



CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

December 9, 2011

Dear Clean Energy Finance and Investment Authority Board of Directors:

I am looking forward to having our last board meeting of 2011

We have a very ambitious agenda next week. I can hear a few of you asking “what else is new?”

Some key items for us to think about in preparation for the meeting are the following:

- Continuing to put in place governance and operational procedures;
- Beginning to roll-out a new set of programs based on strong research and feedback; and
- Putting the necessary resources in place, including subcontractors, to help us achieve our ambitious objectives.

Our regular meeting is scheduled for Friday, December 16, 2011 at 3:30 p.m. at our offices located at 865 Brook Street Rocky Hill, CT. For those of you that are interested in participating by webinar, we have established a capability to do that through iMeet.

To prepare you for the meeting, we have provided you with all of the necessary background information that will be covered on the agenda and the associated proposals and resolutions.

If you have any questions, comments or concerns, please feel free to contact me at any time.

We look forward to the meeting next week.

Sincerely,

Bryan Garcia
President and CEO



CLEAN ENERGY

FINANCE AND INVESTMENT AUTHORITY

AGENDA

Board of Directors of the
Clean Energy Finance and Investment Authority
865 Brook Street
Rocky Hill, CT 06067

Friday, December 16, 2011 – Regular Meeting
3:30-5:30 p.m.

Staff Invited: George Bellas, Brian Farnen, Keith Frame, Bryan Garcia, David Goldberg, Dale Hedman, Dave Ljungquist, Peter Longo, and Bob Wall

1. Call to order
2. Public Comments – 10 minutes
3. Approval of meeting minutes for November 21, 2011* – 5 minutes
4. Update from the President – 5 minutes
5. Budget and Operations Committee update and recommendations* – 10 minutes
6. Technology Innovations Program update and recommendations* – 20 minutes
7. Residential Solar Investment Program update and recommendations* – 30 minutes
8. Comprehensive Plan update and recommendations* – 15 minutes
9. Joint Marketing and Outreach Campaign update and recommendations* – 10 minutes
10. Adjourn

* Denotes item requiring Board action

Call-in information: 1-719-867-0487

Audio Key: 772184

***Next Meeting: Friday, January 20, 2012 from 9:00-11:00 a.m.
Clean Energy Finance and Investment Authority, 865 Brook Street, Rocky Hill, CT***



CLEAN ENERGY

FINANCE AND INVESTMENT AUTHORITY

RESOLUTIONS

Board of Directors of the
Clean Energy Finance and Investment Authority
865 Brook Street
Rocky Hill, CT 06067

Friday, December 16, 2011 – Regular Meeting
3:30-5:30 p.m.

Staff Invited: George Bellas, Brian Farnen, Keith Frame, Bryan Garcia, David Goldberg, Dale Hedman, Dave Ljungquist, Peter Longo, and Bob Wall

1. Call to order
2. Public Comments – 10 minutes
3. Approval of meeting minutes for November 21, 2011* – 5 minutes

Motion to approve the minutes of the Board of Directors November 21, 2011 Regular Meeting. Second. Discussion. Vote.

4. Update from the President – 5 minutes
5. Budget and Operations Committee update and recommendations* – 10 minutes

Motion #1

Motion to accept the recommendation of the Budget and Operations Committee for the approval of the Operating Procedures of the Clean Energy Finance and Investment Authority. Second. Discussion. Vote.

Motion #2

Motion to accept the recommendation of the Budget and Operations Committee for the approval of the Employee Handbook and other policies and practices of the Clean Energy Finance and Investment Authority. Second. Discussion. Vote.

Motion #3

Motion to accept the recommendations of the Budget and Operations Committee for the approval of revisions to the FY 2012 Operating Budget of the Connecticut Clean Energy Fund to the FY 2012 Operating Budget of the Clean Energy Finance and Investment Authority. Second. Discussion. Vote.

6. Technology Innovations Program update and recommendations* – 20 minutes

7. Residential Solar Investment Program update and recommendations* – 30 minutes

Resolution #1

WHEREAS, a major goal of CEFIA is to attract and deploy capital to finance Connecticut's clean energy goals;

WHEREAS, the Connecticut Clean Energy Fund invested nearly \$40 million in a combination of rebates and loans in a Connecticut Solar Lease Program to provide a no upfront cost solution that provided access to solar PV technology for 80 percent of households;

WHEREAS, the Connecticut Solar Lease Program was a first-of-its-kind financial innovation for residential solar PV deployment in the United States;

WHEREAS, neither the Connecticut Clean Energy Fund nor CEFIA to date has conducted a program evaluation of the Connecticut Solar Lease Program;

WHEREAS, CEFIA is currently designing a follow-on financing program for residential solar PV that intends to use credit enhancements to leverage private capital investment in Connecticut;

NOW THEREFORE BE IT:

RESOLVED, that CEFIA shall develop and issue a request for proposals to evaluate the Connecticut Solar Lease Program, including, but not limited to the Program's loan and technology performance.

RESOLVED, that per CEFIA's Operating Procedures, the Chair and the President of CEFIA are authorized to expend up to \$150,000 to undertake an evaluation such as this.

RESOLVED, that this Board action is consistent with Connecticut General Statutes § 16-245n and with the CCEF's comprehensive plan.

Resolution #2

WHEREAS, per Section 106 of Public Act 11-80, the Clean Energy Finance and Investment Authority is required to structure and implement a residential solar investment program which shall result in a minimum of thirty megawatts of new residential solar photovoltaic installations in the state on or before December 31, 2022, the annual cost of which shall be up to one-third of the total surcharge collected annually; and

WHEREAS, a comprehensive marketing strategy, including quantitative and qualitative research, is critical to the achievement of these statutory requirements;

NOW THEREFORE BE IT:

RESOLVED, that the Board approves an allocation of funding for SmartPower to perform a solar market research study in an amount not to exceed EIGHTY-FIVE THOUSAND DOLLARS (\$85,000), and that said funding is contingent upon sufficient funds being available for this purpose.

RESOLVED, that the President of CEFIA and any other duly authorized officer of CEFIA is authorized to execute and deliver any contract or other legal instrument necessary to effect this Resolution on such terms and conditions as he or she shall deem to be in the interests of CEFIA and the ratepayers, in conformance with the wishes of the Board, and in conformance with CEFIA's operating procedures.

RESOLVED, that the proper CEFIA officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

RESOLVED, that this Board action is consistent with Connecticut General Statutes § 16-245n and with the CCEF's comprehensive plan.

8. Comprehensive Plan update and recommendations* – 15 minutes

WHEREAS, a major goal of CEFIA is to attract and deploy capital to finance Connecticut's clean energy goals;

WHEREAS, CEFIA must develop financing programs that attract private capital investment in Connecticut to enable a dramatic scale-up in clean energy deployment;

WHEREAS, the search for an Executive Vice President and Chief Investment Officer of CEFIA is taking more time and effort than had originally been anticipated; and

WHEREAS, Lamont Financial Services Corporation provides financial advisory services on public finance including support for the Connecticut Office of Policy and Management, Connecticut Office of the State Treasurer, Connecticut Health and Educational Facilities Authority, and the Connecticut Development Authority.

NOW THEREFORE BE IT:

RESOLVED, that the President of CEFIA shall engage the services of Lamont Financial Services Corporation to provide financial advisory services to assist with the development and implementation of new and innovative financing programs.

RESOLVED, that per CEFIA's Operating Procedures, the Chair and the President of CEFIA, are authorized to expend up to \$150,000.00 over twelve (12) months for services such as these.

RESOLVED, that this Board action is consistent with Connecticut General Statutes § 16-245n and with the CCEF's comprehensive plan.

9. Joint Marketing and Outreach Campaign update and recommendations* – 10 minutes

WHEREAS, the Clean Energy Finance and Investment Authority has identified a near-term need to coordinate with the State of Connecticut (i.e., the Department of Energy and Environmental Protection) and the Connecticut Energy Efficiency Fund and jointly support a statewide energy marketing campaign;

WHEREAS, the Energy Efficiency Board Marketing Plan and the 2012 Conservation & Load Management Plan have budgeted \$250,000 to \$750,000 for the marketing plan development activities, depending on whether its Base Plan or Increased Savings Plan is ultimately approved; and

WHEREAS, the above parties have agreed that any CEFIA contribution to this initiative should be in proportion to the surcharge collected by the respective Funds (i.e., CEFIA would contribute \$1 for every \$3 of CEEF contribution);

NOW THEREFORE BE IT:

RESOLVED, that Board approves an allocation of funding to coordinate and support a statewide energy marketing campaign in an amount that is one-third of the amount committed by the Energy Efficiency Fund for this initiative and not to exceed TWO-HUNDRED FIFTY THOUSAND DOLLARS (\$250,000), and that said funding is contingent upon sufficient funds being available for this purpose.

RESOLVED, that the President of CEFIA and any other duly authorized officer of CEFIA is authorized to execute and deliver any contract or other legal instrument necessary to effect this Resolution on such terms and conditions as he or she shall deem to be in the interests of CEFIA and the ratepayers, in conformance with the wishes of the Board, and in conformance with CEFIA's operating procedures.

RESOLVED, that the proper CEFIA officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

RESOLVED, that this Board action is consistent with Connecticut General Statutes § 16-245n, as amended by Section 99 of Public Act 11-80, and with the CCEF's comprehensive plan.

10. Adjourn

* Denotes item requiring Board action

Call-in information: 1-719-867-0487

Audio Key: 772184

***Next Meeting: Friday, January 20, 2012 from 9:00-11:00 a.m.
Clean Energy Finance and Investment Authority, 865 Brook Street, Rocky Hill, CT***



CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Board of Directors of the Clean Energy Finance and Investment Authority

Agenda Item #1

Call to Order

December 16, 2011



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Board of Directors of the Clean Energy Finance and Investment Authority

Agenda Item #2

Public Comments

December 16, 2011



CLEAN ENERGY
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Board of Directors of the Clean Energy Finance and Investment Authority

Agenda Item #3

Approval of Meeting Minutes of November 21, 2011

December 16, 2011



CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Board of Directors of the Clean Energy Finance and Investment Authority

Agenda Item #4

Update from the President

December 16, 2011

Update from the President



- ▶ **Welcome General Counsel** – Brian Farnen
- ▶ **Carla's Pasta** – fuel cell event dedication
- ▶ **ARRA SEP Grant Repurposing** – on track to repurpose
- ▶ **Communications** – monthly summaries of earned media
- ▶ **SunShot Initiative** – competed and won federal grant



CLEAN ENERGY

FINANCE AND INVESTMENT AUTHORITY

Board of Directors of the Clean Energy Finance and Investment Authority

Agenda Item #5

Budget & Operations Committee Update and
Recommendations

December 16, 2011

Budget & Operations Committee

Recommendations for Approval



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FINANCE AND INVESTMENT AUTHORITY

1. Operating Procedures
2. Employee Handbook, Policies and Practices
3. Revisions to the FY 2012 Operating Budget

Operating Procedures

Add “Clean Energy Project” Clarifying Definition



- ▶ **Clean Energy Project**: An activity that (i) promotes investment in clean energy; (ii) fosters the growth, development, and commercialization of clean energy sources and related enterprises; (iii) stimulates demand for clean energy and deployment of clean energy sources that serve end use customers in this state; or (iv) supports the development of advanced technologies that reduce energy use from traditional sources. For purposes of this definition, “clean energy” has the meaning as provided in Connecticut General Statutes § 16-245n(a), as may be amended from time to time.

Employee Handbook and Other Policies and Practices



1. **Bylaws** – various requirements in the Bylaws for the Budget & Operations Committee to recommend to the Board of Directors various employee policies, internal control procedures and operational practices
2. **Employee Handbook** – used the handbook of CI to draft for CEFIA
3. **Policies Practices** – used existing policies and practices of CI to draft for CEFIA on (101) purchasing and accounts payable, (102) consulting and advisory services, (103), company credit card, and (104 and 104a) mobile communication.

FY 2012 Operating Budget Proposed Revisions



1. **Revenues** – reduced operating revenues by 9% (from \$31.8 million to \$29.1 million) compared to FY 2011 Operating Budget of the CCEF as a result of RGGI allowance sales
2. **Expenses** – reduced operating expenses by 6% (from \$5.0 million to \$4.7 million) compared to the FY 2011 Operating Budget of the CCEF as a result of staff restructuring as well as consulting and professional fees

Budget & Operations Committee

Motions



1. **Operating Procedures** – motion to accept the recommendation of the Budget & Operations Committee for the approval of the Operating Procedures of the Clean Energy Finance and Investment Authority
2. **Employee Handbook, Policies and Practices** – motion to accept the recommendation of the Budget & Operations Committee for the approval of the Employee Handbook and other policies and practices of the Clean Energy Finance and Investment Authority.
3. **Revisions to the FY 2012 Operating Budget** – motion to accept the recommendations of the Budget & Operations Committee of revisions to the FY 2012 Operating Budget of the Connecticut Clean Energy Fund to the FY 2012 Operating Budget of the Clean Energy Finance and Investment Authority.



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Board of Directors of the Clean Energy Finance and Investment Authority

Agenda Item #6

Technology Innovations Program

December 16, 2011



▶ Section 99 of PA 11-80

- “For purposes of this section, ["renewable energy"] "clean energy" means.....**emerging technologies which have significant potential for commercialization...**”
- ...in accordance with a comprehensive plan developed by it to **foster the growth, development and commercialization** of clean energy sources, related enterprises and...and for further purposes of **supporting operational demonstration projects** for advance technologies...

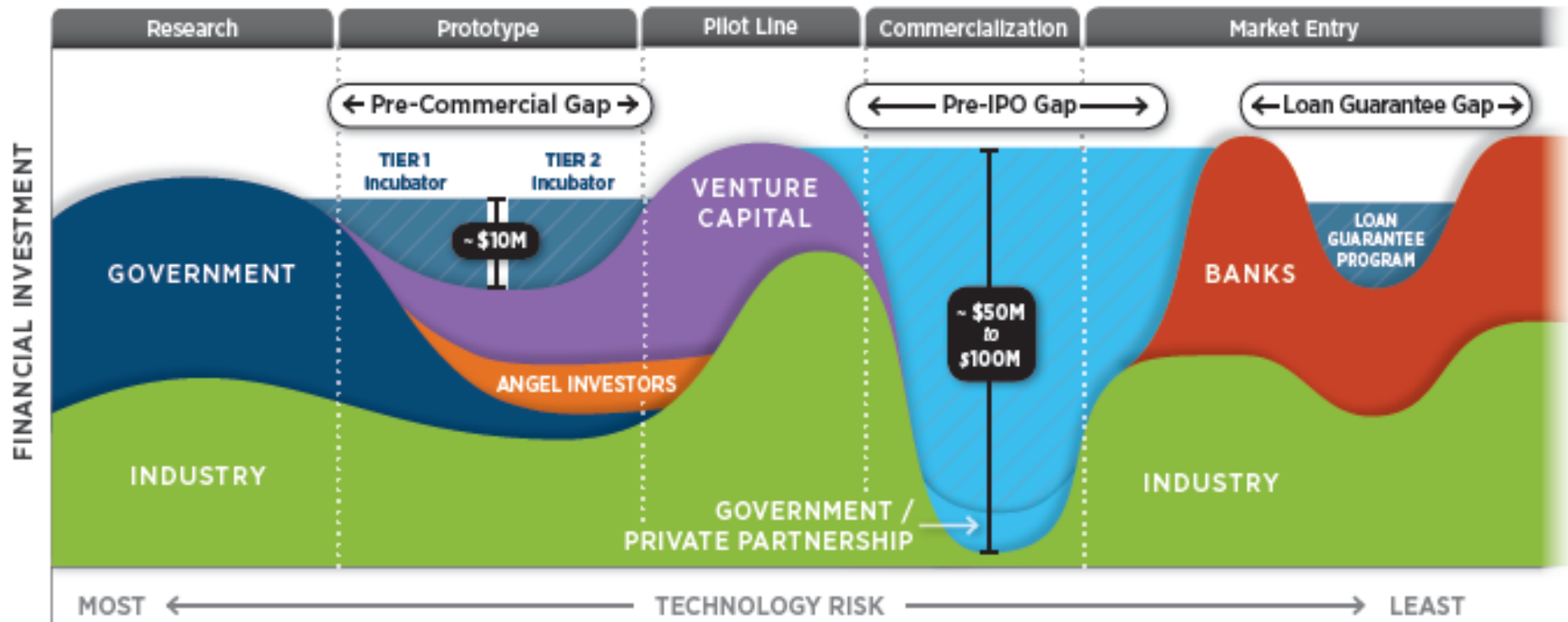
▶ Innovation Ecosystem

- **Programs** – Alpha and Op-Demo programs identify emerging technologies with significant potential for commercialization to handoff to government (i.e. DECD,DOE, and DOD), industry (i.e. FCE), venture capital (i.e. CI and CRV) and angel investors
- **Assessment** – resource assessments provide developers, entrepreneurs, investors and residents with real information on the opportunities and limitations of the resources available in Connecticut

Clean Energy Valleys of Death From Discovery to Deployment



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1. It is a **statutory requirement** of PA 11-80 (for further purposes of supporting operational demonstration projects)
2. The TI Program has demonstrated **extraordinary leveraging** of CEFIA dollars
3. TIP **provides the critical link** from University R&D to Entrepreneurs, Investors and Markets
4. Why not CI or DECD? – CI sees **TIP role as complementary not duplicative**. TIP feeds the CI investment pipeline
5. TIP programs **fill a critical emerging technology financing gap** known as a valley of death
6. TIP programs can **attract foreign and out-of-state companies** to complement existing clusters in Connecticut
7. TIP **evaluates more than 140 inquiries** in 2011. Neither CI nor DECD wants this responsibility



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Board of Directors of the Clean Energy Finance and Investment Authority

Agenda Item #7

Residential Solar Investment Program

December 16, 2011

Section 106 of Public Act 11-80

Residential Solar PV Program



- ▶ **Goal: At least 30 MW of new residential solar photovoltaic (PV) systems installed by 2022**
- ▶ **Direct financial incentives**
 - ▶ For purchase or lease of qualifying residential solar PV systems
 - ▶ Incentives decline over time
- ▶ **Funding: \$90-100 million over 10 years**
 - ▶ Program receives up to one third of ratepayer funds annually
- ▶ **Program Design and Development**
 - ▶ Stakeholders – informal, formal and public comments December 14, 2011 through January 11, 2012
 - ▶ DEO and NREL – “best practice” benchmarking white paper
 - ▶ DEEP – approve the declining incentive blocks
 - ▶ Board of Directors – target approval date for incentive of January 20, 2012





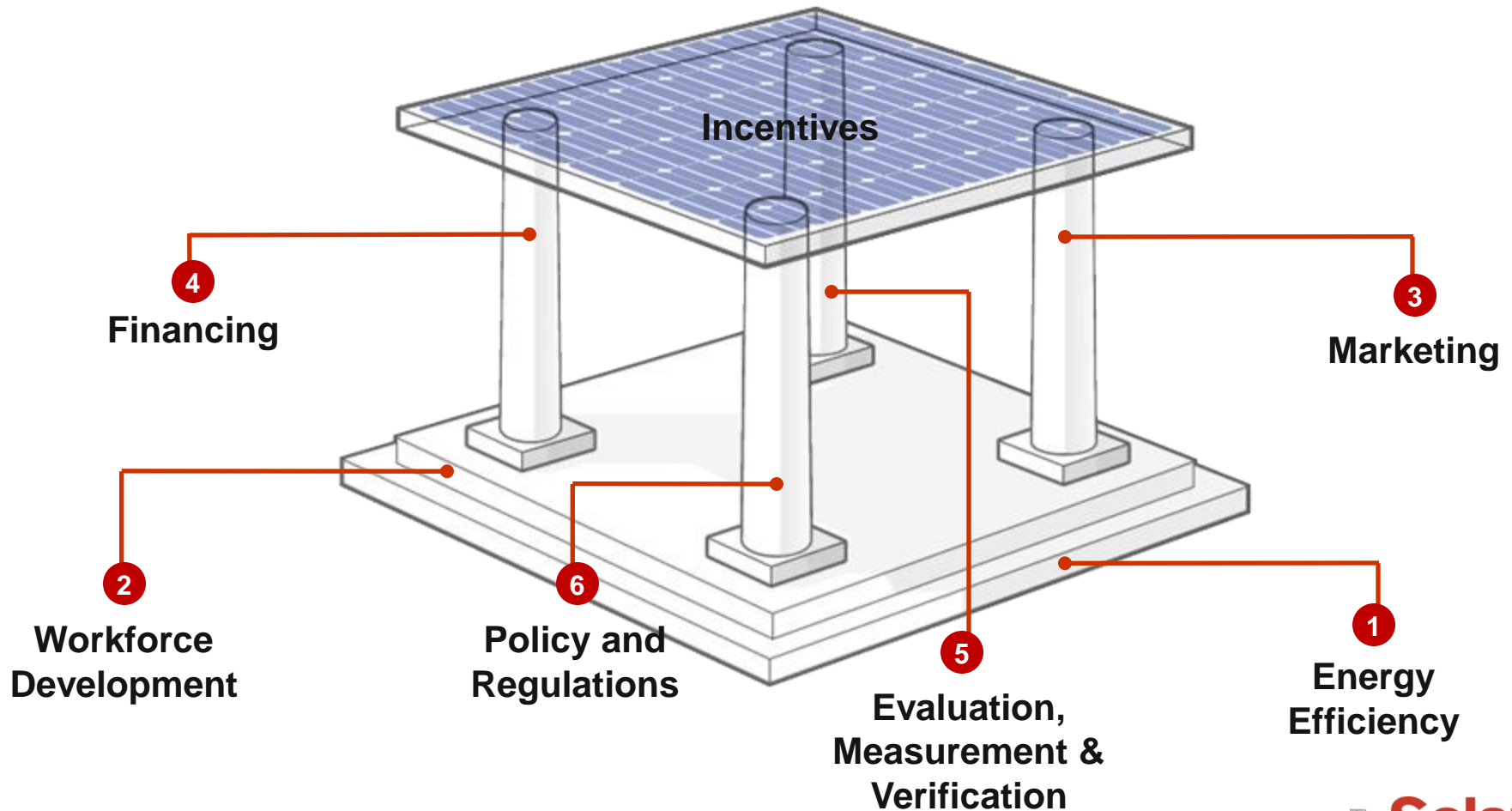




Sustained Orderly Deployment Solar PV Industry in Connecticut

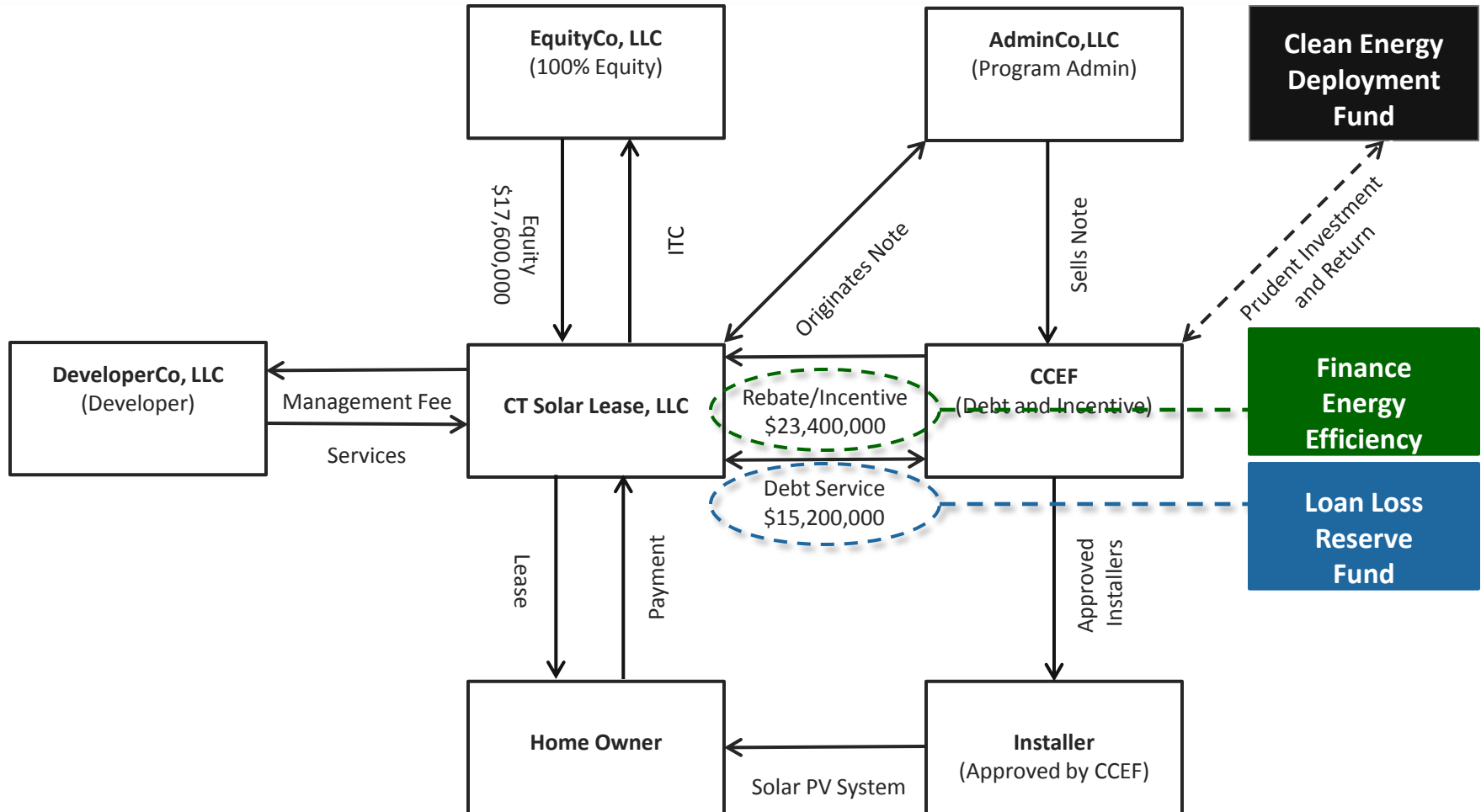


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Graphic courtesy of **The Solar Alliance**

Connecticut Solar Lease Financing



REFERENCES

Design – 5.5% interest rate (4% to AFC First Financial for sourcing and servicing, 0.5% CT Solar Lease, and 1.0% to CCEF), secured, 200% of median income
 Consumer Credit Guidelines – 640 if salaried, 680 if self-employed for at least 2 years, 720 if self-employed less than 2 years, no bankruptcy in last 7 years, debt to income or monthly obligations to monthly income 50% for all credit scores
 Performance – 800 loans, 6.0 kW AC average system size, from \$5,320/kW rebate in 2009 to \$2,731/kW rebate in 2012, and 2 defaults.

Connecticut Solar Lease Evaluation



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- ▶ **Investment** – CCEF invested nearly \$40 million in this first-of-its-kind residential solar PV lease program
- ▶ **Evaluation** – spend up to \$150,000 to hire an independent 3rd party to take the program's loan repayment (i.e. by FICO score, demographics, etc.) and technology (i.e. estimated versus actual) data to evaluate the overall performance of the program
- ▶ **Return** – use the evaluation of the Connecticut Solar Lease program to build a track record whereby loans and credit enhancements can be provided by CEFIA in future financial structures to leverage and attract capital to finance Connecticut's clean energy goals
- ▶ **Motion** – allow CEFIA to develop and issue an RFP to hire an independent third-party contractor to evaluate the Connecticut Solar Lease Program

Residential Solar Investment Program

Marketing Research



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- ▶ Solar Program will be a core focus of CEFIA's work (\$90-100M over next decade)
- ▶ Strong marketing campaign required to educate consumers on value proposition and financing strategies to drive demand for solar
- ▶ State-specific market research and national best practices will form basis for solar marketing plan
- ▶ **Motion** – allocate funding of up to \$85,000 for SmartPower to perform quantitative and qualitative research on customers and contractors in the residential solar PV market



CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Board of Directors of the Clean Energy Finance and Investment Authority

Agenda Item #8

Comprehensive Plan Update

December 16, 2011

Update and Discussion

Comprehensive Plan



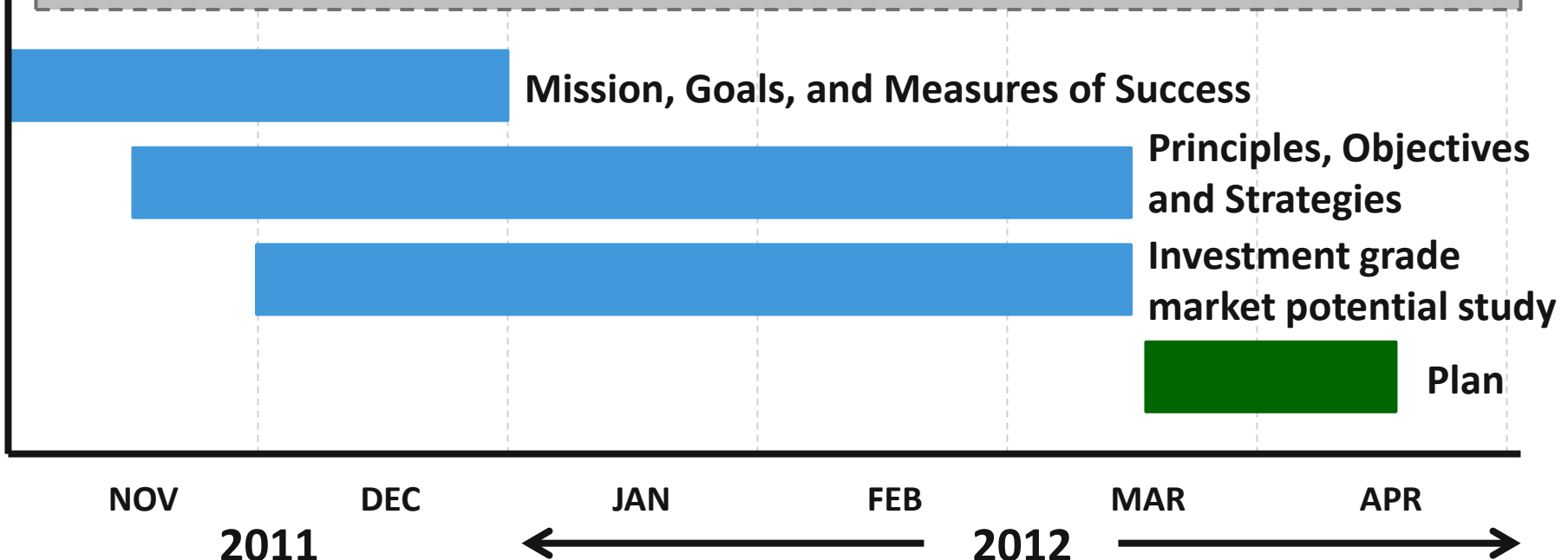
1. Timeline, Mission, Goals, Principles, and Measures of Success – and then Objectives and Strategies
2. Market Potential Study
3. Property Assessed Clean Energy
4. Green Loan Guaranty Fund and Lamont Financial Services

Timeline

Comprehensive Plan



The authority shall, (A) develop separate programs to finance and otherwise support clean energy investment in residential, municipal, small business and larger commercial projects and such others as the authority may determine; (B) support financing or other expenditures that promote investment in clean energy sources **in accordance with a comprehensive plan developed by it** to foster...



Mission (DRAFT)

Comprehensive Plan



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Ensure Connecticut's security and prosperity by addressing its energy, environmental and economic challenges through clean energy innovation and deployment.

Goals

Comprehensive Plan



Attract and deploy capital to finance the clean energy goals for Connecticut



Become the most energy efficient state in the nation



Scale-up the deployment of renewable energy in the state



Support the infrastructure needed to lead the clean energy economy



Either a new goal focused on “innovation” or a revision of the fourth goal above

NGA Principles (DRAFT)

Comprehensive Plan



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1. Be comprehensive about the approaches that are used
2. Be honest about the intellectual assets that the state has available to it
3. Develop the data and metrics of success
4. Develop strategy with clear vision and goals
5. Collaborate with business as much as possible
6. Look for regional opportunities and cluster development
7. Think and plan for the long-term
8. Find ways to work with local colleges and universities
9. Use the tools of finance to leverage private sector capital and public finance
10. Look beyond manufacturing for job creation

REFERENCES

National Governors' Association "top 10" principles for clean energy and economic development best practices

SEE Action Network Principles (DRAFT)

Comprehensive Plan



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1. Quantify the magnitude of cost effective achievable energy efficiency
2. Establish clear, high-level policy direction to promote energy efficiency as a resource
3. Empower energy efficiency program administrators to drive investment in efficiency
4. Update and enforce building energy codes
5. Empower consumers with actionable energy use data
6. Establish stable and sustainable funding sources for energy efficiency programs
7. Deliver robust and effective energy efficiency programs across all sectors
8. Support workforce development through education, training and/or certification
9. Evaluate energy efficiency programs in a more accurate, timely, and credible manner
10. Continue to innovate policy design and program delivery for more aggressive energy savings

REFERENCES

State Energy Efficiency Action Network Principles

Measures of Success

Comprehensive Plan



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Amount of clean energy (i.e. energy efficiency, renewable energy, etc.) deployed



Deploy X amount of private capital leveraged by Y amount of public funds by Year Z

Total dollars of investment in clean energy



Ratio of private capital to public funds

Advisory Committee

Comprehensive Plan



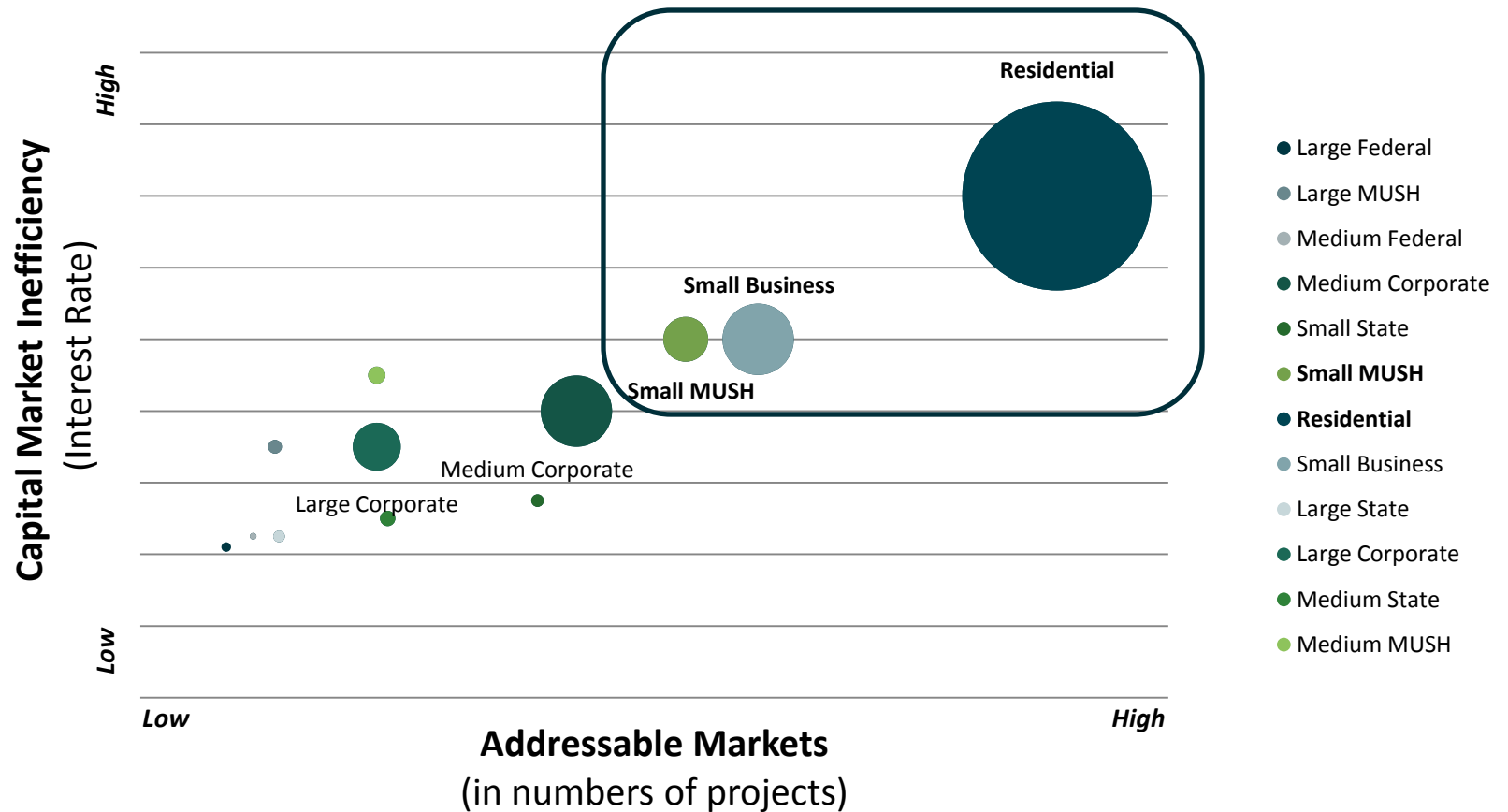
- ▶ **Advisory Committee** – Section 5.4 Advisory Committees of the Bylaws allow for the formation of advisory committees by the Board of Directors at its discretion to perform statutory responsibilities – may include BOD members, employees, or others knowledgeable
- ▶ **Roles and Responsibilities** – finalize the mission, principles, goals, objectives, and measures of success
- ▶ **Members Proposed**
 - ▶ BOD Members – Norma Glover, John Olsen, Matthew Ranelli, Mark Cirilli, and Reed Hundt
 - ▶ Employees – Bryan Garcia and Chief of Staff (TBD)
 - ▶ Others – Jessica Bailey (RBF), Eric Brown (CBIA), Kerry O’Neill (CEFC), Stewart Hudson (EHTF), Jonathan Schrag (DEEP), Camilo Serna (CL&P), Pat McDonnell (UI), Sarah Sanders, Sharon Dixon-Peay and/or Don Kirshbaum (Office of the State Treasurer), Ken Berlin (Skadden Arps)

Market Potential Study

Comprehensive Plan

Capital Efficiency by Segment

bubble size = theoretical market opportunity (dollars)

