



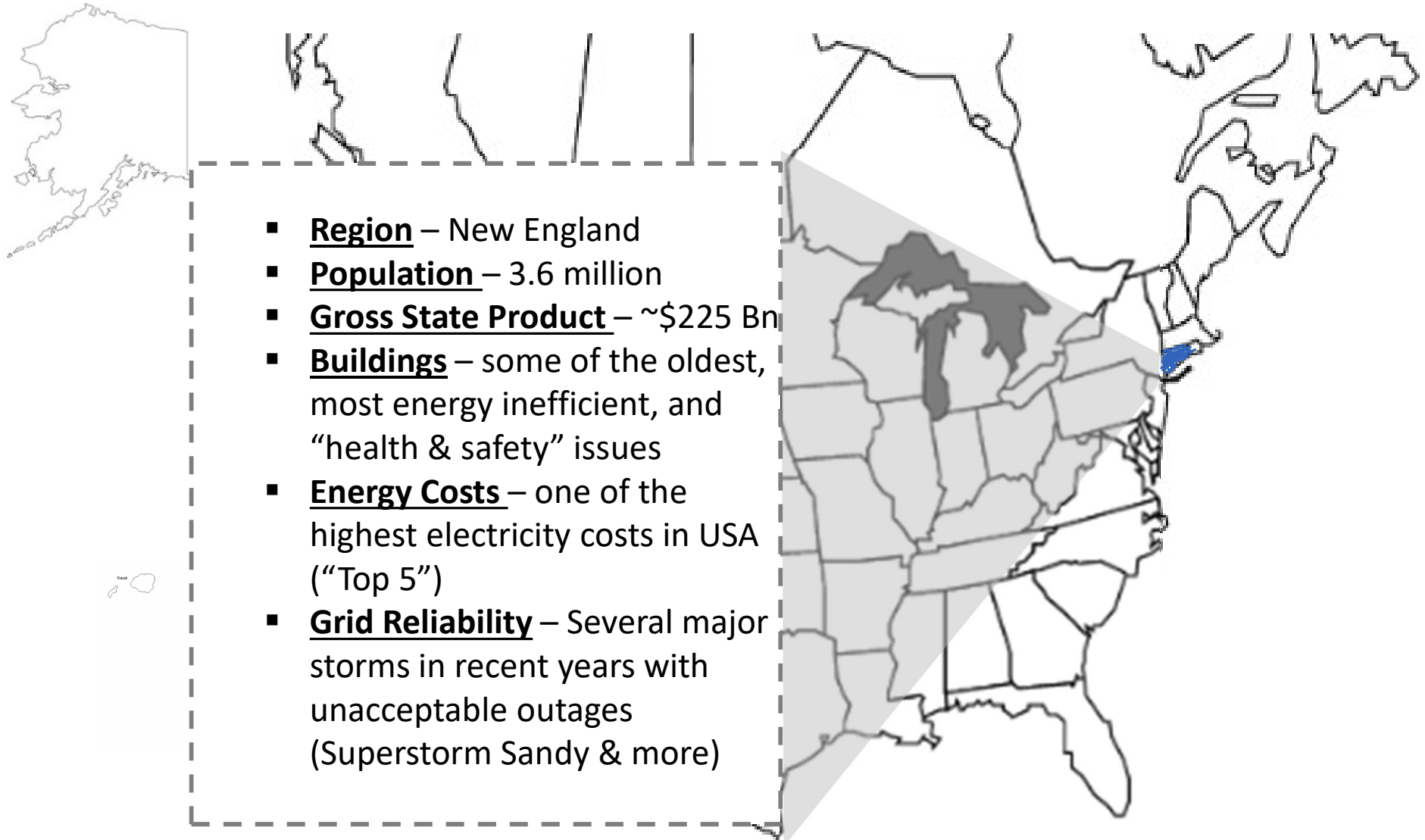
# Green Banks Tools of the Trade

Green Bank Congress  
Shanghai  
29 Nov 2018



# Connecticut

## Microcosm of the United States



- **Region** – New England
- **Population** – 3.6 million
- **Gross State Product** – ~\$225 Bn
- **Buildings** – some of the oldest, most energy inefficient, and “health & safety” issues
- **Energy Costs** – one of the highest electricity costs in USA (“Top 5”)
- **Grid Reliability** – Several major storms in recent years with unacceptable outages (Superstorm Sandy & more)



