

Wind on the Wires' Comments on IPA's Initial Forward Procurement

Wind on the Wires' appreciates the ability to respond to the questions issued by the IPA on May 11.

Wind on the Wires is a not-for-profit corporation that provides outreach, education and advocacy for utility-scale wind and solar resource's throughout the Midwest. Our members include over 20 wind and solar developers, energy storage owners/operators, environmental organizations, tribal representatives, clean energy advocates, and businesses providing goods and services to the wind industry across the country. Members of Wind on the Wires operate wind and solar plants in Illinois and adjoining states, and as a result of P.A. 99-0906 intend to add new facilities to meet Illinois' demand for renewable energy resources. Wind on the Wires wind and solar developers typically build larger-size projects that would typically interconnect to the bulk electric system.

Wind on the Wires supports a more flexible approach to wind and solar REC procurement than what was proposed by the IPA at its May 10 workshop. On site control, Wind on the Wires recommends some site control criteria be used for the solar procurement and reserves comment on site control relative to wind procurement. In addition, Wind on the Wires provides comment on a couple of issues we deem important for the IPA to consider prior to developing its draft contract documents that are relative to the confidential benchmark and Supplier Fee.

PROPOSAL TO IMPROVE REC FLEXIBILITY: A supplier (i.e., entity awarded a contract in the Initial Forward Procurement) should be allowed to meet its obligation through banked renewable energy credits (RECs), the purchase replacement RECs and in limited circumstances the payment of liquidated damages. A supplier should be allowed to bank RECs. If the REC amount a supplier it has generated in a delivery year is short of the amount it is contracted to deliver then it can: [1] use RECs it has banked within the previous two delivery periods, due to over-production, to deliver the contracted REC amount for the current delivery period; if the supplier is still short of its contracted REC amount it can [2] purchase replacement RECs¹ from a similar facility (i.e., a wind supplier purchases a wind REC or a solar supplier purchases a solar

¹ As an alternative, the IPA could limit the replacement RECs to those produced within the delivery year.

REC) that is a qualified facility² and that were generated within the delivery period or the previous two delivery periods; if there are no available RECs from qualified facilities (after making a good faith effort to purchase such RECs) and the supplier is still short of its contracted REC amount it is to (3) pay liquidated damages (per shortfall REC) whose amount is correlated to the awarded price of the REC plus additional identifiable costs. The liquidated damage dollar amount would allow the utility to purchase RECs to meet the annual statutory target amount.

In addition, Wind on the Wires recommends that the IPA not terminate contracts if a supplier does not deliver the contract quantity of RECs in three delivery periods³. The termination provision based on a certain number of defaults is not needed if liquidated damages are used. Liquidated damages provides the utility money to purchase RECs to meet the statutory REC requirements. A contract can be terminated if a supplier is unable to pay the liquidated damages. If the IPA believes the liquidated damages provision could be abused or leads to an arbitrage situation, the IPA could allow for contract termination if a supplier demonstrates a pattern of paying liquidated damages; an alternative to that would be to terminate if a supplier pays liquidated damages a defined number of times (in excess of 3) in a 10 or 15 year period.

Under this proposal the IPA should allow the utility to meet the REC target amount by using the liquidated damage money to purchase RECs that have a reasonable relation to Illinois. While the primary focus of the statute is to foster the construction of renewable generation placed into service after June 1 that benefit Illinois, a liquidated damages provision could be used to still purchase RECs from facilities that provide health, safety and welfare benefits to Illinois. In using the liquidated damages the provision the operating assumption is that it would only be used after the supplier has made a good faith effort to purchase any RECs from qualified facilities available in the REC market; thus, the only pathway to reaching the 1,000,000 REC target for the utility would be through the purchase of RECs that are not from a qualified facility. Therefore, Wind on the Wires recommends that the utility be allowed to purchase replacement RECs using liquidated damage money from another renewable energy resource

² A “qualified facility” is a wind or solar generating facility that qualified as a bidder in the initial forward procurement and other procurements pursuant to P.A. 99-0906.

³ This is not intended to preclude a contract from being terminated for other reasons.

