



Energy Sovereignty Institute

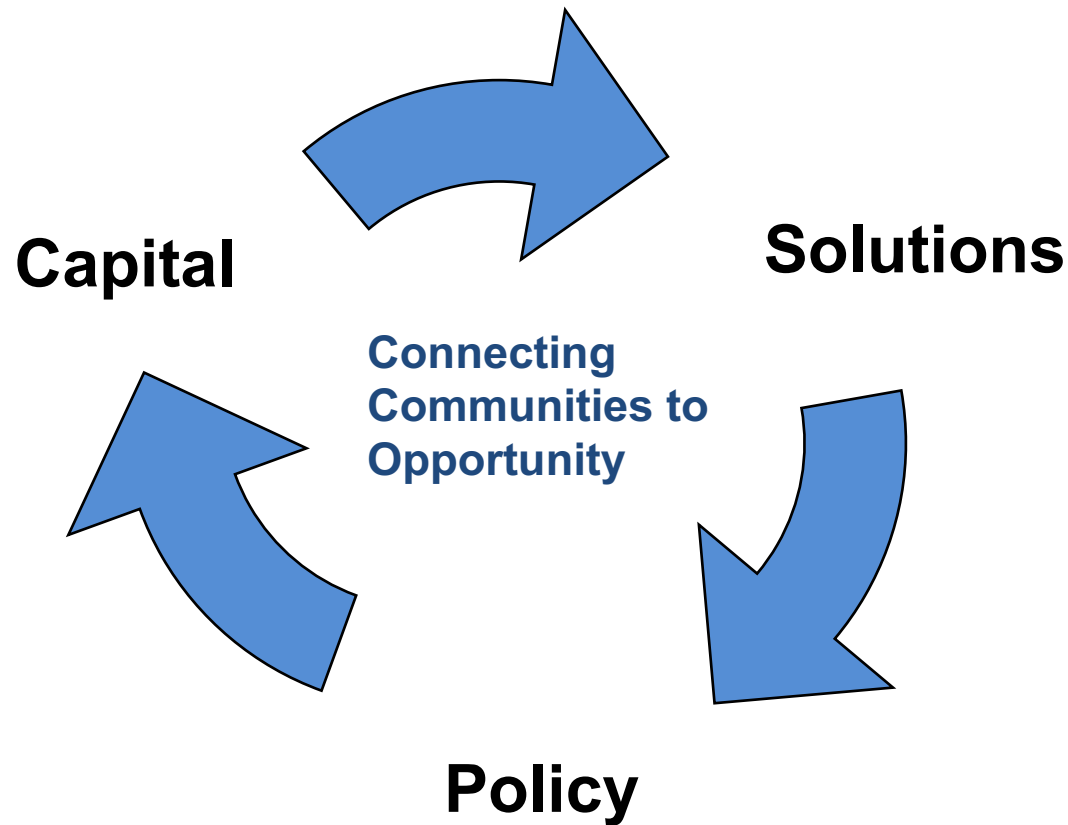
Clean Energy Solutions for Affordable Housing

June 2019



What we do

- Connecting **Capital to Communities**
- Innovating **Solutions** for the Field
- Transforming **Policy** for long-term change



Problem

Affordable housing residents are the most vulnerable to high utility bills, which can lead to housing insecurity – low income residents bear double the energy burden, forcing families to make decisions between paying rent or their energy bill.

Carbon emission results from the fact that these buildings are in much need of maintenance and repairs - 21% of all U.S. carbon emissions comes from residential buildings, more than half of the built environment

Vulnerable populations face increased health risks – from service disruptions during climate-related events during extreme weather and prolonged power outages

Systemic disinvestment in low-income communities results in less economic opportunities – which creates a deficiency in the right capital to preserve and improve the multifamily affordable housing stock

Current Market

- Energy and Solar Service Providers have built a pipeline of \$13 billion in the commercial sector
- The **traditional ESCO and Solar models do not serve the multifamily affordable sector** because of needed scale and returns
- We are starting to see **emerging mission based service companies** with models that benefit multifamily owners through savings and capacity needs

How we have responded

Enterprise green financing commitments since 2009

SOLUTIONS • \$14 M in grants to provide Technical Assistance and Capacity
60,000 + Units

CAPITAL • Deployed \$35 M in short and long term green financing
3,000 + units

**POLICY &
ADVOCACY** • Reaching our 16 MW White House solar commitment
• Met our Better Buildings Challenge T.A. and Financial Ally commitment

Barriers to Scale

- **Disaggregated building stock and infrastructure** - affordable housing and community development represent a diversity of ownership structures, and a wide variety of financing sophistication, approaches and needs.
- **Major capacity needs** - lack of owner capacity from time and staff constraints, and an inadequate service infrastructure that focuses on this market
- **Complicated capital structures** - complex and regulated capital structures, with major deferred maintenance burdens, and critical gaps in capital improvements budgets

Market Need

Dedicated network of service providers- to provide technical assistance and capital solutions for small deal sizes; willing to aggregate and become affordable housing ESCO and Solar experts with viable and sustainable models

Deploy the right capital models- to create a streamlined cost-effective solution tailored to our sector that is revenue generating (community solar, etc.)

