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Protecting the Midwest's Environment and Natural Heritage

Illinois Future Energy Jobs Act: Making Illinois a Renewable Energy Leader

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Spring 2018 Conference



Overview of Presentation

- National context
- Illinois RPS 101
- Key implementation issues
- What's next?

The Future Energy Jobs Act

SB 2814 / Public Act 99-0906

<http://www.ilga.gov/legislation/publicacts/99/PDF/099-0906.pdf>



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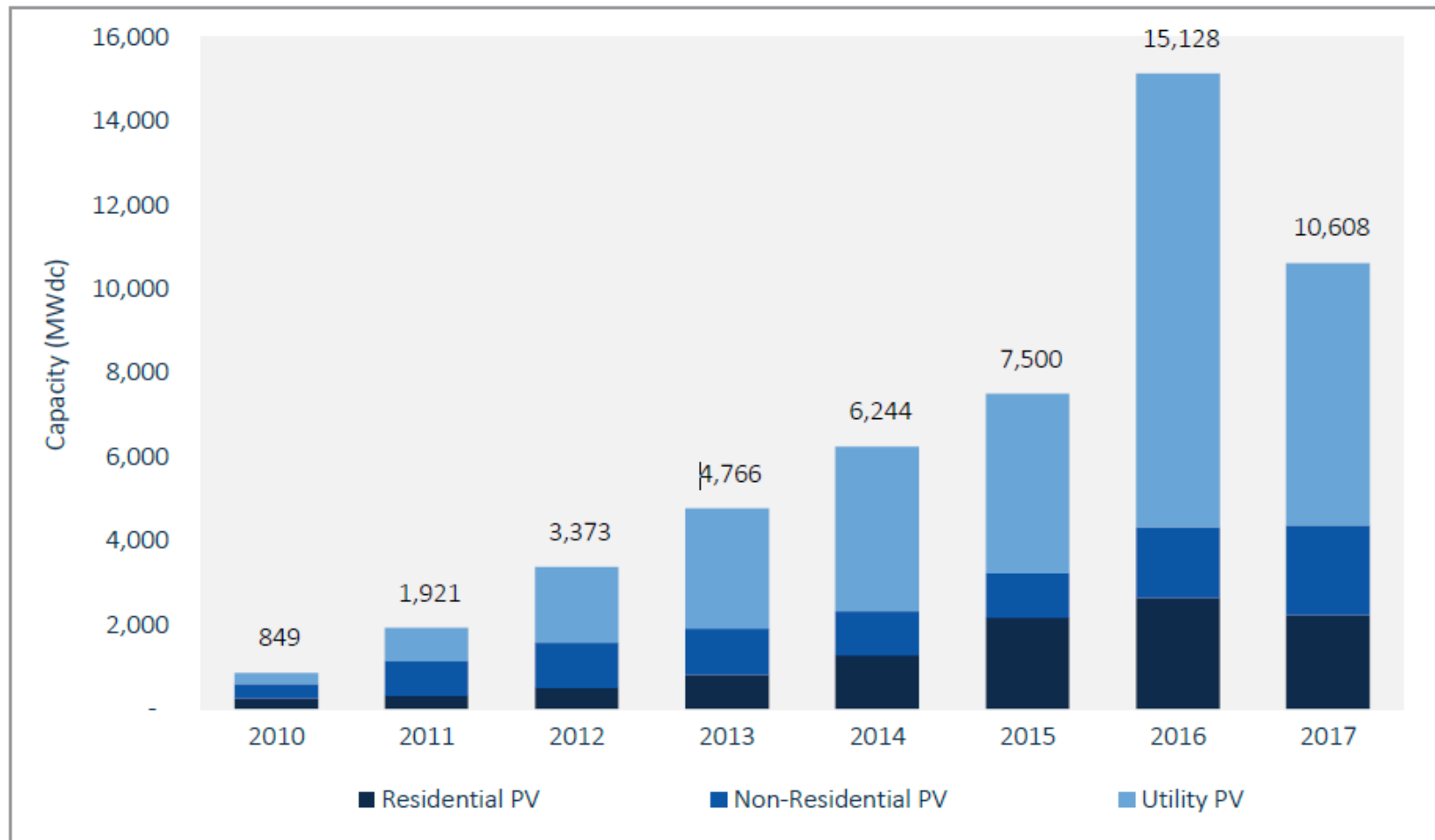
- What's in?
 - Renewable Energy
 - Energy Efficiency
 - Nuclear
- What's out?
 - Coal
 - Demand charges
 - Microgrids / Electric Vehicles

