



Empowering you to make
smart energy choices

Solarize ConnecticutSM – Reducing the Soft Costs of Solar Energy

Bob Wall, Clean Energy Finance & Investment Authority
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CEFIA: Connecticut's "Green Bank"



... transitioning programs away from government-funded grants, rebates, and other subsidies, and towards deploying private capital

...CEFIA was established in 2011 to develop programs that will leverage private sector capital to create long-term, sustainable financing for energy efficiency and clean energy to support residential, commercial, and industrial sector implementation of energy efficiency and clean energy measures.

Collaboration with MassCEC

- **Basic program model (based upon on Oregon)**
- **Lessons learned:**
 - Strategically select towns for pilot
 - Adopt tiered pricing structure of Mass Phase II
 - Permit installers to offer purchase, lease or both options
 - Allow towns to select installer through RFP process



SmartPower as Marketing Partner

- Nation's leading non-profit marketing firm dedicated to promoting energy efficiency and renewable energy
- Leveraged matching foundation grants
- Previous community-based campaigns in CT
- Extensive solar marketing experience

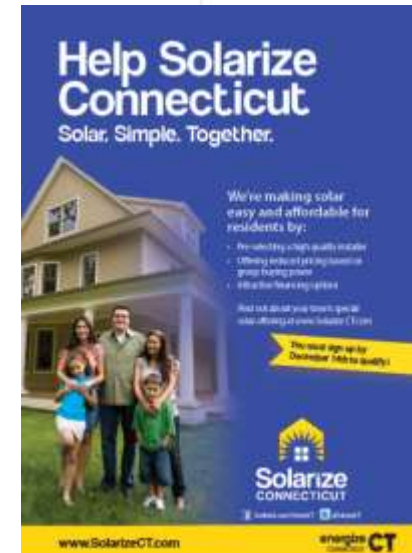


Pilot Town Selection

- Drawn from Clean Energy Communities Program
- Highly motivated clean energy task forces
- Historic support for solar
- 10 applied, 4 selected

