Final Comments of the Environmental Law and Policy Center on Electricity Resource Adequacy in MISO Zone 4

ELPC appreciates the opportunity to submit these final comments on MISO Zone 4 Resource Adequacy Issues. As requested by Illinois Commerce Commission staff, the comments below use the outline format circulated by staff following the January 16, 2018 workshop in Hillsboro, IL. ELPC’s responses to each subsection are provided in italics.

Respectfully Submitted,

Robert Kelter
Senior Attorney
Environmental Law & Policy Center
35 East Wacker Drive, Suite 1600
Chicago, IL 60601
T: (312) 795-3734
rkelter@elpc.org

Justin Vickers
Staff Attorney
Environmental Law & Policy Center
35 East Wacker Drive, Suite 1600
Chicago, IL 60601
T: (312) 795-3736
jvickers@elpc.org

Resource Adequacy in MISO Zone 4
Outline for January 30, 2018 Comments

I. Resource Adequacy Standards

A. How should resource adequacy be defined and how does resource adequacy compare with or contrast with resiliency and reliability?

Resource adequacy means ensuring that load serving entities have enough capacity to meet their anticipated peak demand requirements plus an appropriate reserve margin. Anticipated peak demand is calculated by the load serving entities based on expected annual load growth; it should include the impact that growing energy efficiency, distributed generation, and a changing economy will have on that growth. The reserve margin reflects
the reality that not all capacity may be available during peak due to planned maintenance, unplanned/forced outages of generating equipment, deratings in the capability of generation resources, demand response resources, system effects due to reasonably anticipated weather, and load forecast uncertainty. In this sense, resource adequacy is about ensuring sufficient capacity, not about maintaining reliability. Reliability is about serving actual load and is about compliance with standards set by the North American Electric Reliability Corporation. These reliability standards deal with much more than simply the amount of capacity on the system.

Resource adequacy is designed to meet a single, somewhat arbitrary standard: meeting the one day in ten years loss of load expectation. MISO calculates this standard under the assumption that there are no internal transmission limitations in its footprint. In other words, MISO has enough capacity on its system to ensure that there is a loss of load under normal operating conditions no more than 0.1 days per year. While this is an important benchmark, the lights don’t go off the moment a reserve margin is not met (though we fully anticipate that reserve margins will be met for the foreseeable future in Zone 4).

Resource adequacy does not determine what the optimal resource mix should be within a zone or across MISO as a whole, it only describes the number of mega-watts necessary to meet the one day in 10 years standard. In this sense, capacity shortage is simply a way of saying that a utility has failed to meet its capacity obligation. It says nothing about optimal resource mix or location nor about whether or not reliability will be maintained.

A diverse mix of generation assets across geography, fuel types, and operating characteristics is incredibly important to maintaining reliability, regardless of whether or not a precise resource adequacy target is met or exceeded. As we saw with the polar vortex of 2014, generation characteristics are hugely important when dealing with the events that most stress the system. During that event, demand response and wind resources were crucial to maintaining reliability when fossil resources such as coal and gas generation were unable to perform.

B. What entities currently address resource adequacy, how do they do so, and how sufficient are such current measures?

Both the Organization of MISO States survey and the NERC 2017 Long-Term Reliability Assessment anticipate sufficient or even excess capacity for the foreseeable future. We believe that these studies if anything underestimate the capacity sufficiency. The Future Energy Jobs Act and broader changes in the electric market (e.g., declining costs of distributed generation, storage, and energy efficiency) will further reduce the need for traditional capacity products.

While MISO’s system support resource designation is used for immediate reliability needs rather than resource adequacy, it contributes to resource adequacy by maintaining a functioning transmission system. A functioning a transmission system is necessary to
effectively deliver r replacement capacity for the purposes of resource adequacy. SSR designations also send market signals to the resource adequacy markets (e.g., the Planning Reserve Action, the bilateral markets, etc.) by alerting the markets of the need for new generation. As explained below, under MISO’s current retirement process, the market does not have any information on whether or not a capacity resource is going to retire until the day it retires or unless it is needed as a system support resource.

II. Resource Adequacy Measurement

A. How much generation is currently available to meet Zone 4 resource adequacy requirements?

B. What generation resources formerly meeting Zone 4 resource adequacy requirements have recently been lost due to retirement, derating, declining capacity factor, or otherwise?

C. What current generation resources available to meet Zone 4 resource adequacy requirements are at risk of becoming unavailable going forward and what are the implications of the loss of such resources?

D. What are the prospects for new generation resources becoming available to meet Zone 4 resource adequacy going forward?

E. What non-generation resources are and may be available to meet resource adequacy and how do such resources impact resource adequacy?

MISO and much of the country is on the precipice of a huge increase in available and affordable distributed energy resources, including distributed generation, demand response, energy efficiency, and storage resources. As the cost of these resources comes down significantly year after year due to improvements in technology and manufacturing efficiencies, we expect to see significant additional growth of these resources. MISO recently launched an energy storage task force to study how to best integrate storage into the MISO markets. Also, the Organization of MISO States is studying the ways that distributed resources can function in the markets. In Illinois, the Future Energy Jobs Act will bring more energy efficiency and demand response into the state to meet capacity needs.

