

**STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION**

THE ILLINOIS POWER AGENCY)	
)	
Petition for Approval of)	Docket No. 11-0660
The 220 ILCS 5/16-11.5(d))	
Procurement Plan)	

**WIND ON THE WIRES OBJECTIONS to THE ILLINOIS POWER AGENCY’S 2012
POWER PROCUREMENT PLAN – September 28, 2011**

NOW COMES Wind on the Wires filing an objection, pursuant to Section 16-111.5(d)(3) of the Illinois Public Utilities Acts (220 ILCS 5/16-111.5(d)(3)), to the 2012 Power Procurement Plan filed by the Illinois Power Authority on September 28, 2011. After reviewing the 2012 Power Procurement Plan and contemplating the best way to ensure environmentally sustainable electric service and accounting for price stability, Wind on the Wires recommends that a portfolio of renewable energy credits of varying duration be procured on behalf of both Ameren Illinois Company and Commonwealth Edison Company.

BACKGROUND

On August 15, 2011, the Illinois Power Agency (“IPA”) made its Draft 2012 Power Procurement Plan publicly available on its website, as required by 220 ILCS 5/16-111.5(d)(2). The IPA requested comments on that Plan be submitted by September 14, 2011. The IPA received numerous comments and revised the Draft 2012 Power

Procurement Plan. The revised version was filed with the Illinois Commerce Commission for review and approval on September 28, 2011. The goal of the 2012 Power Procurement Plan (“2012 Plan”) is to lay out a procurement strategy for both Commonwealth Edison (“ComEd”) and Ameren Illinois Company (“Ameren”), “to ensure adequate, reliable, affordable, efficient, and environmentally sustainable electric service at the lowest total cost over time, taking into account any benefits of price stability.”

The 2012 Plan includes a proposal for procuring renewable energy resources. The 2012 Plan proposes that the renewable energy resource goals, expressed as a percentage of the utility’s total supply used to serve the load of eligible retail customers, be met with renewable energy credits of periods up to 20 years. (2012 Plan at 53) The bids are to be evaluated and ranked using a Net Present Value and an appropriate discount rate determined by the IPA, the procurement administrators, ICC staff and the Procurement Monitor. (Id.)

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OBJECTION #1: The Net Present Value Methodology for Evaluating RECs Fails to Ensure Environmentally Sustainable Electric Service and Price Stability

The 2012 Plan is supposed to be designed “to ensure adequate, reliable, affordable, efficient, and environmentally sustainable electric service at the lowest total cost over time, taking into account any benefits of price stability.” The 2012 Plan comes up short in that effort regarding its renewable energy resource procurement. More specifically, the method for evaluating the RECs is unclear and at worst is biased toward short term products.

The 2012 Plan simply states that bids would be evaluated and ranked using a Net Present Value (2012 Plan at 53), without more detail. A Net Present Value methodology is biased in favor of RECs with shorter durations. (*see infra*) This methodology fails to manage the procurement of RECs in a manner that will ensure an environmentally sustainable electric service and provide price stability for ratepayers. Shorter term RECs, while low cost now, do not ensure that renewable energy resources will be built in sufficient quantity so as to meet growing RPS needs in the Midwest ISO and PJM transmission networks. RPS requirements in PJM and MISO states will increase over the next 15 to 20 years. As the requirements increase, the existing merchant windfarms will enter into power purchase agreements and be unavailable to provide REC-only products. Unless steps are taken to foster some development of renewable resources, the supply of available renewable energy resources will diminish and the price of RECs and renewable energy will increase to match market prices needed to build new resources.

The use of the Net Present Value methodology will cause the IPA to award contracts to short duration RECs which do not foster construction of new renewable energy resources. In effect, the Net Present Value methodology exposes ratepayers to possible price spikes in renewable energy products. The IPA can prevent this by establishing a portfolio of products of varying duration that gives long term price stability from renewable energy resources.