National solar market contracted in 2017, but expected to keep growing.



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Figure 1.1 U.S. Annual PV Installations, 2010-2017



Illinois has historically trailed the PV pack.



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Figure 1.2 State PV Installation Rankings by 2017 Installations

State	Rank			Installations (MW _{dc})		
	Cumulative	2016	2017	Cumulative	2016	2017
California	1	1	1	19,817.7	5,225.2	2,603.8
North Carolina	2	4	2	4,308.3	1,014.3	1,201.3
Florida	10	9	3	1,355.2	404.7	748.8
Texas	7	6	4	1,874.2	676.9	654.0
Massachusetts	6	8	5	2,011.1	460.3	461.4
••••						
Illinois	33	38	40	83.8	5.2	13.5

GTM Research / SEIA (2018)

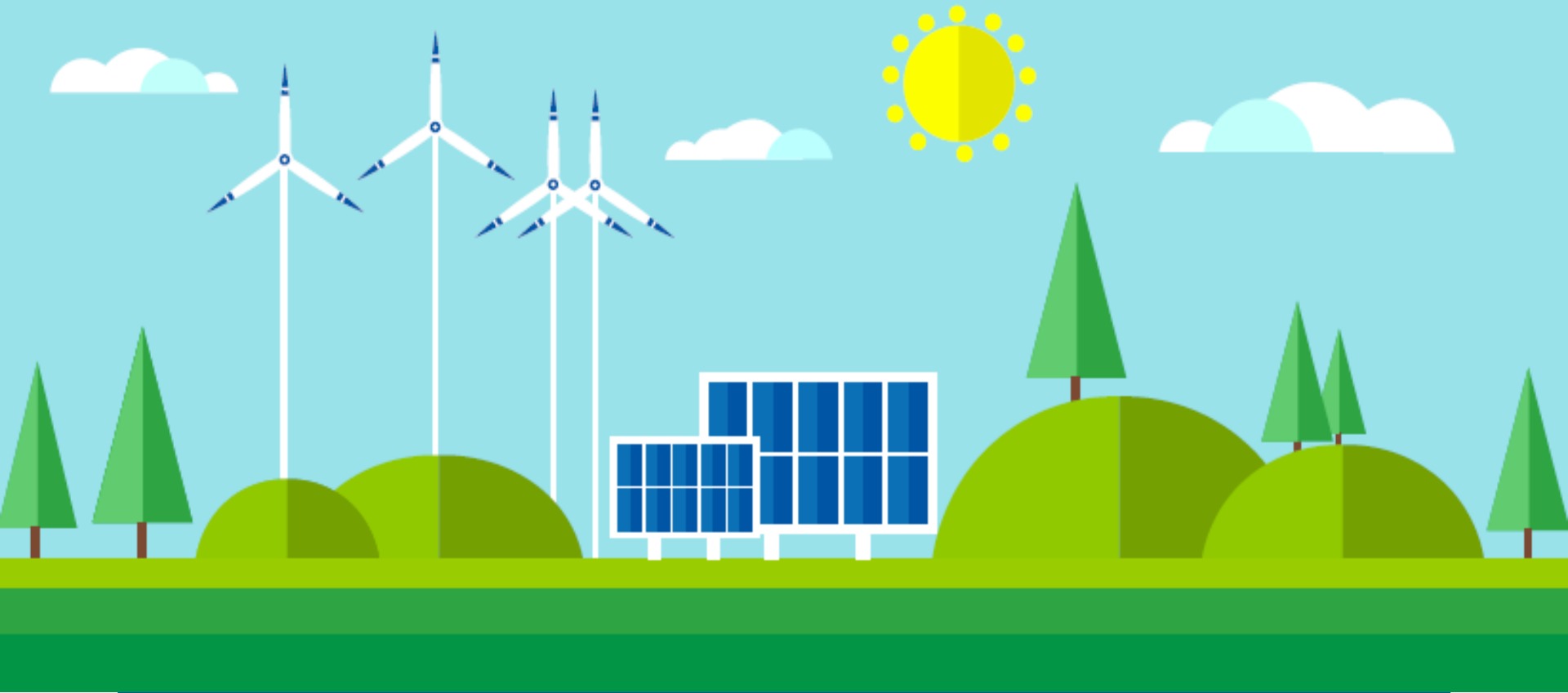
But FEJA puts Illinois on the map as among nation’s leaders!

