



ILLINOIS ADJUSTABLE BLOCK PROGRAM
PROGRAM PARAMETERS AND SRECTRADE SERVICES

October 18, 2018

- Company Overview
- Long-Term Renewable Resources Procurement Plan (LTRRPP)
 - Timeline
 - Current Resources
- Adjustable Block Program (ABP) Overview
- Next Steps
- SRECTrade Contact Information

Note. This presentation is intended only to serve as a high-level educational resource for Adjustable Block Program stakeholders and is not intended to be a complete Adjustable Block Program overview. In addition, many of the Adjustable Block Program parameters described within are still subject to change and are in the process of being finalized.

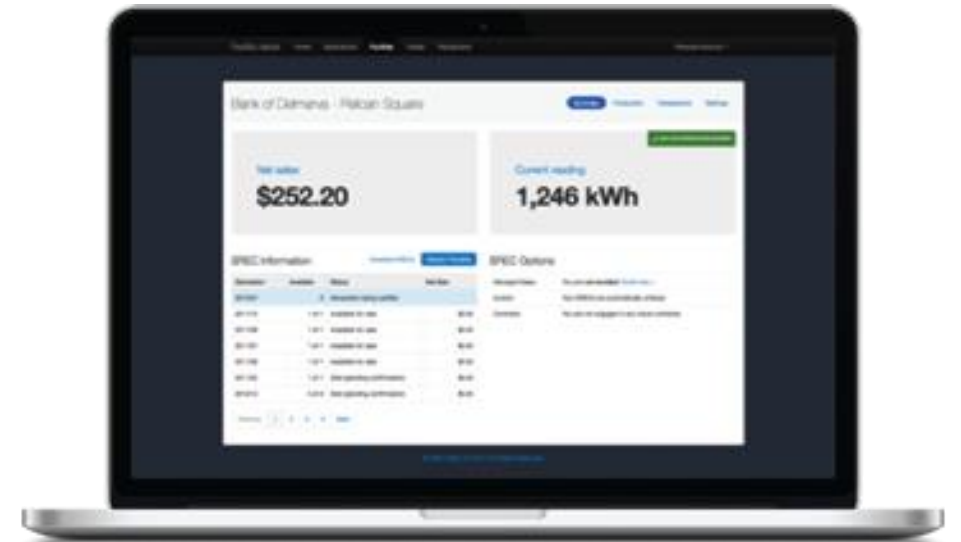
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Company Overview



- Since 2008
- 450+ MW under management
- 33,000+ facilities under management
- 100% REC focused
- Brokerage model; no principal position
- Preferred Illinois Solar Energy Association (ISEA) vendor for IPA Procurement Rounds and Adjustable Block Program
- Successful participant in all 3 SPV Procurement Rounds and both 2017 DG Procurement Rounds



- **September 29, 2017**
 - IPA released Draft LTRRPP (the “Draft Plan”); IPA accepting public comments for 45 days
- **October 26, 2017 – November 3, 2017**
 - IPA hosted three public hearings to accept in-person public comments
- **November 13, 2017**
 - Public comments were due to IPA
- **December 4, 2017**
 - Draft Plan filed to Illinois Commerce Commission (ICC) for approval (the “Filed Plan”)
- **February 26, 2018**
 - ICC issued its “Draft Order” of LTRRPP
- **April 3, 2018**
 - ICC issued its “Final Order” of LTRRPP approving and/or modifying Filed Plan

- June 4, 2018
 - IPA released final ABP REC prices in Appendix D: Renewable Energy Credit Pricing Model Description
- July 12, 2018
 - IPA selected InClime, Inc. (“InClime”) to be ABP Program Administrator*
- August 6, 2018
 - IPA released Final LTRRPP (the “Final Plan”) combining elements of Filed Plan and Final Order modifications
- September 17, 2018
 - IPA and InClime stakeholder webinar debating “Block 1 Lottery IPA Strawman Proposal”
 - Comments were due September 28, 2018
- November 1, 2018
 - InClime will open Approved Vendor applications to SRECTrade
- **Early December 2018 (projected)**
 - **SRECTrade online application window will open to clients and referral partners**
- **January 15, 2019 (projected)**
 - **InClime facility applications will open to SRECTrade**

