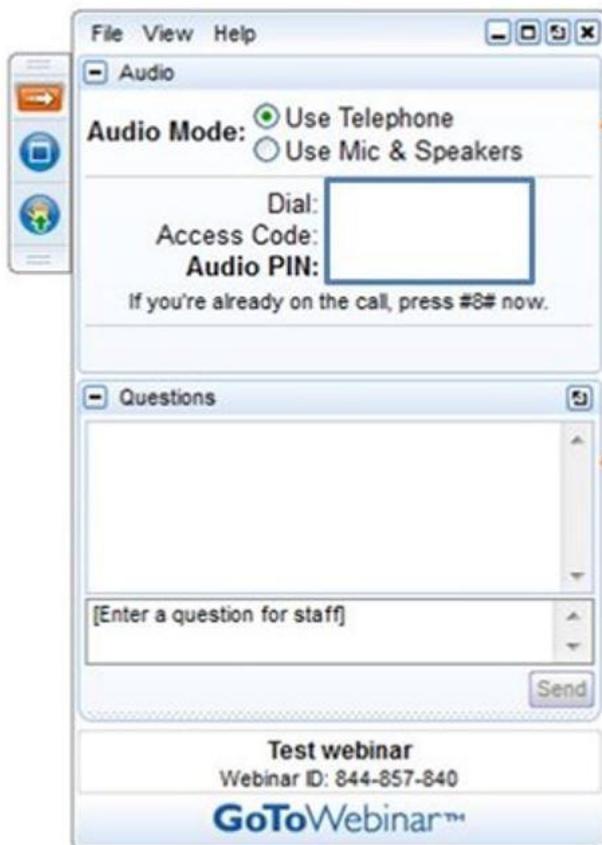


Clean Energy States Alliance Webinar

State Leadership in Clean Energy: Award-Winning Programs in Connecticut and Oregon

Hosted by
Val Stori, Project Director, CESA
July 19, 2016

Housekeeping



All participants are in “Listen-Only” mode. Select “Use Mic & Speakers” to avoid toll charges and use your computer’s VOIP capabilities. Or select “Use Telephone” and enter your PIN onto your phone key pad.

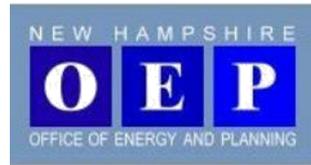
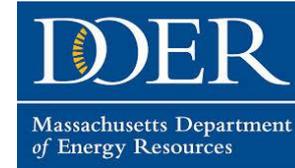
Submit your questions at any time by typing in the Question Box and hitting Send.

This webinar is being recorded.

You will find a recording of this webinar, as well as all previous CESA webcasts, archived on the CESA website at

www.cesa.org/webinars

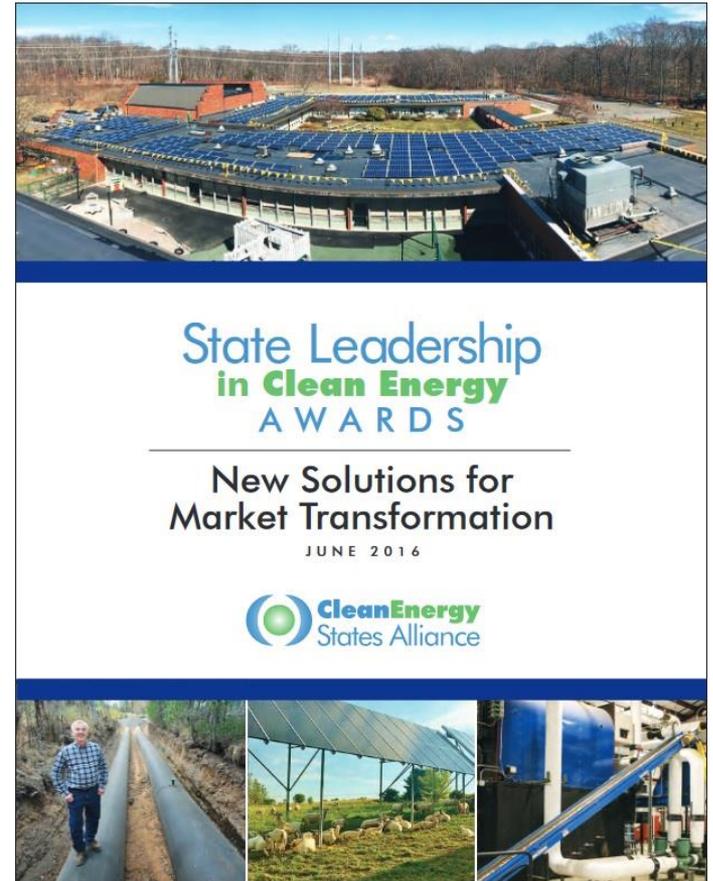
CESA Members



The 2016 State Leadership in Clean Energy Awards



More information, including case studies about the winning programs and information about upcoming webinars, is available at: <http://cesa.org/projects/state-leadership-in-clean-energy/2016/>.