Targeting 25% Renewable

Illinois' Renewable Portfolio Standard (RPS) targets 25% renewable energy with an emphasis on the development of new renewable resources. Developing new resources is necessary to begin building the portfolio of renewables needed to meet the 25% goal.

Significant Renewable Deployment by 2022

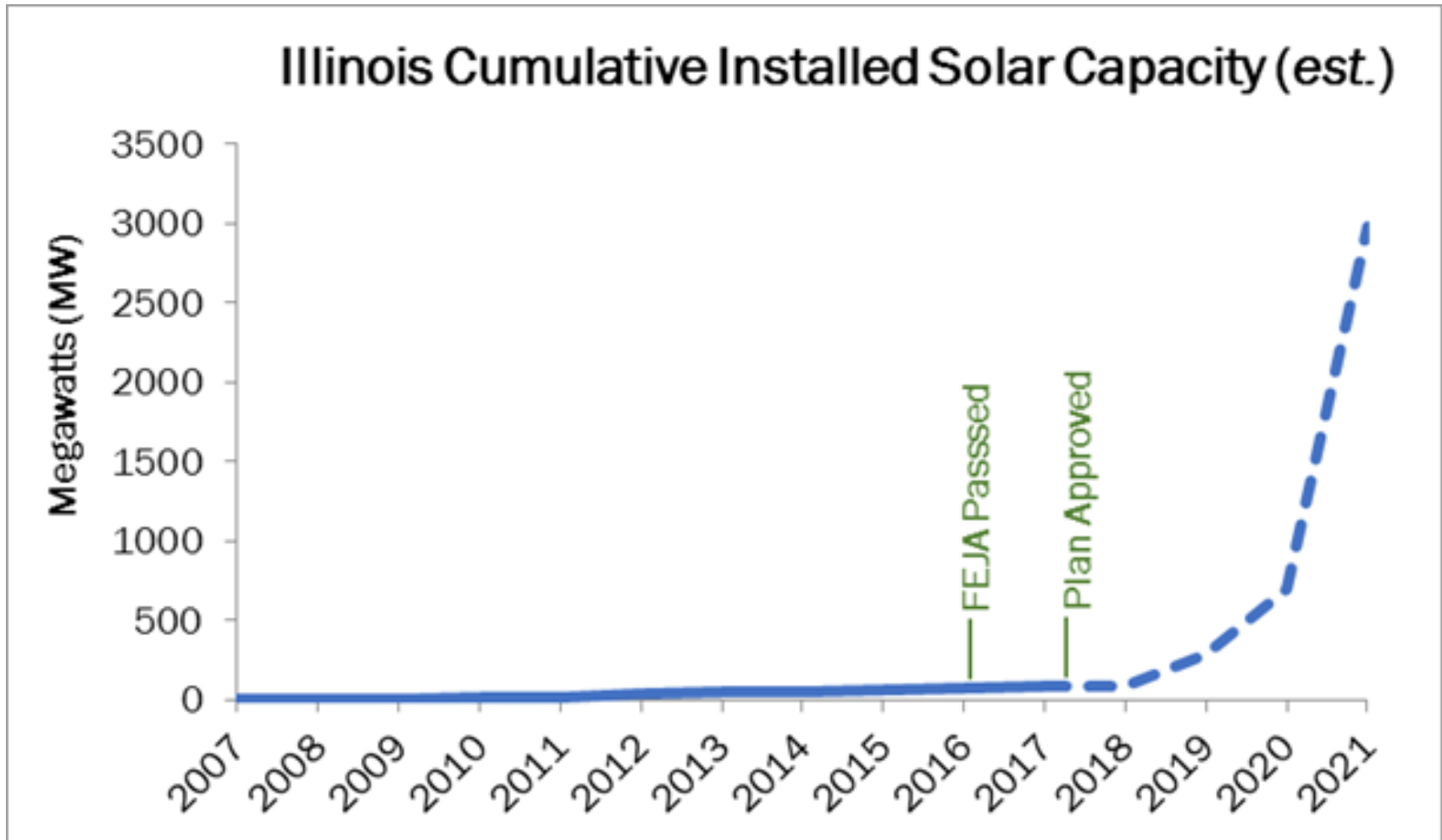
	Installed in IL today	New Development Under Plan (est.)
Wind	4,330 MW	+1,300 MW
Solar	84 MW	+2,800 MW