At the federal level, FERC has begun a rulemaking that would allow storage and distributed resources to integrate directly into wholesale markets. We believe this indicates that we will see distributed resources like rooftop solar able to help meet resource adequacy requirements.

These resources can perform under a wide variety of conditions that help maintain reliability beyond the mere resource adequacy requirements.
F. How well do existing programs and initiatives predict future resource adequacy?

III. Market Design Impact on Resource Adequacy

A. What alternative opportunities are available to resources that could otherwise be used to meet resource adequacy in Zone 4 and how do these opportunities impact Zone 4 resource adequacy?

B. How does the transmission system impact resource adequacy?

The transmission system is a hugely important component of resource adequacy because it allows load serving entities to meet their resource adequacy requirements from a large pool of generation resources.

C. How do facilities owned by municipals and cooperatives affect resource adequacy?

D. How does bilateral contracting, self-supply, and fixed resource adequacy planning affect resource adequacy?

Bilateral contracting, self-supply, and fixed resource adequacy planning are all tools that load serving entities can use to meet their resource adequacy requirements. For nearly 20 years, Illinois has relied on these tools to meet resource adequacy needs. MISO’s Planning Reserve Auction is a residual market used to meet any outstanding resource adequacy needs that are not met with the other options listed above. In Illinois, bilateral contracting and self-supply are especially important because of Illinois’s status as a restructured state. In fact, non-Planning Reserve Auction means of procuring capacity made up over 85% of the 2017/18 auction year capacity requirement without posing any resource adequacy problems. Having a variety of ways that a load serving entity can meet its resource adequacy requirement is crucial for a well-functioning electric system. It allows for flexibility and variety in meeting needs, which leads to a more robust and resilient electric grid. Centralizing all capacity procurement would be detrimental to bulk electric system in Zone 4.

E. How do so-called out-of-market revenues (revenues separate and apart from those obtained in wholesale markets (e.g., Zero Emission payments or renewable energy credits) impact resource adequacy?

IV. Scope

A. Please provide commentary on any relevant substantive or process issue you believe has not been adequately captured in the Sections above.

V. Potential Policy Options
A. What changes, if any, should be made to better enable measurement and assessment of what resources are available to meet Zone 4 resource adequacy requirements?

*MISO’s existing plant retirement process does not provide the proper transparency to adequately signal the need for new capacity to meet resource adequacy. Generation owners need only tell MISO that they intend to retire 6 months before retirement. Those announcements are not made public until either retirement occurs or if there is an immediate reliability problem identified due to the retirement. Because of this lack of transparency, there is typically no signal that replacement capacity could benefit resource adequacy until it is too late. Under MISO’s current proposal potentially makes this problem worse by allowing generation owners to hold their decision to retire for up to three years by classifying the generator deactivation as a suspension rather than a retirement. This is in stark contrast to PJM, which posts all generator deactivation requests to a public website upon submission.*

*In addition to MISO’s lack of transparency on plant closure, its existing load forecasting methodology does not properly and consistently consider the effect that demand-side resources such as energy efficiency will have on reducing demand and energy growth rates. There is no consistency about how load serving entities calculate and report their load growth estimates. Without consistent reporting, MISO cannot make accurate assessments of Zone 4’s future resource adequacy needs. Improved load forecasting at MISO is crucial to better understand what the Zone 4 resource adequacy requirements should be going forward. MISO has recently announced an effort to reform its load forecasting methodology. As these changes go into effect, we hope to see an improvement in how MISO accounts for these resources. This could have a significant impact on what Zone 4’s resource adequacy requirements will be in the future.*

B. What changes, if any, should be made to MISO’s capacity construct including to the MISO planning resource auction to better ensure resource adequacy?

C. What changes, if any, should be made to MISO’s energy or ancillary service constructs that would help maintain resource adequacy?

D. What actions should the Illinois Commerce Commission and/or the Illinois Power Agency take, if any, to address resource adequacy assuming no new legislative authority?

*Neither the Illinois Commerce Commission nor the Illinois Power should not take any action at this time because there is currently no MISO Zone 4 resource adequacy problem.*

E. What actions should the Illinois General Assembly take, if any, to address Zone 4 resource adequacy?

*The Illinois General Assembly should not take any action at this time because there is currently no MISO Zone 4 resource adequacy problem.*
F. Please describe any additional potential policy option(s) you would like to see considered or that you would recommend not be considered.

As described in more detail above, MISO and FERC should remove barriers that prevent storage, demand-side management, and distributed generation resources from fully participating in all its wholesale markets (including, energy, capacity, and ancillary services markets).

MISO should also improve its plant retirement processes to create greater transparency and better signaling to the market, and improve its load forecasting methodology to require greater consistency in how load serving entities calculate and report their load growth estimates.

G. Is it important for any selected policy option to be market-based? If so, why? If not, why not?