

About the Operating Reserve Demand Curve and Wholesale Electric Prices

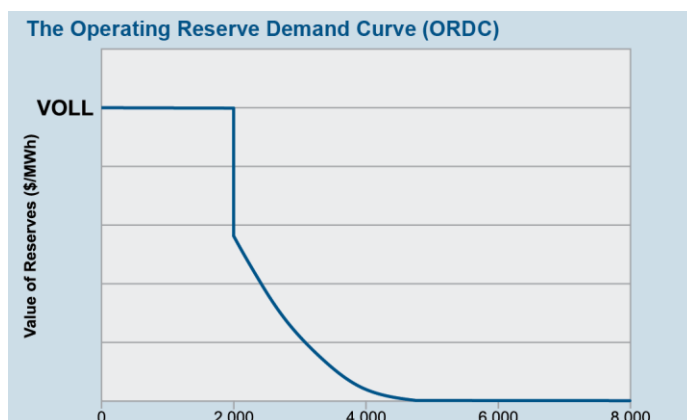


Introducing the Operating Reserve Demand Curve

Beginning June 1, 2014, the Electric Reliability Council of Texas (ERCOT) is changing how wholesale energy prices are calculated during certain operating conditions. This change is designed to ensure that energy prices reflect the increasing value of electricity when the possibility of rotating outages increases.

Following implementation of the Operating Reserve Demand Curve (ORDC), wholesale prices in the real-time energy market will increase automatically as available operating reserves decrease. The actual "price adder" curve is based on the level of increasing risk that a rotating outage could occur (Loss of Load Probability, or LOLP) and the potential consumer impacts associated with an outage (Value of Lost Load, or VOLL).

ERCOT secures a number of energy-related services in the day-ahead market to support reliability during each operating day. These services are available to respond quickly to sudden losses of generation or unexpected spikes in demand. ERCOT continually monitors system conditions and the availability of operating reserves to support grid reliability.



For illustrative purposes only. For additional information, see the [Methodology for Implementing Operating Reserve Demand Curve](#).

Sometimes, demand for electricity becomes exceptionally high or, for other reasons, there is not enough electric generation to maintain needed operating reserves. As reserves decrease, the possibility of an outage increases. As that LOLP goes up, the ORDC will increase accordingly.

When operating reserves drop to 2,000 MW or less, the ORDC will automatically adjust energy prices to the established VOLL, which is set at \$9,000 per megawatt-hour (MWh). As long as reserves exceed the 2,000 MW trigger, the impact to energy prices will be lower because an outage is less likely.

ORDC and the System-wide Offer Cap

Also effective June 1, 2014, the system-wide offer cap in the ERCOT real-time market will increase to \$7,000 per MWh. This is the highest per-MWh price at which a generation resource can offer wholesale energy into the market. Occasionally, actual wholesale prices in some areas exceed this cap because prices also can include added costs associated with transmission congestion at some locations.

With implementation of the ORDC, the energy price can rise to \$9,000 per MWh, but the adder will not result in energy prices higher than the VOLL. So, if wholesale energy prices reach the \$7,000 per MWh cap, the ORDC adder would not exceed \$2,000 per MWh, even if reserves are less than 2,000 MWh.

The frequency of these prices in the ERCOT market will vary. Wholesale prices in the ERCOT market have averaged less than \$35 per MWh in recent years and currently are on an upward trend. Situations that drive prices to the cap depend on weather, generation performance and other factors. As an example, prices hit the system-wide offer cap for less than 15 minutes in 2013. In 2011, which included record-breaking summer and winter weather conditions, prices reached the cap for about 20 hours.