

Programs for Rural Communities

May 24, 2017

Agenda

- 12:30 p.m. – 1:00 p.m. Welcome and introductions
- 1:00 p.m. – 2:00 p.m. Overview of programs, recap of previous workshops
- 2:00 p.m. – 3:00 p.m. Identifying and targeting low income rural households and communities
- 3:00 p.m. – 4:00 p.m. Issues related to projects in rural electric cooperative and municipal utility areas
- 4:00 p.m. – 4:30 p.m. Discussion

Presenting Today

- Anthony Star, Director
- Brian Granahan, Chief Legal Counsel

Goal of the Workshop

- This workshop is intended to introduce to stakeholders to the new programs and procurements that will be part of the Illinois Power Agency's Long-Term Renewable Resources Plan and how they can benefit rural communities in Illinois.
- The workshop is also intended to be a forum for stakeholders to provide feedback to the Agency. Additional opportunities will also be available at later dates, including the opportunity to respond to a Request for Comments following this workshop
- Discussion of potential approaches to the development and implementation of procurements and programs should be considered preliminary in nature.
- The Agency will release a draft Plan for comments, and file a Plan for approval by the Illinois Commerce Commission

Background on IPA and Procurement Approach

- 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, subject to Illinois Commerce Commission (ICC) approval
 - Running procurements via third-party procurement administrator. Results subject to ICC approval

Power Procurement

- Procurement of energy (and capacity for Ameren Illinois) to meet the load requirements of “eligible retail customers”
- 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.”
- 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
 - Starting in 2016 also manage supply for a portion of MidAmerican’s load
- Current 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

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

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

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 programs, recap of previous workshops

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

Renewable Resources Timeline

(Draft, dates subject to change)

Color Coding
 Statutory Deadline
Plan Development Schedule
Process Development Schedule
 Other Renewables Schedule
 Power Procurement Schedule

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

Prior Workshops – May 2017

May 10

- Initial Forward Procurements

May 17

- Overview of the New Illinois RPS and the Long-Term Renewable Resources Plan
- Adjustable Block Programs

May 18

- Community Solar
- Illinois Solar for All Programs
- Over 150 attendees and over 100 participants listening by phone

Follow-up questions?? Additional workshops???

Initial Forward Procurements – August 2017

- 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
- Key issues from workshops? Site control & banking/replacement

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”

Long-term plan: Necessary Components (220 ILCS 5/16-111.5(b)(5)(ii)(B))

- (aa) **Identify the procurement programs and competitive procurement events** consistent with the applicable requirements of the Illinois Power Agency Act and shall be designed to achieve the goals set forth in subsection (c) of Section 1-75 of that Act.
- (bb) Include a **schedule for procurements for renewable energy credits from utility-scale wind projects, utility-scale solar projects, and brownfield site photovoltaic projects** consistent with subparagraph (G) of paragraph (1) of subsection (c) of Section 1-75 of the Illinois Power Agency Act
- (cc) **Identify the process whereby the Agency will submit to the Commission for review and approval the proposed contracts to implement the programs required by such plan.**

LTRRP Revision Process – Every 2 Years, Or....

- 220 ILCS 5/16-111.5(b)(5)(ii)(B): “The Agency shall publish for comment the initial long-term renewable resources procurement plan no later than 120 days after the effective date of this amendatory Act of the 99th General Assembly **and shall review, and may revise, the plan at least every 2 years thereafter.**”
- 20 ILCS 3855/1-75(c)(1)(A): “The Agency shall review, and **may revise on an expedited basis**, the long-term renewable resources procurement plan **at least every 2 years**, which shall be conducted in conjunction with the procurement plan under Section 16-111.5 of the Public Utilities Act to the extent practicable to minimize administrative expense.
- 20 ILCS 3855/1-75(c)(1)(G)(iv): wind 200,000 > than solar? “The Agency shall **within 60 days** adjust the procurement programs in the long-term renewable resources procurement plan.”
- 20 ILCS 3855/1-56(b)(4): “The Agency **or a party** may propose adjustments to the program terms, conditions, and requirements, including the price offered to new systems” for Illinois Solar for all, and “the Commission shall review and approve any modifications to the program through the plan revision process described in Section 16-111.5 of the Public Utilities Act.”

Program Implementation Timeline

- Sometime after approval of LTRRP
- Will know complexity via LTRRP
- Third-party program administrators
 - RFP development, scope of work
 - Multiple program administrators?
- Contract development process for REC contracts
- Contract approval process for ICC approval
- Staging of program rollout??

