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CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Dear Budget and Operations Committee Members,

We look forward to our meeting on Tuesday, May 8th, at CEFIA in Rocky Hill from 9 to 10am. We have two main agenda items:

- Status update and transition recommendation for all programs from the previous Clean Energy Fund comprehensive plan
- Review of draft fiscal year 2013 budget.

The materials for the meeting can be found at the link below. Please let me know if you have any questions. We'll see you Tuesday.

Sincerely,
Mackey Dykes
Chief-of-Staff

CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

AGENDA

Budget and Operations Committee of the
Clean Energy Finance and Investment Authority
865 Brook Street
Rocky Hill, CT 06067

Tuesday, May 8, 2012
9:00 a.m.-10:00 a.m.

Staff Invited: George Bellas, Brian Farnen, Bryan Garcia and Mackey Dykes

1. Call to order
2. Public Comments – 5 minutes
3. Approve meeting minutes for March 14, 2012 and March 22, 2012 meetings* – 5 minutes
4. Review of FY2011 and FY2012 Clean Energy Fund comprehensive plan programs and transition recommendations – 25 minutes
5. Review of proposed FY13 Budget – 25 minutes
6. Other business – 5 minutes
7. Adjourn

*Denotes item requiring Committee action
** Denotes item requiring Committee action and recommendation to the Board for approval

Call-in information: 1-877-885-3221 Access Code: 8446562

Next Meeting: Tuesday, November 6, 2012
Clean Energy Finance and Investment Authority, 865 Brook Street, Rocky Hill, CT

BUDGET AND OPERATIONS COMMITTEE OF THE CLEAN ENERGY FINANCE AND INVESTMENT AUTHORITY

Draft Minutes – Special Meeting
Wednesday, March 14, 2012

A special meeting of the Budget and Operations Committee ("Budget Committee") of the Board of Directors of the **Clean Energy Finance and Investment Authority ("CEFIA")** was held on March 14, 2012, at the office of the CEFIA, 865 Brook Street, Rocky Hill, CT.

1. **Call to Order**: Daniel Esty, Chairperson of the Budget Committee, called the meeting to order at 11:07 a.m. Budget Committee members participating: Mun Choi, Daniel Esty, and Norma Glover.

Other CEFIA Board Member Attending: Reed Hundt (by phone).

Staff Attending: George Bellas, Mackey Dykes, Brian Farnen, Bryan Garcia, and Shelly Mondo.

Others Attending: Peggy Diaz, Department of Energy and Environmental Protection.

2. **Public Comments:** There were no public comments.

3. **Approval of Meeting Minutes:**

Mr. Esty asked the Budget Committee members to consider the minutes from the December 12, 2011 meeting.

> **Upon a motion made by Mr. Choi, seconded by Ms. Glover, the Budget Committee members voted unanimously in favor of adopting the minutes from the December 12, 2011 meeting as presented.**

3. **Review and Approval of the Proposed Revisions to the CEFIA Employee Handbook:**

Mr. Dykes reviewed the recommended changes to the CEFIA Employee Handbook. He mentioned that most of the changes were made to clarify some of the duties of the Chief of Staff. In response to a question, Mr. Dykes noted that the changes will help staff to understand the duties of the new position. Mr. Dykes talked about the policies and practices for compensatory time. He noted that compensatory time is for unique situations and is not provided on a regular basis. Mr. Dykes mentioned that a meeting will be held with all employees to provide an overview of the policies, including compensatory time and telecommuting.

Upon a motion made by Ms. Glover, seconded by Mr. Choi, the Budget Committee members voted unanimously in favor of recommending to the Board for consideration the amendments to the CEIFA Employee Handbook.

Mr. Dykes mentioned that the proposed revisions to the CEFIA Employee Handbook will be presented to the Board in April.

4. Comprehensive Budget for Fiscal Year 2012 and Cash Flow Projections:

Mr. Bellas provided an overview of the consolidated budget and cash forecast for fiscal year 2012 compared with the actual revenues and expenses for the last seven months. He reviewed the revenues received and projected to be received for the remainder of the fiscal year. Mr. Bellas stated that based on actual revenues received, CEFIA is on track to meet revenue projections through the end of the fiscal year.

Mr. Bellas discussed the operating and program expenditures, noting that expenditures should be on track with budget projections through the end of the year. He indicated that the goal for the proposed fiscal year 2013 budget is to further break out the total operations and program administrative expenses. The Budget Committee members suggested adding a column that projects the end of the year reconciliation.

A discussion ensued on the financial incentives not yet committed or spent. Mr. Garcia explained that the Connecticut Clean Energy Fund ("CCEF") budget was prepared before the enactment of Public Act 11-80, and the financial incentives in the current budget represent the forecast from the two-year Comprehensive Plan for the program goals of CCEF. He briefly explained each of the program goals and the approximate percentage of funding allocated for each of the program goals. Mr. Garcia indicated that CEFIA anticipates phasing out its on-site distributed generation programs in light of the ZREC and LREC market, and some of the funds budgeted by CCEF for financial incentives may be reallocated. Mr. Bellas explained that staff recommends moving to an one-year consolidated budget for CEFIA based on its fiscal year as opposed to calendar year.

It was noted that the evolving focus of CEFIA is on financing the deployment of clean energy. Mr. Garcia explained that some of CEFIA's existing programs would fit better within other state agencies, quasi-public agencies or other organizations. He noted that staff is in the process of finalizing a new Comprehensive Plan that will change the focus and programs of CEFIA. The Budget Committee members discussed the importance of determining which programs fit the CEFIA model and should be priorities.

The Budget Committee members asked staff to break out the information in the Statement of Revenues and Expenses by program or to include a supplemental report that would contain at least the following information for each program:

- a summary of the program
- whether the program will remain or be phased out
- a time frame for the program or the phasing out
- who manages the program and the staff assigned to the program
- the goals of the program and what CEFIA is trying to achieve
- the progress made to achieve the goals of the program
- the delivered outcomes, successes, obstacles, prerequisites, etc.
- the budget for the program
- constant monitoring of actual versus budget projections for each program
- whether the program is cost effective based on an identified set of metrics
- timelines for each of the programs

Staff was also asked to identify any programs CEFIA is legislatively required to have. It was noted that the transformations of the programs may be result in unpredictabilities with spending and there may be a need for contingency funding.

The Budget Committee members noted the need to have different systems in place to be able to provide daily, weekly, monthly and quarterly reports on certain program information and to be able to provide historical information as well as new goals and metrics. The Committee was supportive of staff pursuing steps to design, develop and implement better data management systems for the organization.

The Budget Committee would like to meet again to discuss the specific information requested from staff and with staff's input to recommend to the Board priorities and budget allocations for each of the programs.

Staff was urged to move as expeditiously as possible to transition to the new CEFIA focus and financing structure.

The Budget Committee members discussed the cash on hand, commitments and obligations of CEFIA. In response to a question, Mr. Bellas explained that the funds allocated to Project 150 are considered a liability because there are outstanding contracts. The Budget Committee members asked staff to provide a written status report on the Project 150 projects and to determine which projects will come to fruition within one year. Staff was urged to conclude Project 150 and take the necessary steps to cancel the Project 150 contracts for those projects that will not be completed within a year. A suggestion was made to send a letter to the Public Utilities Regulatory Committee to obtain guidance.

5. Review of Organizational Chart:

Mr. Dykes asked for input from the Budget Committee members on the draft organizational chart that reflects the new direction of CEFIA. The Budget Committee members noted the importance of having the Executive Vice President – Chief Financial Officer in place before finalizing the organizational chart.

6. Update on Stamford office:

Staff reported that satellite office space will be sought in the Stamford area for approximately 4 to 7 employees. After a brief discussion, staff was encouraged to work with the Department of Economic and Community Development ("DECD") to ensure that the vision for the Stamford office space is in line with DECD's expectations. A suggestion was made to link the Stamford satellite office with the model for HUBs.

7. Adjournment: Upon a motion made by Mr. Choi, seconded by Ms. Glover, the Budget Committee members voted unanimously in favor of adjourning the March 14, 2012, meeting at 12:30 p.m.

Respectfully submitted,

Daniel Esty, Chairperson of Budget Committee

BUDGET AND OPERATIONS COMMITTEE OF THE
CLEAN ENERGY FINANCE AND INVESTMENT AUTHORITY
Draft Minutes – Special Meeting
Thursday, March 22, 2012

A special meeting of the Budget and Operations Committee ("Budget Committee") of the Board of Directors of the **Clean Energy Finance and Investment Authority (the "CEFIA")** was held on March 22, 2012, at the office of the CEFIA, 865 Brook Street, Rocky Hill, CT.

1. **Call to Order**: Daniel Esty, Chairperson of the Budget Committee, called the meeting to order at 12:40 p.m. Budget Committee members participating: Mun Choi, Daniel Esty, and Norma Glover.

Staff Attending: Mackey Dykes, Brian Farnen, Bryan Garcia, and Shelly Mondo.

2. **Public Comments:** There were no public comments.

3. **Executive Session to Discussion Personnel Matters:**

Mr. Esty asked the Budget Committee members to consider going into executive session to discuss personnel matters.

> **Upon a motion made by Ms. Glover, seconded by Mr. Choi, the Budget Committee members voted unanimously in favor of going into executive session at 12:41 p.m. to discuss personnel matters. Mr. Dykes, Mr. Farnen, and Mr. Garcia were invited to remain during the executive session.**

The executive session ended at 12:50 p.m., and the special meeting was immediate reconvened.

> **Upon a motion made by Ms. Glover, seconded by Mr. Choi, the Budget Committee members voted unanimously in favor of accepting and approving the recommendation of the President regarding the release and separation agreement discussed in executive session.**

4. **Adjournment**: Upon a motion made by Mr. Choi, seconded by Ms. Glover, the Budget Committee members voted unanimously in favor of adjourning the March 22, 2012, meeting at 12:53 p.m.

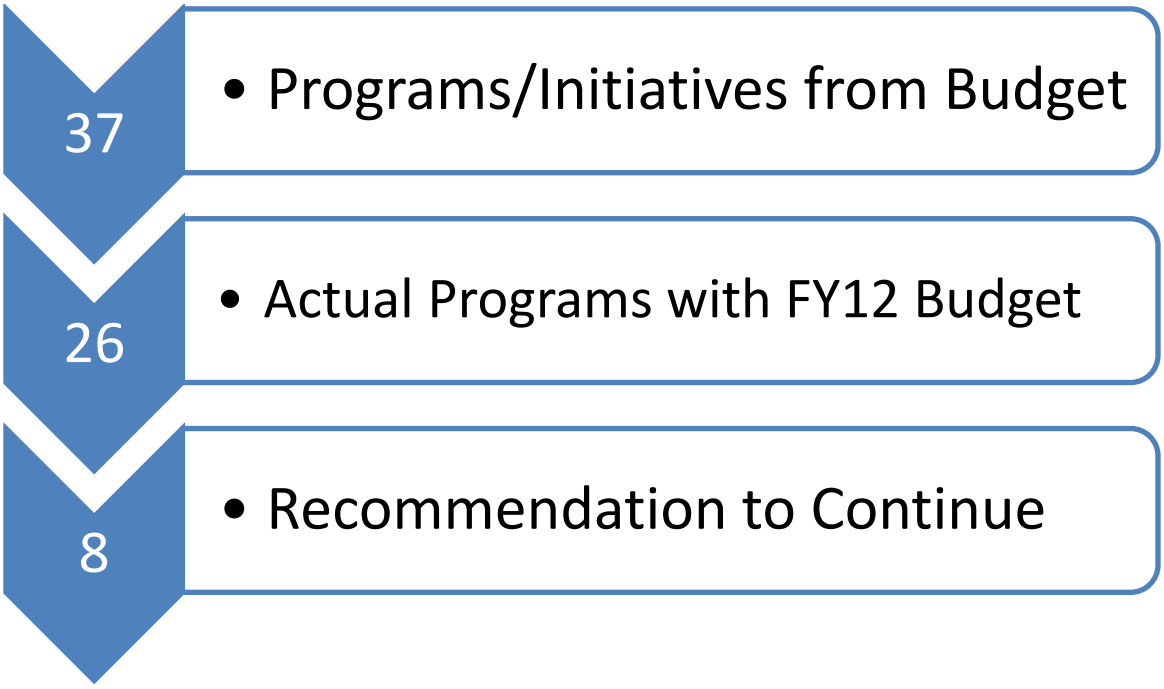
Respectfully submitted,

Daniel Esty, Chairperson of Budget Committee

Program Review

CEFIA Budget & Operations Committee

May 8, 2012



GOAL 1

Feasibility Studies

Feasibility Study Grants provides financial support for assessing the technical and economic feasibility of clean energy systems. It incentivizes clean energy generation for the wholesale and retail market through project-specific feasibility studies and pre-development support. This program is intended to increase the ability of businesses or developers and commercial ratepayers to make informed decisions about using clean energy systems by understanding and solving technical and economic uncertainties.

Staff

Dale Hedman, lead
Dave Ljungquist

Goal

Complete feasibility studies and other pre-development activities associated with a decision whether or not to pursue the development of fifteen (15) projects.

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	Support up to 15 projects	$750,000
Progress	6 projects	$271,600
Result	40%	36.2%

Program Timeline/Transition Recommendation

CEFIA recommends that the Feasibility Studies program be split into two separate programs:

- Feasibility Studies program which offers up to $50,000 to assess the technical and economic feasibility of clean energy systems.
- Pre-Development Loans program which offers loans or grants of up to $250,000 for projects under 5 MW and loans or grants up to $500,000 for over 5 MW.

On-Site Renewable Distributed Generation Program

Non-Residential Market Best of Class RFP

The On-Site Renewable Distributed Generation Program (OSDG) is a flexible, integrated-technology, financial support program designed to stimulate demand for "behind the meter" installations of renewable energy at commercial, industrial, institutional (CI&I), not-for-profit, and governmental buildings, and affordable housing in Connecticut.

Staff

Dale Hedman, lead
Rick Ross
Christin Cifaldi

Goal

Through a competitive RFP process, incentivize a minimum of 10 projects that produce up to 3.5 MW of renewable power.

Budget/Progress

Fiscal Year 2011-2012

	Goal	Goal	Budget
	Support a minimum of 10 projects	Produce 3.5 MW	$8,860,000
Progress	12	1.0	$2,799,131
Result	120%	28.6%	31.6%

Program Timeline/Transition Recommendation

OSDG will be discontinued after the current round of funding is completed. Staff is presenting the first batch of proposals to the Deployment Committee on May 3 and the final batch will be presented at the next Deployment Committee meeting.

On-Site Renewable Distributed Generation Program

Non-Residential Market EPA Climate Leaders RFP

The On-Site Renewable Distributed Generation Program (OSDG) is a flexible, integrated-technology, financial support program designed to stimulate demand for "behind the meter" installations of renewable energy at commercial, industrial, institutional (CI&I), not-for-profit, and governmental buildings, and affordable housing in Connecticut. The EPA Climate Leaders RFP offers incentives to install approximately 0.8 MW Class I renewable energy systems to businesses that agree to join the EPA Climate Leaders Program and commit to specific program requirements.

Staff

Dale Hedman, lead

Goal

Produce up to 2 MW of renewable power

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	Produce 2 MW	$5,000,000
Progress	0	0
Result	0%	0%

Program Timeline/Transition Recommendation

No activity has occurred for this program. There are no plans to initiate or continue the program so there are no activities to transition.

On-Site Renewable Distributed Generation Program

Affordable Housing RFP

The On-Site Renewable Distributed Generation Program (OSDG) is a flexible, integrated-technology, financial support program designed to stimulate demand for "behind the meter" installations of renewable energy at commercial, industrial, institutional (CI&I), not-for-profit, and governmental buildings, and affordable housing in Connecticut. The Affordable Housing RFP incentivizes clean energy generation for multi-family affordable housing through a competitive RFP.

Staff

Dale Hedman, lead

Goal

Install 1.2 MW of Class 1 clean energy projects on affordable housing

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	Install 1.2 MW	$4,000,000
Progress	0	$100,000
Result	0%	2.5%

Program Timeline/Transition Recommendation

No activity has occurred for this program. There are no plans to initiate or continue the program so there are no activities to transition.

Public Buildings

The Public Buildings program utilizes ARRA and RGGI funding to incentivize Class 1 clean energy projects on public buildings.

