

The New Illinois Energy Bill and What It Means for Solar Development

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Background on the Illinois Power Agency

- IPA created in 2007 as part of resolution of debate on how to procure power for customers who did not switch to alternative suppliers (eligible retail customers)
- Entrusted by legislation to conduct procurement activities with transparency, objectivity, and in an ethical manner
- In 2011 became independent Agency under the oversight of the Illinois Executive Ethics Commission

- Key responsibilities include:
 - Developing annual procurement plan
 - Running competitive, pay-as-bid, procurements via third-party Procurement Administrator

IPA's Power Procurement Duties

- Procurement of energy (and capacity for Ameren Illinois) to meet the load requirements of “eligible retail customers”
- Currently serving approximately 50% of ComEd’s potentially eligible load, 40% of Ameren’s potentially eligible load, and 15% of MidAmerican’s load
 - Municipal Aggregation main driver of customer switching
- Criteria in the Illinois Power Agency Act:

“Develop electricity procurement plans 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.”

Managing Risk

- Approach has been to procure each year standard energy blocks to meet 100% of expected load in the current delivery year, 50% in the following year, and 25% in the next year.
 - This allows for a multi-year ladder approach to managing supply risks
- When analyzing power procurement approaches, Agency weighs uncertainties related to:
 - Forecast Load (customer switching)
 - Load Modifiers (weather, consumption patterns)
 - Cost of Hedging
- Agency balances value and stability through block energy procurements and balancing in real-time energy markets
 - Energy markets are liquid, supply matches demand in real time
- Renewables procurements will have a different value proposition
 - Mandated programs and procurements
 - Achieving RPS percentage goals
 - Demand may exceed supply
 - Will need to balance short term and long term costs

Prior IPA Renewables Responsibilities

- Utilities have annual RPS percentage requirements.
 - Increases each year to 25% by 2025
 - Through 2016 the IPA included in its annual procurement plan proposed procurements to meet those targets
- IPA administers the Renewable Energy Resources Fund to purchase additional renewables resources (funds collected from alternative suppliers as a portion of their RPS compliance)
- Alternative Suppliers also had a separate RPS responsibility
 - Payment of Alternative Compliance Payments for at least 50% of their load
 - Payment level designed to mirror the rate that eligible retail customers were paying for RPS compliance
 - Purchase of additional RECs (or self-supply) for the balance of RPS obligations
- In reality Illinois had multiple RPSs

The Challenges of the Original RPS

- Retail choice meant that customers could switch back and forth between utility service and alternative suppliers leading to budget and target uncertainties
 - Large wave of municipal aggregation starting in 2011 [Public Act 097-0338 enacted 8/12/2011] led to the majority of eligible retail customer load leaving utility service
 - Curtailment of ComEd long-term contracts in 2013 and 2014
- The Renewable Energy Resources Fund encountered challenges as funds were redirected to other purposes, and the wording of the law constrained its use

What Was Accomplished

- Annual REC procurements in 2008 – 2012
 - Approximately 2 million RECs annually
- Annual SREC Procurements 2015-2016
 - 105,129 total SRECs procured
- Annual wind RECs procurement for MidAmerican 2016
 - 61,198 RECs
- 2010 Long-term procurements
 - 1.2 million annual RECs for ComEd, 600,000 for Ameren. Almost all new wind
 - Only procurement that also included energy
- 2012 multi-year “Rate Stability” procurement
 - 4.8 million RECs procured
- Supplemental Photovoltaic procurements in 2015 and 2016
 - 1,200 systems developed or under development
- 2015-2017 Distributed Generation procurements
 - One winning bidder in 2015 and 2016; Six in 2017
 - One more procurement scheduled for Fall, 2017 (Apx. 8,200 RECs)

Changes Ahead!

- Public Act 99-0906 will fundamentally alter the Illinois RPS
 - Move to single RPS rather than separate mechanisms for customer taking service from alternative suppliers
 - Creation of programs as well as procurements
- Existing procurement approach is well tested and might not need significant modification for future procurements (although the size and scope of renewable resources to be procured will increase significantly)
- New programs will necessitate development of new approaches
- Other changes in law will require consideration of new policy issues

Overview of Public Act 99-0906

- Negotiations began in 2014-2015 timeframe
- Combines previously separate legislative proposals concerning zero emission credits, renewables, energy efficiency, and other regulatory reforms
- Passed by the Illinois General Assembly on December 1, 2016
- Signed into law by Governor Bruce Rauner on December 7, 2016
- Effective date of June 1, 2017

Key Components of Public Act 99-0906

- Zero-emission standard (nuclear) procurement plan and procurement events
- Expansion of and significant revisions to the state's energy efficiency portfolio standard
- Energy and low-income support program
- Rulemakings being conducted by ICC
- Massive overhaul of state's renewable energy portfolio standard and associated policies.....