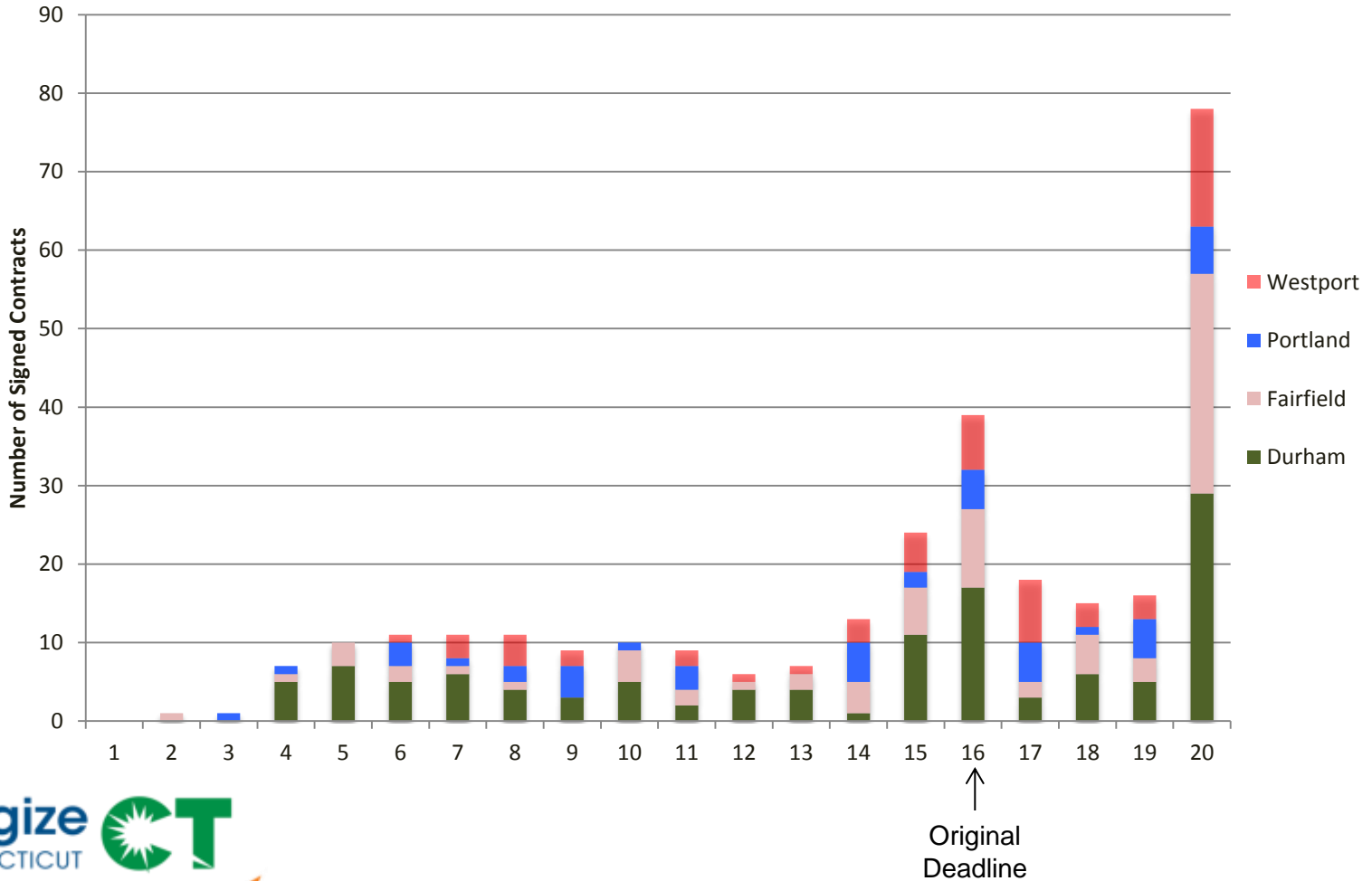


Branding & Marketing



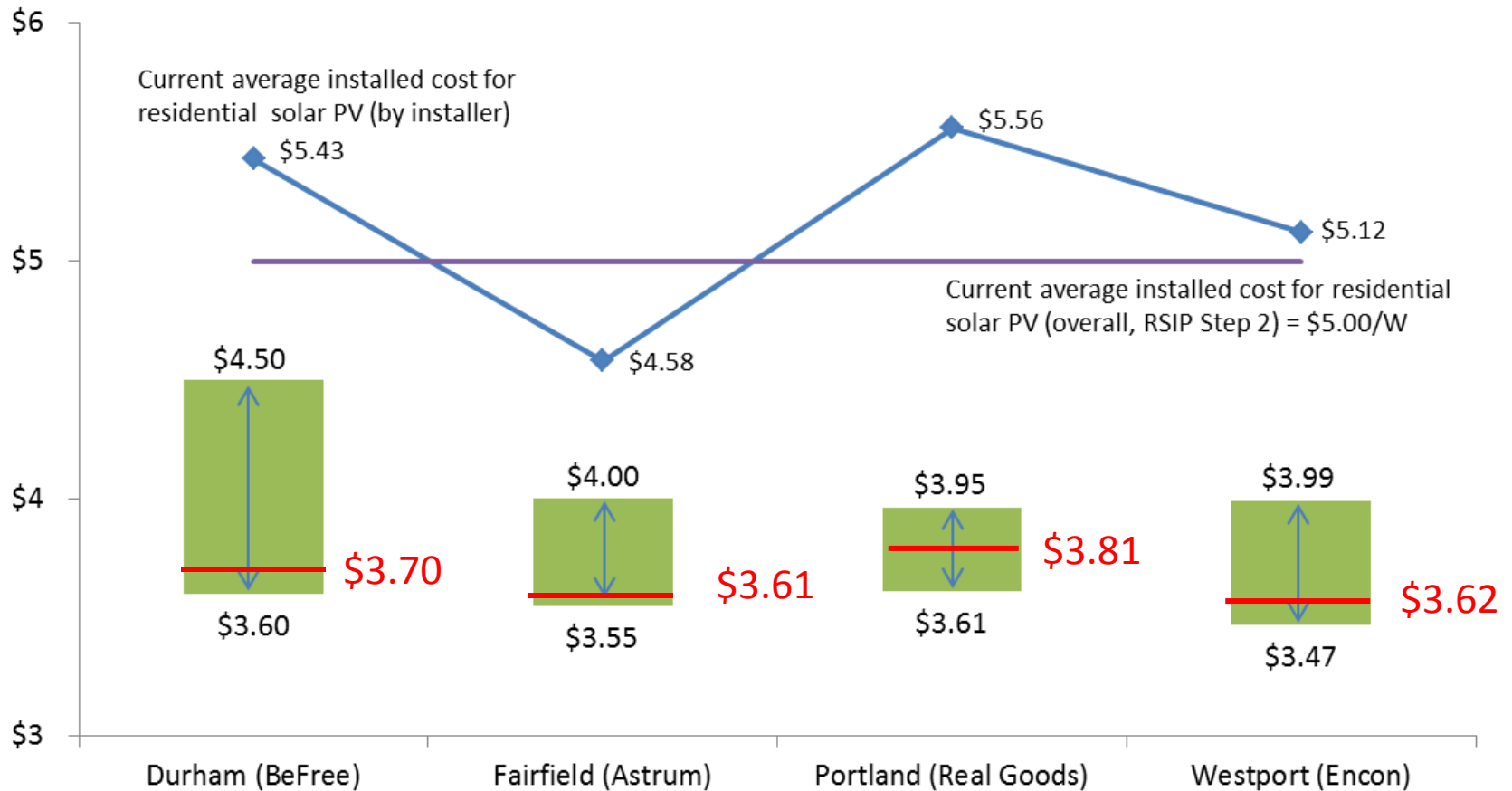
Deadline Drives Decision

Weekly Signed Contracts for Solarize



Solarize Pricing - Phase I

Solarize Connecticut Price Ranges (\$/W)



Solarize CT Phase I Results

Town	# of Projects Pre and Post-Solarize			Installed Capacity (kW) Pre and Post-Solarize		
	# Projects (Pre)	# New Projects (Post)	% Increase Projects	Installed Capacity (Pre)	New Installed Capacity (Post)	% Increase Installed Capacity
Durham	23	117	510%	189	1,012	540%
Fairfield	41	76	190%	265	615	230%
Portland	14	45	320%	81	329	410%
Westport	39	58	150%	244	382	160%
Total	118	296	250%	779	2,338	300%

