November 17, 2017

VIA ELECTRONIC MAIL

Illinois Power Agency
Mario Bohorquez, Planning and Procurement Bureau Chief
160 North LaSalle Street
Suite C-504
Chicago, IL 60601
Mario.Bohorquez@Illinois.gov

RE: Draft Long-Term Renewable Resources Procurement Plan (of September 29, 2017) -- Request for Comments

Dear Mr. Bohorquez:

Wind on the Wires' appreciates the opportunity to provide comments to the Illinois Power Agency in response to the Long-Term Renewable Resources Procurement Plan: Draft for Public Comment (LTRRPP or The Plan). *See* PA 99-0906, 20 ILCS 3855/ 1-75(c)(1)(I). Wind on the Wires also appreciates the extra time the IPA granted it to file its comments due to a medical emergency requiring medical treatment in a hospital.

Wind on the Wires is a not-for-profit corporation providing outreach, education and advocacy to increase renewable energy resource's access to the electric transmission system and wholesale electric market throughout the Midwest. Our members include utility-scale 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 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' comments address five substantive issues, includes statements in support of specific proposals within The Plan, and suggests a few clarifying edits. The most significant issue we raise is that the renewable resources budget (RPS Budget) will be exceeded by 2025 under the proposal in The Plan. Wind on the Wires has proposed some revisions that will extend the RPS Budget out beyond the mid-2030s. These revisions also have the flexibility to accommodate an increase in the proposed utility-scale solar and wind REC procurement volumes, with delivery starting in 2020-2021, between 300,000 and 500,000 MWhs and still maintain a positive RPS Budget into the mid-to-late 2030s.

Respectfully submitted,

/s/

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WIND on the WIRES' COMMENTS ON THE ILLINOIS POWER AGENCY'S DRAFT LONG-TERM RENEWABLE RESOURCES PROCUREMENT PLAN for PUBLIC COMMENT posted September 29, 2017

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I. COMMENTS

A. Proposed Revisions to the Procurement Schedule

Wind on the Wires is concerned that the REC products proposed in The Plan will cause the RPS Budget to be exceeded as soon as 2025. This can be avoided by making a few changes as proposed herein by Wind on the Wires.

The table below reflects The Plan's proposed REC procurements and Wind on the Wires' estimated costs for those procurements:

	Proposed REC Additions per Delivery Year			
Delivery Start Year	**2018-2019**	**2019-2020**	**2020-2021**	**2021-2022**
WIND				
Ameren	-	-	303,566	293,300
ComEd	-	-	728,019	703,400
MidAmerican	-	-	3,416	3,300
SOLAR				
Utility Scale	-	-	1,400,000	
Distributed				
< 10	-	-	333,333	
10 to 2000	-	-	333,333	
Community	-	-	333,333	
Other	-	-	-	
Brownfield	-	-	40,000	
OTHER Non-WIND/ Non-SOLAR RESOURCES	-	-	1,000,000	
Community	-	-	100,000	
SPOT PROCUREMENT	12,900,000	18,100,000	16,280,353	11,586,304

There are three areas that have potential to improve the overall efficiency of the RPS Budget: [1] reduce early spot procurement RECs; [2] reduce non-wind/ non-solar RECs; and [3] reallocating funds from higher cost RECs generated by distributed generation to lower cost REC product. These three areas have the highest costs per REC.

The most impactful change would be to reallocate the RECs proposed within The Plan from higher cost REC products to lower cost REC products while still complying with statutory minimums and providing for diversity. Wind on the Wires' modeling indicates the following changes have a strong likelihood of securing a net positive RPS Budget into the mid-2030s: [a] reduce the volume of non-wind/non-solar products (Procurement 5.8.3) to the statutory minimum of 8% of the forward procurement[1]; [b] re-allocate the 1 million RECs proposed for Adjustable Block program[2] to the statutory minimums[3] set forth in sections 1-75(c)(1)(C)[4] and (K)[5]; [c] forego spot procurements for RECs delivered in 2018-2019, 2019-2020 and after 2028-2029; and [d] increase the volume of utility-scale solar and utility-scale wind procurement RECs (Procurements 5.7.1 and 5.8.1).