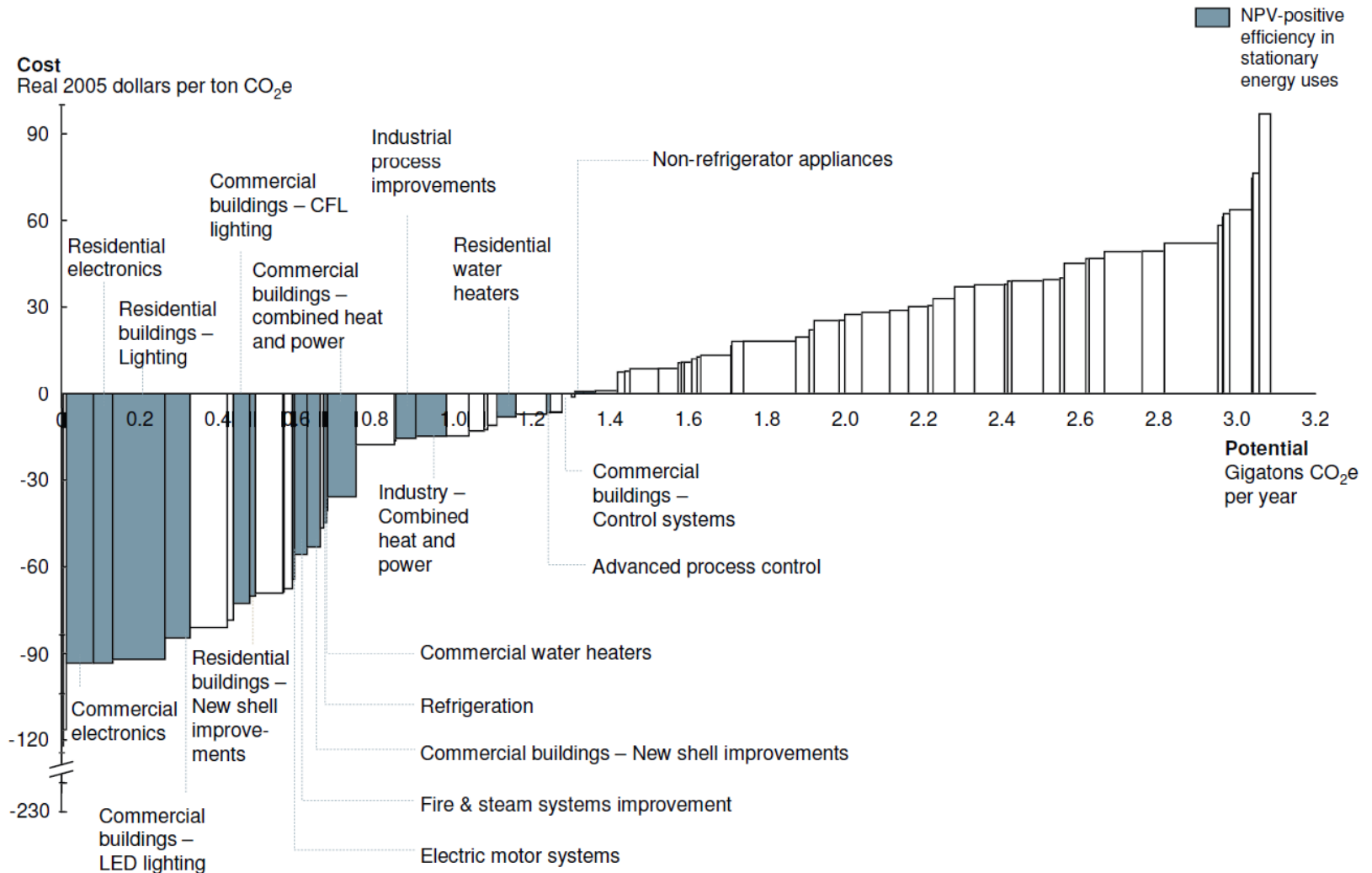


REFERENCES

Investment Grade Market Potential Study Comprehensive Plan



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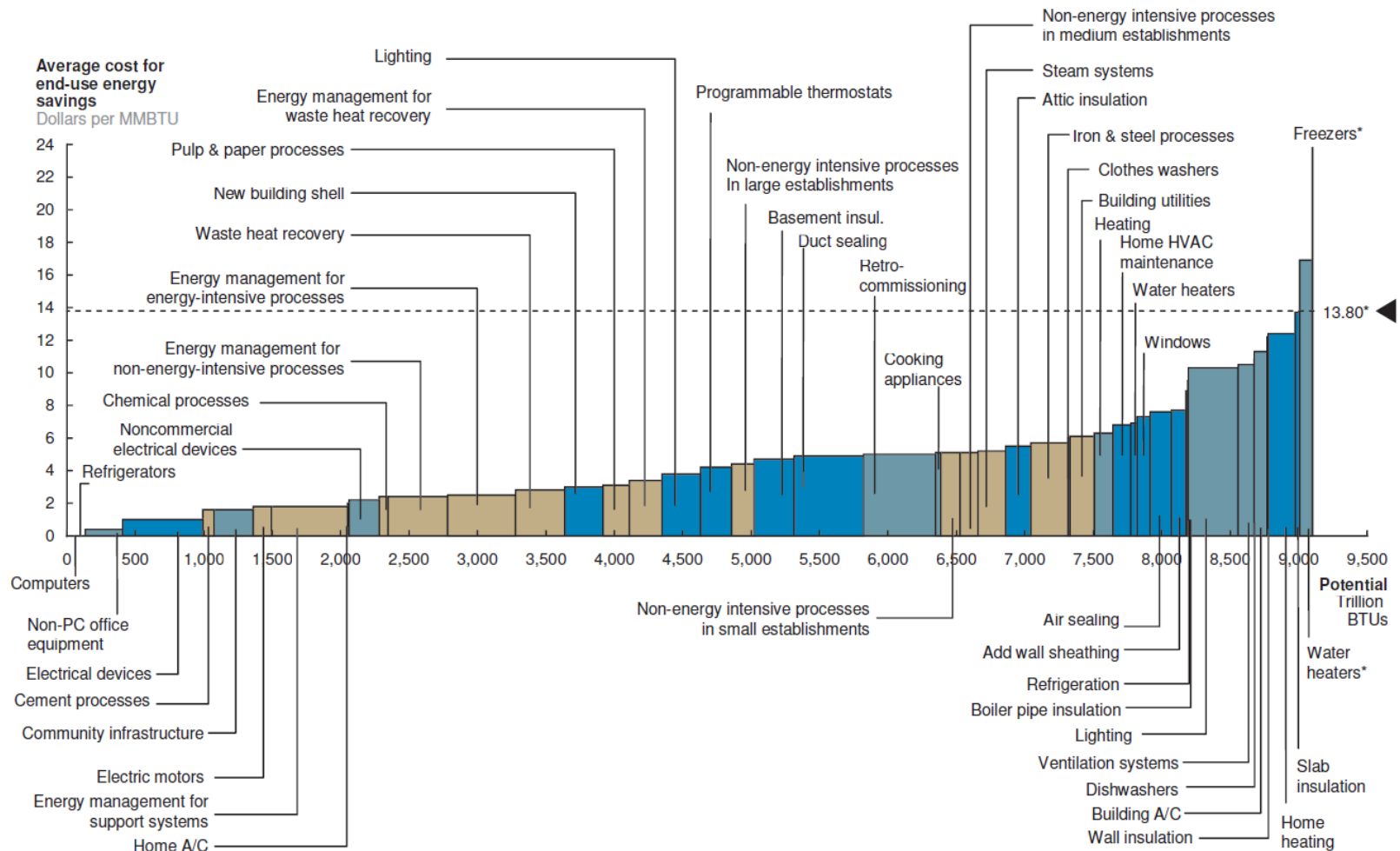
REFERENCES

McKinsey marginal abatement cost curve example

Investment Grade Market Potential Study

Comprehensive Plan (cont'd)

Residential Commercial Industrial

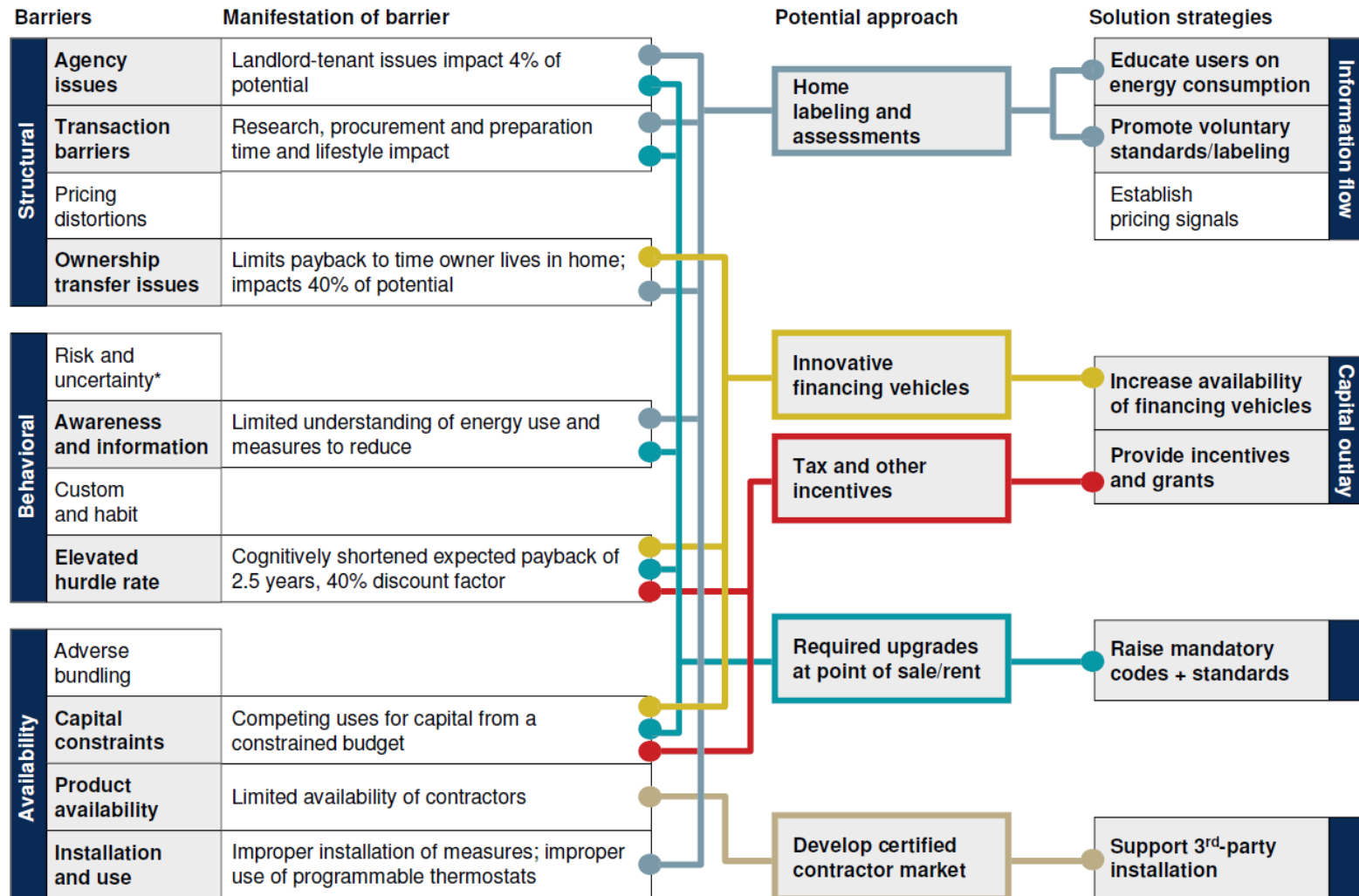


REFERENCES

McKinsey marginal abatement cost curve example

Investment Grade Market Potential Study

Comprehensive Plan (cont'd)



REFERENCES

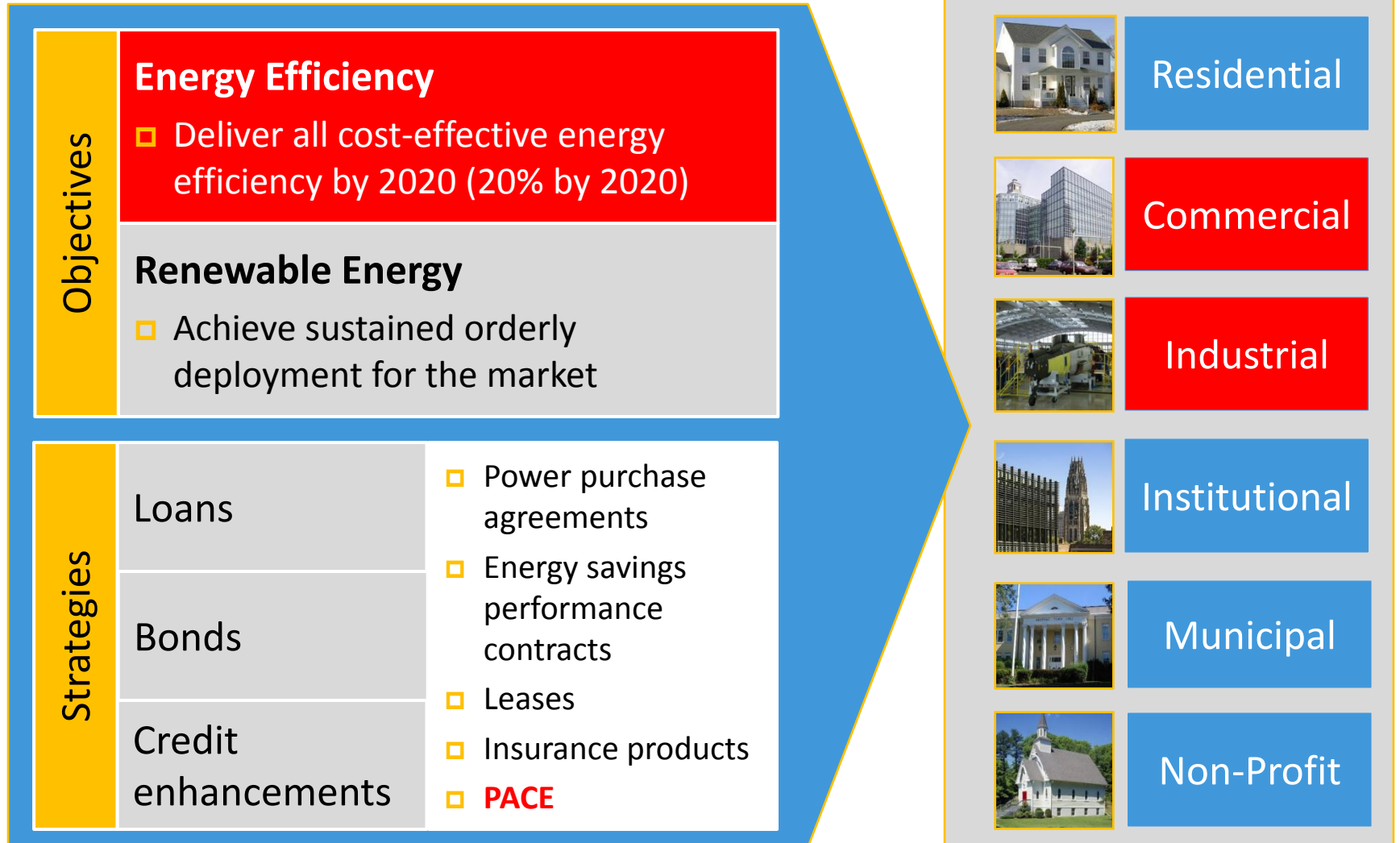
McKinsey marginal abatement cost curve example

Objectives and Strategies

Comprehensive Plan



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Section 100 of Public Act 11-80

Property Assessed Clean Energy (PACE)



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



Commercial PACE (C-PACE)

Policies and Programs



- ▶ **Policy** – DEEP is working to revise Section 100 with respect to the position of the lien (i.e. senior or subordinated), building sector qualified (i.e. residential and/or commercial), and the way in which municipalities can opt-in to the program.
- ▶ **Programs** – CEFIA would work to “house” the PACE program assuming the policy fixes noted above.
 - **Program Terms** – work with stakeholders (i.e. contractors, auditors, investors, mortgage lenders, potential program participants, and towns) to develop standard guidelines and underwriting criteria (i.e. clear title to the property, located within a PACE district, all legal owners must agree and sign application, existing mortgage lender consent or notification, etc.)
 - **Administration** – general management, marketing, financing, processing, evaluation, etc.
 - **Other** – attracting capital, providing credit enhancements, working with municipalities, etc.

Section 124 of Public Act 11-80

Green Loan Guaranty Fund



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



Financing Consultants

Program Design and Development



- ▶ **EVP-CIO Search** – difficult time finding the right individual with the credentials (i.e. commercial banking or public finance) and willingness to join CEFIA – misaligned compensation and incentive structure between financial services industry and public service...need more time to find the right individual
- ▶ **Contractor Support** – continue to proceed forward with the development of innovative financing programs through subcontracting. Lamont Financial Services Corporation comes highly recommended by CDA and the Office of the State Treasurer.
- ▶ **Motion** – CEFIA to engage the services of Lamont Financial Services Corporation for a limited time period to provide financial advisory services to assist in the development and implementation of new and innovative financing programs.



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Board of Directors of the Clean Energy Finance and Investment Authority

Agenda Item #9

Joint Marketing and Outreach Campaign

December 16, 2011

Joint Marketing and Outreach Campaign

Marketing and Outreach



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- ▶ Connecticut has established aggressive near-term energy goals
 - ▶ Become most energy efficient state in nation
 - ▶ Deliver cleaner and cheaper energy
 - ▶ Lead by Example by reducing energy use in state buildings
- ▶ Need recognized to use limited marketing resources to develop central campaign to motivate consumers to take action
- ▶ Ad hoc “Energy Marketing Committee” including DEEP, CEEF and CEFIA
- ▶ **Motion** – allocate funding to coordinate and support a statewide energy marketing campaign in an amount that is one-third of the amount committed by the Energy Efficiency Fund for this initiative and not to exceed \$250,000



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Board of Directors of the Clean Energy Finance and Investment Authority

Agenda Item #10

Adjourn

December 16, 2011

Subject to changes and deletions

CLEAN ENERGY FINANCE AND INVESTMENT AUTHORITY
Board of Directors
Draft Minutes – Regular Meeting
Monday, November 21, 2011

A regular meeting of the Board of Directors of the **Clean Energy Finance and Investment Authority (the “Authority”)** was held on November 21, 2011, at the office of CEFA, 865 Brook Street, Rocky Hill, CT.

1. **Call to Order:** Catherine Smith, Chairperson of the Authority and Commissioner of the Department of Economic and Community Development, called the meeting to order at 9:10 a.m. Board members participating: Mun Choi; Daniel Esty, Vice Chairperson of the Authority and Commissioner of the Department of Energy and Environmental Protection; Norma Glover; Reed Hundt (by phone), John Olsen; Matthew Ranelli; Mark Cirilli (by phone); Catherine Smith, Commissioner of the Department of Economic and Community Development; and Patricia Wrice.

Member Absent: Jonathan Harris, State Treasurer’s Office

Staff Attending: George Bellas, Keith Frame, Bryan Garcia, David Goldberg, Dale Hedman, Dave Ljungquist, Shelly Mondo, and Cheryl Samuels.

Others Attending: Eric Brown, CBIA; Bruce Chudwick, Shipman & Goodwin; Peggy Diaz, DEEP; Donald Kirshbaum, State Treasurer’s Office; Henry Link, Enviro Energy Connections; Scott Murphy, Shipman & Goodwin; Rima Oueid, Department of Energy (by phone); Jessica Bailey, the Rockefeller Brothers Fund (by phone); William Sawicki, Marcum LLP; John Schuyler, Marcum LLP; and Richard Shaw, UTC.

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

3. **Approval of Minutes of Meeting of October 31, 2011:**

Ms. Smith asked the Board to consider the minutes from the October 31, 2011 Board meeting. Ms. Smith provided an update to her legislative report including a correction.

There was consensus to make the following change to the draft minutes:

- The location of the meeting should be changed to the Offices of the Department of Energy and Environmental Protection, 79 Elm Street, Hartford.
- The meeting began at 11:01 a.m.
- The following sentence made by Ms. Smith under “Legislative Update” should be removed “Ms. Smith noted that the new legislation also includes a sales tax reduction for the purchase of local fuel cells.”

Upon a motion made by Ms. Glover, seconded by Mr. Esty, the Board members voted unanimously in favor of adopting the minutes from the October 31, 2011 meeting as amended.

4. Recommendation by the Audit, Compliance and Governance Committee to the Board for Approval of FY2011 Draft CCEF Audited Financial Statements:

Mr. Olsen provided the Audit, Compliance and Governance Committee ("Audit Committee") report. He mentioned that the Audit Committee met earlier this morning with representatives from Marcum LLP, independent auditors, and reviewed and recommends the approval of the draft CCEF Audited Financial Statements for the fiscal year ending 2011. Mr. Bellas mentioned that the draft financial statements were provided to the State Comptroller's office, and the final financial statements will be forwarded after approval by the Board. He stated that there are no changes between the draft and the final reports.

Mr. Schuyler stated that Marcum provided a clean unqualified opinion in accordance with generally accepted auditing standards and *Government Auditing Standards* issued by the Comptroller General of the United States. He stated that there were no deficiencies, adjustments or issues with the FY2011 financial statements for CCEF. Mr. Schuyler encouraged the Board members to contact Marcum with any questions or concerns.

Questions arose regarding the audit performed by the State Auditors of Public Accounts. Mr. Olsen stated that the State Auditors made two audit findings, both of which were reviewed and discussed by the Audit Committee. He noted that staff has put mechanisms in place to address both findings. One of the findings related to performance evaluations for employees that were promoted and the other was related to ensuring the receipt of written quarterly financial reports from grant recipients. Ms. Smith asked the Audit Committee to provide the Board with regular updates on audit and compliance matters as they arise.

Upon a motion made by Mr. Olsen, seconded by Mr. Ranelli, the Board members voted unanimously in favor of accepting the recommendation of the Audit, Compliance and Governance Committee to approve the Audited Financial Statements and Federal Single Audit Report of the Connecticut Clean Energy Fund for the Fiscal Year Ending June 30, 2011.

5. Update from the President:

Mr. Garcia reported that he accepted an award on behalf of the Governor from the People's Action for Clean Energy for Connecticut's leadership on clean energy.

Mr. Garcia mentioned that all committees except for the Technology Innovation Committee have been assembled. The Audit Committee is comprised of Mr. Olsen, as Chair, Ms. Wrice and Mr. Ranelli. In the event there is not a quorum on any of the committees, Mr. Garcia stated that the Bylaws allow Ms. Smith, as Chair, and/or Mr. Esty, as Vice Chair, to participate and vote on that committee. It is anticipated that the Audit Committee will meet two times a year in 2012 (March and September). The Budget and Operations Committee ("Budget Committee") is comprised of Mr. Esty as Chair, Mr. Choi and Ms. Glover, and it is anticipated that the Budget Committee will also meet two times a year in 2012 (May and November). The first meeting of the Budget Committee will be held on December 12. The Deployment Committee is comprised of Mr. Hundt as Chair, Mr. Ranelli, Mr. Cirilli, Ms. Wrice and Mr. Harris, as ex officio per the bylaws. Mr. Garcia mentioned that he is working with Mr. Hundt to establish an Advisory Committee of the Deployment Committee to obtain additional expert advice and insight. It is anticipated that the Deployment Committee will meet four times a year in 2012 (February, May, August and November). Mr. Garcia mentioned that he is presently working to assemble the Technology Innovation Committee.

Mr. Garcia provided an update on the Executive Vice President and Chief Investment Officer search. He mentioned that approximately 25 resumes have been received, but he would like to attract more applicants. Mr. Garcia stated that the Chief of Staff position was advertised last week. He indicated that it is hopeful that both positions will be filled in January.

Mr. Garcia thanked Ms. Smith and Mr. Kip Bergstrom from the Department of Economic and Community Development for pushing the solar thermal projects forward. He noted that staff has received all of the SHPO approvals that were outstanding as of the Board's October meetings.

6. Strategic Planning Retreat: Results and Next Steps:

Mr. Garcia summarized some of the key discussions held during the Strategic Planning Retreat that was held on November 7 and 8. He indicated that 33 people attended, including representatives from the Board, staff, public agencies, public utilities, end-users, contractors, financiers and facilitators. Mr. Garcia briefly reviewed the agenda for the retreat and noted that there were many expectations and different views about the role CEFA should play in the future of clean energy in Connecticut. He stated that the group discussed the first ten years of the Connecticut Clean Energy Fund in developing a market for renewable energy in Connecticut and how to take the next steps for CEFA to help advance a clean energy in Connecticut in the future.

Mr. Garcia stated that the group talked about the following vision for CEFIA: “Attract and deploy capital to finance the clean energy goals for Connecticut.” The Board discussed the statement and a comment was made that the statement is more of a mission rather than a vision. The Board would like to see a more visionary statement that identifies the outcomes that would be achieved if CEFIA were successful. The current vision statement should be noted as the first goal for CEFIA.

Mr. Garcia reviewed some of the proposed goals which include: 1) become the most energy efficient state in the nation; 2) scale-up the deployment of renewable energy in the state; and 3) support the infrastructure needed to lead the clean energy economy. In response to a suggestion, Mr. Garcia stated that the next steps will include putting in more specific strategies, tactics and a timeframe for achieving the proposed goals. He indicated that several strategies were identified for CEFIA to pursue and include: 1) leveraging private capital using public funds by lowering the cost of capital; 2) aggregating on the demand-side to lower costs to customers, and on the finance side lowering transaction costs and costs of capital; and 3) educating customers about the opportunity for clean energy (i.e. renewable energy and energy efficiency) in Connecticut. A discussion ensued on CEFIA’s role in aggregating to attract more private capital. Mr. Garcia indicated the need to look at standardizing programs to help spread some risk. A discussion also ensued about the need to appropriately manage risk. A suggestion was made to revisit CEFIA’s priorities and to look at some of the mandates from a financing perspective. A suggestion was also made to work with and coordinate with other agencies such as CHFA and other housing agencies.

It was noted that at the October meeting, there was general consensus that CEFIA should focus on the deployment of clean energy more than venture capital investing. A suggestion was made to have the economic development agencies meet and determine the added value of each agency and simplify the processes of the deal flow. In response to a question about the demand on the finance side, Mr. Garcia stated that understanding the market potential better is one of the next steps.

Mr. Garcia stated that the group at the retreat agreed that CEFIA’s role should be to leverage private capital in order to help Connecticut meet its clean energy agenda. He discussed the measures of success which include: 1) the deployment of X private capital leveraged by X public funds; 2) total dollars of investment in clean energy; 3) ratio of private capital to public funds; and 4) the amount of clean energy deployed. A comment was made that too much emphasis may be placed on investment capital while potentially overlooking one of the main objectives of focusing on clean energy and air quality in Connecticut. A suggestion was made to move the amount of clean energy deployed to the first measure of success. There was general consensus that promoting Connecticut as a clean energy state should be the number one priority for CEFIA. The Board discussed whether and how to incorporate “cheaper” energy into its priorities. A suggestion was made and there was general consensus to identify principles that measure each goal. It was noted that the Connecticut energy agenda is much broader than CEFIA’s, and it is important for CEFIA to have a clear understanding of its role in supporting “clean energy”. There was consensus that the targets and measurable goals

have to be clear and specific. For an upcoming meeting, staff was asked to develop specific aims focusing on clean and cost efficient energy.

A suggestion was made to add the word “profitable” to the following goal: “Become the most ‘profitable’ energy efficient state in the nation.” An opposing view was presented that if profitability is included, clean air, quality and efficiency may be affected. There was no consensus on this issue. Questions arose as to how CEFIA will help to achieve the 20 percent renewable energy by 2020 target. Staff was asked to specifically indicate how CEFIA can help to succeed with the goal, how the grid will be impacted by the 20 percent goal, and how the benefits will be distributed through the state geographically.

A brief discussion ensued on the Integrated Resource Plan (“IRP”) and a suggestion was made to bring in people to do a presentation on CEFIA’s role with the IRP.

Mr. Garcia spoke about the proposed timeframe with the Comprehensive Plan. He indicated that the programs have to be implemented in accordance the Comprehensive Plan. It is anticipated that the Comprehensive Plan will be completed in March. Ms. Smith stated that if the Comprehensive Plan requires any potential legislative changes, staff should be prepared to present those changes as early as possible. Mr. Garcia indicated the desire to create a longer-term Comprehensive Plan. He noted the significant time in the past spent by staff and the Board preparing and reviewing the Comprehensive Plan. Unlike the past, Mr. Garcia stated that the CEFIA Board is the only governing body that has to approve the Comprehensive Plan. After discussion on how to proceed, there was general consensus that the Comprehensive Plan should be a five-year plan that is reviewed after three years with ongoing annual program evaluation, monitoring and evaluation reports. A suggestion was made to form a team to help staff develop a longer-term Comprehensive Plan. Ms. Smith asked Board members who may be interested in participating to contact Mr. Garcia. Staff will be report back in December on this issue.

Mr. Garcia reviewed some of the near-term next steps which include: repurposing the American Recovery and Reinvestment Act (“ARRA”) State Energy Program (“SEP”) grants, commission an investment grade Connecticut market potential study, partner with the State and Connecticut Energy Efficiency Fund on a joint marketing campaign, tout program successes, launch solar programs, and ensure Project 150 success. Mr. Garcia will be bringing several of these next steps for approval to the December meeting.

Mr. Garcia discussed the ARRA program. He explained that at the October 31, 2011 Board meeting, the Board directed him to ensure that all ARRA funds are utilized and no funds are returned to the U. S. Department of Energy (“DOE”). Mr. Garcia stated that Connecticut through the Office of Policy and Management (“OPM”) Energy Office received \$38,542,000 of grant funding under ARRA. The OPM Energy Office approved the following allocation of funds for renewable energy for the Connecticut Clean Energy Fund (“CCEF”): \$4,000,000 for solar thermal, \$5,000,000 for geothermal, \$3,000,000

for Solar PV, and \$8,000,000 for fuel cells. The plan approved involved CCEF making grants to the projects that fell within the renewable energy category. Mr. Garcia stated that as a result of the passage of Public Act 11-80 on July 1, 2011 OPM Energy Office merged into the Department of Energy and Environmental Protection (“DEEP”) and CCEF merged into CEFIA. He indicated that all \$20,000,000 of the SEP grants have been approved, but only about \$4,000,000 has been expended to date since the inception of the program in August 2009. After speaking with Rima Ouied, Policy Advisor of Distributed Generation Deployment and Finance Lead from DOE, Mr. Garcia stated that another option was identified.

Ms. Ouied explained how several other states have repurposed their ARRA grants to finance programs to allow clean energy investments to scale beyond one-off grants. She stated that a special purpose third-party entity (i.e. CEFIA) can be set up to provide a flexible vehicle to use the current federal funding. Ms. Ouied noted that once the money is drawn down from Treasury and moved from DEEP (as OPM’s successor) as the grantee to CEFIA as the third-party entity, that the DOE will consider the funds completely expended. Mr. Garcia explained the proposed process and timeline to ultimately transfer the financing program funds to CEFIA. Ms. Ouied stated that the DOE will be available to provide CEFIA with technical assistance.

Mr. Garcia explained the need to expend the funds prior to April 30, 2012, repurpose a portion of the funds from grants to the finance model and develop an innovative financing program that utilizes ARRA SEP grants as tools for scaling up clean energy investments in Connecticut. He discussed the process for determining whether ARRA funds will be utilized or funds from the Clean Energy Fund.

In response to a question about unused ARRA funds, Mr. Esty stated that he was told by DOE that any unspent funds would revert back to the Treasury and not be available for reallocation.

Upon a motion made by Mr. Olsen, seconded by Ms. Glover, the Board members voted unanimously in favor of adopting the following revised Resolution of Purposes Pursuant to Section 16-245n of the Connecticut General Statutes, conditioned upon approval by the State Office of Policy and Management and Department of Energy and Environmental Protection:

WHEREAS, the purpose of the American Recovery and Reinvestment Act (“ARRA”) State Energy Program (“SEP”) funds obligated to the Connecticut Clean Energy Fund (“CCEF”) by Connecticut’s Office of Policy and Management (“OPM”) are consistent with the comprehensive plan adopted by the Board of Directors of the CCEF; and

WHEREAS, pursuant to Public Act 11-80, OPM’s energy functions have been transferred to the Department of Energy and Environmental Protection (“DEEP”), and CEFIA now administers the CCEF;

WHEREAS, CEFIA must expend all of its AARA SEP funds before April 30, 2012, or risk sending unspent funds back to the federal government; and

WHEREAS, at the October 31, 2011 meeting of the Board of, the Board directed the CEFIA President and staff to develop a contingency plan to ensure that all ARRA SEP funds are expended by the deadline; and

WHEREAS, discussion with staff of the federal Department of Energy (“DOE”) revealed the option of repurposing the ARRA SEP funds from grant/incentive programs to financing programs; and

WHEREAS, repurposing of these funds requires the cooperation, approval and obligation of funds by DEEP; and

WHEREAS, the DOE will consider as fully expended any funds so repurposed at the time the funds are obligated, contracted and transferred from DEEP to CEFIA, as a third-party administrator for financing programs; and

WHEREAS, the CEFIA Board wishes to empower the President of CEFIA to take certain actions to repurpose the ARRA SEP funds before the April 30, 2012 deadline.

NOW, THEREFORE, BE IT:

RESOLVED, that the Board hereby authorizes and directs the President of CEFIA to engage in discussions with DOE and DEEP to determine the feasibility of transitioning a portion of CEFIA’s ARRA SEP funds financing programs, as allowed by the DOE, which may include revolving loan funds, loan loss reserve funds, interest rate buy downs, or third-party loan insurance.

RESOLVED, that if such transition of funds is feasible and allowed by the DOE and DEEP, then the Board authorizes and directs the President of CEFIA to immediately take the steps necessary to begin and complete the transition process as quickly as possible.

RESOLVED, the projects approved for ARRA funding but which have not received such funding by December 31, 2011 will receive CCEF funding instead of ARRA funding.

RESOLVED, that the President of CEFIA shall report to the Board no less than monthly on the progress of this process.

RESOLVED, that this Board action is consistent with Connecticut General Statutes § 16-245n, as amended by Section 99 of Public Act 11-80, and with the CCEF’s comprehensive plan.

RESOLVED, that the President of CEFIA and any other duly authorized officer of CEFIA is authorized to execute and deliver any contract or other legal instrument necessary to effect this Resolution on such terms and conditions as he or she shall deem to be in the interests of CEFIA and the ratepayers, in conformance with the wishes of the Board, and in conformance with CEFIA's operating procedures.

RESOLVED, that the proper CEFIA officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

7. Memorandum of Understanding Between CI and CEFIA:

Mr. Garcia explained the proposed Memorandum of Understanding ("MOU") between CI and CEFIA. He stated that Section 99 of Public Act 11-80 deemed CEFIA as a quasi-public agency, and CEFIA is within CI "for administrative purposes only." Article X of the CEFIA Bylaws state that the CI and CEFIA relationship shall be memorialized in a contract for services. The proposed MOU sets forth the specifics of the relationship between the CEFIA and CI. Mr. Garcia stated that CI will provide administrative support services for CEFIA, including accounting, human resources and information technology services. The MOU also memorializes the supportive infrastructure, including cost sharing and reimbursement, use and occupancy of leased space and investment services, and technical expertise functions.

In response to a question, Ms. Smith explained the fee for service arrangement for the sharing of staff expertise.

Upon a motion made by Mr. Olsen, seconded by Ms. Glover, the Board members voted unanimously in favor of adopting the following resolution approving the Memorandum of Understanding between Connecticut Innovations, Incorporated and the Clean Energy Finance and Investment Authority:

RESOLVED, that a Memorandum of Understanding ("MOU") between Connecticut Innovations, Incorporated ("CI") and the Clean Energy Finance and Investment Authority ("CEFIA") providing for the sharing of office space and the provision by CI and CEFIA of specified administrative support and services consistent with the provisions of Section 16-245n of the Connecticut General Statutes, as amended by Public Act No. 11-80, which MOU shall be substantially in the form presented to this meeting, is hereby approved, and the President and Chief Executive Officer is hereby authorized to execute and deliver the MOU on behalf of CEFIA.

8. Technology Innovation Program Overview:

Mr. Frame provided an overview of the Technology Innovation Programs. He explained that Section 99 of Public Act 11-80 anticipates that CEFIA will support emerging technologies that have significant potential for commercialization. Mr. Frame discussed the history of the Operational Demonstration Program, which began in 2001. He explained how the successful operational demonstration program support has leveraged significant federal and private funding to expand and commercialize technology. Mr. Garcia explained how CEFIA reduces the technology risk under the program to help attract outside capital (i.e. venture capital from Connecticut Innovations). Under the program, the technology goes through testing and validation so that the technology is more attractive to private investors. Mr. Frame stated that infrastructure support and resource assessment is provided under the Technology Innovations Programs. He briefly discussed the rigorous method for evaluating the technology. Mr. Frame discussed the Alpha Program funding structure and evaluation criteria. With respect to the Technology Innovation Program, Mr. Frame summarized that the next steps are to form a Technology Innovation Committee and appoint members from the Board to participate on that committee. Mr. Garcia proposed that a small proportion of the CEFIA funds (i.e. 10 to 15 percent) be dedicated to support emerging technologies. The Board asked that Mr. Frame and Mr. Garcia meet with the other economic development agencies (i.e. CI, DECD, CDA, SBIR, etc.) to assess the value CEFIA provides emerging technologies to support the innovation hub or infrastructure needed to help Connecticut lead the clean energy economy. After discussion by the Board Ms Smith and Mr. Esty agreed to table the decision to staff the Technology Innovations Committee until the December 16 Board meeting.

9. Human Resources: General Counsel Search:

Mr. Garcia discussed the results of the General Counsel search. He indicated that 44 applications were received. Telephone interviews were conducted with 14 candidates, and in-person interviews were held with 8 candidates. Four finalists were invited to write memorandums. Mr. Garcia stated that Brian Farnen was hired to fill the General Counsel position. He described Mr. Farnen's background and experience. Mr. Garcia stated that he does not propose making any changes to the General Counsel position description at this time.

10. Adjournment: Upon a motion made by Mr. Esty, seconded by Mr. Choi, the Board members voted in favor of adjourning the November 21, 2011, meeting at 10:55 a.m.

Respectfully submitted,

Catherine Smith, Chairperson

CLEAN ENERGY FINANCE AND INVESTMENT AUTHORITY

OPERATING PROCEDURES

PURSUANT TO

Section 16-245n of the
Connecticut General Statutes

DRAFT

Adopted December 16, 2011

I. DEFINITIONS

Definitions of terms used in these Operating Procedures are as stated in the Authority's Bylaws or in Section 16-245n of the General Statutes.

Clean Energy Project: An activity that (i) promotes investment in clean energy; (ii) fosters the growth, development, and commercialization of clean energy sources and related enterprises; (iii) stimulates demand for clean energy and deployment of clean energy sources that serve end use customers in this state; or (iv) supports the development of advanced technologies that reduce energy use from traditional sources. For purposes of this definition, "clean energy" has the meaning as provided in Connecticut General Statutes § 16-245n(a), as may be amended from time to time.

II. GENERAL PURPOSES

The general purposes of the Clean Energy Finance and Investment Authority shall be as prescribed in Section 16-245n of the General Statutes, and in a resolution of purposes adopted by the Board pursuant to Section 16-245n(d)(1) of the Connecticut General Statutes, including implementation of the Comprehensive Plan (all together referred to in these Operating Procedures as "the purposes of the Authority").