A. Net Present Value Comparison of Renewable Energy Resource Bids is Biased Toward Shorter Term Products

A net present value comparison of REC products will select mostly, if not entirely, shorter term REC products. The 2012 Plan doesn't provide a lot of detail around the net present value methodology being proposed (2012 Plan at 53), so the IPA either needs to clarify this methodology and show that it is a just and reasonable method, otherwise Wind on the Wires recommends the overall REC process be changed. If the IPA cannot do a fair comparison of products of different duration we have provided an alternative proposal below.

Wind on the Wires' concern about the net present value comparison methodology is demonstrated by the table below. This table compares what are basically equivalent products in 2012 dollars – a \$1- 1 yr REC, a \$10 – 10 yr REC and a \$20 – 20 yr REC. In developing the table, Wind on the Wires used the following net present value formula:

$$NPV = C_0 + \left(\sum C_i \frac{(1+r)^t - 1}{r * (1+r)^t} \right)$$

NPV – net present value
 C₀ – initial cash outlay
 C_i – cash flow per year (Price * Qty)
 r – discount rate
 t – time in # of years from purchase date

		\$1 - 1 yr REC	\$10 - 10yr REC	\$20 - 20yr REC	\$55/MWh PPA
Contract Length (t)		1	10	20	20
Quantity (MWh/yr)	1,000				
Discount Rate (r)	5%				
COSTS		\$952	\$77,217	\$249,244	\$685,422
Price		\$1	\$10	\$20	\$55
AVOIDED COST		\$0	\$0	\$0	-\$963,703
Existing Energy Rate for eligible retail customers ¹ (\$/MWh)	77.33 ²				
NPV		\$ 952	\$ 77,217	\$ 249,244	\$ -278,281
NPV (\$/MWh)		\$ 0.95	\$ 7.72	\$ 12.46	\$ -13.91

¹ Approximate electricity supply charge rate for ComEd from July 2011.

² ComEd's Price to Compare is \$77.33/MWh, from New Electricity Rates for ComEd and Ameren, posted by ICC on homepage www.icc.illinois.gov. This price is effective from 10/1/2011 to 5/31/2012.

In developing the table, the analysis assumes the utilities will only be making a cash outflow and no cash inflow. Therefore, the positive numbers above reflect NPV in cash payment. In using the NPV to make a decision, the option with the least cost impact should be chosen. In the example above, the best option would always be the 1 year REC.

Besides being biased toward short term products, as shown in the table above, the use of a fixed discount rate will not fully account for market risk related to the duration of the product. The table below shows the market risk associated with RECs of different duration:

Market Risk					
	Years	Years	Risk	Main Price Driver	Secondary Price Driver
Spot	0-1 year	2012	Low	Current Market Supply/Demand	N/A
Short	1-3 year	2012-2014	Mid	Current Market Supply/Demand	Future Supply and Demand Forecasts
Mid	3-5year	2015-2017	High	Future Supply and Demand Forecasts	Banked Supply Assumptions
Long	> 5year	2018-on	High	Future Supply and Demand Forecasts	N/A

Supply and demand are pretty well known over the short term but become less predictable as the duration increases. From a seller's viewpoint, the risk of being caught in a long term REC contract when the REC market goes short on available RECs or if renewable energy prices increase, is much greater over the longer term. Therefore, the sellers risk will be reflected in higher REC prices as the duration

increases. Therefore, the discount rate must accurately reflect the change of risk over that time period. A simple example of this is the different rates charged for mortgages of 30 years versus those of 15 years – the 30 yr mortgage rate is higher than the 20 yr mortgage rate. For the foregoing reasons, a fixed discount rate will not accurately account for the change in risk over time; instead, a rate that reflects the actual risk in the market needs to be used. In addition, each developer will have a different perspective on that risk and their perspective will vary based on factors such as their asset portfolio, debt structure, etc.,.

