



Illinois Power Agency Power Hour Webinar 4

CEJA's Impact on Utility-Scale Solar and Wind
and Brownfield Sites

Agenda



- **Introduction and Scope of the IPA Power Hour Webinars**
- **Background on Utility-Scale Procurement Processes**
- **Background on Brownfield Site Photovoltaic Procurements**
- **Successes and Challenges With FEJA Approach**
- **Key Changes to Utility-Scale Under CEJA**
- **Key Changes to Brownfield-Site Under CEJA**
- **Subsequent Forward Procurements**
- **Procurements Under Long-Term Plan**
- **Q&A**
- **Closing**

IPA Power Hour Webinars

- **Introduction and Scope**
- Power Hour is a newly launched series of educational and informative presentations on a wide range of clean energy topics and emerging issues
- Today's Power Hour:
 - We'll discuss utility-scale solar and wind and brownfield sites procurement processes, successes and challenges with FEJA approach, key changes to utility-scale solar and wind and brownfield sites under CEJA, forward procurements and procurements under Long-Term Plan.
 - Future IPA Power Hour Webinars will cover other topical areas impacted by Public Act 102-0662

- **Introduction and Scope**

- We will not cover items from P.A. 102-0662 related to:
 - Stakeholder feedback processes related to the Adjustable Block Program opening and the Revised Long-Term Plan development
 - Specific program or procurement requirements
 - Issues outside the purview of the IPA such as:
 - Changes to ratemaking
 - Changes to net metering
 - Grant programs established and administered by the Department of Commerce and Economic Opportunity
 - Clean energy workforce hubs
 - Electric vehicle and transportation incentives

IPA Power Hour Webinars



- **Upcoming Webinars**

- **IPA Power Hour Webinar 5:** *Creating a Diverse and Equitable Energy Workforce*, Friday, December 3, 2021; 12pm-1pm CDT
- **IPA Power Hour Webinar 6:** *Decarbonization, from Coal to Renewables*, Friday, December 10, 2021; 12pm-1pm CDT
- **IPA Power Hour Webinar 7:** *Carbon Mitigation Credits and CEJA's Support for At-Risk Nuclear Plants*, Friday, December 17, 2021; 12pm-1pm CDT

- **Independent State Agency created in 2007**
- **Agency duties include**
 - **Development and implementation of procurement plans for electricity supply for default service customers**
 - **Development and implementation of other procurement plans such as those to support at-risk nuclear plants (e.g., for Zero Emissions Credits and Carbon Mitigation Credits)**
 - **Implementation of the Renewable Portfolio Standard**
 - **Development of Long-Term Renewable Resources Procurement Plan**
 - **Conduct competitive procurements for utility-scale projects**
 - **Manage programs for community solar and solar for homes and businesses**

Background on Utility-Scale Procurement Processes

What are we discussing today?

- **What is a utility-scale wind or solar project?**
 - Large-scale projects
 - Law had been over 2 MW in size, now over 5 MW
 - Geographic limitations (1-75(c)(1)(I))
- **How are these projects being supported?**
 - Long-term REC delivery contracts
 - Utility collections, utility counterparty
 - Competitive procurement processes
 - Focus on new projects
- **What is being procured?**
 - Renewable Energy Credits
 - Not energy (except 2010 LTPPAs)
 - Resulting contract = revenue certainty
- **Why support these projects?**
 - Large-scale renewables are major contributor to decarbonized, more diverse, and more resilient energy portfolio
 - Today's Power Hour is about how IL state policy supports those projects' development

Pre-FEJA (Public Act 99-0906) Structure



- **Competitive Procurement process**
 - Born out of energy procurement processes
 - Bids initially assessed for qualification
 - Bids selected on the basis of price
 - All bids subject to confidential benchmark
 - Information release limited
 - Names of winning bidders
 - Average winning bid price
- **Illinois and adjacent state preference**
- **Funded only through collections from “eligible retail customers” (default supply customers)**
 - Amount could vary significantly year to year
- **25% by 2025 target applied to ERC load**