Today's Guest Speakers

- **Jed Jorgensen**, Program Manager, Energy Trust of Oregon
- **Stacy Lowery**, Program Director, Farmers Conservation Alliance
- **Fiona Stewart**, Senior Associate, Clean Energy Finance, Connecticut Green Bank
- **Ben Healey**, Director, Clean Energy Finance, Connecticut Green Bank



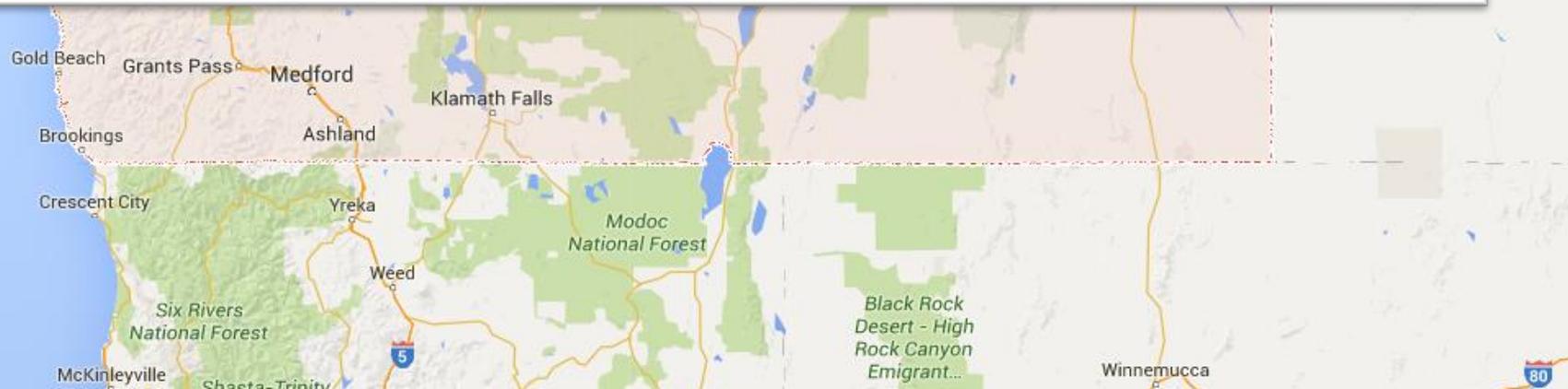


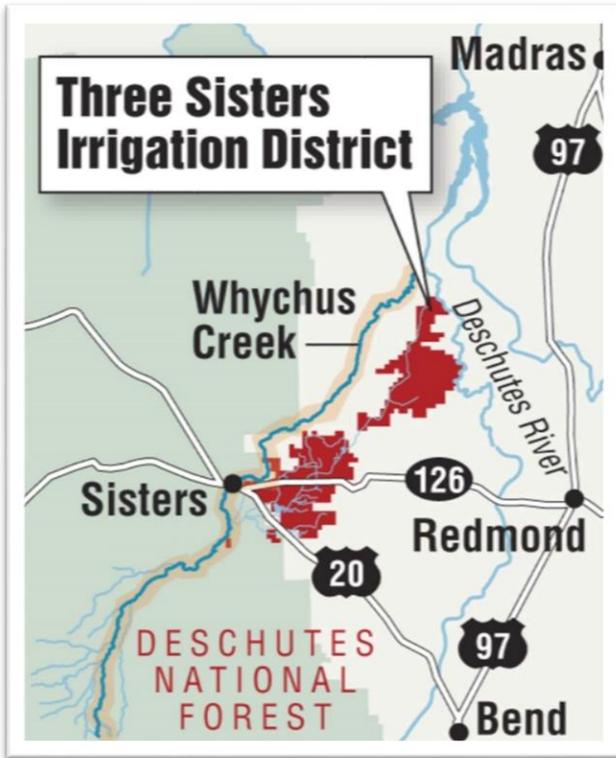
Irrigation Modernization July 19, 2016









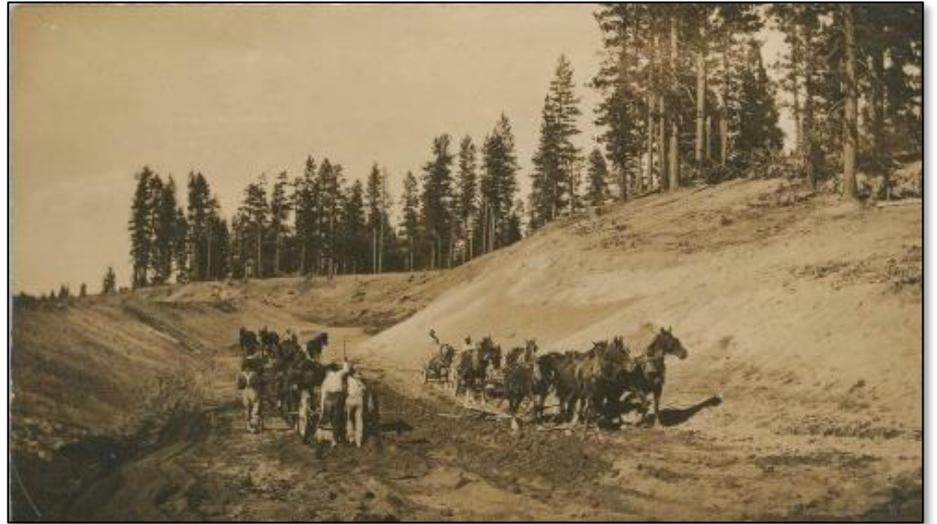


Deschutes River



Whychus Creek