FEJA will catalyze rapid PV growth...



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... making Illinois a national solar bright spot.



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“In light of the recently imposed Section 201 tariffs, Illinois is one of the few non-residential markets that may be insulated from increased module prices.”

GTM Research / SEIA : Solar Market Insight, 2017 Year in Review

... making Illinois a national solar bright spot.



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Our (member) companies are looking at the Midwest as emerging markets. The state that people are really excited about is Illinois ...

Sean Gallagher, VP State Affairs, SEIA, (PV Magazine 2017)



Elements of Illinois RPS “Fix”

- Long-term planning
- Stable, secure budget (~\$200M/year)
- “New build” for wind/solar
- New programs:
 - Distributed Generation
 - Community Solar
 - “Solar for All”
 - Brownfield Solar



Illinois RPS Post FEJA

RPS: 25% of Energy from Renewables by 2025

75% Wind or PV

Remaining 25%

New wind

New solar

50+%

40+%

2+%

Adjustable Block

Utility

Brownfield

25+%

25+%

25+%

Small DG

Large DG

Community

New Build

To count towards RPS requirements

IL Solar For All*
(Low Income Solar)

*Separate job training.

Long-term renewable resources procurement plan (LTRRP)

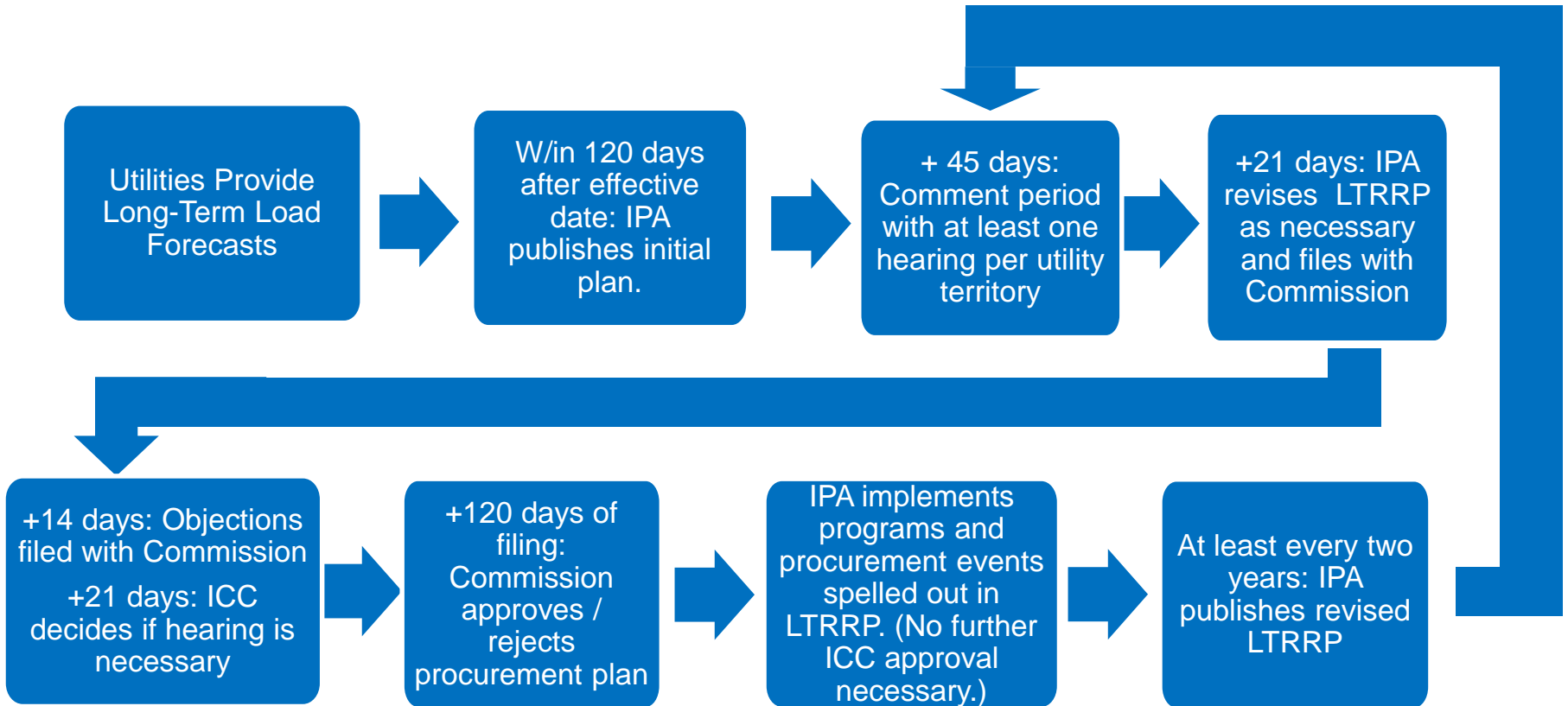


- 20 ILCS 3855/1-75(c)(1): **The Agency shall develop a long-term renewable resources procurement plan** that shall include procurement programs and competitive procurement events necessary to meet the goals set forth in [the RPS statute.]
- 220 ILCS 5/16-111.5(b)(5): The initial long-term renewable resources procurement plan and all subsequent revisions shall be **subject to review and approval by the Commission.**
- 220 ILCS 5/16-111.5(b)(5)(ii)(D): The Commission **shall approve** the [LTRRP] **if** the Commission determines that the plan will **reasonably and prudently accomplish the requirements** of [the RPS statute].