- InClime's ABP site*:
 - <http://illinoisabp.com/>
- IPA's site:
 - Final Plan (August 6, 2018)
 - <https://www2.illinois.gov/sites/ipa/Documents/2019ProcurementPlan/Long%20Term%20Renewable%20Resources%20Procurement%20Plan%20%288-6-18%29.pdf>
 - Appendix D: Renewable Energy Credit Pricing Model Description (Updated) (June 4, 2018)
 - <https://www2.illinois.gov/sites/ipa/Documents/2018ProcurementPlan/AppendixD-June-4-2018.pdf>
 - Renewable Resources
 - https://www2.illinois.gov/sites/ipa/pages/renewable_resources.aspx
 - Includes ICC Final Order (April 3, 2018) (available for download)
 - Block 1 Lottery IPA Strawman Proposal (September 10, 2018)
 - <http://illinoisabp.com/wp-content/uploads/2018/09/ABP-Lottery-Procedure-draft-for-stakeholder-comment.pdf>
 - Filed Plan (December 4, 2017)
 - <https://www2.illinois.gov/sites/ipa/Documents/2018ProcurementPlan/LTRRPP-Filed-Long-Term-Renewable-Resources-Procurement-Plan.pdf>

- Program features capacity-based blocks set at pre-determined prices for 15-year REC contracts
- Key elements of ABP model include following:
 1. Facility Eligibility
 - Technical Facility Requirements
 - Metering Requirements
 2. Development Timeline and Extensions
 3. Block Structure and Transitions
 4. REC Target and Allocation
 5. Illustrative Block Opening Volumes (MW)
 6. Capacity Factors
 7. Final REC Prices
 8. Additional Community Solar Parameters
 9. Contract Payment Terms
 10. Performance Assurance and Delivery Requirements
 11. Facility Contract Modifications/Miscellaneous
 12. IPA and SRECTrade Fees

- Facilities must be “energized on or after June 1, 2017”
- Facility type must be:
 1. Photovoltaic distributed renewable energy generation devices (“DG solar”)
 2. Photovoltaic community renewable generation facilities (“community solar”)
- Facilities must be IL-sited, interconnected and behind-the-meter, and smaller than or equal to 2,000 kW AC
 - Interconnected with Ameren Illinois Company, Commonwealth Edison Company, MidAmerican Energy Company, Mt. Carmel Public Utility Company, or a municipal utility or rural electric cooperative interconnected in the MISO or PJM grids
 - Final Plan Section 2.5.1.1. Adjustable Block Program—Projects for facility eligibility requirements
 - Final Plan Section 4.1. for “Adjacent State Requirement”
 - Qualifying RECs can be sourced from facilities in adjacent states
 - See slides on Additional Community Solar Parameters

- Although facilities may apply prior to installation, they are required to submit a number of technical requirements, including but not limited to:
 - Information about facility location, size, and installed components (panels, inverters, etc.)*
 - Site map may be required
 - Facility-specific projected 15-year REC production
 - SRECTrade will provide default calculation, but will allow facilities to submit custom projection
 - Proof of site control and/or host acknowledgement
 - Shading study
 - In addition, for facilities larger than 25 kW AC:
 - Signed Interconnection Services Agreement
 - Evidence of having obtained all applicable non-ministerial permits
- Interconnected facilities will be required to submit:
 - Certificate of Completion (interconnection approval letter)
 - Net metering application approval letter (if applicable)
 - Photographic documentation of facility
 - PJM GATS or M-RETS unit ID
 - SRECTrade will complete facility registration in PJM GATS
- Final Plan Section 6.12.1. Technical System Requirements for full list**

**Eligible equipment includes any listed on Go Solar California equipment list <http://www.gosolarcalifornia.ca.gov/equipment/index.php>. Other equipment subject to review and may require additional documentation.*

***InClime may still make modifications to facility application requirements.*

- Facilities larger than 10 kW AC must utilize revenue grade meters (RGM)
 - Dedicated solar meters, +/- 2% accuracy
 - RGMs must adhere to ANSI C.12 standards
 - Facilities larger than 25 kW AC must utilize a “new meter”
- Facilities smaller than or equal to 10 kW AC are not required to utilize RGMs*
 - Can report from standard grade (+/- 5%) inverters or meters
- Reporting production via estimates is not allowed
- IPA’s metering standard for more information:
<https://www2.illinois.gov/sites/ipa/documents/ipa-metering-accuracy-standard-5-14-15.pdf>