Source: Redmond Historical Photo Archive, Library of Congress





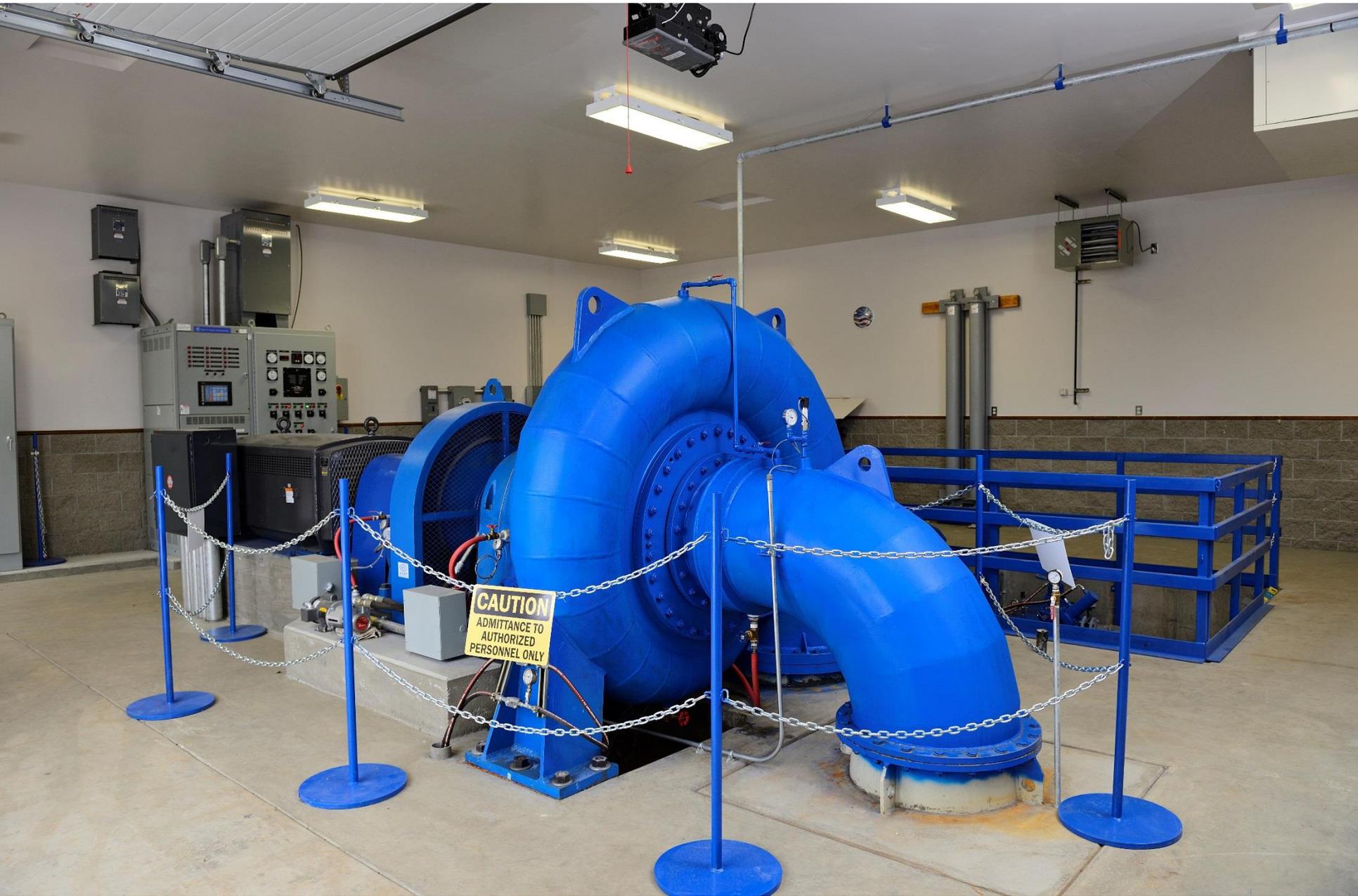












CAUTION
ADMITTANCE TO
AUTHORIZED
PERSONNEL ONLY



EnergyTrust
of Oregon

DATE OF THE CHECK: 10/16/2015

TO THE ORDER OF
Three Sisters Irrigation District

DATE: **October 16, 2015**

AMOUNT: **\$1,000,000.00**

One Million Dollars and 00 Cents

700-Kilowatt Hydropower System

Margie Harris
Margie Harris

Being a member of National General Electric, Pacific Power, and National and Cascade National Co.

