

The background of the slide is a photograph of a rooftop solar panel array. The panels are arranged in neat rows and are a dark blue color. In the background, a city skyline is visible, including several tall buildings and a prominent tower with a spire. The sky is a pale, hazy blue. A large, stylized yellow sun with radiating lines is positioned in the upper right corner of the image. The main title text is centered and enclosed within a dark red, rounded rectangular frame.

Community Solar and Energy Financing for a Just Transition



October 5, 2019 | Climate Equity and Justice Conference

Sunset Park SOLAR



Core Project Team

Community engagement, outreach & co-owner:



Brooklyn's oldest Latino community-based organization promoting environmental and climate justice focusing on climate resiliency in Sunset Park.

Technical assistance & subscription support:



Environmental nonprofit running diverse programs to help New Yorkers adopt Clean Energy. Here Comes Solar provides comprehensive technical assistance to homeowners, community groups, and renters.

Co-op operations, billing & co-owner:



Consumer-owned energy cooperative working to create a movement for a sustainable and just energy future in the Northeast through their regional community energy cooperatives.

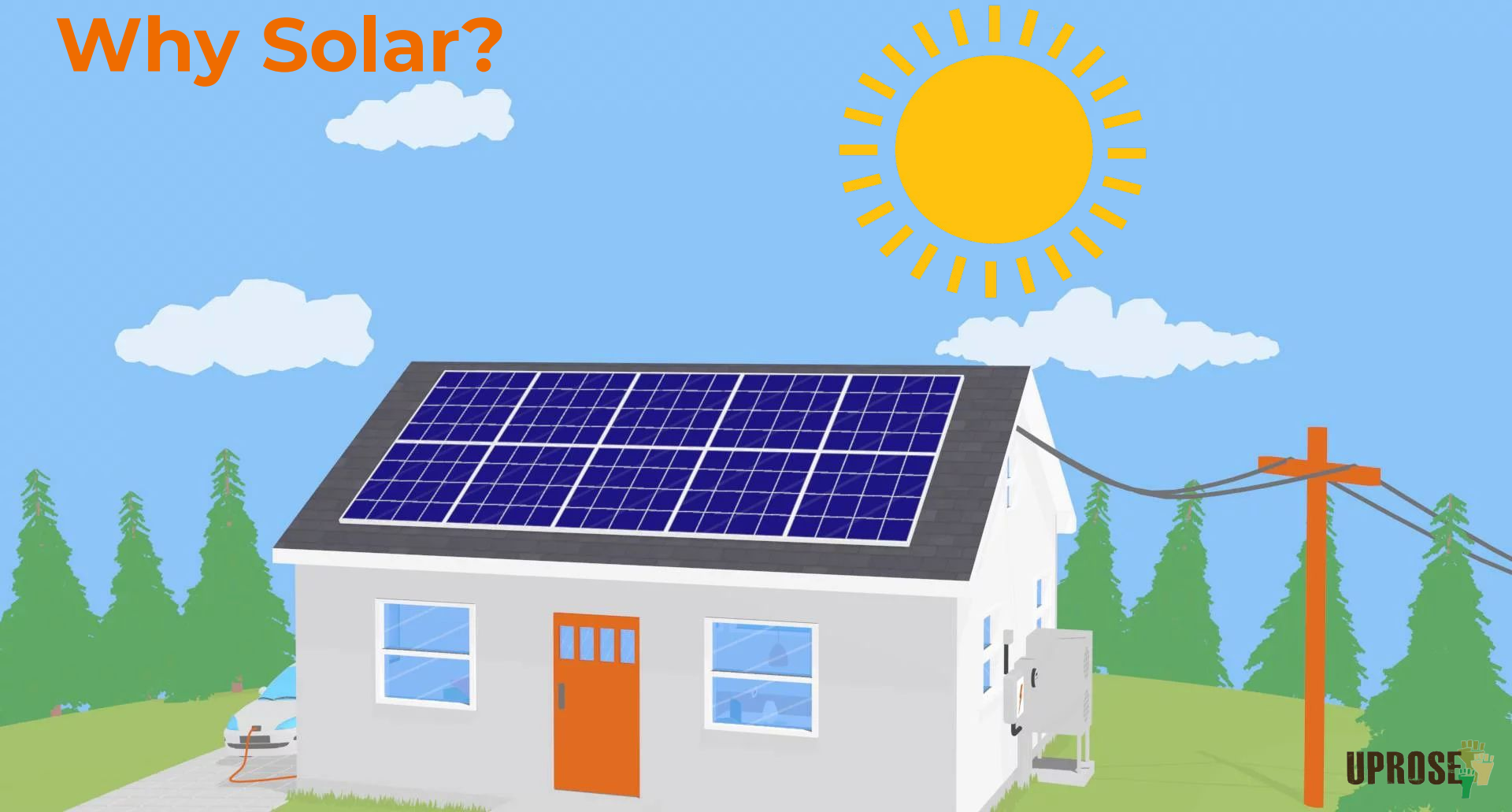


Agenda

- ❖ **Solar 101**
- ❖ **Co-Op Power & Smith College**
- ❖ **Tax Equity Flip Model**
- ❖ **Sunset Park Solar**
 - **Background**
 - **Just Transition Model**
 - **Project Details**
 - **Important Takeaways**



Why Solar?





