



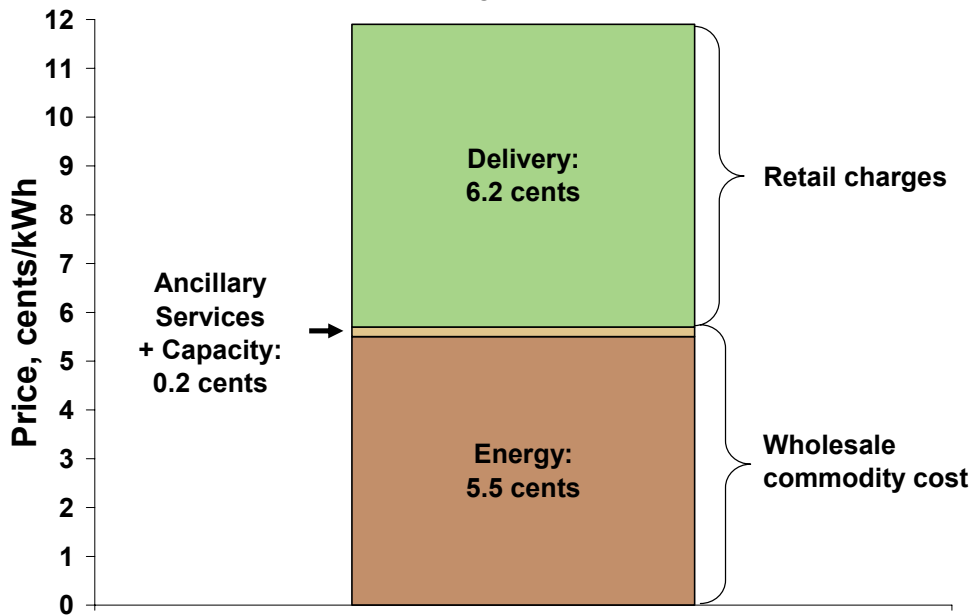
Fact Sheet No. 5:

What it Costs to Produce Electricity in New England

What does it cost to produce electricity in New England?

In 2004 electricity produced in New England cost on average 5.7 cents per kilowatt-hour (kWh) at the wholesale level. Of this, 5.5 cents, (96%) was for the energy generated, and the remainder was for capacity and other components needed to maintain reliability. Average prices in some zones of New England were as high as 5.8 cents (Connecticut) and as low as 5.2 cents (Maine).¹ This wholesale commodity cost is just one component of the retail price, which also includes delivery services and other charges. The average New England retail price in 2004 was 11.9 cents per kWh, not including taxes.²

Components of the Average New England Retail Electricity Price, 2004

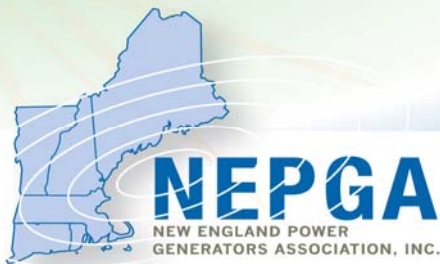


Source: Annual Markets Report 2004, ISO New England, Table 10 and Figure 24.

Figure 1: Breakdown of average New England retail electricity price for 2004

Have wholesale electricity prices been increasing?

No. Wholesale electricity prices in New England, adjusted for fuel costs and inflation, have actually declined by 16.5 percent during the four-year period from 2001-2004. These cost savings, which can be largely attributed to investment in new, more efficient

