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The Uniform Clearing Price – The Best Market Choice

New England policymakers are understandably concerned about electricity costs and their impacts on consumers and businesses. In examining how wholesale electricity market prices are set, many have asked questions about the use of the Uniform Clearing Price (UCP) auction. The region's wholesale electricity markets are administered by the Independent System Operator of New England (ISO-NE) to most reliably and efficiently match supply and demand. ISO-NE uses a UCP auction for electric suppliers to provide bids to serve customer demand. Once sufficient supply has been offered into the market, the final megawatts needed to meet demand sets the clearing price that all selected suppliers receive across the region.

This UCP provides competitive pressures on all suppliers to bid as low as possible in order to increase the likelihood of being chosen to operate and sends a signal to power generation developers of what type of investment is needed on the electric grid. The UCP is universally acknowledged by economists and market operators as providing the basis for a cost-effective, efficient and vibrant electric market in New England. Continued use of the UCP provides substantial benefits for consumers.

The UCP Delivers the Lowest Costs to Consumers

The transparency of the UCP clearing price sends a signal to the market to invest in lower-cost resources which can produce electricity for less than the prevailing market clearing price. As less expensive resources enter the market, more expensive price-setting resources are displaced. The market clearing price is meant to reflect variable costs such as fuel, sales taxes, emission credits and other similar costs for the marginal units. Capital costs such as labor, land and debt are only recovered through the UCP if the generator variable costs are low enough and under the clearing price. All markets are designed to allow the opportunity, but not necessarily the right, to receive a reasonable return on an investment.

The transparency of the clearing price allows higher capital cost generators to enter into long-term bi-lateral contracts outside the spot market. Without the transparent UCP, the recovery of capital costs to support investments in more efficient generation sources would rely on less efficient trading markets with fewer incentives for cost-efficiency. All

these incentives work together to drive down the ultimate cost paid by the region's consumers and businesses.

The UCP is the Best Choice

Some critics have argued that prices would go down if generators were paid only what they bid, not the clearing price bid. Under this alternative, the "pay-as-bid" model, generators would be incented to guess what the price would be for the most expensive resource in order to maximize the potential margin. The resultant clearing price from this auction would likely be higher than from a UCP auction given the inefficiency in leaving each resource owner to guess the market price. Alternatively, the UCP creates an incentive for generators to bid as close to their "marginal costs" as possible in order to ensure the bid will be accepted and the plant would run in all hours where the generation is economic. This bidding practice creates an incentive for the lowest possible cost bids.

The increased availability of generators to produce electricity since the New England market with the UCP auction developed illustrates one of the benefits of this incentive. Since the late 1990s, the amount of time that power plants are not available in the region has been reduced by 45% – enough to power an additional 1.96 million homes without new generation investment. The UCP model produced the correct incentives for generators to become more efficient and available, benefitting the region as a whole.

The UCP is Used Across the Economy

New England electric markets are not alone in the use of the UCP. Other sophisticated, organized electric markets across the country use the UCP model. Other commodity markets such as corn, soybeans, oil, iron ore, silver and gold are also traded using the UCP auctions. Similar to a unit of electric energy, one unit of any of these products is like another, regardless of how it is produced. One soybean grower may have a higher cost structure to grow his crops, but the price that the market will pay is indifferent to his cost structure. One electricity producer may have a higher cost structure but to the wholesale electricity market, one unit of energy is the same, regardless of who manufactured it or at what cost.

Conclusion

Understanding the myriad of factors that contribute to the level of electric rates in New England is a complex task. The region's mix of resources and its location, environmental policy choices, labor and tax costs, and recent transmission infrastructure additions are just a few factors that contribute to the region's electric rates. The UCP ensures that wholesale electricity prices are as low as they could be over the long term while signaling needed investment to efficiently meet consumer demand.