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 concept: adjustable block program

Prior approach to renewables procurements

- Governed by Section 16-111.5 of the PUA
- Competitive, pay-as-bid, sealed bidding
- Confidential benchmark applied to bids received
- Bids selected on the basis of price
- No post-bid negotiations
- Contracts executed shortly after Commission approval of procurement results

- Adjustable block program approach

- Designed for “new” DG solar and “new” community solar
- Price is transparent and known, block is based on size (RECs or capacity)
- Price adjusts after block fills
- Think open-enrollment model

Old concept: distributed generation

"Distributed renewable energy generation device" means a device that is:

(1) powered by wind, solar thermal energy, photovoltaic cells and panels, biodiesel, crops and untreated and unadulterated organic waste biomass, tree waste, and hydropower that does not involve new construction or significant expansion of hydropower dams;

(2) interconnected at the distribution system level of either an electric utility as defined in this Section, an alternative retail electric supplier as defined in Section 16-102 of the Public Utilities Act, a municipal utility as defined in Section 3-105 of the Public Utilities Act, or a rural electric cooperative as defined in Section 3-119 of the Public Utilities Act;

(3) located on the customer side of the customer's electric meter and is primarily used to offset that customer's electricity load; and

(4) limited in nameplate capacity to no more than 2,000 kilowatts.

- Energy value through net metering
- What is new? 10 kW vs 25 kW, procurement targets, procurement process

New concept: community renewable generation project

- General Concept: “Subscribers” have “interest” in centralized facility (i.e., “subscription” to that facility), receive offset for energy generated by facility at subscriber’s subscription/interest level
- 20 ILCS 3855/1-75(c)(1)(N): “The long-term renewable resources procurement plan required by this subsection (c) shall include a community renewable generation program,” which “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.”
- Emphasis in the law on “subscriptions to community renewable generation projects to be portable and transferable.”

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
- Can be interconnected with utility, muni, or rural co-op
- 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

RPS Budget – How do we pay for this?

- “shall be reduced for all retail customers based on the amount necessary to limit the annual estimated average net increase due to the costs of these resources included in the amounts paid by eligible retail customers in connection with electric service to no more than the greater of 2.015% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007 or the incremental amount per kilowatthour paid for these resources in 2011.”
- “the resulting per kilowatthour amount shall be applied to the actual amount of kilowatthours of electricity delivered, or applicable portion of such amount as specified in paragraph (1) of this subsection (c), as applicable, by the electric utility in the delivery year immediately prior to the procurement to all retail customers in its service territory.”
- Resources increase as ARES compliance winds down

RPS Compliance – What to Prioritize?

- (i) renewable energy credits under existing contractual obligations;
- (i-5) funding for the Illinois Solar for All Program, as described in subparagraph (O) of this paragraph (1);
- (ii) renewable energy credits necessary to comply with the new wind and new photovoltaic procurement requirements described in items (i) through (iii) of subparagraph (C) of this paragraph (1); and
- (iii) renewable energy credits necessary to meet the remaining requirements of this subsection (c).

Employment Opportunities

20 ILCS 3855/1-75(c)(7): In meeting the renewable energy requirements of this subsection (c), to the extent feasible and consistent with State and federal law, the renewable energy credit procurements, Adjustable Block solar program, and community renewable generation program shall provide employment opportunities for all segments of the population and workforce, including minority-owned and female-owned business enterprises, and shall not, consistent with State and federal law, discriminate based on race or socioeconomic status.

- Different considerations than informed our prior procurement planning and processes
- How does this intersect with the job training provisions of the Illinois Solar for All program?

Goals of Illinois Solar for All

“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 Program: What is it?

- Incentive program: “incentives for low-income distributed generation and community solar projects, and other associated expenditures”
- Used to procure renewable energy credits from qualifying projects via “upfront payment per installed kilowatt of nameplate capacity”
 - 15 years of RECs to be delivered under contracts
 - Payment upon interconnection and energization
- Projects must include job training opportunities, if available
- “Priority shall be given to projects that demonstrate meaningful involvement of low-income community members in designing the initial proposals.”
- 5% of funds to grassroots education by community-based groups

Development and Funding

- Program developed as part of Agency's new Long-Term Renewable Resources Procurement Plan
 - Distinct programs but share some aspects with the Adjustable Block programs for Distributed Generation and Community Solar
- Funding comes from Renewable Energy Resources Fund and also utilities
 - Renewable Energy Fund balance after commitments for the Supplemental Photovoltaic Procurement approximately \$150 million
 - Funds from Utilities' renewable resources budgets also potentially available to address funding "shortfall"
 - But funding flows through separate contracts
- "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."

Illinois Solar For All Program Categories

(A) Low-income distributed generation incentive (22.5%)

- Companies participating in this program that install solar panels shall commit to hiring job trainees for a portion of their low-income installations, and an administrator shall facilitate partnering the companies that install solar panels with entities that provide solar panel installation job training.

(B) Low-Income Community Solar Project Initiative (37.5%)

- The developer of each project shall identify its partnership with community stakeholders regarding the location, development, and participation in the project, provided that nothing shall preclude a project from including an anchor tenant that does not qualify as low-income.
- Incentives should also be offered to community solar projects that are 100% low-income subscriber owned, which includes low-income households, not-for-profit organizations, and affordable housing owners.

