



**CLEAN ENERGY**  
FINANCE AND INVESTMENT AUTHORITY

# **What's the Deal**

## **New Deal, New Incentives**

Connecticut Power and Energy Society

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# PA 11-80 – Key Provisions of the New Deal



- ▶ **New Quasi-Public Authority (Section 99)**
- ▶ **Property Assessed Clean Energy (Section 100)**
- ▶ Combined Heat and Power and Anaerobic Digester Pilot Programs (Section 103)
- ▶ **Residential Solar PV Program (Section 106)**
- ▶ **Zero Emission and Low Emission Generation Programs (Section 107-108 and 110)**
- ▶ **Major Components Locally Manufactured or Assembled (Section 109)**
- ▶ Condominium Program (Section 111)
- ▶ Residential Heating System Financing and CHP (Section 116 and 135)
- ▶ Energy Performance Contracting – Leading by Example (Section 118)
- ▶ Virtual Net Metering (Section 121)
- ▶ **Green Connecticut Loan Guaranty Fund (Section 124)**
- ▶ **Disclosure of Consumption Data (Sections 125 and 126)**
- ▶ **Grid-Tied Procurement (Section 127)**
- ▶ Building Permit Fee Waiver for Clean Energy (Section 128)

# Before there was PA 98-28

Community outreach/incentives

Solar PV installations

Fuel cell installations



**Grants and Incentives**

Wind energy installations

Clean energy  
technology development

Biomass installations

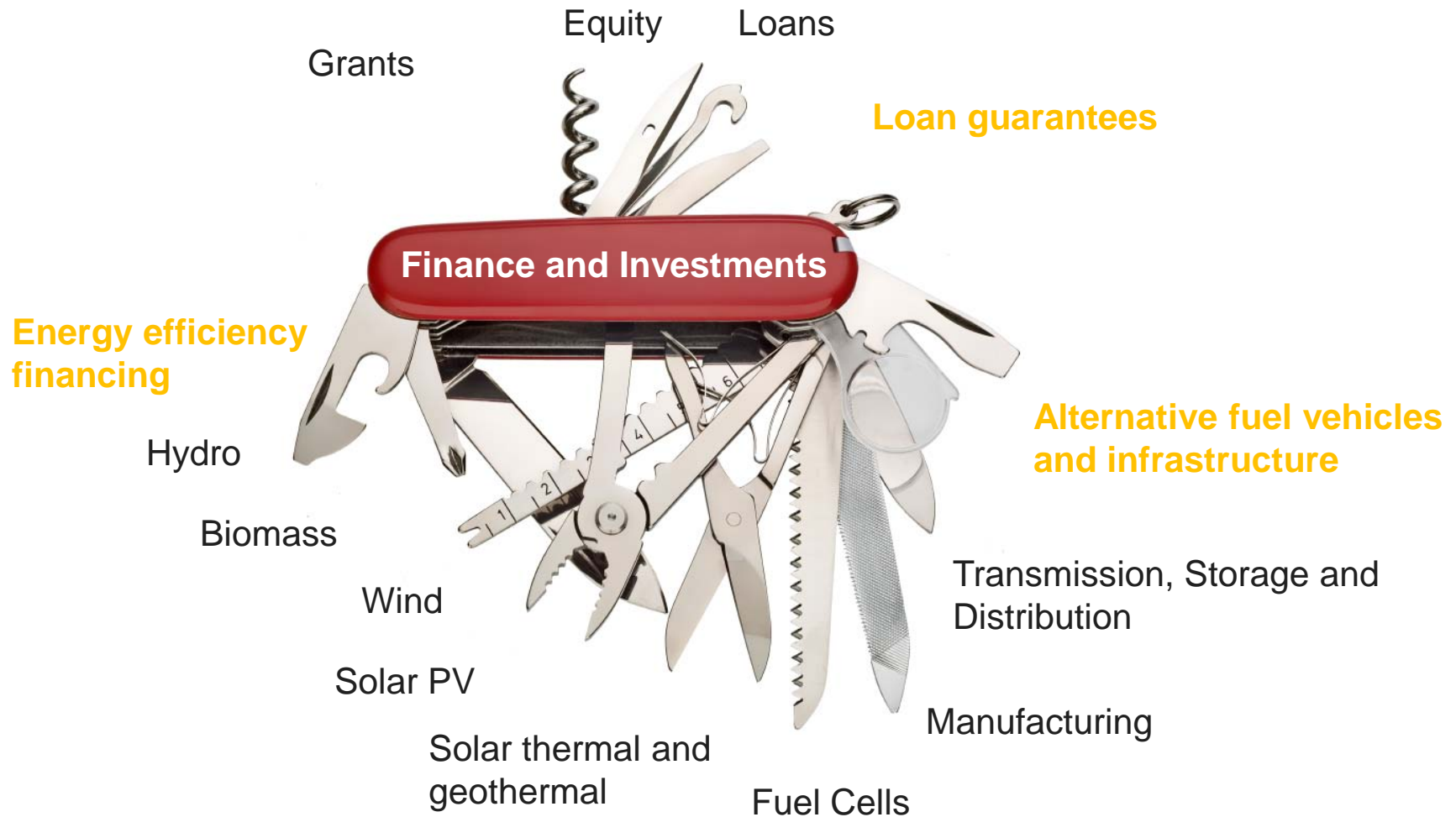
Hydro installations

Solar thermal/geothermal installations

# Now there is PA 11-80



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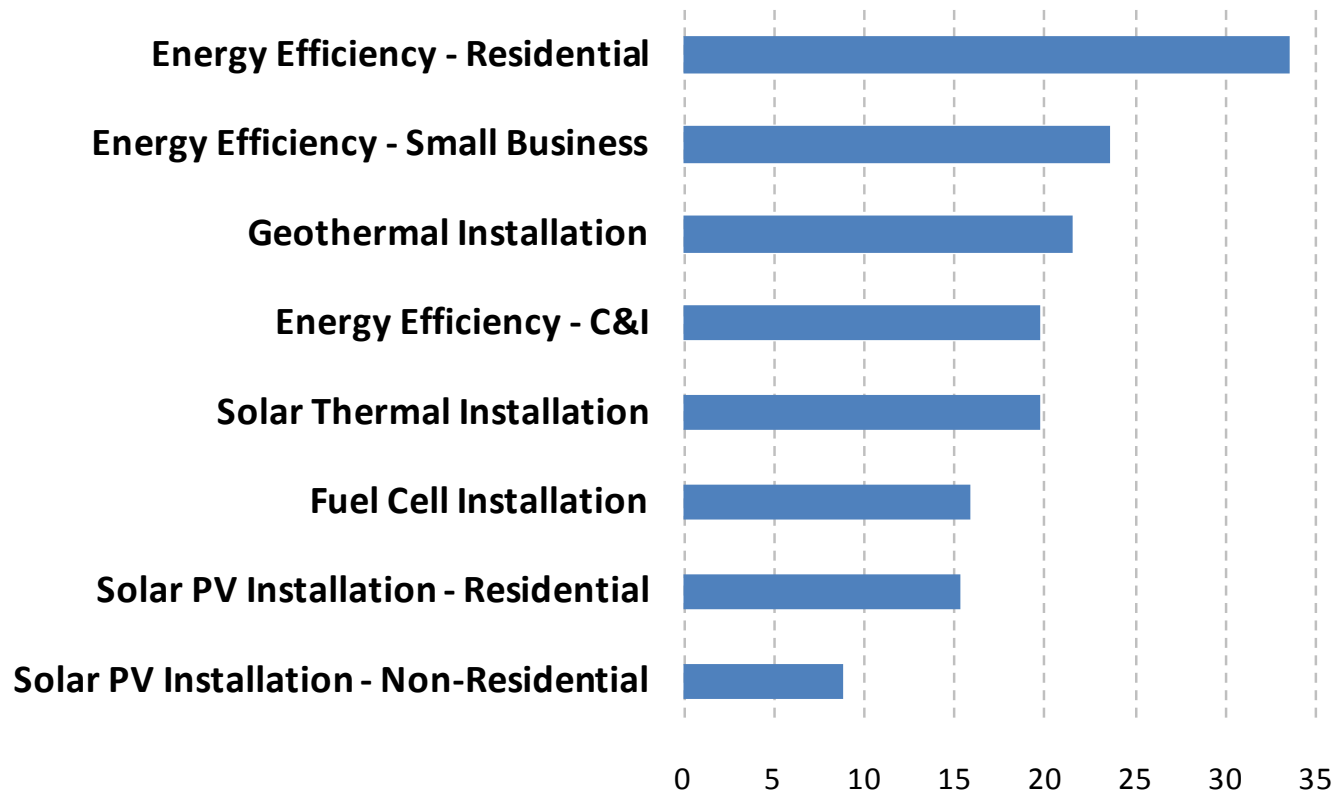