## Connecticut – A Comprehensive Approach to Climate Policy

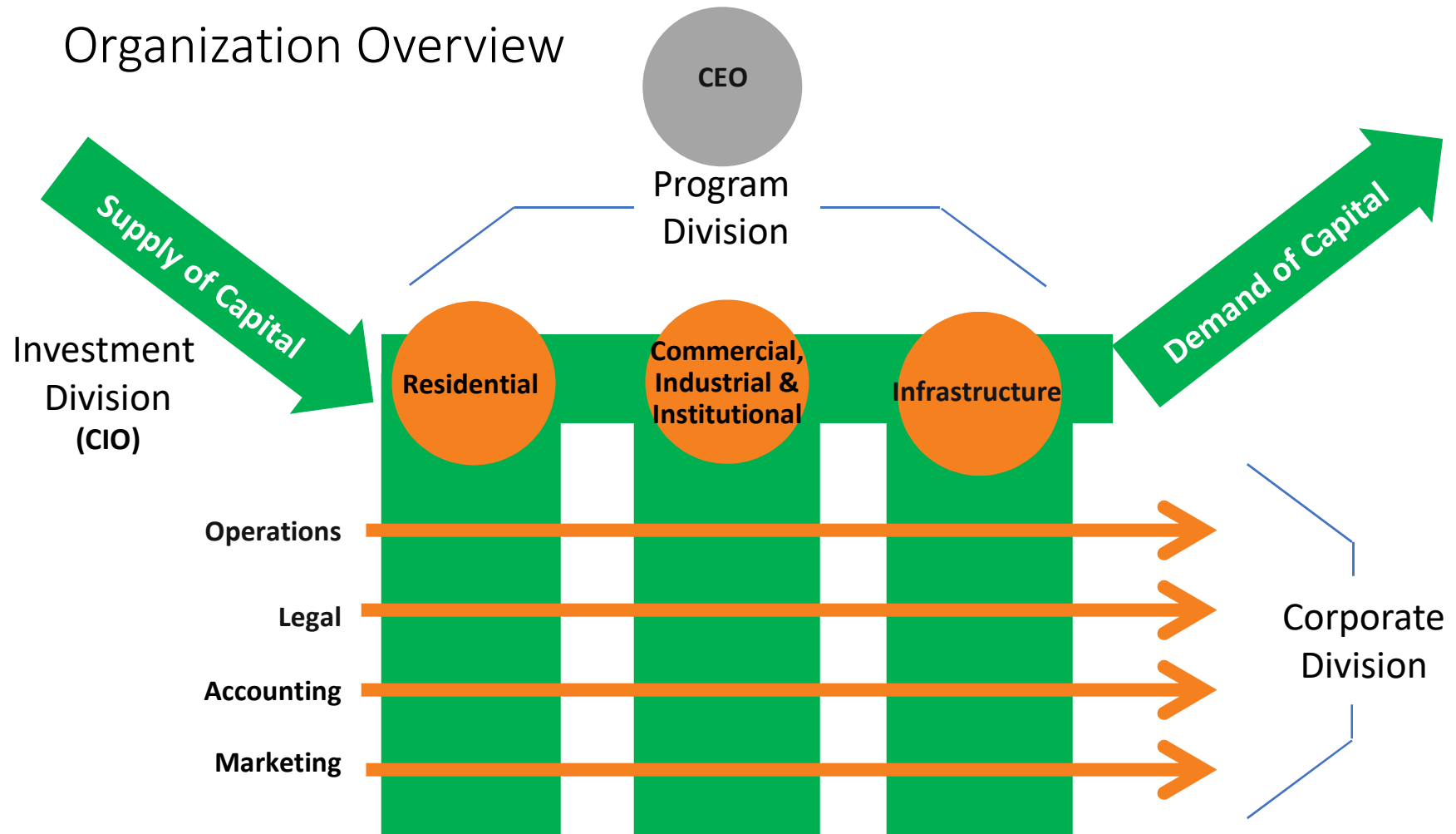
- “Bi-Partisan” support for Energy Policy
  - Energy Efficiency Fund (Jan 2000)\*
  - Clean Energy Fund (Jan 2000)\*
- Global Warming Solutions Act (2008)
  - Regional Greenhouse Gas Initiative  
(7 states – first “cap-and-trade” program for CO2 emissions (2008))
- Connecticut Green Bank (July 2011)
- Comprehensive Energy Strategy (July 2011)
  - Governor’s Council on Climate Change
    - ZEV MOU – 8 states