(C) Incentives for non-profits and public facilities(15%)

(D) Low-Income Community Solar Pilot Projects (25%)

- Competitively bid community solar projects, can exceed 2 MW
- Pilot projects must result in economic benefits for the members of the community in which the project will be located.
- The proposed pilot project must include a partnership with at least one community-based organization.
- For (A), (B), and (C) goal that a minimum of 25% of the incentives for each program be allocated to projects located within environmental justice communities.

Third-party program administrator

“The Agency shall issue a request for qualifications for a third-party program administrator or administrators to administer all or a portion of the Illinois Solar for All Program. The third-party program administrator shall be chosen through a competitive bid process based on selection criteria and requirements developed by the Agency, including, but not limited to, experience in administering low-income energy programs and overseeing statewide clean energy or energy efficiency services.” (20 ILCS 3855/1-56(b)(5))

Select Key Issues from previous workshops

- Methodology for setting REC prices
 - Scale of incentive/multiplier for low-income solar projects?
- Defining Blocks
- Performance assurance provisions and project maturity considerations
- Community Solar residential/commercial mix and considerations
- Illinois Solar for All connections to job training
- Consumer protections

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?

Additional Considerations for Consumer Protection

- In the case of up-front payments by customers, should there be a uniform approach to projecting project payback period and should that be required as part of the disclosure to customers?
- Should warranties around system performance (and thus system benefits) be required between the community solar project developer and the subscriber?
- Are there consumer privacy implications to a community solar project subscription, and if so, how should those best be managed or regulated?
- Disclosures for community solar projects
 - What sort of disclosures around project insurance and project maintenance, if any, should be required between the project developer and the subscriber? Should there be requirements around maintaining insurance?
 - Are disclosures sufficient, or are certain parameters around contract terms between community solar project developers and subscribers required?
 - Price escalation caps?
 - Transfer fees? Project can be “transferable,” but does that prohibit fees for transfers?
 - Fees around downsizing allocations? Should those be capped?
 - Uniform cost savings projections?
 - Uniform system output projections?

Identifying and targeting low income rural households and communities

Low-income and Environmental Justice Community Definitions for Illinois Solar for All Programs

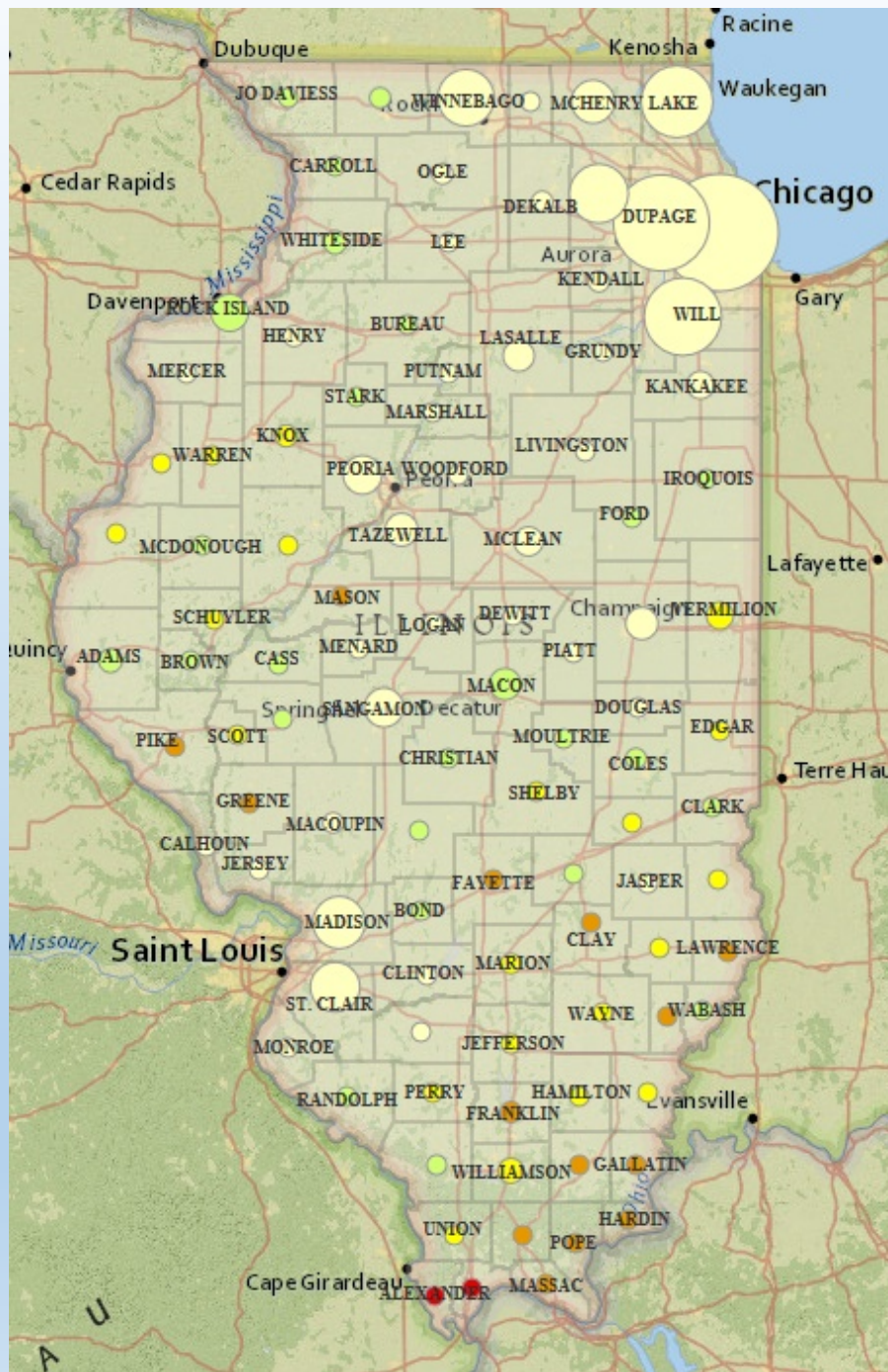
- “Low-income households” means persons and families whose income does not exceed 80% of area median income, adjusted for family size and revised every 5 years.
- The Agency shall define “environmental justice community” as part of long-term renewable resources procurement plan development, to ensure, to the extent practicable, compatibility with other agencies' definitions and may, for guidance, look to the definitions used by federal, state, or local governments.