The chart above also includes an evaluation of long term power purchase agreements. The net present value methodology shows a net benefit for such a contract for Illinois ratepayers when comparing the average PPA price that ComEd received through the December 2010 Long Term Renewable procurement³ to recent market prices for ComEd. In effect, the table shows that purchasing renewable energy through a long term power purchase agreement will yield some benefit for Illinois ratepayers by offsetting rising energy costs, whereas in comparison, procuring unbundled RECs provides no benefits to ratepayers.

³ 2010 ComEd and Ameren 20-year Renewable Energy RFP - Public Notice, posted on the ICC website at <http://www.icc.illinois.gov/electricity/procurementprocess2010.aspx>.

B. If the REC Comparison Methodology Used by the IPA is Biased toward Short Term REC Products it Fails to Meet the Goal of the Statute

The IPA should procure a portfolio of products, and not be biased toward one-year or short-term RECs. A portfolio of renewable products will ensure long term stability of REC prices in Illinois, will hedge against energy price volatility and will replace the thousands of megawatts of generation that are expected to retire or go into mothball status within the next two to five years due to U.S. Environmental Protection Agency regulations.

The purpose of the renewable portfolio standard is to change the utilities' energy portfolio so it reflects 25% of renewable energy resources. In managing the procurement of the renewable resources the IPA is to develop a portfolio "to ensure adequate, reliable, affordable, efficient, and environmentally sustainable electric service at the lowest total cost over time, taking into account any benefits of price stability." Furthermore, the statute gives the IPA discretion to procure either unbundled RECs or bundled REC products to meet that requirement. (20 ILCS 3855/1-10 see definition of "renewable energy resources") In selecting those products the IPA should focus on long-term price stability for RECs to ensure price stability.

Within PJM and MISO there are eighteen states and the District of Columbia that have energy portfolio standards or goals. Each requires an incrementally increasing amount of energy from renewable resources, with some standards active beyond 2026. PJM and MISO will need to have enough renewable resources within their footprints for states to meet the requirements of their RPS energy portfolio standards and goals. A

shortage will result in REC price volatility. To avoid the price spikes, longer term renewable products need to be procured. Short-term REC products, while cost-effective in the short run, will not build new renewable resources. Short-term, unbundled RECs yield a fraction of the revenue needed to build new generation. Without new renewable resources the demand will cause a shortage in renewable resources resulting in a potential spike in REC prices.⁴ There is value in taking steps to avoid this price volatility. A plan that encompasses short term and long term products, procuring unbundled RECs and bundled renewable energy will provide a stream of development that will temper REC prices over the long term.

Another motivating factor for procuring a portfolio of renewable products is the potential reduction of generation capacity in PJM and MISO within the mid-term. The U.S. Environmental Protection Agency is finalizing four proposed regulations that will result in retirements or reduced usage of coal plants in MISO and PJM. These regulations are being developed now and compliance starts sometime between 2012 and 2016, depending on the regulation.

⁴ See, Peter Toomey and Eric Thumma, *Wanted: Stability in Restructured Electricity Markets*, North American Windpower (Feb. 2010).



(Draft MTEP11, Fig. 4.2-2.)

Ameren obtains approximately 75% of its energy from coal-fired power plants and ComEd obtains approximately 40% of its energy from such plants. (Ameren Illinois' Environmental Disclosure, March 31, 2011; Commonwealth Edison's Environmental Disclosure, March 31, 2011) The cost of ComEd's and Ameren's generation supply will likely be affected by the plant retirements and curtailments that will occur as a result of these regulations.