Non-wind/ Non-solar products: The IPA has proposed procuring 1 million RECs from non-wind and non-solar renewable resources (Procurement 5.8.3.). Wind on the Wires supports the IPAs proposal to conduct a request for information to gauge interest in this procurement. If there is sufficient support for the procurement, the target volume should either be the statutory minimum or use a secondary benchmark for evaluating those bids. That benchmark would be the average price for wind and solar utility-scale projects of the same duration. This secondary benchmark would be a valuable guide for identifying Non-wind/ Non-solar product REC prices that are not cost effective and adversely impact the longevity of the RPS Budget.

Re-allocate Distributed Generation RECs: The IPA has allocated to the Adjustable Block a volume of RECs that exceeds the statutory minimums. Wind on the Wires is concerned

[1] 20 ILCS 3855/1-75(c)(1)(C).
[2] The Plan at 93-94.
[3] 20 ILCS 3855/1-75(c)(1)(K).
[4] 20 ILCS 3855/1-75(c)(1)(C)
[5] 20 ILCS 3855/1-75(c)(1)(K).

for the longevity of the RPS Budget. Based on the preliminary Adjustable Block Prices posted in the October 6, 2017 Errata, allocating extremely high volumes of RECs to distributed generation products quickly erodes the RPS Budget. Distributed generation products that are solar photovoltaic are rapidly declining in price. They should be lower in 2025 than what they are today. To preserve the longevity of the RPS Budget, Wind on the Wires recommends the IPA reallocate the 1 million RECs planned for the Adjustable Block at or close to the statutory requirements set forth in section 1-75(c)(1)(C) and (K), and procure above the statutory requirements when distributed solar prices are lower and closer in value to the lowest cost REC products the IPA procures. This change has the most significant impact on the longevity of the RPS Budget. This would allocate 40% of the RECs to utility scale solar, 50% to distributed resources, 2% to brownfield and 8% to other non-wind/non-solar resources, with the distributed resource portion (50%) being equally allocated pursuant to section 1-75(c)(1)(K).

Spot Procurements: Section 1-75(c)(1)(F) states that if the RPS Budget is going to be exceeded the IPA should prioritize RECs as follows:

> (i) renewable energy credits under existing contractual obligations;
> (i-5) funding for the Illinois Solar for All Program, as described in subparagraph (O) of this paragraph (1);
> (ii) renewable energy credits necessary to comply with the new wind and new photovoltaic procurement requirements described in items (i) through (iii) of subparagraph (C) of this paragraph (1); and
> (iii) renewable energy credits necessary to meet the remaining requirements of this subsection (c).

Thus, RECs needed to comply with the new wind and solar REC requirements of section 1-75(c)(1)(C), have a greater priority than the "remaining requirements of subsection (c)" – including Spot Procurements needed to reach the REC goals set forth in section 1-75(c)(1)(B). Under The Plan's proposed procurements, the RPS Budget will be exceeded within Delivery Year 2025-2026. Adopting Wind on the Wires preceding recommendations in conjunction with

foregoing Spot Procurements, in certain years, will enable the RPS Budget to have sufficient funds well into the mid-2030s (and hopefully beyond). Money that would be spent on Spot Procurements would be rolled-back into the RPS Budget and used to procure future long term contracts that inspire new renewable facilities in and around Illinois[6]. Based on our modeling, Wind on the Wires' recommends that the IPA forego Spot Procurements in 2018-2019, 2019-2020 and potentially in most of the years between 2025 and 2040, though that can be more fully evaluated in subsequent long term renewable resource procurement plans.

Utility-scale wind and solar RECs: The above recommendations reallocated RECs from distributed generation sources to more cost effective resources. The PTC and ITC make utility-scale wind and solar resources the least cost REC products in the market. Wind on the Wires recommends increasing the utility-scale wind procurement with a Delivery Year of 2020-2021 (Procurement 5.7.1.) by 300,000 to 500,000 RECs, and increasing the utility-scale solar procurement with a Delivery Year of 2020-2021 (Procurement 5.8.1.) by an equal amount. If the recommendations above are made the RPS Budget should be able to handle these reallocated RECs and still have money well into the mid-2030s.

