



Connecticut
Clean Energy Fund

CT Hospital Environmental Roundtable
Patrick O'Neill P.E.



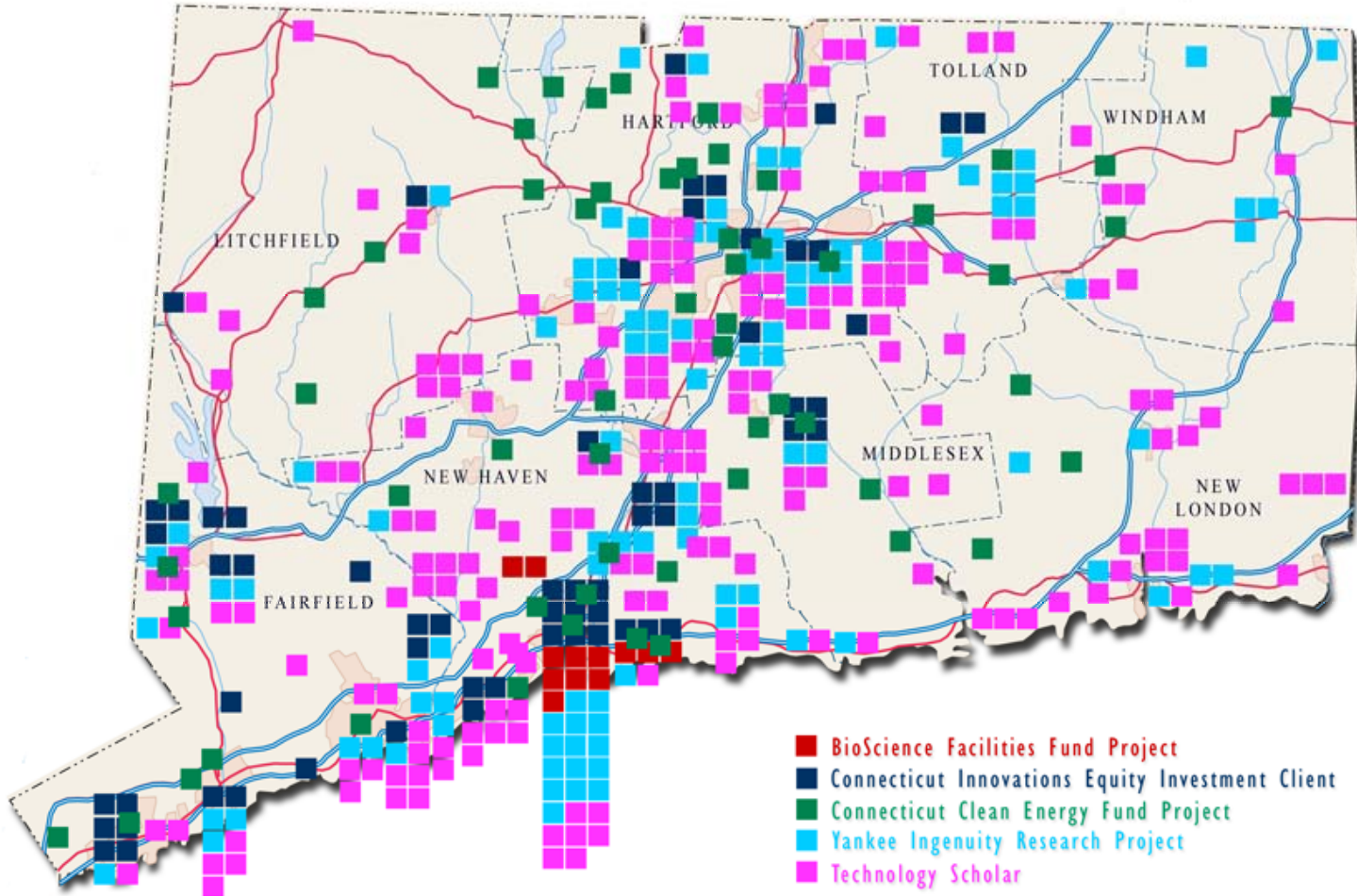
OBJECTIVES FOR TODAY

- CI/CCEF Overview
- Why Clean Energy Is Important
- Clean Energy Technologies
- CCEF Programs