III. GOVERNANCE

The Authority, a quasi-public authority of the State of Connecticut, shall be governed by a Board of Directors comprised of a number and appointed in a manner as prescribed in Section 16-245n(e) of the General Statutes. The affairs of the Board shall be conducted in accordance with applicable law, the Authority's Bylaws, and such policies with respect to corporate governance as may be adopted by the Board.

IV. ADMINISTRATION

The affairs of the Authority shall be administered in accordance with applicable law, the Bylaws, these Operating Procedures and other administrative policies as may be adopted by the President in consultation with the Board. The Board shall appoint a President and such other officers as provided in the Bylaws. Under the direction of the Board, such officers shall conduct the business of the Authority and shall have such authority as is conferred by applicable law, the Bylaws, these Operating Procedures, and the Board. References in these Operating Procedures to approval by the Board shall mean and include approval by the Board or by any duly constituted committee thereof authorized to act on behalf of the Board pursuant to the Bylaws of the Authority.

V. ADOPTION OF ANNUAL OPERATING BUDGET AND PLAN OF OPERATION

Sixty (60) days prior to the close of each fiscal year, the President shall cause to be prepared a suggested Annual Operating Budget for the forthcoming fiscal year, which shall also comprise the Annual Plan of Operation. The suggested Annual Operating Budget for the forthcoming fiscal year shall be considered by the Board prior the close of the then current fiscal year, modified if deemed necessary, and adopted to be effective beginning the first day of the forthcoming fiscal year.

Any expenditure that exceeds the amount annually budgeted for a specific line item in the Annual Operating Budget by an amount greater than ten thousand dollars (\$10,000) shall require the approval of the Board.

The Annual Operating Budget shall incorporate the Authority's Annual Plan of Operation by specifying operating, programmatic, investment, and other expenses for the forthcoming fiscal year.

VI. COMMUNITY DEVELOPMENT FINANCIAL INSTITUTION

The Authority may seek to qualify as a Community Development Financial Institution under Section 4702 of the United States Code. If approved as a Community Development Financial Institution, then the Authority would be treated as a qualified community development entity for purposes of Section 45D and Section 1400N(m) of the Internal Revenue Code.

VII. PERSONNEL POLICIES

All employees shall be exempt from the classified service and shall have all rights and benefits provided by applicable law. Grade classifications for each job title shall be established by the President, subject to Board approval.

Hiring & Promotions: The President shall, in accordance with the Authority's Bylaws, establish a schedule of positions and total staffing levels for the Authority. The schedule of positions shall describe the signature authority, if any, of each position. The President, acting on behalf of the Board, may from time to time fill any position on such schedule of positions and within such total staffing levels, except as may otherwise be provided in the Bylaws or any applicable resolution of the Board. The creation of any new Director-level position shall require the separate approval of the Board. For these purposes, "Director-level" means an Authority staff position one level under the officers in the Authority's staff organizational chart.

Whenever possible, the Authority shall maintain an identifiable career path for each class of positions on the schedule of positions approved by the Board. If the President determines it to be appropriate, then a current employee's position may be reclassified to another position within said career path. New positions approved by the Board and existing positions that become available as a result of a current employee vacating such position shall be posted internally and, if the President determines it to be appropriate, then publicly advertised in a manner reasonably designed to reach a range of possible applicants. A current employee shall be eligible for

reclassification or promotion to an existing or new position only if such employee has at least six (6) months of service with the Authority and meets the minimum qualifications for such position.

Notwithstanding any other provision of this section or any employee handbook or other personnel policies of the Authority, the position of the President, the manner of the conduct of any search for qualified applicants for such position, and the terms and conditions of employment in such position, including matters of compensation, dismissal, and severance, shall be in the discretion and subject to the approval of the Board. Hiring and promotion shall in all cases be in accordance with the Authority's Affirmative Action Plan and applicable statutes.

Compensation and Benefits: The Board shall establish and may from time to time modify reasonable compensation plans and employee benefits programs and policies as the Board determines to be necessary or appropriate to attract and retain qualified employees and carry out the Authority's statutory mission, including:

1. a compensation plan, which shall consist of sufficient salary grades to provide such compensation rates as may be determined to be necessary or desirable for all job classifications within the Authority, and which may include an incentive compensation program for all jobs classifications;
2. an employee benefits program, which may include, but is not limited to, vacation days, holidays, sick days, group health, life, and disability insurance, tuition reimbursement,

length of service awards and other benefits, including eligibility criteria and benefit levels;

3. a performance evaluation system, which may be used to determine merit increases in salary and incentive compensation levels;
4. policies with respect to compensatory time, flex-time, and telecommuting;
5. policies with respect to severance pay and benefits;
6. policies with respect to business and travel reimbursement; and
7. other reasonable compensation and employee benefits programs and policies as the Board determines to be necessary and appropriate to attract and retain qualified employees.

The President shall be empowered to administer the Authority's compensation plan and employee benefit programs and policies as approved by the Board, and shall have the authority to approve performance evaluations, determine merit increases and incentive compensation payments, and carry out such other duties and responsibilities as appropriate within the overall salary and employee benefits administration plan, except that performance evaluations and determination of merit or other salary increases and bonus payments for the position of President shall be reserved to the Board or the committee of the Board with responsibility for matters of

compensation. The Board shall review the Authority's compensation plan and employee benefit programs a part of its annual review of the Authority's Operating Budget and Plan of Operation.

Dismissal: Employment with the Authority is at-will, which means that either the employee or the Authority may terminate the relationship at any time and for any reason, with or without cause. The President may impose any level of disciplinary action, including termination, based upon the severity of the offense requiring discipline and the employee's past work record. This in no way alters the at-will employment policy.

Coordination with and Administration by Connecticut Innovations, Incorporated: To the extent permitted by any contract for administrative support and services between the Authority and Connecticut Innovations, Incorporated, personnel policies, compensation plans, and benefit programs and polices of the Authority may be coordinated and/or combined with, and administered by, Connecticut Innovations, Incorporated, subject to appropriate cost sharing.

VIII. PURCHASE, LEASE, ACQUISITION POLICY **FOR REAL AND PERSONAL PROPERTY**

The Authority, acting through the President or another duly authorized officer, shall have the authority to invest in, acquire, lease, purchase, own, manage, hold, and dispose of real and personal property, and to lease, convey, or deal in or enter into agreements with respect to such real and personal property, on any terms necessary or incidental to the carrying out of the purposes of the Authority.

Procurement Procedures: The Authority may purchase, lease, or acquire real and personal property on a bid, negotiated, or open-market basis, including through a sole-source procurement or in such other manner as the President determines to be appropriate and in the best interests of the Authority in the circumstances, provided that in the case of any contract or agreement for the purchase, lease, or acquisition of real or personal property requiring an expenditure by the Authority in excess of seventy-five thousand dollars (\$75,000), wherever possible bids or proposals shall be solicited from at least three (3) qualified parties. The requirements of this subsection shall not be applicable to transactions entered into by the Authority primarily for the purpose of providing financial assistance pursuant to Articles XII, XIII and XIV of these Operating Procedures. To the extent permitted by any contract for administrative support and services between the Authority and Connecticut Innovations, Incorporated, space, systems, supplies and other property, goods or services necessary for the business operations of the Authority may be provided by Connecticut Innovations, Incorporated, subject to appropriate cost sharing, and in such cases the procurement procedures of Connecticut Innovations, Incorporated shall apply thereto.

IX. CONTRACTING FOR PROFESSIONAL SERVICES

The Authority, acting through the President or another duly authorized officer, shall have the authority to engage accountants, attorneys, appraisers, financial advisers, investment advisers, underwriters, investment managers, investment bankers, brokers, architects, construction managers, engineers, and other consultants and professionals on any terms necessary or

incidental to the carrying out of the purposes of the Authority. In the absence of a conflict of interest, such consultants and professionals may be those also providing services to Connecticut Innovations, Incorporated.

Procurement Procedures: Contracts for professional services shall be awarded by the Authority in such manner, including on the basis of a sole-source procurement, as the Board determines to be appropriate and in the best interests of the Authority in the circumstances, provided that (i) for such contracts requiring an expenditure by the Authority up to and including seventy-five thousand dollars (\$75,000) over a period of one (1) fiscal year, the President has sole approval authority; (ii) for such contracts requiring an expenditure by the Authority over seventy-five thousand dollars (\$75,000) and up to and including one hundred fifty thousand dollars (\$150,000) over a period of one (1) fiscal year, the President and the Chairperson must both approve the expenditure; and (iii) for such contracts requiring an expenditure by the Authority of over one hundred fifty thousand dollars (\$150,000), such contract shall, whenever possible, be awarded on the basis of a process of competitive negotiation where proposals are solicited from at least three (3) qualified parties. To the extent permitted by any contract for administrative support and services between the Authority and Connecticut Innovations, Incorporated, professional services may also be provided by consultants and professionals selected by and under contract to Connecticut Innovations, Incorporated, subject to appropriate cost sharing. The provisions of Section 1-127 of the General Statutes shall apply to the engagement of auditors by the Authority.

X. STATE CONTRACTING REQUIREMENTS

Any solicitation of bids or proposals by the Authority, and any award of a contract by the Authority, shall be subject to all state procurement and contracting requirements applicable to quasi-public agencies of the state, including without limitation the following to the extent applicable in the circumstances:

- Section 9-612 of the General Statutes, as amended, relating to campaign contributions by state contractors and their principals and related notices to state contractors and prospective state contractors;
- Section 4-252 of the General Statutes relating to affidavits as to gifts from contractors under certain large state contracts;
- Section 4a-81 of the General Statutes relating to affidavits with respect to consulting fees;
- Section 3-13l of the General Statutes relating to the prohibition of finder's fees in connection with investment transactions;
- Section 3-13j of the General Statutes relating to the disclosure of third party fees attributable to investment services contracts;
- Section 4-61dd of the General Statutes relating to whistleblower protections; and
- Section 4a-60 and 4a-60a of the General Statutes relating to non-discrimination in state contracting and documentation of contractor adoption of a corporate policy supporting the non-discrimination agreements and warranties required by Sections 4a-60 and 40a-60a.

XI. FUNDING SOURCES AND PROCEDURES OF
GENERAL APPLICABILITY TO FINANCIAL ASSISTANCE

Funding sources specifically authorized by the Statute include, but are not limited to:

Funding Sources:

- (i) Funds repurposed from existing programs providing financing support for clean energy projects, provided any transfer of funds from such existing programs shall be subject to approval by the General Assembly and shall be used for expenses of financing, grants, and loans;

- (ii) Any federal funds that can be used for the purposes specified in Section 16-245n(c) of the General Statutes;

- (iii) Charitable gifts, grants, and contributions, as well as loans from individuals, corporations, university endowments, and philanthropic foundations;

- (iv) Earnings and interest derived from financing support activities for clean energy projects backed by the Authority;

- (v) If and to the extent that the Authority qualifies as a Community Development Financing Institution under Section 4702 of the United States Code, then funding from the Community Development Financing Institution Fund administered by the United States Department of Treasury, as well as loans from and investments by depository institutions seeking to comply with their obligations under the United States Community Reinvestment Act of 1977; and
- (vi) The Authority may enter into contracts with private sources to raise capital. The average rate of return on such debt or equity shall be set by the Board.

Procedures of General Applicability to Financial Assistance:

- (a) For clean energy projects, the amount to be financed by the Authority and other nonequity financing sources cannot exceed eighty per cent (80%) of the cost of developing and deploying such projects.
- (b) For energy efficiency projects the amount to be financed by the Authority and other nonequity financing sources cannot exceed one hundred per cent (100%) of the cost of financing such projects.
- (c) The Authority may assess reasonable fees on its financing activities to cover its reasonable costs and expenses, as determined by the Board.

- (d) The Authority shall make information regarding the rates, terms, and conditions for all of its financing support transactions available to the public for inspection, including formal annual reviews by both a private auditor conducted pursuant to Section 16-245n(f)(2) of the General Statutes and the Comptroller, and providing details to the public on the Authority's Web site; provided that public disclosure shall be restricted for patentable ideas, trade secrets, proprietary or confidential commercial or financial information, disclosure of which may cause commercial harm to a nongovernmental recipient of such financing support and for other information exempt from public records disclosure pursuant to Section 1-210 of the General Statutes.
- (e) Any entity that receives financing for a clean energy project from the Clean Energy Fund (Fund) shall provide the board an annual statement, certified as correct by the chief financial officer of the recipient of such financing, setting forth all sources and uses of funds for such project in such detail as may be required by the Authority. The Authority shall maintain any such audits for not less than five (5) years. Residential projects for buildings with one to four dwelling units are exempt from this and any other annual auditing requirements, except that residential projects may be required to grant their utility companies' permission to release their usage data to the Authority.

XII. FINANCIAL ASSISTANCE—GRANTS, LOANS OR LOAN GUARANTEES,
DEBT AND EQUITY INVESTMENTS

The procedures in this section are generally applicable to the award of grants, loans or loan guarantees, and debt and equity investments for clean energy projects when the Board determines that one of the following methods be used in the selection and award process: (1) competitive selection and award, (2) programmatic selection and award, or (3) strategic selection and award. The factors to be considered in choosing the appropriate selection and award method, and the general procedures to be followed in each such case are set forth below.

Competitive Selection and Award

Applicability: Competitive selection and award shall be the preferred method when the Board determines that it is appropriate in the circumstances to invite and consider proposals for a particular clean energy project or projects in a competitive process under an established schedule and pursuant to formal qualification and selection criteria so that proposers and proposals may be evaluated fairly and thoroughly on a comparative basis.

Issuance of RFP: A request for proposals (RFP) shall be published or distributed in a manner that the Authority determines will promote broad participation in the competitive process. Deadlines for particular stages in the competitive selection process will be set forth in the RFP. Notice of the RFP shall be posted on the Web site of the Authority, may be published in one or more major daily newspapers published in the State, and may also be posted on the Web site of the Connecticut Department of Administrative Services. The

RFP itself shall also be posted on the Web site of the Authority and shall be mailed to or otherwise made available to interested parties in a reasonable manner.

Eligibility: Each RFP shall be authorized by resolution of the Board and issued pursuant to guidelines established by the Authority consistent with such Board authorization. Such guidelines shall at a minimum set forth: (1) proposer qualification requirements, (2) project eligibility criteria, (3) the nature and amount of financial assistance available from the Authority under the program, (4) the principal selection criteria, (5) any mandatory terms and conditions under which such funding is available, (6) applicable application, processing, or other program fees, and (7) the process by which proposals will be considered and acted upon. Such guidelines may be modified, in whole or in part, from time to time and at any time by the Authority, consistent with the authorizing resolution of the Board.

Selection Criteria: Selection criteria shall include, as applicable, (1) the eligibility of the proposer; (2) the proposer's qualifications and experience; (3) the financial feasibility of the project, including the availability and firmness of required financing; (4) the cost-effectiveness of the project; (5) the technological characteristics of the project, including the potential for technological improvements and advancements; the project's operational feasibility and commercial applicability; (6) the jobs created by the project; (7) the environmental benefits stemming from the project; and (8) the contributions to be made by the project toward the statutory purposes of the Authority and the furtherance of the Comprehensive Plan. Other selection criteria may be established for any RFP, and any weighting of selection criteria shall be in the discretion of the Authority acting pursuant to the authorizing resolution of the Board. If appropriate in the circumstances, then an

RFP may be first issued as a request for qualifications, following which those respondents found to be qualified are invited to respond to a final RFP.

Selection Process: The selection process shall be designed to provide for a fair and thorough evaluation of each eligible and qualified proposal, and shall be described in the RFP. The selection process may include the use of a review or scoring team, which may include members of any advisory committee, members of the staff of the Authority, and independent members with relevant industry, academic, or governmental experience. No member of any such review or scoring team shall have any financial or other personal interest in any proposed project. Any such review or scoring team shall act in an advisory capacity only and shall not constitute a committee or subcommittee of the Board, and the members of any such review or scoring team shall not be deemed to be public officials as a result of their service thereon. If the Authority determines that the responses to the RFP have been insufficient in number or quality to achieve the objectives of a competitive selection and award process or otherwise determines it to be in the best interest of the Authority, then the RFP may be extended, withdrawn and reissued, or cancelled at any time.

Selection Decision: One or more proposers may be selected for the purpose of entering into negotiations, if applicable, with respect to a project. Such selection shall be made by the Authority acting pursuant to the authorizing resolution of the Board after taking into account the established selection criteria, any report or recommendation by staff of the Authority, the report of any review or scoring team, and the results of any review and recommendation by any advisory committee to the Board, applied on an equitable basis. If more than one proposal is selected, then they may be ranked in order of preference,

which ranking may be based on the recommendation of staff of the Authority, such advisory committee, or the review or scoring team.

Notification to Proposers; Effect of Selection: All proposers shall be promptly notified of the results of the selection process. Such results may also be posted on the Web site of the Authority. Any such selection and notification is solely for the purpose of qualification for possible negotiation and does not constitute a financing commitment or the award of a contract.

Negotiation: The Authority may enter into good faith negotiations with one or more of the selected proposers at such time and in such order as the Authority may determine in its discretion consistent with the authorizing resolution of the Board. The commencement of such negotiations does not signify a commitment to provide financial assistance or to enter into a contract with a proposer. Either the proposer or the Authority may terminate such negotiations at any time for any reason. The Authority reserves the right to enter into negotiations with any other proposer at any time. Such negotiations shall not be limited to the scope or terms of the proposal but may include such other matters or different terms as the Authority may determine to be in the best interests of the Authority, acting pursuant to the authorizing resolution of the Board.

Award: Upon mutual agreement regarding the terms and conditions of the financial assistance, the Authority and the selected proposer may enter into a contract which memorializes the agreed-upon terms and conditions.

Fees and Expenses: The Authority may impose reasonable application, processing, or similar fees in connection with the submission and processing of proposals, and may

require, as a condition of negotiation with any selected proposer, that such proposer agree to pay costs incurred by the Authority, including fees and disbursements of the Authority's counsel, consultants, and other professional advisors. Any pre-established application, processing, or other program fees shall be set forth in the RFP.

State Contracting Requirements: Any RFP shall be subject to, and any definitive financing or contracting documents shall include, such provisions as may be required by applicable laws or executive orders, including with respect to non-discrimination and affirmative action.

Other Terms and Conditions: Any RFP may be subject to and include such other terms and conditions, not inconsistent with the requirements of these procedures, as the Authority may determine in its discretion to be appropriate and in the best interests of the Authority, consistent with the authorizing resolution of the Board.

Programmatic Selection and Award

Applicability: Programmatic selection and award shall be the preferred method when the Board determines that it is appropriate in the circumstances to invite applications on a continuing or periodic basis for clean energy projects with identified characteristics and to consider such applications under pre-established program-based qualification, eligibility, and selection criteria, but that it is not necessary or appropriate to evaluate such applications on a comparative basis as part of a competitive RFP process. Any such program may be discontinued, suspended, extended, or expanded at any time by the Board based on its determination of what is appropriate and in the best interests of the Authority.

Program Guidelines: Each such program shall be authorized by resolution of the Board and operated and administered by the Authority pursuant to program guidelines established by the Authority consistent with such Board authorization, which shall at a minimum set forth: (1) applicant qualification requirements, (2) project eligibility criteria, (3) the nature and amount of financial assistance available from the Authority under the program, (4) the principal selection criteria, (5) any mandatory terms and conditions under which such funding is available, (6) the application process, including a standard application form, (7) applicable application, processing, or other program fees, and (8) the process by which applications will be considered and acted upon. Such program guidelines may be modified, in whole or in part, from time to time and at any time by the Authority, consistent with the authorizing resolution of the Board. A general description of each such program, including the applicable program guidelines, and all such modifications, if any, shall be posted on the Web site of the Authority.

Approval; Terms and Conditions of Award: Applications shall be subject to the approval of the Board, or of the President or other officer of the Authority if and to the extent so authorized in the authorizing resolution of the Board, after taking into account any report or recommendations of the staff of the Authority or an advisory committee, if applicable. Financial support for a project under any such program shall be in such amount, and shall be subject to such project-specific terms, conditions, and requirements, as may be determined by the Authority within the limits established by the authorizing resolution of the Board and consistent with the program guidelines.

Timing of Consideration; Notice of Approval or Disapproval: While the processing time for applications may vary considerably based on the specific requirements of each

program, applicants for financial assistance available under an Authority program will receive notice of approval or disapproval within one hundred twenty (120) days of the submission of a complete application (including receipt of such additional information as the Authority may reasonably request in order to complete its application review). Failure to act on a completed application within such one hundred twenty (120) day period shall be deemed disapproval. Such one hundred twenty (120) day period may be extended at the request of either the Authority or the applicant with the consent of the other.

Fees and Expenses: The Authority may impose reasonable application, processing, or similar fees in connection with the submission and processing of proposals, and may require, as a condition of negotiation with any selected proposer, that such proposer agree to pay costs incurred by the Authority, including fees and disbursements of the Authority's counsel, consultants, and other professional advisors. Any pre-established application, processing, or other program fees shall be set forth in the applicable program guidelines.

Strategic Selection and Award

Applicability: While the utilization of an open and public process, either competitive or programmatic, for awards from the Authority is anticipated most often to be in the best interest of the Authority and is to be strongly preferred, there are nevertheless recognized to be certain circumstances in which, based on special capabilities, uniqueness of the opportunity, urgency of need, cost, and similar factors, the public interest and the strategic mission of the Authority is best served by direct participation by the Authority in, and funding of, a particular clean energy project outside of an existing program and

absent a competitive process of selection and award. Such strategic selection and award method may be utilized upon an affirmative resolution, adopted by a two-thirds majority of the members of the Board present at a meeting of the Board, determining that the advantages of strategic selection and award clearly outweigh the general public interest in an open and public process based on a finding that at least three (3) of the following characteristics are present and are of predominant importance to the Authority:

- a. 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 the Authority.
- b. 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 unique attributes.
- c. Strategic Importance: The opportunity has exceptionally strong compatibility with the mission of the Authority, including the jobs created by the project or the environmental benefits stemming from the project, or offers the Authority 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 the Authority.
- d. 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.

- e. Multiphase Project; 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 the Authority investment or initiative.

Other Requirements: Awards made by strategic selection and award shall to the extent applicable be otherwise subject to the same procedures set forth with respect to competitive selection and award under the headings “Negotiation”, “Award”, “Fees and Expenses”, “State Contracting Requirements”, and “Other Terms and Conditions”.

XIII. ISSUING AND RETIRING BONDS, BOND ANTICIPATION NOTES, AND OTHER OBLIGATIONS OF THE AUTHORITY

The Board shall approve the issuance and retirement of all bonds, bond anticipation notes, and other obligations of the Authority. Such approval may include, but not be limited to, their form, denominations, maturities, rates, prices, public or private sales, and other provisions important or necessary for their issuance or retirement, including the payment of all expenses, premiums, and commissions in connection therewith.

XIV. SURPLUS FUNDS

Surplus funds generated through the sale of bonds, bond anticipation notes, or other obligations of the Authority, to the extent not needed for the payment of interest and principal due on any payment of said bonds, bond anticipation notes, or other obligations, if any accrued by the Authority, shall be withdrawn and transferred to the Authority's Operating Account at such times as is permitted under applicable resolutions for the bonds, bond anticipation notes, or other obligations to be used for any lawful purposes of the Authority.

XV. PERIODIC REVIEW; AMENDMENT OF PROCEDURES

At least annually, the Audit, Compliance, and Governance Committee of the Board shall meet to review and discuss the matters addressed by these Procedures and, if deemed necessary, to make recommendations for amendment of these Procedures to Board. Amendments to these Procedures shall be effective only upon adoption of such amendments by a two-thirds vote of the Board.

* * *



CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Employee Handbook

DRAFT

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SECTION 1 INTRODUCTION

Employee Welcome

Welcome to the Clean Energy Finance and Investment Authority (CEFIA)! We are pleased that you are joining our staff and embarking on an employment career with CEFIA. We are so pleased to welcome you as you begin this endeavor. CEFIA develops, invests in and promotes clean sustainable energy sources for the benefit of Connecticut ratepayers. Our most important resource in achieving that vision is you – the employee. The staff at CEFIA works together and depends upon one another to achieve our vision. We want you to know how much we appreciate the contribution you are making to the continued successful operation of our agency.

This handbook was developed to describe some of the expectations of our employees and to outline the policies, programs and benefits available to eligible employees. These policies and programs are general guidelines under continuous review and are subject to change or discontinuance at any time. Employees should familiarize themselves with the contents of the employee handbook as soon as possible, for it will answer many questions about employment at CEFIA.

Please read your handbook carefully and keep it for further reference. Please contact the Manager, Human Resources if you have any questions or concerns about the information set forth in this handbook. Again, welcome and we wish you the best in your career at CEFIA.

Agency Purpose and Structure

CEFIA was established by Connecticut's General Assembly on July 1, 2011 as a part of Public Act 11-80. This new quasi-public agency supersedes the former Connecticut Clean Energy Fund. CEFIA's mission is to promote, develop and invest in clean energy and energy efficiency projects in order to strengthen Connecticut's economy, protect community health, improve the environment, and promote a secure energy supply for the state. As the nation's first full-scale clean energy finance authority, CEFIA will leverage public and private funds to drive investment and scale-up clean energy deployment in Connecticut. For more information about CEFIA, please visit www.ctcleanenergy.com.

Objectives and Scope

This Employee Handbook has been prepared to acquaint you with policies and procedures relating to employment at CEFIA and to provide a reasonable understanding of expectations so that we may work together effectively. It is a guide to CEFIA's policies but it does not include every single policy. All employees are expected to be familiar with and abide by the policies in this Handbook.

This Handbook provides information concerning CEFIA benefits. Please note that CEFIA benefit plans are defined in legal documents such as insurance contracts and official plan texts. This means that if a question ever arises about the nature and extent of plan benefits or if there is conflicting language, the formal language of the plan documents governs over the informal wording of this Handbook. Plan documents are available for inspection.

This Handbook is not, nor is it intended to be, an express or implied contract of employment, an agreement for employment for any specified period of time, or a guarantee of benefits or working conditions between employee and CEFIA. CEFIA does not recognize any contract of employment unless it is reduced to writing and signed by the employee and the President. CEFIA reserves the right to unilaterally revise, delete, or add to the policies, procedures and benefits within this handbook at any time with or without advance notice. Revisions of policies,

procedures and benefits may be made and applied immediately or prospectively, or if not prohibited by law, made effectively with a retroactive date. Additionally, CEFIA reserves the right to make exceptions or vary from any of the rules, benefits, or policies contained in this handbook in its managerial discretion.

At Will Statement

Employment with CEFIA is at will, which means that either party may terminate the relationship at any time and for any reason, with or without cause. No manager, supervisor or other agent of CEFIA has the authority to alter the at-will employment relationship by, for example, making a commitment, express or implied, of guaranteed or continued employment to any employee. An employee's at-will employment status can only be altered by a written contract of employment that is specific as to all material terms and is signed by both the employee and the President of CEFIA.

Administration of Policy

The President has overall responsibility for directing the implementation and administration of policies and procedures. On a day-to-day basis it is the responsibility of each supervisor to administer all policies and procedures in a manner consistent with the handbook.

SECTION 2 EMPLOYMENT

Orientation

During your first few days of employment, you will participate in an orientation program conducted by Human Resources and various members of your department, including your supervisor. During this program, you will receive important information regarding the performance requirements of your position, basic company policies, your compensation, and benefit programs. You will be asked to complete all necessary paperwork at this time, such as medical benefit plan enrollment forms, beneficiary designation forms and appropriate federal and state tax forms. You will be required to present CEFIA with information establishing your identity and your eligibility to work in the United States in accordance with applicable federal law. You will also be assigned a "Buddy" who will assist you with familiarizing yourself with CEFIA and answer any questions you might have. During your first few weeks, you will be asked to prepare a short bio and scheduled to have your photograph taken for inclusion on our Website and in our annual report.

Please use this orientation program to familiarize yourself with CEFIA and our policies and benefits. We encourage you to ask any questions you may have so that you will understand all the guidelines that affect and govern your employment relationship with us.

Status of Employment

Employees of CEFIA are exempt from classified service as provided in Public Act 11-80 of the Connecticut General Statutes. Unlike employees in the classified service, CEFIA employees do not have tenure. Continued employment is predicated on satisfactory performance of duties, a satisfactory record of attendance, and appropriate conduct with the general public and other employees on the CEFIA staff as well as continued available work. All CEFIA employees are considered at will employees.

Conditions of Employment

All new and rehired employees work on an introductory basis for the first six months after their date of hire. Any significant absence (in excess of five consecutive days) will automatically extend an introductory period by the length of the absence. During the six-month introductory period, if any employee's performance is not satisfactory, the employee may be terminated or may be required to serve an extended introductory period.

Acceptance as a regular employee of CEFIA is contingent upon successful completion of a six month introductory period, which is intended to provide the employee the opportunity to demonstrate his/her ability to achieve a satisfactory level of performance and to determine whether the new position meets his/her expectations. CEFIA uses this period to evaluate the capabilities, work habits, and overall performance of the new employee.

The existence of the introductory period as described above does not change an employee's at-will status. Employees and CEFIA may terminate the employment relationship at any time and for any reason during and after the introductory period.

Benefits, eligibility and employment status is not changed during a secondary introductory period that results from a promotion or transfer to a new position within CEFIA. However, the employee will be required to serve a six-month introductory period to assess his/her job performance in the new position.

Staff Relations

CEFIA's success depends on its employees' skills, abilities and the manner in which they are used to meet our goals. Our employees are our most important resource to help us succeed and to improve the way we do things. To take full advantage of this resource we need to

communicate freely and openly. Usually, it is the employees performing the work who have the most knowledge about the tasks and processes they use. We encourage employees to help us by taking every opportunity to make us aware of problems of any kind, and suggesting ways we can improve. Employees should feel free to discuss any concern or suggestions they have with their supervisor or any member of management. It is our intent that as a result of open communication, CEFIA and all of its employees will enjoy a mutually prosperous and satisfying relationship.

Our experience has shown that when employees deal openly and directly with supervisors, the work environment can be excellent, communications can be clear and attitudes can be positive. When you have a suggestion, question, problem or concern, your supervisor is in the best position to respond quickly and accurately, but you should feel free to discuss the issue with the staff in Human Resources.

The working environment at CEFIA is one that puts staff, supervisors, and administration in a close relationship of mutual respect. Attendance at and participation in group meetings and staff meetings are important. Employees are encouraged and expected to use these meetings as opportunities for raising issues to improve client services, program operation, and staff relations. It is generally during these meetings that most business-related matters are communicated. If an employee is absent from any of these meetings, it is his or her responsibility to catch up with business discussed.

Customer Service Deliverables

At CEFIA, customer service is a priority. We all have internal and external customers. To that end, we expect each one of our employees to be accountable for the following customer deliverables:

- To respond promptly to customer requests for information or assistance.
- To act as a member of the CEFIA team and pitch in and assist other staff members as requested.
- To provide a work product that is complete, well-organized and useful to the customer.

Equal Employment Opportunity

In order to provide equal employment and advancement opportunities to all individuals, employment decisions at CEFIA will be based on merit, qualifications, abilities in relation to the staffing requirements, and business needs. CEFIA is an equal opportunity employer and does not discriminate in employment opportunities or practices on the basis of race, color, religious creed, sex, marital status, national origin, age, ancestry, mental retardation, physical or learning disability, past or present history of mental disorder, sexual orientation, special disabled veterans or veterans of the Vietnam War status, or any other legally protected status, except in those cases where there is a legitimate, compelling and documented occupational qualification that precludes the hiring or promotion of individuals in any of these protected groups. CEFIA will make reasonable accommodations for qualified individuals with known disabilities unless doing so would result in an undue hardship to CEFIA. This equal opportunity policy extends to all aspects of the employment relationship, including recruitment, hiring, training, compensation, promotions/transfers, job assignments, discipline and termination. All other policies, such as employee benefits, are also administered based on fair and equal treatment.

Any employees with questions or concerns about any type of discrimination in the workplace are encouraged to bring these issues to the attention of their immediate supervisor. Employees can raise concerns and make reports without fear of reprisal, either verbally or through the

grievance procedure. Anyone engaging in any type of unlawful discrimination will be subject to disciplinary action, up to and including termination of employment.

Disability Policy (ADA)

As an employer, CEFIA will not discriminate against any employee or person seeking employment on the basis of a disability, in compliance with the spirit and regulations of the Americans with Disabilities Act (ADA) and all applicable Connecticut law. The purpose of the ADA is to assure that individuals with covered disabilities who are able to perform the essential duties of their job, with or without reasonable accommodation, are given equal opportunity and treatment by their employer and fellow employees. If a qualified employee or employee candidate has an ADA recognized disability; they cannot be denied equal opportunity for employment.

In accordance with the ADA, CEFIA does not discriminate on the basis of disability in the administration of or access to its programs, services or activities, and is committed to equal employment opportunity for employees and job applicants with disabilities. Employees who violate the ADA by discriminating against an individual with an ADA recognized disability would be subject to disciplinary action up to and including dismissal. Rumors and gossip regarding any employee who has an ADA recognized disease or is assumed to have an ADA recognized disease would not be tolerated under any circumstances. Employees who need a reasonable accommodation must request such accommodations through their supervisor. Employees may be required to submit medical documentation to support their request.

Immigration Law Compliance

All job offers extended to successful candidates are contingent upon the receipt of the required documentation and completion of INS Form I-9.

Only those successful applicants who provide the required documentation and complete Form I-9 will be permitted to begin work.

Former employees who are rehired must also complete the form if they have not completed a Form I-9 with CEFIA within the past three years, or if their previous Form I-9 is no longer retained or valid.

Conflict of Interest

This policy establishes the general framework within which CEFIA wishes the business to operate.

Employees have an obligation to conduct business within guidelines that prohibit actual or potential conflicts of interest and should not have a financial interest in any client. A conflict of interest may exist when the interests or concerns of any director, officer, staff, client, or said person's relatives, or any party, group or organization in which said person has an interest or concern, may be seen as competing or conflicting with the interests or concerns of CEFIA. No "presumption of guilt" is created by the mere existence of a relationship with outside firms. The employee concerned must disclose any possible conflict of interest to the President. If it is not clear to the employee whether a particular situation or relationship constitutes a conflict of interest, the employee should contact the President.

When a conflict of interest exists regarding any matter requiring action by the Board of Directors, the President shall call it to the attention of the Board of Directors (or its committee).

Outside Employment

Employees may hold a job with another company as long as he/she satisfactorily performs their job responsibilities with CEFIA. Employees who have additional outside employment for which they receive pay must keep their supervisor and the Human Resources Manager informed of such employment. This outside employment must not interfere with the employee's effectiveness in performing their job responsibilities, and must not conflict with CEFIA's public image. All employees will be judged by the same performance standards and will be subject to CEFIA scheduling demands, despite any existing outside work requirements.

If the President decides that an employee's outside work interferes with performance or the ability to meet the requirements of CEFIA as they are modified from time to time, the employee may be asked to terminate the outside employment if he or she wishes to remain with CEFIA. Inappropriate behavior believed to be a result of outside employment (abuse of sick time, refusal of overtime, unsatisfactory performance, etc.) will be addressed through normal performance management and/or disciplinary procedures.

Outside employment will present a conflict of interest if it has an adverse impact on CEFIA. Employees with outside employment must abide by the confidentiality standards that protect CEFIA's clients.

Employment of Relatives

CEFIA is committed to the objective treatment of all employees based upon their job performance and the operational needs of CEFIA. The employment of relatives may cause serious conflicts and problems with favoritism and employee morale. In addition, real or apparent partiality in treatment at work and personal conflicts from outside the work environment can be carried into day-to-day working relationships. Therefore, it is the policy of CEFIA that relatives of employees will not be considered for employment.

If the relative relationship is established after employment, and there will be a direct reporting relationship or the related individuals will be working within the same department, the parties may be separated by reassignment or termination, if it is deemed necessary by the Human Resources Department and/or the President.

A relative is any person who is related by blood or marriage, or whose relationship with the employee is similar to that of persons who are related by blood or marriage.

Confidential Nature of Work

The protection of confidential information and trade secrets, as defined below, is vital to the interest and the success of CEFIA. The improper disclosure of confidential information would harm CEFIA and/or its employee or clients if such information were improperly disclosed to third parties. Accordingly, employees may not at any time during and after termination of employment with CEFIA, use for any purpose or disclose any confidential information to any third person or party, except as specifically authorized in the course of employment and required for carrying out job duties.

Confidential information includes, but is not limited to, the following examples:

- Any work performed by CEFIA employees for a client, portfolio company, or applicant.
- Any client, portfolio company or applicant information.
- Compensation data, including salary information.
- Personnel information.
- Financial information.
- Pending projects and proposals.
- Any other information not subject to the State Freedom of Information Act.

Confidential information should not be discussed with others (including family and friends), nor should employees discuss office matters or the affairs of clients, portfolio companies, or applicants generally with each other outside the office or any place where they might be overheard, e.g. on the street, in elevators or elevator lobbies, or at lunch counters. Except when they are certain that it is proper to do so, employees are cautioned against disclosing to callers anything being undertaken by CEFIA or its employees, clients, companies, or applicants. Likewise, it is important not to leave confidential information on desks at the end of the day or while a visitor is in the office which would allow easy unauthorized access to such information. Upon termination of employment with CEFIA or whenever requested by CEFIA, employees must promptly deliver to CEFIA all work product and all documents and other tangible embodiments of the confidential information and any copies thereof.

The best way to adhere to this policy is to not disclose any information if you are not sure whether such information is confidential information of CEFIA. Also, if you have any question as to whether certain information is considered confidential, please consult your department manager.

Violations of this policy may provide grounds for legal action against an employee and may result in disciplinary action up to and including termination, even if the employee does not actually benefit from the disclosed information.

Categories of Employment

It is the intent of CEFIA to clarify the definitions of employment classifications so those employees understand their employment status and benefit eligibility.

Full-Time Regular Employees

Employees who are not in a temporary or introductory status and who are regularly scheduled to work a minimum of 40 hours per week are considered full-time regular employees. Full-time regular employees are eligible for CEFIA benefits, subject to the terms, conditions, and limitations of each benefit program. Such employees must have successfully completed the six-month introductory period.

Part-Time Regular Employees

Employees who are not assigned to a temporary or introductory status and who are regularly scheduled to work less than 40 hours per week are considered part-time regular employees. Part-time regular employees receive all legally mandated benefits (such as Social Security and Workers' Compensation Insurance). Part time employees who work at least 20 hours per week are generally eligible for other CEFIA benefit programs on a prorated basis, based on the ratio of their standard hours of work per week to the full time standard for that position. Such employees must have successfully completed the six-month introductory period.