Below is a side-by-side comparison of The Plan's proposed procurement volumes to those proposed by Wind on the Wires (highlighted in yellow):

[6] The new renewable resources also provide construction jobs and demand for new services within Illinois, consistent with the title of the act – Future Energy Jobs Act.

	THE PLAN'S PROPOSED REC ADDITIONS per DELIVERY YEAR				WOW's PROPOSED REC ADDITIONS			
Delivery Start Year	**2018-2019**	**2019-2020**	**2020-2021**	**2021-2022**	**2018-2019**	**2019-2020**	**2020-2021**	**2021-2022**
WIND								
Ameren			303,566	293,300			450,216	293,300
ComEd			728,019	703,400			1,079,719	703,400
MidAmerican			3,416	3,300			5,066	3,300
SOLAR								
Utility Scale			1,400,000	-			1,900,000	
Distributed				-				
< 10			333,333	-			125,000	
10 to 2000			333,333	-			125,000	
Community			333,333	-			125,000	
Other			-	-			125,000	
Brownfield			40,000	-			60,000	
OTHER Non-WIND/ Non-SOLAR RESOURCES			1,000,000	-			80,000	
Community			100,000	-			100,000	
SPOT PROCUREMENT	12,898,337	16,280,353	11,586,304	12,328,839	-	-	12,111,304	12,853,839
TOTAL INCREMENTAL RECs for the DELIVERY YEAR	12,898,337	16,280,353	16,161,304	13,328,839			16,286,304	13,853,839

The table reflects Wind on the Wires' proposal to procure an additional 500,000 utility-scale wind and solar RECs than what is in The Plan. A more conservative approach would be the addition of 300,000 RECs.

B. Wind Duration/Direction Factors Should Not Exceed 1.0

Table 4-2 of The Plan provides the wind duration/ direction factors for each adjacent state. The sum of the wind duration/direction factors is 1.349. It should not exceed 1.0. If it exceeds 1.0 then the ratios among the states are inaccurate. Assuming this data is from the same source and has been collected in a uniform manner, the IPA could correct this inaccuracy by

calculating the Wind Direction by using the data in Table 4-2 as a weighting factor. EXAMPLE: Indiana's wind duration/ direction factor would be .256/1.349 = 0.190.

C. Fuel and Resource Diversity Test Should Be Replaced by the Requirement a Project be Interconnected to PJM or MISO

The Fuel and Resource Diversity test intends to measure the likelihood a generating plant outside of Illinois to actually deliver electricity to Illinois end-users and ensure a stable and reliable supply of electricity for the state.[7] It is impossible to track the flow of electrons from the generator to end user, however, Illinois fortunately resides in PJM and MISO who have the responsibility for ensuring sufficient electricity is operating within their footprint to meet demand. The IPA should use the methodology used by RTOs for balancing their market – if the generator is interconnected to the RTO (PJM or MISO) the electricity is used for the benefit of the entire system. Thus, Wind on the Wires recommends the IPA replace the "fuel and Resource Diversity Score" with the requirement that the project be interconnected to either PJM or MISO.

D. New Renewable Energy Facilities in an Adjacent State Should only need to Demonstrate that it is in the RTO's Generation Interconnection Queue

The IPA needs to evaluate whether a non-Illinois renewable energy facility meets the minimum requirements of the public interest criteria. Thus, all non-Illinois renewable energy facilities need to submit an application to the IPA for review and approval. A new adjacent-state facility that is not yet operational can apply, but the IPA proposes that said entity provide a copy of its generation interconnection agreement (GIA) with PJM or MISO.[8] For the reasons discussed below, Wind on the Wires recommends that the developer demonstrate that its'

[7] The Plan at 68.
[8] The Plan at 68.

projects is in the RTO queue and in the process of being evaluated, and does not need to possess a GIA at the time of application.

The GIA does not need to be a requirement because MISO imposes large interconnection study fees that ensures the developer/generator owner stays in the queue until the study is complete. MISO recently revised its queue process; creating multiple stages and multiple non-refundable fees. Those fees can be as much as 30% of the network upgrade costs assigned to the developer/generator, which could be hundreds of thousands of dollars and potentially millions.