# More Capital into Connecticut = More Jobs Created from Clean Energy



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## Direct and Indirect Job Years Created per Million \$ Invested



Source: Navigant Consulting 2009 CT Renewable Energy/Energy Efficiency Economy Baseline Study.

# Property Assessed Clean Energy (PACE)



- ▶ **Loans from cities/towns or private investors to property owners to finance:**
  - ▶ Renovations/retrofits to reduce energy consumption
  - ▶ Installation of renewable energy systems
- ▶ **Eligible properties:**
  - ▶ Single- or multi-family residences
  - ▶ Commercial and industrial buildings
- ▶ **No upfront capital required and the loan is repaid through an assessment on the property tax bill from the project savings**
- ▶ **Loan runs with land/property, not owner who secured original loan**



# Connecticut Job Opportunities – PACE



## Commercial

## Residential

### Assumptions

CRE Buildings CT	36,000
Average SQF / Building	18,222
Energy Expense per Building per Year \$	72,121
Mk Penetration %	20%
Retrofit \$ / SQF	2.50
Annual Energy Savings %	20%
Jobs Created / \$M Invested	15

Investment \$M	328
Savings / Year \$M	104
Jobs Created	4,920

### Assumptions

Housing Units CT	943,265
Mk Penetration %	10%
Retrofit \$ / Project	5,000
Payback Years	5
Jobs Created / \$M Invested	20

Investment \$M	472
Savings / Year \$M	94
Jobs Created	9,433

# Green Loan Guaranty Fund

- ▶ **Up to \$18 million in state bond funds for loan guarantees**
  - ▶ Guarantees loans by participating lenders for energy efficiency and renewable energy projects
- ▶ **Projects include purchase and installation of:**
  - ▶ Clean energy generation systems
  - ▶ Energy conservation materials
  - ▶ Replacement furnaces and boilers
  - ▶ Advanced energy-conserving equipment
- ▶ **Eligible: individuals, nonprofits, small businesses (≤ 50 full-time employees)**
- ▶ **Administered by: CEFIA**



# Residential Solar PV Program

- ▶ **Goal: 30 MW of new residential solar photovoltaic (PV) systems installed by 2022**
- ▶ **Direct financial incentives**
  - ▶ For purchase or lease of qualifying residential solar PV systems
  - ▶ Incentives decline over time
- ▶ **Funding: \$100 million over 10 years**
  - ▶ Program receives up to one third of ratepayer funds annually
- ▶ **Result in 250 new FTE jobs (estimated) in near term**
- ▶ **Administered by: CEFIA**



# Locally Manufactured or Assembled



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## Daniel Halladay: Wind Turbine

Owned the Halladay Windmill Company in Coventry, CT

Built and manufactured the first commercially successful self governing new windmill in the U.S. in 1854

Relocated to Batavia, Illinois because of delays in production and shipping as a result of the Civil War.



## Albert Pope: Electric Vehicle

Owned the Pope Manufacturing Co. in Hartford, CT

Built electric vehicles under the Columbia Automobile Co. in 1897

Was bought out by the Electric Vehicle Co. and went under in 1899



## Bernard Baker: Fuel Cell

Founder, president and CEO of ERC in Danbury, CT

Builds molten carbonate fuel cells for low emission, baseload, distributed generation applications

Receives a two-year 70 MW order from POSCO Power, a South Korean independent power producer in 2011



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