**Health
Benefits**

Local Jobs

Electrification

**Reduce
Emissions**

**Climate
Mitigation**

**Just
Transition**

Traditional Solar System

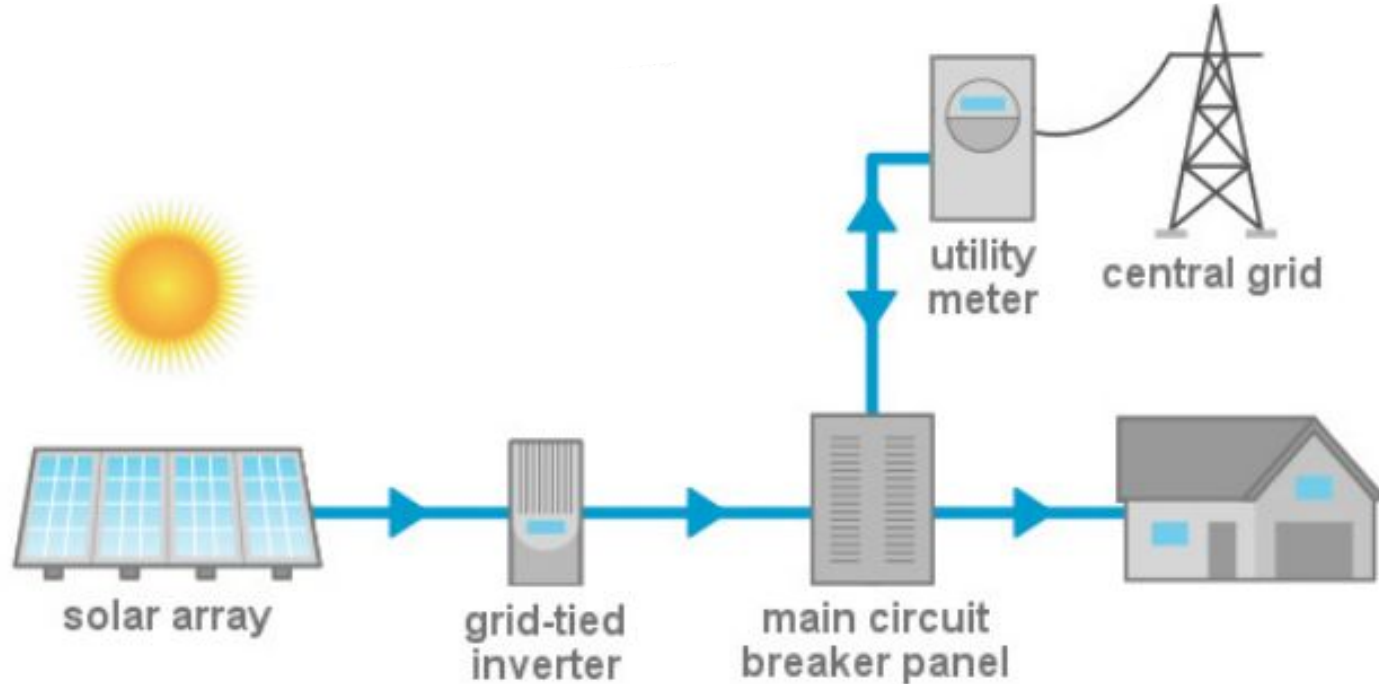


Figure 1: Grid-tied solar system

Source: Clean Energy Group Energy Storage 101 2015 Report

Community Solar

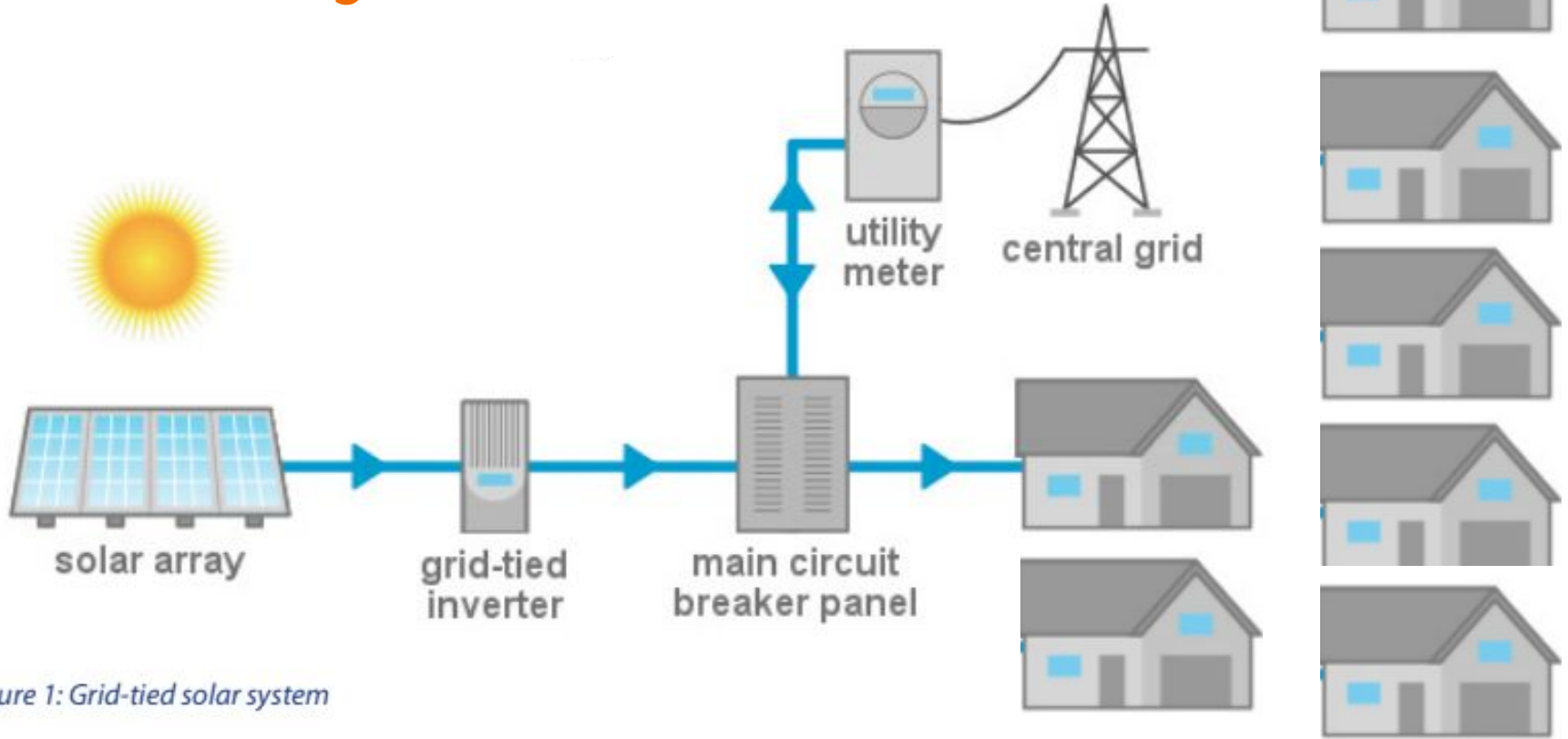


Figure 1: Grid-tied solar system

Community Solar Benefits

-  Expands access to solar
-  Energy cost savings
-  Renewable energy development
-  Community energy awareness
-  Workforce opportunities



Co-Op Power & Smith College

Smith College & Co-op Power

Project collaboration:

Smith financed a 25kW solar array for 67 West Street, Smith off-campus housing, through Co-op Power. CP recruiting a local tax equity investor and worked with Latham and Watkins to develop the suite of legal documents required for this re-engineered tax equity financing program.



Tax Equity Partnership Flip

Financial Model:

Smith College partnered with Co-op Power on the first pilot of our Re-engineered Tax Equity Partnership Flip financing model that would return ownership of solar projects to local non-profits, municipalities and cooperatives dedicated to serving the common good, especially low income communities and communities of color left out of the green revolution.

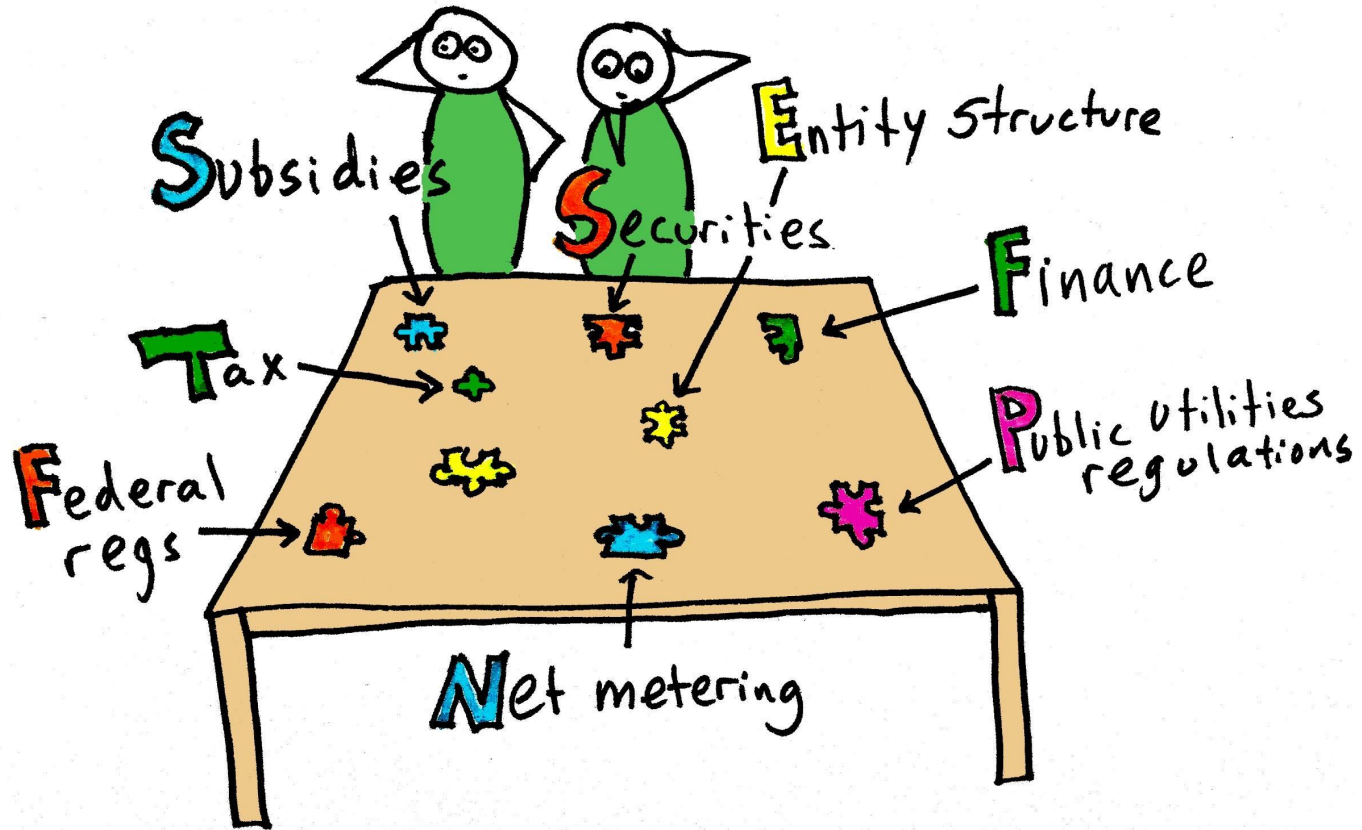
Co-op Power as a Partner

Building Grassroots-Led and Community Owned Energy Projects:

Co-op Power has completed several other projects using this model and is now using this model to finance nearly 2 MW of solar projects in NYC, serving 500 low income families - the 685 kW project in collaboration with UPROSE, installing solar on the Brooklyn Army Terminal and a 1.2 MW project installing solar on NYCHA buildings

