


Nuclear Decommissioning from a Host Region Public Agency Perspective

Presented at the NRC Regulatory Information
Conference
Reactor Decommissioning Rulemaking: Path to Regulatory Efficiency
3.10.16



The Windham Regional Commission

- Established in 1965.
- Serves 27 towns in Windham, Bennington and Windsor counties over a 920 square mile area of southeastern Vermont.
- Our mission is to assist towns to provide effective local government and work cooperatively with them to address regional issues.
- In the absence of county government, we provide the essential link between local, state and federal government.

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WRC Neutral Position on Vermont Yankee Operation

The Commission has always taken a neutral position on whether or not the Vermont Yankee Nuclear Power Station should continue operation, and whether or not it should be issued a Certificate of Public Good by the Vermont Public Service Board.

This position was adopted in order to facilitate conversations among all parties on all sides of the issue.

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Focus on Eventual Plant Closure, Impacts, and Decommissioning

Our primary focus in Vermont Public Service Board (PSB) dockets has been on what happens when the plant does eventually close, whenever that might be and for whatever reason that might occur.

In the dockets we have steered clear of health and safety issues – issues preempted by the Nuclear Regulatory Commission – and focused on the mitigation of closure impacts, and the orderly redevelopment of the site.

Issues where we felt we meaningfully represent the interests of the region in the PSB decision-making process.

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Vermont Yankee

- 620 megawatt boiling water reactor.
- The Vermont Yankee Nuclear Power Station began commercial operations in March 1972. Vermont Yankee Nuclear Power Corporation, a public utility, sold the Station to Entergy Nuclear Vermont Yankee, LLC collectively with Entergy Nuclear Operations, Inc. on July 31, 2002, thereby becoming a “merchant plant.”
- Merchant plant - An electric generator not owned and operated by an electric utility and that sells its output to wholesale and/or retail customers.

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VY's Closure Plan

- Assumes 2015-2020 transition to SAFSTOR
- Assumes DOE Spent Fuel pick up by 2052.
- 2012-2075 Dormancy, Dismantlement & Decontamination and Site Restoration
- Updated Cost Estimate to decommission Vermont Yankee is \$1.242 Billion in 2014 dollars for SAFSTOR.
 - Termination of the NRC Operating License - \$817 Million
 - Site Restoration - \$57 Million
 - Spent Fuel Management - \$368 Million
- Nuclear Decommissioning Trust Fund was at \$642.6 million as of 9/30/2014. \$595.4 million as of 9/30/15.

Source: Entergy presentation to NRCAP 10/30/14
<http://publicservice.vermont.gov/sites/gov/files/entergy%20VY%2050%20Assessment%202007%20Presentation%20to%20NRC%204%20October%202009%202014.pdf>

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Economic impacts.

- Vermont Yankee employed roughly 620 workers in the tri-state area with a payroll of about \$65.7 million.
- Accounted for approximately 2% of employment and 5% of compensation earned in Windham County.
- Contributed \$300,000 to \$400,000 in charitable contributions across approximately 100 organizations.
- Average employee annual income exceeded \$100,000.
- Employee residence by state: Vermont – 238, New Hampshire 210, Massachusetts – 167.

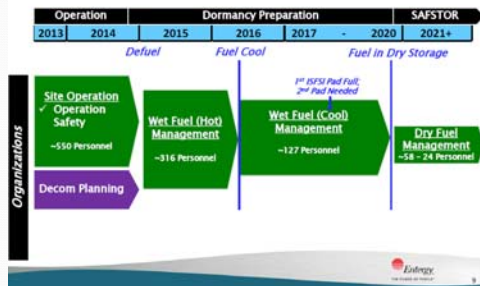
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Umass Donohue Institute Study

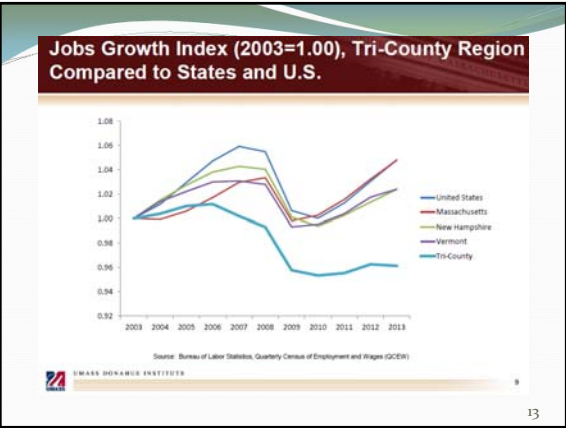
Paid for by Franklin Regional Council of Governments.
Completed December, 2015.