Staff

Dale Hedman, lead
Rick Ross
Christin Cifaldi

Goal

Install 5.2 MW of Class 1 clean energy generation on public buildings

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	Install 5.2 MW	$13,500,000
Progress	1.8	$4,936,066
Result	34.6%	36.6%

Program Timeline/Transition Recommendation

Funding was allocated for Public Buildings in the final round of OSDG RFPs. Staff is presenting the first batch of proposals to the Deployment Committee on May 3 and the final batch will be presented at the next Deployment Committee meeting. This program will be phased out after this final round of funding is complete.

Residential Solar Program

The Residential Solar Program incentivizes the installation of solar PV systems of ten kW or less on homes by offering rebates for the purchase of a system or through a solar lease.

Staff

Dale Hedman, lead
Christin Cifaldi

Budget/Progress

Solar Lease
2008 - 2011

	Goal	Budget
	Install 1,000 systems	$38,000,000
Progress	860	$35,869,000
Result	86%	94%

Solar Rebate
Fiscal Year 2011-2012

	Budget
	$6,500,000
Progress	$2,048,000
Result	32%

Program Timeline/Transition Recommendation

Section 106 of Public Act 11-80 directed CEFIA to establish a similar Residential Solar PV Investment Program, which will utilize both rebates and leasing to result in at least 30 MW of residential solar PV installations by December 31, 2022.

Solar Thermal Program

The Solar Thermal program was initiated with ARRA funding in 4Q2009 to offer rebates for the installation of residential and commercial solar hot water systems.

Staff

David Ljungquist, lead
Bill Colonis, Neil McCarthy, Lynne Lewis

Goal

Install 94 commercial systems and 470 residential systems

Budget/Progress

The original budget was $4,000,000, allocated as $3,600,000 for rebates and $400,000 for administrative costs. In 2011, $1,000,000 was "repurposed" for a Residential Financing Program.

Fiscal Year 2009-2010

Commercial	Goal	Budget
	Support 32 Solar Thermal systems	$480,000
Progress	12	$521,200
Result	37.5%	108.6%

Residential	Goal	Budget
	Support 170 Solar Thermal systems	$514,000
Progress	55	$118,200
Result	32.4%	23.0%

Fiscal Year 2011-2012

Commercial	Goal	Budget
	Support 45 Solar Thermal systems	$1,030,300
Progress	45	$1,030,300
Result	100%	100%

Residential	Goal	Budget
	Support 219 Solar Thermal systems	$1,030,300
Progress	144	$1,030,300
Result	65.8%	100%

Program Timeline/Transition Recommendation

CEFIA is developing a Residential Clean Energy Financing Program which will support solar thermal installations. A temporary program for residential systems is underway way to bridge the gap between the ARRA program and the financing program. A competitive commercial program will be launched in May to bridge the gap between the ARRA program and CPACE.

Geothermal Program

The Geothermal program was initiated with ARRA funding in 2009 to offer rebates for the installation of residential and commercial ground source heat pump systems.

Staff

David Ljungquist, lead
Bill Colonis
Neil McCarthy
Lynne Lewis

Goal

Install 150 commercial systems and 900 residential systems

Budget/Progress

The original budget was $5,000,000, allocated as $4,500,000 for rebates and $500,000 for administrative costs. In 2011, $1,550,000 was "repurposed" for a Residential Financing Program.

Fiscal Year 2009-2010

Commercial	Goal	Budget
	Support 5 Geothermal systems	$548,300
Progress	12	$521,200
Result	240.0%	95.1%

Residential	Goal	Budget
	Support 64 Geothermal systems	$482,000
Progress	105	$819,200
Result	164.1%	170.0%

Fiscal Year 2011-2012

Commercial	Goal	Budget
	Support 11 Geothermal systems	$882,300
Progress	4	$882,300
Result	36.4%	100%

Residential	Goal	Budget
	Support 105 Geothermal systems	$882,300
Progress	294	$882,300
Result	208%	100%

Program Timeline/Transition Recommendation

The geothermal program has completed its final round of funding and will not be continued.

Revolving Loan Fund

Create a revolving loan fund that will leverage private and federal dollars for clean energy projects.

Staff

Dale Hedman, lead

Goal

Create and implement a revolving loan fund

Budget/Progress

Fiscal Year 2011-2012

	Budget
	$3,500,000
Progress	0
Result	0%

Program Timeline/Transition Recommendation

Given CEFIA's new mission, this program will remain and a fund structure will be developed.

Strategic Investment Fund

The Strategic Investment Fund will invest in mission-related, high-potential opportunities that meet 3 of the following criteria:

1. Special Capabilities – the opportunity is presented by a party with exceptional experience, expertise or availability or holding patent or other proprietary rights of special value to CEFIA
2. Uniqueness – the opportunity is one-of-a-kind by virtue of location, high visibility, and leverage with other already committed public or private funding or similar attributes
3. Strategic Importance – the opportunity has exceptionally strong compatibility with the mission of CEFIA or offers CEFIA an organizational role, participation in governance, a formative or other key role in the industry, high funding leverage potential, broad market reach, exceptional educational or public relations value, or similar special strategic advantages important to CEFIA
4. Urgency and Timeliness – there is an urgent need to act on the opportunity as a result of public exigency or emergency, or a strategically important opportunity would become unavailable as a result of delay, or it would take an unacceptable length of time for a similar opportunity to reach the same level of readiness
5. Multiphase Project or Follow-On Investment – the opportunity relates to the next phase of a multiphase proposal or the expenditure is necessary to support or protect an existing CEFIA investment of initiative

Staff

David Goldberg, lead

Goal

Consider at 10 investments

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	Consider 10 investments	$1,600,000
Progress	0	413,500
Result	0%	25.8%

Program Timeline/Transition Recommendation

The Strategic Investment Program will be continued in FY13 to give the CEFIA the opportunity to invest in worthy projects.

GOAL 2

Alpha Program

The Alpha Program invests in early-stage, high-potential renewable energy companies and technologies that employ advanced energy methods including renewable energy, energy efficiency, and advanced energy storage techniques to creatively address Connecticut's energy issues. The Alpha Program seeks to invest in technologies beyond the stage of basic research and development, which requires further testing in a laboratory or simulated environment. Approved proposals receive a combination $50,000 grant and a $150,000 nonrecourse loan.

Staff

Kim Stevenson, lead
Selya Price

Goal

Fund up to 6 proposals

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	Support up to 6 proposals	$1,200,000
Progress	0	$77,200
Result	0%	6%

Program Timeline/Transition Recommendation

The final Alpha RFP closed and CEFIA staff is presenting proposals to the Technology Innovation Committee on May 7th.
Technology innovation is no longer a focus of CEFIA so the Alpha program is transitioning. CEFIA is in negotiations with Connecticut Innovations to take on the program or project pipeline.

Operational Demonstration Program

The Operational Demonstration Program (Op-Demo) makes up to a $500,000 loan to demonstrate the commercial viability and ability of emerging technologies and integrated systems to address commercial problems. The funding may be used to demonstrate individual technologies or integrated technology solutions that employ advanced energy methods including renewable energy, energy efficiency, and advanced energy storage techniques.

Staff

Kim Stevenson, lead
Selya Price

Goal

Fund up to 4 proposals

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	Support up to 4 proposals	$2,000,000
Progress	0	$0
Result	0%	0%

Program Timeline/Transition Recommendation

The final Op-Demo RFP has closed and the proposals are being reviewed by outside subject-matter experts. The proposals that pass this review will be presented to the Technology Innovation Committee in July.

Technology innovation is no longer a focus of CEFIA so the Op-Demo program is transitioning. CEFIA is in negotiations with Connecticut Innovations to take on the program or project pipeline.

Clean Tech Fund

Invest in early-stage renewable energy companies that employ advanced energy methods including renewable energy, energy efficiency, and advanced energy storage techniques. DECD, CI, and the CCEF have pledged funds to create a nine million dollar ($9,000,000) Clean Tech fund to be used for equity investments in promising clean energy and clean technology ventures. While the DECD and CI portions may be applied to the broader definition of clean technologies including clean water initiatives, the CCEF funds may be applied only to deals that fall within the purview of the CCEF's mandate and CCEF investments must be approved by the CCEF Board's Technology Programs Committee.

Staff

Keith Frame, lead

Goal

Fund at least 2 opportunities

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	Fund at least 2 opportunities	$1,500,000
Progress	0	$0
Result	0%	0%

Program Timeline/Transition Recommendation

No activity has occurred under this program and it has been phased out.

Fuel Cell Monitoring Program

The Fuel Cell Performance Monitoring (FCPM) program is intended to actively monitor operational, experiential, and economic performance data from Connecticut-deployed fuel cell projects to substantiate the value proposition for fuel cell technologies. It seeks to make this information accessible to potential investors, procurers and manufacturers of fuel cells in order to reduce the perception of the risk of owning or investing in this technology. Power Management Concepts (PMC) has been contracted through a rigorous RFP process to design, build, and administer this program.

Staff

Keith Frame, lead
Kim Stevenson

Goal

Acquire, display and deploy ongoing monitoring results to stakeholders

Budget/Progress

Fiscal Year 2011-2012

	Budget
	$200,000
Progress	$108,000
Result	54%

Program Timeline/Transition Recommendation

Given CEFIA's new focus, the Fuel Cell Monitoring Program is being phased out. The technology innovation team is working with an outside consultant to evaluate the program and develop lessons learned.

Small Wind Monitoring Program

The Small Wind Monitoring Program will address information gaps that impede investment in or adoption of small wind technologies. Three sites have been identified through a competitive RFP. These sites, Coventry, Lebanon and Meriden, have been permitted, towers have been installed and instrumented, wind data has been acquired, and are all slated to have turbines mounted in July 2010. A fourth site in New Haven is under construction.

Staff

Keith Frame, lead

Goal

Determine the feasibility of establishing a small wind rebate program and disseminate performance data and analysis on up to four small wind turbines.

Budget/Progress

Fiscal Year 2011-2012

	Budget
	$100,000
Progress	$89,700
Result	90%

Program Timeline/Transition Recommendation

Given CEFIA's new focus, the Small Wind Monitoring Program will be phased out.

Technology Assessment Program

The Technology Assessment Program assesses emergent high potential opportunities for clean energy technology development.

Staff

Kim Stevenson, lead
Selya Price

Goal

Assist Connecticut state and quasi-public agencies with evaluating technology proposals.

Program Timeline/Transition Recommendation

CEFIA will retain technical staff to continue the Technology Assessment Program and budget funds for technical and resource assessments.

Net-Zero Carbon Integrated Energy Demonstration Project

The Net-Zero Energy Program addresses information gaps that impede investment in or adoption of net zero energy solutions.

Staff

Keith Frame, lead

Goal

Model, demonstrate, and assess the full economic and environmental value proposition of integrated renewable energy, advanced energy efficiency, and smart grid systems will identify those with economic/commercial potential to achieve net-zero carbon impact in Connecticut.

Budget/Progress

Fiscal Year 2011-2012

	Budget
	$1,000,000
Progress	$0
Result	0%

Program Timeline/Transition Recommendation

No activity has occurred under this program and it will be phased out.

Clean Energy Innovation Cluster

The Clean Energy Innovation Cluster seeks to help to initiate, form, and lead a clean energy innovation cluster in Connecticut focused on deploying the Navigant New Technology Investment Strategy to grow the clean energy economy in Connecticut.

Staff

Kim Stevenson, lead

Selya Price

Goal

Clean Energy Innovation Cluster organized, planned, and implementation initiated.

Budget/Progress

Fiscal Year 2011-2012

	Budget
	$300,000
Progress	$0
Result	0%

Program Timeline/Transition Recommendation

Given CEFIA's new focus, the Clean Energy Innovation Cluster activities are being transitioned. The Technology Innovation Committee and CEFIA staff is in talks with other organizations to take on CEFIA's role in the cluster.

GOAL 3

Clean Energy Communities

Clean Energy Communities

The Clean Energy Communities program serves as a platform for municipalities to lead by example in their support of energy efficiency and renewable energy and thereby encourage residents, businesses and institutions within the community and other cities and towns throughout the state to adopt similar measures. The program also doubles as a clean energy marketing campaign that has generated significant earned media and voluntary education and outreach within the communities. Since its launch in 2005, the program has evolved through three major phases and will now feature several further changes including the formal partnership with the Connecticut Energy Efficiency Fund (CEEF) as co-administrator of the program, performance-based incentives for meeting both renewable energy and energy efficiency milestones and bonuses for additional actions that demonstrate that a community is "investment ready" for clean energy (e.g., adoption of streamlined permitting and planning and zoning processes, commercial PACE, high performance building codes, finance seminars in conjunction with strategic partners such as realtor groups and chambers of commerce).

Under the new program requirements, municipalities must meet the following requirements:

1. Pledge to reduce energy consumption in municipal facilities by at least 20% by 2018; municipalities must perform energy benchmarking and develop a Municipal Action Plan (MAP); municipalities must meet annual reduction targets and gradually build towards overall goal, which aligns with the State's Lead by Example campaign.
2. Pledge to increase use of renewable energy to meet electricity needs at municipal facilities by at least 20% by 2018; municipalities must make annual purchase targets through installation of renewable energy systems, purchase of Green-e certified Renewable Energy Credits or enrollment in CTCleanEnergyOptions.
3. Encourage residents, businesses and institutions within the community to participate in CEFIA or CEEF programs; with respect to renewable energy, towns earn points based on installation of renewable energy systems or enrollments in CTCleanEnergyOptions; with respect to energy efficiency, towns earn points based on participation in Home Energy Solutions, residential efficiency upgrades such as insulation or appliances and commercial or municipal participation in relevant programs.

Successful municipalities can earn clean energy systems (such as solar PV, solar hot water and solar daylighting) from CEFIA and "Bright Ideas Grants" (for energy-savings or carbon-reduction projects) from CEEF. Bonuses are available for municipalities that achieve special milestones (e.g., EPA Green Power Communities Program) or take other actions to accelerate adoption of energy efficiency and renewable energy.

Staff

Bob Wall, lead

Robert Schmitt
Bill Colonis

Goal

- Voluntary support for clean energy reaches at least 3% of state electricity demand
- At least 400 kW of clean energy systems are earned by participating communities

Budget/Progress

Fiscal Year 2011-2012

	Goal	Goal	Budget
	400 kW earned	Clean energy support at least 3% of CT electricity demand	$3,670,000
Progress	337	1.9%	$1,069,400
Result	84%	63%	29%

Program Timeline/Transition Recommendation

Maintain

Clean Energy Communities

Community Innovations Grants Program

The Community Innovations Grants Program (CIGP) provides eligible communities with block grants to support local public awareness projects to accelerate the growth of the voluntary market for clean energy and leverage program funding to create model, sustainable communities throughout Connecticut. The current program is designed to provide grants of $4,000 for up to ninety-five (95) municipalities that have committed to the Clean Energy Communities program and $1,000 for ten (10) "at-large" recipients that have not yet committed to the Communities program.

The CIGP is an amalgamation of several community-based development models including the micro-lending aspects of the Grameen Bank, small project assistance grants of the U.S. Peace Corps, and the grass-roots environmental support programs of the New England Grassroots Environmental Fund.

Participating communities are required to attend a training workshop on soliciting grant applications, selecting project recipients, and administering and accounting for grant funds. The clean energy task force may provide individual awards in amounts ranging from two hundred fifty dollars ($250) to two thousand dollars ($2,000) to organizations or citizens for projects that drive demand for clean energy within their community. To further manage the transaction and accountability risks for the use of these funds, individual grant recipients are required to submit final reports to the task force upon completion of their projects and task forces are required to submit semiannual reports to the CEFIA. The program guidelines will be modified to allow funds to be used for energy benchmarking efforts as well as support for the "investment ready for clean energy" initiatives including education and outreach on new energy financing mechanisms.

Staff

Bob Wall, lead
Robert Schmitt

Goal

At least 200 projects are funded and 50 towns receive grants

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	50 communities	$243,000
Progress	10	$45,000
Result	20%	18.5%

Program Timeline/Transition Recommendation

Maintain

Clean Energy Communities

High Performance Schools Program

The High-Performance Schools Program is a multiple-year program that seeks to transform the way public school buildings are designed and constructed in Connecticut. Ultimately, the CCEF anticipates that this program will accelerate the adoption of green building standards among all sectors in Connecticut, with an emphasis on achieving greater energy efficiency and incorporating renewable energy technologies.

The goal of this multi-year endeavor is to leverage resources, expertise, and knowledge in order to transform how Connecticut schools are designed and built and to motivate municipalities and regional school districts to include high-performance features and clean distributed generation as standard components in future schools. The program will be an integrated campaign of policy initiatives, collaborative action, targeted outreach, technical assistance, financing and measurement, evaluation, and documentation of results.