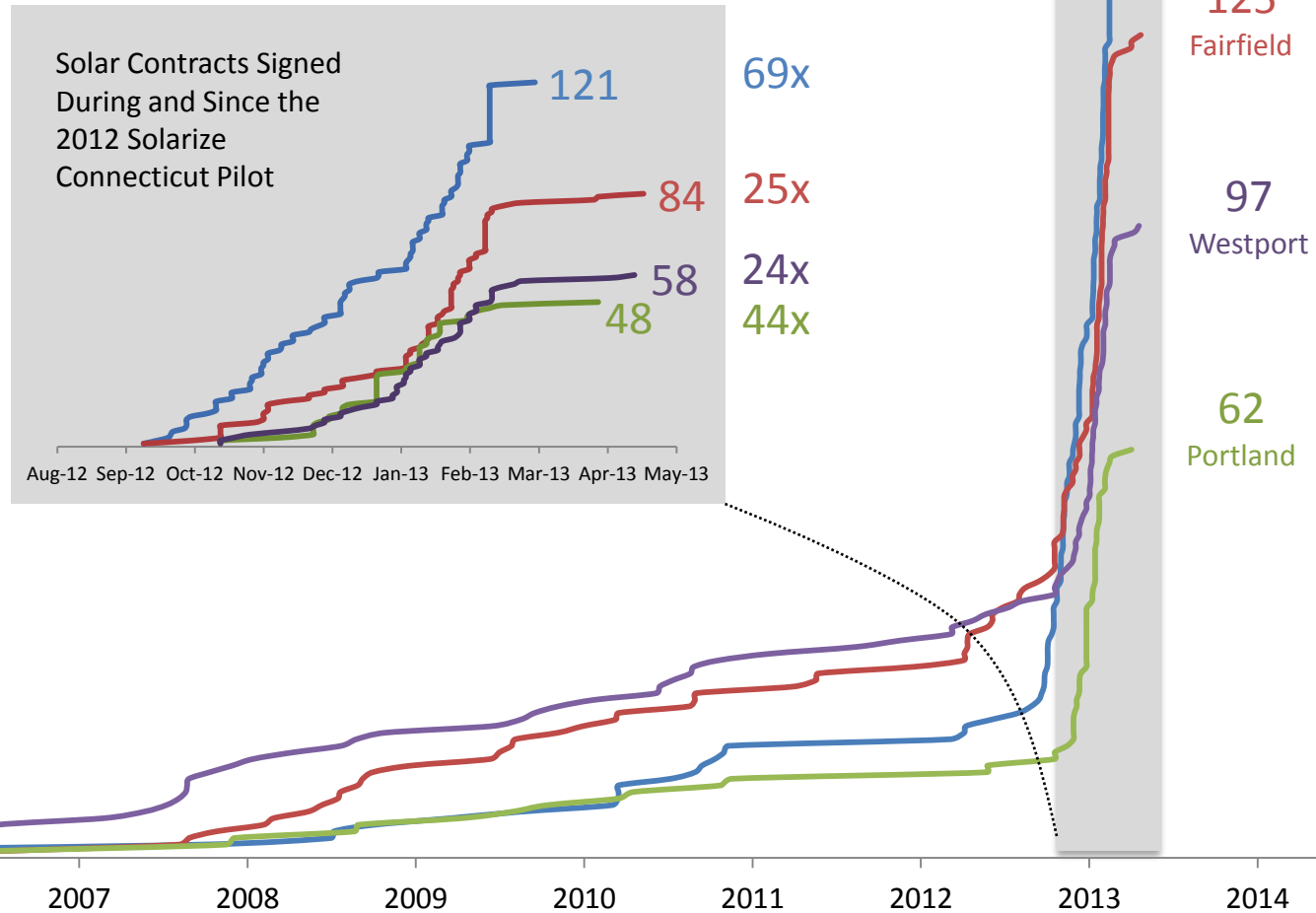
REFERENCES

Note – Phase I results may change subject to attrition



Solarize Connecticut

Doing More with Less...and Quicker!



REFERENCES

Solarize CT Phase II Results

Town	# of Projects Pre and Post-Solarize			Installed Capacity (kW) Pre and Post-Solarize		
	# Projects (Pre)	# New Projects (Post)	% Increase Projects	Installed Capacity (Pre)	New Installed Capacity (Post)	% Increase Installed Capacity
Bridgeport	7	14	200%	30	83	277%
Canton	15	35	233%	75	236	315%
Coventry	25	44	176%	131	305	233%
Mansfield- Windham	56	82	146%	277	532	192%
Total	103	175	170%	513	1156	225%



REFERENCES

Note – Phase II results still being compiled.