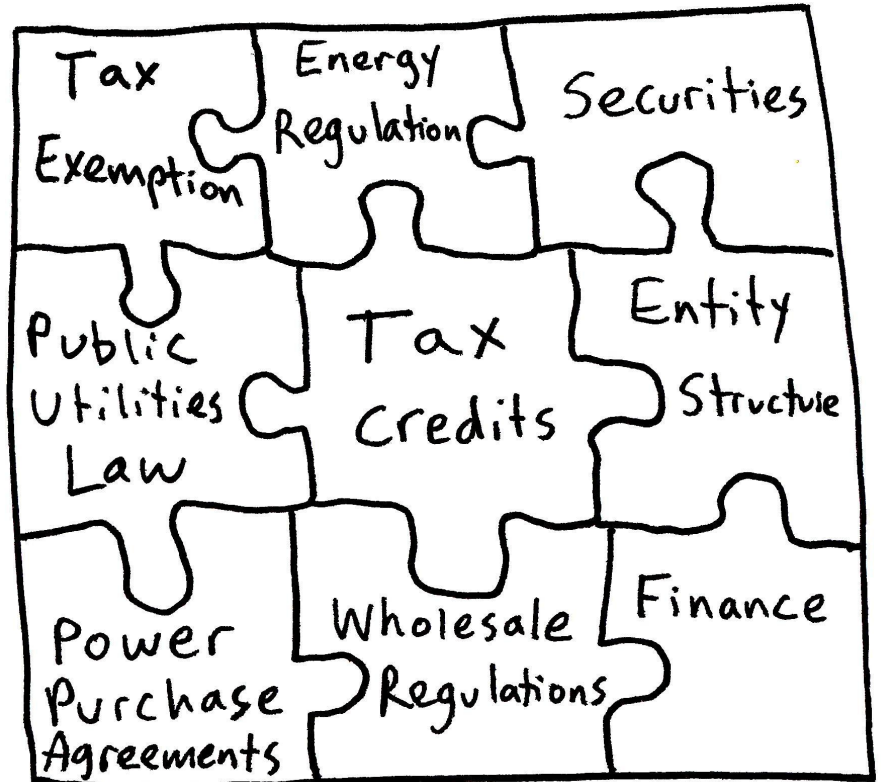


Tax Equity Flip Model



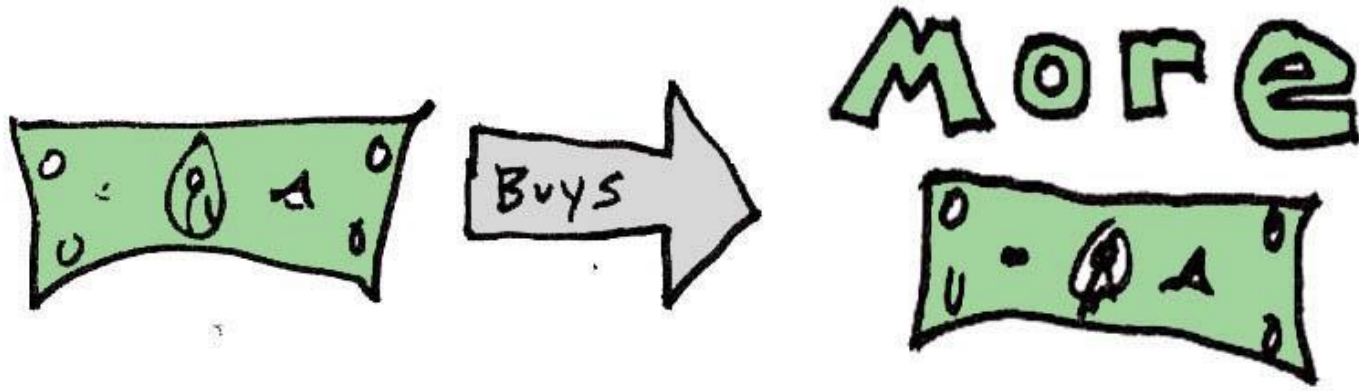
What we learned about the law:

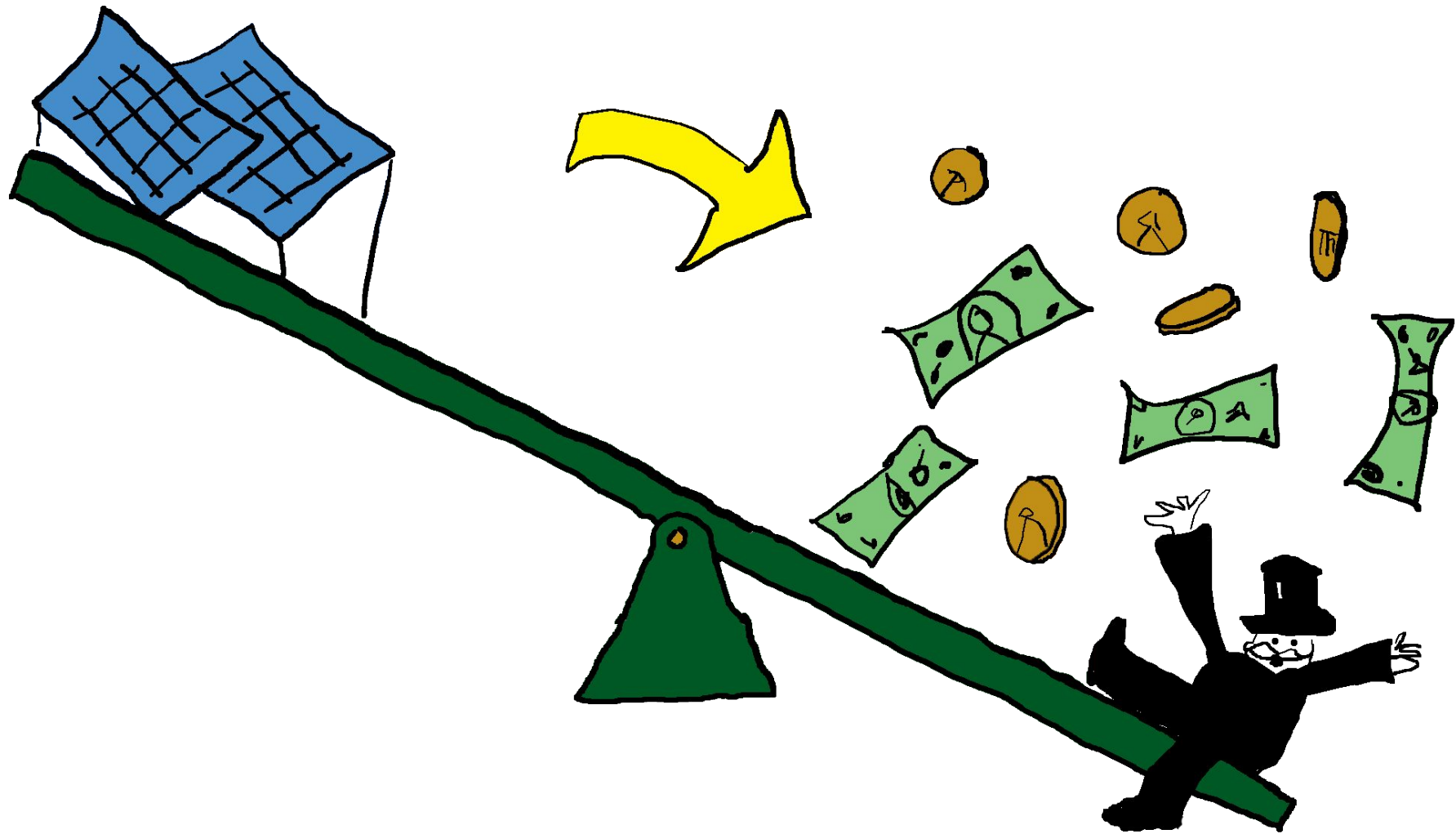
- It privileges the wealthy and homeowners in solar development.
- It makes community-ownership difficult.
- And it's just plain complicated.



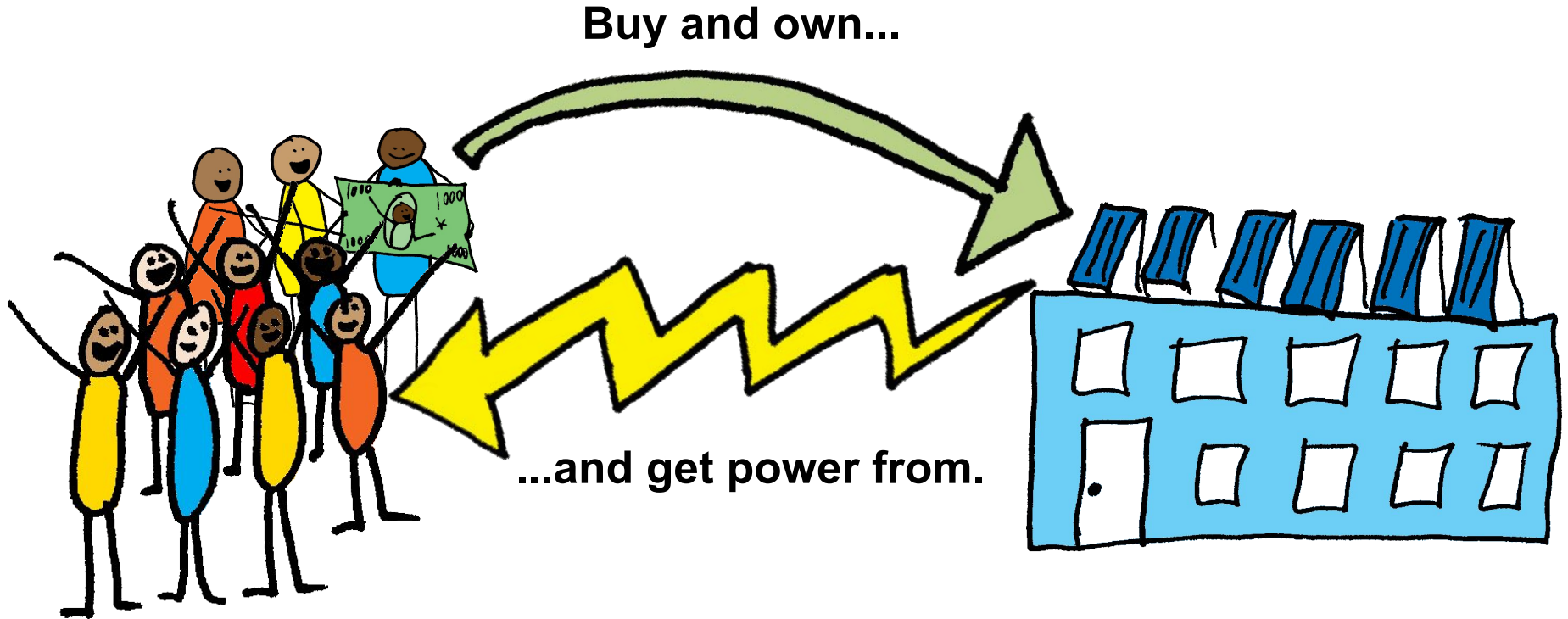
Why is it so easy for some?