- SRECTrade will require that all facilities auto-report production
- Eligible PJM GATS automated reporting technologies:

Enphase Enlighten*	Draker, Inc.	Power Factors
SolarEdge*	EG Supplies	Solar-Log WEB
ABB	inaccess, inc	SORAPRO
AlsoEnergy	Locus Energy	WisualPower
Deck Monitoring	Noveda Technologies	
- SRECTrade will help facilitate completion of reporting link process

- Not required that facilities be installed, energized, or interconnected at time of application
- All applications subject to following deadlines:
 - DG solar: 12 months after approval to be energized and interconnected
 - Community solar: 18 months after approval to be energized and interconnected *and* demonstrate sufficient subscribers
- Extensions may be granted based on:
 - Mechanical completion and/or documented legal/permitting delays
 - 6-month extension for \$25 per kW AC deposit (refunded upon completion)
 - Additional 6-month extension with additional \$25 per kW AC deposit only for community solar subscription levels (refunded upon completion)
- Should facility fail to be developed within timeline, that facility's portion of block will be forfeited and reallocated to block that is currently open
 - Can resubmit application in future, but will only be treated as new, separate application
- IPA outlines permissible extensions in Final Plan Section 6.15.2 Extensions

Note: Any applicable extension refunds are scheduled to be distributed along with facility's first/only REC payment.

- Each block has specified nameplate capacity and REC price for each block category
- When block category reaches subscription capacity, facilities become eligible for next block and next block price*
- Transition mechanics different between Block 1 and subsequent blocks, but identical between separate block categories, with exception of...
- Additional Block 1 community solar lottery rules:
 - Community solar block categories subject to two rounds of Block 1 lotteries...
 - First round for facilities with at least 50% small subscribers (up to 100% of category capacity)
 - Second round for facilities not awarded in first lottery plus those without at least 50% small subscribers (remaining 100% or more of category capacity, up to 200%)
 - Any facilities failing to meet 50% small subscriber level within one year of energization cannot claim small subscriber adder and lose 20% of total REC value
- Block 1 Lottery IPA Strawman Proposal for more information

Block 1 Transition Mechanics

- Minimum opening window for Block 1 is 14 calendar days
 - After 14 days, applications reviewed and next steps determined by capacity received
- If capacity received is less than 100%...
 - No lottery for that block category and all existing applications qualify for Block 1
 - Block 1 then held open until 45 calendar days after opening or until Block 1 is filled, whichever occurs later
 - If not filled within 45 days, IPA will announce when block category is fully subscribed and Block 1 held open for additional 14 calendar days before closing
- If capacity received is greater than or equal to 100%, but less than 200%...
 - All applications receive Block 1 pricing and Block 1 closes for that block category
 - Block 2 opens for block category with its available capacity adjusted to account for its original capacity that is now allocated to Block 1
 - Example: If Block 1 applications total 130% of Block 1 capacity, Block 2 now has 70% capacity
 - If Block 1 applications total exactly 200% of available capacity, then both Blocks 1 and 2 close and Block 3 opens

Block 1 Transition Mechanics

- If capacity received is greater than 200%...
 - Block category will have lottery to select qualifying facilities
 - Applications reviewed by InClime within 14 days of receipt for accuracy and completeness; rejected applications allowed 14 days to correct any deficiencies found
 - Failure to correct deficiencies accordingly results in exclusion from lottery*
 - Once Block 1 lottery concludes, Blocks 1 and 2 become closed
- IPA will work to conduct any Block 1 lotteries within 35 calendar days of Block 1 opening date
- Lottery randomly assigns numbers to approved applications and selections made from lowest to highest
 - If last application selected would exceed 200%, full application is still approved in entirety

Block 1 Transition Mechanics

- If over 200% of applications are approved, after Block 1 lottery...
 - If remaining, unselected applications total less than or equal to respective Block 3 capacity, all applications placed in Block 3
 - Block 3 then remains open until fully subscribed (see Block 2 and Subsequent Block Transition Mechanics)
 - If remaining, unselected applications equal Block 3 capacity, Block 3 closes
 - If remaining, unselected applications exceed respective Block 3 capacity, applications selected for Block 3 using assigned numbers from Block 1 lottery
 - Continue selections with remaining lottery numbers from lowest to highest