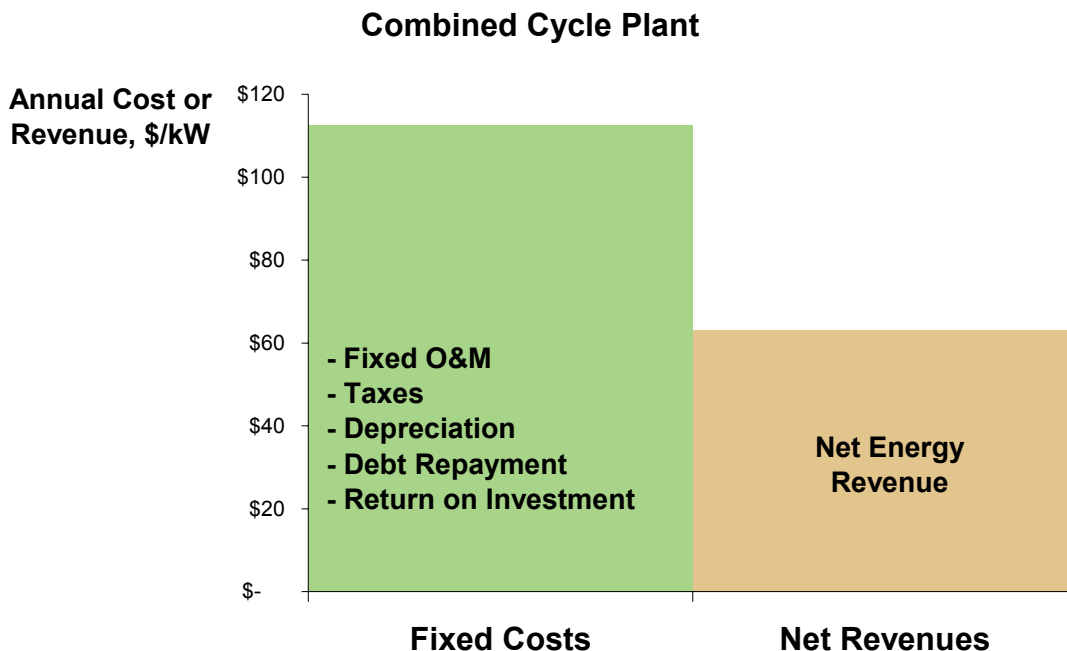


generation made possible by the restructuring of the New England electricity market completed in 1999, were generally passed on to retail ratepayers through the commodity component of their electricity bills.

Are these low prices sustainable over the long-term?

No. The New England grid operator has estimated, for example, that a new, efficient combined-cycle generator would have covered only 50% of its total costs in 2004 by running in the energy market, and the additional 0.2 cents per kWh for capacity and ancillary services is not sufficient to make up for the shortfall. (See Figures 2 and 3). So eventually wholesale prices must rise somewhat if generators are to invest in the next generation of cleaner and more efficient power plants. The New England grid operator estimates that the annual fixed costs of a new 400 MW combined-cycle generating plant would be in the range of \$40 million to \$50 million.³

**Current Market Prices Are Too Low
To Cover a New Generator's Fixed Costs**



Source: Based on data from Annual Markets Report 2004, ISO New England, pp. 111-112.

Figure 2. Comparison of a combined cycle generator's net revenues to fixed costs, under current market prices.



Why is there a shortfall?

A shortfall can exist between a generator's costs and its revenues because while those revenues may cover fuel and other operating costs, they are not sufficient to cover all of the generator's fixed costs, such as capital expenditure.

What has been the impact of the shortfall?

Some generators have declared bankruptcy, others are having financial difficulty, and developers are not currently investing in new capacity. ISO-New England has entered into special "reliability agreements" with the owners of some facilities to keep them from being shut down or abandoned, especially in areas facing the most severe capacity shortages, like southwestern Connecticut. Such contracts, however, are not seen as a sustainable solution to the problem.

However, the New England grid operator, most of the major utilities, the generators and the federal regulator agreed on the design of a "locational capacity market" to give generators the ability and incentive to build new generation where and when needed.

¹ *Annual Markets Report 2004*, ISO New England, Table 10 and Figure 24. http://www.iso-ne.com/markets/mkt_anlys_rpts/annl_mkt_rpts/2004/2004_annual_markets_report.pdf

² Calculated using 2004 data published by US Energy Information Administration, "Direct Use and Retail Sales of Electricity to Ultimate Customers by Sector, by Provider," November 2005. <http://www.eia.doe.gov/cneaf/electricity/epa/epat7p2.html>.

³ Calculated using per-MW values from *Annual Markets Report 2004*, ISO New England, p. 111.