Exempt Employees

Exempt employees will not receive any overtime pay. Exempt employees may be granted compensatory time at the discretion of the President in accordance with the compensatory time policy outlined in Section 4.

Non-Exempt Employees

Non-exempt employees are paid based on the number of hours actually worked and are eligible for overtime pay. Overtime pay will be paid at the rate of one and one-half times (1½) the non-exempt employee's regular rate of pay for all time worked in excess of 40 hours per week. Overtime pay is based on actual hours worked. Thus, if a non-exempt employee is absent during a week when overtime hours have occurred, the absent hours reported will not be considered hours worked in determining a time and one-half overtime payment. An accurate record of non-exempt regular and overtime hours must be maintained for purposes of pay. Time sheets are to be signed by the staff member and by their supervisor, then submitted to Human Resources for processing.

Introductory Employees

Employees who work on an introductory basis as specified in the "Conditions of Employment" are considered introductory employees. Introductory employees who satisfactorily complete the six-month introductory period will be notified of their new employment classification. Any significant absence will automatically extend the introductory period by the length of the absence. If an employee changes jobs during the introductory period, a new six month introductory period shall begin.

Temporary Employees

Employees who are hired as interim replacements to temporarily supplement the work force or to assist in the completion of a specific project are considered temporary employees. Temporary employees hired from temporary agencies for specific assignments are employees of their respective agencies and not CEFIA. Employment assignments in this category are of a limited duration. Employment beyond any initially stated period does not in any way imply a change in employment status.

Consultants

Those independent contractors who are on contract to provide services to CEFIA. Persons in this category are not CEFIA employees.

Selection Process, Interviewing and Hiring

The President must approve all new positions or changes to existing position descriptions. Vacant positions to be filled may be posted internally and if necessary posted externally. The immediate supervisor, the President, any manager or director within CEFIA and/or any person the President designates, may be involved in the interview selection process. The President has the ultimate responsibility for appointing the candidate to the position.

CEFIA through the actions and approval of the President reserves the right to transfer or reclassify positions and employees within CEFIA and restructure their job duties and position without going through the above public process when in the best interest of CEFIA.

Promotion Policy

CEFIA is committed to providing employees with opportunities for career advancement. Employees may apply for posted positions, for which they are qualified, provided any such position represents a promotion or advancement.

CEFIA is committed to implementing a fair and equitable “in-house” promotion policy that will aid in the development of staff to their fullest potential. Full and equal opportunity will be extended to all employees in accordance with CEFIA’s affirmative action plan.

There is an established career path for most positions within CEFIA. The career path progression for each position can be found in the job description for that position. If an employee is being promoted within the established career path and within their department, such promotion can be made without posting the position.

If the position is not within the established career path progression, the position will be posted and the selection process outlined above will be followed.

Employment Applications

CEFIA relies upon the accuracy of information contained in the employment application, as well as the accuracy of other data presented through the hiring process and employment. Any misrepresentations, falsifications or material omissions in any of this information or data may result in CEFIA exclusion of the individual from further consideration for employment or, if the person has been hired, termination of employment.

Employment Reference Checks

CEFIA wishes to ensure that applicants are qualified and have a strong potential to be productive and successful. It is the policy of the CEFIA to check the employment references of all applicants.

Human Resources will respond to all reference check inquiries from other employers only with the approval of the employee or past employee and in accordance with applicable law. No offer of employment can be made until Human Resources has received satisfactory reference checks.

Performance Management and Review

CEFIA has a performance management and review process. The objectives of this process are to:

- Provide clear communication between the supervisor and employee
- Identify the employee’s work objectives and expected results
- Identify the employee’s performance strengths and weaknesses
- Assess the need for training
- Aid in decisions about future work assignments
- Determine the employee’s suitability for continued employment
- Determine the employee’s eligibility to receive a merit compensation award

CEFIA believes that all employees should receive prompt, thorough feedback regarding their performance. Formal performance assessments for new hires and newly promoted employees are conducted at the completion of six (6) months. Once an employee has completed an introductory employment period of six months, formal written performance appraisals are conducted annually. Performance evaluations provide employees with the opportunity to express any concerns they have about their jobs, career aspirations, and future with CEFIA. If an employee is having difficulty in their job, interim evaluations may be conducted to help the employee understand what performance improvements are needed.

All performance assessments are reviewed by the appropriate department head, President and the Manager, Human Resources.

Personnel Files

CEFIA maintains a confidential personnel file on each employee. The personnel file includes such information as the employee's job application, resume, records of training, documentation of performance appraisals and salary increases, written warnings or reprimands, and written commendations.

Personnel files are the property of CEFIA, and access to the information they contain is restricted.

Generally, only supervisors and management personnel of CEFIA who have a legitimate reason to review information in a file are allowed to do so unless otherwise required by law.

Employees will be notified when information is added to their personnel file.

Employees who wish to review their own files should contact Human Resources. With reasonable advance notice, employees may review their own personnel file in the Human Resources Office in the presence of a Human Resources employee.

Updating Personnel Records

Employees must notify Human Resources of any changes in personal mailing addresses, telephone numbers, number and names of dependents, individuals to be contacted in the event of an emergency, etc.

It is the responsibility of each individual employee to promptly notify CEFIA of any such changes in personnel status.

It is also the responsibility of each individual employee to review bi-weekly payroll deductions (tax withholding, FICA, etc.) for accuracy and report any errors promptly to Human Resources.

SECTION 3 WAGES AND SALARY ADMINISTRATION

General Policy

It is the policy of CEFIA to maintain a fair compensation program that provides equitable payment for work performed, is competitive with the identified labor market, and ensures compliance with federal and state legislation.

A salary range has been assigned to each position. The compensation for each employee shall be within the minimum and maximum range established for the grade to which the position has been assigned. In rare instances, the President may approve a salary outside the range for which the position has been assigned. Periodically, CEFIA may revise job descriptions, evaluate individual jobs to ensure they are being compensated appropriately and review job specifications as business needs dictate. Salary ranges may also be adjusted for annual inflation at the discretion of the Board of Director's Budget and Operations Committee.

Hours of Work

The standard workweek for full-time regular employees is currently a minimum of 40 hours. Regular daily work hours are from 8:00 a.m. to 5:00 p.m. Monday through Friday. Where workload or schedules require, some departments may operate outside these regular hours. Supervisors should notify employees of their work schedule. Each employee is responsible for informing Human Resources of any permanent change in usual work hours.

Flexible Time

Under the flextime policy, an employee may be permitted to start and end the workday at times that differ from the standard hours of operation.

Flextime schedules are at the discretion of management, and must be approved in advance by the employee's supervisor and the Department Head.

Employees participating in flextime must have regular daily starting and quitting times that do not vary from day to day.

All full-time regular employees must be at work during the core hours of 9:00 a.m. to 3:30 p.m. No flextime schedules shall begin before 7:00 a.m., or end later than 6:00 p.m.

All employees participating in flextime must work their full scheduled hours per day and take at least a one half-hour lunch break.

Pay Periods

Staff members are paid on a bi-weekly basis. Each paycheck will include earnings for all work performed through the end of the previous payroll. Thus a new employee can expect to receive his/her paycheck up to four weeks from the first day he/she commenced work for CEFIA.

Employees may have pay directly deposited into their bank accounts if they provide advance written authorization. Direct deposit applications may be obtained from Human Resources.

Employees will receive an itemized statement of wages.

The Payroll Administrator will distribute staff paychecks to the department supervisor or directly to the staff member after 3:00 p.m. every other Thursday. All paychecks not distributed by the end of the business day will be returned to payroll. If a staff member is absent from work and desires other arrangements, he/she will have to contact Human Resources directly to make such arrangements.

Lunch Periods

Employees are generally entitled to a one (1) hour lunch period. All employees must take a minimum of a half-hour for lunch. Scheduling of lunch periods is between the hours of 12:00 P.M. and 2:00 P.M. Lunch hours should be scheduled so that there is coverage at all times. Employees who work in tandem with other employees should schedule their lunch hours so there will always be coverage. If employees must attend to personal business during the workday, they should do so during their scheduled lunch break period. Employees should not work through their lunch period in order to leave early without prior authorization from their supervisor.

Time Sheets

Accurately recording time worked is the responsibility of every employee. Time worked is all the time actually spent on the job performing assigned duties. Time sheets must be accurately filled out and approved by the supervisor. Each employee shall personally record his or her own time, which includes the time they begin and end work and any time that is charged against their leave balances (personal time, vacation time, sick time, etc.). Altering, falsifying, tampering with time records, or recording time on another employee's time sheet may result in disciplinary action, up to and including termination of employment.

Employee time sheets for each two-week pay period must be submitted to Payroll by noon on the Friday after the pay period. All time sheets must be approved and initialed by the employee's supervisor, including any corrections and backup. Working time is logged in 15 minutes increments. Non-exempt employees, who report to work more than seven minutes late, but less than 15 minutes, must log their starting time at 15 minutes after the normal starting time. Time lost due to reporting to work late may not be made up by staying late at the end of the day or working through lunch periods, unless the employee obtains the prior authorization of his/her supervisor.

Attendance and Punctuality

The ability of CEFIA to operate smoothly and efficiently depends on regular attendance and punctuality. Absenteeism and tardiness are disruptive and place a burden on other employees. To maintain a productive work environment, CEFIA expects employees to be consistently reliable and punctual in reporting for work.

In the rare instances when employees cannot avoid being late to work or are unable to work as scheduled, they should personally notify their supervisor before the anticipated tardiness or absence. If the supervisor is not available, employees should notify the Human Resources Manager so that he/she can arrange for coverage during the absence. Employees should also inform their supervisor or the Human Resources Manager of the reason for their tardiness or absence. In case of an emergency where advance notification is not possible, employees must report the absence or tardiness as soon as possible.

1. An employee's supervisor is responsible for monitoring an employee's attendance. The supervisor should deal with abuses of reporting time. Occurrences of abuse should result in counseling of the employee by the supervisor. Supervisors and Human Resources will monitor unscheduled occasions of absence and the Manager, Human Resources will determine the action to be taken upon the accumulation of a certain number of unscheduled occasions of absence within a given time period, taking into consideration the following. Numbers of days taken;
2. The number of unscheduled occasions of absence;
3. The pattern of absences

4. The employee's past records; and
5. The reasons for the unscheduled occasions of absence.

Attendance and Punctuality, Continued

Although the specific action taken in each instance will be determined by Human Resources in its discretion, the chart below illustrates the actions likely to be taken upon the accumulation of a certain number of unscheduled occasions of absence within a given time period.

Number of Occasions	Within this Time Period	Action Likely to Be Taken
3	3 months	Your attendance record will be reviewed with you to determine contributing problems and possible solutions.
5	6 months	Your attendance record will be reviewed with you to determine contributing problems and possible solutions AND this counseling session will be recorded in a written memo, a copy of which will be maintained in your personnel file.
9	12 months	Your attendance record will be reviewed with you to determine contributing problems and possible solutions AND this discussion will be documented and a copy will be maintained in your personnel file. An "Unsatisfactory" or "Below Threshold" performance appraisal will be given to you for unsatisfactory attendance and dependability unless you give your supervisor documentation explaining the occasions to his/her satisfaction. You will also be notified that receiving two "Unsatisfactory" or "Below Threshold" performance appraisals in a row (for poor attendance or any other reason) is just cause for dismissal.

Poor attendance and excessive tardiness, including failing to report the same in a timely manner, may lead to disciplinary action, up to and including termination of employment. For example, an employee who does not report to work and who has not notified their supervisor of this absence may be terminated unless an acceptable explanation is provided for both the absence and the failure to report.

Absence from the Office

If an employee must be out of the office for business or personal matters, the supervisor must be advised. The employee also should make every attempt to keep their schedule up to date on their Outlook Calendar. If the supervisor is not available, the appropriate department head or the President should be notified. Employees who are working outside the office at meetings or other events should leave a telephone number where they can be reached. These employees are also responsible for checking in and receiving messages.

Procedures for Absences from the office

1. Pre-schedule all vacation time use. Vacation leave shall be requested as far in advance as possible and is subject to CEFIA's operating needs.
2. Pre-schedule all absences, if possible. You should attempt to schedule all absences (including late arrivals and early departures) in advance with your supervisor. Pre-scheduled and approved use of sick and other types of leave, such as vacation, a doctor's visit or a funeral, will not be counted as an unscheduled occasion of absence.
3. Unscheduled absences. If it is not possible to pre-schedule an absence (including a late arrival or early departure), you must:
 - notify your supervisor within a ½ hour of the start of the work day;
 - give the reason for the absence; and
 - give an estimate of how long the absence will be.
 - If the absence is continuous or lengthy, notify your supervisor on a daily basis, or as otherwise required by your supervisor.
4. Exhaustion of sick leave accruals. If you are absent because of illness or injury, but have exhausted your sick leave accruals, you must:
 - For each absence, have your physician complete a state medical certificate form explaining the reason for your absence, and submit the completed form to Human Resources.
 - If you wish to use other accrued leave in place of your exhausted sick leave, you must make such a request in writing and submit it to your supervisor or to Human Resources with the completed medical certificate form.
 - If you fail to follow this procedure, you will be charged with an unscheduled occasion of absence and unauthorized leave for the day.
 - If you have exhausted all other accrued leave time in addition to your sick leave time, you will be charged with unauthorized leave for the day.
5. Extended Leaves. If you will be absent for an extended period of time because you are sick or injured, you must
 - Obtain a medical certificate form from Human Resources
 - Have the form completed by the treating physician stating the reason for the absence and your anticipated return to work date; and
 - Return the form to Human Resources at the time you return to work.

Telecommuting

Telecommuting is a management option that allows an employee to work at home or an alternate work site; it is not an employee entitlement. Telecommuting does not change the hours of work. An employee may be considered for this option when the following minimum criteria are met:

1. In most instances, the employee must have completed their introductory period and have been performing his/her current job duties for at least 60 days.
2. The employee has requested to telecommute by filling out a telecommuting agreement which will outline the terms and conditions of their telecommuting arrangement.
3. CEFIA has determined that the employee's job can be readily and effectively completed at an alternate site.
4. CEFIA determines that the employee's absence from the office is not detrimental to office operations, overall productivity, the working conditions of other employees, or services to clients and customers.
5. The employee's performance has been satisfactory or better.
6. The employee agrees to abide by the guidelines of the Telecommuting Policy.

The following guidelines for telecommuting are to be followed in accordance with each employee's individual telecommuting agreement:

1. Each employee must specify a regular telecommuting day on their telecommuting agreement including hours to be worked per day, start time, end time, breaks, lunch periods, and duration if this is implemented on a project basis.
2. No employee shall telecommute more than one (1) day per week;
3. No employee shall telecommute on Mondays or Fridays.
4. No employee shall telecommute during a week where there is a holiday or that employee has a scheduled day off.
5. If an employee would like to telecommute in the case of inclement weather, they must have a signed "inclement weather" telecommuting agreement on file.
6. Telecommuting is not an entitlement. If business needs dictate the employee's physical presence in the office, the employee is required to report to work.
7. In order to meet the business needs of the agency, an employee may request an adjustment to the telecommuting schedule outlined in this agreement. No adjustment may be made without prior supervisory approval

Overtime and Overtime Pay

Under the federal Fair Labor Standards Act (FLSA), employees who are covered by FLSA shall be paid time-and-one-half for all hours worked in excess of 40 hours per week. Each position at CEFIA is determined to be exempt or non-exempt in consultation with the President, the Manager, Human Resources and CEFIA's attorneys. Exempt employees will not receive any overtime pay. Non-exempt employees are paid based on the number of hours actually worked and are eligible for overtime pay. Overtime pay will be paid at the rate of one and one-half times (1½) the non-exempt employee's regular rate of pay for all time worked in excess of 40 hours per week. Overtime pay is based on actual hours worked. Thus, if a non-exempt employee is absent during a week when overtime hours have occurred, the absent hours reported will not be considered hours worked in determining a time and one-half overtime payment. An accurate record of non-exempt regular and overtime hours must be maintained for purposes of pay. Time sheets are to be signed by the staff member and by their supervisor and then submitted to Human Resources for processing.

Merit Compensation

On an annual basis, the President may recommend for approval by the Board of Directors an allocation of funds for merit compensation increases for the staff. A maximum percentage salary increase will be set by the President for those employees with exceptional performance evaluations. Employees shall be compensated according to job performance as determined through the performance management process as administered by CEFIA.

SECTION 4 TYPES OF LEAVE

Vacation Policy

Vacation is not earned in any calendar month in which an employee is on leave of absence without pay more than five working days. The amount of annual vacation time earned will be based on years of service according to the following formula:

Years of Service	Vacation Earned	Must Use Annually
0 - 2 years	15 days per year	10 days
2 - 10 years	20 days per year	15 days
Over 10 years	25 days per year	20 days

The maximum number of vacation days an employee will be eligible to earn annually will be 25 days. All employees will be required to take at least 10 or 15 vacation (15 or 20 for employees with over 10 years of service) days per year. Generally an employee may not take more than four (4) consecutive weeks at one time in one year. Under extraordinary circumstances, the President may grant exceptions.

All employees will be limited to a maximum carryover annually of 5 days. The maximum aggregate carryover permitted for employees hired after January 1, 1998, including the current years allowed shall be 30 days. In extraordinary circumstances, such as unusual work circumstances, deadlines, or demands, the President may increase the allowable annual carryover to ten (10) days.

Vacation time will not be advanced under any circumstances. If an employee wishes to take vacation time, but does not have accrued time available, they may request to take unpaid leave. Such leave may be granted at the discretion of the employee's supervisor and or/ the department head. Vacation time is paid at the employee's base pay rate and can be taken when earned. Vacation time earned is credited to an employee on a monthly basis based upon the schedule presented above.

Accrual Period

Vacation days are accrued on a monthly basis. Employees begin to accrue vacation days the first full month after their date of hire.

Scheduling

To the extent possible, and with sufficient advance notice, vacations will be scheduled as requested by the employee provided that staffing requirements be met as determined by the supervisor. The supervisor will settle conflicts between employees with regard to desired vacation schedules.

A written or electronic request should be filled out by the employee and approved by the Supervisor. Whenever possible, if requesting less than one week of vacation, the request should be presented three days prior to the time requested and if requesting one week or more the request should be presented and approved at least three weeks prior to leave.

Compensatory Time

The President may grant compensatory time for extra time worked by exempt employees, excluding members of the senior management team, for these unique situations provided it conforms to the following criteria:

1. As a general rule, exempt employees at CEFIA work 40 hours per week. However, these employees are expected to work the number of hours necessary to get the job done. There are some occasions that require an exempt employee to work a significant number of extra hours in addition to the normal work schedule. This does not include the extra hour or two a manager might work to complete normal work assignments in a normally scheduled workday.
2. The exempt employee must receive **written authorization in advance** to work extra time by the President or his/her designee in order to record the extra hours as compensatory time. The authorization must include the employee's name and outline the reason(s) for compensatory time. Proof of advance authorization must be retained in the employee's personnel file for audit purposes.
3. The amount of extra time worked must be significant in terms of total and duration and **occur on weekends or state holidays**.
4. Extra time worked must be completed at an approved work location.
5. Compensatory time shall not accumulate by omitting lunch hours or other changes that do not extend the exempt employee's normal workday.
6. Compensatory time shall not accumulate for travel or commuting purposes.
7. The number of extra hours worked and the compensatory time taken must be recorded on the appropriate time sheet and maintained by CEFIA. In no case shall an exempt employee be permitted to take compensatory time before it is earned.
8. All compensatory time earned January 1 through June 30 will expire on December 31 of the same year, and compensatory time earned July 1 through December 31 will expire on June 30 of the following year. All compensatory time balances will be set to zero on these dates. Any time not used by these dates will not be available.
9. In no event will compensatory time be used as the basis for additional compensation and shall not be paid as a lump sum at termination of employment.
10. No more than 8 hours can be earned in a twenty-four hour period.

Personal Leave

All CEFIA full time employees are granted three days paid personal leave each calendar year for purposes not covered by vacation or sick leave. Personal days do not require prior approval of the employee's supervisor. Personal time may not be accumulated or carried over to the next calendar year. Employees will not be compensated for unused personal time upon termination of employment. Personal leave days for part time employees will be pro-rated.

General Leave of Absence

Occasionally, an employee may request time off without pay for reasons not covered by any of the other policies. In these cases the employee should submit a written request for a leave of absence to their manager with a copy to the President. The request should clearly state the reason for the request and provide any supporting information to aid in the approval decision. The reason, and the requested length of the leave, will be considered by the President in his/her decision as to whether the employee's medical and other insurance benefits should continue during the leave, if approved. The decision will also be influenced by any limitations imposed by individual insurers.

Bereavement Leave

CEFIA will grant an employee up to five consecutive workdays off in the event his or her immediate family member dies. If a death occurs while the employee is on vacation, five days absence with pay may be granted in lieu of the employee's vacation period. The immediate family is defined as an employee's spouse, parent, brother, sister, child, grandparent, grandchild, in-law, legal guardian or permanent resident of the employee's household. Additional time may be granted if approved by the supervisor, and charged against vacation or personal time. Employees should notify their supervisor as soon as possible if they have a need for bereavement leave.

Sick Leave

Full-time employees earn 10 sick leave days per year. Part time employees earn sick leave according to the same schedule as full-time employees, but prorated according to their standard part-time hours per week. Sick time is not earned in any calendar month in which an employee is on leave of absence without pay more than five working days. Sick leave is intended for use in situations such as the following:

- **Family illness - the event of a critical illness or severe injury to a member of the employee's immediate family in which the assistance of the employee is required.**
- **Medical Appointments – for medical, dental, eye examinations, or treatment for which arrangements cannot be made outside of working hours**
- **Other bereavement - up to three days per calendar year to attend the funeral of persons other than those of the employees' immediate family.**

Terminating employees will not be compensated for the balance of unused sick leave except in the case of retiring employees. Qualified retirees will receive payment for one-quarter of accumulated unused sick leave up to a maximum of 60 days.

Sick Leave - Medical Certification Or Examination

CEFIA may require certification of illness from an employee's physician or a medical examination with another physician to verify the need for continued absence. To be certain that an employee's health permits his or her safe return to work, CEFIA may require medical certification or an examination by a physician regarding fitness for duty.

An acceptable medical certificate, signed by a licensed physician or other health care provider, will be required to substantiate time off if the medical/sick leave:

- **Consists of more than five consecutive working days.**
- **Is to be applied contiguous to, or in lieu of time taken off as vacation.**
- **Recurrs frequently or habitually, and the employee has been notified.**
- **When the employee's presence at work will expose others to a contagious disease.**

Sick Leave Bank

The CEFIA Sick Leave Bank is a pool of sick days that has been established by employees of CEFIA who have made a donation of their accumulated sick days. The Bank is available to members to draw up to ten (10) eight- hour sick days per year in the unfortunate event that they experience a qualified illness or injury.

Sick Leave Bank members will receive benefits in the form of paid sick leave if all of the following requirements are met:

- the member has a medical condition that prevents them from working that has been verified by a Medical Certificate OR a member's immediate family member has a medical condition that has been verified by a Medical Certificate and requires the Sick Leave Bank member's care.
- the member has been out on approved medical leave (paid or unpaid) as described above for at least two consecutive weeks.
- the member has exhausted all of their sick, vacation, personal leave and compensatory time
- the member has not been disciplined for an absence-related reason for the past 12 months
- the member has completed a Sick Leave Bank Withdrawal Request Form and it has been approved by human resources

All requests for utilization of the sick leave bank must be in accordance with the Sick Leave Bank Policy. Please contact Human Resources for a complete copy of the sick leave bank policy.

Family Medical Leave

Purpose

This policy establishes guidelines for leave available to employees of CEFIA under the federal Family and Medical Leave Act of 1993 ("FMLA") and highlights relevant provisions of Connecticut law.

Eligibility

Employees who have worked at CEFIA for at least twelve (12) months, and who have worked at least 1,250 actual work hours during the twelve (12) months immediately preceding the start of a leave, are eligible for unpaid leave under the FMLA. ("Hours worked" does not include time spent on paid or unpaid leave). Employees must have worked at CEFIA for at least six (6) months to be eligible for family/medical leave under Connecticut law.

Reasons for Leave

Leaves under either the state family/medical leave or federal FMLA or a combination of the acts may be taken for the following reasons:

- **The birth of employee's child or adoption of a child by the employee (both).**
- **The placement of a foster child with the employee (federal only).**
- **The "serious illness" (state) or "serious health condition" (federal) of a child, spouse or parent of an employee.**
- **The "serious illness" (state) or "serious health condition" (federal) of the employee.**

Family Medical Leave Documentation Requirement

The following documents must be submitted in support of an FMLA request:

- **Birth of child:** "Employee Request" (Form HR-1) and Medical Certificate (Form P-33A-Employee) indicating the pre-delivery disability period (if applicable), delivery date and post-partum disability period (if applicable).

- **Adoption:** (both state and federal) or foster care (federal only) of child: “Employee Request” (Form HR-1) and letter from the adoption/foster care agency confirming the event and its effective date.
- **Serious illness/health condition of child, spouse or parent:** “Employee Request” (Form HR-1) and Medical Certificate (Form P-33B-Caregiver).
- **Serious illness/health condition of employee:** “Employee Request” (Form HR-1) and Medical Certificate (Form P-33A-Employee) (only if employee is on paid or unpaid leave for more than five days).

Length of Leave

Under federal FMLA, employees are entitled to 12 weeks of unpaid leave in a twelve-month period. Under state family/medical leave, employees are entitled to a maximum of twenty-four (24) weeks of unpaid leave within a two-year period. The state entitlement is applied **after** the employee has exhausted any sick leave accruals that may be applicable. The state policy allows the substitution of personal leave and vacation accruals; however, this will not extend the 24-week entitlement period.

The 12-month entitlement period for family or medical leave is measured from the initial date of an employee’s first leave under this policy, until the end of the applicable 12 or 24-month period. **For leaves eligible under both the FMLA and state family/medical leave, the entitlement periods will run concurrently.**

Requests for Leave

Requests for a family or medical leave must be submitted to Human Resources at least thirty (30) days before the leave is to commence, if possible. If thirty (30) days notice is not possible, please submit your request as soon as practicable under the circumstances. For leaves taken because of the employee’s or a family member’s serious health condition, the employee must submit a completed medical certification form before the leave begins, if possible. This form may be obtained from Human Resources. If advance certification is not possible, the employee must provide the medical certification within fifteen (15) calendar days of the employer’s request for the medical certification. Failure to submit a certification, or submission of an incomplete certification, may delay the use of FMLA leaves, or result in denial of such leave.

Requests for Leave

If an employee takes leave to care for his or her own serious health condition, immediately upon return to work the employee must provide medical certification that the health condition which created the need for the leave no longer renders the employee unable to perform the functions of the job. This certification must be submitted to Human Resources.

Use of Paid Leave

Employees have the option of substituting their accrued paid personal leave and accrued paid vacation for any unpaid portions of federal FMLA taken for any reason other than the employee’s own serious health condition. However, where the leave is for the employee’s own serious health condition, accrued paid sick leave shall be substituted for unpaid portions of federal FMLA prior to the employee electing the substitution of accrued paid personal and accrued paid vacation leave. The amount of unpaid leave entitlement is reduced by the amount of paid leave that is substituted.

Medical Insurance and Other Benefits

During approved FMLA and/or state family/medical leaves of absence, CEFIA will continue to pay its portion of medical insurance premiums for the period of unpaid family or medical leave. The employee must continue to pay their share of the premium and failure to do so may result in loss of coverage. If the employee does not return to work after expiration of FMLA leave, the employee will be required to reimburse CEFIA for payment of medical insurance premiums during the family or medical leave, unless the employee does not return because of a serious health condition or other circumstances beyond the employee's control.

Employees who have state-sponsored group life insurance will be billed directly for the same amount they contributed prior to the leave. In the case of any other deductions being made from paychecks (disability insurance, life insurance, deferred compensation, credit union loans, etc.), employees must deal directly with the appropriate vendor to discuss payment options.

During a leave, an employee shall not accrue employment benefits such as seniority, pension benefit credits, sick, or vacation leave. However, employment benefits accrued by the employee up to the day on which the leave begins, which remain unused at the end of the leave, will not be lost upon return to work. Leave taken under this policy does not constitute an absence under CEFIA's attendance policy.

Reinstatement

Except for circumstances unrelated to the taking of a family/medical leave, an employee who returns to work following the expiration of a family/medical leave is entitled to return to the job held prior to the leave or to an equivalent position with equivalent pay and benefits. In cases involving the serious health condition of an employee, CEFIA will require the employee to produce a fitness-for-duty report on which the physician has certified the employee is able to return to work. This requirement protects the employee, co-workers and the public from the negative consequences that can result when an individual returns to work before being medically ready to do so. Therefore, employees who are notified of the need for a fitness-for-duty certification will not be allowed to return to work without it.

Military Leave

Military leave with pay for required military training is available to members of the National Guard or Reserve components of the Armed Forces. Required military leave must be verified through the submission of a copy of the appropriate military orders to Human Resources. A maximum of three (3) weeks per calendar year is allowed for annual field training.

When an employee is ordered to duty at the expiration of his/her field training, as evidenced by special orders, he/she shall receive additional time off with pay provided the period of absence in any calendar year shall not exceed thirty (30) days. No such employee shall be subjected, by reason of such absence, to any loss or reduction of vacation or holiday privileges.

Extended Military Leave (Induction)

Any employee who shall enter the Armed Forces shall be entitled to a leave of absence without pay for the time served in such service, plus ninety (90) days. An employee who leaves employment for the purpose of entering the Armed Forces of the United States shall be reinstated to their former position and duties, providing he/she apply for return to employment within ninety (90) days after receiving a certificate of satisfactory service from the Armed Forces.

This section shall not apply to any employee who has been absent from his/her employment for a period of more than three (3) years in addition to war service or compulsory service and the ninety (90) day period provided for because of voluntary reenlistment.

Jury Duty

CEFIA recognizes that every citizen has an obligation to perform jury duty when required. CEFIA encourages cooperation of its employees with this important civic duty. If an employee is notified to appear in court to qualify to serve as a juror, the staff member must inform Human Resources by presenting the notice in advance of the court appearance date. The employee will receive time off to serve and will receive his/her regular salary during the period of jury service.

Failure to provide such notice will result in CEFIA charging that time to either personal or vacation leave.

On any day during which the employee's attendance on the jury is not required, he/she shall report to work as usual. On any day in which the court releases jurors before 1:00 p.m., the employee is expected to report to work for the balance of the day.

Holidays

Holiday time off will be granted to all full-time regular employees on the 12 holidays listed below. Part-time employees will be paid only if they are scheduled to work on the date that the holiday falls and their pay for the holiday shall be pro-rated based on their part-time schedule. Temporary employees after ninety (90) days will receive holiday pay if normally scheduled to work on the day of the week on which the holiday falls.

If a recognized holiday falls during an eligible employee's paid absence (e.g. vacation or sick leave), holiday pay will be provided instead of the paid time off benefit that would otherwise have applied.

Paid holidays at CEFIA are as follows:

New Year's Day	Independence Day
Martin Luther King's Birthday	Labor Day
Lincoln's Birthday	Columbus Day
Washington's Birthday	Veteran's Day
Good Friday	Thanksgiving Day
Memorial Day	Christmas Day

Inclement Weather

When traveling in snow presents a significant danger to staff and clients, cancellations and late openings for the State of Connecticut will be announced on WTIC-AM 1080 or on-line at the Connecticut Department of Emergency Management and Homeland Security website. The President will inform department managers about any early closing times established during the day.

On inclement weather mornings when no cancellation or late openings have been announced, all employees (except those with an approved inclement weather telecommuting agreement) are expected to make a reasonable effort to be at work on time. Any employee who is unable to get to work is expected to notify their supervisor promptly and will have to utilize their personal leave accruals. Failure to notify your supervisor will be treated as an unexcused absence.

Those employees with an approved inclement weather telecommuting agreement shall be subject to the terms and conditions of that agreement.

In the event of a situation where our offices will be closed because of a power outage, the following steps will be taken:

- We will notify the local media that our offices are closed so we can be added to the official “cancellation list” on television and radio.
- We will implement a “telephone tree” where we will attempt to contact employees via telephone in the event our offices are closed unexpectedly.
- If you have any questions as to whether our offices are open during a large power outage, please call (860) 257-2366, extension 411. If there is a message that “Circuits are busy” and it doesn’t roll over to normal voicemail, you can assume there is no power at our offices and you should not report to work.
- If necessary, we may communicate a conference call number and a time to call in for a teleconference. We will attempt to communicate this information via the “telephone tree”. This conference call will be used to provide information to staff and to arrange continuity of operations in the event of a major emergency.

Community Service Days

Each employee may take up to one paid workday per year to perform community service. Prior approval by the employee’s supervisor is required. The community service must be for 501 c 3 or equivalent non-profit organizations. The purpose of this policy is to encourage a range of community service activities by CEFIA employees. This day with pay will not be charged against any leave balance of the employee. Prior to the date of community service, each employee must provide a written request to their supervisor. The Manager, Human Resources will determine whether the proposed service and organization meets the intent of the policy. A letter from the organization will be required as documentation of participation.

SECTION 5 EMPLOYEE BENEFITS

Workers' Compensation

All employees are covered under the State of Connecticut Workers' Compensation insurance program. This program covers any injury or illness sustained in the course of employment that requires medical, surgical, or hospital treatment. CEFIA pays the full premium for this coverage. There is no cost to the employee.

Employees who sustain work-related injuries or illnesses should inform their supervisor immediately. No matter how minor an on the job injury may appear, it is important that it be reported immediately. Consistent with applicable state law, failure to report an injury within a reasonable period of time could jeopardize your claim. Supervisors are responsible for calling **MedInsights** at (800) 828-2717 toll-free as quickly as possible, to report any work-related injury sustained by an employee. Supervisors must provide **MedInsights** with the employee's name, home address, home telephone number, description of the injury, and the date and place the injury occurred. Supervisors should also notify Human Resources and the President as quickly as possible of any on the job injury sustained by an employee.

Neither CEFIA nor the insurance carrier will be liable for the payment of benefits for injuries sustained during an employee's voluntary participation in any recreational, social or athletic activity sponsored by CEFIA after normal working hours.

Medical Insurance

Employees become eligible for coverage in a comprehensive health insurance program on the first day of the first full month of employment. Enrollment is limited to the date of hire or open enrollment periods (normally the month of May) as outlined by the employer. The details of the plan options and their coverage will be explained by Human Resources and are listed in the explanatory booklets provided by the insurer. A portion of the cost of the medical insurance for dependents must be covered by employee contributions.

Dental Insurance

Employees become eligible for coverage in a dental insurance program on the first day of the first full month of employment. The details of this insurance coverage will be explained by Human Resources and are listed in the explanatory booklet provided by the insurer.

Deferred Compensation

The Deferred Compensation Plan, created in accordance with Section 457 of the Internal Revenue Code, allows you to defer money earned during your peak earning years and receive its value later when you may be in a lower tax bracket. Amounts you elect to defer are before tax dollars and any interest earned or any gains on these dollars are allowed to accumulate without federal income tax obligations until you receive your money.

Participation in the Plan is voluntary. It is your decision, which should be made after considering all options, as well as your plans for the future. A Deferred Compensation Plan is not intended for savings and investments of a short-term nature since monies deferred are generally not available until you separate from State service. For more information regarding deferred compensation, contact Human Resources.

Retirement Plan

Employees of CEFIA are provided retirement benefits under the State of Connecticut Retirement Plan. The benefits provided by the plan are described in the Summary Plan Description given to all eligible employees.

Dependent Care Assistance Program

CEFIA employees are eligible to participate in the State of Connecticut Dependent Care Assistance Program (DCAP). With DCAP you have the opportunity to deposit a portion of your pay into a Dependent Care Spending Account. These dollars are deducted on a pre tax basis and are used to reimburse you for eligible dependent care expenses. These “pre-tax” dollars are exempt from federal and state income taxes.

When you contribute pre-tax dollars to a reimbursement account, you lower your taxable income; therefore, you pay fewer taxes and increase your spendable income. To receive more information, contact Human Resources.

Lincoln National Life Insurance

Upon employment, CEFIA provides life insurance coverage at no cost to the employees that work at least 30 hours per week. In the event of an employee’s death, life insurance benefits are payable to the person he/she has named as beneficiary. Other benefits such as dismemberment, loss of sight, continuation of insurance are explained in the group certificate. All eligible employees will receive a certificate showing the face value of the policy upon receipt of the application by the insurance company. The amount of coverage is equal to two times the employee’s annual salary up to a maximum of \$150,000 worth of coverage.

Group Life Insurance

Employees become eligible for coverage under the State of Connecticut group life insurance plan after six months of employment. The details of this coverage will be explained by Human Resources and are listed in the plan booklet provided by the insurer.

Supplemental Group Life Insurance

The State of Connecticut also offers supplemental group life insurance to employees whose gross annual income is at least \$45,000. New employees are eligible for this insurance after six months of employment. This benefit is available for present employees to be initiated or increased during open enrollment, which is usually in May. The cost of this option is fully borne by the employee.

Other Insurance

Colonial Life Insurance offers accident/sickness benefits as well as life insurance. The employee bears the total cost of coverage. Please contact Human Resources for further information.

Disability Insurance

CEFIA , Incorporated provides short-term and long-term disability insurance coverage for all full time employees. Disability coverage for new employees will commence on the first day of the second full month of employment. Please refer to your certificate booklet for full details, limitations and provisions of the plan.

Connecticut Higher Education Trust Program

CEFIA employees are eligible to participate in the State of Connecticut’s Higher Education Trust Program, Connecticut’s 529 College Savings Program (CHET). With CHET, you have the opportunity to deposit a portion of your pay into a higher education savings account. These dollars are deducted on a pre tax basis and are “pre-tax” dollars are exempt from federal and state income taxes. To receive more information, contact Human Resources.

Employee Assistance Program

The Employee Assistance Program offers assistance to employees having problems of a personal nature that may affect job performance. Services are also available for family members. Some examples of such problems would be drug or alcohol abuse, marital or family difficulties, or other situations that might have an adverse effect on an employee's emotional health. Participation in the program is confidential and free. It will generally include private consultation with a trained counselor who will advise the employee on what services are appropriate to their need. The counselor will normally refer the employee to qualified providers of treatment or counseling, and advise the employee on what services are or are not covered by their health insurance. Any employee needing assistance should contact Pathways, 674 Prospect Avenue, Hartford, CT 06105. The hotline number is (860) 233-6220.

Participation in the EAP program does not excuse employees from complying with normal agency policies or from meeting normal job requirements during or after receiving EAP assistance. Nor will participation in the EAP prevent CEFIA from taking disciplinary action against any employee for performance problems that occur before or after the employee's seeking assistance through the EAP.

The EAP program is there for you and is totally confidential and voluntary.