Key Differences between Phases I & II

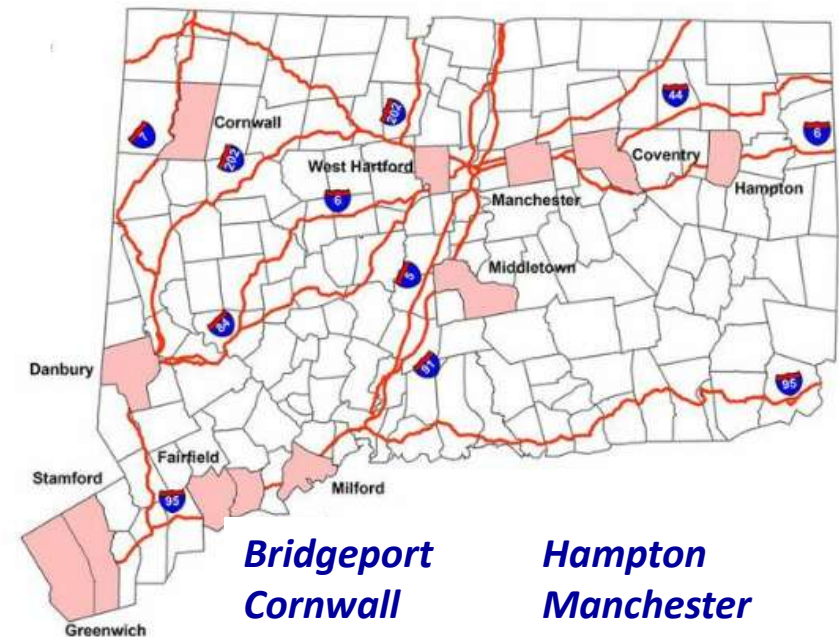
- Phase I - towns competitively selected, Phase II – only 5 applicants, all accepted (2 as coalition)
- CEFIA incentives decreased and were capped
- Fewer financing options in Phase II
- Smaller average system size in Phase II
- More “adders” in Phase II
- 2 distressed communities in Phase II

DOE SunShot Initiative

Rooftop Solar Challenge

Sun Rise New England – Open for Business

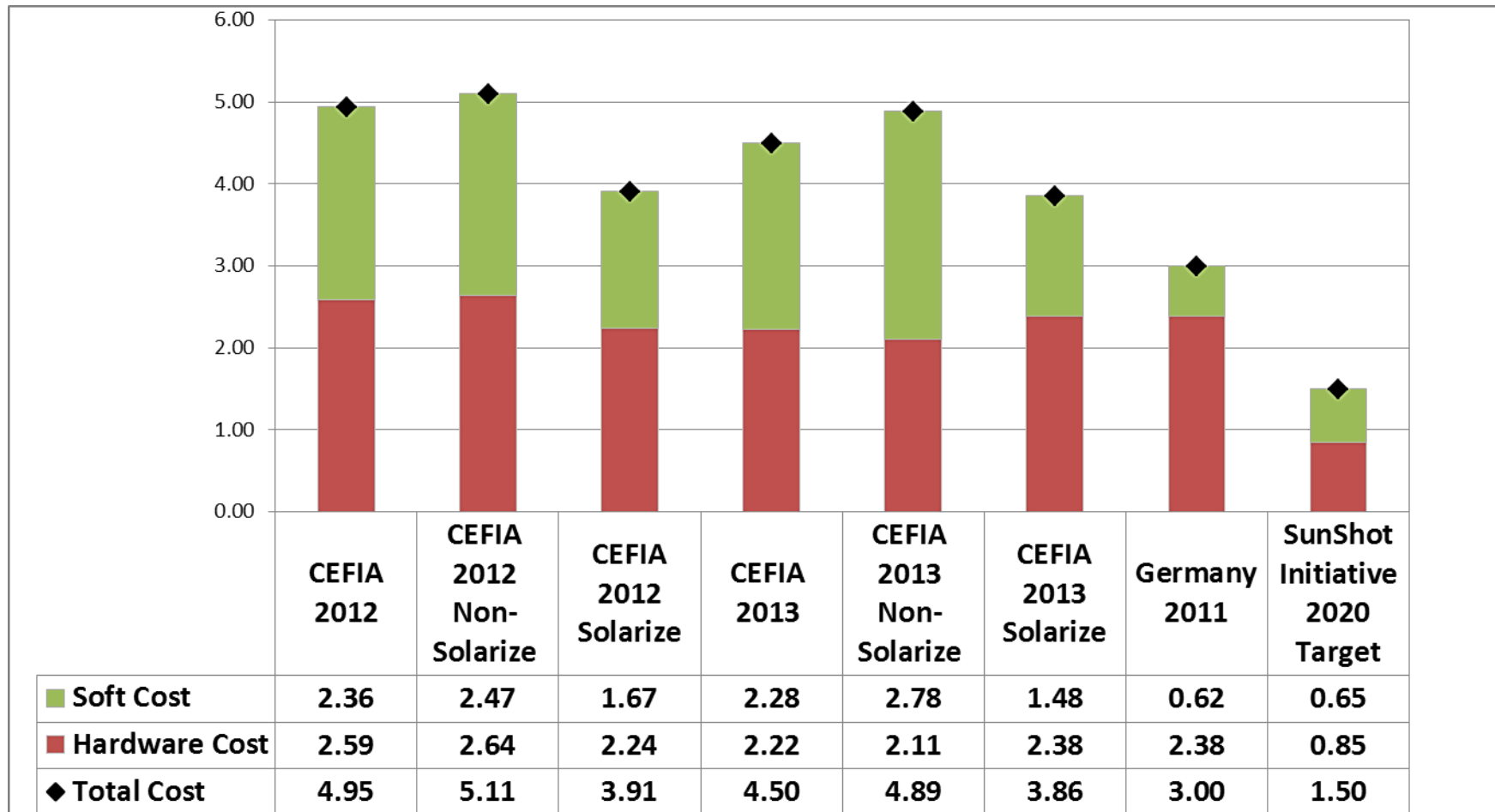
- **Reduce Non-Hardware/ Soft Costs and Eliminate Market Barriers:** Design & Market Innovative Financing; Replicate & Scale Best Practices; EM&V
- **Partners:** CEFIA, Solar CT, Yale, UConn, Simply Civic, CL&P, UI, DEEP, solar PV installers, expert consultants, CT jurisdictions