Moreover, given that the General Assembly set a renewable energy resource goal of 25% by 2025 they must have envisioned that the RPS would foster development of renewable generation that could offset the 40+ year old coal plants in the Midwest that would be retiring over the eighteen year period of the RPS. To foster development of such renewable resources, the IPA needs to use longer term renewable products that require energy delivery. Therefore, a portfolio of short, mid and long term renewable

energy products should not only be used to develop replacement renewable generation but also provide REC price stability and provide a hedge against long-term price volatility – like the IPA does in its standard energy procurement. (see 2012 Plan at 24-25 *finding* that lowest, stable prices are best achieved by using in a laddering procurement strategy)

C. Alternative Proposal that Will Provide Price Stability

Wind on the Wires recommends the IPA offer a stated portfolio of products ranging from 1 year to 20 years. Each product type and duration should have its own benchmark. The volume of multi-year products should be based on the Expected Load scenarios provided by the utilities. The multi-year products should be procured within the hard budget limit and one-year RECs outside of the hard budget limit. If the cost obligations of the multi-year bids, that are awarded contracts, exceed the hard budget limit in 2012 then the IPA is to select the method of rejecting bids.⁵ In the event of a tie between bids of similar duration and price the IPA could consider the option of rejecting the bidder who relies on an out-of-state resource because that project brings no additional benefits to the state in terms of economic development.

To allow for the easiest and most effective selection of bids, Wind on the Wires proposes that the IPA procure a portfolio of REC products with standardized terms of 1,

⁵ This proposal is not intended to be a methodology for contract curtailments, but intended to be used during bid selection (prior to contracts being signed).

5, 10 and 20 years. Standardizing contract term lengths in this way allows for the easiest comparison of bids of a similar duration and makes the bid-selection process more efficient. Without standardized durations, the IPA and procurement monitor will be forced to compare pricing of a one-year REC with that of a 20-year REC, which is not an “apples-to-apples” comparison. (*see supra*) Further, it makes the assessment of the statutorily-required preference for “benefits of price stability” that much harder to assess.

Wind on the Wires recommends that the IPA set targets for its multi-year RECs.

Wind on the Wires recommends the renewable energy portfolio for 2012 be comprised of 5/10/20 year REC products with a majority being longer term products; reflecting a portfolio split of approximately 25%/50%/25%. This would take advantage of the favorable market conditions for long term products. The tables below provide volume estimates of renewable energy that would be procured for ComEd and Ameren using the Expected Load scenarios and the Low Load scenarios.

RPS Requirement - Expected Load

	Ameren	ComEd
Reference Year Delivered Volume	16,048,235	37,106,686
Planning Year RPS Volume Target (MWh)	1,123,376	2,587,398
Lowest Planning Year RPS Volume Target in next 5 Years (MWh)	1,123,376	2,143,691
Existing LT PPAs (MWhs)	600,000	1,261,725
Remaining RPS Volume Target (Lowest Planning - Existing LT PPAs) (MWhs)	523,376	881,966

25%	20 yr RECs (MWh)	130,844	220,492
50%	10 yr RECs (MWh)	261,688	440,983
25%	5 yr RECs (MWh)	130,844	220,492
	1 Yr RECs	0	443,707

RPS Requirement - Low Load

	Ameren	ComEd
Reference Year Delivered Volume	16,048,235	37,106,686
Planning Year RPS Volume Target (MWh)	1,123,376	2,587,398
Lowest Planning Year RPS Volume Target in next 5 Years (MWh)	1,123,376	1,574,107
Existing LT PPAs (MWhs)	600,000	1,261,725
Remaining RPS Volume Target (Lowest Planning - Existing LT PPAs) (MWhs)	523,376	312,382

25%	20 yr RECs (MWh)	130,844	78,095
50%	10 yr RECs (MWh)	261,688	156,191
25%	5 yr RECs (MWh)	130,844	78,095
	1 Yr RECs	0	1,013,291

In 2011, wind energy prices dipped below 2010 levels.⁶ This is due to a number of factors including – the access to better capacity factors through higher turbine heights, improved performance and larger rotors, and the Department of Commerce and Economic Opportunity’s renewable grant program. In addition, it is expected the renewable energy prices will increase over time given the number of states within PJM and MISO that have renewable energy standards and goals that are increasing over the next 5 to 18 years. Another factor is the potential expiration of the Production Tax Credit at the end of 2012. The PTC provides a tax credit of approximately \$22/MWh. Given the foregoing factors, it is prudent for the IPA to procure a larger percentage of longer term products than shorter term products to take advantage of the potential value in the wind bid prices, given the status of the aforementioned factors affecting wind prices.

