \$82 million. By also including the indirect (282 jobs) and induced (387 jobs) impacts, shown in detail in Table 1, that include the positive influences on many local businesses such restaurants, real estate, retail shops, healthcare, and suppliers to the plant,

Vermont Yankee is estimated to contribute a total of 1,220 jobs in the region in 2014. An advantage of these Vermont Yankee generated jobs is that they are not seasonal or cyclical as are tourism and agricultural related jobs in the Tri-County Region, thus underscoring the plant's long-term role as a regional economic pillar. The overall total economic activity in the region associated with Vermont Yankee in its last year of operation in 2014 is estimated to be almost \$500 million in output.

Table 1. The Economic Activity Levels of Vermont Yankee to the Tri-County Region Over Time

	Operational	2015-2016	2017-2020	2021 Plus	2021 Plus (2)
Direct					
Employment	550	318	126	58	24
Labor Income	\$82,099,127	\$38,564,486	\$15,508,264	\$2,675,750	\$1,100,406
Value Added	\$244,286,992	\$66,121,377	\$26,547,585	\$7,849,919	\$3,242,067
Output	\$402,707,428	\$81,769,337	\$32,091,293	\$10,573,188	\$4,328,235
Indirect					
Employment	282	93	37	16	6
Labor Income	\$10,425,325	\$3,547,281	\$1,426,498	\$618,522	\$246,311
Value Added	\$31,131,267	\$5,541,555	\$2,224,922	\$968,233	\$386,153
Output	\$47,691,302	\$10,528,954	\$4,227,352	\$1,734,171	\$692,314
Induced					
Employment	387	165	66	10	4
Labor Income	\$14,377,220	\$6,106,431	\$2,455,631	\$361,327	\$148,855
Value Added	\$26,575,152	\$11,297,051	\$4,535,741	\$667,946	\$275,168
Output	\$43,008,077	\$21,464,397	\$8,617,908	\$1,081,549	\$445,562
Total*					
Employment	1,220	577	229	84	34
Labor Income	\$106,901,672	\$48,218,198	\$19,390,393	\$3,655,600	\$1,495,572
Value Added	\$301,993,411	\$82,959,983	\$33,308,248	\$9,486,099	\$3,903,388
Output	\$493,406,806	\$113,762,689	\$44,936,552	\$13,388,908	\$5,466,111

Source: Results are from simulations run in IMPLAN.

Notes: All economic activity levels shown are annual (e.g., the levels shown in the "2017-2020" column represent the *annual* contributions to the economy that are expected for each individual year during the indicated period; they are *not* multi-year cumulative contributions).

*Total impacts represent the sum of direct, indirect, and induced impacts.

As can be seen in Table 1, the economic contributions of Vermont Yankee on the Tri-County Region are expected to decline progressively as the plant moves through successive phases of decommissioning. In the initial wet fuel management steps of the decommissioning (through about 2020), Entergy will continue to use existing Vermont Yankee employees or bring-in substitutes from around the country, if necessary, to replace key Vermont Yankee workers who have already left for positions elsewhere.⁵ Though drastically

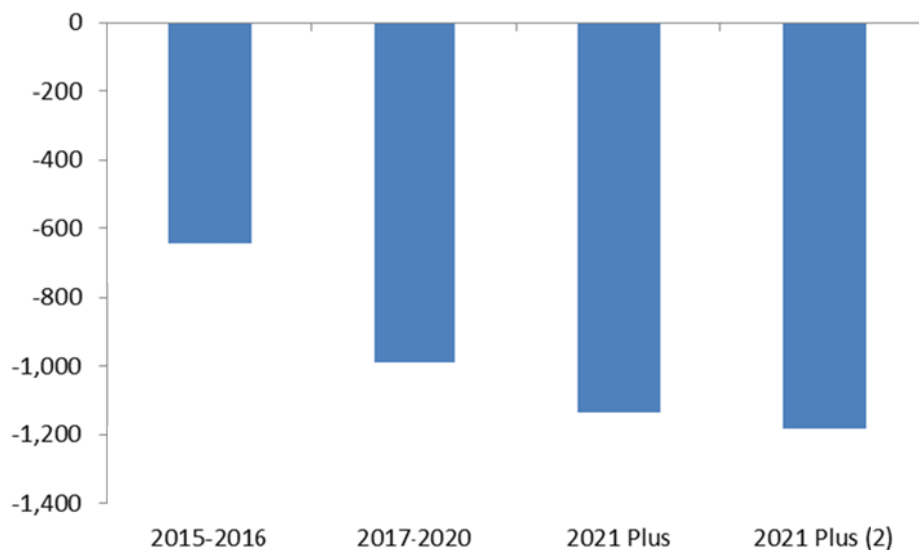
⁵ The economic impact analysis, throughout, assumes that very few of the skilled Vermont Yankee employees are likely to stay in the Tri-County area to work or start their own businesses. They are already being successfully recruited and moving to new jobs around the country. Entergy is needing to bring in replacement employees from other plants to do the work of the former Vermont Yankee workers who have already left.