Key Components of Public Act 99-0906 Related to Renewable Energy Development

- Initial forward procurements to procure new utility-scale wind and utility-scale/brownfield solar
- Revisions to state Renewable Energy Portfolio Standard and development of a Long-Term Renewable Resources Plan
 - Creation of Adjustable Block Programs for distributed generation and community solar
 - Development of the Illinois Solar for All low-income solar incentive program and associated job training opportunities
- Per-kW credit offered for new distributed generation photovoltaic systems (inverter rebate) and related changes
- Installer requirements for new generation

Long-Term Planning Legislative Findings

- Legislative finding in P.A. 99-0906 that the State should encourage “the adoption and deployment of cost-effective distributed energy resource technologies and devices, such as photovoltaics, which can encourage private investment in renewable energy resources, stimulate economic growth, enhance the continued diversification of Illinois' energy resource mix, and protect the Illinois environment; investment in renewable energy resources, including, but not limited to, photovoltaic distributed generation, which should benefit all citizens of the State, including low-income households”

Brownfield Legislative Findings

- “Developing new renewable energy resources in Illinois, including brownfield solar projects and community solar projects, will help to diversify Illinois electricity supply, avoid and reduce pollution, reduce peak demand, and enhance public health and well-being of Illinois residents.”
- “Developing brownfield solar projects in Illinois will help return blighted or contaminated land to productive use while enhancing public health and the well-being of Illinois residents.”

Overview of RPS Responsibilities

Illinois Power Agency

- Initial Forward Procurement
- Development of Long-Term Renewable Resources Procurement Plan
- Adjustable Block Programs
- Illinois Solar for All Programs
- Other Procurements per the Long-Term Plan

Utilities

- Contractual counterparties
- Job training funding
- Net metering
- Inverter Rebates

Illinois Commerce Commission

- Approval of Long-Term Plan
- Approval of contracts
- Installer certification
- ARES compliance

Initial Forward Procurements – August 2017

- Separate from the development of Long-Term Renewable Resources Plan
- Competitive procurement to secure 1 million annual RECs from new wind and 1 million annual RECs from new utility-scale solar/brownfield solar
 - Pay as bid Request for Proposals
 - 15 year contracts, delivery to start between June 2019 and June 2021
 - REC only contracts
 - Utilities will be contract counter parties, projects do not need to be in same service territory
 - Wind and first round of solar bid date expected to be August 10, 2017
 - Additional rounds of solar to be announced at a later date
- Similar future procurements expected to be part of the Long-Term Renewable Resources Procurement Plan
 - Law requires parity between new wind and solar

Initial Forward Procurement Timeline

- Draft contract released June 1
 - See: www.ipa-energyrfp.com/wind-and-solar
- Comments on contract due on June 14
- Final contract will be published June 27
- Additional information will be released this week
- Bidder webcast scheduled for June 28.
- Bidder registration June 29 through July 17
- Bid date August 10
- ICC decision on procurement results August 16

Long-term Renewable Resources Plan ("LTRRP") – August/September 2017

- Published for comment within 120 days after effective date of the statute
- 45 days for stakeholder comment
- 21 days to file with Commission for approval
- 120 day proceeding before Commission
- Approved “if the Commission determines that the plan will reasonably and prudently accomplish the requirements of Section 1-56 and subsection (c) of Section 1-75 of the Illinois Power Agency Act. The Commission shall also approve the process for the submission, review, and approval of the proposed contracts to procure renewable energy credits or implement the programs authorized by the Commission pursuant to a long-term renewable resources procurement plan approved under this Section”