RPS Long-Term Plan Procurement Planning Process



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Planned Utility Scale Wind and Solar Procurements:



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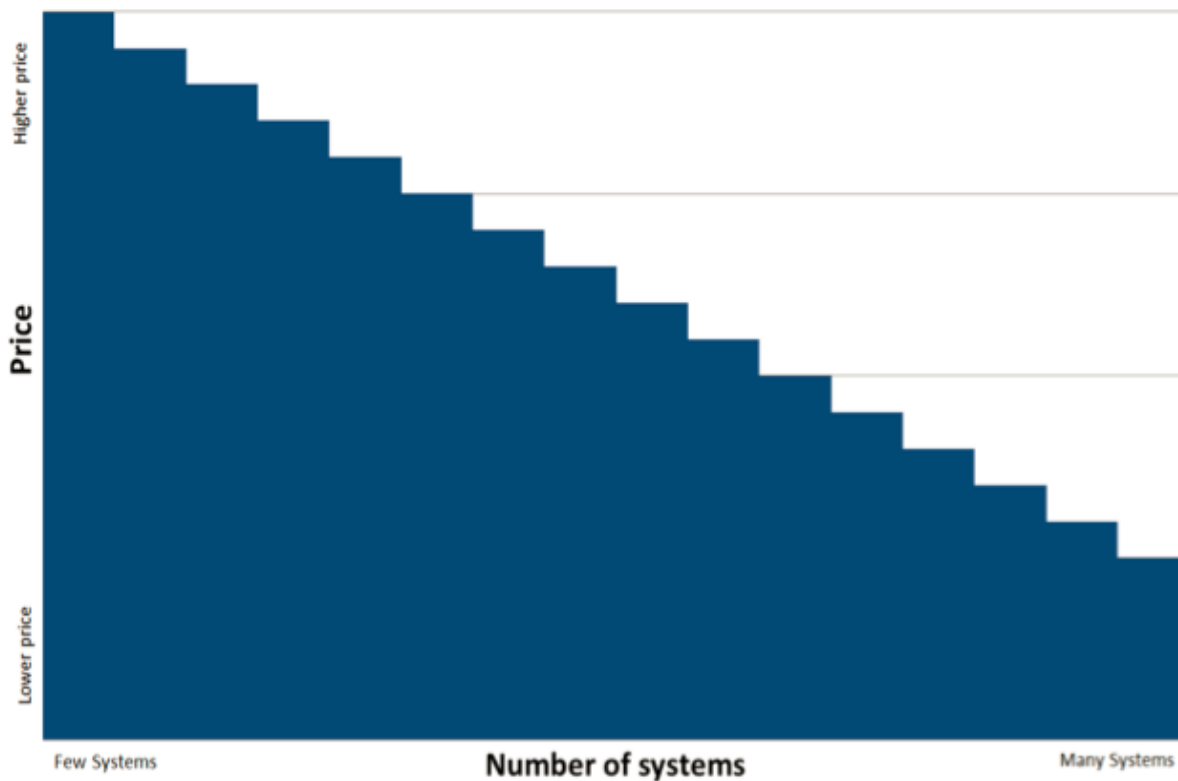
- Competitive procurements for 15-year REC contracts
- Initial Forward Procurements:
 - new utility scale wind: ~ 325 MW (Aug 2017)
 - new utility-scale solar: ~ 675 MW (Aug 2017 – June 2018)
- Subsequent Forward Procurements:
 - 1st Subsequent Wind: ~ 650 MW (summer 2018)
 - Brownfield Solar: ~ 60 MW (summer 2018)
 - 1st Subsequent PV: ~ 1,300 MW (spring 2019)
 - 2nd Subsequent Wind: ~ 300 MW (fall 2019)
 - Community Renewable non-solar: TBD MW (TBD)



DG / Adjustable Block Program

20 ILCS 3855/1-75(c)(1)(K), (L), and (M)

Example of a Declining Block Program



- Separate “tranches” for:
- DG under 10 kW
 - DG up to 2 MW (subcategories possible)
 - Community Solar

Contract / payment terms allow for up-front payments for 15-year stream of RECs

Community Solar

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



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– Requirements:

- Systems up to 2 MW
- Need at least three subscribers
- 200 W minimum subscription
- Subscriptions portable and transferable within same utility service territory.