\* Both passed in 1998



# Connecticut Green Bank

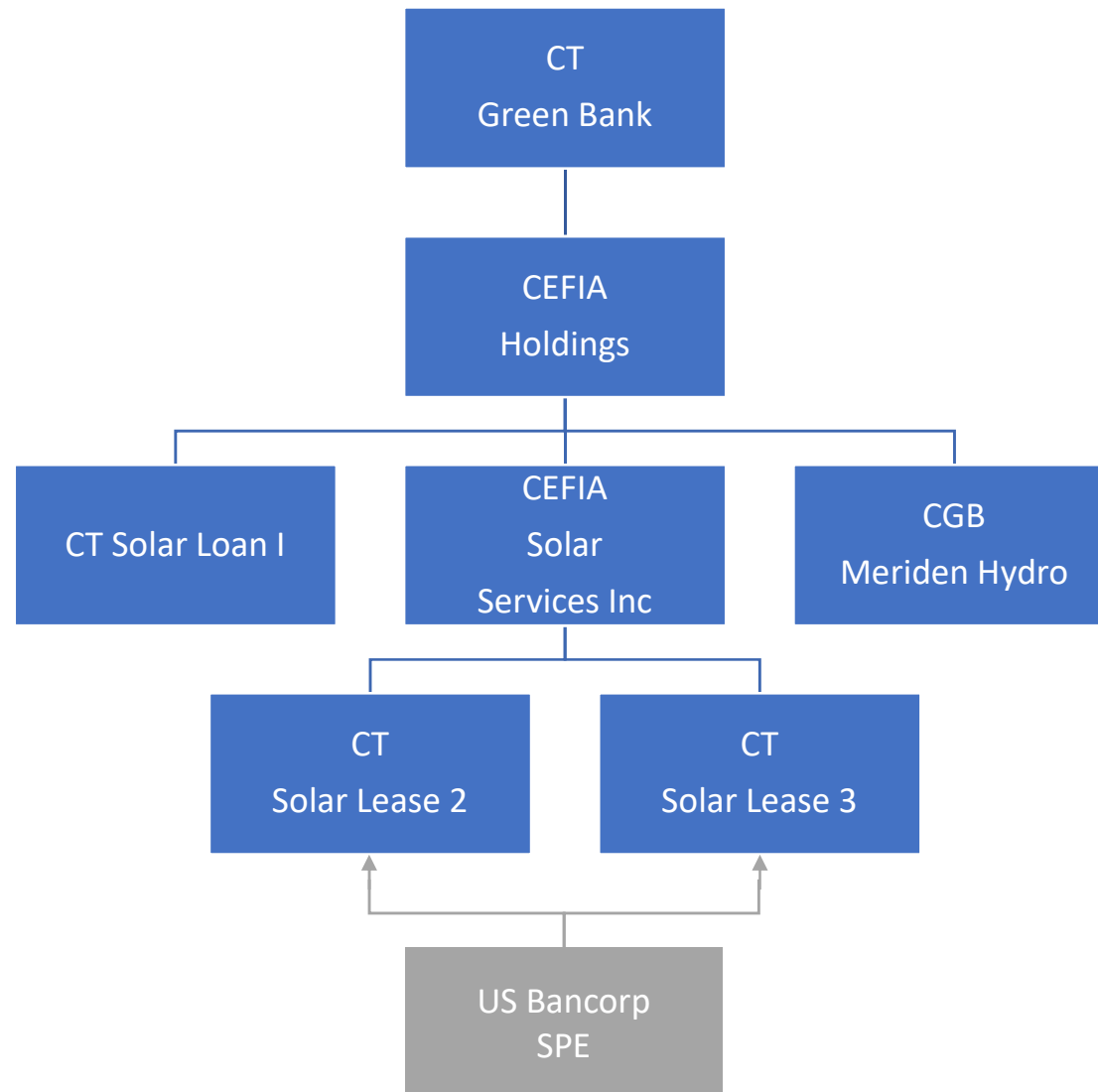
## Organization Overview





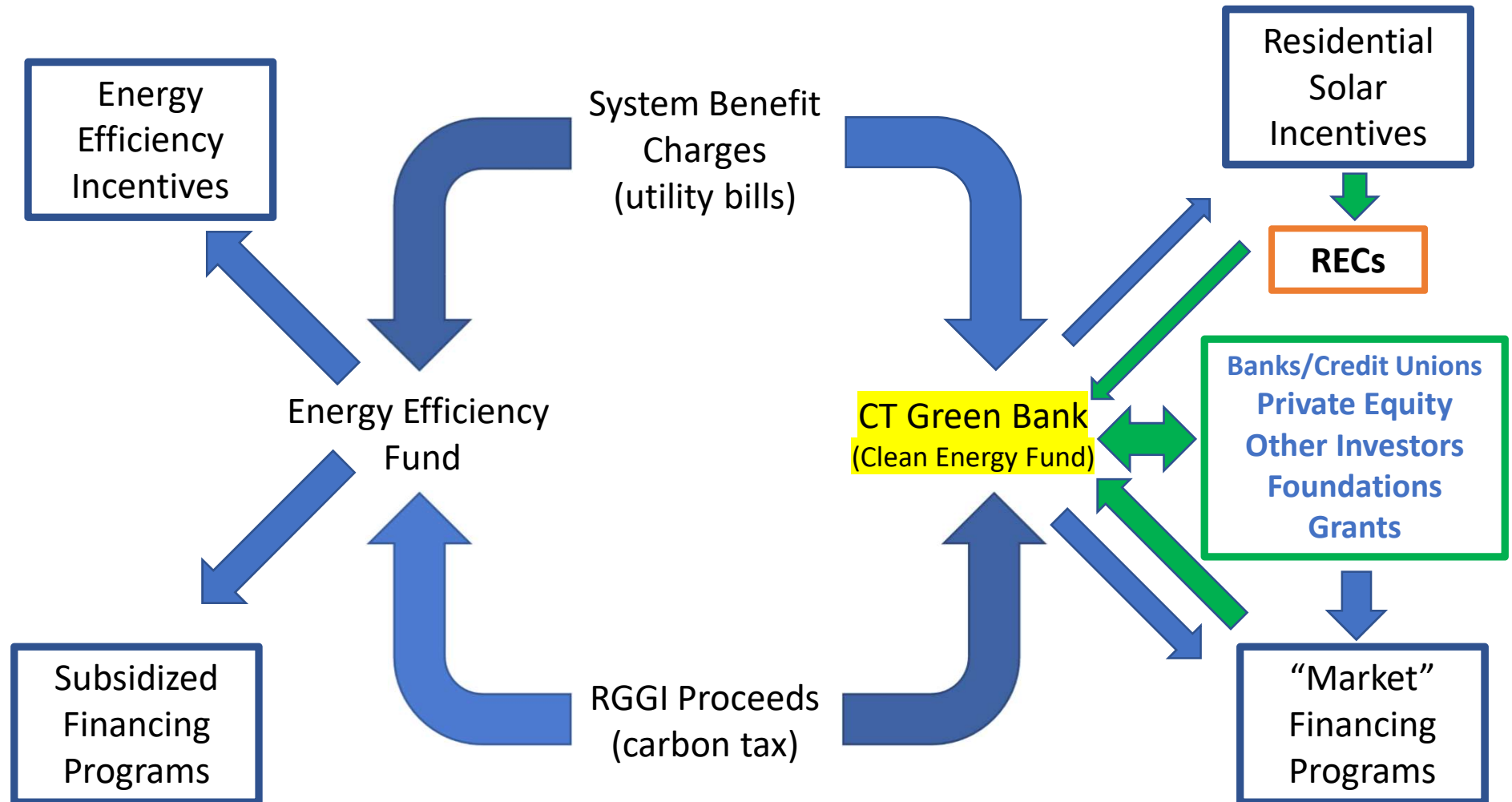
# Connecticut Green Bank

## Organization Overview (FYE17)



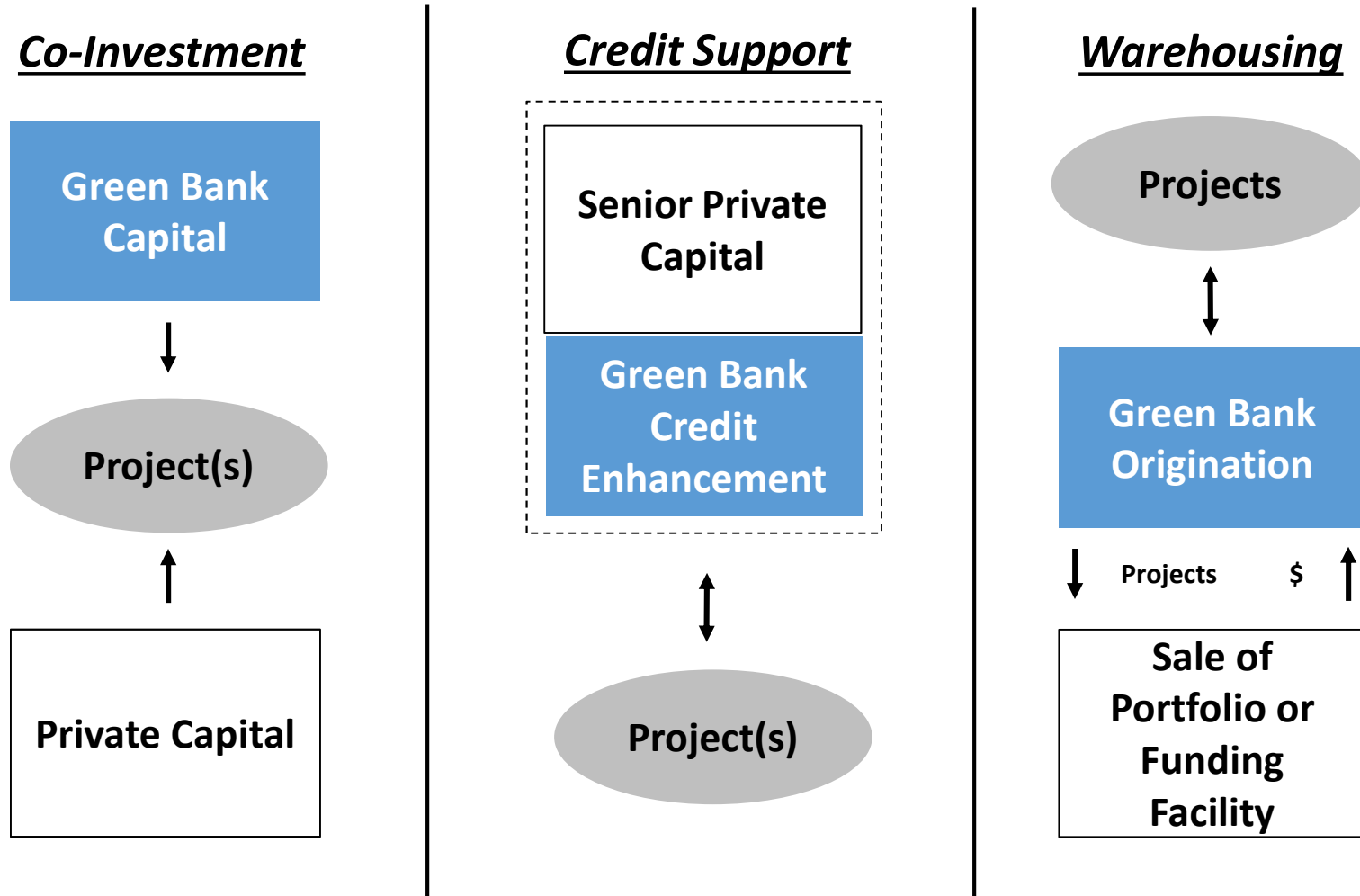


# Sources & Uses for CT Energy Efficiency & RE Programs





# How Green Banks Leverage Public Capital with More Private Capital





# How Green Banks Leverage Public Capital with More Private Capital

## Co-Investment

**CT Solar Lease™**  
(Commercial Only)



### Multifamily Finance

#### Sherpa Loan

- Designated service provider
- Standardized process & fee schedule



#### Navigator Loan

- Client managed contractor(s)
- Customized technical services