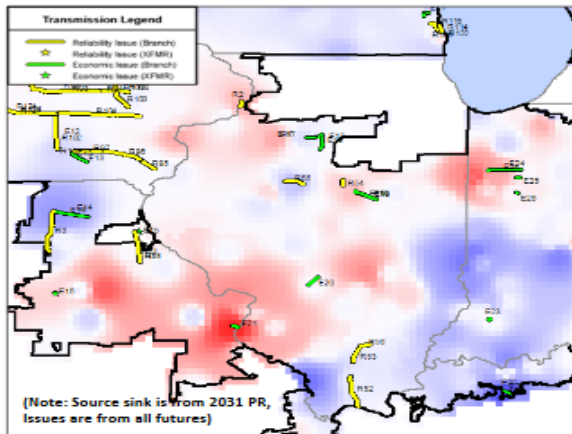
facility within Illinois (which likely was placed into operation prior to June 2, 2017) or is under a contract to deliver RECs to an Illinois utility. Thus RECs from those entities are already known entities that are delivering benefits to Illinois. In addition, the use of liquidated damages was structured in a way to prevent its use in an arbitrage manner. If a supplier uses replacement RECs that are not from the supplier's facility, the supplier should be compensated at the price it paid for the replacement REC, not to exceed the contract unit price. This will help save some money within the cost cap and discourages arbitrage.

1. REC Delivery Flexibility

A. What circumstances could lead a project to not deliver its annual delivery quantity and could be mitigated through banking or replacement RECs?

ANSWER: There are a number of circumstances that could cause an under-delivery of RECs but two primary uncontrollable factors affecting delivery quantity outside of force majeure issues are curtailment by the RTO and the variable nature of a wind or solar resource. Wind or solar projects interconnected to the bulk electric system (BES) are subject to the possibility of curtailment by the RTO. Congestion on the BES changes over time. Congestion will likely increase in Illinois given that the renewable portfolio standard places greater emphasis on projects that directly benefit the state. PJM and MISO work to minimize congestion with transmission network upgrades that reduce congestion. Unfortunately, there is usually a lag period between identification of the congestion issue and placing a solution into service of at least three years and more likely 5 to 7 years. That places an unknown and uncontrollable risk on the projects at this time. MISO has identified some areas of congestion, through its Regional Transmission Overlay Study:

Central Region Major trends or transfer Paths (Illinois)



- Congestion in central Illinois driven by east to west transfers and projected wind growth, in southern Illinois by nearby projected solar and thermal units

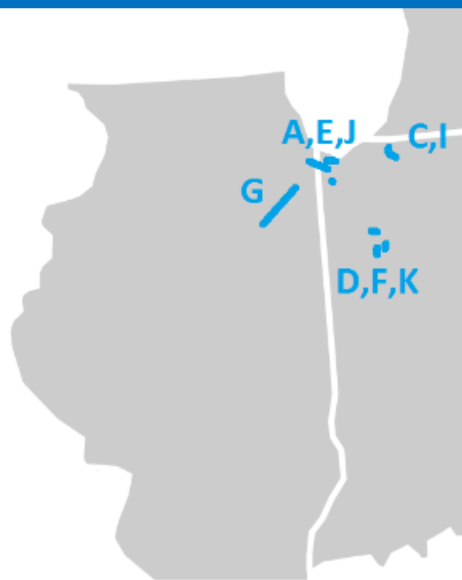


Economic Planning Users Group – MISO Regional Transmission Overlay Study January 31, 2017

