

# K-Solar

Helping NYS Schools  
Reduce Energy Costs by Going Solar

## Solar Incentives and Ownership Options



**New York Power  
Authority**

Generating more than electricity

# K-Solar Webinar Series

- This webinar is the first in a series of three.
  1. Solar Incentives and Ownership Options
    1. Audience: All school district stakeholders
    2. Compare solar economics for direct ownership and third party ownership options
  2. Solar Site Assessment
    1. Audience: District facility managers
    2. Solar feasibility and applying for a free site survey
  3. Solar Development and Contract Terms
    1. Audience: District business managers
    2. Solar power purchase agreements

# Webinar Goals

- Answer six key questions you may have:
  1. Why go solar?
  2. What is net metering? Remote net metering?
  3. What state incentives are available for solar?
  4. How can public schools take advantage of federal tax credits?
  5. What are the benefits of third party owned solar?
  6. What is a solar power purchase agreement (PPA)?

# The New York Power Authority (NYPA)

- Largest state public power organization in the United States
- Uses no taxpayer funds in its operations
- Provides wholesale power throughout New York State and the neighboring states as required by law
- Provides in the form of generation and market power purchases, about 25% of New York State's electricity
- Active in energy efficiency and clean energy technologies, financing over \$1.9 billion in projects at customer sites



# The K-Solar Program

- K-Solar is an aggregated purchasing program to increase the solar buying power of schools throughout New York State
  - NYPA supplies free feasibility study
  - NYPA managed competitive procurement
  - NYSERDA incentives and federal tax credits
  - SED expedited permitting process



# Why go solar?

- To reduce energy costs and protect the environment
  - Gain energy independence
  - Solar prices are at an all time low
  - Support local economic development
  - Long term budgetary certainty for electric costs
  - Educational value for students and residents

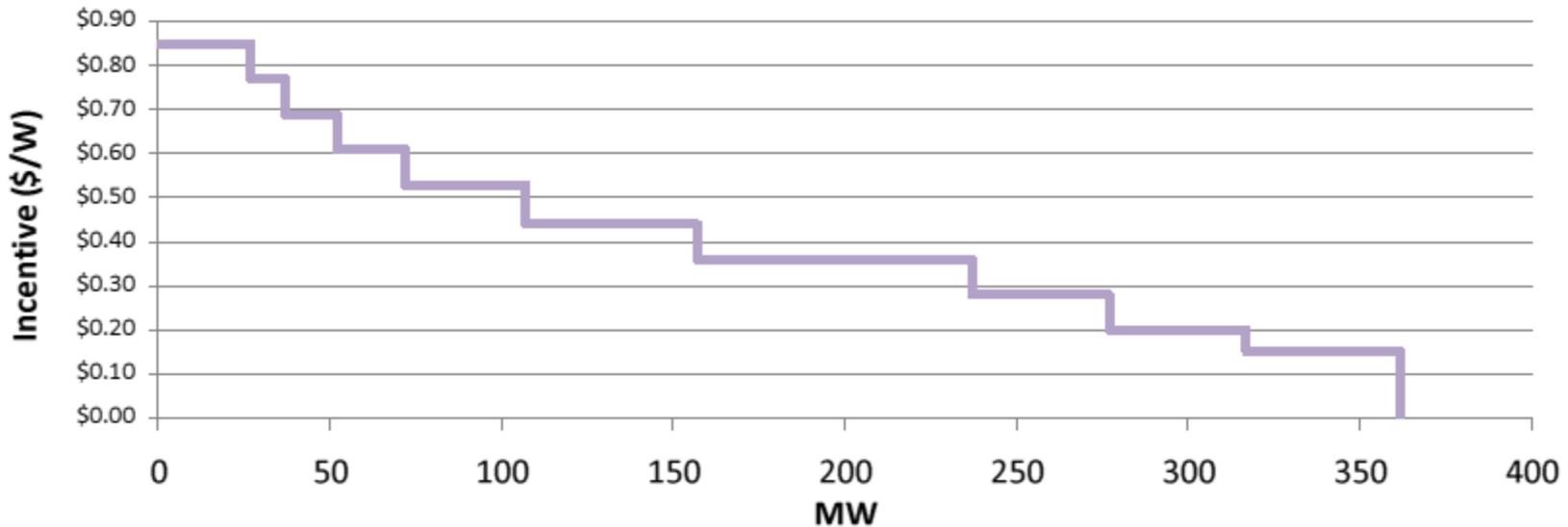
# What is net metering? Remote net metering?

