

# **COMMUNITY SOLAR**

**OVERVIEW** 

HERE HALL

Residents, businesses, cities, NGOs subscribe to community solar project

Solar electricity generated at community solar site e.g. public or private rooftops, parking garages, or open space

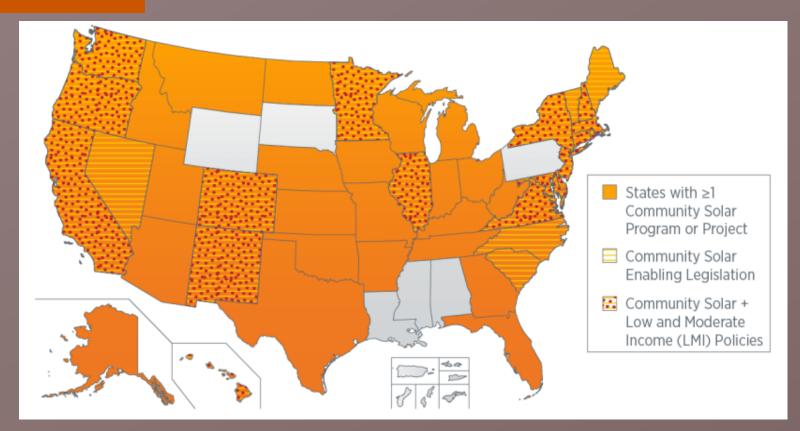
> Electricity flows to host customer or an on-site meter to electrical utility grid.

Solar electricity savings is applied as a \$ credit to subscribers' electric bills

Utility measures and calculates the \$ value for the power to subscribers ownership of the sharedsystem

## WHERE IS COMMUNITY SOLAR

### **AVAILABLE**



#### **IRA OPPORTUNITY CONNECTING**

#### **AFFORDABLE HOUSING & COMMUNITY SOLAR**



**Community Solar Provides Support**: Once operational clean energy produced by the solar array is sold to subscribers or pooled customers, generating revenue for the owner.

**Deal Structures Expanded:** 1.) Sale-leaseback 2.) limited partnership w/ investor. New Options: Direct Pay option - ITC credits redeemed for face value reducing development fees (retroactively).

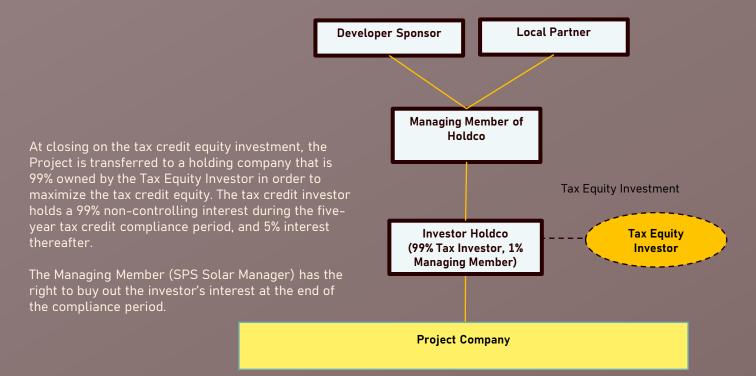
**Bonus Credits:** EJ Credit 2024 for project in LI communities or other criteria including projects on affordable housing. These could bump energy credit to 50%.

New Financing Options: \$27B of GGRF funds to support renewable projects at below market terms.