Staff

Bob Wall, lead

Goal

Fifteen public schools will adopt high-performance standards, at least eight of which will include renewable systems.

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	8 schools	$2,675,000
Progress	0	$0
Result	0%	0%

Program Timeline/Transition Recommendation

Phase out

Clean Energy Communities

Net Zero Energy Homes

This pilot program promotes the adoption of green buildings through development, in partnership with the CEEF, to encourage net zero energy homes featuring renewable energy systems.

Staff

Bob Wall, lead

Goal

Develop a pilot program in partnership with CEEF

Budget/Progress

Fiscal Year 2011-2012

	Budget
	$200,000
Progress	$0
Result	0%

Program Timeline/Transition Recommendation

No activity has occurred under this program and it will be phased out.

Education and Training Programs

Learning for Clean Energy Innovation

The Learning for Clean Energy Innovation Program (LCEI Program) is a professional development opportunity for Connecticut teachers focused on renewable energy sources. Developed in consultation with the Connecticut Department of Education and a Professional Development Working Group consisting of education experts and NREL, this program offers solar and wind energy lessons that are aligned with the ninth-grade Connecticut Core Science Curriculum Framework. The program is offered statewide and will provide education for teachers on how to incorporate specially designed alternative energy lessons into their existing curriculum. Ultimately, the program will provide teacher training workshops, curriculum materials, and a unique Clean Energy classroom toolkit.

The LCEI Program was expanded to work directly with the Connecticut Technical High School System and help the state's efforts with green job training. The new collaboration with the technical high school system is called LCEI-Tech. Key design elements of the LCEI-Tech program include curriculum development, hands-on learning labs, and the potential for industry partnerships that support the program through donations, curriculum input from industry practitioners, and internships and apprenticeships for students.

Staff

Bob Wall, lead
Jocelyn Anastasiou (former staff)

Goal

Support 100 teachers for solar and wind lessons at training labs at 6 Technical High Schools

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	100 teachers	$676,000
Progress	9 schools	$248,902
Result	9%	36.8%

Program Timeline/Transition Recommendation

Expend the remaining budget to close out CEFIA's support of the LECI program and transition the program to the Efficiency Fund where Jocelyn Anastasiou is managing it.

Education and Training Programs

Educational Accreditation

A critical element to developing and supporting the clean energy industry in Connecticut is providing training programs designed to meet the industry's needs for skilled workers.

Through a workforce development program, the CCEF will help position Connecticut as a leader in the clean energy market through a well-trained, educated workforce that meets industry needs and provides opportunities for those seeking to enter the industry. The workforce development program will support education and training opportunities that align with Connecticut's energy goals and bolster economic growth.

Staff

Bob Wall, lead
Jocelyn Anastasiou (former staff)

Goal

7 educational institutions accredited to provide students with Green Job credentials

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	7 institutions	$400,000
Progress	7	$380,500
Result	100%	95.1%

Program Timeline/Transition Recommendation

Transition.

Education and Training Programs

New Education and Green Job Programs

The Connecticut Clean Energy Fund has invested strategically in education and outreach programs that are designed to engage communities, businesses, families, teachers, and students in learning about clean energy and its benefits to society. Ultimately, these programs seek to achieve long-term market transformation.

The CCEF will issue a competitive RFP once a new program scope has been established. By issuing a competitive RFP, the CCEF can ensure that additional education programs are developed to stimulate the voluntary market for clean energy and tie to existing programs offered by the CCEF. Ultimately, the CCEF will be able to advance formal and informal clean energy and climate change education and support community-based initiatives designed to promote sustainable living for the benefit of Connecticut.

Staff

Bob Wall, lead
Jocelyn Anastasiou (former staff)

Goal

Develop offerings

Budget/Progress

Fiscal Year 2011-2012

	Budget
	$500,000
Progress	$23,100
Result	4.6%

Program Timeline/Transition Recommendation

This program was a follow-on to the Educational Accreditation program. The RFP was not issued but one award was granted. This program will be phased out.

Education and Training Programs

Clean Energy Climate Solutions Program

The Clean Energy Climate Solutions (CECS) program is an initiative aimed at testing, evaluating, and adapting educational materials that will teach Connecticut residents about clean energy as an important solution to climate change. The project will be performed by the Connecticut Science Center Collaborative (CSCC) and managed by Clean Air – Cool Planet (CA-CP), a 501(c)3 nonprofit organization. The CCEF investment in this program is leveraged with philanthropic community funding including the Emily Hall Tremaine Foundation.

The CECS program intends to create a network of exhibits, programs, and activities that will involve informal education centers initially that receive collectively approximately two million (2,000,000) visitors per year. The initial CECS pilot program targeted ten (10) centers but was expanded to fifteen (15) CSCC members..

Through this program, CEFIA anticipates that Connecticut Science Center members and trustees will play a strategic leadership role in disseminating information and influencing public opinion related to climate change and clean, renewable energy. Furthermore, it is expected that these programs will result in long-term market transformations by engaging visitors to learn about and take action on clean energy as a significant solution to addressing climate change. The expectation is that as the general public becomes more knowledgeable about clean energy, they will make more informed energy purchase decisions and support the clean energy industry.

Staff

Bob Wall, lead
Robert Schmitt

Goal

Support 15 science centers/museums

Budget/Progress

Fiscal Year 2011-2012

	Goal	Budget
	15	$236,000
Progress	15	$76,100
Result	100%	32.3%

Program Timeline/Transition Recommendation

We will complete our funding obligations and phase this program out.

I. Program Goal 1 – Installed Renewable Energy Capacity

Strategic Objective

INCREASE ENERGY GENERATION FROM CLEAN AND EFFICIENT RENEWABLE RESOURCES

Rationale

- ***Support Aggressive Connecticut Policy Objectives through Development of Clean Energy***
  - ***Renewable Energy***
  - ***Environmental Protection***
  - ***Public Health***
  - ***Climate Change***
  - ***Economic Development/Job Creation***

Total Budget = ~$58M

1. Feasibility Studies

DESCRIPTION
Incent clean energy generation for the wholesale and retail market through project-specific feasibility studies and pre-development support. Feasibility Study Grants will provide financial support for assessing the technical and economic feasibility of using complex renewable energy systems. This program is intended to increase the ability of businesses or developers and commercial ratepayers to make informed decisions about using complex renewable energy systems by understanding and solving technical and economic uncertainties.

OBJECTIVE
With feasibility grants, fifteen (15) potential clean energy generation projects will complete feasibility studies and other pre-development activities associated with a decision whether or not to pursue the development of such projects.

TARGET MARKET
Wholesale and retail commercial, industrial, and institutional (including government) markets.

MARKETING STRATEGY
See Section 10, pp. 11 – 13, of this Plan for the marketing strategy that will be utilized for this program.

INCENTIVE
Up to fifty thousand dollars ($50,000) for each project.

INCENTIVE STRATEGY
Projects will be selected for grants under terms and conditions set forth in a Request for Proposals (RFP). Applications will be accepted under this RFP on a rolling submission basis.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010[1]

			Budget
Goal	10 projects supported		$436,000
Result	67% of Goal	78% Budget.	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Support up to 15 potential clean energy generation projects feasibility studies and pre-development	$750,000

[1] June 30, 2010, represents the end of the period covered by the CCEF's FY 2009-2010 Comprehensive Plan.

	activities associated with a decision as to whether or not to pursue development of such projects.	Combined Public Benefits Charge (CPBC)

2. Project 150 Program

DESCRIPTION

Project 150 is an initiative aimed at increasing clean energy supply in Connecticut by at least one hundred fifty (150) megawatts (MW) of installed capacity by July 1, 2008. The Project 150 initiative is an opportunity for developers, manufacturers, and financiers to advance Connecticut-based Class I utility-grade clean renewable energy projects in the state. Conn. Gen. Stat. § 16-244c(j)(2) requires the electric distribution companies to submit to the Department for its approval any long-term electricity purchase agreements (EPA) from Class I renewable energy source projects that receive funding from the CCEF.

The Department created a three-step review and selection process in which the CCEF, the electric distribution companies, and the Department each play a role. In Phase One, the CCEF performs the initial review and selection of proposed projects, determines project financial and technical viability and other costs/benefits related to the project, allocates the CCEF grant amount, and forwards projects to the electric distribution companies for their review. In Phase Two, the electric distribution companies analyze the interconnection point and costs related thereto, reliability and other impacts of each project, and the financial impact on utility customers after the CCEF grant and evaluate the projects' costs and benefits. In Phase Three, after the electric distribution companies have performed and submitted a written review, the Department conducts a proceeding in which it decides whether to approve or reject proposed projects. Thus far, three (3) rounds of solicitations have been successfully completed. The CCEF is prepared to conduct another round (Round 4), if the DPUC decides to order another round to address contract issues with projects selected in the earlier three rounds.

OBJECTIVE

Mandated by the Connecticut legislature, Project 150 is designed to encourage financing of renewable energy projects through the stability of long-term EPAs, stimulate the development of new projects in Connecticut, and increase the available supply of renewable energy.

Under Project 150, the electric distribution companies will enter into EPAs with generators of Class I renewable energy for no less than a ten (10) -year contract period. Pricing under these EPAs will include a premium of up to five and a half cents (5.5 ¢) per kilowatt hour (kWh).

TARGET MARKET

Renewable energy project developers interested in developing utility-scale, grid-connected projects in the state of Connecticut.

MARKETING STRATEGY

In addition to utilizing the marketing strategy described in Section 10, pp. 11 – 13 of this Plan, the CCEF will also provide logistics and communications support, as needed, for any meetings with prospective Round 4 project proposers.

INCENTIVE

According to statute, selected projects must receive funding from the CCEF. The CCEF Board has yet to determine the minimum level of funding for future rounds of Project 150. Once an amount is determined, the CCEF will award at least this minimum amount to each project selected for recommendation and successfully contracted. Proposers, however, may request funds from the CCEF in excess of the minimum funding level, although receipt of such funds is not guaranteed.

INCENTIVE STRATEGY

Projects are selected through separate RFP processes conducted by the CCEF and the electric distribution companies. The CCEF's incentives will be awarded based on projects approved by the DPUC for a long-term contract and whether selected projects need additional funding to get their contract pricing under the statutory program price cap.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	Provide recommendations for EPAs with the EDCs' utilities for an additional twenty-six (26) megawatts.	$5,000,000
Result	Recommended 5 projects which totaled 28 megawatts. All 5 projects were awarded an EPA with the EDC's.	$4,700,000
	94% of Budget.	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Round 4 Project 150 will be completed	$350,000 (CPBC)

3. On-Site Renewable Distributed Generation Program

The On-Site Renewable Distributed Generation Program (OSDG) is a flexible, integrated-technology, financial support program designed to stimulate demand for "behind the meter" installations of renewable energy at commercial, industrial, institutional (CI&I), not-for-profit, and governmental buildings, and affordable housing in Connecticut. It is being redesigned to provide incentives to the best projects that apply for funding, given that the CCEF will have fewer funds to support on-site projects during the term of this Plan than during the Plan just completed. The program headings under this Plan will be as follows and are described below in the program descriptions:

- Competitive RFPs
  - Non-Residential Retail Markets
  - EPA Climate Leaders
  - Affordable Housing
- Solar Thermal and Geothermal
- Public Buildings

Systems utilizing the following fuel or technology are eligible for a grant under the OSDG Program:

- Solar PV energy
- Solar thermal
- Geothermal energy
- Wind
- Fuel cells
- Landfill gas
- Hydropower that meets the low-impact standards of the Low-Impact Hydropower Institute
- Hydrogen production and hydrogen conversion technologies
- Low emission advanced biomass conversion technologies
- Alternative fuels used for electricity generation including ethanol, biodiesel, or other fuel produced in Connecticut and derived from agricultural produce, food waste, or waste vegetable oil, provided the Commissioner of Environmental Protection determines that such fuels provide net reductions in greenhouse gas emissions and fossil fuel consumption
- Usable electricity from combined heat and power systems with waste heat recovery systems
- Thermal storage systems

Since it would be inadvisable to install renewable energy generation equipment in a building or host site that is wasteful of energy, the OSDG Program requires the confirmation of a reasonable level of energy efficiency in the systems that constitute the electric load of the building or host site. A building or host site can satisfy this requirement by, within the thirty-six (36) months prior to submission of the CCEF

incentive application, documenting: (1) participation in one or more of the Conservation and Load Management (C&LM) programs administered by the electric distribution companies under the CEEF; or (2) implementation of other significant energy efficiency measures on the major electrical systems of the building or host site (e.g., lighting, HVAC, electric motors, process improvement, etc.).

However, if no significant energy efficiency measures have been implemented on the building or host site within the past three (3) years, then an "energy audit" must be submitted along with the CCEF incentive application. The energy audit must include recommended energy efficiency measures and estimated costs and paybacks. The energy audit may be performed either through participation in one of the CEEF programs or by a qualified third-party energy services company. Energy audits conducted by the building's or host-site's personnel or the renewable-energy project developer will not be accepted.

Before any CCEF funds will be released, the building or host site must provide documentation that all of the recommended energy efficiency measures with a simple payback of five (5) years or less have been implemented.

MARKETING STRATEGY

In addition to utilizing the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF will post the program's RFPs on the state of Connecticut RFP Web portal.

INCENTIVE LEVELS:

In order to illustrate the decrease in incentive levels over time, the following tables detail the maximum current incentive levels as well as the original levels set when the programs were established. Due to the lower system costs and increased federal tax incentives, the CCEF has been able to lower incentive levels over the past five years by as much as seventy (70) percent.

FY 11 and FY 12 OSDG Program

Current vs. Original On-Site Incentives

	Maximum Incentive				
Technology	**Fuel Cells**	**Small Wind**	**Small Biomass**	**Landfill Gas**	**Hydro**
Funding cap (Current)	$2.50/$W_{AC}$	$3.60/$W_{AC}$	$3.30/$W_{AC}$	$3.20/$W_{AC}$	TBD
Funding cap (Original)	$4.70/$W_{AC}$	$3.60/$W_{AC}$	$3.30/$W_{AC}$	$3.20/$W_{AC}$	TBD
Evaluation timeframe	20 yrs	15 yrs	10 yrs	10 yrs	20 yrs

Solar PV	**Maximum Incentive**	
Incentive Blocks	**For-Profit Owners ($/Watt$_{AC}$)**	**Not-for-Profit Owners ($/Watt$_{AC}$)**
Current		
<100 kW	$2.87/$W_{AC}$	$4.31/$W_{AC}$
>100 kW but<200 kW	$1.91/$W_{AC}$	$4.07/$W_{AC}$
>200 kW	$0.00/$W_{AC}$	$0.00/$W_{AC}$
Original		
>10 kW	$4.78/$W_{AC}$	$4.78/$W_{AC}$
Evaluation timeframe	20 years	

Note: W_{AC} for Solar PV incentives are based on PTC (PV USA Test Conditions) maximum incentives.

Residential Solar PV Rebate Maximum expected performance incentive:

Current:

$1.51 per W_{AC} for the first five (5) kW

$1.25 per W_{AC} for the next five (5) kW

Original (2005):

$4.78 per W_{AC} for the first five (5) kW

$4.11 per W_{AC} for the next five (5) kW

Residential Solar Lease Program PV Rebate

Current:

$2.56 per W_{AC} for the first five (5) kW

$2.09 per W_{AC} for the next five (5) kW

Original:

$4.78 per W_{AC} for the first five (5) kW

$4.11 per W_{AC} for the next five (5) kW

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

	Commercial For-Profit Entities	Budget
Goal	Award grants to support 5 MW_{stc} of new solar PV systems (15–25 installations).	$18,435,000
Result	65 projects totaling 4.3 MW	
	232% project Goal 100% MW Goal 118 % of Budget	
Goal	Award grants to support 4 MW of new fuel cell systems (10–15 installations).	$15,285,000
Result	11 projects totaling 3 MW	
	73% Project max goal 100% MW goal 88% of Budget	
Goal	Award grants to support the installation of 1.6 MW of new other Class 1 resources (wind, solar thermal, geothermal) (10–15 installations).	$390,000
Result	3 projects totaling 149.6 kW	

	25% of Project Goal 1% of MW goal 17% of Budget	
	Government, Schools and Non-Profit Entities	**Budget**
Goal	Award grants to support a minimum of 2 MW of new solar PV systems (15–30 installations).	$15,512,000
Result	61 projects totaling 3.5 MW	
	203% Project max goal 150% MW Goal 132% of Budget	
	Other Technologies	**Budget**
Goal	Award grants to support 0.16 MW of new Other Class 1 Resources (wind, solar thermal, geothermal) (5–15 installations).	$300,000
Result	2 projects totaling .14 MW	
	87% MW Goal 20% of Project Goal 10% of Budget	
	Affordable Housing	**Budget**
Goal	Grants awarded to produce 300 kW_{AC} of affordable housing solar PV and solar thermal installations.	$2,453,000
Result	2 projects totaling 41 kW_{AC}	
	14% kW_{AC} Goal 12% of Budget	

4. Non-Residential Market

a. Competitive RFPs

(i) Best of Class RFP

DESCRIPTION
Incent clean energy generation for the non-residential retail market through competitive RFPs.