Block 2 and Subsequent Block Transition Mechanics

- Subsequent blocks after Block 1 held open for minimum of 45 calendar days after opening
- If subsequent block is fully subscribed within 45 days...
 - Block will remain open until 45 days has elapsed
- If subsequent block is not fully subscribed within 45 days...
 - Block will remain open until full subscribed, and then for 14 additional calendar days after
- IPA will announce when a block has been filled and when closing date will be

- Initial REC target is for 1 million RECs delivered annually by end of 2020-2021 delivery year (May 31, 2021)
 - Equates to about 666 MW AC of new PV
 - Capacity/REC targets are eligible for expansion at a later date
- Facility Category Allocations
 - Section 1-75(c)(1)(K) of the Act requires a 25% each allocation for four categories:
 - DG PV facilities smaller than or equal to 10 kW AC (“Small”)
 - DG PV facilities greater than 10 kW AC and up to 2,000 kW AC (“Large”)
 - PV community solar
 - Remaining “discretionary capacity” to be allocated by IPA
 - Could be used to increase capacity available in Block 3 and/or to create additional blocks

Illustrative Block Opening Volumes (MW)



Block Group	Block Category	Block 1	Block 2	Block 3
Group A (Ameren, MidAmerican, Mt. Carmel, and Municipal Utilities and Rural Electric Cooperatives located in MISO)	Small	22	22	5.5
	Large	22	22	5.5
	Community Solar	22	22	5.5
Group B (Commonwealth Edison and Municipal Utilities and Rural Electric Cooperatives located in PJM)	Small	52	52	13
	Large	52	52	13
	Community Solar	52	52	13
Total	All	222	222	55.5

25% Discretionary Capacity – 166.5 MW – placement TBD by IPA discretion

- Standard net capacity factors (adjusted for degradation over 15-year term):
 - 16.42% fixed
 - 19.32% tracking
- Facilities can submit custom capacity factors for projected REC production
 - Subject to review and approval by InClime
- REC quantity formula:
 - [insert kW AC] * [insert capacity factor] / 1,000 * 8,760 * 15
- Projected REC production based on standard net capacity factors is...
 - **Fixed: 21.57588 RECs over 15 years per 1 kW AC**
 - **Tracking: 25.38648 RECs over 15 years per 1 kW AC**
- Final Plan Section 6.14.5. for Converting System Size into REC Quantities

Notes: REC contract value is NOT based on actual REC production, but rather above formulas for projected REC production.

IPA used a 0.5% per year average output degradation factor to calculate standard capacity factors.

Final Plan Section 6.14.5. does not make it clear if or when rounding occurs for the REC quantity formula.

Final REC Prices



- Pricing decreases by 4% each block (ex. from Block 1 to Block 2, etc.)
 - IPA can implement any adjustment less than 25% of REC price without formal ICC approval
- Note co-located community solar REC pricing for co-located facilities exceeding 2 MW AC in aggregate size

Block Group	Block Category	Block 1	Block 2	Block 3	
Group A (Ameren, MidAmerican, Mt. Carmel, and Municipal Utilities and Rural Electric Cooperatives located in MISO)	Small	<=10 kW	\$85.10	\$81.70	\$78.43
	Large	>10 – 25 kW	\$78.70	\$75.55	\$72.53
		>25 – 100 kW	\$64.41	\$61.83	\$59.36
		>100 – 200 kW	\$52.54	\$50.44	\$48.42
		>200 – 500 kW	\$46.85	\$44.98	\$43.18
		>500 – 2,000 kW	\$43.42	\$41.68	\$40.02
	Community Solar	<=10 kW	\$96.12	\$92.28	\$88.58
		>10 – 25 kW	\$87.07	\$83.59	\$80.24
		>25 – 100 kW	\$70.95	\$68.11	\$65.39
		>100 – 200 kW	\$60.47	\$58.05	\$55.73
		>200 – 500 kW	\$55.46	\$53.24	\$51.11
		>500 – 2,000 kW	\$52.28	\$50.19	\$48.18
		Co-Located >2 MW	\$47.03	\$45.15	\$43.34
	Group B (Commonwealth Edison and Municipal Utilities and Rural Electric Cooperatives located in PJM)	Small	<=10 kW	\$72.97	\$70.05
Large		>10 – 25 kW	\$73.23	\$70.30	\$67.49
		>25 – 100 kW	\$65.61	\$62.99	\$60.47
		>100 – 200 kW	\$53.75	\$51.60	\$49.54
		>200 – 500 kW	\$48.07	\$46.15	\$44.30
		>500 – 2,000 kW	\$44.64	\$42.85	\$41.14
Community Solar		<=10 kW	\$91.89	\$88.21	\$84.69
		>10 – 25 kW	\$82.82	\$79.51	\$76.33
		>25 – 100 kW	\$66.65	\$63.98	\$61.42
		>100 – 200 kW	\$56.12	\$53.88	\$51.72
		>200 – 500 kW	\$51.09	\$49.05	\$47.08
		>500 – 2,000 kW	\$47.88	\$45.96	\$44.13
		Co-Located >2 MW	\$42.59	\$40.89	\$39.25