Credit Union

CEFIA employees may participate in the Connecticut State Employee's Credit Union. Payroll deductions may be arranged. For more information, telephone CSE Credit Union, Inc., 84 Wadsworth Street, Hartford, CT 06106, (860) 522-5388 (Savings) or (860) 522-7147 (Loans). An employee can open an account by completing an application card and a payroll deduction authorization form, which are available in Human Resources. A check or money order made payable to the Connecticut State Employee's Credit Union must accompany the application and the normal processing time is four (4) weeks.

A change in deduction form may be obtained from Human Resources for employees wishing to stop their deductions. This form must be submitted to CSECU, Inc. The change will take approximately four (4) weeks to become effective.

Other Payroll Deductions

Payroll deductions may be made for U.S. Savings Bonds and the Connecticut State Employees Campaign for charitable giving. Automobile insurance and homeowner's insurance can also be arranged through payroll deduction utilizing a program established by the State of Connecticut. For more information, contact Human Resources.

Direct Deposit

Direct deposit of paychecks to the banking institution of your choice is available. Forms are available from Human Resources. Upon termination of employment, a final paycheck will be issued and not deposited directly.

Benefits Continuation (Cobra)

The federal Consolidated Omnibus Budget Reconciliation Act (COBRA) gives employees and their qualified beneficiaries the opportunity to continue health insurance coverage under CEFIA's health plan when a "qualifying event" would normally result in the loss of eligibility. Some common qualifying events are resignation, termination of employment, or death of an employee; a reduction in an employee's hours or a leave of absence; an employee's divorce or legal separation, and a dependent child no longer meeting eligibility requirements.

Under COBRA, the employee beneficiary pays the full cost of coverage at CEFIA group rates plus an administrative fee. CEFIA will provide each employee with a written notice describing rights granted under COBRA when the employee becomes eligible for coverage under the health insurance plan.

Continuing Education Assistance

Any full time regular employee who has satisfactorily completed six months of service (and receives a rating of “meets expectations” or higher as a result of their six month review) and is continuing his/her education in a job related area, or in an area that will assist the employee in upward mobility or promotional opportunities shall be eligible to receive tuition assistance as follows: For credit courses at accredited institutions of higher education, 100% of the cost of tuition and laboratory fees up to a maximum of \$400 per credit taken for undergraduate courses and \$750 per credit for graduate courses. There will be a maximum dollar limit of \$10,000 tuition assistance per employee per fiscal year. The employee must maintain an overall rating of “meets expectations” during the annual review process in order to continue to be eligible for assistance under this program.

Requests for tuition assistance must be in writing and will be reviewed and approved by the employee’s department head and the President based on individual merits. Management will consider the relevance of the program to the employee’s current position, job responsibilities and promotional path prior to approval of the tuition assistance request. The employee must maintain a grade point average (GPA) of C for undergraduate courses and B for graduate courses to continue receiving tuition assistance under this program. If an employee’s GPA falls below these minimums, further eligibility for tuition assistance will be suspended until the required GPA is achieved.

Employees interested in applying for tuition assistance under this program should obtain a “Continuing Education Assistance Form” from the Human Resources department and follow the steps below to assure prompt tuition assistance.

1. Complete the Continuing Education Assistance Form and submit it, along with a written request for tuition assistance to your immediate supervisor.
2. The request will be reviewed and if appropriate, approved by your department head and the President
3. Once approved and subsequent to enrollment in the program, submit a copy of course registrations, invoices and any other related documents to the Human Resources Administrator for review and payment approval.
4. Upon completion of the semester, The Human Resources Administrator will require a copy of all grades. Failure to do so may render you ineligible for tuition assistance for future course. Employees are financially responsible to reimburse CEFIA for payments made on their behalf under this program if they resign from their employment with CEFIA within (6) months of the signed date on the most recent consent authorization section of the Continuing Education Assistance Form.
5. Employee Tax Liability: CEFIA follows the current IRS guidelines pertaining to annual reporting of employee educational benefits. Employees should consult with their tax advisor regarding this matter.

Training

All employees of CEFIA are encouraged to take advantage of any job-related training opportunities that will enhance their job performance. CEFIA will pay the cost of any training deemed necessary for its employees.

The following is the procedure for signing up for and attending training.

1. The supervisor and employee will work together to develop a training plan for the employee based on the requirements of the job and the employees specific training needs.
2. The employee initiates a training request form and forwards it to their supervisor for approval.
3. The supervisor determines if the training is necessary, job-related, and if there is adequate office coverage for the employee to attend the training.
4. The employee attends the training and receives a certificate or attendance confirmation.
5. Upon return to the office, the employee forwards a copy of that certificate or attendance confirmation to Human Resources to be added to the personnel file.
6. The employee is responsible for sharing information learned at training that might be useful to other staff. The employee is also responsible for utilizing or practicing the subject material (i.e. computer training) and will be held accountable for the training material.

SECTION 6 TRAVEL AND ENTERTAINMENT POLICY

Travel and Entertainment Policy

This policy provides guidelines and establishes procedures for employees incurring business travel and entertainment expenses on CEFIA 's behalf.

Our objective is to provide employees with a reasonable level of services and comfort while traveling on CEFIA business. In order to accomplish this objective all employees must have a clear understanding of the policies and procedures for business travel and entertainment.

Responsibility and Enforcement

The employee is responsible for complying with the travel and entertainment policy.

An expense report form must be completed by the employee within 30 days of incurring the expense to request reimbursement for travel and entertainment expenses.

The employee's supervisor is responsible for reviewing and approving expense reports prior to their submission.

CEFIA assumes no obligation to reimburse employees for expenses that are not in compliance with this policy or are not submitted within 30 days of incurring the expense.

Who to Call About Travel Policy Questions

Any questions, concerns, or suggestions regarding this travel policy should be directed to the Finance Department.

Airline Class of Service

All domestic air travel must be in Coach class.

Employees are expected to use the lowest reasonable airfare available.

Upgrades for Domestic Air Travel

Upgrades at the expense of CEFIA are **NOT** permitted. Upgrades are allowed at the employee's personal expense.

Unused/Voided Airline Tickets

Unused airline tickets or flight coupons must never be discarded or destroyed as these documents may have a cash value. To expedite refunds, unused or partially used airline tickets must be returned immediately to the designated department employee. Do not send unused tickets to the airlines, or include them with expense reports.

Lodging

Employees are entitled to stay in a single room with a private bath. Employees may accept room upgrades to suites or executive floor rooms if the upgrade does not result in additional cost to CEFIA.

Room Guarantee / Cancellation and Payment Procedures

It is the responsibility of the employee to cancel the room prior to the deadline if business needs require a change in travel plans (cancellation deadlines are based on the local time of the property). Employees should request and record the cancellation number for potential billing disputes.

Rental Car

Rental Car Guidelines

- Employees may rent a car at their destination when:
- It is less expensive than other transportation modes such as taxis, airport limousines and airport shuttles.
- Entertaining customers.
- Employees may reserve rental cars in advance if that is the most reasonable and cost effective means of transportation.

Rental Car Categories

CEFIA reimburses the costs of Compact or Intermediate class rental cars. Employees may book a class of service one-level higher when:

- Entertaining customers.
- The employee can be upgraded at no extra cost to CEFIA.
- Transporting excess baggage such as booth displays.
- Pre-approved medical reasons preclude the use of smaller cars.

Rental Car Insurance

Employees should decline all insurance coverage when renting a car for CEFIA use as CEFIA has suitable coverage in our general liability policy to cover these situations.

RENTAL CAR CANCELLATION PROCEDURES

Employees are responsible for cancelling rental car reservations. Employees should request and record the cancellation number in case of billing disputes. Employees will be held responsible for unused car rentals that were not properly cancelled.

Returning Rental Cars

Every reasonable effort must be made to return the rental car:

- **To the original city unless pre-approved for a one-way rental.**
- **Undamaged (i.e., no bumps, scratches or mechanical failures).**
- **On time, to avoid additional hourly charges.**
- **With a full tank of gas.**

Reimbursement for Personal Car Usage

Employees will be reimbursed for business usage of personal cars on a fixed scale as determined by CEFIA's mileage allowance. The mileage allowance is updated once a year in January and follows the mileage allowance set by the Internal Revenue Service. When working out of the office or out of town, any commute time clocked which is less than your normal daily commute is not reimbursable. Employees will not be reimbursed for any repairs to their personal car even if these costs result from business travel. To be reimbursed for use of their personal car for business, employees must provide on their expense report:

- **Purpose of the trip.**
- **Date and location.**
- **Receipts for tolls, parking.**

Ground Transportation to and from Terminals

The most economical mode of transportation should be used to and from airports and bus and rail terminals when the employee is not accompanying a customer. The following modes of transportation should be considered:

- **Public transportation (buses, subways, taxis).**
- **Hotel and airport shuttle services.**
- **Personal car.**

Personal/Vacation Travel

Combining Personal With Business Travel

Personal vacation travel may be combined with business travel provided there is no additional cost to CEFIA. Corporate credit cards must **NOT** be used to pay for personal/vacation travel.

Spouse / Companion Travel

A spouse or other individual may accompany an employee on a business trip at the employee's expense. CEFIA will not reimburse travel and entertainment expenses incurred by a spouse or other individual accompanying an employee on business unless:

- **There is a bona fide business purpose for taking the spouse or other individual.**
- **The expense incurred would otherwise be reimbursable; and**
- **There is prior approval from the President .**

Telephone Usage

Business Phone Calls

Employees will be reimbursed for using their personal cell phone or home phone for business phone calls that are reasonable and necessary for conducting business. Expenses must be substantiated with the original telephone bill. The finance department maintains a cell phone reimbursement policy. If you are contemplating using a cell phone for business purposes on a regular basis, contact the finance department to obtain a copy of the policy.

Airphone Usage

Employees will be reimbursed for using an airphone only in an emergency or if critical business issues necessitate its use.

Travel Insurance Coverage

Expenses for additional travel insurance coverage will not be reimbursed.

Meals and Entertainment

Personal Meal Expenses

Personal meals are defined as meal expenses incurred by the employee when dining alone on an out-of-town business trip. Employees will be reimbursed for personal meals according to actual and reasonable cost incurred.

Business Meal Expenses

Business meals are defined as those taken with clients, prospects or associates during which a specific business discussion takes place. Employees will be reimbursed for business meal expenses according to actual and reasonable cost.

Business Meals Taken With Other Employees

Employees will be reimbursed for business-related meals taken with other employees only in the following circumstances:

- When a client is present.
- When, for confidentiality reasons, business must be conducted off CEFIA premises.
- When traveling together for business.

Meal costs for social occasions, such as employee birthdays; secretary's day, etc. are not classified as business meals or entertainment expenses.

Entertaining Customers

Entertainment expenses include events that include business discussions, which take place during, immediately before or immediately after the event, are eligible for reimbursement for entertaining customers, with the prior approval from the President..

Tipping

Tips included on meal receipts will be reimbursed. Any tips considered excessive will not be reimbursed. As a general rule, employees should not tip more than 15% to 20% of the cost of the meal.

Other types of tips for porters, maid service, etc. should be reasonable.

Payment for Meals and Entertainment

When more than one employee is present at a business meal, the most senior level employee should pay and expense the bill.

Documentation Requirements

A receipt must be submitted with the expense report for any individual meal or entertainment expense. If a receipt is lost or destroyed, the President or Vice President Finance and Administration must approve the expense. In addition, for business meals and entertainment expenses, the following documentation is required and must be recorded on the expense report:

- Names of individuals present, their titles and company name.
- Name and location of where the meal or event took place.
- Exact amount and date of the expense.
- Specific business topic discussed.
- In the case of entertainment events, the specific time the business discussion took place (i.e. before, during or after the event).

Corporate Charge Card

The President must approve the issuance of a corporate charge card.

Personal Use of Corporate Charge Card

Corporate charge cards are intended for business use. Corporate charge cards must NOT be used for personal expenses and use of the corporate charge card for personal expenses will result in termination of the card.

Reporting Lost / Stolen Cards

A lost or stolen corporate charge card must be reported to the card issuer and the Vice President of Finance and Administration as soon as the employee discovers it is missing. Statistics on stolen charge cards indicates that unauthorized use of stolen cards is greatest in the first few hours after the theft.

Expense Reporting

An expense report form is required to be completed to request reimbursement for incurred eligible travel and entertainment expenses.

The expense report form is located under Templates in the Shared Drive.. The form will automatically calculate mileage reimbursements, total expenses by day and by type and calculate the net amount due the employee.

The expense report is to be completed and submitted for reimbursement in a timely manner. Expense reports should be submitted within one week of incurring the expense. CEFIA will assume no obligation to reimburse employees for expenses that are not submitted within 30 days of incurring the expense.

The type of expense and dollar amount must be separated on a **daily basis**. For example: a hotel bill may include meals, lodging and telephone expenses. Each category must be split and entered in the appropriate space on the expense report form with expenses allocated for each travel day.

Approval / Authorization Process

All expense reports must be approved by the employee's immediate supervisor and then forwarded to the Finance Department. The President's expense report will be approved by the Vice President Finance and Administration. **Individuals approving expense reports are responsible for ensuring:**

- The correctness, reasonableness and legibility of entries.
- Applicable receipts are attached.
- Charges are consistent with policy and were incurred for business purposes.
- Expenses are adequately explained.
- The expense report is signed by the employee.

In accordance with present rules and guidelines, charges that are questionable should be discussed with the employee and resolved **before** the expense report is approved.

Expense Report Review

The Finance Department will review each employee expense report for:

- Approval signatures.
- Business purpose.
- Correct totals.
- Supporting documentation and receipts.
- Policy compliance.

The Finance Department will not reimburse any expense that is not in compliance with CEFIA's travel and entertainment policy.

Examples of Acceptable Documentation:

- Air/Rail - original passenger coupon.
- Hotel - hotel folio plus charge card receipt or other proof of payment.
- Car Rental - rental car agreement plus charge card receipt or other proof of payment.
- Meals/Entertainment – charge card receipt or cash register receipt.
- Receipts for all miscellaneous expenses over \$10.00.

Receipts must include the name of the vendor, location, date and dollar amount of the expense. When a receipt is not available, a full explanation of the expense and the reason for the missing receipt is required.

Incorrect or Incomplete Expense Reports

Expense reports that are incorrect or incomplete will be returned to the employee for corrective action and may result in delay or non-reimbursement of specific items. Violating CEFIA policy or altering of receipts can result in disciplinary action up to and including termination.

Employees Will Not Be Reimbursed for the Following Items:

- **Airline club membership dues.**
- **Airline headsets.**
- **Airline drinks.**
- **Airline or personal insurance.**
- **Annual fees for personal credit card.**
- **Barbers and hairdressers.**
- **Birthday lunches.**
- **Car washes.**
- **Cellular phone repairs, except for corporate cell phones.**
- **Child care.**
- **Clothing (i.e. socks, pantyhose, etc.).**
- **Expenses for travel companions/family members.**
- **Expenses related to vacation or personal days while on a business trip.**
- **Flowers or gifts for employees or customers (unless approved by the President or a Vice President).**
- **Gum, candy or cigarettes.**
- **Health club facilities, saunas, massages.**
- **Hotel movies.**
- **Hotel room refrigerator items.**
- **Hotel laundry and valet services unless the trip exceeds five consecutive days.**

- Interest or late fees incurred on a personal credit card.
- Loss/theft of cash advance money or Company-paid airline tickets.
- Loss/theft of personal funds or property.
- Magazines, books, newspapers, subscriptions.
- Mileage for travel between home and office/work site.
- “No show” charges for hotel or car service.
- Optional travel or baggage insurance.
- Parking or traffic tickets.
- Personal accident insurance.
- Personal entertainment, including sports events.
- Personal toiletries.
- Pet care.
- Postage costs, postcards (sent to fellow employees).
- Shoe shine.
- Short term airport parking (except for 1 day trips only)
- Unexplained or excessive expenses which are not within the intent of CEFIA policy will not be reimbursed.

All employees must review this policy and sign the acknowledgement form found in the Appendix and return it to Human Resources.

SECTION 7 GENERAL RULES OF CONDUCT

General Rules of Conduct

To ensure orderly operations and provide the best possible work environment, CEFIA expects employees to follow rules of conduct that will protect the interests and safety of all employees and the organization. Although it is not possible to list all the forms of behavior that are unacceptable, the following are examples of infractions that may result in disciplinary action, up to and including termination of employment:

- Theft or inappropriate removal or possession of property of CEFIA, clients or other employees.
- Dishonesty or misrepresenting, falsifying or providing misleading records including, but not limited to, employment applications or resumes, time keeping records, client records, expense requests, etc.
- Working under the influence of alcohol or illegal drugs.
- Possession, distribution, manufacturing, sale, transfer, or use of alcohol or illegal drugs in the work place, while on duty.
- Fighting, wrestling, horseplay, or threatening violence in the workplace.
- Insubordination or other disrespectful conduct including, but not limited to, refusal to perform assigned work.
- Refusal to do assigned work, use of obscene or vulgar language, or other disrespectful conduct.
- Taking any action detrimental to CEFIA, fellow employees, clients or visitors.
- Unsafe behavior and/or violation of safety or health rules.
- Sexual or other unlawful or unwelcome discrimination or harassment.
- Possession of dangerous or unauthorized materials, such as explosives or firearms, in the workplace.
- Excessive absenteeism, tardiness, or any absence without notices.
- Unauthorized use of telephones, mail system, or other employer-owned equipment for personal use or other unauthorized operation.
- Sleeping, loafing, failure to demonstrate a professional behavior in carrying out assigned tasks.
- Soliciting, gambling, taking orders, selling tickets, collecting or contributing money for any unauthorized cause.
- Engaging in outside business activities that conflict with CEFIA's interests or interfere with proper performance of job duties.
- Failure to report a work-related injury immediately.
- Unauthorized use or the willful damage, abuse or destruction of CEFIA property or the property of others.
- Violation of CEFIA's personnel policies and/or rules.
- Unsatisfactory work performance.

The examples listed above are not intended to cover all situations that may result in disciplinary action, but are only intended to be guidelines as to what are considered improper standards of work conduct. Also, this policy does not alter the at-will nature of an employee's employment with CEFIA.

If any employee's behavior or interactions jeopardize positive working relationships with clients, and render the employee unable to fulfill the responsibilities of his/her position, or place CEFIA at risk of liability, the employee will be subject to review and possible disciplinary actions. It is important for all employees to conduct themselves in a way that is fair to each other and to our common objective of delivering quality services.

Personal Appearance

The nature of our business at CEFIA puts us in frequent contact with clients and the public. We enjoy an excellent reputation among the energy community in Connecticut. While there are many reasons for this reputation, one of the ways to help maintain it is for all staff to present a professional image to the community. It is important that they have confidence in the staff, and the staff members have confidence/pride in themselves when transacting business. To help present this image and foster public confidence, staff members must dress appropriately for their work assignments and use common sense and good judgment in their appearance. Employees with questions regarding what is deemed appropriate dress for his/her work assignments should discuss this with his/her supervisor. CEFIA reserves the right to determine individual compliance with the policy in all questionable cases.

Personal Appearance Guidelines

Staff will wear clean and well-maintained attire appropriate to the type of work they do. Shoes are required and must also be well-maintained. Good grooming is required. Formal business attire may be expected for internal and external events such as board meetings, hearings, presentations, and meetings.

Business casual attire (ties are optional) is acceptable for all other occasions. In compliance with this policy, the following are examples of unacceptable attire:

- torn, patched/faded clothing
- athletic wear, e.g. sneakers, shorts, t-shirts, skorts, etc.
- halter tops
- tube tops
- rubber soled flip flops
- blue denim clothing (unless on a designated “Jeans for Charity” Day)
- shorts (any pant or slack that ends above the knee)
- shirts with slogans or large letter advertising

Freedom from Harassment

CEFIA is committed to treating its employees with dignity and respect. All employees have a right to be free from racial or ethnic slurs, unwelcome sexual advances, or any other verbal or physical conduct that constitutes harassment. CEFIA is committed to providing a work environment that is free of discrimination and unlawful harassment.

Sexual harassment is unlawful under federal and state law. The CEFIA statement on Sexual Harassment and the Equal Employment Opportunity Commission “Guidelines on Discrimination Because of Sex” provide that unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

- Submission to such conduct is made either explicitly or implicitly a term or condition of an individual’s employment.
- Submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting that person.
- Such conduct has the purpose or effect of unreasonably interfering with an individual’s work performance or creating an intimidating, hostile, or offensive working environment.

Actions, words, jokes, or comments based on an individual’s sex, race, ethnicity, age, religion, or any other legally protected characteristics will not be tolerated. As an example, sexual harassment (both overt and subtle) is a form of employee misconduct that is demeaning to

another person, undermines the integrity of the employment relationship, and is strictly prohibited.

Sexual, racial, ethnic, or other unlawful harassment of employees by supervisory or non-supervisory employees of CEFIA, or by non-employees (including clients) will not be tolerated. All members of CEFIA management and supervision have the explicit responsibility to take immediate corrective action to prevent any sexual, racial, ethnic or other harassment.

Any employee who wishes to report an incident of unlawful harassment should promptly report the matter to his or her supervisor. If the supervisor is unavailable or the employee prefers to report the incident to someone other than the supervisor, he or she should immediately contact the Human Resources Administrator or any other available manager.

Anyone engaging in unlawful harassment will be subject to disciplinary action, up to and including termination of employment.

Sexual Harassment

Title VII of the Civil Rights Act of 1964, which is a federal law and Connecticut law, prohibit sexual harassment. CEFIA will not tolerate sexual harassment in the workplace. No employee—either male or female—should be subject to unwelcome verbal or physical conduct that is sexual in nature or shows hostility to the employee because of the employee's gender. Sexual harassment does not refer to occasional compliments of a socially acceptable nature. It refers to behavior that is not welcome, that is personally offensive, that debilitates morale, and that, therefore, interferes with work effectiveness.

Management Responsibility

Management at all levels of CEFIA is responsible for preventing sexual harassment in the workplace. This responsibility includes immediately reporting conduct by anyone, whether a coworker, supervisor, or non-employee, that may constitute sexual harassment, even if the conduct was sanctioned and regardless of how awareness of conduct was gained.

Prohibition Against Sexual Harassment

CEFIA strictly enforces a prohibition against sexual harassment of any of its employees. Sexual harassment prohibited by state and federal law and by this policy includes the following conduct:

- Unwelcome verbal or physical conduct of a sexual nature when submission to such conduct is made either an explicit or implicit term or condition of any individual's employment (such as promotion, training, timekeeping, overtime assignments, leaves of absence); or
- Unwelcome verbal or physical conduct of a sexual nature when submission to or rejection of such conduct by an individual is used as the basis for employment decisions; or
- Unwelcome verbal or physical conduct of a sexual nature when the conduct has the purpose or effect of substantially interfering with an individual's work performance or creating an intimidating, hostile or offensive working environment; or
- Unwelcome verbal or physical non-sexual conduct that denigrates or shows hostility toward a person because of his or her gender when the conduct has the purpose or effect of substantially interfering with an individual's work performance, or creating an intimidating, hostile, or offensive work environment.
- Sexual harassment is a form of sexual discrimination, and neither sexual harassment nor discrimination will be tolerated.

Examples of Conduct Prohibited By This Policy Include:

- Offering or implying an employment-related reward (such as a promotion or raise) in exchange for sexual favors or submission to sexual conduct;
- Threatening or taking a negative employment action (such as termination, demotion, denial of a leave of absence) if sexual conduct is rejected;
- Unwelcome sexual advances or repeated flirtations;
- Graphic verbal commentary about an individual's body, sexual prowess or sexual deficiencies;
- Sexually degrading or vulgar words to describe an individual;
- Leering, whistling, touching, pinching, brushing the body, assault, coerced sexual acts, or suggestive, insulting, or obscene comments or gestures;
- Asking unwelcome questions or making unwelcome comments about another person's sexual activities, dating, personal or intimate relationships, or appearance;
- Conduct or remarks that are sexually suggestive or that demean or show hostility to a person because of that person's gender (including jokes, pranks, teasing, obscenities, obscene or rude gestures or noises, slurs, epithets, taunts, negative stereotyping, threats, blocking of physical movement);
- Displaying or circulating pictures, objects, or written materials (including graffiti, cartoons, photographs, pinups, calendars, magazines, figurines, novelty items) that are sexually suggestive or that demean or show hostility to a person because of that person's gender;
- Retaliation against employees complaining about such behaviors;
- Harassment consistently targeted at only one sex, even if the content of the verbal abuse is not sexual;
- Sexually suggestive or flirtatious letters, notes, e-mail, or voice mail

This policy covers all employees. CEFIA will not tolerate, condone or allow sexual harassment whether engaged in by fellow employees, supervisors, and associates or by outside clients, opposing counsel, personnel or other non-employees who conduct business with this agency.

General Harassment

Actions, words, jokes or comments based on an individual's sex, race, ethnicity, age, religion or any other legally protected characteristic will not be tolerated. Such conduct can unreasonably interfere with work performance and create an intimidating, hostile and offensive work environment.

We expect all employees to consider at all times the effect your words and actions may have on those with whom you work. While you may feel that your behavior is harmless, it is the way your words and actions are perceived by others that counts.

Please do not assume that the agency is aware of a harassment situation. It is in your best interest and your responsibility to bring your complaints and concerns to management's attention so that the issue may be resolved.

Complaint Process

Should you ever experience any job harassment problem, please exercise the steps in our agency Grievance Procedure (outlined in Section 7 of this handbook), or at your option, you may directly contact Human Resources. You may expect prompt and concerned reaction to

your problem. Any employee engaging in unlawful harassment will be subject to disciplinary action, up to and including termination.

Sanctions

Any employee found to have engaged in sexual harassment or sexual discrimination will be subject to appropriate discipline, up to and including discharge.

No Retaliation

This policy also prohibits retaliation against employees who bring sexual harassment charges or assist in investigating charges. Retaliation in violation of this policy may result in discipline up to and including termination. Any employee bringing a sexual harassment complaint or assisting in the investigation of such a complaint will not be adversely affected in terms and conditions of employment, nor discriminated against or discharged because of the complaint.

All employees must review this policy and sign the acknowledgement form found in the Appendix and return it to Human Resources.

Confidential Disclosure Policy

Instructions: Please read this Confidential Disclosure Policy form carefully, then sign and return this form to Human Resources.

I understand that in connection with my work for CEFIA, I may be exposed to or given confidential or proprietary information belonging to CEFIA and others, including, but not limited to, information concerning trade secrets, business, products, finances, personnel information, and plans of CEFIA or CEFIA's clients, portfolio companies and applicants, (the Confidential Information). Without limitation, examples of Confidential Information are: drawings, manuals, notebooks, reports, models, inventions, formulas, processes, machines, compositions, computer programs, accounting methods, financial information, business and marketing plans and information systems.

Some of the Confidential Information may belong to or relate to "publicly held" companies and may include "inside information" which is not available to the public.

My employment by CEFIA creates a relationship of special confidence and trust between me and CEFIA with respect to the Confidential Information.

I agree as follows:

1. I will not, either during or subsequent to my employment by CEFIA, (1) publish or otherwise disclose Confidential Information except to persons who may from time to time be designated by CEFIA as proper recipients of such Confidential Information or (2) use the Confidential Information (including any inside information) either for the benefit of myself or for the benefit of anyone other than CEFIA. If I have any questions regarding whether any information is Confidential, I will ask my supervisor for instructions and will not disclose such information unless otherwise instructed by my supervisor.
2. The Confidential Information will remain at all times the property of CEFIA or the rightful owners thereof notwithstanding its disclosure to me.
3. I will promptly disclose to CEFIA all materials, innovations, studies, writings or other works created or developed by me as a result of tasks assigned to me by CEFIA or exposure to the confidential Information ("Work Product"). I agree that all ("Work Product") shall be the sole property of CEFIA and that CEFIA shall be the sole owner of all copyrights and other intellectual property rights related thereto. I hereby assign to CEFIA any and all rights which I may have or acquire in any Work Product and agree to assist CEFIA in every way (but at CEFIA's expense) to obtain or enforce copyrights and other interests in the Work Products as CEFIA may desire.
4. Upon termination of my employment with CEFIA or whenever requested by CEFIA, I will promptly deliver to CEFIA all Work Product and all documents and other tangible embodiments of the Confidential Information and any copies thereof.

Confidential Disclosure Policy

This agreement supersedes and replaces any existing agreement between CEFIA and me relating generally to the same subject matter. It may not be modified or terminated, in whole or in part, except in writing signed by an authorized representative of CEFIA. Discharge of my undertakings in this agreement shall be an obligation of my executors, administrators, or other legal representatives or assigns.

All employees must review this policy and sign the acknowledgement form found in the Appendix and return it to Human Resources.

Computer Use Policy

Personal Use

Your computer is a CEFIA resource and is subject to the same rules as other CEFIA resources. **Use of your computer for personal business is prohibited.** Personal use includes anything not related to your job at CEFIA. CEFIA reserves the right to access, review, read, monitor, edit, delete, and print, any files, data, electronic mail, or other information or material which is created, communicated, accessed, or stored by any user on any of CEFIA's electronic information resources.

E-Mail

E-mail messages are considered public records and are subject to the Freedom of Information Act. Furthermore, e-mail, both incoming and outgoing, is not confidential and is monitored by the Information Technology Department. All e-mail correspondence is saved on the network backup solution and is easily retrievable. You should take great care to scrutinize what you include in an e-mail message. E-mail messages may exist on the system indefinitely and may be recoverable even after you have deleted the message.

All employees must create and use a business email signature, based on the approved template that is generated by the marketing department. Instructions and format of the signature are located under IT Tech Tips in public folders.

The following are misuse of the email system. Failure to comply with these guidelines could result in disciplinary action.

- E-mail of a personal nature sent within the organization or to outside individuals.
- Forwards / chain mail.
- Jokes / cartoons / videos.
- Remarks of a discriminatory, abusive, profane, threatening, racist, sexist nature.
- Solicitations for donations or events (unless authorized by management).
- Infringement on copyrights or trademark rights of the company or other organizations.
- Misrepresentation of oneself or the company.
- Additionally, users shall not open misaddressed e-mail, or send anonymous e-mail messages.

Email Disclaimer

An email disclaimer is automatically added through our Exchange server to the end of all e-mail being sent outside the office. Do not add your own disclaimer to messages. The company disclaimer is as follows:

NOTICE TO RECIPIENT: This e-mail, including any files or attachments transmitted with it, is confidential and intended for a specific purpose and for use only by the individual or entity to whom it is addressed. Any disclosure, copying or distribution of this e-mail or the taking of any action based on its contents, other than for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Any views or opinions expressed in this e-mail are not necessarily those of The Clean Energy Finance and Investment Authority (CEFIA). E-mail transmission cannot be guaranteed to

be error-free, or secure, or free from viruses, and CEFIA disclaims all liability for any resulting damage, errors, or omissions.

My Documents

The “My documents” folder is to be used as a work-in-progress location. This is the only place you are allowed to store documents on the PC. Once items in this folder are deemed completed they should be moved to the proper location within the department’s folders on the server. Your my documents folder is located on the server, synchronized with your PC on logon and logout. The size of this folder is limited to 350 mb

Creation of folders and files on your PC is prohibited, except within your “My Documents” folder.

Illegal & Prohibited Activities

Use of your computer for an illegal purpose is prohibited. Illegal activities include violations of local, state and/or federal laws and regulations. Connecticut General Statutes, section 53a-251 establishes the crime of “Computer Crime.” A person can be charged with a computer crime for such things as:

- Unauthorized access to a computer system.
- Theft of computer services.
- Interruption of computer services.
- Misuse of computer services.
- Destruction of computer equipment.

A computer crime violation can range from a Class B Felony (1 to 20 years in prison and up to \$20,000 fine) to a Class B Misdemeanor (up to 6 months in prison and up to \$1,000 fine) depending on the amount of money or damage involved.

CEFIA strives to maintain a workplace free of harassment and sensitive to the diversity of its employees. Therefore, CEFIA prohibits the use of any of its systems, including the computers and the e-mail system in ways that are disruptive, offensive to others, or harmful to morale. For example, the display or transmission of sexually explicit images, messages, and cartoons is not allowed. Other such misuse includes, but is not limited to, ethnic slurs, racial comments, off-color jokes, or anything that may be construed as harassment or showing disrespect for others.

It is recognized that employees do not have complete control over all incoming e-mail that is sent to CEFIA. However, it is the responsibility of every employee to monitor incoming e-mail and request cessation of inappropriate, voluminous, unprofessional or disruptive e-mail.

Software

Use of software that was preinstalled on your computer or use of software later approved and installed on your computer by the Information Technology Department is permissible. However, you are not allowed to install any software on any company hardware. All software must be approved and installed by the Information Technology Department.

- All use of software must pertain to CEFIA business only. No copying of software is permitted.
- No use of any recreational games on company hardware is permitted.

- Prior to use, the Information Technology Department must scan all computer media received from outside CEFIA for viruses. No personal software may be brought in or used on CEFIA systems.
- No company software may be installed on personal hardware.

Hardware

- All use of hardware must pertain to CEFIA business only. No personal use of this equipment is permitted.
- No personal hardware may be used on CEFIA systems.
- Personal use of the company phone system should be kept to a minimum.
- Presentation laptops and LCD projectors must be reserved in the CEFIA device calendars.
- All laptop users must carry their device in an adequately padded laptop case. Laptop sleeves, totebags and any other uncushioned bags are not acceptable.
- Equipment may not be rearranged on your desk without assistance by the IT Staff.
- Printers must be handled with care. If a jam or other issue occurs and you cannot quickly fix the issue, the IT Staff should be contacted to resolve the issue.

Mobile Devices and Tablets

Cell Phones/Smart Phones

CEFIA understands the need to keep in touch with others both on a personal and professional level. We ask that you use some common courtesy using cell phones.

Company paid phones with data plans must be first approved by your supervisor and proper paperwork filed with Finance. Once this process is complete, the IT department will configure the device to connect to the server to retrieve mail, contacts and your calendar. It is your responsibility to take care of the device and ensure its safety. If it at any time it is lost, stolen, upgraded or you leave CEFIA you must inform IT so that they can wipe the device remotely of company data.

Tablets

Those who own such devices must have management approval to use them for company business and e-mail synchronization, just as for smart phones. Just as for synchronized phones, IT needs to be informed if your device has been lost or put into the wrong hands or if you are getting rid of the device as they need to wipe it of company data.

Other Wireless Enabled Devices

Other devices, such as the iPod Touch, which have wireless capabilities, may be connected to the guest wireless in the office. To use these devices to connect to company email you must have management approval and must follow the same rules as smartphones and tablets.

Company Data

The Information Technology Department is responsible for protecting all company data. This includes all data on the servers, as well as on other devices such as laptops, desktops, mobile devices and multifunction printers. The IT department backs up all data on the servers on a daily, weekly, and monthly schedule and retains this data under the company approved Backup Policy.

The following are not permitted:

- Backup company data on your own.
- Have company data on your personal equipment, this includes the following:
 - Personal PCs laptops or desktops.
 - Personal USB devices, such as memory sticks, MP3 players, hard drives or other recording devices.
- Send company data via e-mail to your or another CEFIA employee's personal email account.
- Access another employee's hardware, computer files or email without prior permission from employee or appropriate manager.
- Sharing your logon password with anyone except for the IT Staff.
 - The system will ask to reset your password every 90 days.

If you telecommute, all work must be done on company equipment. If you are not using a company-owned laptop, a loaner PC can be arranged through the IT department with proper advanced notice to accommodate your needs. No personal devices may be attached to company hardware without prior approval by the IT department (i.e. printers, hard drives, etc.).

It is permitted to transfer items such as presentations and documents to a recording device for the sole purpose of collaboration with approved clients or customers pertaining to company business.

Internet Use Policy

Access to the Internet at CEFIA is a resource, and use thereof is subject to the same rules as other CEFIA resources. It is the responsibility of the user to make sure that all use of the Internet is authorized, appropriate and to the benefit of CEFIA. Each individual with access to the Internet is responsible for controlling its use. The use of the Internet is a privilege, not a right, which can be revoked at any time.

Use of the Internet for personal business is prohibited. Access to the Internet is provided for official business purposes only. It is our intention to prevent users from going to non-business related websites that could potentially download malware without the user's knowledge. We also want to prevent unnecessary Internet use that reduces bandwidth.

The following are examples of **non-business** related activities that are prohibited:

- Streaming music or video.
- Shopping.
- Booking a vacation.
- Using instant messaging.
- Viewing personal pictures over the web.
- Social media websites (i.e. Facebook, Twitter, MySpace, Google+, etc.)
- Downloading unauthorized computer software or pornographic materials.

Communication on the Internet is not private and can be monitored by CEFIA. CEFIA systems and all information stored on them is the property of CEFIA. Do not send confidential or sensitive information. Do not assume any communication will be read only by the intended recipient. Communication on CEFIA systems shall not contain content that could be considered to be defamatory, offensive, harassing, disruptive, or derogatory. This

includes, but is not limited to, sexual comments or images; racial or ethnic slurs, or other comments or images on gender, national origin, religion, political beliefs, or disability that would offend someone.

Social Media

These guidelines apply to CEFIA employees, temporary employees and contractors who create or contribute to blogs, wikis, social networks, virtual worlds or any other kind of Social Media for both professional and personal use.

While everyone is welcome to participate in Social Media, we expect all who participate in online commentary understand and follow these simple but important guidelines. Please keep in mind that our overall goal is simple: to participate online in a respectful, relevant way that protects our reputation and follows the letter and spirit of the law.

- Post meaningful, respectful comments- no spam and no remarks that are off-topic or offensive.
- Be smart about protecting yourself, your privacy, and CEFIA's confidential information. What you publish is widely accessible and available for a long time, so consider the content carefully.
- Never claim nor imply that you are speaking on the company's behalf, unless you are posting on a company owned and approved location and that information has been approved by management.
- Do not represent yourself or CEFIA in a false or misleading way. All statements must be true and not misleading; all claims must be substantiated.
- Postings cannot include company logos or trademarks unless permission has been asked for and granted.
- Never comment on anything related to legal matters, litigation, or any parties CEFIA may be in litigation with.
- Postings must respect copyright, privacy, fair use, financial disclosure, and other applicable laws.
- Pictures, videos, and other media produced on the business premises or outside events may not be posted.
- Sites cannot be accessed for personal use on company hardware nor can any postings of a personal nature be orchestrated during business hours on company owned personal devices.
- CEFIA reserves the right to request that certain subjects be avoided, withdraw certain posts, and remove inappropriate comments. If such employee denies or does not comply, proper legal action will be taken.

All employees must review these policies and sign the Information Technologies Policies acknowledgement form found in the Appendix and return it to Human Resources.

Solicitation and Distribution

All CEFIA employees are entitled to the opportunity to perform their work without being bothered or disturbed. Accordingly, we have adopted the following solicitation and distribution rule.

Non-Employees

Anyone who is not an employee of CEFIA is prohibited from soliciting or distributing literature on CEFIA premises at any time.