- Net metering:
  - Use electric grid as a “bank account”
  - Electric meter runs “backwards” when not using solar output
- Remote net metering
  - Single project can offset multiple electric meters “remotely”



# NYS Energy Research and Development Authority Incentives

Upstate Non-Residential up to 200kW

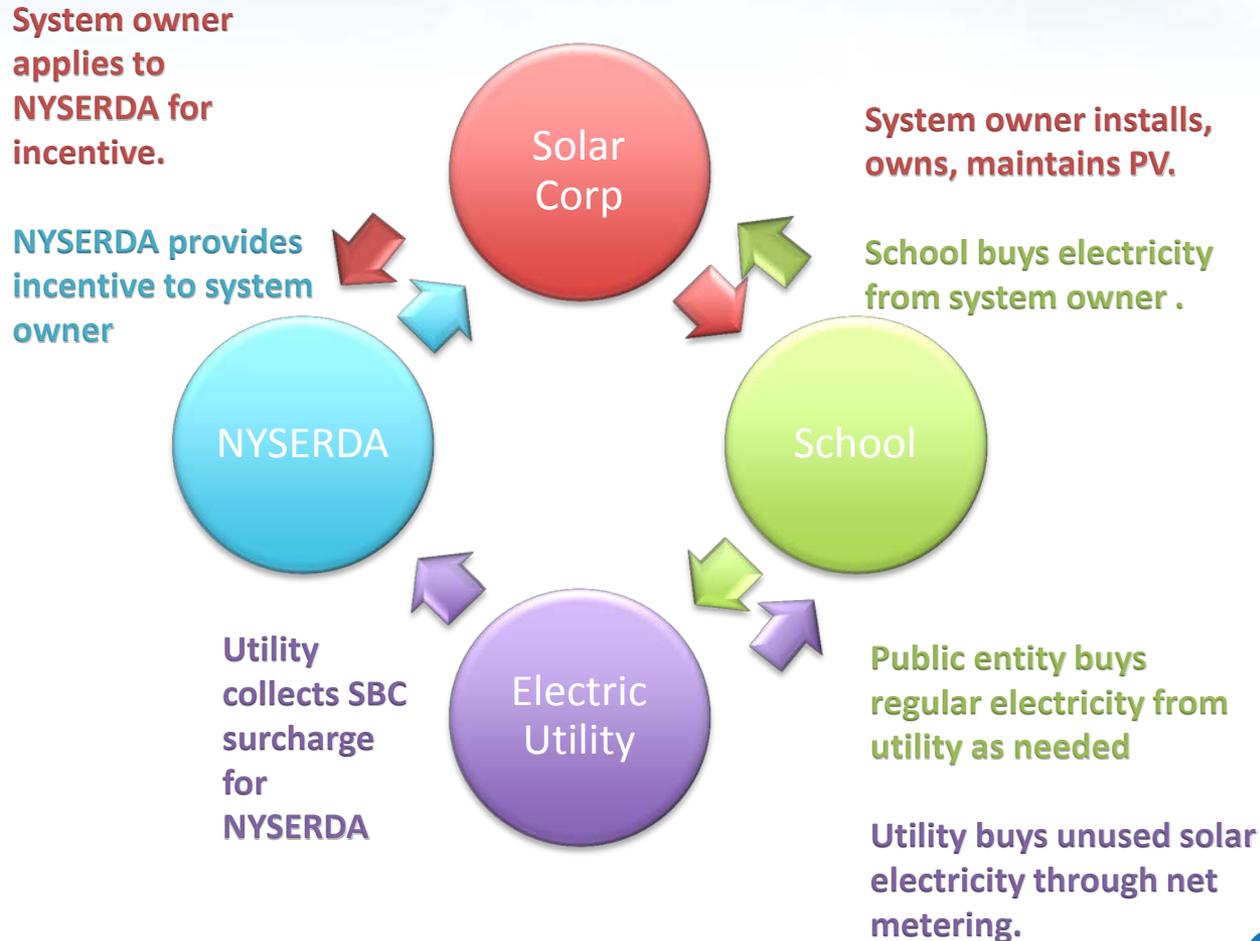


# What other incentives are available?

- Generous federal tax incentives are available for tax-paying entities interested in solar
  - Federal Investment Tax Credit of 30% (drops to 10% in 2016)
  - Accelerated depreciation
- Public schools can still take advantage of these tax credits by contracting with a third-party solar developer



# What does a public/private partnership with a third party look like?



# How does third party ownership compare to school owned?

	School Owned	Third Party
<b>Federal Tax Incentives</b>	No	Yes
<b>State Incentives</b>	NYSERDA and SED	NYSERDA
<b>Financing</b>	Bond or NYPA	Debt/Equity
<b>Cost of Capital</b>	Low	Low – Medium
<b>Operation and Maintenance</b>	School District or O&M Provider	Third party
<b>Owner Solar Experience</b>	Varies	Experts
<b>Cost Certainty</b>	Annual production risk	Cost per unit energy produced

# What is a solar PPA?

- Power Purchase Agreement (PPA) is a contract between the Buyer of the solar energy and the Owner of the Project.
- PPA contains the terms of the energy sale, including:
  - Price per unit energy
  - Duration of the contract
  - Ownership transfer options
  - Site access
  - Responsibilities of the parties