80% of Area Median Income

County	Household Size		
	One	Two	Four
Vermillion	\$32,600	\$37,250	\$46,550
Sangamon	\$41,100	\$46,950	\$58,650
Alexander	\$30,900	\$35,300	\$44,100
Grundy	\$45,400	\$51,850	\$64,800

- LIHEAP eligibility is 150% of poverty level
 - Ranges from \$18,090 for single person to \$36,900 for family of four
- Energy Efficiency Portfolio uses similar framework
 - “The utilities shall also present a portfolio of energy efficiency measures proportionate to the share of total annual utility revenues in Illinois from households at or below 150% of the poverty level. Such programs shall be targeted to households with incomes at or below 80% of area median income.”

Comparison of concentration and absolute numbers of Low-Income Households

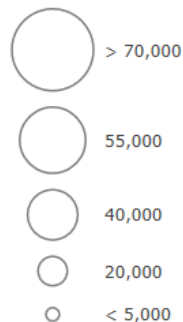


Homeowners under ~80% AMI

% Range of Households who are under \$50,000 Owner

- Less Than 40%
- 40-45%
- 45-50%
- 50-60%
- Greater Than 60%

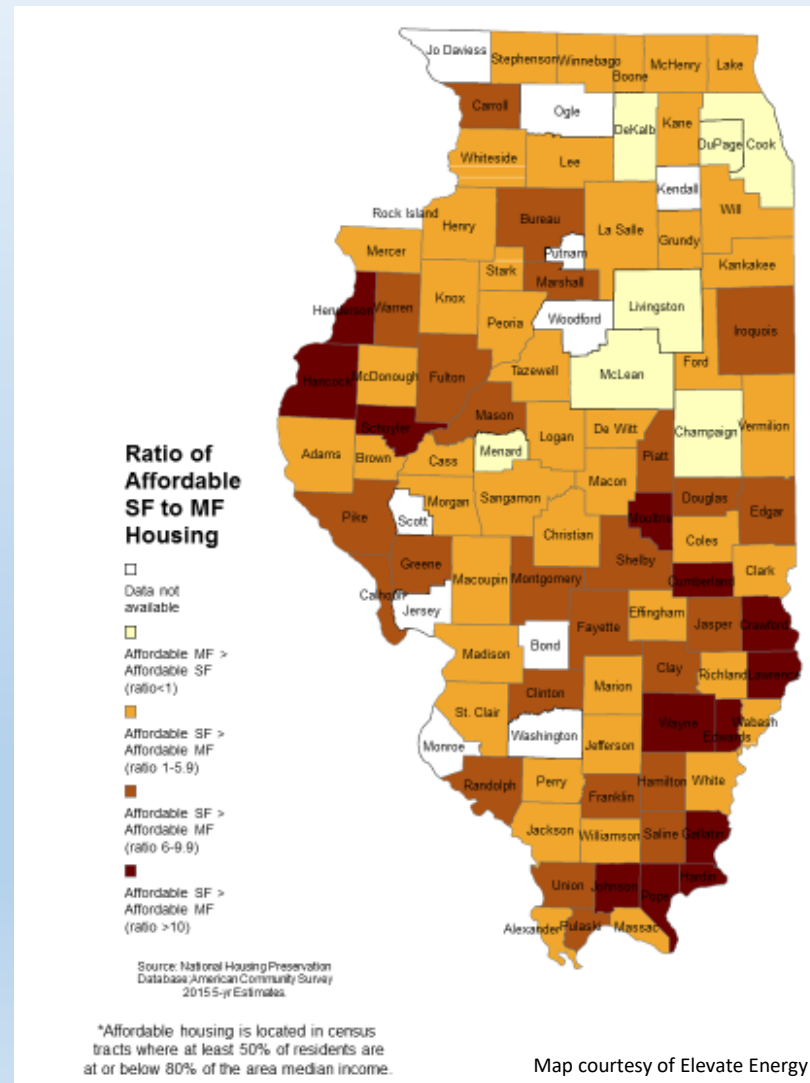
Total # of Households under \$50,000 Owner