#### LIME

- Low Income Multifamily Energy
- Affordable
- Unsecured



## Project Finance

## Credit Support



## Warehousing

**cpace**

Putting building owners in control  
with green energy



**CT Solar Loan**  
(graduated)



# Co-Investment

## Project Finance Structures for Larger Projects

**Fuel Cells, Small Hydro, Wind, District Heating Loops, Microgrids**

<b>Summary</b>	Chunky, economically valuable projects where we take a risk position at a cheaper price.
<b>Credit Type</b>	Senior / Subordinate Debt or Equity Stake in single asset entity.
<b>Channel to Market</b>	Project-specific developers operating in target markets with technology solutions / business model innovations that demonstrate growth opportunity across specific or multiple geographies and have yet to reach capital markets scale.
<b>Opportunity</b>	<p>Good spread &amp; deal fees. Risk tolerance at same price potentially greater than other capital markets players.</p> <p>Projects below utility scale have a high burn rate because of capital availability and timeline that we are able to uniquely address.</p>
<b>Challenges</b>	<p>Where longer-term debt is required, may require long-term investment capital that is not easily available.</p> <p>Requires greater risk positions in some cases.</p>





# Electric Vehicle Charging Carbon Coalition (EVCCC)



Partner organizations seeking to open access to carbon capital markets for EV charging systems, to strengthen their business case fundamentals and accelerate deployment