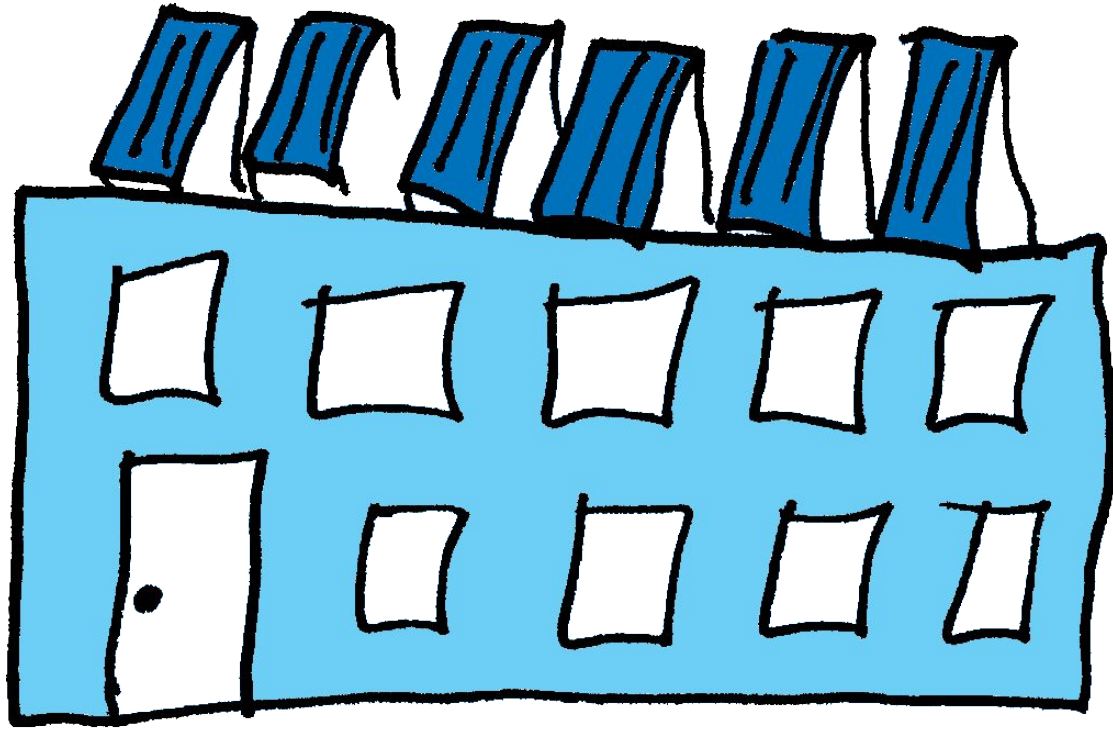
Passive
investment
income + Tax Credit + Depreciation + Return on
Investment



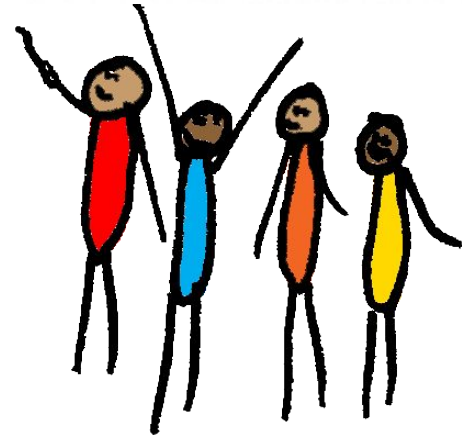


Community-Owned Solar





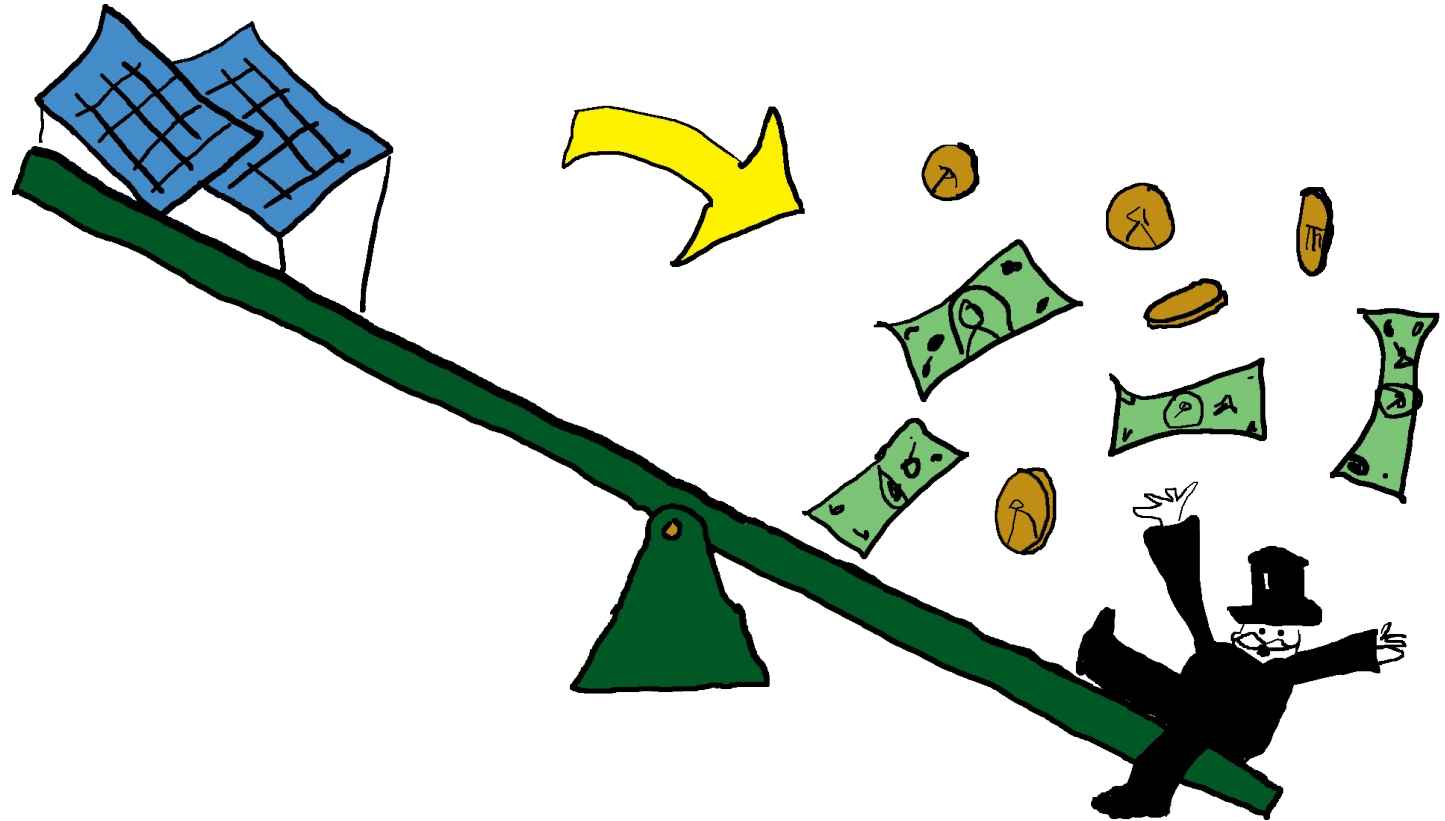
We own it!