Source:

<https://www.arcgis.com/home/webmap/viewer.html?webmap=b7033b6c3984407da7134165e744e86b>

Multi-family versus single family affordable housing



Illinois Solar for All Community Involvement

- Priority shall be given to projects that demonstrate meaningful involvement of low-income community members in designing the initial proposals.
- Acceptable proposals to implement projects must demonstrate the applicant's ability to conduct initial community outreach, education, and recruitment of low-income participants in the community.

Grassroots Education

- The Agency shall ensure collaboration with community agencies, and allocate up to 5% of the funds available under the Illinois Solar for All Program to community-based groups to assist in grassroots education efforts related to the Illinois Solar for All Program.

Job Training Coordination

- Projects must include job training opportunities if available, and shall endeavor to coordinate with the job training programs described in paragraph (1) of subsection (a) of Section 16-108.12 of the Public Utilities Act.

Utility Funded and Administered Job Training Programs

- \$3 million for Solar Training Pipeline Program
- \$3 million for Craft Apprenticeship Program
- \$4 million for Multi-cultural Jobs Programs (Six specific programs)
- Implementation Plan due to be filed for ICC approval by July 31, 2017
- Issues for consideration in the Long-Term Renewable Resources Procurement Plan
 - When will program graduates be available?
 - Geographic considerations, availability downstate
 - How to ensure installers offer meaningful employment opportunities and career advancement
 - How to maximize interest and participation

Illinois Commission on Environmental Justice

- Created by General Assembly in 2011 via Illinois Environmental Justice Act
- Legislative findings of the Act
 - (i) the principle of environmental justice requires that no segment of the population, regardless of race, national origin, age, or income, should bear disproportionately high or adverse effects of environmental pollution;
 - (ii) certain communities in the State may suffer disproportionately from environmental hazards related to facilities with permits approved by the State; and
 - (iii) these environmental hazards can cause long-term health effects.
- Legislatively mandated activities
 - Advise State entities on environmental justice and related community issues
 - Review and analyze the impact of current State laws and policies on the issue of environmental justice and sustainable communities
 - Assess the adequacy of State and local laws to address the issue of environmental justice and sustainable communities
 - Develop criteria to assess whether communities in the State may be experiencing environmental justice issues
 - Recommend options to the Governor for addressing issues, concerns, or problems related to environmental justice that surface after reviewing State laws and policies, including prioritizing areas of the State that need immediate attention.

Recommendations from the Illinois Commission on Environmental Justice

- The Commission provided recommendations to the IPA in a May 9, 2017 Letter
- Key recommendations
 - Consider the Illinois EPA's definition of Potential Environmental Justice Community, and the US EPA's definition of Overburdened Community
 - Consider efforts to compile and map data
 - US EPA EJSCREEN
 - 11 environmental indicators
 - 12 EJ indices that combine environmental and demographic data
 - CalEnviroScreen
 - Assigns scores based on pollution burden and population characteristics
 - 19 indicators
 - Sophisticated weighting methodology
 - Availability of data from Illinois EPA and Illinois Department of Public Health, as well as other federal and state databases

Illinois EPA definition used for identifying a potential Environmental Justice Community