www.energytrust.org









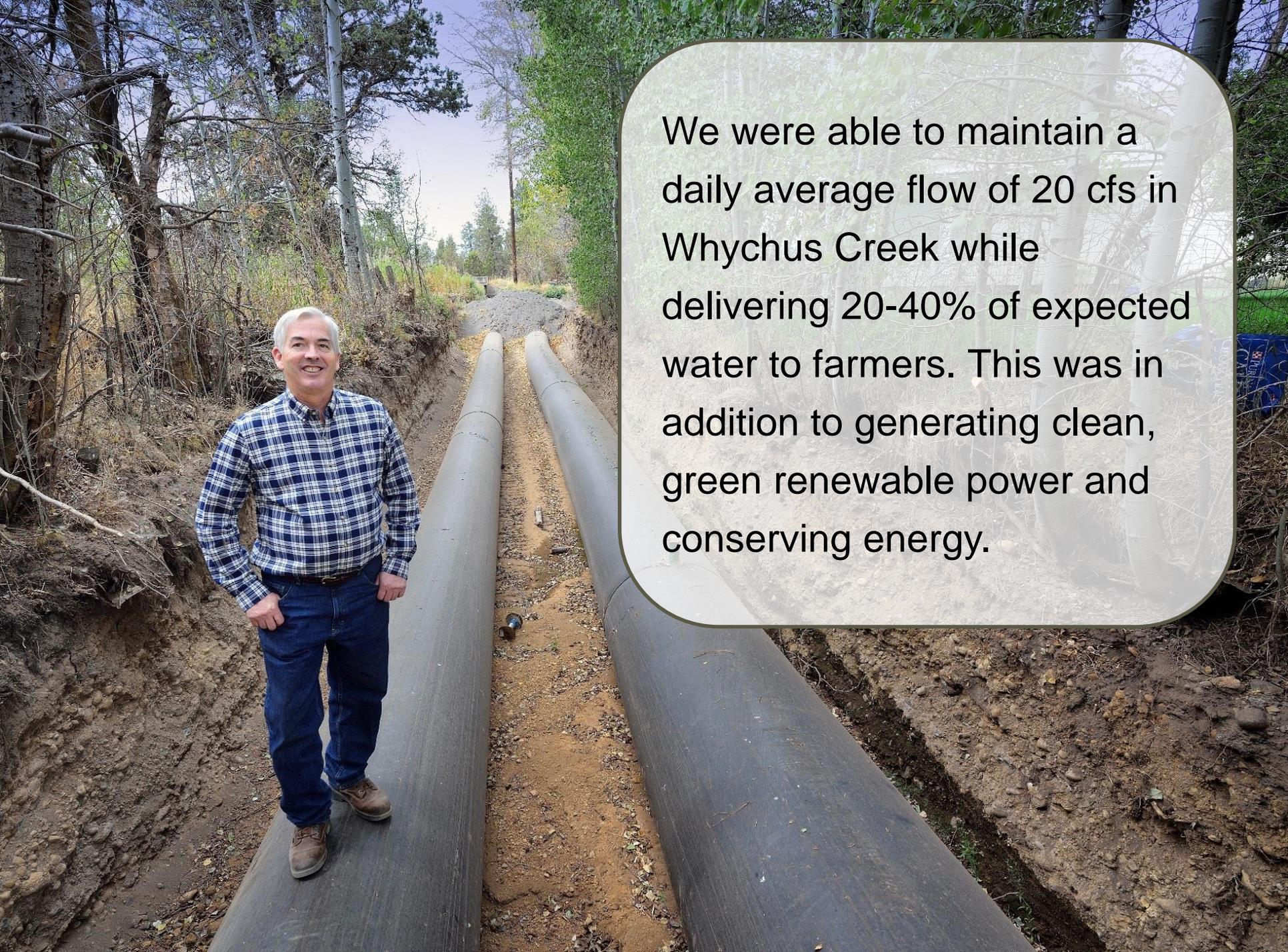










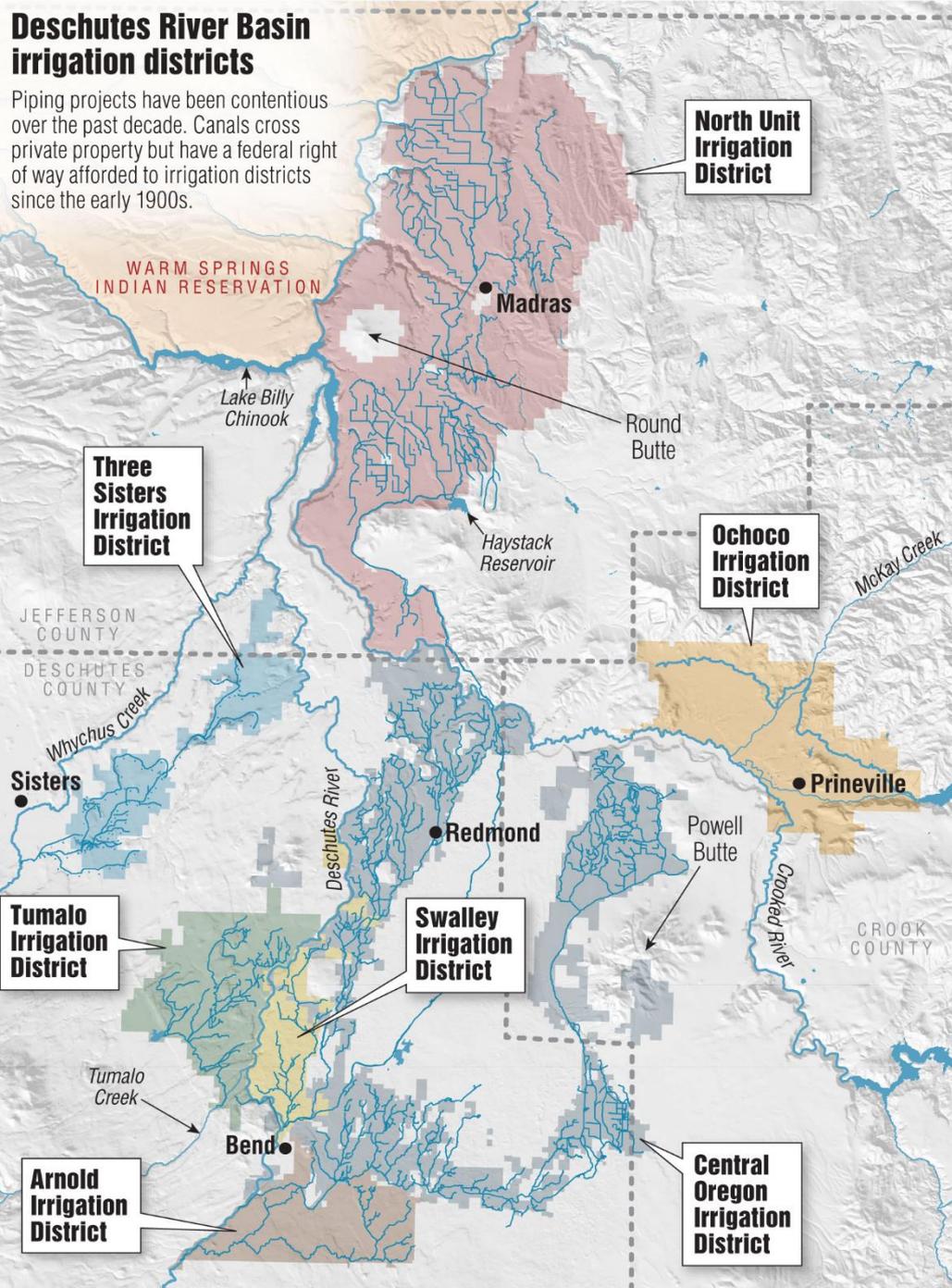


We were able to maintain a daily average flow of 20 cfs in Whychus Creek while delivering 20-40% of expected water to farmers. This was in addition to generating clean, green renewable power and conserving energy.