OBJECTIVE
Through a competitive RFP process, developers will receive incentives to install "best of class" non-residential systems (e.g., commercial, industrial, and institutional) that will produce up to 3.5 MW of renewable power (minimum of ten (10) projects). These MW will come from solar PV, solar thermal, fuel cells, wind, combined heat and power, and other renewable technologies.

TARGET MARKET
Non-residential retail market.

MARKETING STRATEGY
In addition to utilizing the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF will post the program's RFPs on the state of Connecticut RFP Web portal.

INCENTIVE
Not to exceed two thousand eight hundred ninety dollars ($2,890) per kW_{AC}.

INCENTIVE STRATEGY
Through competitive RFPs, incentives will be offered the to the "best of class" projects by technology. Two (2) RFPs per technology will be issued and awards made each year of this Plan. The criteria for selecting projects for awards are cost, technical feasibility, fit of technology to energy need, unique benefits, and ratepayer benefits.

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Produce up to 3.5 MW of renewable power. (min. 10 projects)	$8,860,000 (CPBC)

(ii) EPA Climate Leaders RFP

DESCRIPTION
Incent clean energy generation for the non-residential retail market through competitive RFPs.

OBJECTIVE
Through a competitive RFP process, businesses that agree to join the EPA Climate Leaders Program and commit to specific program requirements will receive incentives to install Class I renewable energy systems (approximately 0.8 MW).

TARGET MARKET
Non-residential retail market.

MARKETING STRATEGY
In addition to utilizing the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF will post the program's RFPs on the state of Connecticut RFP Web portal.

INCENTIVE
No greater than two thousand eight hundred ninety dollars ($2,890) per kW_{AC}.

INCENTIVE STRATEGY
Through two competitive RFPs, one each year of this Plan, incentives will be offered to "best of class" projects. The criteria for selecting projects will be based on their eligibility to join the EPA Climate Leaders Program, cost, technical feasibility, fit of technology to energy need, and ratepayer benefits.

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Produce up to 2 MW of renewable power	$5,000,000 (RGGI)

(iii) Affordable Housing RFP

DESCRIPTION
Incent clean energy generation for multi-family affordable housing applications through competitive RFPs.

OBJECTIVE
With RGGI grants, through a competitive RFP process, 1.2 MW of Class 1 clean energy projects will be installed on affordable housing.

TARGET MARKET
Affordable housing retail market.

MARKETING STRATEGY
In addition to utilizing the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF will post the program's RFPs on the state of Connecticut RFP Web portal.

INCENTIVE
No greater than two thousand eight hundred ninety dollars ($2,890) per kW_{AC} for third-party ownership to take advantage of the thirty percent (30%) federal tax credit.

INCENTIVE STRATEGY
Through two competitive RFPs, one each year of this Plan, incentives will be offered to "best of class" projects. The criteria for selecting projects will be based on cost, technical feasibility, fit of technology to energy need, ratepayer benefits, and unique aspects.

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	1.2 MW of Class I	$3,000,000 (RGGI) $1,000,000 (CPBC)

b. Solar Thermal and Geothermal

DESCRIPTION
Incent clean energy generation for the non-residential retail market through the use of ARRA funding for solar thermal and geothermal heat pump applications.

OBJECTIVE
With ARRA funding, seventy-four (74) solar thermal and geothermal heat pump (a.k.a. ground source heat pump – GSHP) projects will be installed at CI&I sites.

TARGET MARKET
Commercial, industrial, and institutional retail market.

MARKETING STRATEGY
In addition to utilizing the marketing strategy described in Section 10, pp. 11 – 13 of this Plan, the CCEF will explore opportunities to distribute program collateral through the CEEF (e.g., include collateral in the leave-behind packages distributed to energy audit customers).

INCENTIVE
Solar Thermal: Because of lower-than-expected applications in the first year of the program, incentives were raised an average of sixty-three percent (63%). The incentive is four hundred fifty dollars ($450) per MMBtu for commercial for-profit projects, and five hundred fifty dollars ($550) per MMBtu for not-for-profit organizations (compensating for the inability of those organizations to take advantage of federal tax credits). The calculation for thermal output has also been changed, and is now based on the predicted annual production instead of during only the winter months.

Geothermal Heat Pump: The initial incentive was one thousand two hundred dollars ($1,200) per ton of capacity (one (1) thermal ton equals twelve thousand (12,000) Btu/hour) for commercial for-profit projects, and two thousand dollars ($2,000) per ton for not-for-profit organizations. This was reduced on May 14, 2010, to one thousand fifty dollars ($1,050) per ton for for-profit projects, and one thousand seven hundred fifty dollars ($1,750) per ton for not-for-profits. The original plan to reduce the incentive in four (4) steps to a final rebate of fifty percent (50%) of those amounts has been abandoned because of the apparent negative impact of the first reduction coupled with the disincentives created by the application of the National Historic Preservation Act and the Davis-Bacon Act.

INCENTIVE STRATEGY
Solar Thermal: In keeping with the incentive strategy employed for solar PV, the rebate will be based upon the predicted energy output of the system in MMBtu, subject to sizing limitations based on actual domestic hot water and process water needs. To encourage optimally configured installations, the incentive was originally based on the production during the October through March period. However, that was found to be somewhat confusing to both contractors and the general public, so we have changed the basis for the incentive

to the annual useful thermal output of the system. Solar thermal systems are a well-proven, cost-effective technology, but since the early 1980's, the solar thermal market in Connecticut has been very small, with only a few installers even offering these systems. Our incentive program is intended to spur interest in and demand for the technology; since demand has proven to be much lower than expected, we raised the incentive to stimulate interest and to increase the probability of disbursing the funding within the time limits set by the ARRA/SEP program.

Geothermal Heat Pump: Here again, the incentive is based on the thermal capacity of the system (expressed in thermal "tons"), subject to the following limits: School project incentives are limited to one hundred fifty (150) tons, and all others are limited to one hundred (100) tons. Because federal tax incentives make geothermal systems economically attractive without additional incentives, the CCEF rebate program is intended to help create public awareness and interest in this technology via a very generous initial rebate, resulting in a demand that will continue after the rebate program has ended. Originally, the incentive was intended to taper off as the installed capacity reached the goal of one thousand five hundred (1,500) tons. However, the application rate appeared to fall off following the first planned reduction. In addition, complaints from both contractors and customers regarding the costs and delays associated with the National Historic Preservation Act have suggested that further reductions in the rebate rates would reduce applications to a level that would jeopardize participation in the program. The new capacity goal has been reduced to one thousand three hundred seventy-five (1,375) tons to reflect the higher rebate per ton.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal Solar Thermal	36 projects totaling 12,705 square feet of collectors	$540,000
Result	12 projects totaling 15,996 square feet of collectors	$521,200
	33% of Project Goal 126% of capacity goal 96.5% of budget	
Goal Geothermal	7 projects totaling 371 tons	$562,500
Result	12 projects totaling 550 tons	$1,001,200
	171% projects goal 148% tons goal 178% of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal Solar Thermal	34 projects totaling 32,360 square feet of collectors	$1,278,800 (ARRA)
Goal Geothermal	16 projects totaling 825 tons	$1,248,800 (ARRA)

c. Public Buildings

DESCRIPTION
Incent clean energy generation for the non-residential retail market through the use of ARRA and RGGI funding.

OBJECTIVE
With ARRA and RGGI grants, 5.2 MW of Class 1 clean energy projects will be installed on public buildings.

TARGET MARKET
Non-residential public buildings retail market.

MARKETING STRATEGY
See Section 10, pp. 11 – 13, of this Plan for the marketing strategy that will be utilized for this program.

INCENTIVE
No greater than two thousand eight hundred ninety dollars ($2,890) per kW_{AC}.

INCENTIVE STRATEGY
Projects will be selected for grants under terms and conditions set forth in an RFP. The criteria for selecting projects will be based on cost, technical feasibility, fit of technology to energy need, and ratepayer benefits. Applications will be accepted under this RFP on a rolling submission basis.

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	5.2 MW of Class I	$11,000,000 (ARRA) $4,000,000 (RGGI)

5. Residential Market

a. Photovoltaic Rebates

DESCRIPTION
Incent clean energy generation for the residential market. Under the CCEF's successful Residential and Small System Rebate Program, rebates are offered through designated participating installers for Connecticut residents that install systems of ten (10) kW or less on their homes, including the Solar Lease Program. The Solar Lease Program provides leases to low- and moderate-income households for the lease and installation of solar PV systems. Approximately three hundred thirty-three (333) solar PV system leases are expected in this Plan. This program is in the final year of its three (3) -year term.

OBJECTIVE
With rebates, developers will install one thousand (1,000) residential systems (inclusive of the three hundred thirty-three (333) Solar Lease systems referenced above) that will produce up to seven (7) MW of renewable power from, for example, solar PV, solar thermal, and small wind projects.

TARGET MARKET
Residential market.

MARKETING STRATEGY
In addition to utilizing the marketing strategy described in Section 10, pp. 11 – 13 of this Plan, the CCEF will explore opportunities to distribute program collateral through the CEEF (e.g. include collateral in the leave-behind packages distributed to energy audit customers).

INCENTIVE
No greater than two thousand eight hundred ninety dollars ($2,890) per kW_{AC}.

INCENTIVE STRATEGY
Rebates will be awarded based on the expected production of an installed system using a declining-block rebate structure. Applications will be accepted on a rolling submission basis.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

	Rebates	Budget
Goal	423 Projects, 2.2MWs	$9,243,000
Result	440 totaling 2.3 MWs	
	104% Project Goal	

	105% MW Goal	100% Budget

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

	Solar Lease		Budget
Goal	Achieve 667 leases.		$16,400,000
Result	517 Leases		
	78% of Goal	100 % of Budget	

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

	Small Wind		Budget
Goal	Install 200 kW_{ac} of new small wind systems (10 kW or less) (15–30 installations)		$950,000
Result	Awaiting small wind demo project results		
	0% of Goal	0 % of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	7 MW	$6,500,000 (CPBC) $6,000,000 (Rebate + debt; Solar Lease & CPBC)

b. Solar Thermal and Geothermal Rebates

DESCRIPTION
Incent clean energy generation for the residential market through ARRA funding.

OBJECTIVE
With ARRA funding, nine hundred (900) residential solar thermal and geothermal projects will be installed.

TARGET MARKET
Residential market.

MARKETING STRATEGY
In addition to utilizing the marketing strategy described in Section 10, pp. 11 – 13 of this Plan, the CCEF will explore opportunities to distribute program collateral through the CEEF (e.g. include collateral in the leave-behind packages distributed to energy audit customers).

INCENTIVE
Solar Thermal: The original rebate of five hundred dollars ($500) per MMBtu for the estimated October through March output was changed as of October 1st to two hundred seventy-five dollars ($275) per MMBtu of annual useful output. This is an increase of thirty-seven and one half percent (37.5%), and was deemed necessary to increase application levels to the point where all incentive funds can be disbursed by April 2012.

Geothermal Heat Pumps: One thousand two hundred dollars ($1,200) per ton for retrofit installations (existing homes) and one thousand fifty dollars ($1,050) per ton for new construction.

INCENTIVE STRATEGY
Solar Thermal: Although the rebate for residential solar thermal systems has been raised, it is now lower than the rebate for commercial projects. Since residential projects are not required to pay prevailing wages to the on-site contractors, it is expected that the cost per unit of output will be lower than for the commercial projects.

Geothermal Heat Pumps: The original rebate structure of two thousand dollars ($2,000) per ton for retrofits and one thousand two hundred ($1,200) per ton for new construction was reduced as of May 14, 2010, to the above rates, as planned. Based on the experience of the program subsequent to the reduction, we have decided not to change the rebate structure further. The initial rebate levels were established under the assumption that additional labor would be required on existing homes. Our experience to date indicates that this is not the case, and that there is no significant difference in project costs between GSHP systems for new homes and those for existing homes.

The delays and costs associated with the National Historic Preservation Act guidelines, described in the "Commercial" program section are even more of a disincentive for the residential geothermal program. Several new home projects which have been determined by the State Historic Preservation Office to be in archaeologically sensitive areas have been put on indefinite hold until the ground thaws enough to permit a "reconnaissance survey" for artifacts. Without heat, work cannot continue on the construction of these homes, and construction schedules are thrown into chaos. Consequently, CCEF felt it very risky to reduce the incentives further, as originally planned.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal Solar Thermal	182 projects totaling 12,726 square feet of collectors	$540,000 (ARRA)
Result	65 Projects totaling 4,780 square feet of collectors	$138,165
	38.2% of Project Goal 37.6% square footage Goal 25.6% of Budget	
Goal Geothermal	74 projects totaling 333 tons	$500,000 (ARRA)
Result	136 Projects, 777 tons	$1,073,840
	184% Project Goal 233% Ton Goal 215% of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal Solar Thermal	541 projects totaling 37,640 square feet of collectors	$1,661,835 (ARRA)

Goal Geothermal	153 projects totaling 598 tons	$1,176,160 (ARRA)

6. Revolving Loan Fund

DESCRIPTION
Leverage funding from other sources to fund clean energy projects.

OBJECTIVE
Create and manage a revolving loan fund that will leverage private and federal dollars on a 1:5 through 1:10 basis for residential and non-residential Class I clean energy projects. For example, this could be accomplished in a number of ways including the creation of a loan-loss reserve pool or an interest rate subsidy to private lenders. The CCEF will analyze the best approach that will leverage the most dollars over the term of the loan appropriate for renewable energy technologies.

TARGET MARKET
Non-residential and residential markets.

MARKETING STRATEGY
In addition to utilizing the marketing strategy described in Section 10, pp. 11 – 13 of this Plan, the CCEF will also conduct outreach to Connecticut banks and other lending institutions, and use the CCEF Communities Program to market the loan fund.

INCENTIVE
The Fund is currently exploring the best way to leverage these funds with private financing.

INCENTIVE STRATEGY
TBD

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Create and implement Revolving Loan Fund	$3,500,000 (CPBC)

7. Strategic Investments

DESCRIPTION
The Strategic Investment Program will invest in mission-related, high-potential opportunities. This opportunity was created through the CCEF Board of Directors Joint Operating Procedures. The Board initially created five (5) criteria or characteristics. A strategic investment applicant must meet at least three (3) of the five (5) characteristics. Please visit the following Web page for additional information:
http://www.ctcleanenergy.com/strategicinvestments

OBJECTIVE
Strategic Investment criteria will be re-evaluated annually. At least ten (10) prospective business propositions will be considered.

TARGET MARKET
Individuals and organizations that present unique opportunities that fall outside of other existing program structures.

MARKETING STRATEGY
See Section 10, pp. 11 – 13, of this Plan.

INCENTIVE
Opportunity-dependent.

INCENTIVE STRATEGY
The level of financial support for any given strategic investment opportunity will be project-, concept-, and applicant-specific, but in general will rely on the criteria and characteristics of other CCEF programs.

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Ten opportunities will be considered.	$1,600,000 (CPBC)

8. Pre-Development Loan Program

This program not continued for FY 11 and FY12

In the previous Comprehensive Plan, the CCEF provided funding to early-stage "Pre-Development" projects that had yet to begin siting, permitting, or feasibility analysis but may have ultimately been considered for Project 150, once all their milestones were met. The projects had to incorporate existing and proven clean energy resources for power production and must have had a high likelihood of successful development and commercialization.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

			Budget
Goal	Achieve six (6) Pre-Development projects using Class 1 renewable resources..		$1,452,000
Result	3 Projects		
	50% of Goal	103% of Budget	

9. Monitoring and Evaluation

DESCRIPTION

Program Goal 1 will have its OSDG Program and Residential Rebate Program evaluated on an annual basis by an independent consultant to assess the effectiveness and cost efficiency of the programs including progress in meeting the goal objectives. KEMA Inc. has been contracted with to provide such evaluation and has provided the CCEF with the first evaluation report covering program years 2005-2008 in May, 2009. Currently KEMA, Inc. is working on an evaluation report for calendar year 2009.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal		$554,000
Result	2005-2008 evaluation complete 2009 evaluation in progress	
	18% of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Monitor and evaluate Program Goal 1	$200,000

II. Program Goal 2 – Emerging Renewable Energy Technologies

Strategic Objective

ACCELERATE THE INCUBATION AND COMMERCIALIZATION OF NEW TECHNOLOGIES THAT WILL BECOME THE FUTURE ENGINE OF CONNECTICUT'S CLEAN ENERGY INDUSTRY

Rationale

Supporting effective commercialization of early-stage clean energy technologies that will advance Connecticut's clean energy industry, create jobs, grow tax revenues, and build successful companies.