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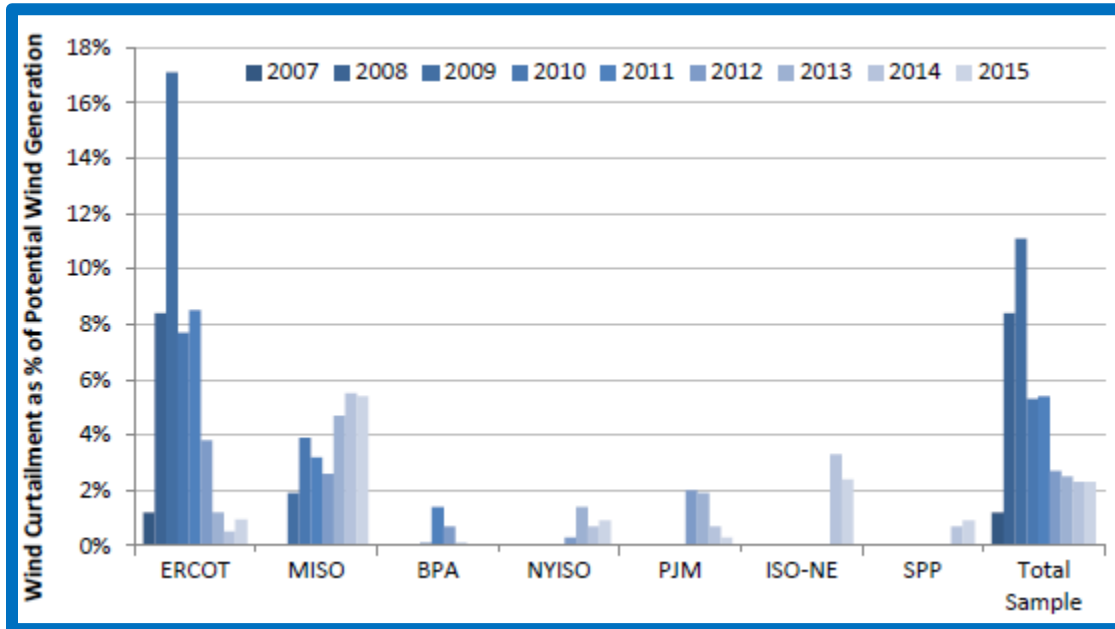
MISO and PJM have also identified congestion areas along their seam as depicted in a presentation of a Targeted Market Efficiency Project analysis that is just concluding:

Letter	Flowgate
A	Burnham – Muster 345 kV
B	Bayshore – Monroe 345 kV
C	Michigan City – Bosserman 138 kV
D	Reynolds – Magnetation 138 kV
E	Roxana – Praxair 138 kV
F	Klondike – Purdue 138 kV
G	Braidwood – East Frankfort 345 kV
H	Marysville – Tangy 345 kV
I	Michigan City – Trail Creek 138 kV
J	Munster 345/138 kV
K	Tippecanoe – Lafayette South 138 kV
L	Batesville – Hubble 138 kV



IPSAC Meeting, September 30, 2016

MISO has experienced a fair amount of curtailment issues in comparison to other RTOs. The chart below indicates that annual curtailment of wind in MISO since 2007 has ranged from just under 2% to 5.4%, whereas PJM has seen less than 2% annual wind curtailment:



Estimated wind curtailment by region as a percentage of potential wind generation (U.S. Dept. of Energy, *2015 Wind Technologies Report*, at 41 (Aug. 2016)).

The second issue is the variability of wind or solar radiation. The wind and solar industries are improving their techniques for estimating energy production but time-varying influences alter the strength of wind resources from year to year. Weather patterns such as El Niño or La Niña are known to impact wind resources. In 2015 an El Niño created annual average deviations of 6% or more for the entire year in the West and Plain States. (U.S. Dept. of Energy, *2015 Wind Technologies Report*, at 41).

The adverse impacts of these factors can be minimized through banking and the use of replacement RECs.

B. Should IPA allow unlimited banking of RECs to foster a lower cost market or other benefits OR should IPA set limits on quantity and vintage?

ANSWER: For both wind and solar, Wind on the Wires recommends banking of RECs that can only be used when it is demonstrated that production is less than the contracted delivery amount. The RECs should only be used in the event of a shortfall. The supplier should be allowed to use RECs it has banked within the two delivery years prior to the delivery year in which it is experiencing a shortfall.

C. Should banking of RECs be allowed between multiple projects owned by an entity/affiliate with contracts under the Initial Forward Procurements?

ANSWER: Yes.