Deschutes River Basin irrigation districts

Piping projects have been contentious over the past decade. Canals cross private property but have a federal right of way afforded to irrigation districts since the early 1900s.







Take action to benefit agriculture, rural
economies and the environment.

PLAY

Join us at the intersection of irrigation and innovation

An expanding population, persistent droughts, declining fish numbers and aging irrigation infrastructure are stressing our water resources and agriculture industry. Modern irrigation districts and on-farm











Thanks!

Jed Jorgensen
jed.jorgensen@energytrust.org

Stacy Lowery
stacy.lowery@fcasolutions.org

fcaTM


EnergyTrust
of Oregon



CONNECTICUT
GREEN BANK

CT Solar Lease Commercial Program

July 19, 2016



Agenda Page



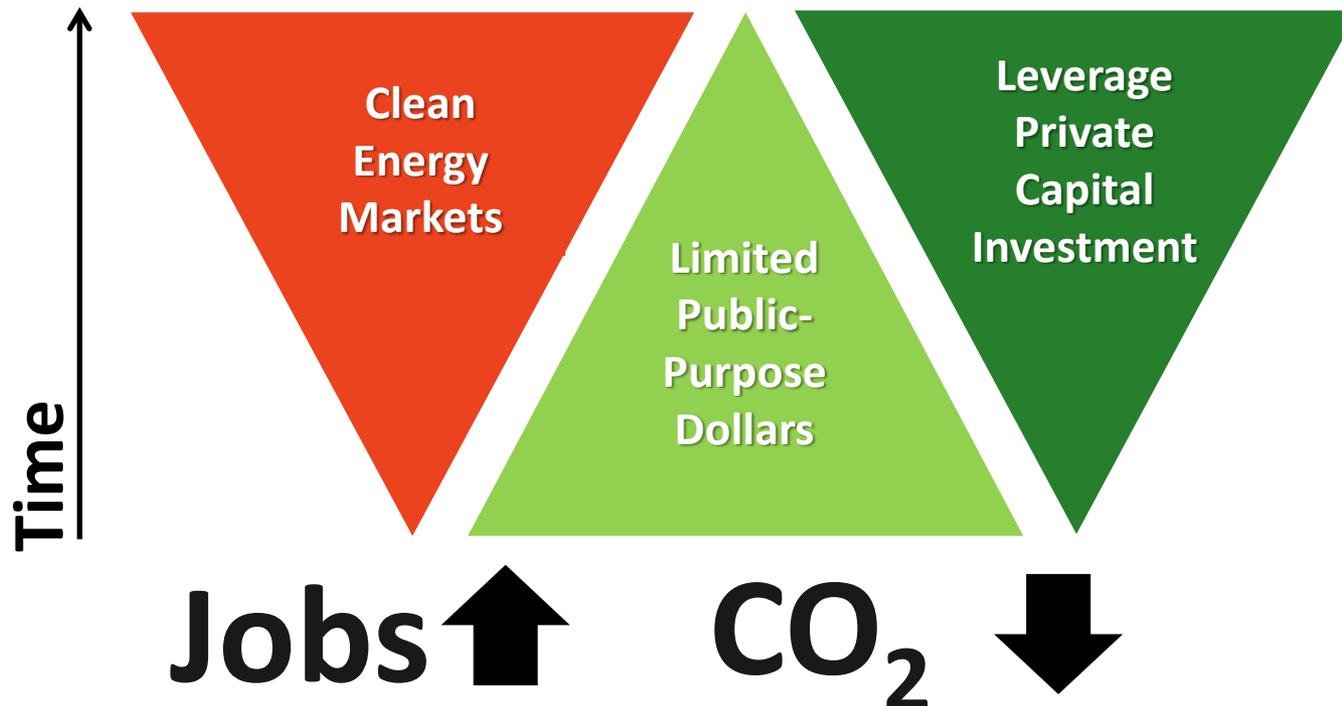
1. Introduction to the Green Bank
2. CT Solar Lease 2
3. Innovative Model for Nonprofits
4. Lessons Learned
5. Contact Info