reduced compared to the operational plant in 2014, these highly compensated employees working on the Vermont Yankee decommissioning will continue to make significant economic contributions to the Tri-County Region through 2020. By 2020, the number of jobs supported by Vermont Yankee in the region is expected decline to 229 compared to 1,220 in 2014 (a loss of about 1,000 regional jobs over a relatively short timeframe) when the power plant was still generating electricity. This includes the loss of about 320 induced jobs – the jobs in such industries as restaurants, retail, and personal services – that are supported by the spending of Vermont Yankee workers in the Tri-County Region.

After 2021, when the wet fuel (de-fueling) management phases of the decommissioning are expected to be completed, Vermont Yankee will enter a prolonged phase of dry fuel management (dry cask storage of spent fuels) that may last a decade or longer. During this long-term period, the needs at the Vermont Yankee site will shift to more construction and security personnel. With this shift, the economic contributions from the closed nuclear power plant to the Tri-County Region will decline further. As indicated in Table 1, the long-term period of interim care and maintenance at Vermont Yankee will have varying degrees of economic contributions to the Tri-County Region depending on the activities taking place at the site. At the lowest level, “2021 Plus (2)” (a term used by Entergy), the Vermont Yankee site will only be making a total contribution of 34 jobs to the Tri-County region, or less than three percent of the jobs contribution of the operational power plant in 2014.

Figure 5 shows the impacts of the Vermont Yankee closure and decommissioning in terms of the reduction of jobs (the difference between the total job numbers in 2014 compared to the total job numbers in the upcoming decommissioning phases) in the Tri-County Region expected in coming years. In 2015-16, the region will have 643 fewer jobs compared to having an operational power plant. The economic impact of the closure will increase to 991 fewer regional jobs between 2017 and 2020 and finally to 1,185 fewer jobs during certain dry fuel management phases.

Figure 5. Total Job Impacts of the Vermont Yankee Decommissioning in the Tri-County Region (*net loss in jobs compared to an operational Vermont Yankee*)



Source: Results are based on simulations run in IMPLAN in September 2014.

Table 2 demonstrates the economic contributions of Vermont Yankee by industry, in terms of jobs, in both its operational as well as its four decommissioning phases. As an operational, power-generating facility, the plant supported 1,220 jobs in the Tri-County Region, with nearly half of these in utilities, the industry

sector classification of Vermont Yankee. As plant workers spend their paychecks in the region, the operational Vermont Yankee supported 141 jobs in Leisure and Hospitality (includes restaurants), 81 jobs in Retail, 54 jobs in Financial Activities (banking, money management, real estate, etc.), 116 jobs in Education and Health Services, and 46 jobs in Other Services (e.g., dry cleaning, pet care, repair services, etc.) in 2014. As Vermont Yankee goes through the decommissioning process, the number of Tri-County jobs supported by the plant in each of these industries declines sharply as shown in Table 2. For example, fewer employees and lower labor income emanating from Vermont Yankee as it is decommissioned will mean the number of jobs in Leisure and Hospitality will fall from 141 in 2014 to fewer than five by 2021, representing a net loss of 136 jobs for the industries classified within the sector (including restaurants, movie theaters, hotels, and performing arts, among others). This pattern of jobs decline resulting from the closure of Vermont Yankee takes place in all of the industry sectors of the Tri-County economy. The temporary upticks seen in Construction and Professional & Business Services from the operational phase to the 2015-2016 initial phase of decommissioning is simply a shift in jobs from the utilities industry to other sectors as the economic activity taking place at Vermont Yankee can no longer be classified as within the utilities industry because the property is no longer producing energy.