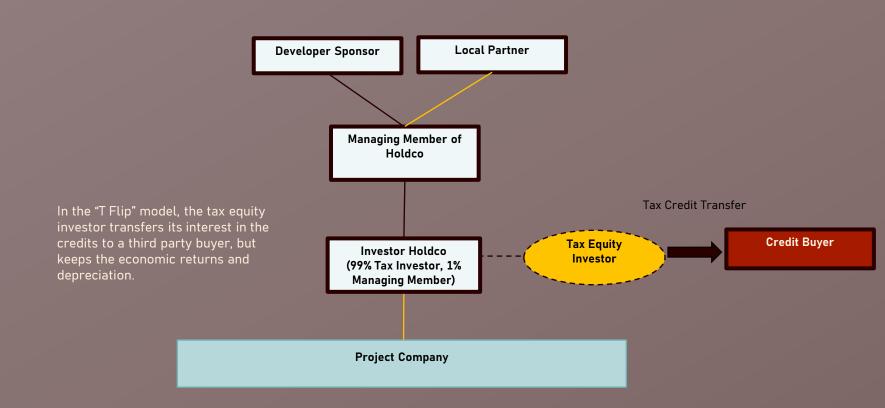
### COMPARING SOLAR FINANCE – LIHTC v. FREE STANDING

| LIHTC SOLAR  | ITC COMMUNITY SOLAR   |
|--|---|
| Subject to LIHTC allocation  | No limit on base ITCs; bonus credits competitive  |
| Power use restricted per common facilities rules                               | Power available for sale to subscribers or Solar for All buyer  |
| Reduced operating costs to project and/or resident savings                     | Cash flow to project/sponsor and/or resident savings  |
| Local regulatory concerns include QAP, other state and local regulatory issues | Local regulatory concerns include availability of community solar/Solar for All, reimbursement for power produced |
| New projects or tax credit resyndications only                                 | New or existing projects  |
| Tax credit equity upfront  | Construction financing bridges to tax credit equity   |

## WP - Partnership Flip Solar Project



## WP - T Flip Solar Project



## **PROJECT PHASES**

# **TIMELINE & CASH FLOW**

LIVE SOLAR PROJECT **COMMUNITY ENGAGEMENT** CONSTRUCTION PHASE (Operations & Income) (Project Development) (Pre-development) 25 Years 12-18 Months 12-15 Months (\$170K example) TIMELINE (\$975K, Average \$40K annually) \$ FLOW TO PARTNER 30% Dev Fee 40% Dev Fee Pre-Dev Grants Capacity Grant Annual Revenue Notice to Refinance (TBD) From Solar Sales Proceed 30% Dev Fee Construction Complete **FUNDING** Predevelopment Permanent Financing Sponsor Equity and SOURCES Construction Loan

# EXAMPLE 1.25 MW

## **SOURCES & USES**

| Sources                                      | %    | \$                                  | \$/watt                    |
|--|------|-------------------------------------|----------------------------|
| Permanent Debt                               | 22%  | \$950,000                           | \$0.76                     |
| Tax Credit Equity                            | 33%  | \$1,462,500                         | \$1.17                     |
| Working Power (Sponsor Equity)               | 6%   | \$250,000                           | \$0.20                     |
| Partner Equity                               | 6%   | \$250,000                           | \$0.20                     |
| Incentives                                   | 34%  | \$1,500,000                         | \$1.20                     |
| Total Sources                                | 100% | \$4,412,500                         | \$3.53                     |
| Uses   |      | \$                                  | \$/watt                    |
|  |      |                                     |                            |
| Solar PV Installation                        |      | \$3,312,500                         | \$2.65                     |
| Solar PV Installation Interconnection        |      | \$3,312,500<br>\$125,000            | \$2.65<br>\$0.10           |
|  |      | , ,                                 | _                          |
| Interconnection                              |      | \$125,000                           | \$0.10                     |
| Interconnection Contingency                  |      | \$125,000<br>\$325,000              | \$0.10<br>\$0.26           |
| Interconnection Contingency Development Fees |      | \$125,000<br>\$325,000<br>\$375,000 | \$0.10<br>\$0.26<br>\$0.30 |