2010 Long-Term PPAs

- **20-year Power Purchase Agreement for new projects**
 - Primarily new wind projects
 - Primarily in Illinois
- **Bundled REC + energy agreements**
 - RECs retired to meet RPS (“25% by 2025”)
 - Energy used to meet default supply requirements
- **Provided revenue certainty for new project development**
- **Costs needed to be met via future years’ collections**
- **Problems with this approach:**
 - Muni agg and customer switching
 - Resultant RPS budget declines
 - Contract curtailment

Post-FEJA Utility-Scale Structure

- **RPS via ALL retail customer load**
 - RPS goals and targets
 - Funding Increase
 - Approximately \$230 million per year for entire RPS
- **Emphasis on new projects**
 - New utility-scale project targets
 - Wind/solar balancing
- **Change to adjacent state criteria**
 - Public Interest Criteria under Section 1-75(c)(1)(I)
 - Explained through Chapter 4 of Long-Term Plan

Post-FEJA Utility-Scale Structure



- **Still competitive procurement**
 - Procurement “event,” not open enrollment like program-related projects
 - Bids selected on the basis of price
 - Payment based on RECs received
- **Post-FEJA procurement events**
 - Initial Forward Procurements
 - Subsequent Forward Procurements (wind)
 - Additional Forward Procurements (solar)
 - Selected projects (also in future slides)
 - ~2600 MW total selected
 - 1600 MW utility-scale solar
 - 1000 MW utility-scale wind
 - All but one within IL

Background on Brownfield Site Photovoltaic Procurements

Background on Brownfield Site Photovoltaic Procurements



- **Overview**
 - Introducing qualitative standards into what had been a more open-ended process
 - “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.” 20 ILCS 3855/1-5(8)
 - **Definition found in Section 1-10 of the IPA Act**
 - 4 programs to be “regulated by”
 - US EPA Comprehensive Environmental Response, Compensation, and Liability Act
 - US EPA Corrective Action Program of the federal Resource Conservation and Recovery Act
 - IL EPA Illinois Site Remediation Program
 - IL EPA Illinois Solid Waste Program

Background on Brownfield Site Photovoltaic Procurements



- **New requirement from FEJA with dedicated targets**
 - **2020, 2025, and 2030 new photovoltaic project targets**
 - **2% of overall photovoltaic target**
 - **40, 60, 80,000 RECs delivered annually**
 - **Approximate amount of installed capacity**
- **Still supported through competitive procurement process**
 - **Bids selected on the basis of price**
 - **Project qualification more complicated though**