Table 2. Vermont Yankee’s Jobs Contributions to Tri-Region Industries Will Decline Over Time with the Closure and Decommissioning (*total employment associated with Vermont Yankee by industry*)

Industry Supersector	Operational	2015-2016	2017-2020	2021 Plus	2021 Plus (2)
Natural Resources & Mining	16	1	0	0	0
Utilities	550	3	0	0	0
Wholesale Trade	15	7	3	2	0
Retail Trade	81	31	15	1	2
Transportation and Warehousing	25	7	1	1	0
Construction	44	65	27	12	5
Manufacturing	3	2	1	0	0
Information	15	5	2	1	0
Financial Activities	54	21	8	2	1
Professional & Business Services	111	320	127	55	23
Education & Health Services	116	49	20	3	1
Leisure & Hospitality	141	42	16	5	1
Other Services	46	22	9	2	1
Public Administration	4	2	1	0	0
Total	1,220	577	229	84	35

Source: Results are from simulations run in IMPLAN.

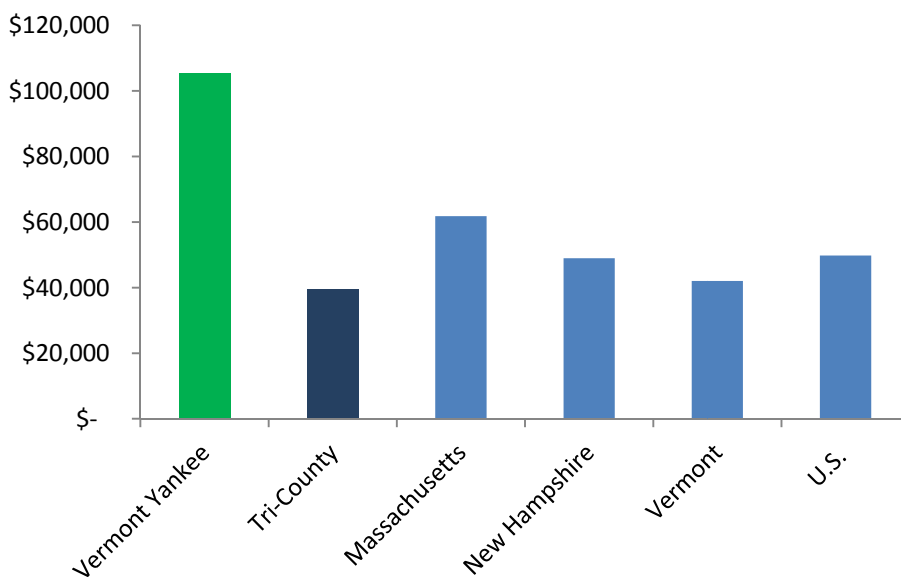
Notes: All employment levels shown are annual (e.g., the levels shown in the “2017-2020” column represent the *annual* contributions to the economy that are expected for each individual year during the indicated period; they are *not* multi-year cumulative contributions).

This economic analysis does not include a final upsurge, led by the construction of a shelter for spent fuel, likely to take place in the late 2020s or 2030s which would be the final phase of the Vermont Yankee decommissioning.

The Vermont Yankee Closure in a Regional Context

The economic contributions, as demonstrated in the previous section of the study, made by Vermont Yankee to the Tri-County Region will decline markedly as it transitions from being an active nuclear power plant and enters a series of decommissioning phases. The loss of Vermont Yankee workers, along with their high compensation levels will have long-term effects on the Tri-County economy. In order to provide some context for what this closure may mean to the Tri-County economy, a number of recent trends in jobs, income, unemployment, and population are briefly illustrated in this part of the study. The data and trends (generally 2003-2013) provide a greater understanding of the potential implications of the sustained loss of Vermont Yankee and its economic activities will have on the region.