Green Bank Model

Public-Private Partnerships for Climate Protection

*A green bank is a **public financing authority** that **leverages private capital** with **limited public-purpose dollars** to **accelerate the growth** of clean energy markets*



REFERENCE

Definition provided by the Coalition for Green Capital

Connecticut Green Bank

About Us



Quasi-public organization – created by PA 11-80 and successor to the Connecticut Clean Energy Fund

Focus – finance clean energy (i.e. renewable energy, energy efficiency, and alternative fuel vehicles and infrastructure)

Balance Sheet – currently about \$110 million in assets

Support – supported by a \$0.001/kWh surcharge on electric ratepayer bills that provides approximately \$27-30 MM a year for investments, RGGI about \$5 MM a year, federal competitive solicitations (i.e. SunShot Initiative) and non-competitive resources (i.e. ARRA-SEP), private capital, etc.

CT Solar Lease 2



CT Solar Lease 1 – nation’s first residential PV financing program to combine ratepayer funds with private capital to leverage federal incentives

CT Solar Lease 2 (“SL2”)

- Residential
- Commercial:
 - Municipalities
 - Non-profit organizations*
 - “Mid-market” commercial entities*

*Combined with Commercial Property Assessed Clean Energy (“C-PACE”)



CT Solar Lease 2: Opening a New Market Segment



Main financial barriers for nonprofits:

- Lack of upfront capital
- Lack of tax equity appetite

Using the C-PACE Benefit Assessment lien as a credit enhancement tool to secure the long-term PPAs on the property opens the market to:

- Nonprofits, including religious organizations
- Non-investment grade commercial entities



Key Facts on PACE for Commercial Projects in CT



High-level Security Interest: Attached to the property, sitting above the primary mortgage (requires consent) and stays with the property following transfer of ownership

Non-Accelerating Obligation: Foreclosure limited to past due portion of contracted PPA/Lease payments

Long-Term: Up to 25 years

Connecticut Green Bank Role: Statewide administrator, data and pipeline aggregator, and lender (others may “bring their own capital”)



Success of SL2: Resi + Commercial (w/C-PACE)



Fund Summary: ~\$70 million FMV distributed solar fund supported by PPAs/Leases across Residential and Commercial projects

Capital Stack: Tax Equity, Debt, Green Bank Sub. Debt, & Equity

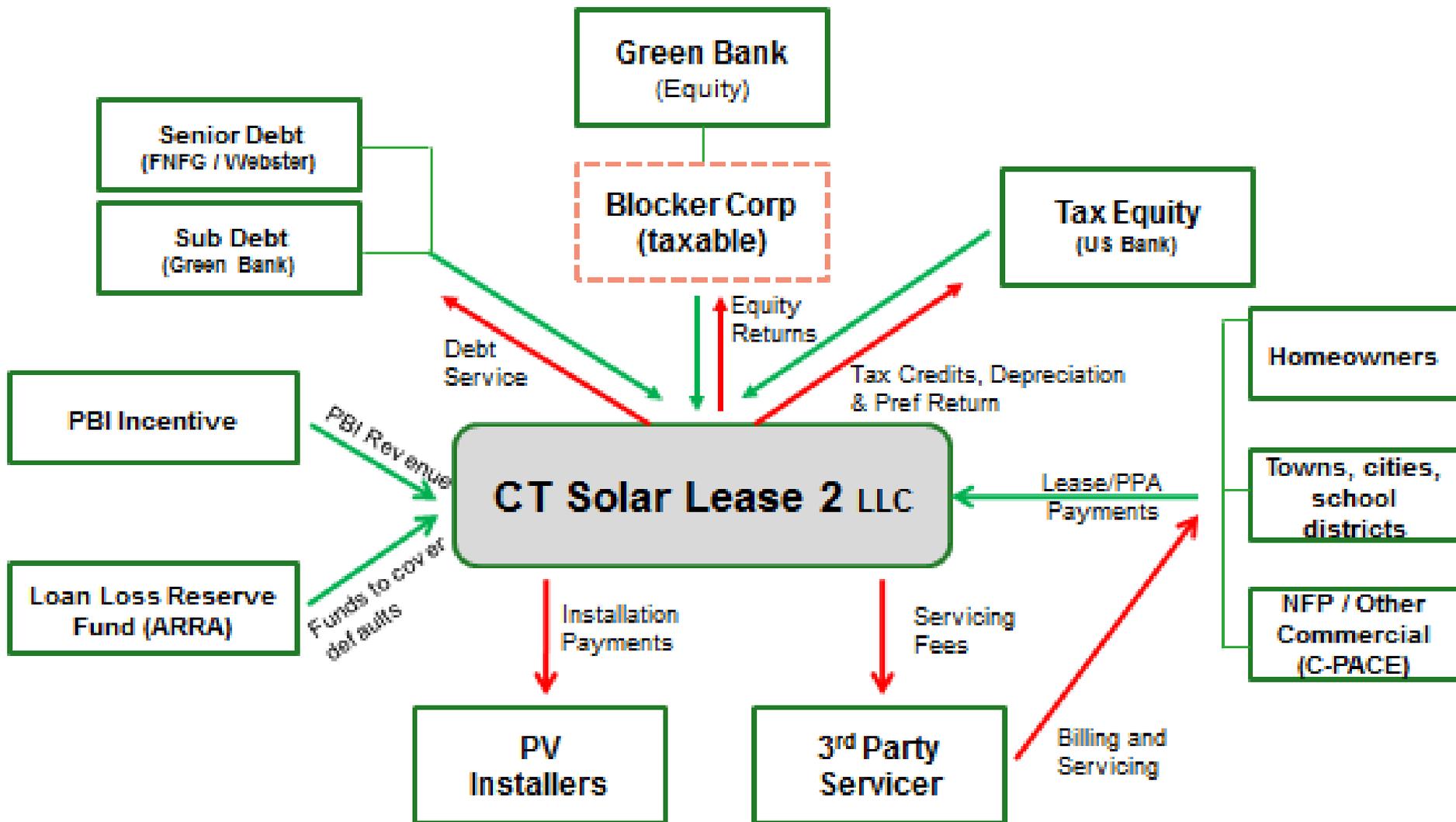
Green Bank Participation: Construction Financing & sponsor capital (Sub. Debt, Equity), underwriter (commercial projects), asset manager