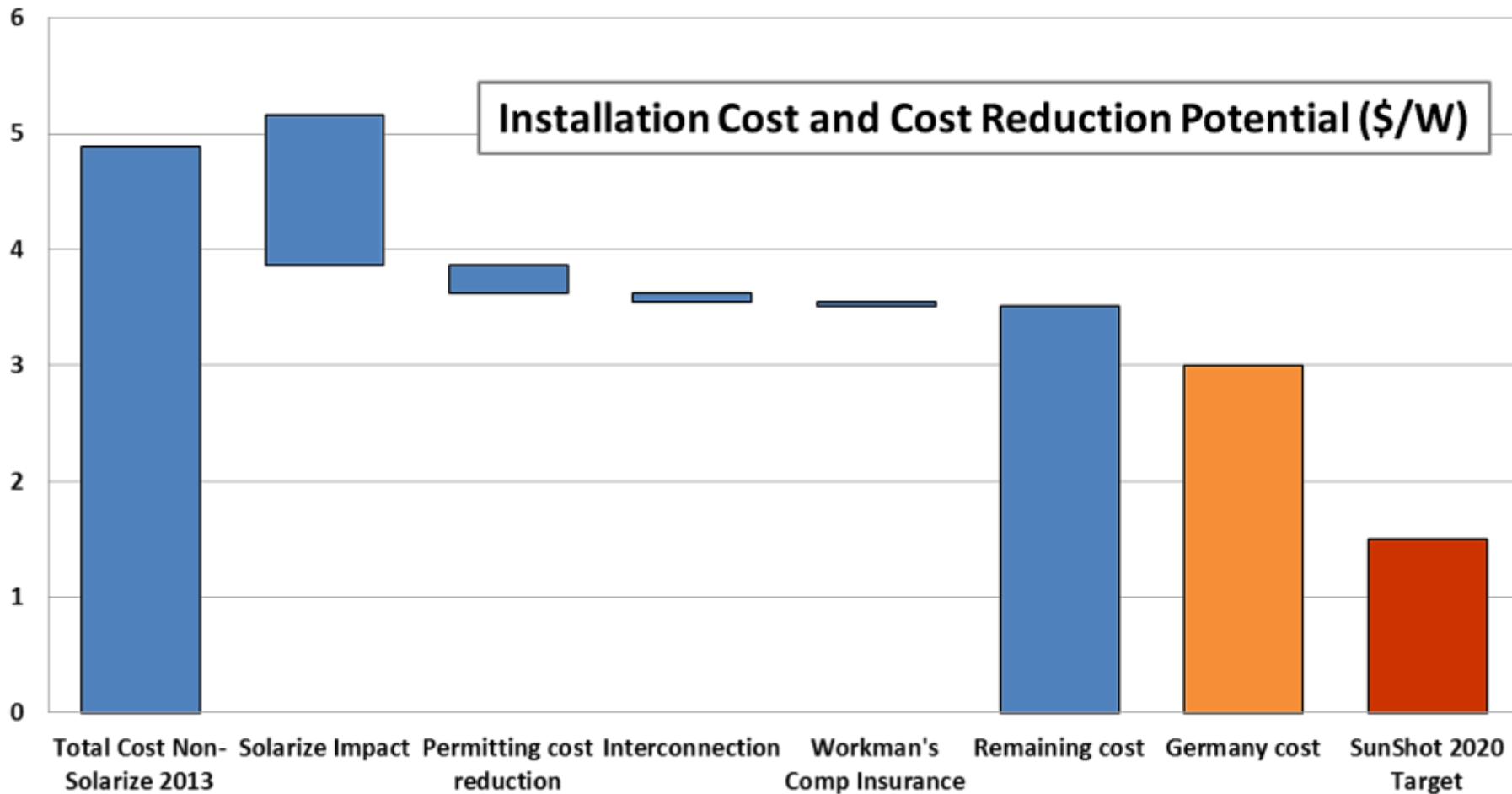
*Bridgeport
Cornwall
Coventry
Danbury
Fairfield
Greenwich*