– Compensation:

- Bill credits at supply rate
- RECs through “adjustable block” program
- \$250/kW up-front rebate



Key RPS Implementation Issues:

- Interconnection
- Land use planning
- Co-op & muni implementation
- Solar For All
- DG value / NEM transition
- Distribution system planning & integration



What's next?

- RPS. RPS. RPS. (We can't take our eyes of the ball.)
- But we also need to start thinking about:
 - Statewide storage policy.
 - Electric vehicles.
 - Path to fully decarbonized and equitable power sector.



Appendix / Statutory Excerpts

- IPA Renewable Resources Page:
https://www2.illinois.gov/sites/ipa/Pages/Renewable_Resources.aspx
- ICC Long-Term Renewable Resources Planning Docket (No. 17-0838)
 - Docket: <https://www.icc.illinois.gov/docket/casedetails.aspx?no=17-0838>
 - Final Order: <https://www.icc.illinois.gov/docket/files.aspx?no=17-0838&docId=268837>
- ELPC Resources:
 - Solar Energy website: <http://elpc.org/issues/clean-energy/solar-energy/>
 - Illinois RPS Fact Sheet: <http://elpc.org/wp-content/uploads/2018/04/2018-FactSheet-IllinoisRPSFixSummary.pdf>

New Wind/Solar Requirements

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



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(iii) By the end of the 2030 delivery year:

At least 4,000,000 renewable energy credits for each delivery year shall come from **new wind projects**; and

At least 4,000,000 renewable energy credits for each delivery year shall come from **new photovoltaic projects**; of that amount, to the extent possible, the Agency shall procure: at least 50% from solar photovoltaic projects using the program outlined in subparagraph (K) of this paragraph (1) from **distributed renewable energy generation devices or community renewable generation projects**; at least 40% from **utility-scale solar projects**; at least 2% from **brownfield site photovoltaic projects** that are not community renewable generation projects; and the remainder shall be determined through the long-term planning process described in subparagraph (A) of this paragraph (1).

DG / Adjustable Block Program

20 ILCS 3855/1-75(c)(1)(K), (L), and (M)



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(K) The long-term renewable resources procurement plan developed by the Agency in accordance with subparagraph (A) of this paragraph (1) shall include an **Adjustable Block program** for the procurement of renewable energy credits from new photovoltaic projects that are **distributed renewable energy generation devices or new photovoltaic community renewable generation projects**. The Adjustable Block program shall be designed to provide a **transparent schedule of prices and quantities** to enable the photovoltaic market to scale up and for renewable energy credit prices to adjust at a predictable rate over time. The prices set by the Adjustable Block program can be reflected as a set value or as the product of a formula. The Adjustable Block program shall include for each category of eligible projects: **a schedule of standard block purchase prices to be offered; a series of steps, with associated nameplate capacity and purchase prices that adjust from step to step**; and automatic opening of the next step as soon as the nameplate capacity and available purchase prices for an open step are fully committed or reserved. Only projects energized on or after June 1, 2017 shall be eligible for the Adjustable Block program. For each block group the Agency shall determine the number of blocks, the amount of generation capacity in each block, and the purchase price for each block, provided that the purchase price provided and the total amount of generation in all blocks for all block groups shall be sufficient to meet the goals in this subsection (c).

DG / Adjustable Block Program

20 ILCS 3855/1-75(c)(1)(K), (L), and (M)



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The Adjustable Block program shall include at least the following block groups in at least the following amounts, which may be adjusted upon review by the Agency and approval by the Commission as described in this subparagraph (K):

- (i) **At least 25%** from distributed renewable energy generation devices with a nameplate capacity of **no more than 10 kilowatts**.
- (ii) **At least 25%** from distributed renewable energy generation devices with a nameplate capacity of more than 10 kilowatts and **no more than 2,000 kilowatts**. The Agency may create sub-categories within this category to account for the differences between projects for small commercial customers, large commercial customers, and public or non-profit customers.
- (iii) **At least 25%** from photovoltaic **community renewable generation projects**.
- (iv) The remaining 25% shall be allocated as specified by the Agency in the long-term renewable resources procurement plan. The Adjustable Block program shall be designed to ensure that renewable energy credits are procured from