Commercial Deployment: \$25 million (~10 MW) across 50 distinct projects backed by rated municipalities, schools and corporates, as well as unrated commercial, industrial and nonprofit credits secured by PACE

- 40-50% of SL2 Commercial Portfolio backed by PACE
- ~60% of SL2 Commercial Portfolio >100 kW
- Max installation in SL2 Commercial Portfolio = ~1 MW

Development Pipeline: Local EPCs main source of origination, enhanced by relationship with CT Green Bank as investor and administrator

SL2 Fund Structure



Case Study: JCC of Greater New Haven



Deeply embedded, longstanding community organization located in the Town of Woodbridge in south-central CT

Having recently celebrated its 100th anniversary, including over 20 years in its current location, the JCC runs a full suite of cultural, academic, and athletic activities out of its 135,000 square foot Woodbridge facility, while simultaneously supporting both Jewish and broader charitable causes locally, regionally, and around the globe

Electricity use totals approximately 1,800,000 kWh annually

~600,000 kWh is supplied by a 75 kW CHP generator, which also helps meet the JCC's thermal load



Case Study: JCC of Greater New Haven



- The JCC's older roof structure did not lend itself well to solar PV. However, by utilizing the four parking lots surrounding the building, the Connecticut Green Bank and its designated EPC contractor / integrator for this project – Deutsche Eco USA – proposed a carport solution to install a 750 kW solar PV project to offset most of the JCC's remaining electrical demand
- The carports were designed by Solaire Generation, one of the premier solar canopy system designers in the solar industry

Case Study:

JCC of Greater New Haven – Project Details

System Size:	~750 kW
Estimated Production:	880,00 kWh/yr
Installed Cost:	\$2,370,000
PV Modules:	2,498 ZN-Shine 300w
Inverters:	SMA
Racking:	Solaire Generation Canopy
1 st Year Savings for JCC:	~\$25,000
Environmental Impact:	Reduces 607 tons of CO2 annually, 12,140 tons over 20 years; equivalent to 128 passenger vehicles off the road annually



Lessons Learned



Both the JCC project and the SL2 program are replicable across the country, particularly in states with established or developing PACE programs

Specific Achievements:

- Getting SL2 program investors comfortable with the C-PACE mechanism as a means to securing investments into traditionally non-investment grade credits
- Establishing the initial set of documentation to fully capture the entire financing structure
- Onboarding local solar developers to understand the program, deliver the offering to customer, and generate growth for the program

Thank you!

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Fiona Stewart

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Thank you for attending our webinar

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Project Director, CESA
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Find us online:

www.cesa.org

facebook.com/cleanenergystates

@CESA_news on Twitter

Upcoming Webinar

State Leadership in Clean Energy: Award-Winning Programs in California and New York, Tuesday, July 26, 2-3:30pm ET (11am-12:30pm PT)

Details at www.cesa.org/webinars