- Lease agreements are similar to PPAs, except payments are a fixed amount instead of being related to the amount of energy from the solar array.

# Advantages of a solar PPA

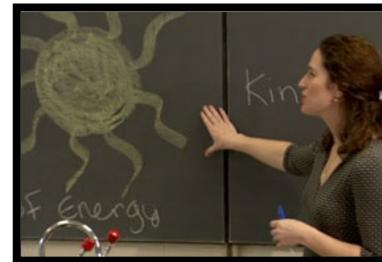
- A predictable cost of electricity over a long-term period (15 to 25 years, typically)
- Opportunity to purchase the Project from the Project Owner at a lower cost as early as 7 years after construction is complete
- Opportunity to assume ownership of the Project at the end of contract term at a very low cost
- Minimal development effort on the part of the Buyer

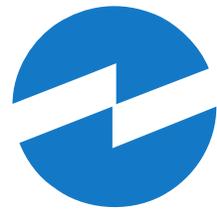
# For additional information

- NYPA K-Solar website link: [www.nypa.gov/K-Solar](http://www.nypa.gov/K-Solar)
  - Includes registration for program, pre-recorded webinars and FAQ
- NYSERDA website link: <http://ny-sun.ny.gov/>
  - Information on solar incentives
- Contact us:
  - [solar@nypa.gov](mailto:solar@nypa.gov)
  - 914-681-6431

# A Sister Program

- **Community Solar NY:**
  - **K-Solar Schools are Community Solar Hubs**
  - Showcase solar and tell your story
  - Help Solarize your neighborhood
    - Host events and spread the word
    - Find the Solar Champions in your community
  - Make clean energy a part of your classroom education
  - Funding and resources from NYSERDA
  - **Contact: Max Joel, Program Manager, NYSERDA**
    - **212-971-5342 ext. 3035**
    - **[max.joel@nysERDA.ny.gov](mailto:max.joel@nysERDA.ny.gov)**





# New York Power Authority

Generating more than electricity