



2020 MISO Planning Resource Auction Results

This issue brief is prepared in response to the [results](#) of the Midcontinent Independent System Operator's annual planning resource auction published April 14, 2020. For the first time since the auction's inception, prices in Michigan cleared at the maximum level, equivalent to the cost of a new gas-fired combustion turbine. This brief explains the auction, the April results, and what it means for energy providers and customers in Michigan from a cost and reliability standpoint.

What are “resource adequacy requirements”?

Resource adequacy requirements are established by federally regulated regional transmission organizations, including the Midcontinent Independent System Operator (MISO), to ensure that sufficient electricity resources exist to meet anticipated customer usage during periods of peak demand. MISO's resource adequacy requirements include the Planning Reserve Margin Requirement (PRMR) and Local Clearing Requirement (LCR). The PRMR is the amount of electricity resources to which a MISO local resource zone must have access in order to meet expected peak customer demand for the planning year as well as a “cushion” to account for higher than anticipated customer demand or unplanned electric generator outages. The LCR is the percentage of electric generation capacity that must be physically located within a MISO local resource zone in order to ensure local reliability. Not being able to meet the PRMR or LCR means there would be a higher probability of outages due to an insufficient supply of electricity resources.

What are “planning resources”?

Planning resources represent the electric generating supplies (capacity) and demand-side resources available to meet resource adequacy requirements. On an annual basis, electric providers within the MISO footprint must ensure they have secured adequate planning resources to meet MISO's resource adequacy requirements. They can do this by owning or contracting for planning resources, or by procuring planning resources through the MISO Planning Resource Auction.

What is the MISO Planning Resource Auction?

The Planning Resource Auction (PRA) is an annual capacity auction through which electricity providers can procure planning resources to meet MISO's resource adequacy requirements. Electric generators and aggregators of demand-side resources (like demand response) can sell resources into the auction, and electric providers serving customers can buy resources from the auction. The auction helps to determine whether there are adequate electric supplies to meet the anticipated peak customer demands for the entire MISO footprint, as well as whether there is enough supply in each local resource zone to ensure reliability of the grid at a local level.

How does the PRA work?

Resource owners offer their generation and demand-side resources into the auction. Electric providers must secure enough resources to meet their PRMR either through self-supply, bilateral contracts, or through auction purchases. For providers participating in the auction, MISO will clear resources from within each local resource zone based upon economic merit, until the zone's LCR has been reached. After the zone's LCR has been reached, MISO will continue to clear resources from both within and outside of the local zone based upon economic merit, until the zone's PRMR is reached. The auction clearing price is the price of the most expensive resource that cleared in the auction. In the event that there are insufficient resources to meet the zone's LCR or the zone's PRMR, the auction clearing price will be the Cost of New Entry (CONE), which is the cost of a new natural-gas fired combustion turbine facility in the zone.

What are the results of the 2020 MISO PRA?

There are ten local resource zones in MISO, nine of which had auction clearing prices around \$5.00/MW-day. In Local Resource Zone 7, in which most of the Lower Peninsula of Michigan is located, an insufficient amount of locally sourced planning resources cleared the auction, so Zone 7 did not meet its LCR. As a result, the auction cleared at CONE, which, for the 2020/2021 planning year, is \$257.53/MW-day.

Why did pricing in the 2020 MISO PRA for Zone 7 go to CONE?

There were not enough generating resources in the zone to meet the LCR set by MISO. This was due to a combination of changes to the LCR calculation methodology by MISO, as well as changes to available supplies and forecasted customer demand. For the 2020 PRA, the Zone 7 capacity import limit (the amount of capacity that providers in the zone can plan to import) is lower than in previous years while zonal resources have decreased. The change in the capacity import limit is due primarily to adjustments in methodologies used by MISO to calculate resource adequacy requirements. The increase in the percentage of resources that must be physically located in Zone 7 played a significant role in setting the 2020 clearing price. For reference, MISO's LCR for Zone 7 requires over 99% of the generating resources needed to serve customers to be sourced locally from within this zone. While energy providers can purchase supplies from other zones through bilateral contracts or the auction, if there are not enough supplies locally to meet the LCR, the auction price goes to CONE.

What do the 2020 MISO PRA results mean for Michigan electric providers and customers?

The financial effects of the auction will vary based on each electricity provider's actions and whether and how it participated in the auction. The impacts rest on whether the provider had sufficient local generation arranged to meet its requirements. The scenarios below illustrate this further.

- Scenario 1 – Provider met all the resource adequacy requirements (including provider's proportional share of the LCR) upfront without participating in the auction. No impact.
- Scenario 2 – Provider matched its supply with demand with 100% local supplies from within the zone. Revenue from auction offsets costs and it is a financial "wash."
- Scenario 3 – Provider matched its supply with demand but all or some portion of its supplies are located *outside* the zone. Provider will *pay* the auction clearing price (CONE) on the amount not covered with local supplies, and for its generation that clears the auction in another zone, the provider will be *paid* that zone's clearing price (given lower prices in other zones, this will cost the provider the difference between the auction prices). For example, if the provider had a bilateral contract for 100 MW of capacity located in Zone 4, which cleared the PRA at \$5.00/MW-day, the provider in Zone 7 pays CONE for 100 MW, (\$9,399,845/year) but it is only paid \$182,500/year for its generation located in zone 4, costing the provider \$9,217,345/year.¹
- Scenario 4 – Provider did not have enough supply to meet demand and pays CONE for the amount of the difference. For example, provider needed to purchase an incremental 100 MW, which at \$257.53/MW-day year equals \$9,399,845/year.