Additional Community Solar Parameters



- Individual subscribers limited to 40% of facility's total capacity
- Client and facility must be within same utility territory
- Must demonstrate at least 50% subscribership at time of energization
- Initial REC payment based on subscriber levels at energization
 - Potential true-up REC payment will be based on final and ongoing subscriber levels, whether payment increases or decreases
 - Approved Vendors required to complete annual report with subscriber information
 - Quarterly report for first year
- Max REC quantity based on subscription level after one year of operation
 - Ex. Facility is projected to produce 1,000 RECs/year and only 95% of facility is subscribed after one year; REC quantity value for payments is 950 RECs/year
 - Ownership and any subsequent transfer of remaining 5% of RECs outside of utility contract
- Co-location permitted for up to 4 MW of community solar on same or adjacent land parcels (see Community Solar Co-location sub-section)

Additional Community Solar Parameters



- Additional pricing adders for small subscribers (see table below)
 - Small subscriber defined as customer with subscriptions below 25 kW AC
 - If small subscriber level not met at energization, adder withheld from initial payment and facility will have to wait one quarter to demonstrate in next report that it has met small subscriber level corresponding with adder
 - Once small subscriber level is met, full adder added pro-rata to remaining payments
- If community solar facility fails to have enough subscribers by energization, but meets DG facility definition, it may request to be recategorized as DG facility and receive REC payment at lesser of original price and current DG block price
 - DG facilities can make vice-versa request, but any facility may only be recategorized one time

% Small Subscriber Participation	Group A Adder (Ameren, etc.)	Group B Adder (ComEd, etc.)
<25%	\$0.00	\$0.00
>=25% and <50%	\$11.17	\$10.88
>=50% and <75%	\$22.34	\$21.77
>=75%	\$33.51	\$32.65

- Approved facilities are paid on the following schedules:
 - **DG facilities smaller than or equal to 10 kW:** full contract paid upfront “at the time that the facility producing the [RECs] is *interconnected...and energized.*”
 - **DG facilities larger than 10 kW and community solar:** 5-year payment term, with 20% paid at time of interconnection and energization and remaining portion “paid ratably over the subsequent 4-year period.”
 - Law does not specify required payment schedule for subsequent 4-year period, but IPA proposed quarterly schedule for period
- “Energized” refers to “completion of the interconnection approval by local utility and registration of system in GATS or M-RETS so that generation data can be tracked and RECs created.”
 - SRECTrade will complete facility registration in PJM GATS
 - Both processes must complete before contracts can be paid
- Final Plan Section 6.6. Payment Terms for additional details

Performance Assurance and Delivery Requirements SRECTrade

- Approved Vendor will be required to post collateral equal to 5% of total contract value upon application approval
 - Approved Vendors may elect to have utility withhold collateral amount from first REC payment
 - Collateral can also be deposited in form of cash or letter of credit
- Failure to deliver RECs will result in utility drawing on collateral to be compensated for undelivered RECs
 - 5% collateral level must be maintained for life of contract
 - If utility draws on collateral to compensate, collateral must be refilled to 5% level
- Tentative schedule for assessing under-delivery is rolling three-year average
- Overproduction can be carried forward for life of contract, however no additional compensation will be granted for remaining overproduction when contract expires
 - Overproduction by one REC in Year 1 can be used for underproduction in Year 15