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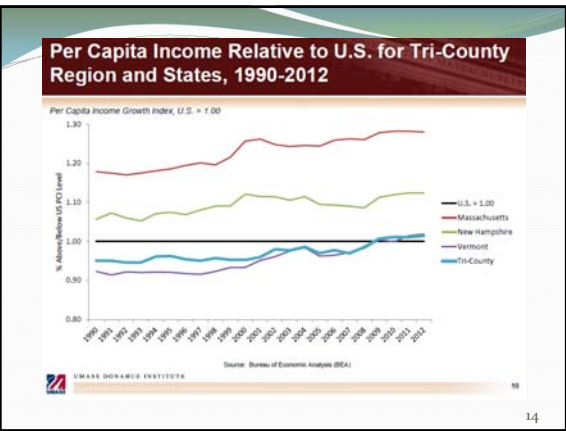
Staffing Transition to Decommissioning



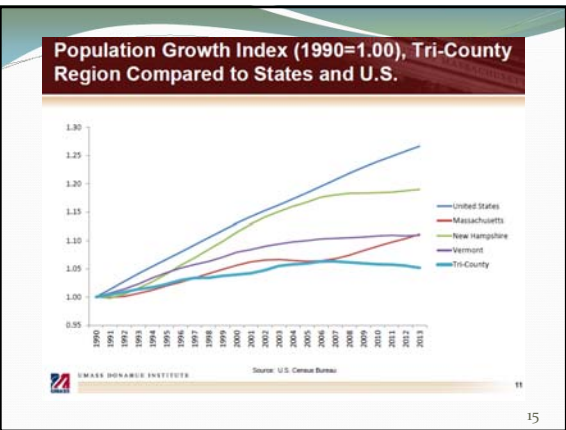
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WRC Positions

Basis for WRC positions.

- The positions we have taken in the current and past PSB dockets seek to mitigate, to the greatest extent possible, the economic, employment, cultural and social impacts of the closure on the region.
- We seek outcomes that will support the fiscal well-being of our towns, and which will lead to the restoration of the Vermont Yankee site to “greenfield” status as soon as possible so that it may be reused.
- Intergenerational responsibility.

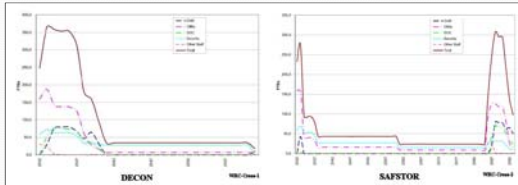
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Rate of change.

- When VY operations ceased in the fourth quarter of 2014 the regional economy began to enter a new phase and change will ensue. The WRC is necessarily concerned with the nature and rate of that change.
- The nature and rate of change affects more than jobs, the economy, the tax base, and the restoration of a site. Underlying the aforementioned numbers of employees, spouses, and children, are relationships.
- We feel it is in the best interest of the region to advocate for a decommissioning process that minimizes disruption to these relationships.

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We want an approach to decommissioning that produces a more gradual slope rather than a precipitous drop.



Source: Docket 7862, A.WRC.EN.1-27.1 and A.WRC.EN.1-27.2, graphics provided by Entergy

Prefer DECON over SAFSTOR

Prompt Decommissioning (DECON) should be required rather than an extended period of SAFSTOR. Prompt Decommissioning:

- Provides greater certainty, both technically and financially.
- Provides a better economic and workforce profile and is necessary for the orderly development of the region.
- Provides access to a workforce with critical legacy knowledge because no one knows the plant better than those who work there at present.
- Is less expensive.
- Produces less radiological waste, or an equal volume of waste, and there is greater assurance of the availability of appropriate waste disposal and transportation infrastructure.
- Reduces regulatory costs.

Decommissioning Trust

- The fund must grow faster than inflation, and when in SAFSTOR it must grow faster than inflation plus the cost of site maintenance.
- Prompt decommissioning reduces market uncertainties associated with the Decommissioning Trust Fund, and the risk of inflation.
- The decommissioning trust fund has performed well in real terms and relative to inflation, but will it be sufficient to fully restore the site?
- Unless additional funding sources are secured, any additional costs charged to the decommissioning fund will delay the point at which the site can be decommissioned and restored.

Range of Site Restoration Cost Estimates

\$47.8 million –Energy estimate, 2011 dollars
Source: 2012 TLG Decommissioning Cost Analysis, DECON scenario 3&4

\$57.4 million –VYNPC estimate,1998
Source: 1998 TLG Simplified Shutdown Cost Assessment

\$82.2 million –VYNPC estimate in 2013 dollars
Source: Federal Reserve Bank of Minneapolis calculator

\$94-\$125 million –Vermont DPS estimate
Source: Department of Public Service filings, docket 7862

\$194 to \$225 million –DPS estimate plus inclusion of the removal of all structures.
Source: Docket 7862 testimony

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Merchant plant.

- Cannot shift cost burden to rate payers.
- Whatever comes out of that fund is not available for decommissioning costs, or reinvestment to further build the fund.
 - Spent fuel management?
 - Taxes?
 - Economic impact mitigation?
 - Monitoring?
 - Public engagement?
 - Emergency planning?

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