Employees

The CEFIA Solicitation and Distribution policy as it relates to current employees is as follows:

- Employees may not engage in solicitation or distribution of literature during working time. “Working time” means actual working time during the workday and includes both the working times of an employee doing the soliciting or of an employee being solicited. Working time does not include lunch periods, work breaks, or any other period in which employees are not on duty.
- Employees may not distribute literature concerning matters other than those directly related to CEFIA business in work areas at any time.
- Employees may not engage in verbal solicitation or distribution of literature at any time in those areas normally frequented by clients carrying on CEFIA business.

Bulletin Boards

Bulletin boards are important as communications tools to alert you to CEFIA programs and activities. The posting of written solicitations of any kind on bulletin boards is restricted. Only notices relating to CEFIA sponsored activities may be posted on bulletin boards. These bulletin boards display important information, and employees should consult them frequently for:

- Employee announcements.
- Internal memoranda.
- Job openings.
- Organization announcements.
- Workplace Violence Policy Memorandum

DATE: December 16, 2011
TO: CEFIA Staff
FROM: Bryan Garcia, President
RE: **Workplace Violence Policy**

Attached is a copy of a policy concerning workplace violence and prohibiting weapons and dangerous instruments in the workplace. This policy was prepared at the direction of the Governor and is effective immediately.

The policy is consistent with what has been called a “Zero Tolerance” approach. Violence or the threat of violence by or against any employee of the State of Connecticut, including CEFIA, is unacceptable and will subject the perpetrator to serious disciplinary action and possible criminal charges.

CEFIA is committed to providing its employees a safe and healthy work environment, free from intimidation, harassment, threats and/or violent acts.

The worksite is any location, either permanent or temporary, where an employee performs any work-related duty. This includes but is not limited to the building and the surrounding perimeter, including the parking lot. It includes all state-owned and leased space, including vehicles and any location where state business is conducted.

According to the National Institute for Occupational Safety and Health (NIOSH), workplace violence is defined as:

“any physical assault, threatening behavior or verbal abuse occurring in the work setting. It includes, but is not limited to beatings, stabbings, suicides, shootings, rapes, near suicides, psychological traumas such as threats, obscene phone calls, an intimidating presence, and harassment of any nature such as being followed, sworn at, or shouted at.”

There is no such thing as a “joke” when dealing with this subject. It is not funny when employees speak about “going postal”, “getting” another employee or anything remotely similar.

Do not ignore violent, threatening, harassing, intimidating, or other disruptive behavior. If you observe or experience such behavior by anyone on Authority premises, whether he or she is a CEFIA employee or not, report it immediately to a supervisor or manager.

The cooperation of all CEFIA staff is needed to implement this policy effectively and maintain a safe working environment.

State of Connecticut

**Workplace Violence Prevention Policy
Issued by Governor John G. Rowland**

August 1999

The State of Connecticut adopts a statewide zero tolerance policy for workplace violence. Therefore, except as may be required as a condition of employment---

- No employee shall bring into any state worksite any weapon or dangerous instrument as defined herein.
- No employee shall use, attempt to use, or threaten to use any such weapon or dangerous instrument in a state worksite.
- No employee shall threaten to cause death or physical injury to any individual in a state worksite.

Weapon means any firearm, including a BB gun, whether loaded or unloaded, a switchblade or other knife having an automatic spring release device, a stiletto or any knife with the blade of four or more inches, any police baton or nightstick or any martial arts weapon or electronic defense weapon.

Dangerous instrument means any instrument, article, or substance that, under the circumstances, is capable of causing death or serious physical injury.

Violation of the above reasonable work rules shall subject the employee to disciplinary action up to and including discharge.

Any employee, who fears for their personal safety or for the safety of others in situations that require immediate attention, should **call police at 911**.

Contact your supervisor or Human Resources at **ext. 356** for non-emergency situations.

All employees must review this policy and sign the acknowledgement form found in the Appendix and return it to Human Resources.

Disciplinary Procedure

CEFIA believes each employee should be treated and respected as an individual. Therefore, employee misconduct is approached in a case-by-case manner. Some infractions are more serious than others are and an employee's lengths of service, work record and prior conduct are all important in determining the proper disciplinary action. It is our general practice to use progressive disciplinary counseling procedures between the employee and their immediate supervisor in which the supervisor will explain the charges and allow the employee to explain their position. In all phases of the disciplinary procedure, CEFIA will make reasonable efforts to give the employee the opportunity to make their position clear, orally or in writing. Some serious incidents of misconduct may require immediate discharge from employment, but whenever possible, misconduct will be approached with counseling before termination of employment is considered. The primary purpose of discipline is remedial, not punitive. When possible and appropriate the steps of progressive discipline will be as follows:

1. A verbal (oral) warning giving clear guidelines for corrective action and potential consequences.
2. A written warning with the infraction and required corrective action specified.
3. A written reprimand is issued when the employee has been warned and the problem behavior has not been corrected.
4. A suspension without pay serves as the last resort prior to discharge.
5. A demotion results when an employee is willing but unable to perform assigned duties.
6. A termination of employment usually follows prior disciplinary steps or for a serious rule violation.

When disciplinary action is required upon the recommendation of the Supervisor, the President may elect a written reprimand, suspension without pay demotion, disciplinary probation, or dismissal. The President may take any such disciplinary action after the evaluation process determines that an employee's performance and/or conduct is unacceptable, taking any mitigating circumstances into account. A record of the written reprimand or documentation of other disciplinary action will be made a permanent part of the employee's personnel file.

Management reserves the right to enter into any level of disciplinary action or termination based upon the severity of the offense requiring discipline and the employee's past work record. This policy in no way alters the at-will employment policy; the employee or CEFIA may terminate the employment relationship at any time and for any reason.

Employment Termination

Termination of employment is an inevitable part of personnel activity within any organization, and many of the reasons for termination are routine. Below are examples of some of the most common circumstances under which employment is terminated:

Resignation

Employment termination initiated by an employee who chooses to leave CEFIA voluntarily.

Discharge

Employment termination initiated by CEFIA.

Layoff

Involuntary employment termination initiated by CEFIA for non-disciplinary reasons.

Retirement

Voluntary retirement from active employment status initiated by the employee.

Exit Interview

CEFIA will generally schedule exit interviews at the time of employment termination. The exit interview will afford an opportunity to discuss such issues as employee benefits, conversion privileges, repayment of outstanding debts to CEFIA, return of CI-owned property, and assuring that necessary assignments are completed. Suggestions, complaints, and questions can also be voiced.

Employee benefits will be affected by employment termination in the following manner. All accrued, vested benefits that are due and payable at termination will be paid. Some benefits may be continued at the employee's expense if the employee so chooses. The employee will be notified in writing of the benefits that may be continued and of the terms, conditions, and limitations of such continuance

Grievance Procedure

Supervisors are responsible for being accessible and for regularly discussing working conditions, job performance, or any other concern an employee has about his/her job at CEFIA making reasonable efforts to address problems and concerns. Our success depends upon maintaining clear and open communication with employees. It is of utmost importance to respond to complaints, problems, or anything employees deem unfair or unacceptable. Each employee should feel free to discuss any complaint or problem with their immediate supervisor. This initial step in the grievance procedure is informal to encourage a quick resolution. No employee will be penalized or discriminated against for bringing up a problem or registering a grievance regardless of the nature of the complaint.

Grievances Not Involving Discrimination Or Sexual Harassment

If an employee has a grievance that remains unresolved in informal discussions with their supervisor, they should make a scheduled, recorded appointment with their supervisor to discuss the problem. The employee and supervisor should keep a written record of this discussion.

If a settlement satisfactory to both parties cannot be reached, the employee and their supervisor should submit the grievance in writing to the President, attaching their written records of the meeting. The President will schedule a meeting with the employee and the supervisor within five (5) working days of receipt of the grievance. A written record of this meeting will also be kept, and the President will render a decision within three (3) working days after the meeting.

In the event the employee is not satisfied with the decision of the President, they may request a hearing before the Board of Director's Budget and Operations Committee. The decision of the Budget and Operations Committee shall be final.

Grievances Involving Discrimination Or Sexual Harassment

Any employee who feels they would like counseling about possible violations of CEFIA affirmative action or anti-harassment policies, or any state or federal statutes related to Equal Employment Opportunity (EEO), Affirmative Action (AA), or Sexual Harassment should contact Human Resources. This counseling will be kept confidential and no related information will be released except upon signed consent of the employee or as necessary for CEFIA to comply or fulfill its obligations under federal or state law. Human Resources will provide information on state, federal agencies and CEFIA resources available to employees who wish to pursue a grievance regarding discrimination.

If a grievance involves sexual harassment by the employee's supervisor, or if there are other circumstances that make it impossible for the employee to initially address a grievance directly to the supervisor, he/she may schedule the initial meeting with the President. If the employee's supervisor is the President, the grievance may be directed to the Budget and Operations Committee.

Grievance Procedure Contacts

CHRO and EEOC

Separate and independent from the above process, the complainant may file written complaints of discrimination with:

The Connecticut Commission on Human Rights and Opportunities (CHRO)
21 Grand St, Hartford, CT 06106
Phone: (860) 541-3400

The Equal Employment Opportunity Commission (EEOC)
150 Causeway St, Boston, MA. 02114
Phone (617) 565-3214

Department of Justice (DOJ)
Office on the Americans with Disabilities Act
Civil Rights Division, P.O. Box 66118, Washington, D.C. 20507
Phone (202) 514-0301.

Employees may also file complaints with any other agencies, state, federal or local, including the United States Department of Labor, Wage and Hour Division, that enforce laws concerning discrimination in employment. Employees should be aware that there are statutes of limitations that require complaints be filed by a certain time period or the employee may forfeit his or her rights. Employees may inquire further with the respective agency.

No individual who files a complaint, or who cooperates or testifies in the investigation of a complaint, shall be unlawfully retaliated against for the exercising of their legal rights.

SECTION 8 HEALTH AND SAFETY

Health and Safety

Each employee is expected to share our commitment to a safe workplace. This obligation means that safe working habits and principles must be followed. All employees are expected to exercise common sense and good housekeeping practices. For the sake of all our employees and clients, safety concerns must be taken seriously. Every employee is expected to take a proactive role in providing a safe workplace. Horseplay or other unsafe activity is prohibited. Every employee must report any injury, no matter how slight, immediately to his or her supervisor. Such reports are necessary to initiate any necessary emergency procedures, to comply with workers compensation laws, and to initiate insurance and workers compensation benefits procedures.

First-aid kits containing items needed for most minor first-aid situations are maintained through out the third floor. All employees should make a note of their locations. Each employee is expected to exercise safe working habits and reasonable caution in all work activities. Any unsafe condition must be reported immediately to the appropriate supervisor. Employees who violate safety standards, who cause hazardous or dangerous situations, or who fail to report, or where appropriate, remedy such situations, may be subject to disciplinary action.

Policy On Life-Threatening and Communicable Diseases

This policy provides guidance for dealing with work situations involving employees, who have life-threatening and communicable diseases, including but not limited to:

- Acquired Immune Deficiency Syndrome (AIDS);
- Human Immunodeficiency Virus (HIV) infection;
- HIV-related illness as defined by the Connecticut General Statutes Section 19a-58 1; or
- Any other life-threatening and communicable disease.

Non-Discrimination

CEFIA does not unlawfully discriminate against qualified individuals with life-threatening and communicable diseases in any terms or conditions of employment.

It is our policy that individuals with life-threatening and communicable diseases will be treated with the same compassion and consideration given to any employee with a health problem. No person will be treated differently in the workplace as a result of having or being perceived as having such a disease.

No HIV or Aids Testing

Present or prospective employees will not be required to submit to an AIDS or HIV-related test as a condition of hiring or continued employment.

Ability to Work

CEFIA recognizes that employees with life-threatening and communicable diseases may require a reasonable accommodation to perform their job duties. It is CEFIA's policy to accommodate these employees by allowing them to work as long as they are able to perform their essential job functions, with or without reasonable accommodation, provided that medical evidence indicates that their conditions do not pose a direct threat to themselves or others.

Employee Health and Safety

CEFIA also recognizes its obligation to provide a safe and healthy work environment for all employees. Therefore, CEFIA may obtain appropriate medical direction, when necessary, to ensure that an employee's condition does not pose a significant risk of substantial harm to him/herself or to other employees or customers of the Agency.

According to the best medical evidence available to date, casual workplace contact with employees who have AIDS or who have been exposed to HIV will not result in transmission to others. Employees are expected to work with co-workers and any other individuals who have these conditions that do not pose a significant risk of harm. Employees who have unwarranted fears of exposure will not be allowed to refuse to work with individuals affected by HIV/AIDS or any other communicable disease. In addition, it is unacceptable for employees to spread rumors regarding situations involving HIV/AIDS or any other life-threatening and communicable disease where such rumors may affect the privacy, dignity and well being of others. Behavior of this nature will not be tolerated at CEFIA.

Confidentiality

All employee records or information regarding life-threatening and communicable diseases will be confidentially maintained in the Human Resources Office in a secure area, apart from the employee's personnel file.

Information Specific To Hiv/Aids

The identity of any employee with HIV or AIDS will remain confidential. HIV and AIDS-related information will not be disclosed without the written consent of the employee. Any unauthorized disclosure by an employee is strictly prohibited by the Connecticut General Statutes and may result in disciplinary action. This policy is intended to be consistent with the Connecticut HIV/AIDS Testing and Confidentiality Law of 1989 (C.G.S. §§ 19a-585 through 19a-592).

Drug and Alcohol Policy

CEFIA is committed to maintaining a substance-free, healthful, and safe work environment. To promote this goal employees are required to report to work in appropriate mental and physical condition to perform their jobs in a satisfactory manner. Employees are forbidden to use, possess, consume, manufacture, distribute, purchase, sell, or be under the influence of alcohol, illegal drugs, or controlled substances during working hours, whether on the premises, or representing or conducting the business of CEFIA elsewhere. Reporting to work under the influence of alcohol or illegal drugs, or being in possession of alcoholic beverages or illegal drugs on CEFIA's premises will not be tolerated. Such conduct is also prohibited during non-working time to the extent that, in CEFIA's opinion, it impairs an employee's ability to perform on the job or threatens the reputation or integrity of CEFIA.

The legal use of physician prescribed, or legal over-the-counter drugs is permitted on the job if it does not impair an employee's ability to perform the essential functions of the job effectively and in a safe manner that does not endanger other employees or clients. Any employee taking any legal or prescribed drugs known to have possible side effects that affect or impair judgment, coordination, or other senses, or that might adversely affect the employee's ability to perform normal work in a safe and productive manner, must notify his or her supervisor or other manager before commencing work. Information provided by the employee concerning the use of medication will be treated in a confidential manner. If CEFIA has reasonable cause to believe an employee is adversely affected by the use of a drug or medication such that a threat is posed to the safety of the employee, other persons, or to property, the employee may be denied

permission to continue working pending further investigation. The investigation will be conducted expeditiously, with the resulting information treated confidentially to the extent possible.

An employee whose job performance has deteriorated through the use of alcohol and/or drugs to the extent that termination of employment is being considered may opt to enter an approved treatment facility of their choice. Upon successful completion of treatment, the employee may be permitted to resume normal employment.

Employees must give notification in writing to Human Resources within five (5) calendar days of any drug conviction for violation of a criminal drug statute if the violation occurred in the workplace. Employees who have substance abuse problems are encouraged to participate in a rehabilitation program prior to any disciplinary action. If an employee chooses not to undergo rehabilitation, CEFIA will take disciplinary action consistent with state law and regulation within 30 calendar days of receiving notice of the conviction. A conviction means a finding of guilt including a plea of nolo contendere, or the imposition of a sentence by a judge or jury in any federal or state court.

Violations of any part of this policy may lead to disciplinary action, up to and including immediate termination of employment. Such violations may also have legal consequences.

Smoking Policy

The health and well being of staff and visitors to CEFIA are primary concerns of management. The Environmental Protection Agency has released a report officially concluding that second hand smoke is a Class A human carcinogen. It is also known that second hand smoke causes respiratory illness and is suspected to be even more dangerous in its link with heart problems. In order to protect the health of those who use our building, smoking or other use of tobacco products is prohibited in any offices or work areas within CEFIA. Smoking is permitted only out-of-doors.

Emergency Procedures Manual

Emergencies can occur at any time, and we need to be prepared to handle such situations to minimize injury and damage. The following information is designed to assist you in preparing for and handling an emergency.

Emergency Phone Numbers

Rocky Hill Police	9-911 or 258-7640 (Routine calls)
Rocky Hill Fire	9-911 or 258-7603 (Routine calls)
Health Emergencies	9-911 or dial 500 to page and assemble the first responders team to the announced area.

Medical

Medical Emergency Procedures for Staff

Page the Response Team by:

- Picking up the hand set
- Press the paging button on the bottom row, last button. (this is marked **Paging**)
- Press any # key three times and **SPEAK LOUD AND CLEAR AND SAY:**

“Attention, Response Team, Emergency in (location)”.

“Attention, Response Team, Emergency in (location)”.

(Give location and repeat the announcement twice).

If the person is unconscious, not responsive, seriously injured or in apparent serious distress, immediately after paging response team, dial 9-911.

(This will always be a personal judgment call and do not worry about calling unnecessarily). Please use the **house phone (not cell)** if possible as this triggers an in-house and police alert.

Paging button is **FOR EMERGENCIES ONLY.**

Response Team Actions (fyi)

Always know that if YOU are in distress and call 911 an immediate alert goes to the reception area, IT and the police. Do not hesitate to use this in an emergency.

1. Response Team Members will go directly to code red location. Follow trained response.
2. All team members of the **RESPONSE TEAM** respond to the location immediately.
3. In route to location, pick-up **AED unit --portable 1st Aid Kit** --notebook and Emergency Bag. All found next to the mailboxes and in file cabinet under AED unit.
4. If 9-911 has not yet been called, CEFIA trained staff will decide whether or not to call **9-911** directly or ask someone to do so and report the nature of the emergency and location. (Best to call in the presence of the victim if at all possible so information can be relayed to EMTs.)

One or two Response Team members will assess the situation and take the lead in providing necessary response. Remaining team members will provide the following:

1. Set up AED for use, if needed. Bring notebook in drawer and Emergency Bag.
2. Prepare for CPR relief, if needed. 3-to 5 minutes is desired.
3. Provide Privacy/Crowd Control, request non-response team personnel to evacuate the area until all is clear.
4. Secure the elevators.
5. Meet and Direct medical personnel to emergency location.
6. Once the Emergency Medical Team (EMT) has arrived the duties and responsibilities will be transferred to them. They may take AED with them.
7. Provide necessary information and any other support needed by the EMT.
8. Contact necessary family member(s) of victim. (List at AED location)
9. See that victim is accompanied to ER when applicable.
10. Provide follow up report to Human Resources.

Medical Emergency Procedure for Front Desk Personnel

Should you receive a call for medical assistance from any staff member, please use the following procedure:

1. Page the Response Team by dialing **500** which enacts the paging system
“Attention, all response team personnel, there is a code RED in ____.”
(Give location and repeat the announcement twice).
2. Response team members will go directly to red code location and follow trained response instructions. If possible while in route to location, pick-up AED unit and portable First Aid Kit located by the mailboxes next to the front lobby.
3. Response team evaluates situation and does one or all of the following:
 - a. Call 911
 - b. Call Front Desk
 - c. Team will activate procedure for 911.
4. Keep lines open for further communication.
5. Have a list of all family emergency numbers for staff available.
6. Notify Human Resources that there is an emergency.

Fire

In order to minimize property damage and possible loss of life, familiarize yourself with the building's fire prevention system. **Know the location of fire alarm pull stations and fire extinguishers. In addition familiarize yourself with the instructions on the extinguishers.**

WHEN THE FIRE ALARM IS HEARD:

- EVERYONE SHOULD IMMEDIATELY STOP WHAT THEY ARE DOING.
- EVACUATE THE BUILDING IN A CALM, ORDERLY MANNER TO A CENTRAL LOCATION AT LEAST 300 FEET FROM THE BUILDING.
- Do Not Stop to Gather Belongings.
- Follow Emergency Exit Signs to Exit Building.
- Check offices and cubicles as you leave your area.
- Sign-in roster should be picked up and taken to company gathering place.
- ALL DEPARTMENTS AND TENANTS GATHER DIRECTLY AT THE FAR RIGHT SIDE OF THE PARKING LOT (CLOSEST TO BROOK STREET). IF FRONT EXIT IS BLOCKED AND YOU MUST EXIT FROM THE REAR OF THE BUILDING, TRAVEL AROUND THE BUILDING AND HEAD TO THAT AREA. PLEASE REMAIN IN A GROUP. FIRE MARSHALL NEEDS HEAD COUNT IMMEDIATELY.
- DEPARTMENT SUPERVISORS TAKE A HEAD COUNT WHEN ALL CLEAR SIGNAL RECEIVED FROM FIRE MARSHALL SUPERVISORS WILL GIVE INSTRUCTIONS TO REENTER BUILDING.

Note: When moving into exit areas in an emergency situation, before going through the door, put your hand against it to feel for heat—there could be a fire on the other side. If the door feels cool proceed with caution. If the door feels hot, use an alternate escape route.

Fire procedures

If you should spot a fire follow these suggested guidelines:

1. If the fire is minor (wastebasket, ashtray, etc.) extinguish if possible. However, do not take risks! Your personal safety comes first!
2. If the fire cannot be immediately brought under control without personal risk, isolate or contain if possible by closing the door to the fire area.
3. Call the Fire Department at **9-911** or **258-7603**
 - a. Give building name: CEFIA .
 - b. Give building address and intersection: **865 Brook Street, Rocky Hill.**
 - c. Give CEFIA ' telephone number **563-5851.**
 - d. Give location and extent of fire.
4. Pull the fire alarm pull station so that evacuation can begin.
5. If trapped by flame or heat:
 - a. If possible, telephone the fire department and request immediate assistance.
 - b. Close doors separating you from the source of heat or flame.
 - c. Break glass window if necessary in order to escape.
 - d. Remember that both **heat and smoke rise**—air near the floor will be cleaner and cooler. Crouch down or crawl to exits.

Fire drills

Fire drills need to be conducted once a year according to town codes. The fire department will be directly involved so that they can test the fire alarm system and see if fire evacuation procedures are being followed.

Supervisors will be designated as the fire safety captains for their area.

Fire safety captains

Joe Casparino serves as our Fire Safety Captain and will help coordinate evacuation efforts. The captains' responsibilities include:

1. An awareness of employees in their area/office who are present that day so that all are accounted for after evacuating.
2. Knowledge of any employees with handicaps or disabilities which should be considered in an emergency.
3. Awareness of an up-to-date evacuation route from their area or office.
4. Checking of restrooms, conference rooms, smoking rooms or other areas which are not immediately visible to ensure that they are also evacuated.
5. Reporting any problems or special circumstances to Fire Warden.
6. Ensuring that people are exiting from the building in a calm and orderly fashion.

**IN THE EVENT OF AN EMERGENCY, JOE CASPARINO WILL IMMEDIATELY NOTIFY
CEFIA ' PRESIDENT AND/OR SENIOR MANAGEMENT TEAM!!!**

Housekeeping

Please inspect your space regularly and remove any items that could start or contribute to a fire or be a safety hazard. The following guidelines should be adhered to:

1. Do not allow accumulation of trash or waste material that is flammable.
2. Flammable materials or chemicals should not be stored within five feet of exit doors.
3. The wall and ceiling space around emergency and exit light fixtures should be kept clear.
4. The area surrounding electrical equipment should be free of clutter to provide for adequate air circulation.
5. Coffee makers and oven units are potential sources of fire. The last person leaving the building should check to be sure that they are turned off.

Gas Leaks

Due to the proximity of the office park to the Connecticut Natural Gas Storage Facility on the Rocky Hill/Cromwell line, we have occasionally found that a gas odor permeates the area when they are purging their lines. However, if at any time you detect a gas odor, it is important to assume that it's a potential leak and to take proper precautions as follows:

1. **DO NOT** turn on or adjust anything electrical in nature or anything which could cause a spark or flame (light switches, thermostats, lighters, etc.)
2. Call the facilities manager.
3. Evacuate the premises.

How To Handle Anthrax and Other Biological Agent Threats

Many facilities in communities around the country have received anthrax threat letters. Most were empty envelopes; some have contained powdery substances. The purpose of these guidelines is to recommend procedures for handling such incidents.

Do Not Panic

1. Anthrax organisms can cause infection in the skin, gastrointestinal system, or the lungs. To do so, the organism must be rubbed into abraded skin, swallowed, or inhaled as a fine, aerosolized mist. Disease can be prevented after exposure to the anthrax spores by early treatment with the appropriate antibiotics. Anthrax is not spread from one person to another person.
2. For anthrax to be effective as a covert agent, it must be aerosolized into very small particles. This is difficult to do, and requires a great deal of technical skill and special equipment. If these small particles are inhaled, life-threatening lung infection can occur, but prompt recognition and treatment are effective.

How to handle a suspicious unopened letter or package marked with threatening message such as "anthrax":

1. Do not shake or empty the contents of any suspicious envelope or package.
2. **PLACE** the envelope or package in a plastic bag or some other type of container to prevent leakage of contents. Plastic bags and/or containers are available in the kitchen.
3. If you do not have a container, then **COVER** the envelope or package with anything (e.g., clothing, paper, trashcan, etc.) and do not remove this cover.
4. **LEAVE** the room and **CLOSE** the door, or section off the area to prevent others from entering. Keep others away.
5. **WASH** your hands with soap and water to prevent spreading any powder to your face.
6. Contact **Suzanne Kaswan ext. 356** or **Bonnie Greenwell ext. 344**. They will take the necessary steps to report the incident to the proper authorities.

7. **LIST** all persons who were in the room or area when this suspicious letter or package was recognized. This list will be given to both the local public health authorities and law enforcement officials for follow-up investigations and advice.

How to handle an envelope with powder and powder spills out onto surface:

1. **DO NOT** try to **CLEAN Up** the powder. **COVER** the spilled contents immediately with anything (e.g., clothing, paper, trashcan, etc.) and do not remove this cover!
2. Then **LEAVE** the room and **CLOSE** the door, or section off the area to prevent others from entering. Keep others away.
3. **WASH** your hands with **soap and water** to prevent spreading any powder to your face.
4. Contact **Suzanne Kaswan ext. 356** or **Bonnie Greenwell ext. 344**. They will report the incident to the proper authorities.
5. **REMOVE** contaminated clothing as soon as possible and place in a plastic bag, or some other container that can be sealed. This clothing bag should be given to the emergency responders for proper handling. Plastic bags and/or containers are available in the kitchen.
6. **SHOWER** with soap and water as soon as possible. **DO NOT USE BLEACH OR OTHER DISINFECTANT ON YOUR SKIN.**
7. **LIST** all persons who were in the room or area, especially those who had actual contact with the powder. This will be given to both the local public health authorities so that proper instructions can be given for medical follow-up, and to law enforcement officials for further investigation.

What to do if you suspect a room has been contaminated by aerosolization-

(For example: a small device was triggered, a warning was received that the air-handling system is contaminated, or a warning was received that a biological agent was released in a public space.)

1. Turn off local fans or ventilation units in the area.
2. **LEAVE** area immediately.
3. **CLOSE** the door, or section off the area to prevent others from entering. Keep others away.
4. Contact **Suzanne Kaswan ext. 356** or **Bonnie Greenwell ext. 344**. They will then report the incident to the proper authorities.
5. **SHUT** down air handling system in the building, if possible.
6. **LIST** all persons who were in the room or area. This list will be given to both the local public health authorities so that proper instructions can be given for medical follow-up, and to law enforcement officials for further investigation.

How to identify suspicious packages and letters:

Some characteristics of suspicious packages and letters include the following:

- Excessive Postage
- Handwritten or poorly typed addresses
- Incorrect titles
- Title, but no name
- Misspellings of common words
- Oily stains, discoloration or odor
- No return address
- Excessive weight
- Lopsided or uneven envelope

How to identify suspicious packages and letters continued:

- Protruding wires or aluminum foil
- Excessive security material such as masking tape, string, etc.
- Ticking sound
- Marked with restrictive endorsements, such as "Personal" or "Confidential"
- Shows a city or state in the postmark that does not match the return address

Bomb Threats

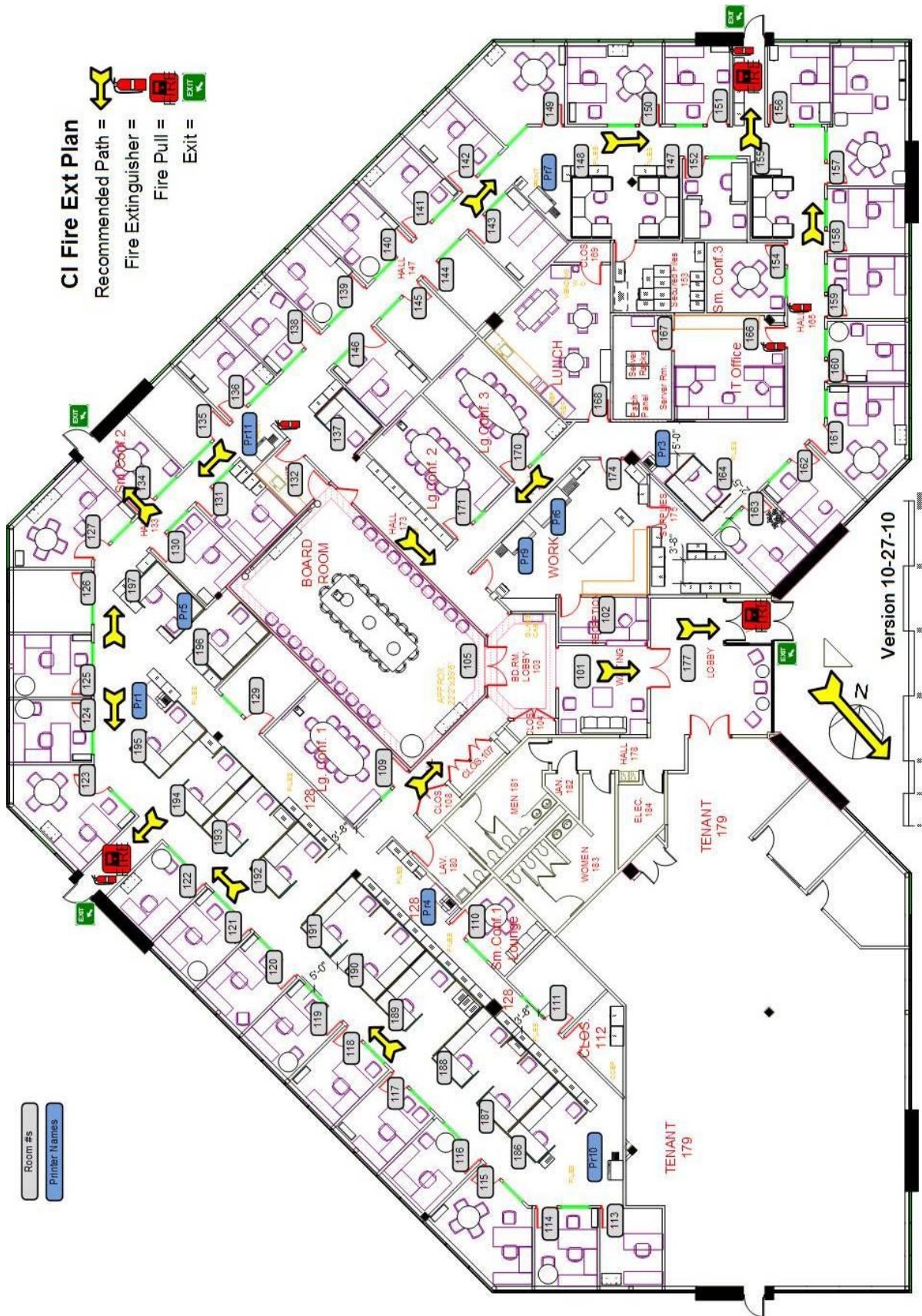
In the event of a bomb threat, evacuating people from the potential danger area is the highest priority. In the event of the receipt of a bomb threat, try to remember as many of the following details as possible:

1. Time call received
2. Time call terminated
3. Exact words of caller
4. Time to explode
5. Location of bomb (if given)
6. Description/type of bomb (if given)
7. Why was it placed?
8. Description of voice (male, female, deep, high, accents, etc.)
9. Background sounds (traffic, machinery, music, voices, etc.)

Then immediately call: Police (**911** or **258-7640**); Fire Department (**911** or **258-7603**). Immediately call **Administrative Services ext. 391 Joe Casparino ext. 365**. Explosives can be concealed in any type of container and in any location. Any suspicious item must not be touched and should be considered dangerous. Alert police of anything out of the ordinary, and do not turn on or adjust anything electrical in nature (i.e. - thermostats, light switches, radios, etc.)

It is policy that everyone evacuates the building immediately!

CEFIA Fire Exits



In Case of Emergency: Questions and Answers for Employees

What happens if I can't reenter the building?

The Emergency Operations Team (correct name) including the President when available will assess the immediate damage and will inform the President or designee of what to expect. You may be asked to assemble at a nearby building for further instruction.

How will I know when and where to go back to work?

CEFIA has designated a Team Leader (George Bellas – Vice President Finance and Administration) for implementing its Business Continuation Plan. This team leader will contact you at home and let you know when and where to return for work. If the business disruption is a serious one, it may take up to 30 days for all staff to return. A small number of employees who handle critical business functions may be asked to report to work immediately in a different office location.

What should I do if a reporter approaches me?

If a member of the press approaches you, please refrain from commenting about the incident or your personal reaction to what has occurred. It is natural that any business – disrupting incident may result in press coverage, and the Director of Government and External Relations is the designated CEFIA representative to keep the news media informed and answer questions. Please refer any such inquiries to that designee.

The signature page for CEFIA's Emergency Procedures is in the Appendix. All employees must review and sign the policy in the Appendix and return it to Human Resources.

APPENDIX

Employee Handbook Acknowledgement

The Employee Handbook describes important information about CEFIA, and I understand that I should consult my supervisor or the Manager, Human Resources regarding any questions not answered in the Handbook.

Since the information, policies, and benefits described here are necessarily subject to change, I acknowledge that revisions to the Handbook may occur. All such changes will be communicated through official notices and I understand that revised information may supersede, modify, or eliminate existing policies. Only the President of CEFIA, consistent with the Bylaws of CEFIA, has the authority to approve any revisions to the policies in this Handbook, which shall be done in writing.

Furthermore, I acknowledge that this Handbook is neither a contract of employment nor a legal document. It is understood that nothing in this Handbook or any other policy or communication changes the fact that employment is at will for an indefinite period unless terminated at any time by CEFIA or me. Accordingly, either CEFIA or I can terminate the relationship at any time and for any reason.

I have received the Handbook and understand that it is my responsibility to read and comply with the policies contained in this Handbook and any revisions made to it. Should the content of this Handbook be changed, I understand that CEFIA may require a written acknowledgement from me that I have received and understand the change.

I understand that this signed statement of acknowledgement will be retained in my personnel file.

Employee's Signature

Date

Print Employee Name

Harassment Policy

I hereby acknowledge that I have reviewed the Sexual Harassment Policy in Section 7 of the Employee Handbook. I hereby acknowledge that I have read and understand this policy. By signing below, I agree to abide by this Policy. I also acknowledge that any infractions will result in disciplinary action, up to and including termination.

Employee's Signature

Date

Print Employee Name

Travel and Entertainment Policy

I hereby acknowledge that I have reviewed the Travel and Entertainment Policy in Section 6 of the Employee Handbook. I hereby acknowledge that I have read and understand this policy. By signing below, I agree to abide by this Policy. I also acknowledge that any infractions will result in disciplinary action, up to and including termination.

Employee's Signature

Date

Print Employee Name

State of Connecticut Workplace Violence Prevention Policy

Issued by Gov. John Rowland – August 1999

I hereby acknowledge that I have read and understand the Workplace Violence Prevention Policy in Section 7 of the Employee handbook. By signing below, I agree to abide by the Policy. I also acknowledge that any infractions will result in disciplinary action, up to and including termination.

Employee's Signature

Date

Print Employee Name

Emergency Procedure Policy

I hereby acknowledge that I have read and understand the Emergency Procedures Manual in Section 8 of the Employee handbook. By signing below, I agree to abide by the Policy. I also acknowledge that any infractions will result in disciplinary action, up to and including termination.

Employee's Signature

Date

Print Employee Name

Confidential Disclosure Policy

I hereby acknowledge that I have read and understand the Confidential Disclosure Policy in Section 7 of the Employee handbook. By signing below, I agree to abide by the Policy. I also acknowledge that any infractions will result in disciplinary action, up to and including termination.

This agreement supersedes and replaces any existing agreement between CEFIA and me relating generally to the same subject matter. It may not be modified or terminated, in whole or in part, except in writing signed by an authorized representative of CEFIA. Discharge of my undertakings in this agreement shall be an obligation of my executors, administrators, or other legal representatives or assigns.

Employee's Signature

Date

Print Employee Name

Ethical Conduct Policy

I. Introduction

Ethical conduct is a core value of The Clean Energy Finance and Investment Authority (CEFIA) and all employees and officials of CEFIA are expected to maintain the highest professional standards in the conduct of their duties. In particular, each person is responsible for, and should become familiar with, the Code of Ethics for Public Officials. A copy of the "Guide to the Code of Ethics for Public Officials" is attached here. You may also access both the Code and the guide on the Office of State Ethics website at www.ct.gov/ethics by clicking on "Public Information".

II. Code of Ethics Compliance

Principle provisions of the Code of Ethics for Public Officials include:

- **GIFTS** - In general, state employees are prohibited from accepting gifts from anyone doing business with, seeking to do business with, or directly regulated by the state employee's agency or department or from persons known to be a registered lobbyist or lobbyist's representative. There are also restrictions on gifts between state employees in certain circumstances. (See the "Guide to the Code of Ethics for Public Officials" and Statutory References below, Sections 1-79(e) and 1-84(m).)
- **FINANCIAL BENEFIT** - A state employee is prohibited from using his/her office or non-public information obtained in state service for the financial benefit of the individual, certain family members, or that of an associated business.
- **OUTSIDE EMPLOYMENT** - A state employee may not accept outside employment which will impair his/her independence of judgment as to official state duties or which would induce the disclosure of confidential information. Generally, outside employment is barred if the private employer can benefit from the state employee's official actions.
- **FINANCIAL DISCLOSURE** - Certain state employees are required to file a financial disclosure statement with the State Ethics Commission. This statement will be considered public information.

RECUSAL OR REPORTING IN CASE OF POTENTIAL CONFLICTS – The Code of Ethics requires that public officials and state employees avoid potential conflicts of interest. If a public official or state employee would be required to take official action that would affect a financial interest of such public official or state employee, certain family members or a business with which they are associated, they must excuse themselves from the matter or prepare and file a sworn written statement explaining why continued involvement in the matter would be on an objective basis and in the public interest despite the potential conflict. (See Statutory References below, Section 1-86(a).)