The 2009 New Technology Investment Strategy, by Navigant Consulting, has identified five investment themes with the greatest opportunity for growth. Goal 2 will focus future investments in these areas and will leverage public and private funds as much as

1. Emerging Technology Finance Programs

a. Alpha Program

DESCRIPTION
Invest in early-stage, high-potential renewable energy companies/technologies that employ advanced energy methods including renewable energy, energy efficiency, and advanced energy storage techniques to creatively address Connecticut's energy issues. Specifically, the Alpha Program seeks to invest in technologies beyond the stage of basic research and development, which requires further testing in a laboratory or simulated environment. Projects for the Alpha Program will be identified through twice-yearly competitive RFP solicitations. As with all CCEF programs, the Alpha Program will seek to leverage non-CCEF funds whenever possible. The planned launch date of the Alpha Program is January 2011.

OBJECTIVE
Launch new program and fund up to three (3) opportunities.

TARGET MARKET
Early-stage companies and technologies requiring development support.

MARKETING STRATEGY
In addition to utilizing the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF plans to cross-promote the Alpha Program with a variety of economic development, emerging technology, energy, and environmental stakeholders. These partners might include CI, DECD, SBIR, DPUC, DEP, etc.

INCENTIVE
The maximum amount of funding available for an individual project is two hundred thousand dollars ($200,000). Funding will be provided in the form of a grant or grant/loan combination, with technology rights to be negotiated at the time of contract signing. The CCEF requires a minimum twenty-five percent (25%) cash cost share. Applicants are encouraged to secure other funding partners.

INCENTIVE STRATEGY
The funding level is a maximum. Actual funding will be based on actual budgets. The minimum twenty-five percent (25%) cash cost share is front-loaded to encourage strong commitment to project completion. Funding will be disbursed based on specific milestones established at the time of contract development**.**

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal		$000
Result	The Alpha Program was not launched in FY 2009-2010 due to resource constraints. The Program is scheduled for launch in FY 2011.	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Three opportunities will be funded.	$600,000 (CPBC)

b. Operational Demonstration Program

DESCRIPTION
Under the CCEF's Operational Demonstration Program (ODP), the CCEF makes funds available to demonstrate the commercial viability and ability of emerging technologies and integrated systems to address commercial problems. The funding may be used to demonstrate individual technologies or integrated technology solutions that employ advanced energy methods including renewable energy, energy efficiency, and advanced energy storage techniques. The ODP is not intended to support research and development or alpha-stage projects. The 2009 – 2010 ODP has been evaluated as part of ongoing Monitoring and Evaluation. Program changes are being implemented to launch the 2011 – 2012 ODP by August 2010 as a competitive, twice-yearly RFP.

OBJECTIVE
Launch improved ODP and fund at least six (6) new opportunities.

ODP was created to encourage the deployment of innovative renewable generation technologies in Connecticut. Commercialization of these technologies will help to create and grow a vibrant renewable energy industry with accompanying jobs in the state.

In the FY 2011 – FY 2012 Plan, the CCEF plans to invest in early-stage renewable energy companies/technologies that employ advanced energy methods including renewable energy, energy efficiency, and advanced energy storage techniques to creatively address Connecticut energy issues.

TARGET MARKET
Pre-commercial companies/technologies that will benefit from a first field test to assist in commercialization of new technology.

MARKETING STRATEGY
In addition to utilizing the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF plans to cross-promote the ODP with a variety of economic development, emerging technology, energy, and environmental stakeholders. These partners might include CI, DECD, SBIR, DPUC, DEP, etc.

INCENTIVE
The maximum amount of funding available for an individual project is five hundred thousand dollars ($500,000). Funding will be provided in the form of a non-secured loan, to be repaid upon the achievement of commercial success. The CCEF requires a minimum twenty-five percent (25%) cash cost share.

INCENTIVE STRATEGY

The funding level is a maximum. Actual funding will be based on actual budgets. The minimum twenty-five percent (25%) cash cost share is front-loaded in order to encourage strong commitment to project completion. Funding will be disbursed based on specific milestones established at the time of contract development.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	Revamp Operational Demonstration Program to increase quantity and quality of projects. Develop the Alpha Stage program to support the Operational Demonstration Program. Evaluate no less than 125 early stage technology companies and fund 11 companies.	$4,325,000
Result	146 Evaluated 3 Funded	
	117% of evaluation Goal; 27% of funded goal 48% of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	In FY 2011, the Operational Demonstration Program will be revised to increase quantity and quality of projects. Fund at least six new opportunities	$3,750,000 (CPBC)

c. Clean Tech Fund—Equity Investment Program

DESCRIPTION
Invest in early-stage renewable energy companies that employ advanced energy methods including renewable energy, energy efficiency, and advanced energy storage techniques. DECD, CI, and the CCEF have pledged funds to create a nine million dollar ($9,000,000) Clean Tech fund to be used for equity investments in promising clean energy and clean technology ventures. While the DECD and CI portions may be applied to the broader definition of clean technologies including clean water initiatives, the CCEF funds may be applied only to deals that fall within the purview of the CCEF's mandate and CCEF investments must be approved by the CCEF Board's Technology Programs Committee.

OBJECTIVE
Fund at least two (2) new opportunities.

This program provides equity funding for high growth potential companies in Connecticut to support manufacturing and commercial deployment to help grow the renewable industry in Connecticut.

TARGET MARKET
Early stage clean energy companies in Connecticut.

MARKETING STRATEGY
In addition to utilizing the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF plans to create a technology investment banner for use at related events that highlights this program along with other investment initiatives, and to collaborate with CI and DECD as needed for program marketing.

INCENTIVE
Equity investments of up to five hundred thousand dollars ($500,000) initially, with the possibility for additional rounds of funding as merited.

INCENTIVE STRATEGY
Equity investment amounts will be based on funding required by a company, desired level of participation by the CCEF, number of and financial strength of additional partners, and specific detail regarding the use of funds.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	Fund at least two (2) innovative renewable energy companies/technologies	$3,000,000
Result	1 funded	
	50% of Goal 8% of Budget	
Goal	At least one (1) potential investment in advanced energy storage systems technology.	
Result	No viable energy storage technology was identified ready for investment	
	0% of Goal	
Goal	Fund at least one (1) potential investment for an advanced energy utilization technology integrating energy efficiency and renewable energy.	
Result	No viable integrated energy technology project was identified ready for investment	
	0% of Goal	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Fund at least two new companies	$1,500,000 (CPBC)

2. New Technology Assessments

a. Fuel Cell Performance Monitoring

DESCRIPTION
The Fuel Cell Performance Monitoring (FCPM) program is intended to actively monitor operational, experiential, and economic performance data from Connecticut-deployed fuel cell projects to substantiate the value proposition for fuel cell technologies. It seeks to make this information accessible to potential investors, procurers and manufacturers of fuel cells in order to reduce the perception of the risk of owning or investing in this technology. Power Management Concepts (PMC) has been contracted through a rigorous RFP process to design, build, and administer this program. This will be an ongoing effort expected for the next two (2) to five (5) years.

OBJECTIVE
In order to implement the FCPM system, PMC will first establish the required data to be monitored through personal interviews with current owners of fuel cells. PMC will develop software specifications to acquire and display information in a convenient and practical way. PMC will complete hardware infrastructure development, deploy the data-gathering system, and launch the FCPM. Quarterly analysis reports of fuel cell performance data will be prepared.

TARGET MARKET
Fuel cell industry/renewable energy industry.

MARKETING STRATEGY
See Section 10, pp. 11 – 13, of this Plan.

PROGRAM FUNDING
The CCEF has contracted PMC, through a competitive bidding process, to implement the monitoring program and maintain the system.

FUNDING STRATEGY
Budget developed and RFP developed to get the lowest cost for the ratepayers.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	Successfully acquire one year's worth of objective fuel cell performance data and disseminate through Web access. Expected completion date for the system activation is October 2009 with ongoing data acquisition and monitoring for at least one year after this date.	$600,000
Result	System design and user interface development completed. Four of six sites have been instrumented and are being monitored.	
	85% of Goal 70% of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Acquire, display, and deploy ongoing monitoring results to key stakeholders.	$200,000

b. Small Wind Monitoring

DESCRIPTION
Address information gaps that impede investment in or adoption of small wind technologies. Three (3) sites have been identified through a competitive RFP. These sites, Coventry, Lebanon and Meriden, have been permitted, towers have been installed and instrumented, wind data has been acquired, and are all slated to have turbines mounted in July 2010. A fourth site in New Haven is still being evaluated for cost effectiveness.

OBJECTIVE
Determine the feasibility of establishing a small wind rebate program and disseminate performance data and analysis on up to four (4) small wind turbines.

TARGET MARKET
Small wind installations.

MARKETING STRATEGY
See Section 10, pp. 11 – 13, of this Plan.

PROGRAM FUNDING
Funding of five hundred thousand dollars ($500,000) for up to four (4) sites at one hundred thousand dollars ($100,000) per site plus one hundred thousand dollars ($100,000) for additional expenses including RFP to identify appropriate sites, permitting, and host site negotiations.

FUNDING STRATEGY
Budget developed and RFP process to get the lowest cost for the ratepayers based on relevant experience at NREL.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	Deploy up to four demonstration turbines at representative sites in CT.	$585,000
Result	Installations at Coventry, Meriden, and Lebanon, prospecting site in New Haven	
	100% of Goal 83% of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Monitor at least three small wind turbines	$100,000 (CPBC)

c. Other Technology Assessments

DESCRIPTION
Address information gaps that impede investment in or adoption of clean energy technologies.

OBJECTIVE
Provide case studies and recommendations for Connecticut renewable technology performance through modeling, instrumentation, data collection, and data analysis of existing projects (biomass, small wind, mid-wind, deep well geothermal, and hybrid solar thermal/geothermal).

TARGET MARKET
The renewable energy industry specifically and Connecticut as a whole.

MARKETING STRATEGY
In addition to utilizing the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF will provide public access to the case studies through the CCEF Web site and in hard copy.

PROGRAM FUNDING
Each project will require a different level of funding depending on the technology. Four (4) projects requiring instrumentation-only will be funded at a maximum of fifty thousand dollars ($50,000) each. One (1) project requiring site development in addition to instrumentation and economic analysis may be funded up to a maximum of two hundred thousand dollars ($200,000).

FUNDING STRATEGY
Maximum incentive developed based on previously administered programs. Funding will be based on actual budget and disbursed based on specific milestones achieved on a case-by-case basis.

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Generate up to five case studies	$400,000 (CPBC)

d. Technology and Economic Development Studies

This program not continued for FY 11 and FY12

DESCRIPTION
Develop renewable energy strategies to:

- Increase the industry's contribution to Connecticut's economy
- Address critical energy issues (e.g., peak energy reductions, RMR reductions, reliability).

OBJECTIVE
Identify a contractor to explore, assess and produce a baseline study report for the economic strategy to identify supplier gaps. Complete the final report with recommendations for programs, initiatives and infrastructure improvements to enhance economic contributions from the renewable energy industry. Define and implement programs and initiatives to achieve recommendations from baseline study. Complete subsequent economic development impact study.

Reexamine the existing critical energy issues study and update program impacts, modifying the program accordingly to capture new opportunities. Evaluate such opportunities to address peak demand reductions by energy efficiency (EE), renewable energy (RE), and energy storage technologies.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	Economic Development: Create an assessment tool that allows the CCEF to measure the economic development impact of programs and projects. Successfully develop initiatives to address economic development gaps. Roll out and implement developed strategies.	$1,250,000
Result	CT Renewable Energy and Energy Efficiency Baseline Study and CCEF New Technology Investment Strategy completed. http://ctcleanenergy.com/Portals/0/Phase%201%20Deliverable%20revision%2017_Final%20Exec%20Summary.pdf	
	100% of Goal 20 % of Budget	
Goal	Critical Energy Studies: The CCEF hopes to develop a renewable energy strategy that will focus, in part, on addressing critical energy issues for Connecticut. To that end the CCEF will acquire existing or develop new energy studies that will help to identify opportunities where renewable energy, energy efficiency or energy storage methods may be employed to contribute solutions to these pressing	

	issues.
Result	Determined not to be an appropriate focus at this time.

Program Complete.

e. Net Zero Energy

DESCRIPTION
Address information gaps that impede investment in or adoption of net zero energy solutions.

OBJECTIVE
A program to model, demonstrate, and assess the full economic and environmental value proposition of integrated renewable energy, advanced energy efficiency, and smart grid systems will identify those with economic/commercial potential to achieve net-zero carbon impact in Connecticut.

TARGET MARKET
Connecticut ratepayers, and building developers, owners, and managers.

MARKETING STRATEGY
In addition to utilizing the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF will announce the request for proposal for a service provider to define optimal demonstrations of integrated clean energy/energy efficiency systems, distribute the RFP to the target market, and post it on both CCEF's Web site and the state of Connecticut's RFP Web portal to reach the broadest audience possible.

PROGRAM FUNDING
This will be part of a much larger funding program. Actual funding will be based on RFP solicitations to identify contractors who implement specific project areas.

FUNDING STRATEGY
The budgeted amount is one million dollars ($1,000,000). Through an RFP process, the CCEF will seek the best project or projects that overall score the highest on criteria to be developed. Leveraging of outside capital will be one of the criteria.

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Model the value proposition	$1,000,000 (CPBC)

3. Clean Energy Innovation Cluster

DESCRIPTION
Help to initiate, form, and lead a clean energy innovation cluster in Connecticut focused on deploying the Navigant New Technology Investment Strategy to grow the clean energy economy in Connecticut.

OBJECTIVE
Clean Energy Innovation Cluster organized, planned, and implementation initiated.

TARGET MARKET
Connecticut ratepayers, business community, and entrepreneurs.

MARKETING STRATEGY
In addition to utilizing the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF will develop or assist cluster partners in developing collateral and a Web presence for the cluster. The Web presence will either be hosted on the CCEF Web site or stand as an independent site accessible through the CCEF Web site. Meeting minutes, information about cluster-sponsored or cluster-related events, etc., will be available on the Web. The CCEF will develop or assist in developing a brand identity for the cluster, working with initial cluster partners. Finally, the CCEF will provide or assist in providing event logistics and promotion support for cluster-sponsored events or events where the cluster has a presence.

PROGRAM FUNDING
Funding level will be determined through scope development, RFP administration, and identification of quality funding partners.

FUNDING STRATEGY
CCEF funds will be used to help form and seed the cluster and to leverage additional funds from other public and private sources. Actual funds disbursed will be determined by number/quality of funding partners as well as milestones achieved.

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Clean Energy Innovation Cluster organized, planned and implementation initiated.	$300,000 (CPBC)

4. Monitoring and Evaluation

DESCRIPTION

An independent evaluator will be selected to monitor and evaluate performance of Program Goal 2 including progress in meeting Program Goal objectives. The ODP evaluation has been completed. Recommended improvements were incorporated for an anticipated July 2010 launch of the new ODP.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

			Budget
Goal			$125,000
Result	Operational Demonstration Program evaluation completed. Implementation of recommended improvements underway.		
	100 %of Goal	43% of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Monitor and evaluate Program Goal 2	$150,000

III. Program Goal 3 – Renewable Energy Demand and Sustainability

Strategic Objective

ASSIST CONNECTICUT COMMUNITIES IN ADOPTING COMPREHENSIVE CLEAN AND EFFICIENT ENERGY MEASURES

Rationale

The CCEF is charged under Connecticut law to stimulate the demand for renewable energy and deployment of renewable energy sources that serve end-use customers in the state. Community and educational initiatives are proven methods for encouraging citizens, businesses, institutions, and municipal governments to voluntarily adopt clean energy practices and create sustainable clean energy communities.

The CCEF's innovative community-based programs result in renewable energy systems placed at schools and public buildings.