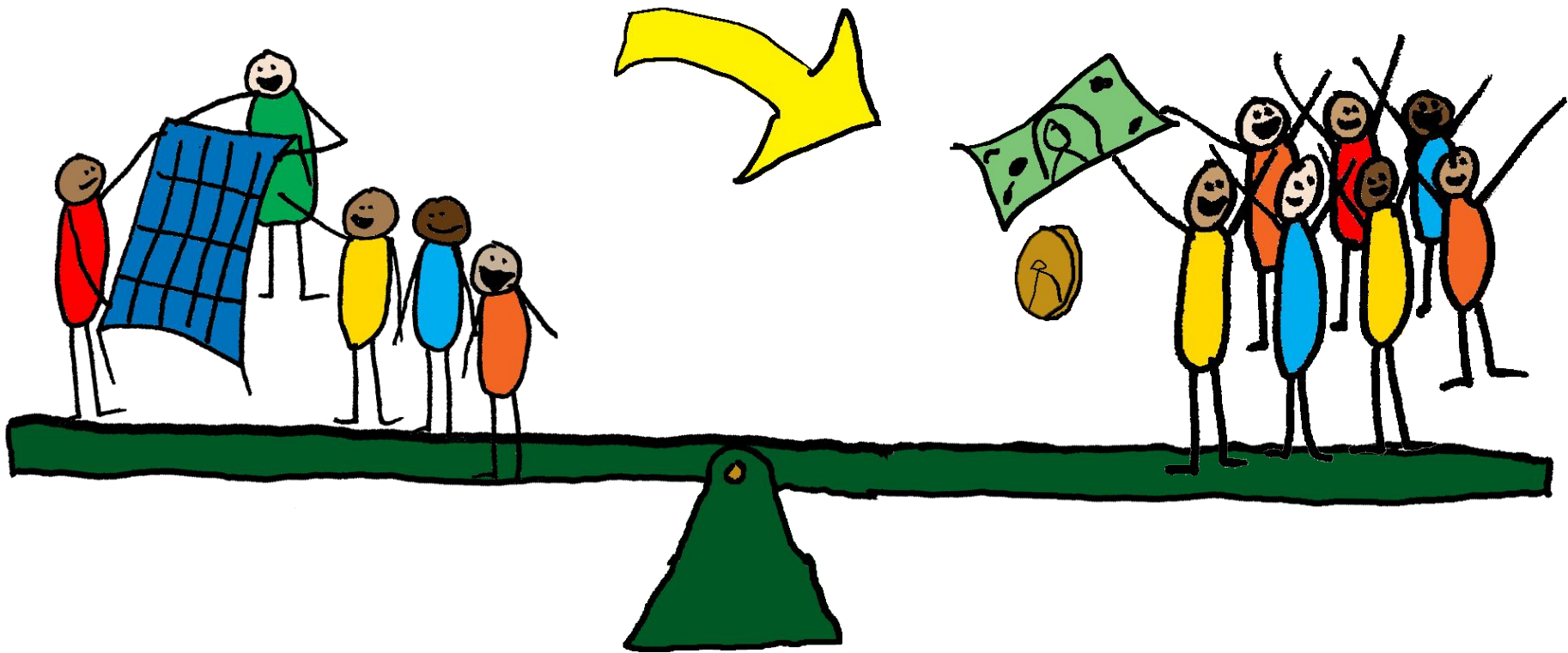
Everyone can capitalize it

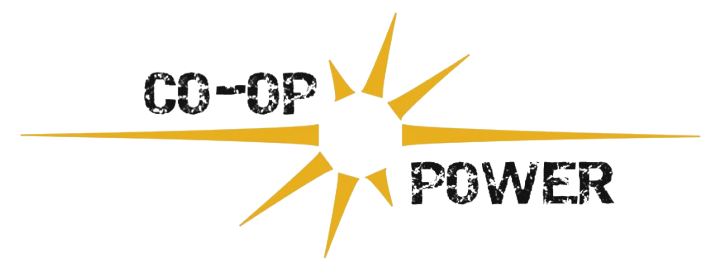


Investors get less



People get more





Challenges

- Subsidies require wealthy investor participation - private equity
- Exclude Low and Moderate Income (LMI) and communities of color
- Small projects shunned in favor of largest available options
- Community initiatives have little access to financing

CO-OP

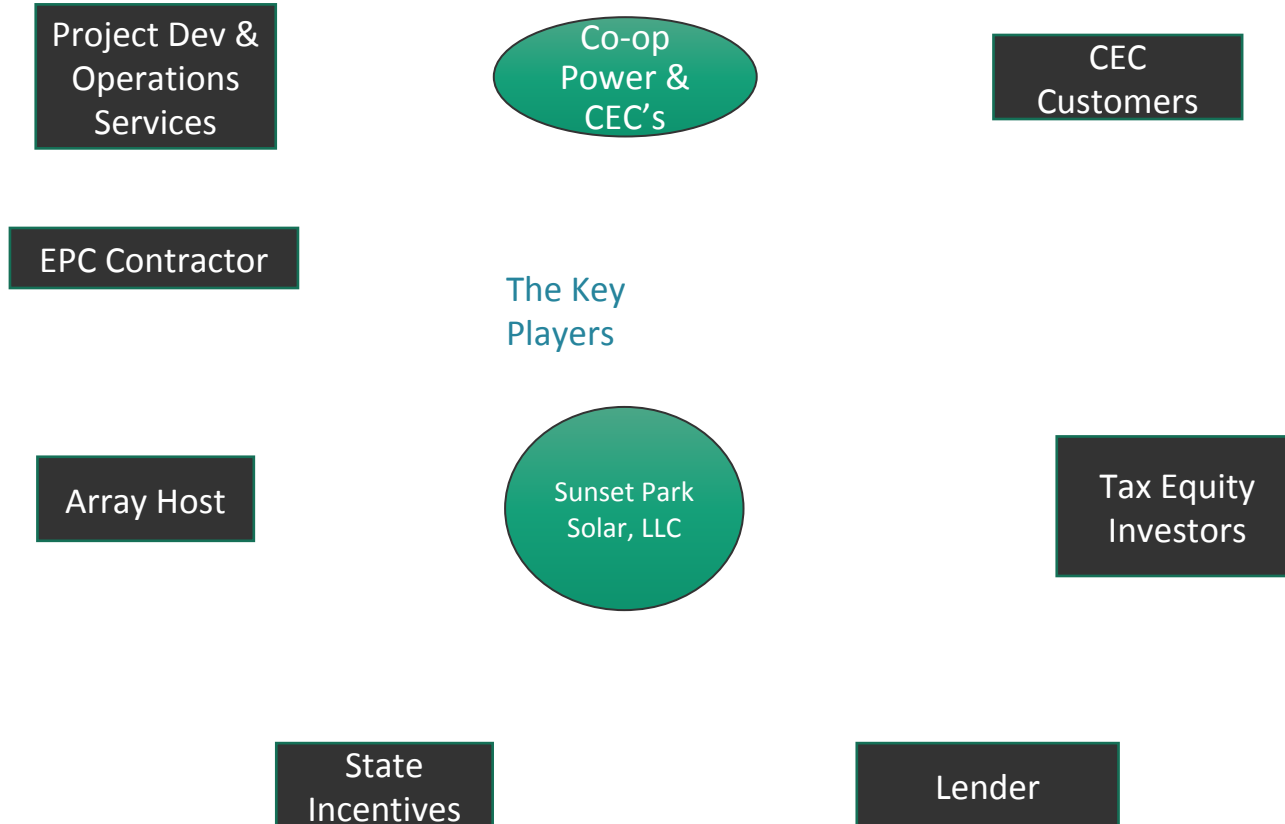
POWER

Types of Third Party Financing

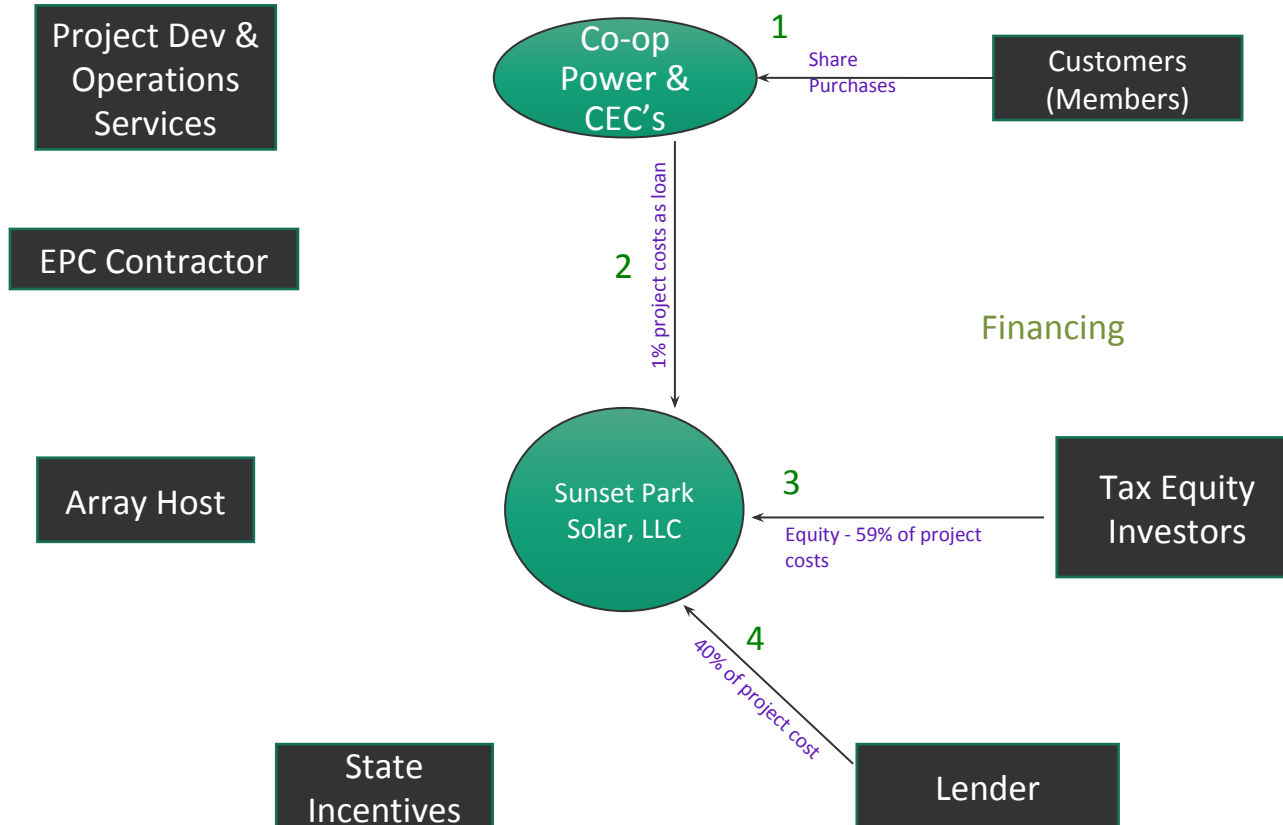
Investors use one of these three types of financing structures:

- Pre-Paid PPA (Power Purchase Agreement)
- Sale-Leaseback
- Partnership Flip

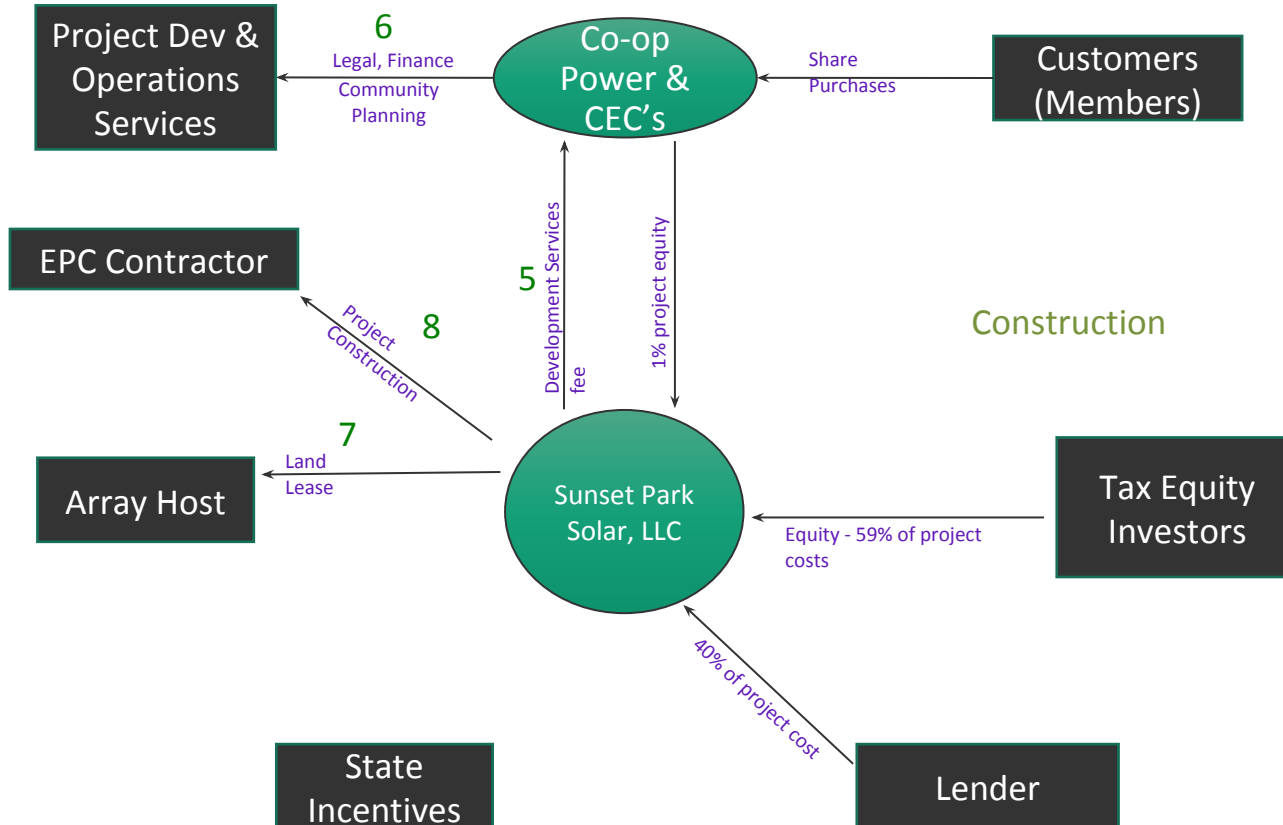
Community Solar Project Finance



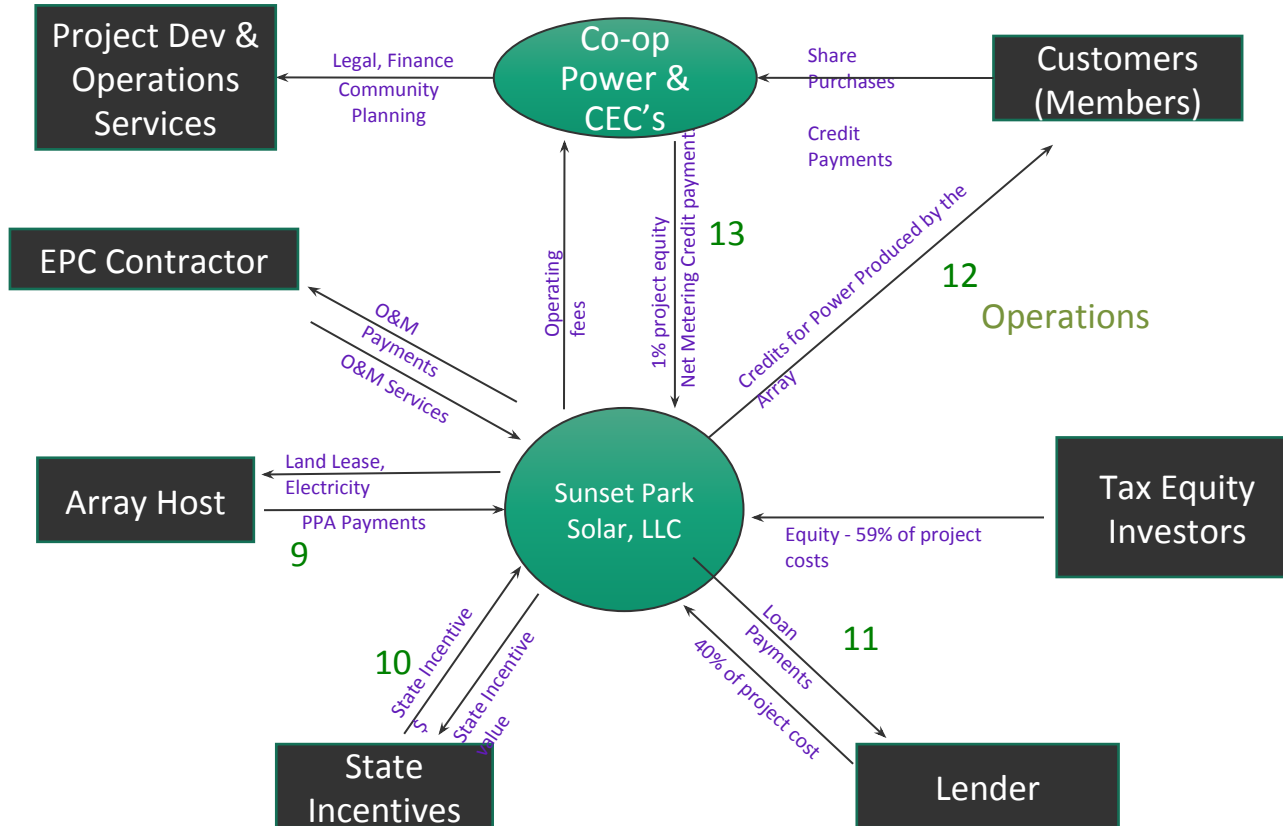
Community Solar Project Finance



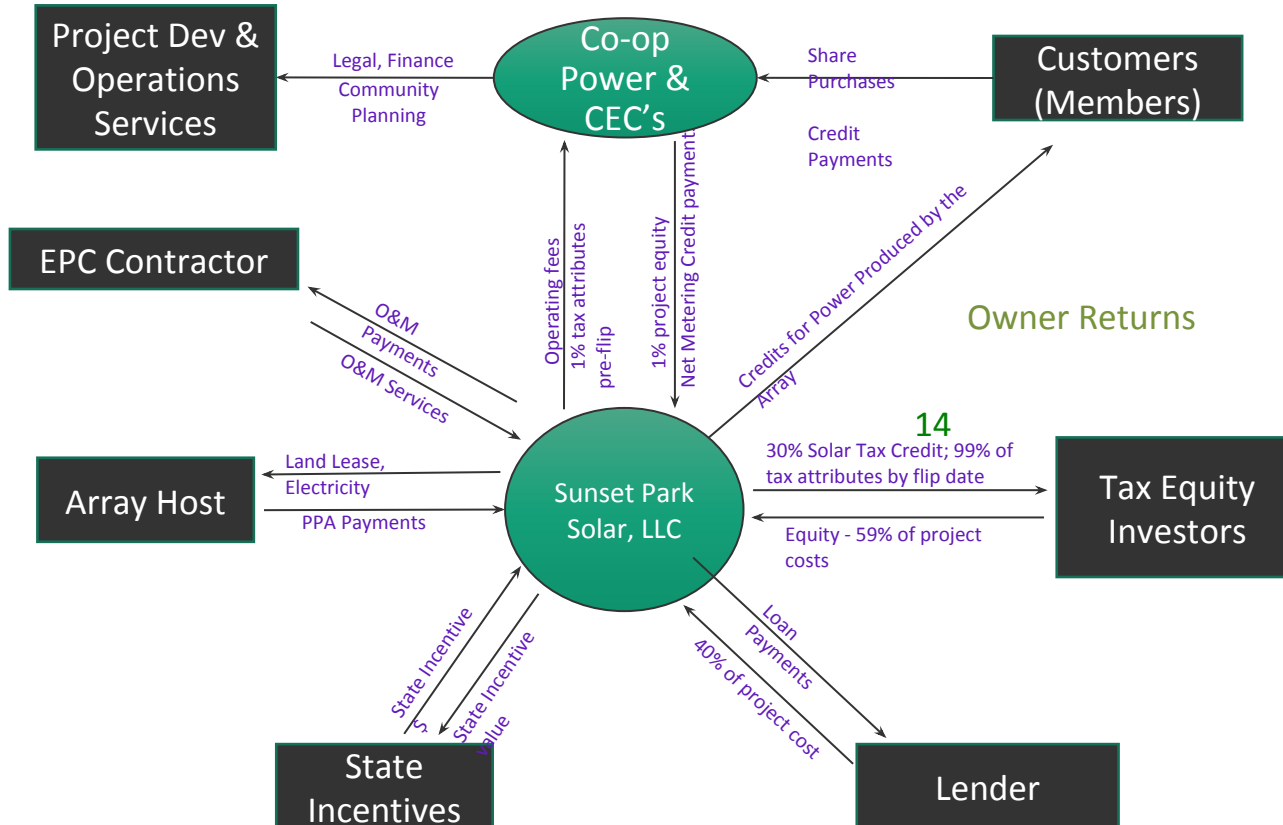
Community Solar Project Finance



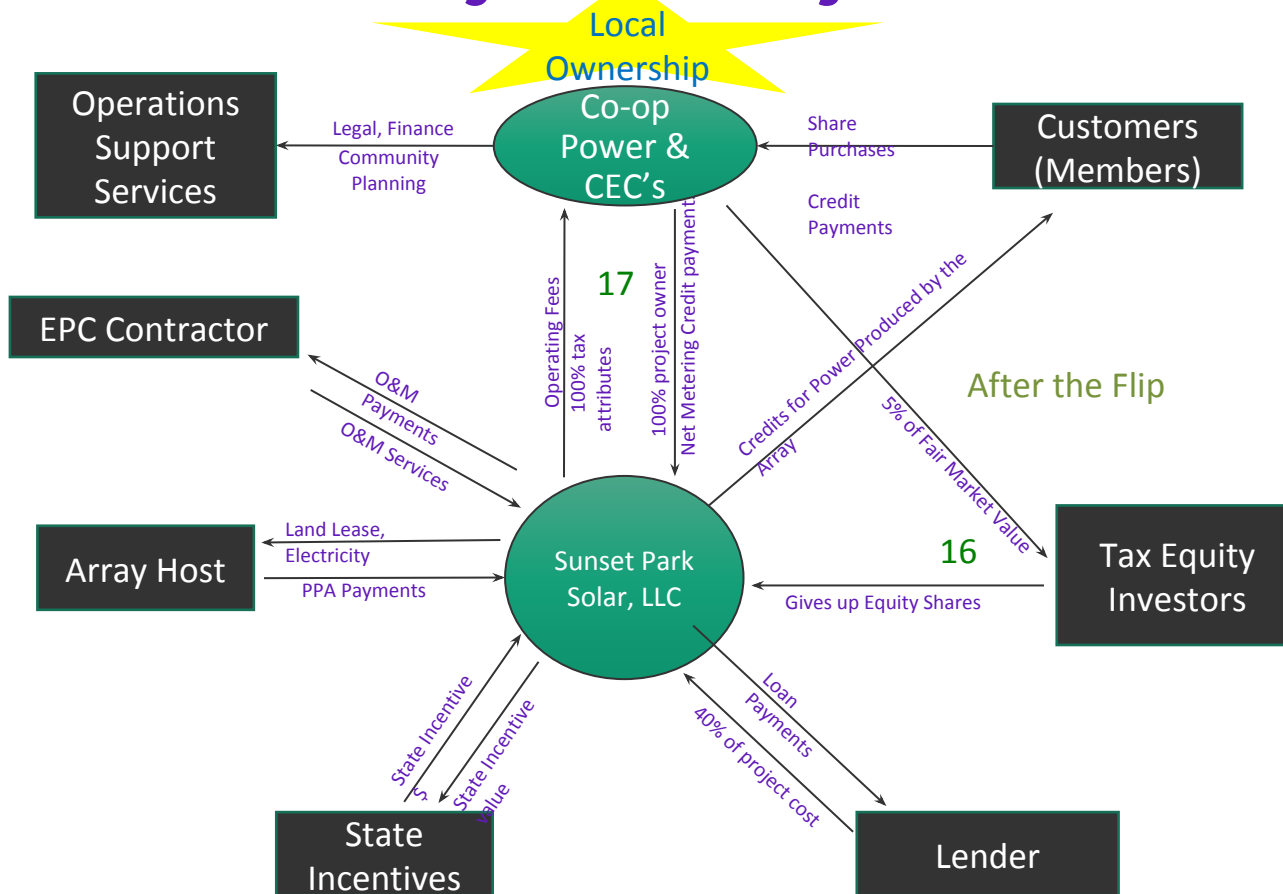
Community Solar Project Finance



Community Solar Project Finance



Community Solar Project Finance



Sunset Park Solar

Sunset Park Neighborhood



31% below poverty line

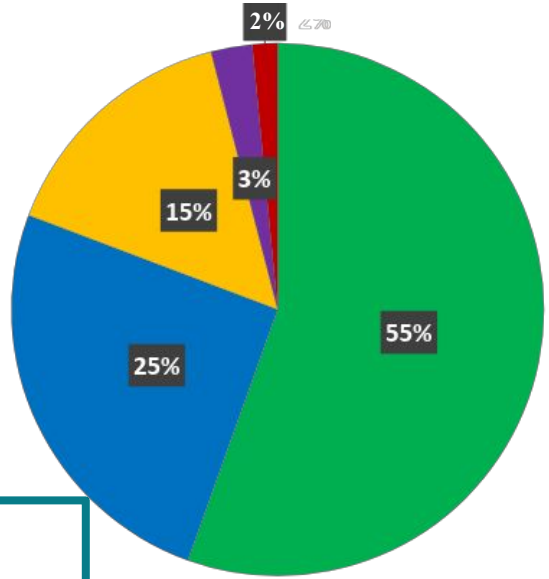


50% linguistically isolated



High rates of respiratory diseases