III. Additional CEFIA Policies

CEFIA expects that, in addition to complying with all provisions of the Code of Ethics for Public officials, employees and officials will:

- Protect the confidential information to which CEFIA has access;
- Avoid actual or potential conflicts of interest;
- Neither interfere with nor solicit contracts on behalf of any person;

- Avoid, in the case of employees, outside employment which may compromise or interfere with the ability to perform duties for CEFIA; and
- For those employees subject to the requirements of C.G.S. 1-83(a), submit the Statement of Financial Interests disclosure documents to the Office of State Ethics in a timely manner.

For the same reasons, and in order to maintain public confidence and avoid even an appearance of impropriety

- CEFIA employees and members of their immediate families are prohibited from investing in companies that receive financial assistance from CEFIA; and
- If an application for financial assistance from CEFIA is received from a business with which a CEFIA employee is associated, or in which such employee or an immediate family member has a direct financial interest, such employee, whether or not he or she expects to be involved in the processing or consideration of such application, shall notify the President of such business association or financial interest and such employee shall be sequestered from all information, discussions, actions and other activities related to such application. For this purpose, a business with which such employee is associated has the same meaning assigned in Section 1-79 of the Code of Ethics to the phrase “business with which he is associated”. (See Statutory References below, Section 1-79(b).)

For these purposes, CEFIA may post a “restricted list” of companies in which employees may not invest and may require employees to disclose outside business interests. The rules of conduct in these matters may also be covered in more detail in the CEFIA Handbook.

IV. Post-State Employment Restrictions

Employees leaving The Clean Energy Finance and Investment Authority are required to comply with the Code of Ethics provisions pertaining to post-state employment, which are commonly known as the “revolving door” provisions. For example, there are restrictions on accepting employment with a party to certain contracts (which would include contracts relating to investments or other financial assistance) if the employee or official were involved in the negotiation or award of the contract, and restrictions on representing other parties before CEFIA during the one-year period following departure from state service. Employees should familiarize themselves with the statutes pertaining to post-state employment. They can be found at C.G.S. Section 1-84a and 1-84b. (See Statutory References below.) You may access these statutes on the Office of State Ethics website at www.ct.gov/ethics by clicking on "Statutes and Regulations". A summary of these requirements is included in the “Guide to the Code of Ethics for Public Officials and State Employees” attached to this ethics policy.

Before an employee leaves the employment of The Clean Energy Finance and Investment Authority, an exit interview will be conducted by our Ethics Liaison Officer. The purpose of this exit interview will be to individually review potential issues relating to post-Clean Energy Finance and Investment Authority employment.

V. Other Matters

The Board of The Clean Energy Finance and Investment Authority continues to have well justified faith in the integrity of and ethical conduct of employees and officials of The Clean Energy Finance and Investment Authority. It is understood however, that breaches of this ethics policy may require disciplinary action, including but not limited to dismissal from CEFIA, in

addition to sanctions provided by state law. Such sanctions are to be applied as appropriate with the approval of the Clean Energy Finance and Investment Authority Board of Directors.

It is the responsibility of each employee and official to inquire of the Ethics Liaison Officer or the Office of State Ethics at 860.566.4472 should any question arise concerning his or her conduct.

VI. Statutory References

Sec. 1-79. Definitions. The following terms, when used in this part, shall have the following meanings unless the context otherwise requires:

(b) "Business with which he is associated" means any sole proprietorship, partnership, firm, corporation, trust or other entity through which business for profit or not for profit is conducted in which the public official or state employee or member of his immediate family is a director, officer, owner, limited or general partner, beneficiary of a trust or holder of stock constituting five per cent or more of the total outstanding stock of any class, provided, a public official or state employee, or member of his immediate family, shall not be deemed to be associated with a not for profit entity solely by virtue of the fact that the public official or state employee or member of his immediate family is an unpaid director or officer of the not for profit entity. "Officer" refers only to the president, executive or senior vice president or treasurer of such business.

(e) "Gift" means anything of value, which is directly and personally received, unless consideration of equal or greater value is given in return. "Gift" shall not include:

(1) A political contribution otherwise reported as required by law or a donation or payment as described in subdivision (9) or (10) of subsection (b) of section 9-601a;

(2) Services provided by persons volunteering their time, if provided to aid or promote the success or defeat of any political party, any candidate or candidates for public office or the position of convention delegate or town committee member or any referendum question;

(3) A commercially reasonable loan made on terms not more favorable than loans made in the ordinary course of business;

(4) A gift received from (A) an individual's spouse, fiancé or fiancée, (B) the parent, brother or sister of such spouse or such individual, or (C) the child of such individual or the spouse of such child;

(5) Goods or services (A) which are provided to a state agency or quasi-public agency (i) for use on state or quasi-public agency property, or (ii) that support an event, and (B) which facilitate state or quasi-public agency action or functions. As used in this subdivision, "state property" means (i) property owned by the state or a quasi-public agency, or (ii) property leased to a state agency or quasi-public agency;

(6) A certificate, plaque or other ceremonial award costing less than one hundred dollars;

(7) A rebate, discount or promotional item available to the general public;

(8) Printed or recorded informational material germane to state action or functions;

(9) Food or beverage or both, costing less than fifty dollars in the aggregate per recipient in a calendar year, and consumed on an occasion or occasions at which the person paying, directly or indirectly, for the food or beverage, or his representative, is in attendance;

(10) Food or beverage or both, costing less than fifty dollars per person and consumed at a publicly noticed legislative reception to which all members of the General Assembly are invited and which is hosted not more than once in any calendar year by a lobbyist or business organization. For the purposes of such limit, (A) a reception hosted by a lobbyist who is an individual shall be deemed to have also been hosted by the business organization which he owns or is employed by, and (B) a reception hosted by a business organization shall be deemed to have also been hosted by all owners and employees of the business organization who are lobbyists. In making the calculation for the purposes of such fifty-dollar limit, the donor shall divide the amount spent on food and beverage by the number of persons whom the donor reasonably expects to attend the reception;

(11) Food or beverage or both, costing less than fifty dollars per person and consumed at a publicly noticed reception to which all members of the General Assembly from a region of the state are invited and which is hosted not more than once in any calendar year by a lobbyist or business organization. For the purposes of such limit, (A) a reception hosted by a lobbyist who is an individual shall be deemed to have also been hosted by the business organization which he owns or is employed by, and (B) a reception hosted by a business organization shall be deemed to have also been hosted by all owners and employees of the business organization who are lobbyists. In making the calculation for the purposes of such fifty-dollar limit, the donor shall divide the amount spent on food and beverage by the number of persons whom the donor reasonably expects to attend the reception. As used in this subdivision, "region of the state" means the established geographic service area of the organization hosting the reception;

(12) A gift, including but not limited to, food or beverage or both, provided by an individual for the celebration of a major life event **[Not an available exception; see Section 1-84(m) below];**

(13) Gifts costing less than one hundred dollars in the aggregate or food or beverage provided at a hospitality suite at a meeting or conference of an interstate legislative association, by a person who is not a registrant or is not doing business with the state of Connecticut;

(14) Admission to a charitable or civic event, including food and beverage provided at such event, but excluding lodging or travel expenses, at which a public official or state employee participates in his official capacity, provided such admission is provided by the primary sponsoring entity;

(15) Anything of value provided by an employer of (A) a public official, (B) a state employee, or (C) a spouse of a public official or state employee, to such official, employee or spouse, provided such benefits are customarily and ordinarily provided to others in similar circumstances;

(16) Anything having a value of not more than ten dollars, provided the aggregate value of all things provided by a donor to a recipient under this subdivision in any calendar year shall not exceed fifty dollars; or

(17) Training that is provided by a vendor for a product purchased by a state or quasi-public agency which is offered to all customers of such vendor.

Section 1-84 Prohibited Activities

(m) No public official or state employee shall knowingly accept, directly or indirectly, any gift, as defined in subsection (e) of section 1-79, from any person the official or employee knows or has reason to know: (1) Is doing business with or seeking to do business with the department or agency in which the official or employee is employed; (2) is engaged in activities which are

directly regulated by such department or agency; or (3) is prequalified under section 4a-100. No person shall knowingly give, directly or indirectly, any gift or gifts in violation of this provision. For the purposes of this subsection, the exclusion to the term "gift" in subdivision (12) of subsection (e) of section 1-79 for a gift for the celebration of a major life event shall not apply. Any person prohibited from making a gift under this subsection shall report to the State Ethics Commission any solicitation of a gift from such person by a state employee or public official.

Section 1-84a. Disclosure or use of confidential information by former official or employee

No former executive or legislative branch or quasi-public agency public official or state employee shall disclose or use confidential information acquired in the course of and by reason of his official duties, for financial gain for himself or another person.

Sec. 1-84b. Certain activities restricted after leaving public office or employment

(a) No former executive branch or quasi-public agency public official or state employee shall represent anyone other than the state, concerning any particular matter (1) in which he participated personally and substantially while in state service, and (2) in which the state has a substantial interest.

(b) No former executive branch or quasi-public agency public official or state employee shall, for one year after leaving state service, represent anyone, other than the state, for compensation before the department, agency, board, commission, council or office in which he served at the time of his termination of service, concerning any matter in which the state has a substantial interest. The provisions of this subsection shall not apply to an attorney who is a former employee of the Division of Criminal Justice, with respect to any representation in a matter under the jurisdiction of a court.

(f) No former public official or state employee (1) who participated substantially in the negotiation or award of (A) a state contract valued at an amount of fifty thousand dollars or more, or (B) a written agreement for the approval of a payroll deduction slot described in section 3-123g, or (2) who supervised the negotiation or award of such a contract or agreement, shall accept employment with a party to the contract or agreement other than the state for a period of one year after his resignation from his state office or position if his resignation occurs less than one year after the contract or agreement is signed.

(g) No member or director of a quasi-public agency who participates substantially in the negotiation or award of a contract valued at an amount of fifty thousand dollars or more, or who supervised the negotiation or award of such a contract, shall seek, accept, or hold employment with a party to the contract for a period of one year after the signing of the contract.

Information Technology Policy

I hereby acknowledge that I have read and understand the Information Technologies Policies in Section 7 of the Employee handbook. By signing below, I agree to abide by the Policies. I also acknowledge that any infractions will result in disciplinary action, up to and including termination.

Employee's Signature

Date

Print Employee Name

Request for Training Form

Name _____

Class Requested _____

Date of Class _____

Location of Class _____

Class is being offered by: _____

Requestor's Signature _____

Supervisor's Approval _____

Today's Date _____

Signature _____

**Suzanne Kaswan
Manager, Human Resources**

Sick Leave Bank Participation Form

I understand that as a permanent employee of CEFIA that has completed my introductory period, I may elect to choose to participate in a sick leave bank that is outlined in CEFIA Sick Leave Bank Policy. I understand that if I do not elect to participate within 30 days of completing my introductory period, I may only elect to participate during the annual open enrollment period.

I understand that if I elect to participate in the Sick Leave Bank, I will contribute the hourly equivalent of one day towards the Sick Leave Bank, and if the Sick Leave Bank falls below an adequate number of hours, I may be required to make an additional contribution to the Bank at a later date.

Employee Name: _____

Telephone: _____

Title: _____

Qualifying Event

I completed by introductory period on _____

I am enrolling during open enrollment on _____

_____ I elect participation in the Connecticut Innovations Sick Leave Bank.

_____ I reject participation in the Connecticut Innovations Sick Leave Bank.

Signature: _____

Date: _____

Continuing Education Assistance Policy Form

1. Identification

Name _____ SS # _____

Home Address: _____

Current Title: _____ Current Dept: _____

2. Educational Information

School _____ Semester _____ Year _____

Degree: Certificate _____ Assoc. _____ Bach. _____ Grad. _____

Program: _____ Expected Matriculation: _____

Course Name:	Course No.	Date Reimbursed:	Grade
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(Attach supporting documentation)

3. Consent and Authorization

I consent to the reporting of my grades in the above named course(s) to CEFIA. As of the date of this application, I hereby signify my intention to remain an employee of CEFIA for a period of not less than six months following completion of course(s). I further agree that if I voluntarily terminate my employment with CEFIA prior to the six month period and I have received reimbursement, I will repay CEFIA any funds extended to me under this program over the past six months.

I also understand that any additional tax liability related to these courses will be my responsibility and that CEFIA shall not be responsible for any such liability.

Signature _____ Date _____

4. Approvals

The employee identified above is authorized by CEFIA to pursue the program indicated above. Under this authorization, CEFIA will reimburse the employee for these courses in accordance with its Continuing Education Assistance Policy.

Supervisor _____ Date _____

Executive Director _____ Date _____

Telecommuting Agreement Form

This *Telecommuting Agreement* specifies the conditions applicable to an arrangement for performing work at an alternate work site on a regular basis. All employees that telecommute, even occasionally (i.e. inclement weather) must have a signed and approved Telecommuting Agreement on file with Human Resources. The *Agreement* becomes effective on _____ (date) and will remain in place as long as it meets the business needs of the organization. Either party can terminate the *Agreement* at any time. On-site workspace will be provided to the returning employee as soon as appropriate accommodations can be arranged.

1. To facilitate ease in communication, the telecommuting schedule is defined as follows: (Specify days proposed to telecommute, hours to be worked per day, start time, end time, breaks, lunch periods, and duration if this is implemented on a project basis.) Telecommuting employees must have a set schedule of regular telecommuting days. The following guidelines should be considered when selecting a telecommuting schedule – No employee shall telecommute more than one (1) day per week. In addition, telecommuting is not permitted on Mondays, Fridays or during any which in which there is a holiday or the employee has scheduled time off. In order to meet the business needs of the agency, an employee may request an adjustment to the telecommuting schedule outlined in this agreement. No adjustment may be made without prior supervisory approval.

2. Telecommuting site information:

Address: _____

Phone # _____ Fax # _____ E-mail _____
Cell Phone # _____

3. Salary, job responsibilities, benefits, work status, and the amount of time worked per day or pay period will not change while telecommuting unless otherwise specified in writing. Since the employee's telecommuting space is considered an extension of **CEFIA's** workspace, the company's liability for job-related accidents will continue during the understood and approved telecommuting hours. The employee will maintain a designated workspace. Workers' Compensation coverage is limited to this workspace as opposed to adjacent areas, e.g. other areas of the home.
4. Duties and assignments authorized to be performed at the telecommuting site are the following:

Management will establish with the employee the means of assessing the quality and quantity of work performed at the telecommuting site, integrating these into established performance objectives. Management reserves the right to assign work as necessary at either the regular or the telecommuting site.

5. Identify any aspects of your current role that will not be able to be performed at the telecommuting site. Describe how you plan to compensate for these duties/responsibilities (e.g. faxes, phone coverage, etc.)

6. Recognizing that effective communication is essential for a telecommuting arrangement to be successful, the following methods and times of communicating are agreed upon. Specify how such communication will occur, including items such as backup & emergency contacts, time frames, phone, fax, beeper, email, face-to-face etc. In addition, employees shall forward their company phones to their home telephones or cell phones while telecommuting.
-
-
-

7. The employee agrees to remain accessible during designated work hours, and understands that management retains the right to require that the employee come into the regular work-site when a business need arises. Employees must indicate their telecommuting days on their Outlook calendar. Advance notice will be given whenever possible. In addition, employee will report to the traditional worksite for regularly scheduled meetings and time-periods pre-determined by management for purposes of education, communication, etc. In the event of equipment failure, loss of remote access capability or other system problems, employee will report to the traditional work site until the problem is resolved unless otherwise directed.

8. Describe your proposed telecommuting location:
- A. The physical location in your home where your work space will be located
 - B. When choosing your workspace please ensure the following:
 - a. Adequate electrical power and power outlets, workspace and access pathways
 - b. Ergonomic lighting, seating work surfaces, and other work – related resources
 - c. Power cord, work-related tools, filing equipment, office equipment and items stored in overhead shelves or bins are safely arranged and secured.
 - d. Reasonable in-place safeguards to prevent family members from getting hurt within the telecommuters work's area; prevent loss or theft of the employer's proprietary data and equipment and protect the confidentiality of matters related to the telecommuter's work.

9. Also, make a detailed inventory of employer owned equipment that you will be utilizing in your telecommuting workspace. Regarding space and equipment set-up and maintenance, the following is agreed upon: Specify purchase source e.g. purchase/ lease/loan, set-up, maintenance, provision of supplies, insurance arrangements, etc. for each piece of equipment, furniture, phone, etc.

10. Employee will not subcontract or perform non-company work using its equipment, materials, information or anything else made available for the express purpose of performing work as defined in this Agreement.

11. Any hardware or software purchased by **CEFIA** remains its property and will be returned at the conclusion of the telecommuting arrangement. Employee agrees to protect all company equipment against unauthorized or accidental access, use, modification, destruction, or disclosure. Employee agrees to report to management instances of loss, damage, or unauthorized access immediately. Company-owned software is not to be duplicated except as formally authorized. Company information, whether stored electronically or as hard copy, remains the property of **CEFIA**; all work produced and products developed while telecommuting, remain the property of the company. **CEFIA** equipment at the telecommuting site will not be used for personal purposes or by anyone else at the telecommuting site. Employees may check email via webmail on home computers, but may not edit any attachments on any computer that is not issued by CI. Management reserves the right to make unscheduled inspections of the telecommuting premises, equipment and software to ensure compliance with all aspects of policies, procedures and agreements.



CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Severance Policy

- A. Reduction in Force. In the event that The Clean Energy Finance and Investment Authority (CEFIA) permanently eliminates one or more positions from its workforce, CEFIA, with approval of its Board of Directors or of the Budget and Operations Committee of its Board of Directors, is authorized to offer the employees separated by such permanent reduction in force a severance package, as follows:
1. Either a lump sum payment or continuation on the payroll or a combination thereof of six weeks, plus for each full six month period of service, an additional week of salary based on the employee's then current base salary, all subject to a maximum for each employee of 26 weeks;
 2. Outplacement services by a firm or firms selected by CEFIA for a period determined to be reasonable by the Board or the Budget and Operations Committee based upon employment conditions prevailing in the economy;
 3. All benefits, except medical and dental insurance, shall cease as of the date of separation and the Board or Budget and Operations Committee shall determine whether to extend the option to separated employees for medical and/or dental insurance other than as required by COBRA for some or all of the severance payment period;
 4. Such package shall be conditioned upon the employee signing a full waiver and release of claims against, and/or an indemnification of, CEFIA within a time period established by the Board or Operations Committee.

The purpose of this Severance Policy is to recognize the service of employees and mitigate the burden of displacement when a reduction in force is deemed necessary. It is not intended to set a standard for termination of employees under other circumstances.

- B. Other Terminations. In the event that the Board of Directors or the Budget and Operations Committee determines that it is in the best interest of CEFIA to terminate the services of an employee without cause or to request the resignation of an employee, the Board of Directors or the Budget and Operations Committee is authorized, but not required, to offer a severance package. In determining whether to do so and the nature and amount of such package, the Board or the Budget and Operations Committee shall take into account such factors as it may deem relevant, including some or all of the following: the length of service, the performance and contributions of the employee, the circumstances of recruitment and relocation, the circumstances of separation, the employment conditions prevailing in the economy, the impact upon CEFIA and other factors deemed relevant at the time by the Board or the Budget and Operations Committee. In no event shall the continuation of salary following termination or the amount of any lump sum payment in respect of

salary exceed the then current base salary for 26 weeks. The Board or the Budget and Operations Committee shall condition any such package upon the employee signing a full waiver and release of claims against, and/or an indemnification of CEFIA and such other terms and conditions as are deemed necessary or desirable.

C. Miscellaneous Considerations.

1. Severance pay under this Policy is in addition to any accrued vacation due to the employee upon termination.
2. Regular deductions, including contributions for medical and dental insurance, if any, will be made from any severance payments made pursuant to this Policy.
3. If an employee does not sign a full waiver and release of claims and/or an indemnification of CEFIA under this Policy, the employee will not receive any of the benefits set forth in this Policy, with the possible exception of a brief period of continued health and dental insurance resulting from the time period required for the signing of the waiver and release. In lieu of the receipt of severance benefits under this Policy, the employee will only receive payment of two weeks of base salary at the then current rate plus any accrued vacation.



Purchasing and Accounts Payable Policies and Procedures

I. Purpose: To provide procedures for procurement methods and completion of related documents.

II. Scope: This procedure applies to the purchase of supplies, materials, services, sponsorships, memberships, software and capital assets for all departments within the Company, whether operating or programmatic in nature.

III. Responsibility:

Procurement of supplies will be facilitated through the finance and administrative department. Procurement of services will be facilitated by the person requiring the services. Subscriptions will be facilitated by the marketing and outreach department. All named parties are responsible for using good purchasing methods for optimizing price savings, quality and value of products, vendor working relationships, and for assuring proper control and inspection as required by Company policies. All named parties will utilize purchase orders or such other purchasing documents that are developed and revised from time to time as necessary by the finance and administrative department.

IV. Procedure:

A. ORDER PLACEMENT AND APPROVALS

1. Office supplies - and other goods and services used in the normal course of business are approved by the VP, Finance and Administration.
2. Office furniture, fixtures and equipment - must be approved by the President&CEO.
3. Subscriptions and Reference Materials – Subscriptions to magazines, newspapers, on-line reference and search services, etc. must be approved by the President and CEO.
4. Computer Equipment and Software - All purchases of computer equipment, software and related items must be in writing and approved by the President&CEO and the VP Finance and Administration.
5. Travel and Entertainment – All business travel and entertainment must be approved by the employee's immediate supervisor. All requests for reimbursement of T&E expenses greater than \$1,000 must follow the approval guidelines set forth in Section B below. All international travel

must be pre- approved by the President &CEO. All international travel by the President & CEO must be pre approved by the Chairperson of the CEFIA Board. See the Company Travel and Entertainment Policy for guidelines on business expenditures that will be reimbursed.

6. Financial Assistance- The process of approving financial assistance consisting of grants, loans or loan guarantees, debt and equity investments is outlined in the bylaws and operating procedures of the Authority.
7. Sponsorships and Memberships – All CEFIA sponsorships and memberships must be approved by Director level or above and if greater than \$10,000 the President &CEO.
8. Consulting and Advisory Services – See CEFIA – 102 for procedures related to internal management of consulting and advisory services.
9. Legal Fees – Due to the nature of legal fees, approval for fees is obtained when the invoice is received. The CEFIA party who is responsible for the matter described in the invoice will review the fees incurred. Once reviewed, this invoice will be forwarded to the General Counsel and President & CEO for their approvals before payment is made.

B. PROCESSING OF VENDOR INVOICES FOR GOODS AND SERVICES

1. Approval of Invoices – must be obtained prior to sending to Accounts Payable for payment processing.
 - a. Goods and Services –
 - Invoice < \$1000 – requires signature of project/department manager level or higher.
 - Invoice equal to or greater than \$1,000 –requires the signature of one of the following: VP, Finance and Administration; Chief of Staff; General Counsel; President & CEO; EVP and Chief Investment Officer; Director Renewable Energy Deployment; collectively named “ Management”.
 - Invoice equal to or greater than \$5,000 – requires 2 signatures from Management.
 - Invoice equal to or greater than \$25,000 – requires 2 signatures from. Management, one of which must be the President and CEO.
 - Non-budgeted items –requires signature of VP of Finance and Administration as well as approval according to \$ limit approval procedures noted above.
 - Finance Assistance – requires 2 signatures from Management, one of which must be the President & CEO or in his or her absence the VP Finance and Administration.
 - Consulting and Advisory Services – See CEFIA – 102
 - Re-occurring charges – for items that occur monthly (rent, utilities, etc), the VP Finance and Administration must

approve the invoice. A second signature from a member of senior management is not required.

2. Approval in the absence of the President &CEO – If the President & CEO , is unavailable for a period of time to approve invoices, he/she may delegate his/her authority to approve purchases to the VP of Finance and Administration in writing. The VP of Finance must then review all items with the President & CEO upon his/her return to the office and obtain approval from the President & CEO at that time.
3. Payment of invoices –
 - a. Accounts Payable will process invoices for payment when all approvals are obtained by requestor.
 - b. Payment of invoices will be made based on vendor terms.
 - c. Check signing:
 - Invoice and all related documents are submitted to Accounts Payable.
 - Check amounts equal to or greater than \$5,000 require 2 signatures
 - The Board of Directors will authorize specific senior level positions to sign checks on behalf of the Company. This authorization will be documented in the Board meeting minutes.
4. Check requests
 - a. Check request should be completed for items of urgency for payment and when no formal invoice is available. Check request may be used as approval documentation for invoices. Invoices may be signed directly as well. The finance and administrative department will develop and maintain check request forms.
5. Wire transfers
 - a. The processing of wire transfers will follow the same process for checks as documented in section 3c. above.
 - b. Financial Assistance – No wire will be initiated until all legal documents are signed and the General Counsel directs the finance department to fund the transaction.



Consulting and Advisory Services

- I Purpose:** Pursuant operating procedures adopted by the Board of Directors of the Clean Energy Finance and Investment Authority (CEFIA) on December 16, 2011; CEFIA may engage consulting and advisory services as part of its operations and programs.
- II. Scope:** These services may include expertise or specialized advice, training, research or analysis, special projects or other work where the (a) appropriate experience, skills or expertise is not then available among the staff because of workload or other constraints, (b) the time duration, frequency of need or other nature of the services does not justify employing staff to provide such services, or (c) Board of Directors (for unbudgeted items) or the President & CEO (within budgeted expenditures) otherwise determines that the use of such services is warranted and in the best interest of CEFIA.
- III. Responsibility:** All parties engaging consulting and advisory services must follow this procedure.
- IV. Procedure:**
- A. Request for Services - All such services will be requested through the use of the Company's standard PSA form as developed and revised from time to time as necessary by the finance and administrative department.
 - B. Approval for service requests:
 - 1. Total fees and expenses less than or equal to \$10,000 –President & CEO; General Counsel; Director of Government and External Relations; EVP & CIO; Chief of Staff; Director of Marketing and Outreach; Director of Technology Innovation; Director of Renewable Energy Deployment;VP Finance & Administration and Director of Energy Efficiency Deployment, collectively “ Sr. Management” . .
 - 2. Total fees and expenses greater than \$10,000 up to \$75,000 – two signatures from Sr. management one of which must be the President and CEO.

3. Total fees and expenses greater than \$75,000 to \$150,000 must be approved in writing by the Chairperson of the Board prior to execution of PSA under B2 above.
4. Total fees and expenses greater than \$150,000 must follow the RFP requirements in section C prior to execution of PSA under B2 above.
5. Approval in the absence of the President and CEO – If the President and CEO is unavailable for a period of time to approve PSAs, he/she may delegate his/her authority to approve purchases to the VP of Finance and Administration in writing. The VP of Finance must then review all items with the President & CEO upon his/her return to the office and obtain approval from the President and CEO at that time.
6. All Contracts - All PSAs will be sent to the Finance Department prior to execution. The Vice President Finance & Administration will review the contract for compliance with procedures, internal management practices, and to determine that the expenditure is within the annual budget for consulting and advisory services or within programmatic budgets. **The contract cannot be executed without the review and signoff by the Vice President Finance & Administration.**

C. PSA duration and RFP requirements

1. Duration - The duration of PSAs for consulting or advisory services will generally not exceed one year without prior written approval of the President and CEO.
2. RFP required if > \$150,000 in any one fiscal year or if the Board of Directors directs CEFIA to do so. An RFP is to be completed prior to entering into any contract for consulting or advisory services in an amount over \$150,000 in any one fiscal year.
3. Contractors with multiple contracts - CEFIA may engage the same contractor for several different projects or for continuations of a single project during a fiscal year. A PSA which will, if executed, result in cumulative expenditures to the contractor exceeding \$150,000 in any one fiscal year will require that an RFP be completed prior to the execution of the PSA.

D. Recordkeeping

1. The Finance Department will prepare and maintain a summary of all outstanding contracts. The summary will include the name of the contractor, a brief description of the services/project, the total amount of the contract and actual amount paid to date.

2. The Vice President, Finance & Administration will be responsible for monitoring the status of approved contracts and ensuring that all contracts are in compliance with these operating procedures.



Company Credit Card Policy and Procedures

I. Purpose:

To provide procedures for the use of Company owned credit cards by authorized employees of the Company.

II. Policy/Scope:

Company owned credit cards will be issued to those employees who are designated as purchasing agents for the Company by the President and CEO. Company owned credit cards will be used for official Company business to purchase goods and services on behalf of the Company or to make travel arrangements on behalf of Company employees who are traveling on Company business. Company owned credit cards shall not be used for personal or private business. Intentional misuse or fraudulent abuse of any company owned credit card may result in disciplinary action, up to and including dismissal. In addition, the authorized holder of the company owned credit card shall promptly reimburse the Company for any unacceptable purchases.

III. Responsibility:

The Vice President, Finance and Administration shall be responsible for the administration of the Company credit card account.

IV. Procedures:

1. The President and CEO (CEO) shall provide the VP Finance & Administration (VPF) with a list of employees who are authorized purchasing agents for the Company. This list will be updated from time to time by the CEO as circumstances warrant. A monthly credit card dollar limit will be approved by the CEO for each authorized purchasing agent.
2. The VPF as administrator of the Company credit card account will approve and submit an application to the credit card issuer requesting that a card be issued (with the authorized dollar limit) to the Company purchasing agent.
3. Once the Company credit card is issued to the authorized purchasing agent, the purchasing agent will be responsible for maintaining adequate documentation supporting all purchases made with the credit card. This documentation shall be attached to the monthly credit card invoice and submitted to the VPF for review and

approval. The VPF will review the documentation submitted to determine that the expenditure was for an appropriate business purpose. The credit card invoice will be approved by the VPF and the CEO.

4. Periodically during the month the VPF will access the Company credit card account via the internet and review credit card activity. All unauthorized activity will be immediately reported to the Credit card issuer by the VPF for appropriate action.

5. Purchasing agents who have been issued a Company owned card will be responsible for safeguarding the card at all times. The purchasing agent is responsible for immediately and properly reporting a lost or stolen card to the Credit card issuer and the VPF.

6. A copy of this policy will be provided to each purchasing agent. The purchasing agent will be required to acknowledge receipt of the policy.



Mobile Communications

Policy

The Clean Energy Finance and Investment Authority (the “Company”) often must have immediate access to key employees. Accordingly, the Company will provide cellular phone access to an employee if the employee’s responsibilities require the employee to be traveling on Company business and the employee needs to be in contact by phone with the Company or its customers during that time.

Cell phones capable of sending and receiving e-mails will be approved only if the employee can demonstrate that his or her responsibilities are such that immediate access to e-mails is essential to conducting business.

Procedure

All cellular phone plans have a fixed number of “anytime minutes” for a flat monthly fee. In addition, the plans have an unlimited number of night and weekend minutes within the home calling area.

Employees will be reimbursed for the purchase of a cell phone and the associated voice and data charges by submitting an approved employee expense report to the accounting department on a monthly basis. All purchases of cell phones and associated voice and data plans must be pre approved and within dollar limits set by the Company in order to receive reimbursement. Dollar limits will be reviewed and adjusted periodically by the Company. Pre Approval forms may be obtained from the accounting department. All requests for mobile communications devices and associated voice/data plans must be approved by the President & CEO. ***Charges incurred that were not pre approved or above the pre approved limits will be the responsibility of the employee.*** Employees may use a company cellular phone for personal calls as long as there is no additional cost incurred by the Company.

On occasion, employees who do not qualify for a company cellular phone will use their own personal cellular phone for business related calls. Employees will be reimbursed for the cost of business related phone calls made on personal cellular phones. The cost of business related calls made on a personal cellular phone must be submitted on an expense report. A copy of the phone bill with an explanation of the business purpose of each call must be attached to the expense report.

In order to prevent and detect instances of abuse the accounting department may periodically audit employee cell phone invoices submitted for reimbursement. Instances

of possible abuse will be reported to the employee's department head and may result in termination of reimbursement privileges.



MOBILE COMMUNICATIONS REIMBURSEMENT PRE-APPROVAL FORM

Date: _____
Name: _____
Title: _____
Department: _____

Description of Pre-Approval Request:

	Requested Price:	Request Limit:
Equipment:	\$	
\$150		Total
Equipment:	\$	\$150
Monthly Voice:	\$	\$ 80
Monthly Data:	\$	
\$ 60		Other Monthly Fees/Services: \$
		(Enter description for "other monthly fees/services")
Total Monthly Fees:	\$	\$140

- Describe Business Reason(s) Supporting Above Request:

APPROVALS: Up to pre-approved limits and for other pre-approved fees

Supervisor's Signature: _____	Date: _____

Name: _____	Title: _____
<i>Please Print</i>	

Department Head's Signature: _____	Date: _____

Name: _____	Title: _____
<i>Please Print</i>	

Signature: _____ Date: _____

Bryan T. Garcia, President and CEO

Please Print

- Cell phone invoice must be attached to Expense Report as a condition of reimbursement.
- Cell phone invoices will be reviewed on a periodic basis by Finance Department Staff. Instances of abuse will be reported to Department Head and may result in termination of reimbursement approval.
- Employee will be reimbursed on a monthly basis through Employee Expense Report.

Clean Energy Finance and Investment Authority
FY 2012 Operating Budget
Detail Statement of Revenues and Expenditures
(000's)

	FY2011 Budget	FY 2011 Actual	FY 2012 CCEF Budget	FY 2012 Revised Budget	FY 2012 Revised to FY 2011 Budget Variance	FY 2012 Revised to FY 2011 Budget % Variance
<u>Revenues</u>						
Utility customer assessments	\$ 26,975	\$ 28,444	\$ 27,515	\$ 27,515	\$ 540	2%
Interest on deposits	\$ 127	\$ 117	\$ 118	\$ 118	\$ (9)	-7%
Renewable energy certificates, net	\$ 500	\$ 53	\$ 100	\$ 100	\$ (400)	-80%
Interest Income - Solar Lease Notes, net	\$ 90	\$ 90	\$ 120	\$ 120	\$ 30	33%
RGGI Auction Proceeds	\$ 4,000	\$ 3,383	\$ 3,500	\$ 1,100	\$ (2,900)	-73%
RPS compliance penalty payments	\$ 100	\$ 104	\$ 100	\$ 100	\$ -	0%
Other Income	\$ 40	\$ 62	\$ 60	\$ 60	\$ 20	50%
Total revenues:	\$ 31,832	\$ 32,254	\$ 31,513	\$ 29,113	\$ (2,719)	-9%
<u>Expenditures and Expenses</u>						
Compensation						
-Salaries & Wages	\$ 2,511	\$ 2,239	\$ 2,515	\$ 2,578	\$ 67	3%
-ARRA Salary Reimbursements	\$ (150)	\$ (200)	\$ (228)	\$ (228)	\$ (78)	52%
-Private Foundation Salary Reimbursements	\$ -	\$ -	\$ -	\$ (47)	\$ (47)	
-Bonus pool	\$ 51	\$ -	\$ -	\$ -	\$ (51)	-100%
-Benefits	\$ 1,572	\$ 1,427	\$ 1,559	\$ 1,598	\$ 26	2%
-ARRA Benefit Reimbursements	\$ (93)	\$ (125)	\$ (141)	\$ (141)	\$ (48)	52%
Consulting and professional fees:						
- Legal	\$ 275	\$ 52	\$ 75	\$ 100	\$ (175)	-64%
- Accounting	\$ 23	\$ 17	\$ 21	\$ 21	\$ (2)	-9%
- Advisory fees	\$ 60	\$ 16	\$ 40	\$ 50	\$ (10)	-17%
External relations	\$ 185	\$ 106	\$ 143	\$ 238	\$ 53	29%
Rent and location related expenses:						
-Rent/Utilities	\$ 138	\$ 165	\$ 151	\$ 165	\$ 27	19%
-General Liability/P&C Insurance	\$ 8	\$ 8	\$ 8	\$ 8	\$ 0	5%
-Telephone/Communications	\$ 44	\$ 22	\$ 30	\$ 30	\$ (14)	-33%
-Equipment & storage space rental	\$ 46	\$ 36	\$ 52	\$ 52	\$ 6	12%
Office, computer & other expenses:						
-Office expense	\$ 62	\$ 45	\$ 44	\$ 44	\$ (18)	-30%
-Computer operations	\$ 35	\$ 27	\$ 32	\$ 32	\$ (3)	-9%
-Subscriptions	\$ 24	\$ 12	\$ 24	\$ 24	\$ 0	1%
-Training and education	\$ 37	\$ 19	\$ 28	\$ 33	\$ (4)	-11%
Temporary employees	\$ 51	\$ 49	\$ 26	\$ 50	\$ (1)	-2%
Directors & officers insurance	\$ 27	\$ 25	\$ 26	\$ 54	\$ 27	100%
Travel & related expenses	\$ 53	\$ 36	\$ 43	\$ 43	\$ (10)	-19%
Move expenses	\$ 32	\$ 21	\$ -	\$ -	\$ (32)	-100%
ARRA indirect expense reimbursement	\$ (27)	\$ (41)	\$ (41)	\$ (41)	\$ (14)	52%
Total operating expenses:	\$ 4,964	\$ 3,956	\$ 4,407	\$ 4,662	\$ (302)	-6%
Change in net assets before program expenditures:	\$ 26,868	\$ 28,298	\$ 27,106	\$ 24,451	\$ (2,417)	-9%

**Clean Energy Finance and Investment Authority
Support for FY 12 Operating Budget**

Note 1 - Proposed Adjustments to CEFIA Budget for Salaries, Wages and Employee Benefits

	FTE	Base	Hire/Transfer Date	Budget Impact	
				Salaries and Wages	Employee Benefits
<u>New Hires:</u>					
Associate of Technology Innovation	1.0	\$ 62,106	2/1/2012	\$ 25,878	\$ 16,044
Chief of Staff	1.0	\$ 140,562	1/1/2012	\$ 70,281	\$ 43,574
Executive Vice President and Chief Investment Officer	1.0	\$ 154,961	1/1/2011	\$ 77,481	\$ 48,038
	3.0	\$ 357,629		\$ 173,639	\$ 107,656
<u>Adjustments to Budgeted Salaries</u>					
CCEF-Managing Counsel & Director, Regulatory Policy	(1.0)	\$ (110,000)		\$ (110,000)	\$ (68,200)
Counsel	(1.0)	\$ (93,275)		\$ (78,925)	\$ (48,934)
Administrative Assistant Goal 2	(1.0)	\$ (46,000)		\$ (46,000)	\$ (28,520)
Project Associate Goal 3	(1.0)	\$ (55,100)		\$ (55,100)	\$ (34,162)
Project Assistant Goal 3	(1.0)	\$ (46,000)		\$ (38,823)	\$ (24,070)
General Counsel	1.0	\$ 155,000	12/12/2011	\$ 85,418	\$ 52,959
Associate of Marketing and Outreach	1.0	\$ 55,100	1/1/2011	\$ 27,550	\$ 17,081
Project Manager - Lead by Example	1.0	\$ 78,000	11/4/2011	\$ 51,000	\$ 31,620
Administrative Assistant	1.0	\$ 42,000	11/1/2011	\$ 28,000	\$ 17,360
	(1.0)	\$ (20,275)		\$ (136,880)	\$ (84,866)
<u>Employee Transfers:</u>					
<u>Employees Transferred to CEFIA:</u>					
Gladys Rivera/Senior Manager of Marketing & Outreach	0.7		10/1/2011	\$ 26,439	\$ 16,392
John Murphy/Manager of Marketing & Outreach	1.0		10/1/2011	\$ 31,869	\$ 19,759
<u>Employees no longer shared with CEFIA</u>					
Emily Smith/Chief of Staff & Managing Director, External Relations	(0.5)		10/1/2011	\$ (53,600)	\$ (33,232)
Pam Hartley /Marketing Manager	(0.4)		10/1/2011	\$ (26,110)	\$ (16,188)
Chelsey Sarnecky/External Relations Coordinator	(0.4)		10/1/2011	\$ (12,615)	\$ (7,821)
	0.4			\$ (34,017)	\$ (21,091)
<u>Reclassifications of Existing Staff with Increasing Roles and Responsibilities</u>					
				\$ 60,000	\$ 37,200
Total FTE Adjustment:	2.40		Total Budget Adjustment:	\$ 62,742	\$ 38,900
				\$ 101,642	