¹ In this scenario, the provider in Zone 7 has already entered into a contract for supply from Zone 4 in order to meet Michigan's capacity demonstration requirements under PA 341 of 2016. The Zone 7 provider then pays CONE for the 100 MW under contract (\$9,399,845/year) but receives a payment of the Zone 4 clearing price for the contracted capacity (in this scenario, \$182,500/year).

If an energy provider pays the higher auction price, are these costs passed through to their end-use customers?

It varies depending on the electric provider and other factors. Costs for the auction and purchased power for MPSC-regulated utilities are evaluated for need and prudence as part of regular MPSC proceedings. If actions on the part of a utility are not considered prudent, they may be disallowed, meaning that they are not recoverable in utility rates. The MPSC does not set rates for alternative electric suppliers or oversee contracts with their customers. Depending on the contractual provisions, some or all of the costs may be passed through to the customer or may be borne by the supplier.

Can providers avoid these higher costs from the auction?

Yes, as long as the requisite levels of local resources exist. By planning ahead to meet expected demand and sourcing supplies locally, providers can be shielded from the impacts of the auction. Under MISO's PRA, there is known risk in arranging supplies from outside the local zone. Some providers mitigate this pricing risk by arranging all or some portion of their supplies locally, whereas others may contract or own generation in other zones because it is less expensive even though they face risk of higher auction prices. Even if these providers pay higher prices for a few years until supplies increase so that the LCR is met, it may still be far less costly for providers to pay these prices on a temporary basis than building and owning local generation over the long term (e.g., 30 year life).

Why didn't the new resource adequacy requirements put in place by the MPSC based on the 2016 energy laws avoid the 2020 MISO PRA going to CONE?

While the MISO PRA and the PA 341 resource adequacy provisions are complementary in ensuring Michigan has adequate generating resources in the near- and long-term, they operate under different timeframes and structures. Michigan energy providers are required to meet MISO's resource adequacy requirements for the upcoming planning year, many of which participate in the annual MISO PRA to do so. Near-term factors affect the year-ahead auction results, including MISO's calculation of the LCR and changes in the near-term availability of generation supplies. At the same time, Michigan energy providers are required to comply with the state's resource adequacy provisions enacted under PA 341, which require providers to demonstrate they own or contract for adequate resources to serve customer needs four years in the future. The MPSC established a forward locational requirement in [Case No. U-18444](#), which would have required all electric providers to demonstrate that a portion of their resources was sourced locally, but this requirement was stayed due to outstanding litigation. See [Local Clearing Requirement, 2020 Michigan Supreme Court Decision](#) Issue Brief

If the MPSC's forward locational requirement had gone into effect and was not stayed due to outstanding litigation, would Zone 7 have cleared at CONE in the 2020 MISO PRA? Could this have been avoided?

Clearing at CONE could not have been avoided in this instance. In late 2017 and early 2018, when Michigan providers were submitting capacity demonstrations, MISO's projected LCR for Zone 7 for planning year 2020-21 was 20,717 Zonal Resource Credits (ZRCs – a measure of generating capacity used for MISO's planning purposes). Michigan providers demonstrated 22,074 ZRCs of owned and contracted generation physically located within Zone 7, exceeding the LCR. Michigan providers, in aggregate, met the projected LCR without having a forward locational requirement in place. In late 2019, MISO's projected LCR increased to 21,850 ZRCs for Zone 7. That's more than a 1,000 ZRC increase in Zone 7's LCR which was published less than 6 months prior to the PRA. While Michigan providers originally demonstrated slightly higher amounts of local resources just two years ago, a small portion of those ZRCs no longer exist or did not meet MISO's capacity accreditation requirements, which have recently changed. These factors led to a very small shortage of local resources in the PRA, compared to LCR, resulting in capacity priced at CONE.

What is the MPSC doing to address higher LCRs in MISO Zone 7?

In its [Statewide Energy Assessment](#), the MPSC recommended that “utilities, electric transmission companies, Staff, RTOs, and stakeholders, should further investigate opportunities to expand Michigan’s capability to import additional electricity to address short- and long-term reliability and resource adequacy needs.” The MPSC has worked with stakeholders to determine the appropriate scope for such a study and is working with MISO on a report that is planned to be completed by the end of 2020. This report will provide transmission expansion options for consideration, along with costs and benefits for each option. At that point, the MPSC and stakeholders can consider additional actions to look at ways to lower the LCR, including taking steps to increase the capacity import limit, as well as potentially recommending changes to MISO’s methodology to calculate LCR.

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