Budget = ~$9M

1. Clean Energy Communities

a. Clean Energy Communities Program

DESCRIPTION

The CCEF has developed a series of programs to support voluntary clean energy markets in Connecticut. These programs not only have raised awareness of the benefits and availability of clean renewable energy but also have accelerated the growth of the CTCleanEnergyOptions[sm] program, purchases of renewable energy credits (RECs), and installation of clean energy systems in the state. Many of these programs' incentives are interrelated, leading to a rapidly expanding network of clean energy communities in Connecticut.

The Connecticut Clean Energy Communities Program is an award-winning program that challenges municipal governments, businesses, institutions, and households to support clean energy. Under this program, communities can earn clean energy systems for municipal buildings, such as schools, by meeting three (3) requirements:

1. **Commit to the 20% by 2010 clean energy campaign with a minimum purchase requirement**
2. **Commit to the EPA Community Energy Challenge**
3. **Achieve specified point qualification thresholds**

Qualifying municipalities must also commit to allocating one hundred percent (100%) of the electricity savings resulting from the installation of the clean energy system to additional municipal purchases of clean energy.

This program has demonstrated significantly improved performance of residential markets through the CTCleanEnergyOptions[sm] program (according to an independent evaluator, household participation in participating communities outpaces participation in all other communities by a rate of nearly 3-to-1) and commercial markets through municipal purchases under the 20% by 2010 clean energy campaign. To date, ninety-nine (99) cities and towns – nearly sixty percent (60%) of Connecticut's municipalities – have committed themselves to clean energy, working toward energy independence and reducing greenhouse gas emissions that contribute to global warming. Furthermore, fifty (50) municipalities have joined the EPA's Community Energy Challenge. Many communities have also experienced increased participation in the CEEF's Home Energy Solutions program and adoption of renewable energy systems in their homes and businesses, often as a result of the efforts of local clean energy task forces. As a reward for their leadership on these vital issues, those communities have earned more than two hundred seventy (270) kilowatts of solar PV systems from the CCEF.

The Communities program is supported by a dedicated Web site that includes general program information, individual community pages that provide the number of CTCleanEnergyOptions[sm] customers, percentage of household participation, 20% by 2010 campaign progress, recognition of local businesses and institutions that are

supporting clean energy, links to monitoring data for local renewable energy systems and local press coverage, and reports and charts prepared by an independent evaluator that measure program progress and performance. New features include a resources page to facilitate local sustainability efforts, a community workshop section featuring strategies for municipal and residential programs, and program partner descriptions.

See Appendix H for additional program details.

OBJECTIVES

This program seeks to increase the demand for clean energy by creating model, sustainable communities. Specifically, the CCEF seeks to achieve voluntary support for clean energy of at least three percent (3%) of Connecticut's electricity demand as a result of its energy market initiatives aimed at municipal governments, businesses, institutions, and residents.

In addition, this program has indirect objectives of increasing awareness of the economic, energy, and environmental benefits of clean energy and encouraging the development of renewable distributed generation for commercial, industrial, institutional, and residential customers.

Specific expected outcomes for the Communities program include:

- Increased residential, commercial, industrial, and institutional enrollments in the CTCleanEnergyOptions^{sm} program, renewable energy credit purchases, clean energy installations, and additional commitments by municipalities in the 20% by 2010 campaign
- Decreased energy usage and cost savings by municipalities through conservation and efficiency measures as a result of commitment to the EPA's Community Energy Challenge and corresponding results among households and businesses in those communities
- Increased support for general sustainability actions such as transportation alternatives, green buildings, locally grown food, and other issues
- Demonstrated environmental and social benefits, including the reduction of greenhouse gases and other harmful pollutants, and increased energy independence through voluntary clean energy purchasing
- Reduction of the acquisition cost for the CTCleanEnergyOptions^{sm} program as compared to other state programs.

TARGET MARKET

Commercial and residential electricity customers.

MARKETING STRATEGY

In addition to the marketing strategy found in Section 10, pp. 11 – 13 of this Plan, the CCEF plans to launch a Communities blog as a forum to convey valuable news and information to municipalities, host regional workshops and seek speaking opportunities to educate participating and non-participating communities, develop a Clean Energy

Communities decal to raise awareness and reinforce connections of town governments, businesses, schools, and other local supporters of clean energy, leverage the program with the municipal section of the new www.ctclimatechange.com Web site, host an annual awards event to recognize exceptional clean energy achievements in communities, and partner with community organizations to raise the visibility of the program.

INCENTIVES

The CCEF provides performance-based incentives in the form of clean energy systems such as solar PV, solar thermal, or wind energy (if the site is appropriate) to qualifying towns. Recent program changes include a minimum installation size of two (2) kW, alternative technology substitutions, and an energy audit requirement at selected site.

The CCEF also provides towns with data-monitoring software for up to two (2) systems per town, unless the additional system is installed in a school. This software allows students and other individuals to obtain real-time information via the Internet regarding the electricity generated, emissions avoided, and costs saved as a result of the system. Furthermore, installations in five (5) Clean Energy Communities are equipped with enhanced data-monitoring software that is integrated with the CCEF's Learning for Clean Energy Innovation program.

INCENTIVE STRATEGY

The original program incentive of a one (1) kW solar PV system (estimated value of ten thousand dollars ($10,000)) was derived from an assumed acquisition cost of not more than one hundred fifty dollars ($150) per CTCleanEnergyOptions[sm] customer (neighboring state clean energy funds were paying from one hundred dollars ($100) to five hundred dollars ($500) per customer in their respective programs) multiplied by one hundred (100) customers. The actual acquisition cost has decreased significantly over time as has the cost per kW of solar PV. The "acquisition cost" model does not attempt to factor in the value of clean energy purchases by municipalities or other commercial customers or the clean energy systems earned by the communities or other ancillary benefits from the program. Program modifications such as increasing the minimum installation size, requiring a municipal clean energy purchase, and offering incentives for municipalities to purchase additional kW were intended to lower the transaction cost and require municipal governments to contribute to some degree.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	At least 40 Connecticut cities and towns committed to the 20% by 2010 campaign.	$5,314,000
Result	As of June 30, 2010, 101 CT cities and towns have committed to the 20% by 2010 Campaign.	

		Budget
	252.5% of Goal	18.1% of Budget* (All goals hereunder part of same budget)
Goal	Up to 25 GWh of voluntary clean energy being purchased by 20% by 2010 towns.	
Result	As of June 30, 2010, more than 65 GWh of voluntary clean energy was being purchased by 20% by 2010 towns.	
	228% of Goal	
Goal	Up to 200 kW of solar PV installations at a variety of Connecticut cities and towns, as well as informal educational centers	
Result	As of June 30, 2010, 284 kW of solar PV had been earned by qualifying towns and regional school districts.	
	142% of Goal	
Goal	Up to 125 GWh of voluntary clean energy demand through the CTCleanEnergyOptions^{sm} program (equivalent to that of 15,000 households).	
	As of June 30, 2010, 211.1 GWh of voluntary clean energy demand through the CTCleanEnergyOptions^{sm} program.	
	168.8% of Goal	
Goal	Version 3.0 program goals will be developed consistent with the overarching CCEF objectives for Program Goal 3.	
Result	Version 3.0 program goals developed with stakeholder input and approved by CCEF Board.	
	100% of Goal	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Voluntary support for clean energy reaches at least three percent of state electricity demand and at least 400 kW of solar PV are earned by participating communities.	$3,670,000 (CPBC)

b. Community Innovations Grants Program

DESCRIPTION
The Community Innovations Grants Program (CIGP) provided eligible communities with block grants to support local public awareness and education projects that support clean renewable energy. Under this program, the CCEF provided grants for up to one hundred five (105) municipalities that committed to the 20% by 2010 clean energy campaign. The clean energy task forces in those communities are allowed to fund projects proposed by organizations and individuals to raise awareness of clean energy and encourage support at the local level.

The CIGP is an amalgamation of several community-based development models including the micro-lending aspects of the Grameen Bank, small project assistance grants of the U.S. Peace Corps, and the grass-roots environmental support programs of the New England Grassroots Environmental Fund.

Under the first phase of the CIGP, funding was provided for up to forty (40) communities that committed to the 20% by 2010 clean energy campaign and established a local clean energy task force (or similar entity). Participating communities were required to attend a workshop where they were trained on managing a micro-grant-giving process by soliciting grant applications, selecting project recipients, and administering and accounting for grant funds. The clean energy task force may provide individual awards in amounts ranging from two hundred fifty dollars ($250) to two thousand dollars ($2,000) to organizations or citizens for projects that support clean energy awareness and education within their community. To further manage the transaction and accountability risks for the use of these funds, individual grant recipients are required to submit final reports to the task force upon completion of their projects and task forces are required to submit semiannual reports to the CCEF.

The current version of the CIGP incorporates modifications that are intended to accelerate the growth of the voluntary market for clean energy and leverage program funding to create model, sustainable communities throughout Connecticut. Some of these new changes include webinar training workshops, which allow for greater participation from towns, and a revised Web site displaying successful projects.

OBJECTIVES
At least fifty (50) communities will receive Community Innovation grants, resulting in at least one hundred (100) local clean energy awareness projects.

The CIGP seeks to increase the demand for clean energy and increase the knowledge and awareness of the benefits and availability of clean energy resources by Connecticut ratepayers. The test-pilot phase of this program, which is ongoing, is intended to address the following objectives:

- Support the interests and needs of local Clean Energy Task Forces to promote and coordinate clean energy activities within their communities

- Provide financial support for local community-based initiatives that will identify new, creative approaches toward reaching diverse segments of the population in support of clean energy
- Increase consumer awareness and knowledge of the benefits of clean energy as evidenced by increases in earned media and positive trends in statewide public opinion polling
- Align the goals and objectives between communities and the CCEF.

TARGET MARKET
Communities throughout Connecticut.

MARKETING STRATEGY
In addition to the general marketing strategies described in Section 10, pp. 11 – 13 of this Plan, the CCEF plans to augment the existing CIGP section of the CCEF Web site with profiles of successful local, community-based projects on a new "Cool Ideas" page, utilize blog posts to promote the program, and partner with community organizations such as the Connecticut Conference of Municipalities and the Council of Small Towns to raise the visibility of the program.

INCENTIVES
Under the original version of the program, qualifying towns received block grants of five thousand dollars ($5,000). Under the current version, up to fifty (50) municipalities can receive a micro-grant of four thousand dollars ($4,000).

INCENTIVE STRATEGY
This program was developed based on a perceived need to allow local communities to help themselves to raise awareness of and increase support for clean energy. Thus, small but meaningful block grants were issued to qualifying communities to be administered by local clean energy task forces. Eligible municipalities are those that have committed to the 20% by 2010 Campaign and the EPA Community Energy Challenge (two of the three steps required to become a Clean Energy Community) and have <u>not</u> received a Community Innovations grant to date.

See the CCEF Web site www.ctcleanenergy.com/communities for further details.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

			Budget
Goal	At least 100 local clean energy awareness projects funded through Community Innovation Grants Program.		$366,000
Result	At least 135 local clean energy awareness projects have been funded through Community Innovation Grants.		
	135% of Goal	22.4% of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	At least 100 new clean energy awareness projects in at least 50 communities are funded	$243,000 (CPBC)

c. High-Performance Schools Program

DESCRIPTION
The High-Performance Schools Program is a multiple-year program that seeks to transform the way public school buildings are designed and constructed in Connecticut. Ultimately, the CCEF anticipates that this program will accelerate the adoption of green building standards among all sectors in Connecticut, with an emphasis on achieving greater energy efficiency and incorporating renewable energy technologies.

The goal of this multi-year endeavor is to leverage resources, expertise, and knowledge in order to transform how Connecticut schools are designed and built and to motivate municipalities and regional school districts to include high-performance features and clean distributed generation as standard components in future schools. The program will be an integrated campaign of policy initiatives, collaborative action, targeted outreach, technical assistance, financing and measurement, evaluation, and documentation of results.

OBJECTIVES
Fifteen (15) public schools will adopt high-performance standards, at least eight (8) of which will include renewable systems. Priority shall be given to public schools in distressed municipalities (as that term is defined in Conn. Gen. Stat. § 32-9p(b)).

The program is intended to directly support CCEF objectives by encouraging renewable projects greater than ten (10) kW at public schools. The program will indirectly help to achieve other goals including voluntary clean energy market development and raising awareness of the benefits of clean energy.

Specific program objectives include:

- Leveraging construction reimbursement policies of the Connecticut Department of Education to support the incremental design and construction costs
- Educating stakeholders regarding the benefits of high-performance schools
- Instituting a warning system to reach school-related building committees early in their design process and get them to focus on life-cycle costs rather than first costs
- Facilitating design and construction of all new schools to LEED Silver or equivalent standard plus compliance with state building construction requirements.
- Installing clean energy systems in a minimum of fifty percent (50%) of new schools built or major renovation projects supported by the state.

TARGET MARKET
Municipalities and school districts.

MARKETING STRATEGY

In addition to the marketing strategy described in Section 10, pp. 11 – 13 of this Plan, the CCEF plans to produce a DVD on high-performance schools to be shared with key decision makers, develop and disseminate case studies of successful high-performance school building projects, and promote the program through blog entries.

INCENTIVES

This program provides educational and technical services to municipalities and school districts. It is intended to be augmented by the CCEF's funding support for on-site renewable distributed generation systems, reimbursement grants offered by the Connecticut Department of Education, and incentive programs offered by the CEEF and other sources.

INCENTIVE STRATEGY

In general, this program seeks to fill gaps that currently exist in understanding the benefits associated with high-performance schools and the role renewable energy can play. The incentive for solar PV systems is being developed to complement State Department of Education reimbursement grants and, as such, provide greatest assistance to distressed communities.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	Complete design and commencement of construction of 15 new or renovated high performance school buildings that have incorporated solar or other renewable technologies.	$1,275,000
Result	There have been no new high performance schools completed since the previous Comprehensive Plan. Discussions are in progress with several school projects that hope to include solar PV systems.	
	0% of Goal 7.2% of Budget	
Goal	Prepare case studies of three high performance schools (including a mix of secondary and elementary schools, urban and rural settings, and new construction and major renovations).	
Result	There have been no new high performance schools completed since the previous Comprehensive Plan.	

FY 2011-2012 GOALS AND BUDGET

		Budget

Goal	Fifteen public schools will adopt high-performance standards, at least eight of which will include renewable systems.	$2,675,000 (CPBC)

d. Net Zero Energy Homes

DESCRIPTION
The CCEF intends to develop a pilot program to promote the adoption of green buildings through development, in partnership with the CEEF, to encourage net zero energy homes featuring renewable energy systems. Much like the High-Performance Schools Program, this program is intended to complement existing incentive programs offered by the CCEF and CEEF.

OBJECTIVES
This program will seek to encourage the construction of new homes featuring passive solar design, maximum energy efficiency measures, renewable energy systems for electricity, hot water, heating and cooling, conservation of resources, and other sustainable building techniques.

TARGET MARKET
Residential market.

MARKETING STRATEGY
In addition to the marketing strategy described in Section 10, pp. 11 – 13 of this Plan, the CCEF plans to develop and disseminate case studies of successful high-performance residential buildings and reconstruction projects, and to promote the program through blog entries.

INCENTIVES
This program is still under development but will likely focus on education and outreach and support existing incentive programs offered by the CCEF and CEEF.

INCENTIVE STRATEGY
Various existing programs provide incentives for residential customers to adopt renewable energy systems as well as energy efficiency measures. The purpose of this pilot program will be to connect them and demonstrate the value of a holistic and comprehensive approach to residential housing design and reconstruction.

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Develop a pilot program	$200,000 (CPBC)

2. Education and Training Programs

a. Learning for Clean Energy Innovation

DESCRIPTION
The Learning for Clean Energy Innovation Program (LCEI Program) is a professional development opportunity for Connecticut teachers focused on renewable energy sources. Developed in consultation with the Connecticut Department of Education and a Professional Development Working Group consisting of education experts and NREL, this program offers solar and wind energy lessons that are aligned with the ninth-grade Connecticut Core Science Curriculum Framework. The program is offered statewide and will provide education for teachers on how to incorporate specially designed alternative energy lessons into their existing curriculum.

Ultimately, the program will provide teacher training workshops, curriculum materials, and a unique Clean Energy classroom toolkit. Subsequent phases of this program will offer education on hydrogen fuel cells and offer a teacher-student activity guide to the CCEF "Learn" Web site.