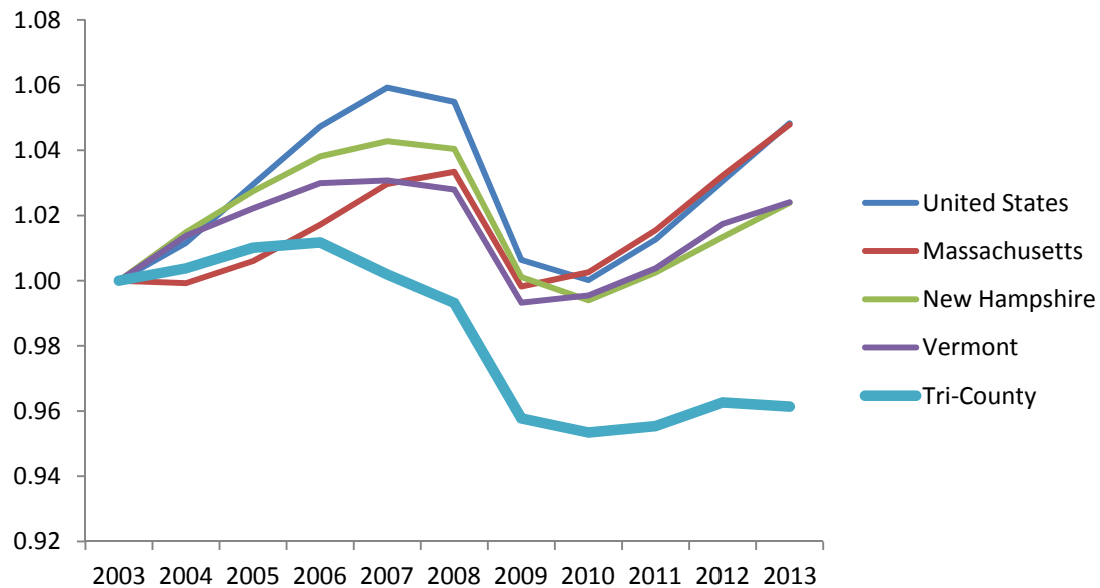
Figure 6. Average Wage Per Employee, Vermont Yankee Compared to Region, States, and U.S.



Source: Vermont Yankee (2011); Bureau of Labor Statistics QCEW (2013)

There is a huge wage differential between Vermont Yankee and the Tri-County Region. The annual pay (wage and salary) of a Vermont Yankee worker, approximately \$105,000, is two and a half times greater than the average pay in the region (about \$40,000 in 2013). Vermont Yankee, as an operating power plant now directly accounts for 0.7 percent of regional employment and 1.8 percent of regional payroll. Meanwhile, the Tri-County area's relatively low average wages (below the state and national comparison areas shown) are further at risk after the loss of high-paying Vermont Yankee jobs.

Figure 7. Jobs Growth Index (2003=1.00), Tri-County Region Compared to States and U.S.