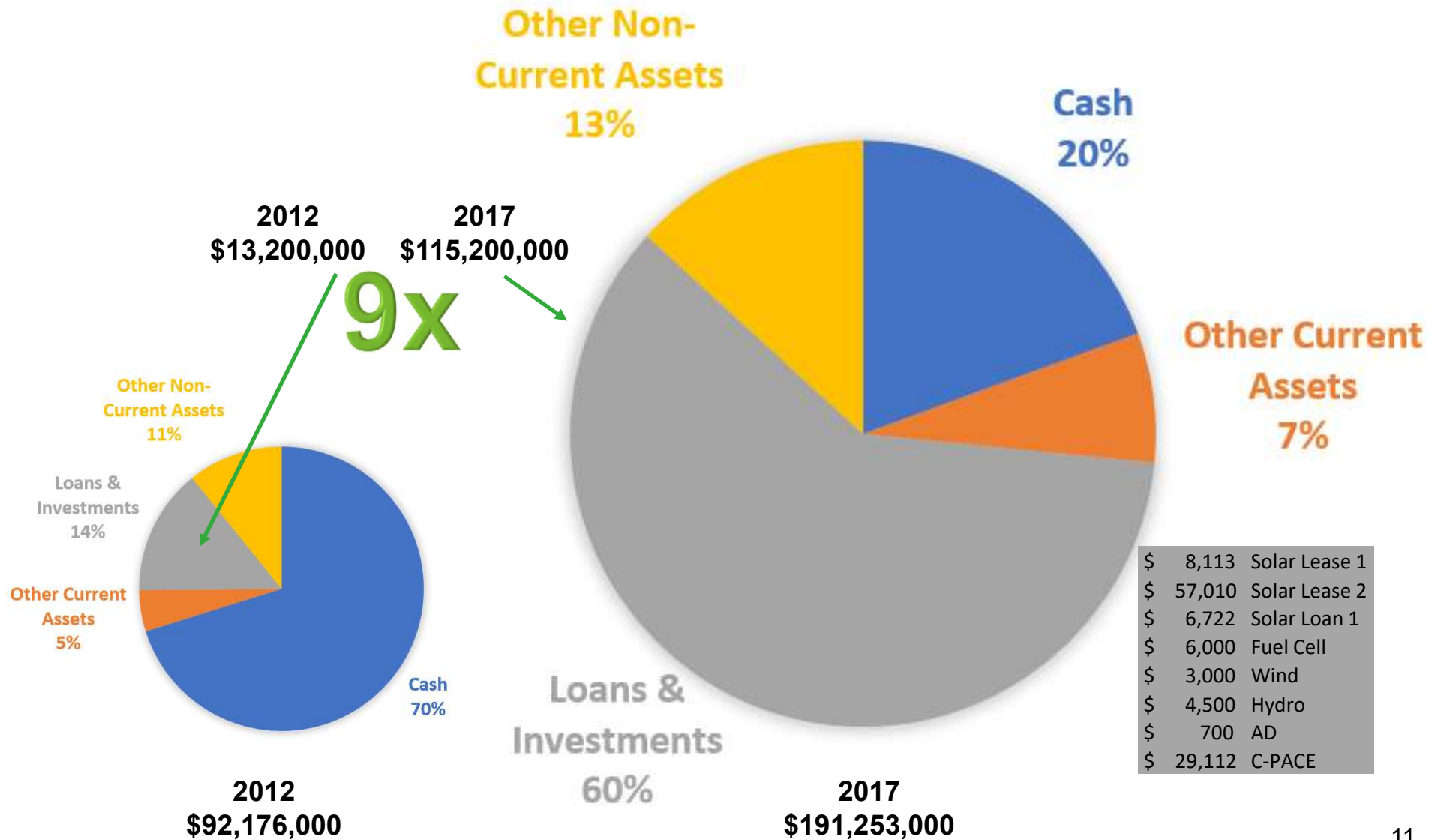
- Methodology in approval process, with potential for new revenue stream for EV charging site hosts
- Measures kWh dispensed during charging sessions
- Credits based on GHG emissions savings from fuel-switching, factoring in the electricity supply mix feeding the EV charger





# Connecticut Green Bank

## Balance Sheet Evolution





# Connecticut Green Bank

## Delivering Results for Connecticut



- **Investment** – mobilized over **\$1.3 billion** of investment into Connecticut's clean energy economy while raising nearly \$50 million in state and local tax revenues
- **Jobs** – created nearly **16,000** total job-years – 6,200 direct and 9,700 indirect and induced
- **Energy Burden** – **reducing the energy burden** on over 30,000 households and businesses
- **Clean Energy** – deployed more than **285 MW** of clean renewable energy helping to reduce over **4.6 million tons** of greenhouse gas emissions that cause climate change

### **Private investment drives economic growth**

Creates jobs, lowers energy costs, and generates tax revenues

#### **REFERENCES**

CT Green Bank data warehouse report from July 1, 2011 through June 30, 2018



# Green Bank Movement

## United States Trends



2014



2013



2015



2011



2014

To lead the green bank movement by accelerating private investment in clean energy deployment for Connecticut to achieve economic prosperity, create jobs, promote energy security and address climate change.