The CCEF will also expand the LCEI Program to work directly with the Connecticut Technical High School System and help the state expand green job training. The new collaboration with the technical high school system will be called LCEI-Tech. Key design elements of the LCEI-Tech program include curriculum development, hands-on learning labs, and the potential for industry partnerships that support the program through donations, curriculum input from industry practitioners, and internships and apprenticeships for students.

OBJECTIVES
The CCEF school-based renewable energy education initiative intends to achieve the following results as part of the Communities program to "create model, sustainable communities":

- Provide resources to support educators and students to achieve the Connecticut ninth-grade core science framework standards addressing alternative energy sources
- Benefit schools and teachers located in municipalities committed to the Clean Energy Communities program with the Clean Energy Classroom kit and hands-on toolkit materials
- Incorporate Clean Energy Communities PV installation systems, and the CCEF commercial wind and PV installation systems, as part of the teachers' education tools and field trip opportunities
- Apply data-monitoring systems in the classroom as a teaching tool
- Expand the LCEI-Tech program and work directly with the Connecticut Technical High School System to expand green job training

- Expand the use of clean energy curriculum to all municipalities

TARGET MARKET

- Educators, particularly ninth-grade teachers, selected from municipalities that have joined the CCEF Clean Energy Communities program, and their students.
- The Technical High School System construction trade department, specifically focusing on building the knowledge of trade instructors to better inform the students, grades 9-12, about solar PV and solar thermal technologies.

MARKETING STRATEGY

In addition to the marketing strategy described in Section 10, pp. 11 – 13 of this Plan, the marketing strategy for the LCEI Program consists of using existing networks under the State Department of Education and other collaborators. The CCEF will utilize its Web site and email list-serves to send notices to Clean Energy Community contacts, as well as distribute information via the Connecticut Math and Science Teacher Associations. All activity guides from the professional development workshops will be available on the CCEF education Web site. The curriculum developed for the Connecticut Technical High School System will be available on their Web site, and will serve as a national model for trade school training integration.

INCENTIVES

The program provides teachers with enhanced curriculum materials tied to the ninth-grade state core science frameworks including special data-monitoring systems linked to PV and wind installations, a take-home clean energy toolkit for students, CEUs, and a small stipend. The LCEI-Tech program will provide trade instructors with professional development aligned to national standards for solar PV and solar thermal technology training. The Technical High School System will receive funding under this program to build a mock "Energy-House" at six (6) technical high schools, which will incorporate hands-on solar PV and solar thermal systems.

INCENTIVE STRATEGY

The LCEI Program incentives provided to teachers and the schools align with educational resources and services provided to science and trade teachers within Connecticut. With all professional development sessions, instructors receive CEU credits as part of their license maintenance programs. The LCEI solar and wind toolkits are provided free of charge to help ensure the teachers integrate the technology into the curriculum, as school districts have limited resources for additional activity aides.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	The program will provide training workshops, curriculum materials and toolkit materials for up to 100 teachers from participating towns.	$815,000
Result	Trained 180 teachers from Clean Energy Communities, non-program members and the 9th	

		Budget
	grade science teachers from the CT Technical High School System	
	180% of Goal 15% of Budget	
Goal	The CCEF seeks to achieve at least one newspaper article per participating town with regard to the workshops, curriculum or other issues surrounding clean renewable energy awareness and education.	
Result	N/A (Clipping service was discontinued)	
Goal	The program has an indirect goal of acquiring enrollments in the CTCleanEnergyOptions[sm] program of at least 2 percent of the parents or guardians of students in participating towns.	
Result	The CCEF provided LCEI trained teachers with CTCleanEnergyOptions sign up forms and posters to facilitate the discussion and integration with the students for home	
	N/A	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Support 100 teachers for solar and wind lessons Training labs at 6 Technical High Schools	$1,016,000 (CPBC)

b. Educational Accreditation

DESCRIPTION

A critical element to developing and supporting the clean energy industry in Connecticut is providing training programs designed to meet the industry's needs for skilled workers.

Through a workforce development program, the CCEF will help position Connecticut as a leader in the clean energy market through a well-trained, educated workforce that meets industry needs and provides opportunities for those seeking to enter the industry. The workforce development program will support education and training opportunities that align with Connecticut's energy goals and bolster economic growth.

The CCEF has undertaken multiple initiatives to support workforce development of "green jobs" in Connecticut. The CCEF has offered building inspector training for solar PV installations through the small solar PV program. Additionally, the CCEF has financially supported various educational efforts including fuel cell technician training at Naugatuck Valley Community College, student research and development at UConn Center for Clean Energy Engineering (formerly the UConn Global Fuel Cell Center), and most recently through the LCEI Program with the Connecticut Technical High School System. The CCEF has not only financially supported green job efforts, but has also been a critical partner in many other green jobs initiatives including:

- Governor Rell's Executive Order #23---Green Jobs Directive
- Connecticut Green Jobs Partnership – hosted by the Office of Workforce Competitiveness, Connecticut Energy Workforce Development Consortium – UConn Center for Clean Energy Engineering –Connecticut Community College System Sustainable Operations: Alternative and Renewable (SOAR) Energy Initiative, Connecticut Technical High School System (LCEI-Tech)
- Institute for Sustainable Energy (ISE) at Eastern Connecticut State University (ECSU)
- DOE Trainer Network for New England states (PV and solar thermal)

To best prepare future and current workers for the clean energy industry, the CCEF intends to align all funded workforce development programs to national credentialing for individuals and accreditation for job training institutions. Currently, DOE, in conjunction with the U.S. Department of Labor (DOL), is reviewing training standards in energy efficiency and renewable energy. A Connecticut workforce development program on renewable energy that meets national standards will better prepare our workforce for jobs for the future and establish Connecticut as a leader in green jobs training.

OBJECTIVES

- Address energy as fundamental to society and detail how renewable energy contributes to a better economy
- Offer equipment to support renewable energy technology and green job training
- Support all levels of educational offerings in Connecticut

- Provide opportunities for projects that facilitate collaboration with state and local workforce development programs
- Promote programs that lead to pathways towards economic self-sufficiency for low- and moderate-income communities
- Facilitate workforce development efforts that train and retain students and workers through institutes of higher education, vocational-technical high schools, and community-based nonprofits
- Provide Connecticut with nationally recognized and accredited institutions for sustainable power education.

TARGET MARKET

Eligible students are high school graduates, unemployed or under-employed workers, mid-career or career-shift focused, or licensed trades people wanting to expand their renewable energy technology understanding and system installation training. The primary target market for this program is the job training institutions that will host the eligible students. The types of institutions that will gain national accreditation and align courses to industry credentials are Connecticut educational institutions under the directive or certification of the State Department of Higher Education, including community colleges, regional workforce investment boards, community-based non-profit organizations (with 501(c)3 status); and trade, union, and labor organizations.

MARKETING STRATEGY

In addition to the marketing strategy described in Section 10, pp. 11 – 13 of this Plan, the workforce development program will work in conjunction with the Connecticut Green Jobs Partnership, including the ISE, the state's Office of Workforce Competitiveness, the state Department of Labor, the Connecticut Community Colleges, trade and labor unions, and the Connecticut Technical High School System to promote available renewable energy training courses. The CCEF will not duplicate the green job efforts within the state but will work to supply information for the Connecticut Green Jobs Partnership-funded Web site where all related information for training and jobs, including renewable, will take place.

INCENTIVES

This program will offer direct investments to job training institutions to support equipment, accreditation fees, instructor professional development, tuition assistance, and apprenticeships. The total amount of leveraged funding, as compared to CCEF direct investment, is over two million dollars ($2,000,000). This is anticipated to come from a combination of federal funding for SOAR, ARRA DOL and DOE grants, and in-kind services from institutions and technical experts.

INCENTIVE STRATEGY

The CCEF has recognized the state's need for Connecticut-based and Connecticut-provided renewable energy training institutions. By offering investments to training institutions within the state, students and employers will benefit from curriculum and training from nationally aligned programs.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	Develop and Implement Workforce Training Program.	$658,000
Result	Job training institutions awarded funding for renewable energy workforce development are: Gateway Community College; Manchester Community College; Naugatuck Valley Community College; NECA/IBEW; Three Rivers Community College; The Workplace Inc.; and the University of New Haven. Funding allocations will support training aligned to national credentialing and renewable energy industry institution accreditation.	
	100% of Goal 91% of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Seven accreditations or courses aligned to national credentialing	$400,000 (CPBC)

Academic Workforce Development – Old Program

DESCRIPTION

Support academic institutions to address workforce development needs for the emerging renewable energy industry.

OBJECTIVE

Establish a workgroup including Department of Education, DOL, and other stakeholders. Issue an RFP to identify an organization that will pilot a post–high school workforce development program for careers in the renewable energy and the fuel cell technology field. Select and fund the organization to implement the post–high school pilot workforce development program and present the first-year evaluation report of the pilot program to the CCEF Board, Department of Education, DOL, and other stakeholders.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010---See Section F under Goal 3

		Budget
Goal	Successfully implement the post–high school pilot workforce development program focused on renewable technologies.	

Result	Program Approved and Funded in May 2010

c. New Education and Green Job Programs

DESCRIPTION
The Connecticut Clean Energy Fund has invested strategically in education and outreach programs that are designed to engage communities, businesses, families, teachers, and students in learning about clean energy and its benefits to society. Ultimately, these programs seek to achieve long-term market transformation.

The CCEF will issue a competitive RFP once a new program scope has been established. By issuing a competitive RFP, the CCEF can ensure that additional education programs are developed to stimulate the voluntary market for clean energy and tie to existing programs offered by the CCEF. Ultimately, the CCEF will be able to advance formal and informal clean energy and climate change education and support community-based initiatives designed to promote sustainable living for the benefit of Connecticut.

OBJECTIVES
The CCEF will develop new education and outreach programs to stimulate the voluntary market for clean energy, preparing future generations to address sustainable energy challenges by expanding the menu of green job program offerings.

Potential programs under consideration include an interactive clean energy kiosk, expansion of formal or informal clean energy and climate change curriculum or exhibits, and community-based initiatives designed to promote sustainable living and stimulate local clean energy jobs.

TARGET MARKET
Communities, businesses, organizations, families, and students interested in advancing formal and informal clean energy and climate change education and supporting community-based initiatives designed to promote sustainable living.

MARKETING STRATEGY
See Section 10, pp. 11 – 13, of this Plan.

INCENTIVES
The incentives for new education and green jobs programs have yet to be determined but may include funding for permanent or travelling exhibits at informal science centers, curriculum development, equipment, and classroom toolkits and materials.

INCENTIVE STRATEGY
The incentive strategy will frame the incentives of the new education and green jobs programs. Best efforts will be made to enhance incentive strategies of other CCEF programs.

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Develop offerings	$500,000 (CPBC)

d. Clean Energy Climate Solutions Program

DESCRIPTION
The Clean Energy Climate Solutions (CECS) program is an initiative aimed at testing, evaluating, and adapting educational materials that will teach Connecticut residents about clean energy as an important solution to climate change. The project will be performed by the Connecticut Science Center Collaborative (CSCC) and managed by Clean Air – Cool Planet (CA-CP), a 501(c)3 nonprofit organization. The CCEF investment in this program is leveraged with philanthropic community funding including the Emily Hall Tremaine Foundation.

The CECS program intends to create a network of exhibits, programs, and activities that will involve informal education centers[2] initially that receive collectively approximately two million (2,000,000) visitors per year. The initial CECS pilot program targeted ten (10) centers but has been recently expanded to fifteen (15) CSCC members. This project is intended to create a "hub-and-spoke" network among these centers, along with the Connecticut Science Center, in an effort to educate Connecticut residents about the solutions offered by clean, renewable energy on the issue of climate change.

OBJECTIVES
The CECS program expects to address the following objectives:

- Address energy as fundamental to society
- Draw the connection between unsustainable energy sources and climate change as well as clean energy as a solution
- Assist residents in understanding clean energy technology science and history
- Demonstrate that clean energy is beneficial to society and a reliable source of energy

Through this program, the CCEF anticipates that Connecticut Science Center members and trustees will play a strategic leadership role in disseminating information and influencing public opinion related to climate change and clean, renewable energy. Furthermore, it is expected that these programs will result in long-term market transformations by engaging visitors to learn about and take action on clean energy as a significant solution to addressing climate change. The expectation is that as the general public becomes more knowledgeable about clean energy, they will make more informed energy purchase decisions and support the clean energy industry.

[2] The informal education centers estimated to participate in program include Beardsley Zoo* (Bridgeport), Bruce Museum of Arts and Science (Greenwich), Connecticut Audubon Society* (Fairfield), the Connecticut Science Center (Hartford), The Children's Museum* (formerly the Science Center of Connecticut) (West Hartford), Dinosaur State Park* (Rocky Hill), Discovery Science Museum and Planetarium* (Bridgeport), Eli Whitney Museum* (Hamden), Garbage and Trash Museum* (Hartford and Stratford), Maritime Aquarium (Norwalk), Mystic Aquarium (Groton), Soundwaters (Stamford), Stamford Museum and Nature Center (Stamford), Stepping Stones Museum* (Norwalk), Talcott Mountain Science Center* (Avon) and Yale Peabody Museum* (New Haven). * Denotes pilot member center

TARGET MARKET

The target audience is families, educators, and students attending CSCC member centers for general and specific programs. The CECS program is open to all municipalities and school districts through the CSCC.

MARKETING STRATEGY

The CECS program manager will work with the CCEF marketing team to implement the marketing strategy found in Section 10, pp. 11 – 13 of this Plan. The team will create a branded CECS activity guide, brochure, Web site, and fact sheets. All information will be posted on the CCEF educational Web site and on CA-CP's Collaborative Web site.

INCENTIVE

The CECS program intends to create a network of exhibits, programs, and activities using off-the-shelf educational materials on clean, renewable energy technologies at participating science centers.

INCENTIVE STRATEGY

The CCEF is focused on enabling members of the CSCC to integrate clean energy concepts into their classrooms and centers, with fully funded resources. The CECS program end-users include teachers, students, families, and educational groups. Having the network of exhibits and activities available to them locally will bring the "clean energy as a solution to climate change" message closer to home.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	This program seeks to reach approximately 5 percent of the visitors (approximately 100,000 people) from the participating centers each year.	$325,000
Result	Successful use of the CECS program at 10 centers.	
	100% of Goal 100% of Budget* * Committed funds prior to this Plan	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Support 15 science centers/museums	$236,000 (CPBC)

e. Connecticut Science Center–Energy City Gallery

DESCRIPTION
The CCEF and the CEEF formed a partnership to showcase the science of clean energy generation and energy efficiency and conservation at the Connecticut Science Center that opened in Hartford in 2008. The Energy City Gallery (the working title in the previous Comprehensive Plan was "Smart Energy Gallery") is a one thousand five hundred (1,500)-square-foot exhibit area focused on the themes of clean and efficient energy sources while furthering the core science framework standards in Connecticut schools.

The Energy City Gallery brings attention to the Science Center facility itself as a "building that teaches." Furthermore, it allows visitors the opportunity to create, observe, record, experiment with, and understand the power of clean, renewable energy and offers tangible solutions that visitors can implement in their own lives. The exhibit also recognizes Connecticut as a national leader in the production and use of clean energy and energy conservation.

OBJECTIVES
The program expects to achieve the following objectives:

- Address energy as fundamental to society by powering our homes, businesses, and industries
- Address unsustainable energy sources that are not clean, that create waste, and result in environmental degradation
- Raise awareness of solutions that consumers can choose and encourage the development of new power sources that have different impacts on our environment and economy
- Portray clean energy as beneficial to society, available, and reliable.

TARGET MARKET
The target audience is the estimated four hundred fifty thousand (450,000) visitors who will attend the Connecticut Science Center annually. This figure includes an estimated eighty-five thousand (85,000) kindergarten through grade 12 students who will participate in field trips to the Science Center each year.

MARKETING STRATEGY
In addition to the marketing strategy described in Section 10, pp. 11 – 13 of this Plan, the CCEF will work in collaboration with the CEEF and the Science Center to promote the Energy City Gallery to schools, families, and students. Specific efforts will be made to cross-promote with existing CCEF programs such as CECS and the LCEI Program.

INCENTIVE
This program provided funding for the design, construction, and maintenance of the exhibit.

INCENTIVE STRATEGY

A primary strategy for the investment is to raise awareness of solutions that a consumer can choose and do so in a premier educational institution that will draw attendance statewide and regionally.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

		Budget
Goal	The CCEF anticipates that these programs will be long-term market transformation initiatives that engage teachers and students to learn about and become inspired by clean energy. The expectation is that as the general public becomes more knowledgeable about clean energy, they will make more-informed energy purchase decisions, supporting the clean energy industry.	$2,993,000
Result	Installation of Energy City Gallery at CT Science Center is complete. The CT Science Center opened in June 2010, and over 385,000 people have visited the Center in its first year.	
	100% of Goal 100% of Budget* * Committed funds prior to this Plan	

Program completed.