<p>April</p> <ul style="list-style-type: none"> • Energy Procurement • Spring DG Procurement 	<p>May</p> <ul style="list-style-type: none"> • <u>Workshops</u> 	<p>June</p> <ul style="list-style-type: none"> • P.A 99-0906 Take Effect (6/1) • <u>Release Request For Comments (6/6)</u> • Release Draft Initial Forward Procurement Contracts • <u>Request For Comments Responses Due (6/27)</u>
<p>July</p> <ul style="list-style-type: none"> • Deadline To Release Draft ZEC Plan (7/15) 	<p>August</p> <ul style="list-style-type: none"> • Initial Forward Procurement (Wind And Solar) • IPA Releases Draft 2018 Power Procurement Plan • Energy/Capacity Procurement • Deadline To File ZEC Plan For ICC Approval • <u>Draft Plan Released</u> 	<p>September</p> <ul style="list-style-type: none"> • <u>Comments on Draft Plan Due</u> • Deadline To Release Draft Plan (9/29) • IPA Files 2018 Power Procurement Plan For ICC Approval • Fall DG Procurement Begins • Deadline For ICC To Approve ZEC Plan
<p>October</p> <ul style="list-style-type: none"> • <u>IPA Files Plan For ICC Approval</u> • IPA Issues Program Administrator RFP • Fall DG Procurement, Cont. 	<p>November</p> <ul style="list-style-type: none"> • Deadline To Hold Wind Initial Forward Procurement (11/8) • Deadline For Comments On Draft Plan (11/13) 	<p>December</p> <ul style="list-style-type: none"> • Deadline To File Plan For ICC Approval (12/4) • IPA Issues Program Administrator RFP • ICC Approves 2018 Power Procurement Plan
<p>January, 2018</p>	<p>February</p> <ul style="list-style-type: none"> • <u>ICC Approves Plan</u> • Program Administrator RFP Responses Due 	<p>March</p> <ul style="list-style-type: none"> • Program Administrator(s) Selected
<p>April</p> <ul style="list-style-type: none"> • Deadline For ICC Plan Approval (4/3) • Energy Procurement 	<p>May</p>	<p>June Through December</p> <ul style="list-style-type: none"> • <u>Programs Launch (Schedule TBD)</u>

Renewable Resources Timeline

(Draft, dates subject to change)

Color Coding

Statutory Deadline

Plan Development Schedule

Process Development Schedule

Other Renewables Schedule

Power Procurement Schedule

RPS Compliance: What's Being Developed in the LTRRP to Comply?

- Percentage-based targets – 25% by 2025 of retail sales
- Quantitative targets for new build
 - New utility-scale wind projects
 - New solar projects
- Adjustable Block Program
 - Community Solar
 - Distributed Generation
- Illinois Solar for All Program
- Use of existing contracts to help meet targets

Quantitative New Build Targets

Wind and photovoltaics

- 2,000,000 RECs delivered annually from each technology by end of 2020 delivery year
- 3,000,000 by end of 2025 delivery year
- 4,000,000 by end of 2030 delivery year
- Solar breakdown: 50% from adjustable block program (distributed generation/community solar), 40% from utility-scale projects, 2% from brownfield projects (non-community solar brownfield)
- Matching requirement between wind and PV (wind cannot get ahead of PV) for “subsequent forward procurements”
- Adjustment to plan required if wind is 200,000 RECs ahead of PV

New Technological Preferences

- Prior regime: 75% wind, 6% PV, 1% DG for overall percentage targets
- New regime: 75% from wind and PV for overall percentage targets
- IN ADDITION: “New” project requirements of RECs from utility-scale wind and RECs from PV (utility-scale, DG/community, brownfield)
- Initial forward procurements also feature wind/PV targets

Brownfield Site Photovoltaic Projects

- 2% of new PV carveout for “brownfield site photovoltaic projects”
- Brownfield PV projects are also eligible for initial forward procurements

Brownfield site PV project definition in Section 1-10 of IPA Act:

- (1) interconnected to an electric utility as defined in this Section, a municipal utility as defined in this Section, a public utility as defined in Section 3-105 of the Public Utilities Act, or an electric cooperative, as defined in Section 3-119 of the Public Utilities Act; and
- (2) located at a site that is regulated by any of the following entities under the following programs:
 - (A) the United States Environmental Protection Agency under the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended;
 - (B) the United States Environmental Protection Agency under the Corrective Action Program of the federal Resource Conservation and Recovery Act, as amended;
 - (C) the Illinois Environmental Protection Agency under the Illinois Site Remediation Program; or
 - (D) the Illinois Environmental Protection Agency under the Illinois Solid Waste Program.

Locational Preference Changes for RECs Qualifying for the Illinois RPS

- Prior regime – Illinois and adjacent states first, then elsewhere
- New regime based on effort to “maximize the State's interest in the health, safety, and welfare of its residents, including but not limited to minimizing sulfur dioxide, nitrogen oxide, particulate matter and other pollution that adversely affects public health in this State, increasing fuel and resource diversity in this State, enhancing the reliability and resiliency of the electricity distribution system in this State, meeting goals to limit carbon dioxide emissions under federal or State law, and contributing to a cleaner and healthier environment for the citizens of this State” (20 ILCS 3855/1-75(c)(1)(I))
- **Projects located in Illinois qualify as meeting this standard**
- **Projects in adjacent states *may* qualify**
 - LTRRP “shall describe in detail how each public interest factor shall be considered and weighted for facilities located in states adjacent to Illinois”