*Hampton
Manchester
Middletown
Milford
Stamford
West Hartford*

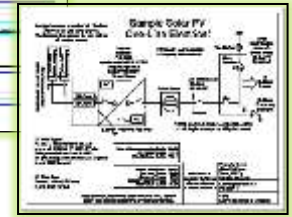
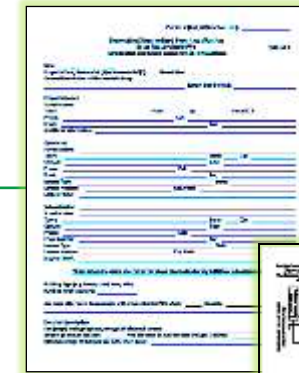
Sun Rise New England - Residential Solar PV Soft Costs in Connecticut



Sun Rise New England – Residential Solar PV Cost Reduction Opportunity



Sun Rise New England – Municipal Permitting Best Practices



- **Make information available**
- **Streamline application submission**
 - Adopt the **CT Standardized Solar PV Permit Application**
 - Simplify the application process – one department responsible, reduce steps and unnecessary requirements
 - Adopt online permitting (ViewPermit, CityView, Simply Civic, others)
- **Waive or reduce fees** and allow for payment electronically or by mail
- **Streamline review and inspection** – train staff; remove excessive reviews; conduct single inspection at specific time
- **Shorten permit approval times**
- **Adopt a solar friendly ordinance** – permitting; planning & zoning

Sun Rise New England – State-level Recommendations

- **Mandate permit fee waiver or cost recovery fee with cap** for Class I renewable energy projects, with a \$200 cap for residential solar PV
- **Allow electronic wet stamps** so that engineer or architect approved plans do not have to be delivered in person
- Consider **reducing the mandatory permit decision deadline** from 30 days to 14 days
- **Develop and offer free solar PV training** for building officials
- **Improve the state building code** to include a provision for “solar-ready” construction and allow for solar-friendly model stretch codes
- **Enact solar access laws**
- PURA – **reconsider external disconnect switch requirement**

What's Next?

- Solarize Connecticut Phase III includes 6 “communities” (11 towns)
- *Solarize Choice* and *Solarize Express* – U.S. DOE SEEDS project includes 11 additional towns
- New CEFIA financing products (loans and lease) available to all installers from campaign outset
- CEFIA exploring how to scale up and transition program to open-market
 - Develop & provide tools for towns or installers to conduct campaigns with less input by CEFIA/SmartPower
 - Partnerships with large employer or affinity group

Thank You!



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