3. Monitoring and Evaluation

DESCRIPTION

The monitoring and evaluation (M&E) program for the CCEF's Program Goal 3 was designed with assistance from NREL, the Lawrence Berkeley National Laboratory, EPA, Clean Energy States Alliance, Massachusetts Renewable Energy Trust, Rhode Island Renewable Energy Fund, DPUC, OPM, and DEP. Following a competitive RFP process, Nexus Market Research (NMR) was identified as a subcontractor for this program and was tasked to conduct a comprehensive program analysis and develop an M&E plan.

The original M&E program examined the progress of various Program Goal 3 programs to determine whether the CCEF had achieved two strategic objectives:

1. Objective 3A (Voluntary Market Demand): One-half percent (0.5%) of electricity demand will come from voluntary purchases of clean energy resources.
2. Objective 3B (Public Awareness): Drawing from a baseline survey, there will be a significant increase in the knowledge and awareness of the benefits and availability of clean energy resources.

In connection with the M&E program, NMR performed or commissioned various analytical studies including a Program Logic Model, a "Delphi analysis," an Investment Analysis, and a Baseline Survey of Consumer Awareness of Clean Energy in Connecticut. These reports helped to identify performance indicators, metrics, and measurement of Goal 3 programs. NMR concluded that the CCEF had achieved both of the above-mentioned strategic objectives.

Currently, NMR collects and analyzes data from the CTCleanEnergyOptions[sm] suppliers, the electric distribution companies, and other sources to generate monthly spreadsheet reports including customer enrollments by municipality, household participation rates, kilowatt hours of demand, and graphs depicting the Top 20 communities in various categories. The monthly reports serve as the basis for updates to the CCEF's Clean Energy Communities Web site and track qualifications for awards under that program. NMR also prepares a mid-year and an annual program analysis report, which includes a comprehensive assessment of sign-up indicators.

Reports prepared by NMR for Goal 3 programs are posted on the "Program Progress" page of the Communities Web site or are available from the CCEF.

FY 2009-2010 RESULTS THROUGH JUNE 30, 2010

			Budget
Goal	A monitoring and evaluation program for key Goal 3 programs will be conducted.		$500,000
Result	A monitoring and evaluation program for the Clean Energy Communities and Community Innovations Grants programs was conducted. The consultant concluded that the CCEF met the strategic objectives described above.		
	100% of Goal	21% of Budget	

FY 2011-2012 GOALS AND BUDGET

		Budget
Goal	Monitor and evaluate Program Goal 3	$150,000

IV. Advocacy

The state of Connecticut has adopted and is committed to aggressive policies to support the development of renewable energy. The CCEF seeks to advance these policies by actively engaging in appropriate policy forums. Such forums include regulatory, legislative, and advisory proceedings in which the CCEF will provide research, analysis, technical expertise, and recommendations, as appropriate. The CCEF will work to assure that key decision makers know and understand the mission, accomplishments, and renewable information resources and expertise of the Fund. Institutional forums with a renewable energy interest throughout the state and region will include and reflect the CCEF's voice. Relationships will be developed and maintained with key decision makers throughout the state, region, and nation.

The CCEF has budgeted six hundred thousand dollars ($600,000) from the CPBC for this effort.

V. Effectiveness

The most significant challenge facing the Fund over the next two (2) years will be for the CCEF Board and management to execute efficiently the FY 11 and FY 12 Plan. The Board and management must effectively secure short- and long-term resources in order to assure that the CCEF Board and staff operate as a highly effective organization. To this end, the CCEF Board has allocated one hundred fifty thousand dollars ($150,000) from the CPBC to secure and leverage ratepayer funding with appropriate public and private funds. The Board has also allocated five hundred thousand dollars ($500,000) for independent evaluation of the CCEF's programs, their effectiveness, and subsequent remediation action plans.

Clean Energy Finance and Investment Authority
FY 2011 - FY 2012 Comprehensive Plan
FY 2012
000's

Goal No.	Strategy	Outcome	Incentives	Contracted labor	M&E	Administrative Expenses	Total Budget by Outcome
1 - Increase supply							
	1. Wholesale Market	15 Feasibility Grants	$ -	$ 375.0	$ -	$ -	$ 375.0
	2a.Non-residential retail market	Competitive RFP for fuel cells, solar, solar thermal, wind	$ 4,113.5	$ -	$ -	$ 216.5	$ 4,330.0
	2a.Non-residential retail market	Competitive RFP for fuel cells, solar, solar thermal, wind for EPA Business Climate Leaders	$ 2,425.0	$ -	$ -	$ 75.0	$ 2,500.0
	2a.Non-residential retail market	With RGGI grants, through a competitive RFP process, 1.0 MW for affordable housing.	$ 1,940.0	$ -	$ -	$ 60.0	$ 2,000.0
	2a.Non-residential retail market	5.2 MW clean energy for public buildings.	$ 1,940.0	$ -	$ -	$ 60.0	$ 2,000.0
	2b. Residential market	7 MW of renewable power for residential systems from solar PV,solar thermal and small wind projects. (1000 projects)	$ 3,120.0	$ -	$ -	$ 130.0	$ 3,250.0
	2b. Residential market	Solar Lease program	$ -	$ -	$ -	$ -	$ -
	3. Leverage funding from other sources to fund clean energy projects.	Create and manage a revolving loan fund .	$ 2,000.0	$ -	$ -	$ 75.0	$ 2,075.0
	3a. CCEF Strategic Investment Fund	At least 10 prospective business propositions will be considered.	$ 750.0	$ -	$ -	$ 50.0	$ 800.0
	4. Monitoring & Evaluation		$ -	$ -	$ 100.0	$ -	$ 100.0
			$ 16,288.5	**$ 375.0**	**$ 100.0**	**$ 666.5**	**$ 17,430.0**

Clean Energy Finance and Investment Authority
FY 2011 - FY 2012 Comprehensive Plan
FY 2012
000's

Goal No.	Strategy	Outcome	Incentives	Contracted labor	M&E	Administrative Expenses	Total Budget by Outcome
2. - Accelerate the commercialization of new technologies							
	1. Fund early stage companies	Alpha Program; launch new program and fund up to 3 opportunities	$ 380.0	$ -	$ -	$ 20.0	$ 400.0
	1. Fund early stage companies	Operational Demonstration Program: fund at least six new opportunities	$ 1,781.25	$ -	$ -	$ 93.750	$ 1,875.0
	1. Fund early stage companies	Cleantech Fund: fund at least two new opportunities	$ 750.0	$ -	$ -	$ -	$ 750.0
	2.Address information gaps that impede investment in or adoption of clean energy technologies.	Fuel Cell Monitoring Program	$ -	$ -	$ 100.0	$ -	$ 100.0
	2.Address information gaps that impede investment in or adoption of clean energy technologies.	Small Wind Monitoring Program	$ -	$ -	$ 50.0	$ -	$ 50.0
	2.Address information gaps that affect investment in or adoption of renewable technologies.	Assess emergent high potential opportunities for clean energy technology deployment	$ -	$ -	$ 190.0	$ 10.0	$ 200.0
	2.Address the information gaps that affect investment in or adoption of renewable technologies.	Net-Zero Carbon Integrated Energy Demonstration Project	$ 485.0	$ -	$ -	$ 15.0	$ 500.0
	3. Help form a Clean Energy Innovation Cluster	Clean Energy Innovation Cluster organized,planned and implemented.	$ -	$ 144.0	$ -	$ 6.0	$ 150.0
	Monitoring & Evaluation		$ -	$ -	$ 75.0	$ -	$ 75.0
			$ 3,396.25	**$ 144.0**	**$ 415.0**	**$ 144.75**	**$ 4,100.0**

Clean Energy Finance and Investment Authority
FY 2011 - FY 2012 Comprehensive Plan
FY 2012
000's

Goal No.	Strategy	Outcome	Incentives	Contracted labor	Materials & Supplies	M&E	Administrative Expenses	Total Budget by Outcome
3. - CT communities will adopt comprehensive clean and efficient energy measures								
	1.Provide support and incentives to stimulate voluntary demand for clean energy in CT communities.	1. 400 kilowatts of clean energy systems earned under the CT Clean Energy Communities program	$ 1,651.5	$ 91.75	$ -	$ -	$ 91.75	$ 1,835.0
	1.Provide support and incentives to stimulate voluntary demand for clean energy in CT communities.	2. At least 50 communities will receive Community Innovation grants	$ 116.5	$ -	$ -	$ -	$ 5.0	$ 121.5
	2.Promote the adoption of green buildings.	High Performance Schools Program at 8 schools	$ -	$ 1,312.5	$ -	$ -	$ 25.0	$ 1,337.5
	2.Promote the adoption of green buildings.	A pilot program to encourage Net Zero Energy homes will be developed in partnership with CEEF.	$ -	$ 90.0	$ -	$ -	$ 10.0	$ 100.0
	3.Prepare future generations to address sustainable energy challenges.	100 teachers apply sustainable energy lessons in classroom and use toolkits,website	$ -	$ 156.5	$ 156.5	$ -	$ 25.0	$ 338.0
	3.Prepare future generations to address sustainable energy challenges.	15 science centers/museums serve as centers of learning about sustainable energy & solutions.	$ 108.0	$ -	$ -	$ -	$ 10.0	$ 118.0
	3.Prepare future generations to address sustainable energy challenges.	24 tech-high students prepared for green jobs	$ -	$ 155.0	$ -	$ -	$ 15.0	$ 170.0
	3.Prepare future generations to address sustainable energy challenges.	7 educational institutions accredited to provide students with Green Job credentials.	$ -	$ 180.0	$ -	$ -	$ 20.0	$ 200.0
	3.Prepare future generations to address sustainable energy challenges.	New education and green job offerings developed.	$ -	$ 225.0	$ -	$ -	$ 25.0	$ 250.0
	Monitoring & Evaluation		$ -	$ -	$ -	$ 75.0	$ -	$ 75.0
			$ 1,876.0	**$ 2,210.75**	**$ 156.5**	**$ 75.0**	**$ 226.75**	**$ 4,545.0**

Clean Energy Finance and Investment Authority
FY 13 Operations and Program Budget
Statement of Revenues and Expenses and Changes in Net Assets
(in thousands)

	General Operations	Aloha Program	Op Demo Program	Education & Training Programs	EXISTING PROGRAMS: Clean Energy Communities	Community Innovation Grants	Feasibility Studies	Pre Development Loans	Project 150 Fuel Cell	Strategic Investment Fund	Technology & Resource Assessment	NEW PROGRAMS: Anaerobic Diestor Pilot	CHP Pilot	Clean Energy Business Solutions	Condo Renewable Enerov Grants	CPACE	Green Loan Guarantv Fund	Open Market ESCO for Multi Unit Housing	Residential Clean Energy Financino	Residential Solar PV Investment	Campus Efficiency Now	Grants: Lead by Example	Clean Energy Financing Program	Clean Energy Financial	Neighbor to Neighbor Enerov	Sun Rise New England	Total Prooramms	Total Operations & Program Budget	% of Total Expenditures	
Revenues																														
Utility customer assessments	$ 28,000.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,000.0		
RGGI auction proceeds	$ 2,000.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,000.0		
Interest on bank deposits	$ 120.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 120.0		
Renewable Energy Credits,net of fees	$ 50.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 50.0		
Interest Income - Solar Lease Notes, net of fees	$ 150.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 150.0		
Grant income		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25.0	$ 6,861.6	$ 1,500.0	$ 1,400.0	$ 481.5	$ 10,268.1	$ 10,268.1		
Other income	$ 79.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 79.0		
Total revenues:	$ 30,399.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25.0	$ 6,861.6	$ 1,500.0	$ 1,400.0	$ 481.5	$ 10,268.1	$ 40,667.1		
Expenditures																														
Compensation																														
-Salaries & Wages - CEFIA Employees	$ 2,559.9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25.0	$ -	$ -	$ 21.0	$ 74.8	$ 120.8	$ 2,680.7	4.8%	
-Salaries & Wages - CI Shared Services	$ 318.9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10.0	$ 5.4	$ 15.4	$ 334.3	0.6%	
-Employee Benefits - CEFIA Employees	$ 1,587.1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15.5	$ -	$ -	$ 13.0	$ 46.4	$ 74.9	$ 1,662.0	3.0%	
-Employee Benefits - CI Shared Services	$ 197.9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6.0	$ 3.3	$ 9.3	$ 207.2	0.4%	
Consulting and professional fees																														
- Legal	$ 35.0	$ -	$ 25.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 50.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 75.0	$ 110.0	0.2%	
- Accounting & Audit	$ 25.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25.0	0.0%	
- Consulting fees	$ 105.0	$ 100.0	$ 250.0	$ -	$ 19.8	$ -	$ 250.0	$ -	$ -	$ -	$ 350.0	$ 25.0	$ 25.0	$ 500.0	$ 10.0	$ 50.0	$ -	$ 100.0	$ 150.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,829.8	3.4%	
- Project Inspection Fees		$ -	$ -	$ -	$ 8.3	$ -	$ -	$ -	$ -	$ -	$ -	$ 25.0	$ 25.0	$ -	$ -	$ -	$ -	$ 50.0	$ 150.0	$ 175.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 433.3	0.8%	
Marketing/External relations	$ 635.6	$ -	$ -	$ -	$ 5.0	$ 2.5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 300.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 307.5	$ 943.1	1.7%	
EM&V		$ -	$ -	$ -	$ 65.0	$ 10.0	$ -	$ -	$ -	$ -	$ -	$ 10.0	$ 10.0	$ -	$ -	$ -	$ -	$ -	$ -	$ 100.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 195.0	$ 195.0	0.3%	
Real and location related expenses																														
-Rent/Utilities/Maintenance	$ 202.9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 202.9	0.4%	
-Telephone/Communications	$ 41.1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 41.1	0.1%	
-Equipment & storage space rental	$ 11.7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11.7	0.0%	
-Depreciation FF&E	$ 78.6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 78.6	0.1%	
Office, computer & other expenses																														
-Office expense	$ 48.9	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 48.9	0.1%	
-Computer operations	$ 50.8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10.0	$ -	$ -	$ -	$ 100.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 160.8	0.3%	
-Subscriptions	$ 18.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 18.0	0.0%	
-Training and education	$ 44.8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10.0	$ -	$ -	$ -	$ 50.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 104.8	0.2%	
-Temporary employees	$ 25.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25.0	0.0%	
-Travel,meetings& related expenses	$ 54.0	$ -	$ 5.0	$ -	$ 5.0	$ 5.0	$ -	$ 5.0	$ -	$ -	$ 10.0	$ 2.5	$ 2.5	$ -	$ 2.5	$ 20.0	$ -	$ 2.5	$ 10.0	$ 50.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 120.0	$ 174.0	0.3%	
-Insurance	$ 56.1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 56.1	0.1%	16.8%
Grant Expenditures- Payments to SuD grantees		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,350.0	$ 357.0	$ 1,707.0	$ 1,707.0	3.0%	3.0%
Financial incentives		$ -	$ 2,000.0	$ 400.0	$ 1,030.5	$ 200.0	$ -	$ 500.0	$ 7,000.0	$ 750.0	$ -	$ 2,000.0	$ 2,000.0	$ 5,000.0	$ 250.0	$ -	$ -	$ 2,500.0	$ 7,000.0	$ 5,000.0	$ 1,000.0	$ -	$ 6,861.6	$ 1,500.0	$ -	$ 49.0	$ 45,040.1	$ 45,040.1	80.2%	80.2%
Total Expenditures:	$ 6,996.3	$ 100.0	$ 2,280.0	$ 400.0	$ 1,133.8	$ 217.5	$ 250.0	$ 505.0	$ 7,000.0	$ 750.0	$ 360.0	$ 2,062.5	$ 2,062.5	$ 5,500.0	$ 262.5	$ 140.0	$ -	$ 2,652.5	$ 7,310.0	$ 5,775.0	$ 1,000.0	$ 40.5	$ 6,861.6	$ 1,500.0	$ 1,400.0	$ 534.8	$ 50,069.0	$ 96,184.3	100.0%	100.0%
FY 2013 change in fund net assets:																												$ (55,531.2)		
Net Assets-7 01 2012:																												$ 35,100.0		
Net Assets-6 30 2013:																												$ (19,568.8)		