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## UNH Research Finds Increased Energy Use Not Needed to Grow Economy

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(HTTPS://WWW.UNH.EDU/UNHTODAY/NEWS/2017/03/07/UNH-RESEARCH-FINDS-INCREASED-ENERGY-USE-NOT-NEEDED-GROW-ECONOMY)

DURHAM, N.H. – New England does not need to increase energy use to continue to grow its economy, according to new research released by the Carsey School of Public Policy at the University of New Hampshire that looked at cost, reliability and risk associated with the region’s electricity future. Support for the research was provided by the New Hampshire chapter of The Nature Conservancy and the New Hampshire Community Development Finance Authority.

According to the researchers, from 2005-15 real GDP in New England grew by 9.7 percent while energy use fell by 9.6 percent. In addition, electricity consumption is expected to drop by 0.2 percent per year over the next decade.

The researchers also found that, contrary to conventional wisdom, New Hampshire residents and businesses actually pay the same or less for energy as other areas of the country. While the price per kilowatt has been higher than the national average for decades, the average residential electricity bill in New Hampshire is equal to the national average.

“It is important to prevent further increases in the cost of energy and ideally to reduce the overall cost of electricity in New Hampshire, especially for customer groups adversely affected by the state’s relatively high electricity prices, including more intensive commercial and industrial users as well as low-income households that pay a greater portion of their income for energy,” the researchers said.

While some have called for investment in new natural gas pipelines, the researchers found that the data suggest current natural gas pipeline capacity is adequate. Better contracting and other soft-infrastructure changes such as changes to rules, regulations and policies combined with the promotion of energy efficiency and renewable energy will have at least as much return on investment as expanded pipeline capacity without exposing ratepayers to higher electricity rates from expensive infrastructure investments.

The share of electrical power generated from natural gas has grown in New England from 15 percent in 2000 to almost 50 percent in 2015. Previous studies suggesting that grid reliability may be an issue after 2021 recognize the challenges are primarily associated with extreme operating conditions. In fact, the new Carsey study concludes that New England’s electrical grid has been reliable during periods of high energy demand associated with cold winter temperatures, including the extreme polar vortex event of January 2014.

“We believe that while the utility companies’ goal of reducing electricity costs in the state is admirable, their strategy of expanded natural gas capacity in the region funded by ratepayers poses a significant risk of raising electricity costs further,” the researchers said. “Policy makers may want to consider options that carry less risk and a better return on investment, including better use of existing infrastructure and increased investment in energy efficiency and renewable energy.”

The Carsey report can be found here: <https://carsey.unh.edu/publication/perspective/nh-electricity-markets> (<https://carsey.unh.edu/publication/perspective/nh-electricity-markets>)

The research was conducted by Cameron Wake, research professor with the Earth Systems Research Center and the Josephine A. Lamprey Professor of Climate and Sustainability at UNH; Matt Magnusson, doctoral student in UNH’s College of Engineering and Physical Sciences; Christina Foreman, affiliate research professor with the Earth Systems Research Center at UNH; and Fiona Wilson, executive director of the Center for Social Innovation and Enterprise and associate clinical professor at the Peter T. Paul College of Business & Economics at UNH.

The Carsey School of Public Policy conducts research, leadership development, and engaged scholarship relevant to public policy. They address pressing challenges, striving for innovative, responsive, and equitable solutions at all levels of government and in the for-profit and nonprofit sectors.

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