#### REFERENCES

Map provided by the Coalition for Green Capital





Q&A

**Thank You!**

**Bert Hunter**

EVP / Chief Investment Officer

845 Brook Street

Rocky Hill, CT 06067

[bert.hunter@ctgreenbank.com](mailto:bert.hunter@ctgreenbank.com)



# Appendix



### Co-Investment

Green Bank  
Capital



Project(s)



Private Capital

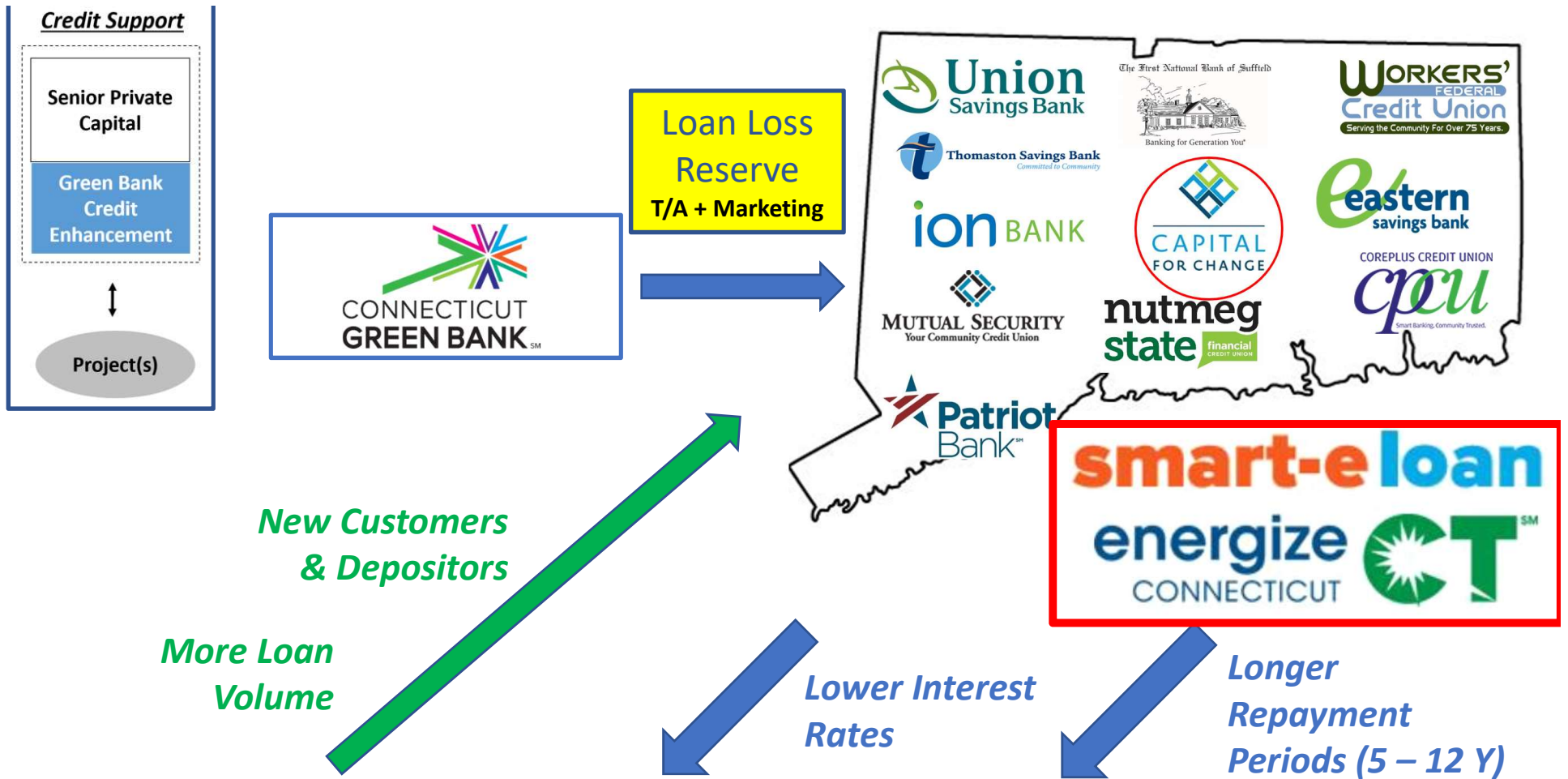


 PosiGen  
Solar Solutions



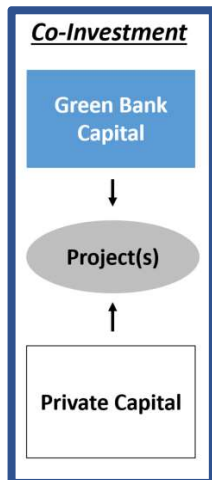
- **Solar for All Campaign Progress** – 835 installations in 17 months, 5.8 MW of solar PV
  - ✓ 71% of contracts are LMI\*
- **Energy Efficiency Progress**
  - ✓ 99.9 % of households get Direct Install EE measures
  - ✓ 66% of households also undertake “deeper” energy efficiency projects through \$10 ESA payment/month for 20 years
- **Community Campaigns** – in Bridgeport, Hartford, New Haven, New London
- **Jobs** – 62 current CT based Employees