CONNECTICUT INNOVATIONS (CI)

- Legislation – 1989
- Quasi-public authority
- Driving a vibrant, entrepreneurial, technology-based economy in Connecticut
- Self-sustaining since 1995

CI's STATEWIDE REACH

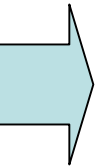


CONNECTICUT CLEAN ENERGY FUND (CCEF)

- Legislation 1998 / Launch 2000
- Administered by CI
- Surcharge on electric bills → ~\$20 million per year
- 50¢ per household per month

CCEF GOALS

Aimed at Benefiting Connecticut Ratepayers

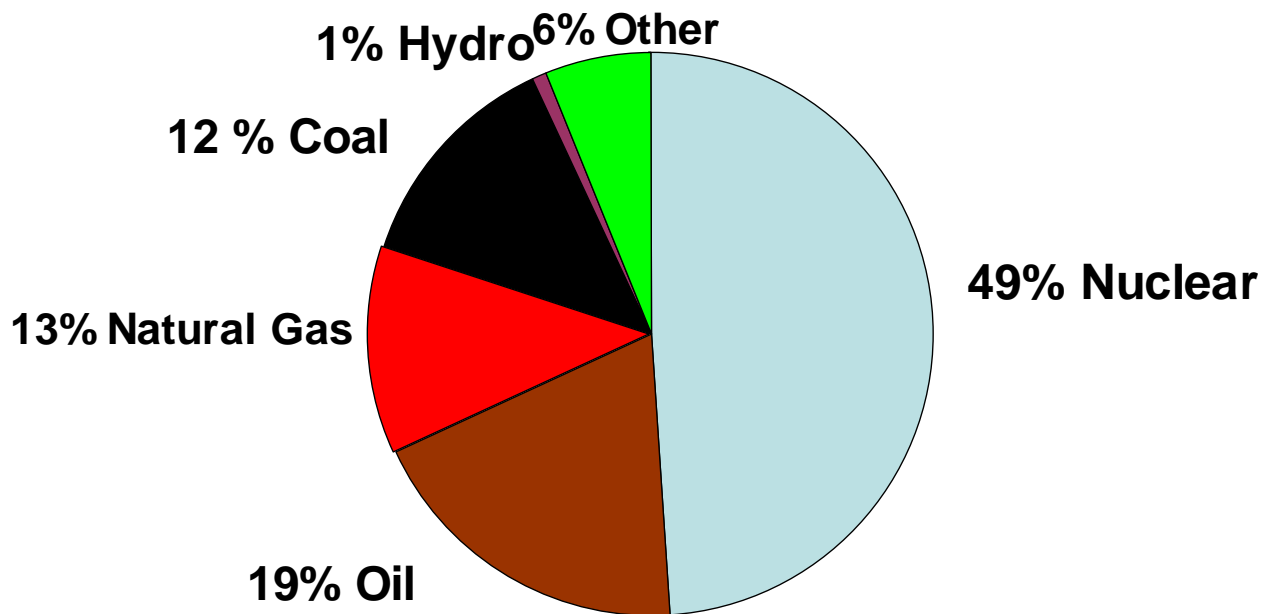
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1. Create a supply of clean energy (installed capacity)
 2. Foster the growth, development and commercialization of clean energy technologies
 3. Stimulate use of clean energy by increasing public awareness



NEED FOR CLEAN ENERGY

Connecticut's Current Energy Usage:

93% of Connecticut's electricity is generated with non-renewable energy – oil, coal, natural gas, and nuclear.



NEED FOR CLEAN ENERGY

Existing Electric Power Plants



Single largest industrial polluters:

- Sulfur Dioxide – causes acid rain
- Nitrogen Oxides – causes smog
- Mercury – poisonous
- Carbon Dioxide – potentially causes climate change

WHY CLEAN ENERGY?