Community Renewables

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



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(N) The long-term renewable resources procurement plan required by this subsection (c) shall include a **community renewable generation program**. The Agency shall establish the terms, conditions, and program requirements for community renewable generation projects **with a goal to expand renewable energy generating facility access to a broader group of energy consumers, to ensure robust participation opportunities for residential and small commercial customers and those who cannot install renewable energy on their own properties**. Any plan approved by the Commission shall allow subscriptions to community renewable generation projects to be **portable and transferable**. For purposes of this subparagraph (N), "portable" means that subscriptions may be retained by the subscriber even if the subscriber relocates or changes its address within the same utility service territory; and "transferable" means that a subscriber may assign or sell subscriptions to another person within the same utility service territory.

Electric utilities shall provide a **monetary credit** to a subscriber's subsequent bill for service for the proportional output of a community renewable generation project attributable to that subscriber as specified in Section 16-107.5 of the Public Utilities Act. The Agency shall purchase renewable energy credits from subscribed shares of photovoltaic community renewable generation projects through the **Adjustable Block program** described in subparagraph (K) of this paragraph (1) or through the Illinois Solar for All Program described in Section 1-56 of this Act. The electric utility shall purchase any unsubscribed energy from community renewable generation projects that are Qualifying Facilities ("QF") under the electric utility's tariff for purchasing the output from QFs under Public Utilities Regulatory Policies Act of 1978.

“Solar for All” (Low-Income) Program

20 ILCS 3855/1-56



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The Illinois Power Agency Renewable Energy Resources Fund shall also be used to create the Illinois Solar for All Program, which shall include incentives for **low-income distributed generation and community solar projects**, and other associated approved expenditures. 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.

DG “Locational Value” Rebate

220 ILCS 5/16-107.6



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(e) When the total generating capacity of the electricity provider's net metering customers is equal to 3%, the Commission shall open an investigation into an annual process and formula for calculating the value of rebates for the retail customers described in subsections (b) and (f) of this Section that submit rebate applications after the threshold date for an electric utility that elected to file a tariff pursuant to this Section. The investigation shall include diverse sets of stakeholders, calculations for valuing distributed energy resource benefits to the grid based on best practices, and assessments of present and future technological capabilities of distributed energy resources. **The value of such rebates shall reflect the value of the distributed generation to the distribution system at the location at which it is interconnected, taking into account the geographic, time-based, and performance-based benefits, as well as technological capabilities and present and future grid needs.**



Utility tariff filings with the ICC

- **Lines charge:** Utility shall “place new tariffed charges into effect” beginning with the June 2017 monthly billing period. (Sec. 16-108(k), p 299)
- **Community solar bill crediting:** utilities shall file a tariff within 90 days of the effective date of the act. ICC shall approve/modify within 120 days of effective date of the act. (Sec. 16-107.5(l-5), page 272)
- **DG interim rebate:** utilities shall “file a petition” with the ICC requesting approval of a tariff to provide a DG rebate. (p 277) The ICC must issue an order within 240 days after the utility files its tariff (p 281) but it does not appear that the utility has a deadline to file the tariff. (Sec. 16-107.6(b) , p 277)
- **DG locational value rebate:** ICC shall “open an investigation into an annual process and formula for calculating the value of rebates” when NEM capacity hits 3%. (Sec. 16-107.6(e), p 282)
- **Alternative compliance payments:** All ARES ACPs “shall be remitted to the applicable electric utility beginning with the delivery year commencing June 1, 2017.” Utility tariffs filed within 30 days following the effective date of the act and approved no later than 45 days after its filing. (Sec. 16-111D(d)(4.5), p 453)