- Latino
- Asian
- White
- Black
- Other



Local Pollution



Transportation



Energy



Industry

Sources: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates; New York State Department of Health, Statewide Planning and Research Cooperative System, 2012; NYC DOHMH, Bureau of Vital Statistics, 2009-2013

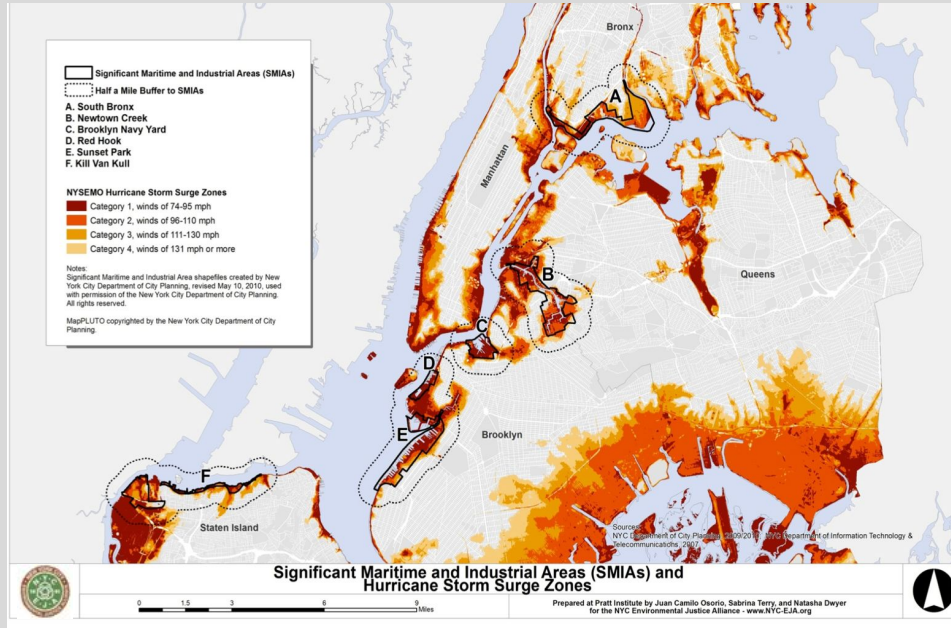
What is “Environmental Justice”?



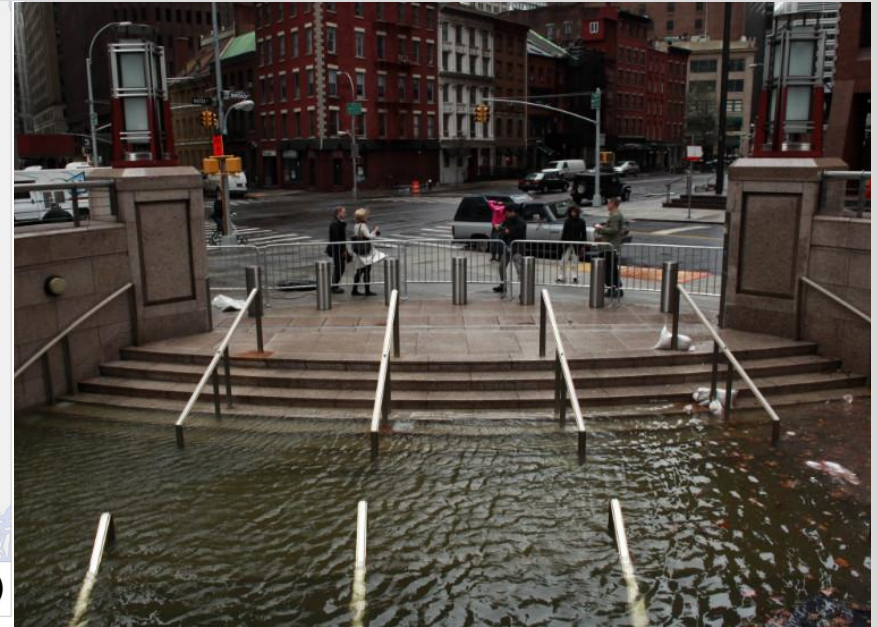
Environmental Justice



Climate Justice & the climate crisis:



Significant Maritime and Industrial Areas (SMIA) and Hurricane Storm Surge Zones. Source: NYC-EJA.