Benefits

- Clean Energy = Local Jobs
- Clean Energy = Healthy Environment
- Clean Energy = Energy Independence
- Clean Energy = Hedge against rising energy costs

CLEAN ENERGY TECHNOLOGIES



Fuel Cells



Solar



Biomass



Hydro



Landfill Gas



Wave

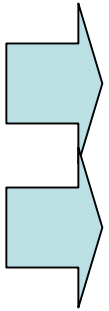


Wind

PROGRAMS

For Businesses/Institutions:

- **Technology Users**



- On-site Renewable Distributed Generation Program

- Solar Rebate Program

- **Technology Developers/Manufacturers/Installers**

- Pre-Development Program

- Project 100

- Operational Demonstration Program

ON-SITE RENEWABLE DISTRIBUTED GENERATION PROGRAM

- Enable renewable energy installations at **industrial, institutional and all commercial sites**
- > 10 kW
- Grants to “buy down” the cost of renewable energy generating devices
- Up to \$2 million per grant
- Host site in CL&P or UI service territory

ON-SITE RENEWABLE DISTRIBUTED GENERATION PROGRAM

THE PROCESS

- Applications accepted on rolling basis
- Staff reviews projects against screening criteria
- CCEF financial modeling and award determination
- Agreement of award amount by applicant
- Projects Committee and Advisory Board approval

ON-SITE RENEWABLE DISTRIBUTED GENERATION PROGRAM

Project Funding Amounts

- Max funding → \$2,000,000
- Funding Caps

Technology	Solar	Fuel Cells	Small Wind	Small Biomass	Landfill Gas	Hydro
Funding cap	\$5/W	\$4.70/W	\$3.60/W	\$3.30/W	\$3.20/W	TBD
Evaluation timeframe	20 yrs	10 yrs	15 yrs	10 yrs	10 yrs	TBD

- Specific grant amount determined after CCEF completes project modeling
- Total program Funding is currently \$21,000,000

ON-SITE RENEWABLE DISTRIBUTED GENERATION PROGRAM

COMPLETED PROJECTS



**Pepperidge Farm
(Bloomfield)**



CT Transit
Hartford, Connecticut
23.1 kW Solar Array

**New Haven
Water Pollution Control
Authority**



**Connecticut Transit
Maintenance Facility
(Hartford, CT)**

PV SOLAR REBATE PROGRAM

For Residential, Nonprofit and Governmental Installations

- Rebates for up to 10 kilowatts:
 - Residents:
 - Up to \$25,000 rebate
 - Incremental Connecticut State Sales Tax (over 5 kW and up to 10 kW)
 - Nonprofits & Government: Up to \$50,000 rebate
- Factors impacting rebate amount (partial list): efficiency of inverter, tilt of panels, shading factor
- Pays for about 55% of total system cost
- CL&P or UI customer

PV SOLAR REBATE PROGRAM



FINAL THOUGHTS



CLEAN ENERGY. LET'S MAKE MORE.

IT'S REAL, IT'S HERE, IT'S WORKING

VISIT US ONLINE
www.ctcleanenergy.com
www.ctinnovations.com

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Rocky Hill, CT
(860)563-0015

QUESTIONS

BACKUP SLIDES

CONNECTICUT INNOVATIONS

A Decade of Investment...

- **\$103 million** of equity investments in **61** Connecticut companies
- **\$20 million** deployed in technology initiatives
- **\$64 million** deployed/committed to support clean energy programs and projects; with allocations of **\$44 million** outstanding

CCEF HIGHLIGHTS

As of 5/31/06:

Funded projects	\$ 36 mm
Outstanding Commitments	\$ 28 mm
Allocations	\$ 44 mm

CCEF HIGHLIGHTS

As of 5/31/06

- CCEF has:
 - Supported **over 140 clean energy installations and demonstrations** statewide
 - Encouraged **26 municipalities** to purchase 20% clean energy by 2010
 - Enabled **8,500 electric ratepayers** to choose the CTCleanEnergyOptions program
 - Hosted the third annual **Fuel Cell Summit, which** attracted attendees from 27 states and 3 foreign countries

ON-SITE RENEWABLE DISTRIBUTED GENERATION PROGRAM

Program Funding Requirements

- Total program : \$21,000,000

Photovoltaic	Fuel Cells	Other
\$9 MM	\$9 MM	\$2.55 MM

- Remaining \$450,000
 - application guides
 - outreach programs, and
 - legal, consulting and due-diligence expenses