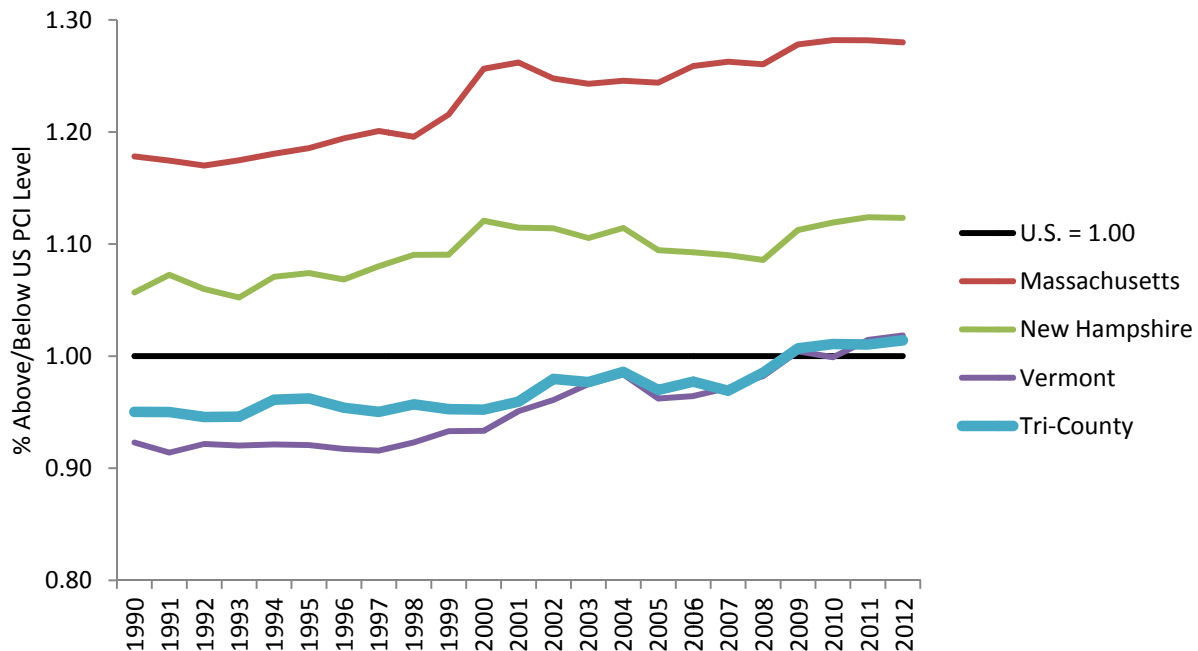


Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

The Tri-County Region’s recent jobs performance shows that it is underperforming. The region did not participate fully in the economic expansion of the 2000s and got hit harder by the 2008-2009 recession. As the nation tentatively enters a new period of economic expansion, the Tri-County Region is not recovering nearly as robustly as the United States, Massachusetts, New Hampshire, and Vermont, overall. Between 2003 and 2013, the number of jobs in the Tri-County area declined from 82,917 to 79,713, a drop of 3.9 percent. The closure of Vermont Yankee adds a significant obstacle for the region to partake in New England’s and the nation’s upward cycle of growth.

Figure 8. Per Capita Income Relative to U.S. for Tri-County Region and States, 1990-2012

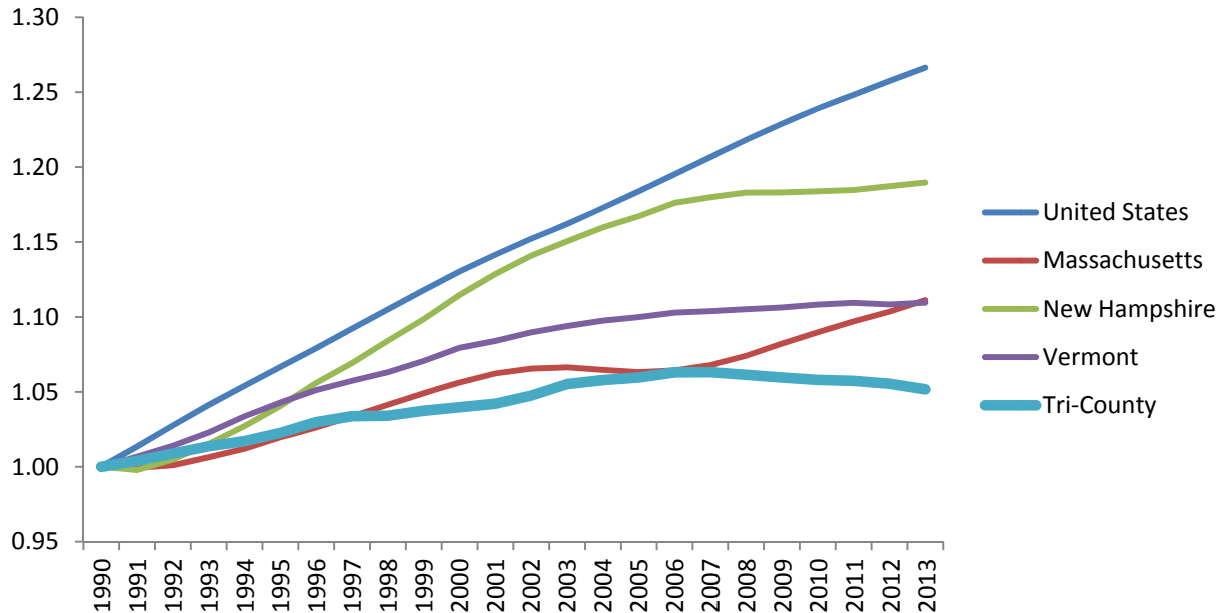
(Per Capita Income Growth Index, U.S.=1.00)