Successes and Challenges With FEJA Approach

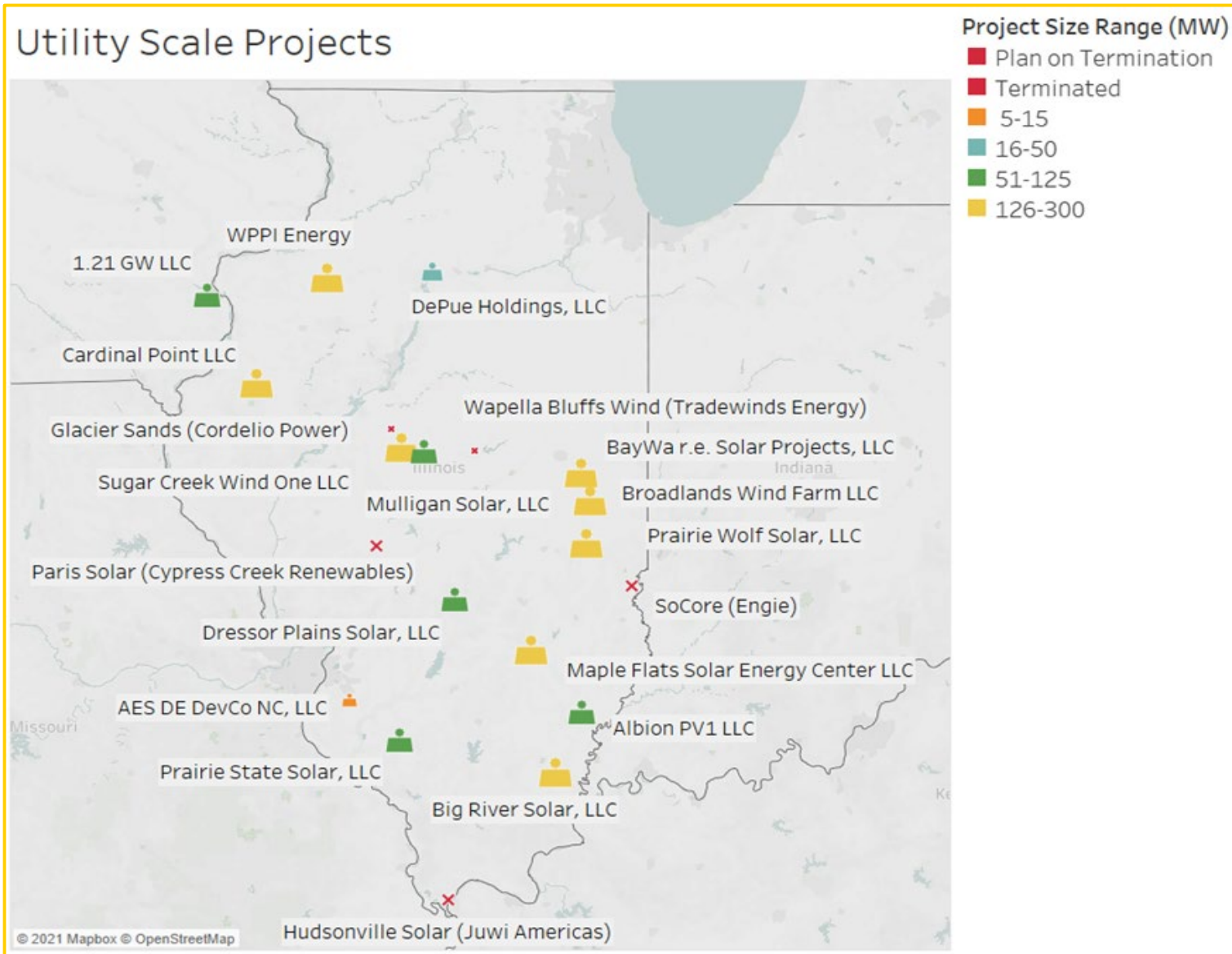
Post-FEJA Procurement Events



- **Post-FEJA procurement events**
 - **Initial forward procurements**
 - 1,000,000 RECs delivered annually from utility-scale wind
 - 1,000,000 RECs delivered annually from utility-scale solar
 - Brownfield site photovoltaic projects eligible
 - **Subsequent and Additional Forward Procurements**
 - Additional 2 million each from wind and solar
 - **First brownfield site photovoltaic procurement**
 - No selected bids (comment process thereafter)
 - **Second brownfield site photovoltaic procurement**
 - Two selected projects (exact REC prices confidential)

- **FEJA's new build targets easily met and surpassed**
 - 1,000,000 RECs delivered annually by 2020
 - 2,000,000 RECs delivered annually by 2025
- **Tremendous amount of new renewable energy development**
 - Project map on next slide
 - Chart on next slide thereafter
- **Very low prices for RECs relative to ABP**
 - Utility-scale wind in \$3-\$5 range per REC
 - Utility-scale solar in \$4-\$8 range per REC
 - Brownfield site PV more expensive (~\$50 per REC)
- **New energy development within Illinois**
 - Adjacent state criteria
 - One project from outside Illinois

Utility-Scale Project Map



Utility-Scale RECs & Installed Capacity



Installed Capacity (MW)			
	<u>Solar</u>	<u>Wind</u>	<u>Grand Total</u>
Energized	359	683	1,042
extension granted	882		882
pending	99		99
plans to terminate		287	287
terminated	260		260

RECs (Annual Quantity)			
	<u>Solar</u>	<u>Wind</u>	<u>Grand Total</u>
Energized	729,638	2,065,519	2,795,157
extension granted	1,677,991		1,677,991
pending	98,000		98,000
plans to terminate		879,234	879,234
terminated	548,702		548,702

- **Brownfield site definitional issues**
 - False negative: What does it mean to be “regulated by”? Recency?
 - False positive: Challenges with IL Site Remediation Program and real estate transaction clearance
- **Brownfield site first procurement**
 - No successful bidders
 - Comment process thereafter
 - Two successful bidders, but meager targets
- **Unsuccessful utility-scale wind procurements**
 - Two procurements with no successful bidders
 - Comment processes thereafter
 - Fixed REC price model without energy offtake viewed as untenable by developers