D. Taking into account statutory project qualifications, should the ability to provide eligible replacement RECs be otherwise unlimited or should there be additional parameters (e.g., quantity, vintage, narrower eligibility of RECs)?

ANSWER: Wind on the Wires recommends that if a supplier cannot reach its contracted delivery amount using its own banked RECs, it be allowed to purchase RECs generated within the past three years⁴ from a similar (i.e., wind REC supplier needs to purchase RECs from a wind farm) facility that has been determined by the IPA to be an eligible bidder in a previous procurement held pursuant to P.A. 99-0906.

For solar, Wind on the Wires recommends that the replacement RECs also come from a similar class of resource (utility-scale solar from another utility-scale solar facility approved as a bidder by the IPA), but not for brownfield solar. The amount of brownfield solar is likely to be so small that market power is likely to be an issue.

Replacement RECs that are not from the supplier's facility should be compensated at the price paid for the replacement REC not to exceed the contract unit price. This will help save some money within the cost cap and discourages arbitrage.

E. Under what circumstances should underperformance that cannot be remedied through banking and/or replacement lead to the termination of a contract? What alternative penalty provisions should be considered to address underperformance?

ANSWER: Under Wind on the Wires proposal, which includes the use of liquidated damages, a contract could be terminated if the supplier is unable to work out a way to pay the liquidated damages.

If the IPA is concerned that Wind on the Wires' proposal described above does not sufficiently prevent arbitrage or may allow a supplier to easily avail itself of liquidated damages, the IPA could tie the use of liquidated damages to contract termination. Wind on the Wires recommends that the number of times a supplier uses liquidated damages be more than 3 or 4 because the initial three years of operation is the period of greatest risk of shortfall due to the lack of banked RECs, and then shortfalls may occur due to curtailments and wind and solar variations described in 1.A. The availability of liquidated damages in the initial three years is valuable when banked RECs by the supplier or across Illinois may still be low. Thus, another options would be to implement Wind on the Wires proposal described above and provide the

⁴ The three years being the instant deliver year and two prior delivery years. This period of time also works with the fact that "qualified facility" can start producing RECs as of June 2, 2017 but not need to start delivery until two years (delivery periods) later.

utility the option to terminate the contract if a supplier were to pay liquidated damages an excessive amount in a ten or fifteen year period.

The IPA should strive for compliance at the lowest total cost. That can best be done by encouraging the use of as many RECs from qualified facilities as possible. Allowing for the use of replacement RECs and liquidated damages furthers that goal. In addition, the IPA should only allow liquidated damages when there are no, or close to no, RECs from qualified facilities available in the market. Setting such a requirements minimizes the potential for liquidated damages to be used as an alternative to replacement RECs.

Multiple factors impact how liquidated damages and replacement RECs work in coordination with each other, thus Wind on the Wires reserves the ability to alter or append to its position after the draft documents are posted.

2. Site Control for Solar Procurement

- A. What would be an appropriate site control standard for the initial forward procurements and why? In responding, please provide sample documents, requirements, or templates for verification of site control, if applicable. Also, in responding, please discuss how a more stringent requirement may impact the ability of new market participants/smaller firms to participate in the procurement.

ANSWER: For solar procurements the IPA should require some form of site control that includes either ownership of land, a lease of land, or an option to lease land, and proof the bidder has applied for interconnection.

A question was raised during the workshop as to what is the right balance of documentation of site control versus money actually committed to site control. The primary purpose for site control should be a demonstration of the developer's/supplier's preparedness to build a project, whereas the credit requirements are used to demonstrate the seriousness of the bidder and/or the financial wherewithal to build a project. Thus, site control priority should be the ability to move forward with the construction and not necessarily a dollar commitment.

Wind on the Wires anticipates that most bidders into the wind REC procurement will be large projects following an RTO interconnection process. Wind on the Wires reserves the right to provide more specific input on this issue relative to the wind procurement after seeing the draft contract documents.

- B. Would having the option of providing an additional performance guarantee in lieu of providing evidence of site control mitigate the risk of failure to develop the project in time to start REC deliveries?

ANSWER: Wind on the Wires defers comments on this topic until after we have reviewed the draft contract.