| Activity                        | 2024       | 2025           | 2026       | 2027       | 2028       | 2044   |       | 2045       | 2046       | 2047       | 2048       |
|---------------------------------|------------|----------------|------------|------------|------------|--------|-------|------------|------------|------------|------------|
| kW Produced                     | 1,250,000  | 1,243,750      | 1,237,531  | 1,231,344  | 1,225,187  | 1,130, | 763   | 1,125,109  | 1,119,448  | 1,113,886  | 1,108,317  |
| Price per watt                  | 0.1944     | 0.1954         | 0.1964     | 0.1974     | 0.1984     | 0.2148 | 3     | 0.2159     | 0.2170     | 0.2181     | 0.2192     |
| Electricity \$                  | 243,061.75 | 243,055.6<br>8 | 243,049.60 | 243,043.52 | 243,037.45 | 242,94 | 40.25 | 242,934.18 | 242,928.10 | 242,922.03 | 242,915.96 |
| Subsc. Savings<br>(20%)         | \$48,612   | \$48,611       | \$48,610   | \$48,609   | 48,607     | 48,588 | 3     | 48,587     | 48,586     | 48,584     | 48,583     |
| 1% admin                        | \$2,431    | \$2,431        | \$2,430    | 2,430      | 2,430      | 2,429  |       | 2,429      | 2,429      | 2,429      | 2,429      |
| Income                          | \$192,019  | \$192,014      | \$192,009  | 192,004    | 192,00     | 191,92 | 23    | 191,918    | 191,913    | 191,908    | 191,904    |
| Expenses                        |            |                |            |            |            |        |       |            |            |            |            |
| Tax/Acct.                       | 7,500      | 7,650          | 7,803      | 7,959      | 8,118      | 11,145 | 5     | 11,367     | 11,595     | 11,827     | 12,063     |
| Insurance                       | 8,836      | 9,012          | 9,193      | 9,376      | 9,564      | 13,129 | )     | 13,392     | 13,660     | 13,933     | 14,212     |
| 0&M                             | 15,000     | 15,300         | 15,606     | 15,918     | 16,236     | 22,289 | )     | 22,735     | 23,190     | 23,653     | 24,127     |
| Solar/ Subscriber<br>Management | 15,000     | 18,300         | 18,606     | 16,918     | 16,236     | 22,289 | )     | 22,735     | 23,190     | 23,653     | 24,126     |
| Lease Payment                   | 20,000     | 20,200         | 20,402     | 20,606     | 20,812     | 24,404 | 4     | 24,648     | 24,894     | 25,143     | 25,395     |
| Total Expenses                  | 66,336     | 67,462         | 68,610     | 69,778     | 70,967     | 93,256 | 5     | 94,877     | 96,528     | 98,210     | 99,923     |
| Net Operating \$                | 125,683    | 124,552        | 123,400    | 122,227    | 121,032    | 98,667 | 7     | 97,041     | 95,385     | 93,699     | 91,981     |
| Debt Service                    | 70,986     | 70,986         | 70,986     | 70,986     | 70,986     | -      |       | -          | -          | -          | -          |
| Net Revenue                     | 54,697     | 53,565         | 52,413     | 51,240     | 50,046     | 98,667 | 1     | 97,041     | 95,385     | 93,699     | 91,981     |
|                                 |            | 1              |            | 100        |            |        |       | 177        | J-40)      |            | ·          |

#### **WORKING POWER**

## CASE STUDY: Brentwood Reservoir Community Solar

The Brentwood Reservoir project is a partnership with National Housing Trust (NHT) with funding support from Solar for All on DC Water's Brentwood Reservoir. The 1.8 MW project is one of the largest community solar projects in DC. It will provide energy for 500 lowincome residents cutting their energy bills in half. The project cost approx. \$5M to construct and will generate \$8M in energy cost savings, revenue, and lease payments to DC Water.

Developed & Co-owned with

NATIONAL HOUSING TRUST

Sun Light General Capital Solar Breige Bevelopment and Francisco

Solar Energy Generated 1.8MW 50% reduction in energy bills for 500 income qualified households

| Total Development Costs                          | \$5M         |
|--|--------------|
| Community Energy Savings                         | \$4M         |
| Lease Payment & cash flow to local utility       | \$3.8M       |
| Cash flow to national affordable housing partner | \$310K       |
| Overall Community Benefit                        | \$8M approx. |