Each renewable product should have its own benchmark. Several factors impact REC pricing in today’s markets, including, but not limited to: resource type, location, duration. Because the IPA is proposing to secure RECs from multiple resource types and for multiple durations, the IPA should apply confidential benchmarks for each length and resource type (i.e., one-year solar, one-year wind, five-year solar, five-year wind, etc). Using multiple benchmarks in this way will allow the IPA to assess bids’ on their overall merits of both price and their benefits of price stability, as required by statute. In

⁶ See U.S. Department of Energy -- 2010 Wind Technologies Report, at vi-vii, *stating* “Indications from projects that came on-line in late 2010 and early 2011 suggest a price thaw, however, as a number of PPAs that start in the low-to-mid \$40/MWh range or lower have been witnessed.”; see also Figure 28.

the event that two bids for a product have an identical price, the selection of the in-state resource would acknowledge the economic benefit that project would provide Illinois above an out of state project, given all factors being equal -- including price.

The volume of multi-year RECs should be based on the utilities Expected Load scenario. The Expected Load scenario in conjunction with the net RRB proposal (also referred to as the hard budget limit in the 2012 Plan) would suffice. The hard budget limit will act as a cap on the number of multi-year RECs that may be procured. If the cost obligation of all of the multi-year REC bids that would be used to meet the RFP quantity exceeds the hard budget limit, the IPA would select the bids that would be rejected so as to reduce the cost obligation of multi-year RECs to below the hard budget limit.⁷ The multi-year REC bids that were rejected would become one year RECs.

OBJECTION #2: Tables AA, BB, CC and DD use Incorrect Planning Year Delivery Volumes

The Planning Year Projected Total Delivery Volumes used in tables AA, BB, CC and DD differ from the load forecasts ComEd and Ameren provided for the planning year 2012-2013. These differences have not been explained by the IPA. In addition, the Planning Year Delivery Volumes for ComEd in the 2012 Draft Procurement Plan were 26,796,137 MWhs and the IPA further reduced that number to 26,124,418. The

⁷ This proposal is not intended to be a methodology for contract curtailments, but intended to be used during bid selection (prior to contracts being signed).

volumes that should be used are the Expected Load numbers from the utilities five year forecasts, as reflected in the table below:

	Ameren	ComEd
Tables AA, BB, CC and DD - - Planning Year Projected Deliver Volume (MWh)	14,389,577	26,124,418
Forecasted Planning Year Volume for 2012-2013 from Utilities Five Year Load Forecast (MWh)	15,306,901 ⁸	28,376,378 ⁹

OBJECTION #3: “Hard Budget Limit” is Overly Conservative

Wind on the Wires recognizes that the IPA is attempting to find a regulatory solution for load migration and we are open to trying a reduced RRB, for the limited purpose of this procurement, to see how well it works. While we understand the 50% value to be an attempt to preserve a portion of the RRB for future procurements, we’ll note that it is unduly constraining for Ameren’s Low Load scenario. Ameren is projecting an approximate 10% drop in load between 2012 and 2017 due to migration of customers to ARES (2012 Draft Procurement Plan, Attachment C), and while Wind on the Wires couldn’t find a Low Load scenario for Ameren, there are no facts supporting that its migration will approach a 50% value.

⁸ 2012 Plan, Attachment D.

⁹ 2012 Plan, Attachment H.

If it is the IPAs intent to use this method in future procurements, we'll note that the use of 50% of the RRB is unlikely to be a satisfactory long term solution given the constraint the reduced RRB would place on larger procurement volumes that would occur in the future.

CONCLUSION

WHEREFORE, Wind on the Wires recommends that the 2012 Procurement Plan be amended to use the alternative procurement proposal described herein and correct the Planning Year Delivery Volumes used in tables AA, BB, CC and DD.

Respectfully submitted,

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