Challenges

- **Delivery timelines with COVID, other delays**
 - Change in IL law from 2021 to 2022 for Initial Forward Procurement first REC delivery timelines
 - Additional petitions may be coming to further extend delivery timelines
 - Similar to what we've seen in ABP and ILSFA
- **Moderate project attrition rate**
 - Approximately 25% of selected capacity
 - What is the right balance?
- **Non-RPS project development**
 - Not a bad thing, but RECs not counted toward IL RPS

Key Changes to Utility-Scale under CEJA

Key Changes to Utility-Scale

- **Changes in scale**
 - RPS budget (2.015% of 2007 rates to 4.25% of 2009 rates)
 - REC delivery targets
 - Long-Term Plan role
 - Minimum project size is slightly larger (now 5 MW)
- **Indexed REC price model**
 - Floating REC price
 - Prices changes based on assumed energy revenues
 - Provides all-in revenue certainty without IPA procuring energy from projects
 - Price collar (determined via Long-Term Plan)
 - RPS budget impacts?
 - Unknowable, but mitigated somewhat through changes to 16-108(k) and 1-75(c)(1)(E) of IPA Act
 - Utilization of price index for expected prices
 - How to plan for the longer-term?

Key Changes to Utility-Scale

- **Diversity, equity, and energy transition grants**
 - Changes to project selection criteria?
 - Energy Transition Community Grant areas
 - Workforce diversity progress
 - More general DEI-related changes to workforce requirements
- **Labor requirements**
 - Prevailing wage now expressly required
 - Project labor agreements also required
- **Large Customer Self-direct Program**
 - Discussion of mechanics
 - New avenue for private development of projects
 - RECs netted out from utility-scale procurement requirements

Key Changes to Brownfield-Site Photovoltaic Procurements under CEJA

Key Changes for Brownfield Projects



- **Definitional changes**
 - Coal-mines now included
 - Rest of definition remains the same
- **Changes in brownfield site targets**
 - Now 50/47/3 for new solar development
 - 3% of new solar projects from brownfield (vs. 2% before)
 - Overall RPS REC delivery targets rise aggressively as well
- **Different procurement mechanisms possible**
 - Determined through Long-Term Plan
 - Stakeholder feedback document on this issue outstanding
 - Workshop on November 18th
 - Comments due December 3rd
- **Community-driven community solar**
 - Not really the topic here, but worth mentioning
 - Those projects can receive a higher score for being “non-greenfield”

Subsequent Forward Procurements

Subsequent Forward Procurements



- **Timing (240 days)**
- **Categories**
 - Utility-scale wind
 - Utility-scale solar
 - Brownfield site photovoltaic
- **Quantities**
 - Actual quantities are TBD
 - Stakeholder feedback document out presently
 - Workshop on November 18th
 - Comments due December 3rd
 - Balancing competitiveness of procurement with supporting new development
- **Items not yet adopted until Long-Term Plan approval**
 - Price collar for indexed REC price
 - Alternative scoring approaches beyond price
 - Alternative procurement model for brownfield site

Procurements Under Long-Term Plan

- **Long-Term plan development timeline**
 - Stakeholder feedback document out presently
 - Workshops on November 18, 2021
 - Comments due on December 3, 2021
 - Presentation and recording available on the IPA website at:
<https://www2.illinois.gov/sites/ipa/Pages/RenewableResourcesWorkshops.aspx>
 - Draft Long-Term Plan released on January 13
- **Intersection of overall RPS targets, utility-scale specific targets, and available funds**
 - How much do we procure annually?
 - How often are our procurement events?
- **Brownfield site alternative procurement approaches?**
 - Initially will just seek existing model for first Plan
 - Others can propose alternative approaches

Upcoming Stakeholder Events



- **Upcoming Power Hours**

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- **For registration and recordings of upcoming webinars and workshops:**

LINK: <https://www2.illinois.gov/sites/ipa/Pages/Events.aspx>

(Under “About Us” on the IPA homepage)

For information on new utility-scale wind, utility-scale photovoltaic, and brownfield photovoltaic projects, visit:

<https://www.ipa-energyrfp.com/>

Questions & Answers