Flooded subway station in New York City after Superstorm Sandy. Source: Unknown.

The Just Transition Model:

Extractive Economy

Regenerative Economy



- **Linear**
- **Exploitation**
- **Disparity**

- A JUST TRANSITION MUST:**
- Shift economic control to communities
 - Democratize wealth and the workplace
 - Advance ecological restoration
 - Drive racial justice and social equity
 - Relocalize most production and consumption
 - Retain and restore cultures and traditions

- **Circular**
- **Cooperation**
- **Equity**

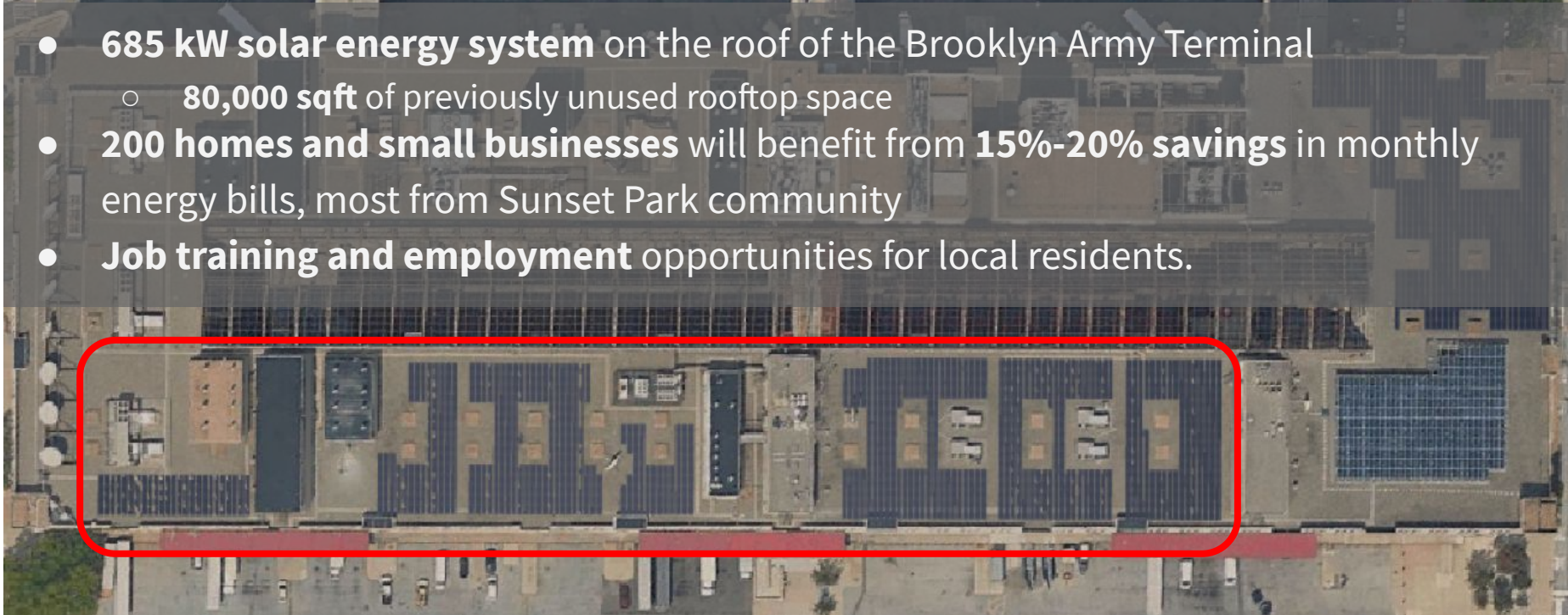
Sunset Park Solar: Project Origin

- Superstorm Sandy 2012
- **UPROSE** organizing on renewable energy in Sunset Park.
- **Climate Justice Center & Sunset Park Community Action Plan for Climate Resiliency**
- RFP released by NYC Economic Development Corp
- Innovative project team



Sunset Park Solar Project Details

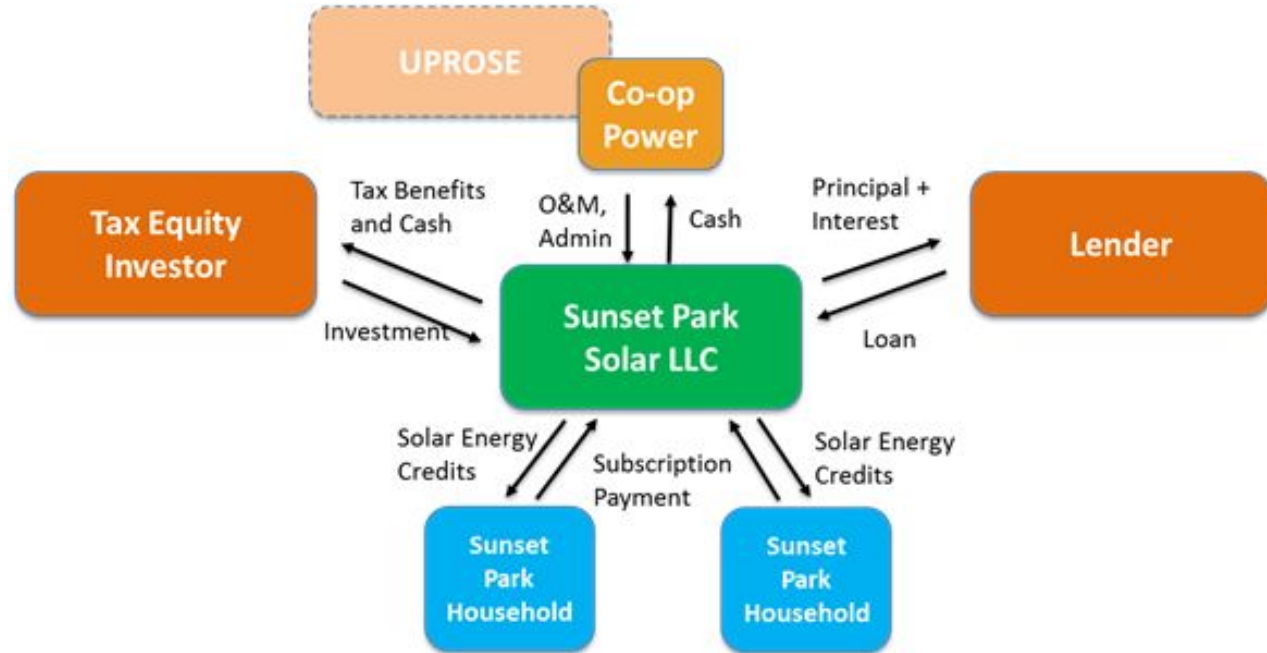
- **685 kW solar energy system** on the roof of the Brooklyn Army Terminal
 - **80,000 sqft** of previously unused rooftop space
- **200 homes and small businesses** will benefit from **15%-20% savings** in monthly energy bills, most from Sunset Park community
- **Job training and employment** opportunities for local residents.



Aerial Rendering of Brooklyn Army Terminal (BAT)

The Sunset Park Solar Ownership Model

- **NY's first cooperatively-owned solar** developed, owned and operated by the local community through the New York City Community Energy Co-op.
- **Energy Democracy:** Ownership options for UPROSE after the ownership flip



UPROSE Outreach



Concepts



Trust



Outreach



Communication



Sunset Park SOLAR

Cooperativa de Energía Solar Comunitaria

Powered By: **UPROSE**

- ¡Ahorre en su factura de electricidad mientras apoya una transición justa hacia la energía verde!
- ¡Tanto Inquilinos como propietarios pueden participar!
- Los paneles solares se instalarán en el techo del Brooklyn Army Terminal aquí en Sunset Park, no en su techo!
- ¡Participe en construir poder comunitario!

Preguntas? ¡Contáctenos!
Email: info@uprose.org or call
O llámenos: (718)492-9307

¡Poder solar por
nosotros y para
nosotros!

Para inscribirse visite: sunsetparksolar.org

AN INITIATIVE BY: **UPROSE** **SOLAR ONE** **CO-OP POWER** **NYCEDC**

Sunset Park SOLAR

日落公园太阳能 (Sunset Park Solar) 是纽约市第一个让社区受益, 由社区拥有和操作的太阳能合作社!



由我们控制, 为我们而设的太阳能!

请上网登记: www.sunsetparksolar.org

资讯由以下单位

为您提供:

UPROSE **SOLAR ONE** **CO-OP POWER** **NYCEDC**

Sunset Park Solar Timeline

- Finalize legal documents
- Sign-up subscribers
- Permits & approvals

- Ownership flip option
- Model for communities
- Community benefits

Fall 2019

Winter 2019

5-7 Years

16 Years

- Complete construction
- Fill subscriptions
- Commissioned by Con Ed

- Ownership flip
- Tax equity investor 5%
- UPROSE gains ownership

Important Takeaways

 **Unique project experiences**

 **Iterative process**

 **Just Transition Model-Big picture!**

 **Innovative ownership**

 **Need diverse support**

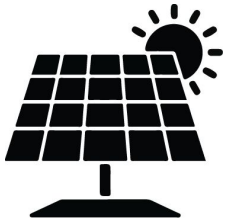


Contact Information

Summer Sandoval, UPROSE
summer@uprose.org

Ernesto Cruz, Co-op Power
ernesto@cooppower.coop

Lynn Benander, Co-op Power
lynn@cooppower.coop



Solar for us by us!

Thank You!