Prohibition Against RECs from Projects with Costs Recovered Through Rates

20 ILCS 3855/1-75(c)(1)(J)

- “Renewable energy credits shall not be eligible to be counted toward the renewable energy requirements of this subsection (c) if they are sourced from a generating unit whose costs were being recovered through rates regulated by this State or any other state or states on or after January 1, 2017.”
 - How to apply this standard?
 - Process (Propose in LTRRP)
 - Substance?
 - What about municipal utilities & rural co-operatives?
 - Contract termination mechanism and penalty

Adjustable Block Programs

- Three programs
 - Distributed Generation below 10 kW, upfront payment
 - Distributed Generation between 10 kW and 2 MW, 20% payment when energized, remainder over four years
 - Community Solar, 20% payment when energized, remainder over four years
- Contracts to purchase 15 years of RECs
- Long-term Plan will include proposed approach for the determination of prices, block size/schedule, application process/criteria, etc.
- Contracts will have clawback provisions to ensure REC delivery
- Detailed program rules to be developed in conjunction with Program Administrator subject to the provisions in approved Plan

Illinois Solar for All Program Goals

“The objectives of the Illinois Solar for All Program are to bring photovoltaics to low-income communities in this State in a manner that maximizes the development of new photovoltaic generating facilities, to create a long-term, low-income solar marketplace throughout this State, to integrate, through interaction with stakeholders, with existing energy efficiency initiatives, and to minimize administrative costs.”

Illinois Solar for All Programs

- Funded primarily by the Renewable Energy Resources Fund
- Four specific programs
 - Low-income Distributed Generation Incentive
 - Low-income Community Solar Project Initiative
 - Initiatives for Non-profits and Public Facilities
 - Low-Income Community Solar Pilot Projects
- Pilot projects competitively bid, other programs presumably will be based on the Adjustable Block approach
- Up to 5% of funding to community-based groups for grassroots education
- Agency will define Environmental Justice Communities (targeted for 25%) and approaches to verifying low-income eligibility
- “Each contract that provides for the installation of solar facilities shall provide that the solar facilities will produce energy and economic benefits, at a level determined by the Agency to be reasonable, for the participating low income customers.”

Community Renewable Generation Project: Key Facets, Requirements, and Restrictions

- Generating facility must be no greater than 2 MW in size
- Subscribers must be in same service territory as project
- No strict geographic proximity requirement
- Subscriptions expressed in nameplate capacity and must be at least 200 watts in size
- Any given subscription cannot constitute more than 40% of the nameplate capacity of an individual project
 - “Entities that are affiliate by virtue of a common parent” effectively have the same interest for purposes of this threshold

Virtual Net Metering – Energy Value for Community Solar Projects

- Virtual net metering allows subscribers to community solar projects to receive comparable benefits to if they had solar panels onsite
- Utilities now required to offer virtual net metering
- Utilities will file tariffs by 8/30/17
- ICC will approve tariffs by 9/29/17

Key Consumer Protection Issues

- New opportunities for Illinois residents to participate in solar opportunities also bring risks associated with aggressive/deceptive marketing and sales
- Representations around energy savings:
 - What electricity rate is used?
 - What other assumptions are made (such as how that rate changes over time)?
 - Could the use of disclosure forms standardize these representations?
- For Community Solar, what is a “subscription”?
 - It’s an “interest,” but what is an “interest?”
 - Ownership clearly is an interest; are there clear boundaries around what other contractual relationships would fit under that term?
- Should up-front fees for subscriptions be capped/prohibited?
- Should up-front deposits for subscriptions be capped/prohibited?

Environmental Justice Issues for Consideration

- Environmental Justice is a multi-faceted issue with multiple indicators that can be used to assess an Environmental Justice Community
- How to weigh various factors?
 - Income
 - Race/ethnicity
 - Other demographics
 - Environmental impacts
- How to define “community”
- What level of community self-designation should be considered (or community ability to decline designation)?
- How widely should the criteria be applied?
 - Goal is to target 25% of Illinois Solar for All incentives to Environmental Justice Communities

Opportunities for Participation

- **Initial Forward Procurement**
 - Contract comment period ending very soon (June 14)
 - Bidder registration opens June 29
 - Bid date August 10
 - There will be additional rounds for Solar
- **Long-Term Renewable Resources Procurement Plan**
 - Request for Comments responses due June 27; will help guide development of draft Plan
 - Comment on the draft Plan (September)
 - Participate in approval process before the Illinois Commerce Commission (late 2017)
- **Programs and Procurements scale up in 2018**

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