Streamlined pipeline development to drive demand – service providers and industry players to activate latent demand to get scale to attract more capital

Increase LMI Resources - avoid fragmentation of sources, support ease of use, engage capital markets and investors

CASE STUDY

Solar for Affordable Housing

Direct Ownership

- **Cash Purchase**
 - Economic benefits stay with owner
 - Requires up front cash
 - If non-profit can't leverage ITC

PPA

- **3rd Party Owns System**
 - Property owner purchase energy from system at discount
 - No up front cost
 - Half benefits go to owner

Portfolio/SPE

- **AH Sponsor sets up SPE**
 - Development fee to sponsor
 - Leverage ITC
 - PPA style savings to properties
 - Greater risk exposure to sponsor

Community Solar

- **3rd party builds solar on rooftops**
 - Energy sold at discount to tenants
 - Lease payments to properties
 - Leverage ITC
 - Lease payment to property
 - Energy savings only to tenants, not property

CASE STUDY: NHT Renewable



Project Name: NHT Renewable, LLC

Sponsor: National Housing Trust (NHT)

Location: Washington, DC

Properties: 5 properties (Copeland Manor, Galen Terrace, Meridian Manor, R St, St Dennis)

Units: 340 units Affordable Homes

Renovation Plan: installation of Solar Photovoltaic (PV) and Solar Thermal (ST) systems on the five properties



Portfolio Solar Model: A Tool to Create Income for Partners

Structure

- ✓ **Traditional Flip LIHTC GP/LP structure.** There is partnership ownership of PV equipment. (Sponsor/GP 1%; ITC Investor/LP 99%/for 5 years)
- ✓ **Financing occurs across a portfolio** and maintain ownership at the corporate level, not a property level, align solar incentives for owners, investors and lenders