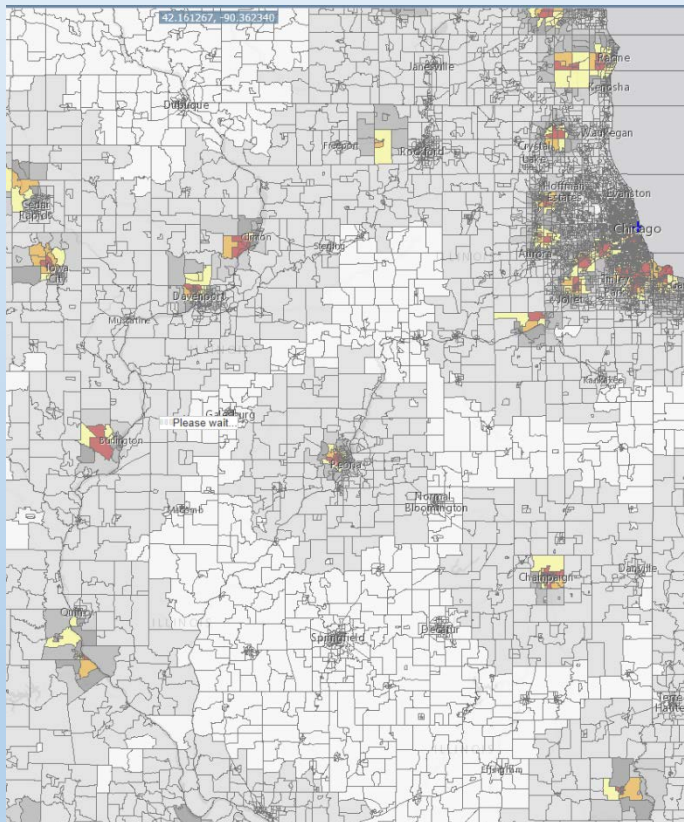
- A “potential” EJ community is a community with a low-income and/or minority population greater than twice the statewide average. In addition, a community may be considered a potential EJ community if the low-income and/or minority population is less than twice the statewide average but greater than the statewide average and that has identified itself as an EJ community. If the low-income and/or minority population percentage is equal to or less than the statewide average, the community should not be considered a potential EJ community.

US EPA Definition of “Overburdened Community”

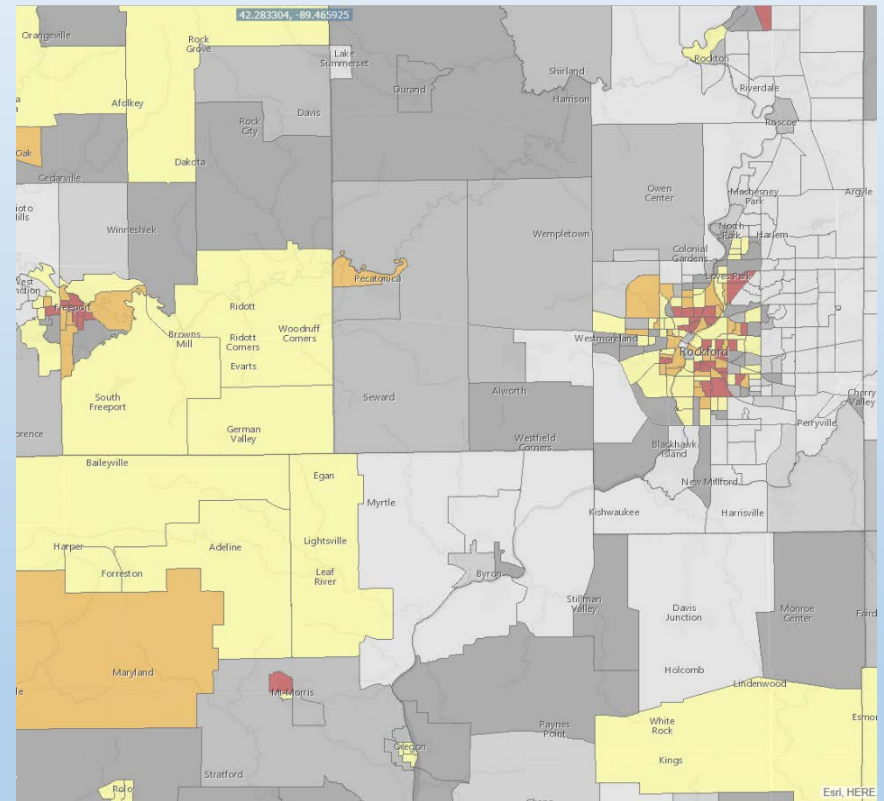
- Overburdened Community — Minority, low-income, tribal, or indigenous populations or geographic locations in the United States that potentially experience disproportionate environmental harms and risks. This disproportionality can be as a result of greater vulnerability to environmental hazards, lack of opportunity for public participation, or other factors. Increased vulnerability may be attributable to an accumulation of negative or lack of positive environmental, health, economic, or social conditions within these populations or places. The term describes situations where multiple factors, including both environmental and socio-economic stressors, may act cumulatively to affect health and the environment and contribute to persistent environmental health disparities.