In addition, projects in Iowa are part of an extremely large queue (over 9,000 MW in the queue) that may take awhile for MISO to complete its review and grant interconnection agreements. MISO has 44,771 MW of wind and solar resources in its generation interconnection queue as of November 17, 2017 and of that, 10,075 MW is in the zone that includes Iowa. Given the how large that volume is, it is likely to take awhile for MISO to complete the studies and issue GIAs for generators in Iowa.

E. The IPA Should Encourage Growth of Distributed Generation in Areas with a Robust Infrastructure

At the ICC's Policy session on Renewable Integration, held on October 19, 2017, speakers emphasized that the distribution system was not designed for local generation at residential homes. Thus, it would be beneficial to locate new distributed generation in areas with robust distribution infrastructure. This would allow distributed generation to be added with minimal upgrades or modification to the distribution network. ComEd's and Ameren Illinois' smartgrid should provide the utilities with that type of information. Thus, Wind on the Wires recommends the IPA work with ComEd and Ameren Illinois to determine which areas of their relative distribution systems have greater capacity for local generation and provide adders to encourage growth in those areas.

II. IPA PROPOSALS/POSITIONS THAT WIND ON THE WIRES SUPPORTS

A. Wind on the Wires supports IPAs decision to develop a procurement proposal only for the next few years. This allows the IPA and stakeholders to assess the impact these initial procurements have on the RPS budget.

B. Wind on the Wires supports the IPAs proposal (pages 61-62) to allow wind facilities that have existing Long Term Renewable Resource contracts be considered compliant with the Adjacent State Requirement.

C. Wind on the Wires supports the IPAs decision (pages 65-66) to more flexibly interpret a projects impact on the electricity distribution system to include impacts on the transmission system because the transmission system supports the reliability of the distribution system. interpretation that

D. Wind on the Wires supports the IPA's proposal to procure over 1,000,000 wind RECs from utility-scale wind facilities in 2018 and 2019 (Procurements 5.7.1 and 5.8.2.), and 1,000,000 solar RECs from utility-scale solar facilities in 2019 (Procurement 5.8.1.). This is a cost effective use of the RPS Budget.

E. Other Renewable Procurement in 2019 (Procurement 5.8.3.): Wind on the Wires supports the IPAs proposal to evaluate whether there is sufficient interest in such a procurement in conjunction with an analysis of the expected available RPS Budget. The IPA has acknowledged a potential RPS Budget constraint and should closely evaluate the financial impact of this procurement on the RPS Budget relative to the lower cost renewable resources it will displace.

F. Wind on the Wires supports the IPAs proposal to allow eligible facilities that have surplus RECs to bid those RECs into Spot Procurements (page 90).

III. CLARIFYING EDITS

A. Forecast for ARES Supplied RECs

It appears that Table 3-11 identifies the RECs Alternative Retail Electric Suppliers are allowed to supply pursuant to section 1-75(c)(1)(H). If that is correct, the IPA should either include a proxy value in the table or note when those values will be available.

B. Format of Adjustable Block Program

The Competitive Procurement Schedule includes easy to understand tables identifying and describing the proposed competitive and Spot Procurements. The Adjustable Block Program was presented in a different format. Wind on the Wires suggests the IPA present the Adjustable Block Program and the Competitive Procurement proposals in a uniform style -- similar to what was used in Tables 5-1 and 5-2 -- so as to prevent confusion regarding what exactly The Plan is describing for the Adjustable Block Program.

C. Minor Edits

1. Page 61, 4th full para.: There is a reference to "this" Plan, which could either be The Long Term Renewable Resources Procurement Plan or the ZES Plan. Wind on the Wires recommends replacing "this" with a reference to either "the Plan" or "ZES Plan."
2. Page 67, 1st full para., line 9. Add a period between "above" and "This".
3. Page 96, 2d para.: This paragraph should be clarified. At first reading it appeared to state that a project that could not be developed but then was developed, interconnected and energized had forfeited its ability to participate in price block open at the time of its application. Wind on the Wires recommends that language

similar to "should a system in a given block fail to be interconnected and energized, that system's portion of the block will be forfeited."

4. Page 107, 1st full para.: replace period following "Singapore" with a comma.

Wind on the Wires requests the Illinois Power Agency consider and adopt the recommendations provided herein.

Respectfully submitted,

/s/

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