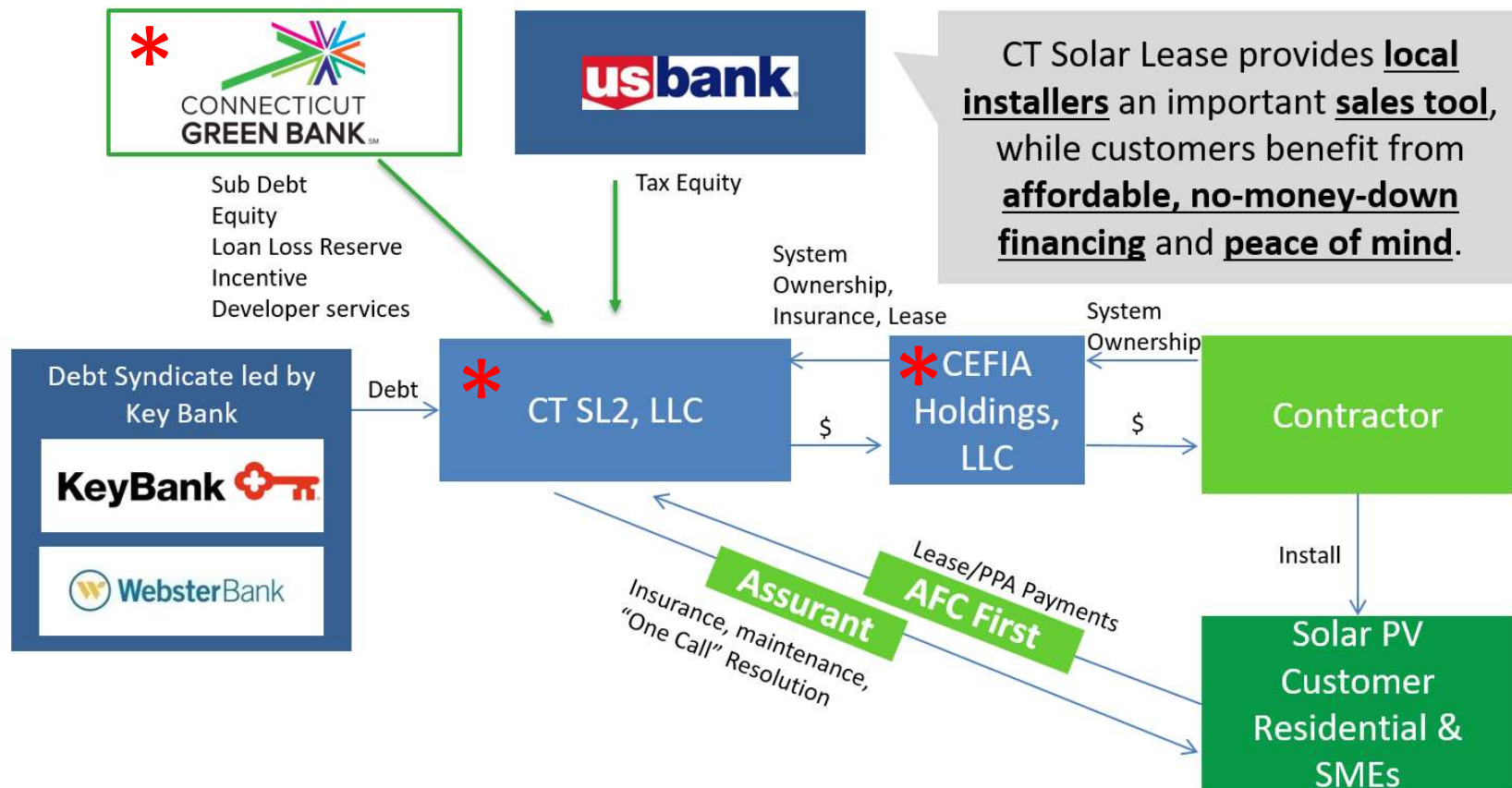


Finance Your Next Smart Energy Project with a Smart-E Loan





# Connecticut Solar Fund (Residential & SMEs)



CT Solar Lease provides local installers an important sales tool, while customers benefit from affordable, no-money-down financing and peace of mind.

\* = CT Green Bank Entity