Source: Bureau of Economic Analysis

Per capita income is an encompassing measure of income that covers all income sources (wages, salaries, transfer payments like Social Security, and investment income) and represents the mean average for people living within a region. In general, as shown in Figure 8, the Tri-County Region is seeing a relative rise in its per capita income levels compared to the United States and is following a long-term trend seen throughout New England. In 1990, the Tri-County’s per capita income level was five percent lower than the nation’s. By 2012, it had grown to 1.4 percent higher than the U.S. average. However, despite this relative progress compared to the U.S., the region’s growth in income levels appears not to be keeping pace with its neighboring and host New England states. While income levels in the region were higher than Vermont’s throughout the 1990s, the state has recently caught up and even surpassed the Tri-County area by 2012. The Vermont Yankee closure will affect the income in the Tri-County area by reducing payroll as positions are eliminated and by lowering the investment income of former employees who move away from the region.

Figure 9. Population Growth Index (1990=1.00), Tri-County Region Compared to States and U.S.

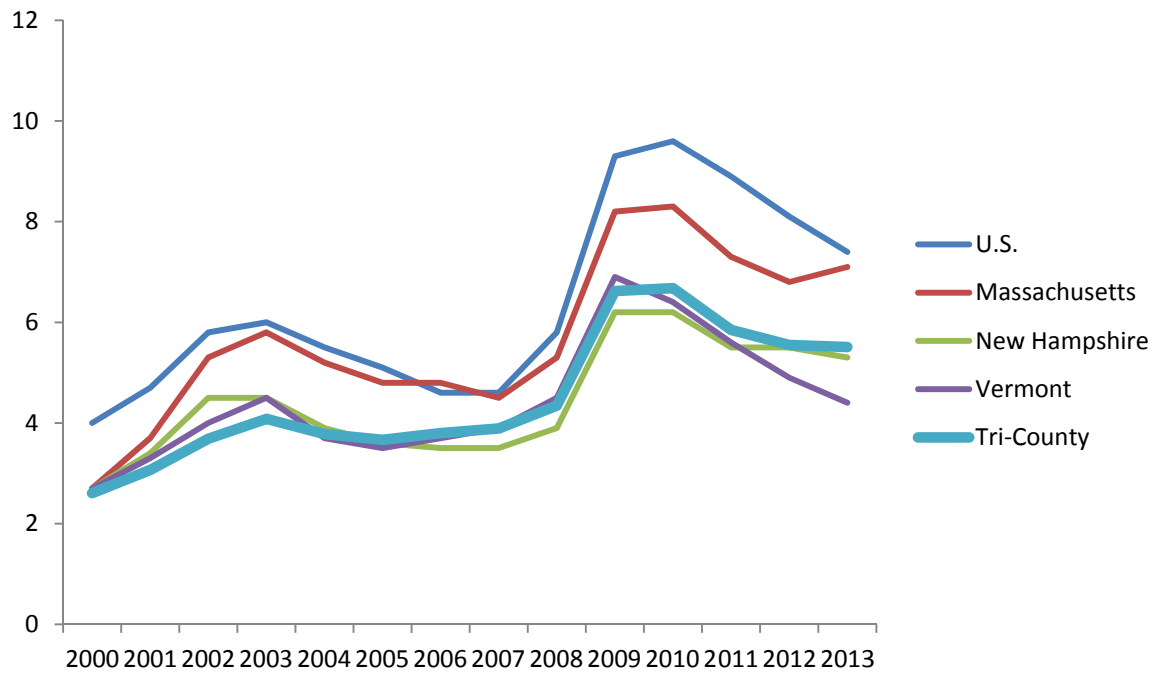


Source: U.S. Census Bureau

The Tri-County Region is following the northern New England trend towards slowing population growth. Unlike the rest of New England, Massachusetts (led by its Greater Boston region) has seen a recent acceleration in its rate of population increase and is now growing closer to the national rate. The Tri-County Region's population, according to the U.S. Census Bureau, has actually seen population declines every year since hitting a peak in 2007. The out-migration of Vermont Yankee workers, which is already taking place even prior to the stoppage of power generation later in 2014, will have a further dampening effect on the Tri-County area's population growth in coming years.