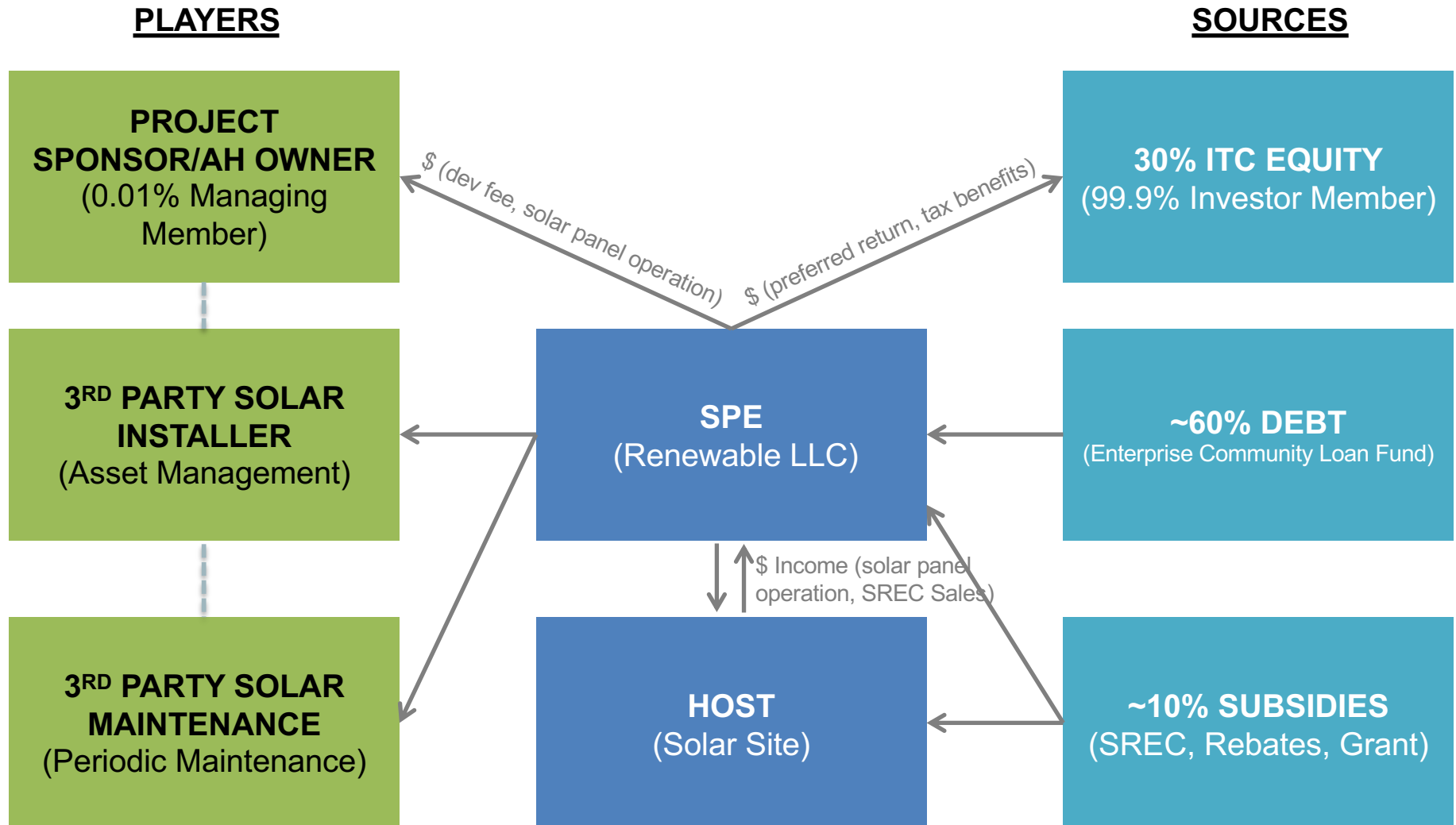
Benefits

- ✓ **Revenue** – property owner receives the operating income rather than a third party, allowing it to diversify its revenue streams and finance future affordable housing.
- ✓ **Decreased Operating expenses** - The PPA terms are more favorable to the Sponsor (pricing locked in for 10 years w/out the usual 3rd party PPA 3% escalation)
- ✓ **Less Costly** - develop multiple sites, and get reduced pricing on systems,

Roles

- ✓ **Project Development TA & Origination** –assess opportunity, structure financing/incentives/legal, bring solar provider through developer fee, S4 funds (NHT/E & Enterprise)
- ✓ **Sponsor**– create SPE and provide host sites for solar and receive developer fee, income from solar panel operation
- ✓ **Debt** – underwrite and provide long-term lending capital to sponsor (ECLF w/ Initiatives)
- ✓ **Equity** –provide 30% equity and receive tax benefits, preferred return (NHT w/ identified investor)

Portfolio Solar Model: how does it work?



Development Budget

Uses	
Hard Costs	\$1,121,373
Soft Costs	\$193,206
Total Uses	\$1,314,579
Sources	
Debt (ECLF 55%)	\$728,205
Investor Equity (ITC 30%)	\$394,374
Sponsor Equity (NHT 15%)	\$192,000
Total Sources	\$1,314,579

Loan Terms



Terms	
Borrower	National Housing Trust
Loan Amount	\$730,000
Term	10 year
Rate	5.5%
Security	UCC Lien on Solar Equipment Sponsor Guarantee
DSCR	1.2x min



Operating Pro Forma – Cash Flow



	2014	2015	2016	2017	2018	5-yr Total
Income						
Sale of SRECs	\$193,777	\$193,777	\$193,777	\$193,777	\$193,777	\$968,885
Sale of Electricity to Property	\$18,800	\$18,800	\$18,800	\$18,800	\$18,800	\$94,000
Total Income	\$212,577	\$212,577	\$212,577	\$212,577	\$212,577	\$1,062,885
Expenses						
Tax and Audit	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000
Maintenance & Insurance	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000
Total Expenses	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
Net Operating Income	\$202,577	\$202,577	\$202,577	\$202,577	\$202,577	\$1,012,885
Debt Service	\$157,406	\$157,406	\$157,406	\$157,406	\$157,406	\$787,029
DCR	1.29	1.29	1.29	1.29	1.29	1.29
Net Cash Flow	\$45,171	\$45,171	\$45,171	\$45,171	\$45,171	
Preferred Return	\$28,800	\$28,800	\$28,800	\$28,800	\$28,800	
Cash Flow to NHT Solar Mgt	\$16,371	\$16,371	\$16,371	\$16,371	\$16,371	

Expected vs. Actual Returns on Operation



Cash Flow Distributions	Year 1 - 5	Year 6	Year 7	Year 8	Year 9	Year 10
Initial Projection	\$0	\$71,077	\$51,100	\$39,446	\$39,446	\$16,138
Actual and Revised Projection*	\$0	\$192,702	\$182,221	\$181,370	\$180,523	\$137,760

*Actual projections reflect increased revenue from SREC income

- ✓ Help affordable housing organizations make their **building resilient and energy efficient**
- ✓ **Prepare their staff** to handle emergencies/operate buildings
- ✓ Ensure **residents remain Safe** and directly benefit

Enterprise Ready to Respond Tools For Resilience



Enterprise Multifamily Retrofit Toolkit



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