- Once facility is energized, it is required to start REC deliveries
 - Facilities larger than 5 kW AC must deliver first REC within 90 days of energization and PJM GATS registration
 - Facilities smaller than or equal to 5 kW AC must deliver first REC within 180 days of energization and PJM GATS registration
- 15-year delivery term will start with month following first REC delivery
- REC delivery obligations managed at batch level, not at individual facility level
 - One facility's underperformance in a given period can be offset by another facility's overperformance in same or prior period, as long as overperforming facility is in same contract batch

Community Solar Co-location

- Community solar facilities can be co-located up to a maximum size of 4 MW AC
 - Can be two 2 MW facilities on one land parcel OR
 - One 2 MW facility on each of two adjacent land parcels
- Land parcels may not have been divided within two years of ABP application submission
 - If parcel was divided within time period, size limits apply to boundaries of original parcel
- If there are multiple facilities owned or developed by single entity (or its affiliates) located on one parcel of land, or on contiguous parcels of land, size-based adders based on total size of facilities
- Final Plan Section 7.3.1. Co-location Standard for additional details

DG Co-location/Expansions

- Total capacity of DG facilities energized after June 1, 2017 at single location will be considered single facility
- If facility is expanded after entering contract, IPA may revise incentive amounts paid for original facility and can set new incentives based on total, expanded facility size rather than treat expansion separately
 - Unclear how incentive revision will be processed
- Final Plan Section 6.5.2. Co-location of Distributed Generation Systems for more information
- Final Plan Section 7.3. Co-location of Projects for more information on community solar co-location

Force Majeure

- In force majeure-type circumstances (including, but not limited to, physical damage from a natural disaster, etc.), Approved Vendor can request to have delivery obligation eliminated, reduced, or suspended without penalty
 - Both IPA and utility counterparty will need to approve request
- Approved Vendor will have to demonstrate that appropriate measure(s) were taken to resolve force majeure issues but that outcome(s) are inadequate to restore facility
- Approved suspensions of delivery obligations will extend contract end-date for 15-year timeline
- Final Plan Section 6.16.2. Options to Reduce REC Delivery Obligations for more information

Ownership Transfers

- Process for ownership transfers not outlined in Final Plan
- SRECTrade is waiting for InClima to clarify any additional parameters related to ownership transfers

Modification of Initial Technical Specifications

- Required disclosure of any technical facility modifications from initial application and installation completion
- If proposed facility size is smaller than or equal to 10 kW AC and final facility size is larger than 10 kW AC, REC value and payment terms will be adjusted to “Large” schedule
- Quantity of RECs used for payment calculation will be lesser of:
 - RECs calculated based on proposed facility size and capacity factor
 - RECs calculated based on final facility size and capacity factor
- Approved Vendor can cancel and resubmit facility application if final size is larger than proposed, or if facility is changing from DG to community solar, or vice-versa
 - Resubmission would require new application fee
- Final Plan Section 6.15.3. Project Completion and Energization for additional details

- **IPA Fees**
 - Facilities pay one-time, non-refundable application fee of \$10.00 per kW AC, not to exceed \$5,000.00 (to compensate administrative costs)
- **SRECTrade Fees**
 - SRECTrade standard management and transaction fees will be assessed upon payment of contract funds to facility owner. Fee structure will depend on facility size and rates will be finalized shortly
- **SRECTrade Referral Partnership Program**
 - Referral partners will receive referral payments for signing clients up with SRECTrade. Payment rates will depend on facility size and will be finalized shortly

- SRECTrade to host webinars over coming months to review final ABP parameters, consumer protection requirements, and SRECTrade on-boarding process (dates to be announced)
- Pending ABP events/timeline:
 - November 1, 2018
 - InClime will open Approved Vendor applications to SRECTrade
 - **Early December 2018** (projected)
 - **SRECTrade online application window will open to clients and referral partners**
 - **January 15, 2019** (projected)
 - **InClime facility applications will open to SRECTrade**



Facility Owners:
clientservices@srectrade.com
(415) 763-7732 x1

Developers/Installers:
installers@srectrade.com
(415) 763-7732 x2