Sample US EPA EJScreen Maps

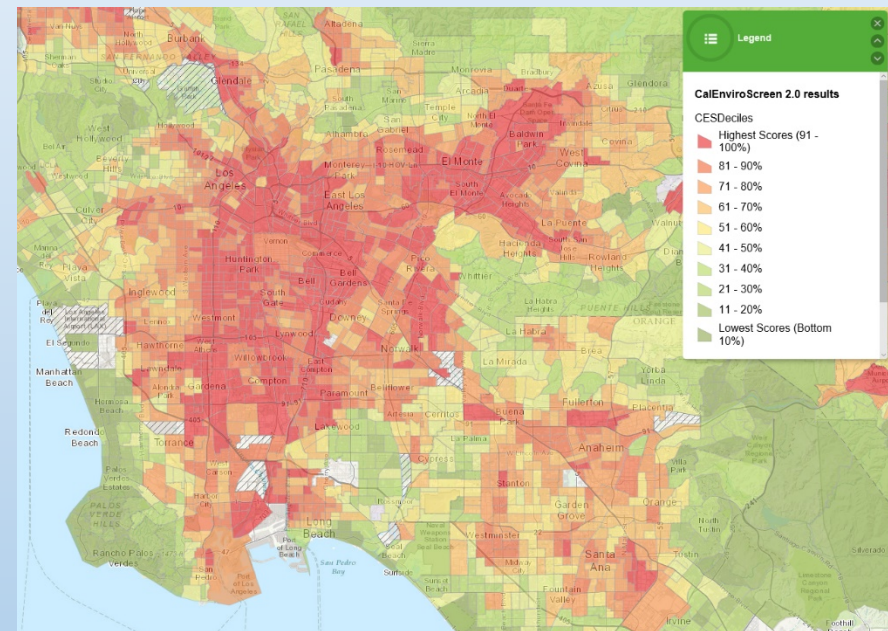
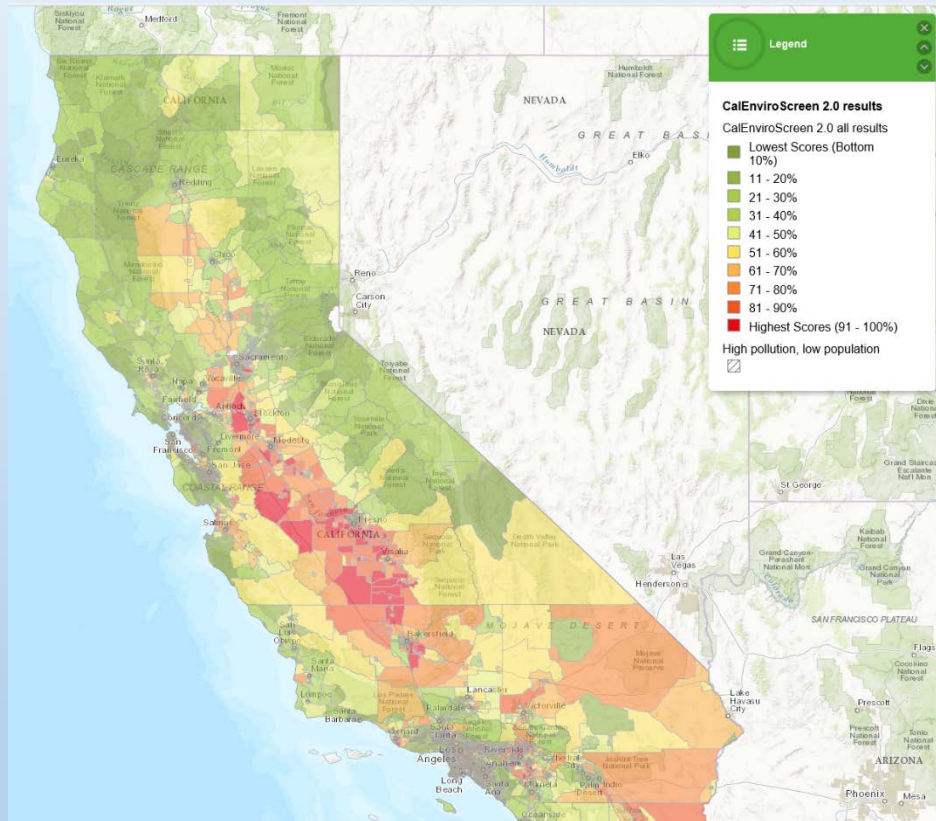
Hazardous Waste Proximity