Figure 10. Unemployment Rate, 2000-2013, Tri-County Region Compared to States and U.S.

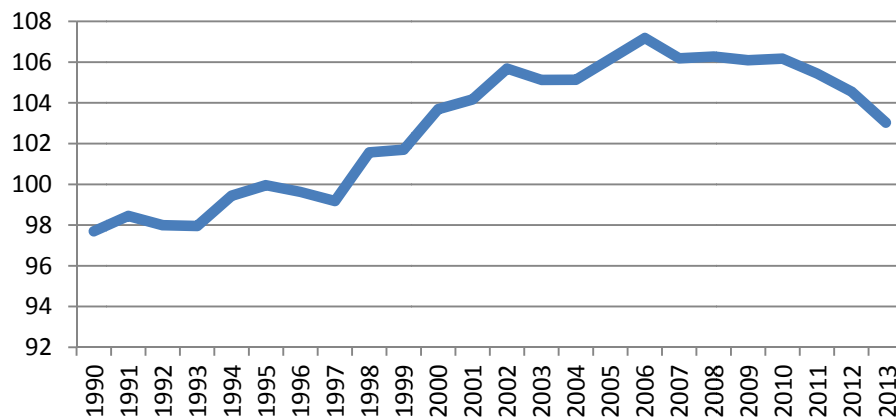
(Unemployment Rate, in percent)



Source: Bureau of Labor Statistics

Figure 11. Tri-County Labor Force Growth, 1990-2013

(Labor Force, in thousands)



Source: Bureau of Labor Statistics

The Tri-County unemployment rate generally tracks with New Hampshire and Vermont as can be seen in Figure 10. The post-recession decline in the region’s unemployment rate, however, is more the result of a shrinking labor force (see Figure 11) than jobs growth. The decline in the labor force suggests that many people may be discouraged with their prospects in the Tri-County area and have stopped looking, moved away, or made other long-term decisions such as retirement. The loss of Vermont Yankee and the economic opportunities it provided to the region when fully operational, will further stress long-term labor force growth in the region.

Conclusion/Summary

Since beginning construction in 1967 and its commissioning in 1972, Vermont Yankee has contributed significantly to the Tri-County Region's economy. As pointed out in this report, Vermont Yankee, as a fully operational electricity-generating nuclear power plant contributed 1,220 jobs, including multiplier effects, on an annual basis to the Tri-County Region. The high compensation levels of Vermont Yankee's employees who overwhelmingly reside within the region have helped support a range of businesses, including restaurants, retail outlets, and real estate services, among many others, that benefit from their spending. With the closure of Vermont Yankee in late 2014, the economic benefits that have been associated with the plant for over four decades will begin to erode. As shown in Table 1 of this report (page 9), starting in 2015 the economic contributions of Vermont Yankee will begin to decrease sharply, as compared to when the facility was fully operational. As soon as 2021, depending on the progression of the decommissioning process, the economic contributions of Vermont Yankee will only be a small fraction of what they had been during the plant's 42 years of operation. The plant's drawdown will adversely affect the Tri-County Region which was already confronting economic and demographic challenges, as shown in the latter part of this report, even before the announcement of Vermont Yankee's closure.

This Economic Impact study was prepared by the UMass Donahue Institute for the Franklin Regional Council of Governments, as part of a Tri-County effort to forward economic development in the region. Participants in this effort include the Brattleboro Development Credit Corporation (VT), Franklin Regional Council of Governments (MA), Southwest Region Planning Commission (NH), and Windham Regional Commission (VT). These organizations are collaborating to explore ways to better understand and mitigate the economic impacts of Vermont Yankee's discontinuation of energy generation activities and its decommissioning.

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