

LESSONS LEARNED: Premature Retirements of Nuclear Plants & The Cost Of Inaction In Other States

Premature retirements of nuclear plants in states that failed to properly value the benefits of nuclear energy have had devastating, but predictable consequences on their respective economies, communities, and environments.

When nuclear power plants close, jobs and tax revenues disappear. Employees are forced to retire or move to other states to find jobs. Housing prices drop. Property taxes increase. Carbon emissions increase.

	Vermont - Vermont Yankee Nuclear Power Plant	Wisconsin - Kewaunee Power Station
Location & Closure Date	Vernon, VT - December 29, 2014	Carlton, WI - May 7, 2013
Economic Losses	\$500 million decrease in economic activity (2014) ¹	Kewaunee County lost 30 percent of its tax revenue. ²
Higher Electricity Prices	Vermont Yankee's closure increased New England's already heavy reliance on natural gas-fired generation causing the region to become more vulnerable to natural gas price spikes, especially in the winter. One example – in early Jan 2018, frigid temps led to spikes in demand for natural gas that resulted in wholesale electricity prices rising to \$287/MWh. ³	Wisconsin electricity prices increased by 5% after the Kewaunee plant closed. ⁴ In the year before Kewaunee closed residential prices averaged 13.27 cents per kWh. The year following the closure, they averaged 13.89 cents per kWh. ⁵
Job Losses & Unemployment	620 plant employees lost their jobs ⁶ ; 282 additional workers responsible for refueling and maintenance work also lost income ⁷	600 plant employees lost their jobs; 500 additional workers coming to the county on a regular basis for refueling and maintenance work also lost income. ⁸
Decommissioning Jobs	Only 50 jobs retained for decommissioning ⁹	Only 140 jobs retained for decommissioning ¹⁰
Wage Losses	Annual payroll loss of \$82 million. Estimated annual wage per worker: \$105,000. ¹¹	Annual payroll loss of \$88.5 million ¹²
Community Impact	Municipal budget cut by 20 percent resulting in elimination of the local police department. ¹³ Nearly all of the company's annual charitable donations ended, and few plant staffers remain to give their time in the community. ¹⁴	Loss of 70 percent of municipality's operating budget. ¹⁵
Housing Impacts & Local Tax Increases	Residents saw a 20 percent property tax increase the year following the plant closure ¹⁶	In the five years following the plant's closure, Carlton experienced a dip in its housing market. ¹⁷ In 2017, Kewaunee County residents saw a half percent sales tax increase in an attempt to make up for \$750,000 in lost annual income generated by the power plant. ¹⁸
Carbon Emissions & Air Pollution Impact	New England power plants released 5 percent more carbon dioxide than the year before the plant's closure, the first increase in carbon emissions since 2010 ¹⁹	After Kewaunee closed - "In 2013, greenhouse gas emissions from Wisconsin power plants rose to more than 50 million tons, their highest level in eight years, according to EPA statistics." ²⁰

¹ "Economic Impacts of Vermont Yankee Closure," Prepared by UMass Donohue Institute, December 2014

² <https://www.nei.org/CorporateSite/media/filefolder/resources/reports-and-briefs/impact-exelon-nuclear-fleet-illinois-economy-201410.pdf>

³ https://www.iso-ne.com/static-assets/documents/2018/04/a3_2017_2018_ison_e_post_winter_review.pdf

⁴ <https://www.potomaceconomics.com/wp-content/uploads/2017/02/2014-State-of-the-Market-Report.pdf>

⁵ <https://www.eia.gov/electricity/monthly/> Table 5.6.8, Feb 2013 and Feb

⁶ <https://www.lohud.com/story/news/investigations/2017/07/12/nuclear-plant-shutdowns/403656001/>

⁷ "Economic Impacts of Vermont Yankee Closure," Prepared by UMass Donohue Institute, December 2014

⁸ <https://www.lohud.com/story/news/investigations/2017/07/12/kewaunee-nuclear-plant-closing/103598506/>

⁹ <https://www.lohud.com/story/news/investigations/2017/07/12/nuclear-plant-shutdowns/403656001/>

¹⁰ <https://www.wbav.com/content/news/All-nuclear-fuel-moved-from-Kewaunee-Power-Station-430353493.html>

¹¹ "Economic Impacts of Vermont Yankee Closure," Prepared by UMass Donohue Institute, December 2014

¹² <https://www.lohud.com/story/news/investigations/2017/07/12/nuclear-plant-shutdowns/403656001/>

¹³ <https://www.wcax.com/content/news/Deal-could-speed-up-decommissioning-of-Vermont-Yankee-476289613.html>

¹⁴ <https://www.vermontbiz.com/news/december/loss-vermont-vankees-charitable-donations-organizations-look-for-new-ways-raise-funds>

¹⁵ <https://www.nei.org/CorporateSite/media/filefolder/resources/testimony/testimony-nei-korsnick-ohio-senate-public-utilities-committee-20170608.pdf>

¹⁶ <http://www.governing.com/topics/transportation-infrastructure/gov-nuclear-plant-closure.html>

¹⁷ <https://www.toledoblade.com/local/2018/05/07/Nuke-closures-to-date-have-impacted-local-economies-changed-character-of-communities.html>

¹⁸ <https://www.lohud.com/story/news/investigations/2017/07/12/nuclear-plant-shutdowns/403656001/>

¹⁹ <https://www.bostonglobe.com/metro/2016/05/15/carbon-emissions-rising-new-england-power-plants/9WfbtQMfEMBSzxpZf2OLO/story.html>

²⁰ <http://archive.ionline.com/business/kewaunee-closing-makes-wisconsin-task-to-meet-epa-rules-tougher-b99289865z1-263176971.html>