Lead Paint

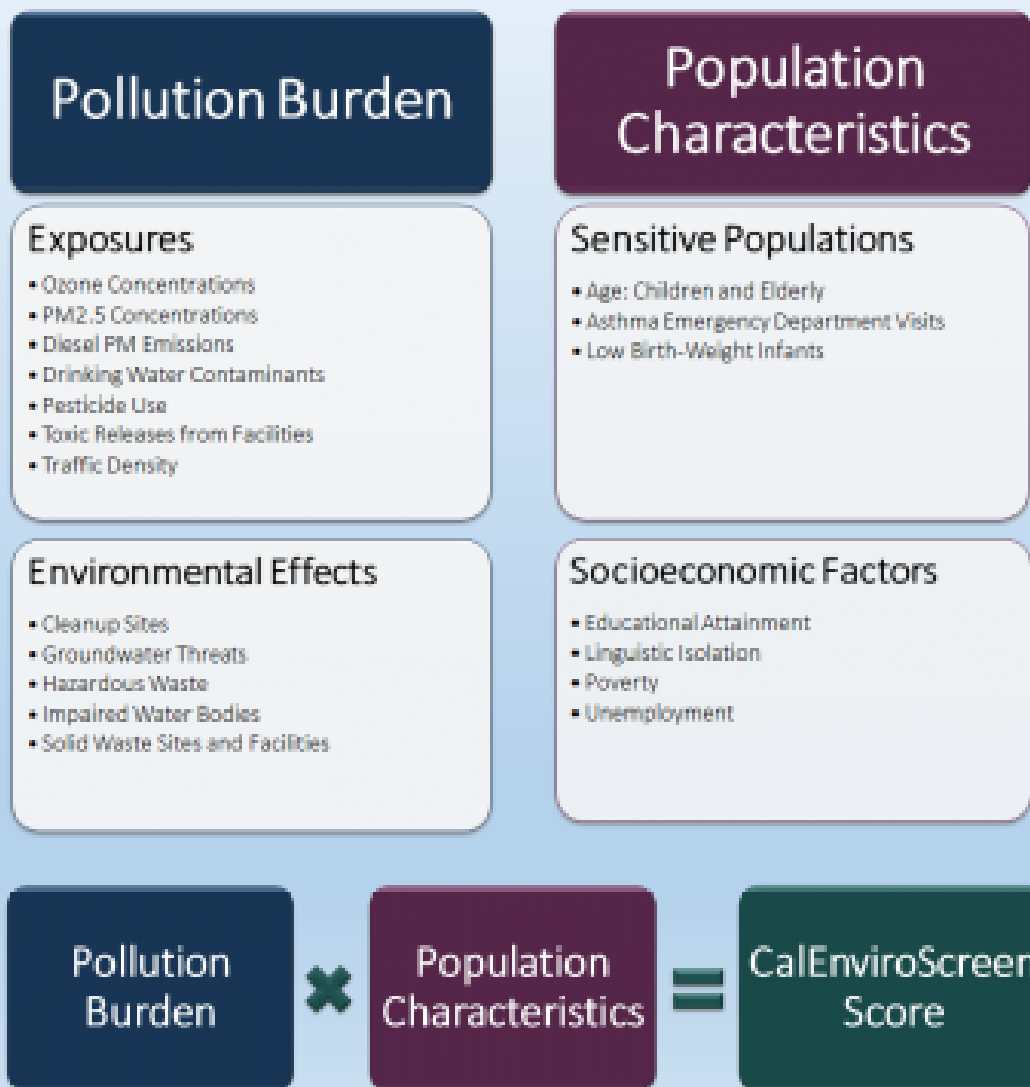


Sample CalEnviroScreen Maps: Composite Indices



oehha.ca.gov/calenviroscreen

CalEnviroScreen Scoring Methodology



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 do Census Tracts really correspond to local communities?
 - Typically about 4,000 people, can range from 1,200 to 8,000
 - Area can vary widely
- 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 incentives to Environmental Justice Communities

Issues to consider for Rural Communities

- Differences in housing stock
- Coordination with Energy Efficiency programs
- Community organizations and partnerships
- Access to job training opportunities
- Rural Co-op issues
 - Differences in energy prices
 - Differences in net metering policies

Issues related to projects in rural electric cooperative and municipal utility areas

Issues for consideration by Cooperatives and Municipal Utilities

- RPS requirements only apply to the investor owned utilities
- RECs can come from anywhere in Illinois and will be bought by utilities, or the IPA (for Illinois Solar for All)
- Does not directly create new responsibilities for co-ops and munis
 - Qualified Persons installation requirements would apply
 - Intersections with net metering and smart inverter rebates
- Developers will be seeking sites for new utility-scale wind and solar projects
 - Projects must be over 2MW (smaller allowed for brownfield solar), law silent on whether they can be connected to the distribution system
 - Developers may not be familiar with the various rules for interconnecting systems located in co-ops and munis

Opportunities for households and businesses served by Cooperatives and Municipal Utilities

- Can participate in distributed generation programs and receive payment for RECs
 - Adjustable Block program
 - Illinois Solar for All
- Not clear if community solar projects can participate in the Adjustable Block or Illinois Solar for All Programs
- Opportunities for other renewable resources (e.g., biomass) to be determined

Preparing for the Future

- Ramp up of Solar could be rapid
 - Other states that have adopted similar solar incentive programs have seen strong increase in solar projects, rates often doubling or more each year
- Increased interconnection requests
 - 19% of supplemental photovoltaic procurement projects in rural co-ops; 6% municipal utilities.
 - Investor owned utilities are planning for increased staffing and resources to avoid interconnection becoming a bottleneck
- Availability of net metering
 - REC prices will include assumptions about the value of net metering. For co-ops or munis without net metering policies, this could result in a less attractive overall value proposition for solar projects
- Ownership of RECs
 - Need to clarify who owns RECs, system owner or Co-op?

Discussion