**Clean Energy Finance and Investment Authority
Support for FY 12 Operating Budget Revisions**

Note 2 - CI Employees transferred to CEFIA

	Name	Position	Current CI Budget Allocation		New Budget Allocation	
			<u>CI</u>	<u>CEFIA</u>	<u>CI</u>	<u>CEFIA</u>
1	Garcia,Bryan	President, CEFIA	0%	100%		
2	Samuels,Cheryl	Administrative Assistant	0%	100%		
3	Goldberg,David	Director,Strategic Initiatives	0%	100%		
4	Hedman,Dale	Director Project Development	0%	100%		
5	Ljungquist,David	Associate Director, Project Development	0%	100%		
6	Ross,Rick	Senior Program Manager	0%	100%		
7	Cifaldi,Christin	Program Manager	0%	100%		
8	Olney,Elizabeth	Project Associate	0%	100%		
9	Vigil,Marycruz	Project Assistant	0%	100%		
10	Colonis,William	Program Manager	0%	100%		
11	McCarthu,Neil	Project Associate	0%	100%		
12	Lewis,Lynne	Project Assistant	0%	100%		
13	Sullivan,Lucy	Contract Administrator	0%	100%		
14	French,Loyola	Paralegal	0%	100%		
15	Frame,Keith	Director, New Technologies.	0%	100%		
16	Stevenson,Kim	Manager, New Technologies	0%	100%		
17	Price,Selya	Associate, New Technologies	0%	100%		
18	Wall,Robert	Director,Energy Market Initiatives	0%	100%		
19	Anastasiou,Jocelyn	Project Associate	0%	100%		
20	Kranich,Edward	Intern	0%	100%		
21	Brian Farnen	General Counsel	0%	100%		
22	Vacant	Project Associate	0%	100%		
23	Andrea Mancini	Administrative Assistant	0%	100%		
24	Rivera,Gladys	Senior Marketing Manager	70%	30%	30%	70%
25	Murphy,John	Marketing Manager	55%	45%	0%	100%

**Clean Energy Finance and Investment Authority
FY 2012 Budget
Consulting and Professional Fees**

Note 3 - Support for Revisions to Consulting & Legal Expenses

	Budget FY11	FY 2012 Budget	FY 2012 Budget Increase (Decrease)
Summary:			
Legal	275.00	100.00	(175.00)
Accounting	22.50	21.00	(1.50)
Advisory fees	60.00	50.00	(10.00)
	<u>357.50</u>	<u>171.00</u>	<u>(186.50)</u>
Detail:			
<u>Legal</u>			
CEFIA Board of Directors	175.00	10.00	(165.00)
Comprehensive Plan	25.00	15.00	(10.00)
Other legal matters	75.00	75.00	-
	<u>275.00</u>	<u>100.00</u>	<u>(175.00)</u>
<u>Accounting</u>			
Annual Audit	15.00	16.00	1.00
Other matters	7.50	5.00	(2.50)
	<u>22.50</u>	<u>21.00</u>	<u>(1.50)</u>
<u>Advisory Fees</u>			
Consultants:			
New Program Development	10.00	10.00	-
Recruiting Efforts	10.00	10.00	-
Management Development	5.00	5.00	-
Strategic Plan/Process Improvement Consulting	15.00	10.00	(5.00)
IT Systems Engineer (as needed)	-	10.00	10.00
Other	20.00	5.00	(15.00)
	<u>60.00</u>	<u>50.00</u>	<u>(10.00)</u>

Clean Energy Finance and Investment Authority
 FY 2012 Operating Budget
 External Relations

Note 4 - Support for Revisions to External Relations Expense

	FY 2011 Budget	Proposed FY 2012 Budget	FY 2012 Budget Increase (Decrease)
<u>Media Relations</u>	15.0	15.0	-
Public relations consultants	5.0	-	
Creative writing	3.0	10.0	
Media tracking/distribution	2.0	-	
Miscellaneous	5.0	5.0	
<u>Marketing Collateral</u>	15.0	18.0	3.0
Annual report design & printing	5.0	5.0	
Program collateral	10.0	10.0	
Promotional items	-	3.0	
<u>Website</u>	20.0	35.0	15.0
Website design	4.0	25.0	
Website maintenance	16.0	10.0	
<u>Sponsorship & Event Expenses</u>	40.5	45.5	5.0
CEFIA Annual Awards Event	15.0	15.0	
CPES WTD Conference	2.0	2.0	
NESEA	4.0	4.0	
New Haven Green Expo	2.5	2.5	
CCM Annual Event	2.0	7.0	
Miscellaneous Events	15.0	15.0	
<u>Advertising & Branding</u>	5.0	20.0	15.0
General	5.0	5.0	
Branding	-	15.0	
<u>Memberships</u>	86.9	89.4	2.5
CESA	70.0	65.0	
USFCC	6.0	6.0	
CDFA	-	0.8	
CPES	0.5	0.5	
Clean Tech	2.0	4.0	
CCM	0.8	0.8	
Council of Small Towns	0.2	0.2	
CBIA	0.7	0.7	
CT Green Building Council	0.1	0.1	
Misc Memberships	6.7	11.3	
<u>Other - General</u>	3.0	15.0	12.0
Misc.	3.0	15.0	
	<u>185</u>	<u>238</u>	<u>52</u>

Clean Energy Finance & Investment Authority
FY 12 Operating Budget
Occupancy Costs

Note 5 - Estimated additional rent expense - Office Space Expansion

Additional RSF:	3,626
SF Charge Year 1, per month	\$ 1.40
Rent per month	<u>\$ 5,062</u>
CEFIA Allocation (based on current budget):	52%
Monthly CEFIA Expense	\$ 2,632
FY 12 months (March-June 2012)	<u>4</u>
FY 12 Budget Adjustment	<u><u>\$ 10,529</u></u>

Above adjustment may be subject to change based on CEFIA/CI allocation adjustments.

Current Rent Budget	\$ 151,000
Additional Rent Expense	<u>\$ 10,529</u>
	<u><u>\$ 161,529</u></u>

Additional Furniture & Improvements	\$ 50,000
Five year depreciation & amortization	<u>60 months</u>
Monthly depreciation & amortization	\$ 833.33
FY 12 months (March-June 2012)	<u>4</u>
FY 12 Budget Adjustment	<u><u>\$ 3,333</u></u>

Total FY12 Budget Adjustment for Office:	<u><u>\$ 13,862</u></u>
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Clean Energy Finance & Investment Authority
FY 12 Operating Budget
Miscellaneous Expense Categories

Note 6 - Training & Education, Temporary Employees, D&O Insurance

<u>Description</u>	FY12 CCEF <u>Budget</u>	FY12 Revised <u>Budget</u>	<u>Increase</u>
<i>Training & Education</i>	\$ 28	\$ 33	\$ 5
<i>Temporary Employees</i>	\$ 26	\$ 50	\$ 24
To reflect increased use of temporary administrative assistants for Goal 2.			
<i>D & O Insurance</i>	\$ 26	\$ 54	\$ 28
To reflect increase in premiums for EPL and tail policy for CCEF.			

**Clean Energy Finance and Investment Authority
Commitment Analysis
As of October 31, 2011**

Unrestricted cash balance as of October 31, 2011
 Unfunded commitments as of 10/31/2011 (see analysis below):
 Cash available as of 10/31/2011 to fund future programs and fund operations:

	<u>General</u>	<u>RGGI</u>	<u>RGGI-CMEEC</u>	<u>Total</u>
Unrestricted cash balance as of October 31, 2011	\$ 52,244,042	\$ 8,190,636	\$ 564,600	\$ 60,999,278
Unfunded commitments as of 10/31/2011 (see analysis below):	\$ (25,470,971)	\$ (3,418,032)	\$ -	\$ (28,889,003)
Cash available as of 10/31/2011 to fund future programs and fund operations:	\$ 26,773,071	\$ 4,772,604	\$ 564,600	\$ 32,110,275

**Unfunded grant & financial assistance programs commitments
as of October 31, 2011:**

Project 150 & Pre-Development Program				
Project 150	\$ 10,244,289	\$ -	\$ -	
Predevelopment program	\$ 458,603	\$ -	\$ -	
Strategic Investment Program	\$ 340,000	\$ -	\$ -	
CI&I On Site Generation Program - Solar				
Commercial solar program	\$ 1,485,901	\$ -	\$ -	
Not for Profit/Municipal solar program	\$ 758,538	\$ 3,418,032	\$ -	
Residential (Small Solar) rebate program	\$ 1,336,255	\$ -	\$ -	
Affordable housing solar program	\$ -	\$ -	\$ -	
Solar Lease Program rebates¬es not funded	\$ 3,831,758	\$ -	\$ -	
CI&I On Site Generation Program - Fuel Cell	\$ 4,185,125	\$ -	\$ -	
CI&I On Site Generation Program - Wind	\$ 82,250	\$ -	\$ -	
CI&I On Site Generation Program - Other	\$ 432,785	\$ -	\$ -	
Operational Demonstration Program	\$ 1,318,181	\$ -	\$ -	
Education & Outreach	\$ 274,086	\$ -	\$ -	
Education & Outreach-Communities Program Earned not Contracted	\$ 723,200	\$ -	\$ -	
CMEEC RGGI projects	\$ -	\$ -	\$ -	
	<u>\$ 25,470,971</u>	<u>\$ 3,418,032</u>	<u>\$ -</u>	
		<u>\$ 28,889,003</u>	<u>\$ 28,889,003</u>	



General Assembly
January Session, 2011

Bill No. 1243 (P.A. 11-80)

LCO No. 8345

*08345 _____ *

Referred to Committee on No Committee

Introduced by:

SEN. WILLIAMS, 29th Dist.

REP. DONOVAN, 84th Dist.

AN ACT CONCERNING THE ESTABLISHMENT OF THE DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION AND PLANNING FOR CONNECTICUT'S ENERGY FUTURE.

Sec. 106. (NEW) (*Effective July 1, 2011*) (a) The Clean Energy Finance and Investment Authority established pursuant to section 16-245n of the general statutes, as amended by this act, shall structure and implement a residential solar investment program established pursuant to this section, which shall result in a minimum of thirty megawatts of new residential solar photovoltaic installations located in this state on or before December 31, 2022, the annual procurement of which shall be determined by the authority and the cost of which shall not exceed one-third of the total surcharge collected annually pursuant to said section 16-245n.

(b) The Clean Energy Finance and Investment Authority shall offer direct financial incentives, in the form of performance-based incentives or expected performance-based buydowns, for the purchase or lease of qualifying residential solar photovoltaic systems. For the purposes of this section, "performance-based incentives" means incentives paid out on a per kilowatt-hour basis, and "expected performance-based buydowns" means incentives paid out as a one-time upfront incentive based on expected system performance. The authority shall consider willingness to pay studies and verified solar photovoltaic system characteristics, such as operational efficiency, size, location, shading and orientation, when determining the type and amount of incentive. Notwithstanding the provisions of subdivision (1) of subsection (j) of section 16-244c of the general statutes, as amended by this act, the amount of renewable energy

produced from Class I renewable energy sources receiving tariff payments or included in utility rates under this section shall be applied to reduce the electric distribution company's Class I renewable energy source portfolio standard. Customers who receive expected performance-based buydowns under this section shall not be eligible for a credit pursuant to section 16-243b of the general statutes.

(c) Beginning with the comprehensive plan covering the period from July 1, 2011, to June 30, 2013, the Clean Energy Finance and Investment Authority shall develop and publish in each such plan a proposed schedule for the offering of performance-based incentives or expected performance-based buydowns over the duration of any such solar incentive program. Such schedule shall: (1) Provide for a series of solar capacity blocks the combined total of which shall be a minimum of thirty megawatts and projected incentive levels for each such block; (2) provide incentives that are sufficient to meet reasonable payback expectations of the residential consumer, taking into consideration the estimated cost of residential solar installations, the value of the energy offset by the system and the availability and estimated value of other incentives, including, but not limited to, federal and state tax incentives and revenues from the sale of solar renewable energy credits; (3) provide incentives that decline over time and will foster the sustained, orderly development of a state-based solar industry; (4) automatically adjust to the next block once the board has issued reservations for financial incentives provided pursuant to this section from the board fully committing the target solar capacity and available incentives in that block; and (5) provide comparable economic incentives for the purchase or lease of qualifying residential solar photovoltaic systems. The authority may retain the services of a third party entity with expertise in the area of solar energy program design to assist in the development of the incentive schedule or schedules. The Department of Energy and Environmental Protection shall review and approve such schedule. Nothing in this subsection shall restrict the authority from modifying the approved incentive schedule before the issuance of its next comprehensive plan to account for changes in federal or state law or regulation or developments in the solar market when such changes would affect the expected return on investment for a typical residential solar photovoltaic system by twenty per cent or more.

(d) The Clean Energy Finance and Investment Authority shall establish and periodically update program guidelines, including, but not limited to, requirements for systems and program participants related to: (1) Eligibility criteria; (2) standards for deployment of energy efficient equipment or building practices as a condition for receiving incentive funding; (3) procedures to provide reasonable assurance that such reservations are made and incentives are paid out only to qualifying residential solar photovoltaic systems demonstrating a high likelihood of being installed and operated as indicated in application materials; and (4) reasonable protocols for the measurement and verification of energy production.

(e) The Clean Energy Finance and Investment Authority shall maintain on its web site the schedule of incentives, solar capacity remaining in the current block and available funding and incentive estimators.

(f) Funding for the residential performance-based incentive program and expected performance-based buydowns shall be apportioned from the moneys collected under the surcharge specified in section 16-245n of the general statutes, as amended by this act, provided such apportionment shall not exceed one-third of the total surcharge collected annually, and supplemented by federal funding as may become available.

(g) The Clean Energy Finance and Investment Authority shall identify barriers to the development of a permanent Connecticut-based solar workforce and shall make provision for comprehensive training, accreditation and certification programs through institutions and individuals accredited and certified to national standards.

(h) On or before January 1, 2014, and every two years thereafter for the duration of the program, the Clean Energy Finance and Investment Authority shall report to the joint standing committee of the General Assembly having cognizance of matters relating to energy on progress toward the goals identified in subsection (a) of this section.



CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Memo

To: Board of Directors, Clean Energy Finance and Investment Authority
From: Bryan Garcia
Date: December 9, 2011
Re: Proposal to evaluate the Connecticut Solar Lease Program

BACKGROUND

In 2008, the CCEF was at the cutting-edge of residential solar PV financing with the launch of the Connecticut Solar Lease Program. While the CCEF was launching this state-supported program in Connecticut, Solar City (a private company backed by Google) was launching a similar program in California. This memo proposes to have an independent third-party evaluator assess the loan and technology performance of households that participated in what is, in effect, the CCEF's first financing program. This evaluation will be used as part of the marketing collateral package for CEFIA to present to financial institutions and will inform the design of the next version of this program. It will demonstrate a track record of successful financing program design and implementation that is intended to generate interest in new financing program proposals by CEFIA that involve rebates, credit enhancements, and other financial tools.

CEFIA is currently working with Connecticut Light & Power on a second version of the residential solar PV financing program that would incorporate energy efficiency measures (i.e. Home Energy Solutions, insulation, duct sealing, etc.) with quick payback periods (i.e. 5 years or less) and the use of on-bill repayment. The new financing program would provide options for loan or lease financing – both designed with no upfront capital requirement to the participating household.

The Board of Directors has determined that a major goal of CEFIA is to “attract and deploy capital to finance the clean energy goals for Connecticut”. This memo requests Board approval for CEFIA to conduct a competitive request for proposals to identify an independent third-party evaluator for the Connecticut Solar Lease Program.

CONNECTICUT SOLAR LEASE

In August 2008, the CCEF – along with its partners CT Solar Leasing, LLC (a subsidiary of U.S. Bancorp), AFC First Financial Corporation, and Gemstone Lease Management, LLC – announced a residential solar lease program for homeowners who meet certain household income requirements (200% or less of the area's median income or approximately 80% of households). This residential lease program was combined with the CCEF's rebates for residential solar PV systems to enhance the economic feasibility of individual projects.

The CCEF invested nearly \$40 million in this program – \$23.4 million in rebates and \$15.2 million in debt service – and U.S. Bancorp, as the tax equity investor, invested \$17.6 million in

equity. The program also required the inclusion of performance monitoring systems developed by Locus Energy to track the actual production of clean energy from the solar PV installations to compare against the estimated production. This data provides the basis of proof of the economic value of solar PV to a homeowner and a third-party financier when compared against the avoided electricity price. The program reached nearly 900 households and to date, there have only been 2 households that are in the process of loan default. CEFIA has access to the technology and loan performance data through our program partners and will make it available for this evaluation.

It should also be noted that the Connecticut Energy Efficiency Fund (CEEF) launched a residential energy efficiency financing program in 2009 run by AFC First Financial Corporation. This program provided \$14 million in loans to 1,400 households for various measures including insulation, efficient HVAC equipment, replacement windows, etc.

PROPOSAL TO EVALUATE THE PROGRAM

An independent third-party assessment of the Connecticut Solar Lease Program would provide CEFIA with marketing material to support outreach to the financial community. Despite the solar lease notes being a non-conventional asset class, we believe that there are various firms that would be capable of conducting portfolio monitoring and performance (i.e. specialty risk analytics firms that serve the asset-backed security market, energy finance consulting firms, etc.) that would provide high-quality analysis and reporting that are recognized within the financial services industry.

CEFIA proposes to work with the Clean Energy Finance Center¹ to develop and issue a competitive request for proposals to identify a reputable firm to conduct a detailed analysis and evaluation of the loan and technology performance of the Connecticut Solar Lease Program.

RESOLUTION

WHEREAS, a major goal of CEFIA is to attract and deploy capital to finance Connecticut's clean energy goals;

WHEREAS, the Connecticut Clean Energy Fund invested nearly \$40 million in a combination of rebates and loans in a Connecticut Solar Lease Program to provide a no upfront cost solution that provided access to solar PV technology for 80 percent of households;

WHEREAS, the Connecticut Solar Lease Program was a first-of-its-kind financial innovation for residential solar PV deployment in the United States;

WHEREAS, neither the Connecticut Clean Energy Fund nor CEFIA to date has conducted a program evaluation of the Connecticut Solar Lease Program;

¹ It should be noted that I was a founding board member of the Clean Energy Finance Center (CEFC) with Stewart Hudson of the Emily Hall Tremain Foundation. The CEFC provides objective analysis and guidance on effective financing strategies at the state and local level, and works with policymakers, investors, energy advocates and other stakeholders to develop and communicate policies and programs to implement those strategies. The Center focuses on efforts that build on best practices that have measurable economic, environmental, and social impacts (e.g., jobs created, reduced energy use, reduced greenhouse gas emissions).

WHEREAS, CEFIA is currently designing a follow-on financing program for residential solar PV that intends to use credit enhancements to leverage private capital investment in Connecticut;

NOW THEREFORE BE IT:

RESOLVED, that CEFIA shall develop and issue a request for proposals to evaluate the Connecticut Solar Lease Program, including, but not limited to the Program's loan and technology performance.

RESOLVED, that per CEFIA's Operating Procedures, the Chair and the President of CEFIA are authorized to expend up to \$150,000 to undertake an evaluation such as this.

RESOLVED, that this Board action is consistent with Connecticut General Statutes § 16-245n and with the CCEF's comprehensive plan.



CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Memo

To: Board of Directors, Clean Energy Finance and Investment Authority
From: Bob Wall
Date: December 9, 2011
Re: Proposal to conduct market research for the Residential Solar Investment Program

BACKGROUND

Over the past decade, CEFIA, or its predecessor the Connecticut Clean Energy Fund (CCF), provided financial support for the installation of 1,877 residential solar electric or photovoltaic (PV) systems in Connecticut with a cumulative installed capacity of 12.4 megawatts (MW). In large part, customer participation in the residential rebate and solar lease programs was driven by the rebates or “no money down” financing options and was supported by limited, conventional marketing strategies such as collateral, event exhibits and workshops.

Under Section 106 of Public Act 11-80, CEFIA is now mandated to support at least 30 MW of residential solar by December 31, 2022, funded by not more than one-third of the statutory 1 mill surcharge collection or an approximate total investment of \$90-\$100 million. In light of these substantial investment and installed capacity requirements, CEFIA believes that a strong marketing campaign strategy supported by Connecticut-specific consumer research is a vital component of a successful residential solar program.

PROPOSAL TO CONDUCT RESEARCH

CEFIA has identified SmartPower, a national, non-profit marketing organization founded by CCF and various philanthropic foundations, to conduct quantitative and qualitative market research of Connecticut customers and contractors to better understand the benefits and barriers of solar financing options among customer segments. Previously, SmartPower performed marketing and messaging research analysis in the area of renewable energy and energy efficiency in Connecticut and other states that was critical in the development of national award-winning programs such as the Connecticut Clean Energy Communities program. Subsequently, the organization performed consumer research studies on solar power in Arizona and Oregon that led to a ground-breaking 2009 report prepared in conjunction with the Clean Energy Group entitled “Smart Solar Marketing Strategies.”

Specifically, this research is intended to profile customers in Connecticut that have purchased or leased solar PV systems, assess awareness of leasing options, gauge the impact of leasing options upon “inerts” (i.e., customers that are interested in solar but have not yet acted),

develop effective messaging to promote solar including through leasing/financing options and examine the reaction to taking energy efficiency measures before being eligible for solar incentives. Phase one of the research would include an on-line survey of solar customers (both leasing and self-paid/financed), inerts and solar installers. Phase two of the research would feature focus groups of the different customer types in different geographical locations within the state. Ultimately, the analysis seeks to develop demographic and attitudinal profiles of the customer types, identify perceived benefits and barriers of various solar financing options, determine key dynamics of the decision-making process and compare results to those of previous studies.

This research is a major undertaking by CEFIA that will guide a core focus of its work over the long term. The findings of this study, together with national best practices of solar marketing strategies, would guide the development of a marketing plan to facilitate the sustained orderly deployment of solar technology and support the solar industry infrastructure and workforce in Connecticut.

RESOLUTION

WHEREAS, per Section 106 of Public Act 11-80, the Clean Energy Finance and Investment Authority is required to structure and implement a residential solar investment program which shall result in a minimum of thirty megawatts of new residential solar photovoltaic installations in the state on or before December 31, 2022, the annual cost of which shall be up to one-third of the total surcharge collected annually; and

WHEREAS, a comprehensive marketing strategy, including quantitative and qualitative research, is critical to the achievement of these statutory requirements;

NOW THEREFORE BE IT:

RESOLVED, that the Board approves an allocation of funding for SmartPower to perform a solar market research study in an amount not to exceed EIGHTY-FIVE THOUSAND DOLLARS (\$85,000), and that said funding is contingent upon sufficient funds being available for this purpose.

RESOLVED, that the President of CEFIA and any other duly authorized officer of CEFIA is authorized to execute and deliver any contract or other legal instrument necessary to effect this Resolution on such terms and conditions as he or she shall deem to be in the interests of CEFIA and the ratepayers, in conformance with the wishes of the Board, and in conformance with CEFIA's operating procedures.

RESOLVED, that the proper CEFIA officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

RESOLVED, that this Board action is consistent with Connecticut General Statutes § 16-245n and with the CCEF's comprehensive plan.



CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Memo

To: Board of Directors
From: Bryan Garcia
Date: December 9, 2011
Re: Proposal to secure the services of a financial consulting firm to support the development and implementation of financing programs

BACKGROUND

The Board of Directors, at the September 29th meeting, approved a motion to change the proposed “Director of Finance and Investments” position to “Executive Vice President and Chief Investment Officer” to attract “higher level candidates” in recognition of the central importance of this position to the goals of CEFIA. To date, the search for higher level candidates has not yielded the desired results.

CEFIA is challenged with the responsibility of developing innovative financing programs. At the same time, it is critical that the new programs be well-constructed and attractive to outside investors. CEFIA cannot afford to make mistakes, especially in light of the recent occurrences at the federal level with the U.S. Department of Energy on its financing programs. Until highly-qualified in-house financial expertise can be hired and brought up to speed, it seems logical to avail ourselves of seasoned external expertise to help guide our program development and enable us to avoid missteps or “reinventing the wheel.”

This memo requests Board approval for CEFIA to retain the services of a consultant for one year to assist with program development, staff selection and training, and to act as a counselor to the President and to the Board of Directors on strategic issues related to financing.

PROPOSED SCOPE OF SERVICES

The consulting company shall perform the following tasks, upon request:

- Assist CEFIA in the creation of an overall Comprehensive Plan for funding clean energy through loans, credit enhancements, and other financing mechanisms as mandated by Public Act 11-80;
- Provide strategic planning assistance to CEFIA to facilitate and accelerate program development and implementation;
- Work with CEFIA through all steps necessary to access capital markets in connection with maximizing program leverage, especially as relates to the

development of the Green Loan Guaranty Fund – per Section 124 of Public Act 11-80.

Specific services would include, but not be limited to:

- Preparing for State Bond Commission approvals;
 - Advising on financing structures;
 - Developing methods to leverage incoming loan cash flow and program funds;
 - Providing advice on loan underwriting and servicing requirements and processes;
 - Advising on the cost effectiveness of different financing scenarios;
 - If bonds are issued, performing customary pre-sale tasks such as reviewing disclosure documents, preparing financing schedules, preparing ratings materials, developing financial models, and other related tasks.
-
- Assist with the procurement of professional services such as Loan Origination and Loan Servicing.
 - Assist with the selection of firms to provide investment banking and underwriting services.
 - Advise on effective program marketing and which financing products will be effective for different property segments and types of borrowers.
 - Participate in meetings with CEFIA staff, borrowers, utilities, municipalities, counsel, CEFIA's Board of Directors, and other parties, as necessary or appropriate.
 - Any other services to be specified by CEFIA that are consistent with our mission, as requested.

PROPOSED CANDIDATE

Lamont Financial Services Corporation is a nationally ranked independent financial advisor specializing in public finance. The firm provides financial advisory services to their clients, which are primarily states, state agencies, and municipalities. Lamont has offices in New Jersey, Missouri, and California. Lamont was ranked 9th overall of the nation's top 100 financial advisors (Source: Thomson Financial Securities Data). Lamont has particular expertise in managing revolving loan programs, including mortgages, loans to localities for infrastructure improvements, and energy efficiency investments.

The firm is very familiar with Connecticut's financial community, and with many of the State's agencies. The President, Robert Lamb, is the advisor for most of the Firm's east-coast operations, and has Connecticut's Office of Policy Management and the Office of the State Treasurer as clients. Chris Valentino, Vice President, has worked on financing projects for the State of Connecticut, the Connecticut Health and Educational Facilities Authority, and the Connecticut Development Authority.

RESOLUTION

WHEREAS, a major goal of CEFIA is to attract and deploy capital to finance Connecticut's clean energy goals;

WHEREAS, CEFIA must develop financing programs that attract private capital investment in Connecticut to enable a dramatic scale-up in clean energy deployment;

WHEREAS, the search for an Executive Vice President and Chief Investment Officer of CEFIA is taking more time and effort than had originally been anticipated; and

WHEREAS, Lamont Financial Services Corporation provides financial advisory services on public finance including support for the Connecticut Office of Policy and Management, Connecticut Office of the State Treasurer, Connecticut Health and Educational Facilities Authority, and the Connecticut Development Authority.

NOW THEREFORE BE IT:

RESOLVED, that the President of CEFIA shall engage the services of Lamont Financial Services Corporation to provide financial advisory services to assist with the development and implementation of new and innovative financing programs.

RESOLVED, that per CEFIA's Operating Procedures, the Chair and the President of CEFIA, are authorized to expend up to \$150,000.00 over twelve (12) months for services such as these.

RESOLVED, that this Board action is consistent with Connecticut General Statutes § 16-245n and with the CCEF's comprehensive plan.

The Impact of Clean Energy Innovation

Examining the Impact of Clean Energy Innovation
on the United States Energy System and Economy

June 2011

The Impact of Clean Energy Innovation

Examining the Impact of Clean Energy Innovation on the United States Energy System and Economy

An Analysis by Google.org using McKinsey & Company's US Low Carbon Economics Tool

Google.org

Google.org is the philanthropic arm of Google Inc., dedicated to using the power of information and technology to improve the world.

For more information visit:

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Executive Summary

Our need for energy must be balanced against the often competing interests of the economy, environment, and national security. Clean, sustainable, safe, and secure sources of energy are needed to avoid long-term harm from geopolitical risks and global climate change. Unless fully cost-competitive with fossil fuels, the adoption of clean technologies will either be limited or driven by policy. Innovation in clean energy technology is thus needed to reduce costs and maximize adoption. But how far can energy innovation go towards meeting economic, environmental, and security needs? This analysis attempts to estimate the potential impact clean energy innovation could have on the US economy and energy landscape.

The analysis assumes aggressive hypothetical cost breakthroughs (BT) in clean power generation, grid-storage, electric vehicle, and natural gas technologies and compares them to Business as Usual (BAU) scenarios modeled to 2030 and 2050. The model also compares innovation scenarios in combination with two clean energy policy paths: 1) comprehensive federal incentives and mandates called "Clean Policy" and 2) a power sector-only \$30/metric ton price on CO₂ called "\$30/ton Carbon Price." Our modeling indicates that, when compared to BAU in 2030, aggressive energy innovation alone could have enormous potential to simultaneously:

- Grow the US economy by over \$155 billion in GDP/year (\$244 billion with Clean Policy)
- Create over 1.1 million new net jobs (1.9 million with Clean Policy)
- Save US consumers over \$942/household/year (\$995 with Clean Policy)
- Reduce US oil consumption by over 1.1 billion barrels/year
- Reduce US total greenhouse gas emissions (GHG) by 13% (21% with Clean Policy)

By 2050, innovation in the modeled technologies alone reduced GHG emissions 55% and 63% when combined with policy, while continuing positive economic and job growth. This analysis indicates that aggressive clean energy innovation could simultaneously help address the US' major long-term economic, environmental, and security goals.

Introduction

What is the value of clean energy innovation? How much could cheaper clean energy technologies contribute to our economy and energy security? How much could they reduce GHG emissions to mitigate global warming? Examining innovation's potential and limitations in clean energy is critical for understanding its potential role in addressing the world's economic, security and climate challenges.

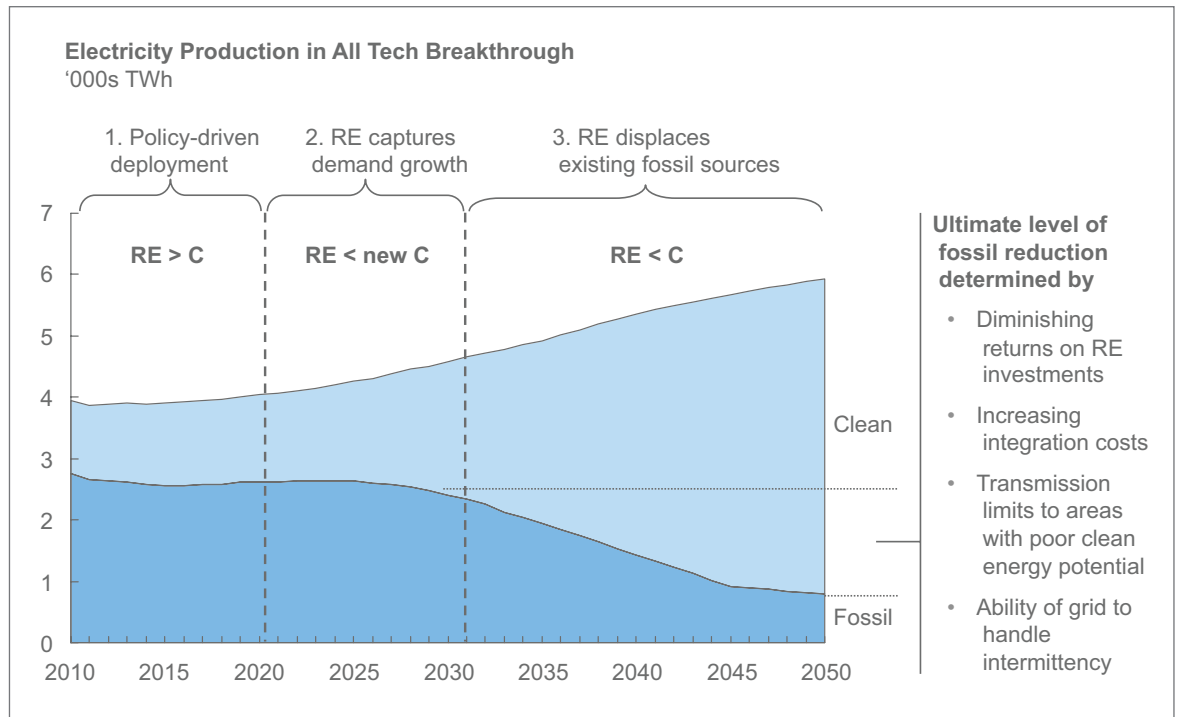
To attempt to answer these questions, we modeled the impact of breakthroughs in key energy sectors: clean power, energy storage, electric vehicles, and natural

gas. Technologies were modeled on their own and in combination with clean energy policies and carbon pricing. This analysis does not attempt to predict innovations, model the best ways to drive innovation, or model the optimal mix of innovation policies. Rather, it sets out to estimate energy innovation's potential impact based on assumed hypothetical breakthroughs.

Based on our modeling, we estimate that by 2030, innovation in the modeled technologies alone could have a transformative impact on the US, adding over \$155 billion per year in GDP and 1.1 million net jobs, while reducing household energy costs by \$942 per year, oil consumption by 1.1 billion barrels per year, and GHG emissions by 13% relative to BAU. By 2050, annual gains in GDP increase to \$600 billion, net additional jobs to 3.9 million, and emissions reductions to 55%.

Figure 1.

U.S. Clean Energy Generation Over Time (All Tech Breakthrough)



Methodology

US energy supply and demand is comprised of five major sectors: electrical generation and use, transportation (primarily oil for vehicles), buildings, industrial use, and agriculture. This analysis looked intensively at electrical generation and transportation, with a more limited assessment of building efficiency. Industrial efficiency and agricultural energy usage were not modeled in detail.

For each sector, we modeled several major technologies (e.g., in the clean power sector: solar, nuclear, geothermal, etc.). For each technology, we developed target “breakthrough” cost-performance levels for 2020 and 2030 through our own analysis and extensive consultation with outside experts. These states of innovation were assumed as fact, then modeled to estimate outcomes of achieving those levels of cost and performance. The modeled breakthrough levels are highly aggressive and would be challenging to reach even with a much more concerted push on innovation than at present.

We used the breakthrough cost-performance levels as inputs to McKinsey & Company’s Low Carbon Economics Tool (LCET).¹ The LCET uses detailed micro-economic analysis to determine the impact of technologies and policies on demand and prices (e.g., how large would be the demand for technology X if it reached price Y and were supported by regulation Z?). These impacts are then fed to a macro-economic engine that estimates the resulting impact on GDP, jobs, and other key

statistics. The LCET models each sector of the US economy in detail and by state. This analysis relied primarily on the power, transportation, and building units of the LCET.

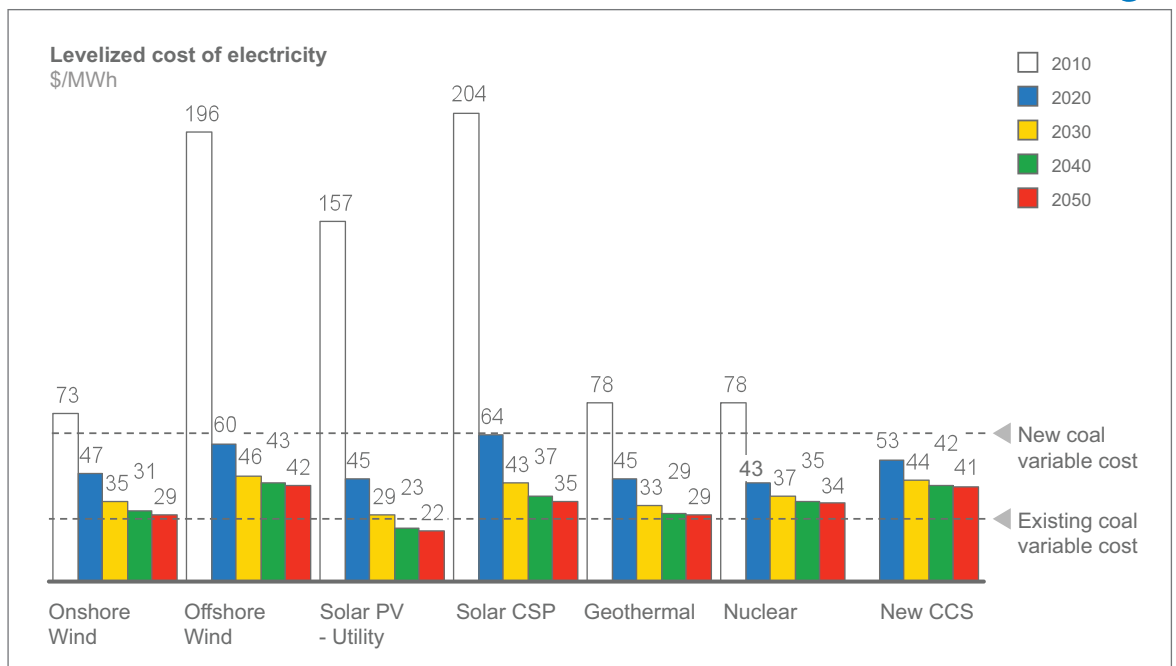
For the reference control scenario, we modeled a Business As Usual (BAU) case based on technology cost-performance and commodity price assumptions from the US Energy Information Administration's Annual Energy Outlook 2011 and our own perspective on current pricing.²

Power Sector

We modeled breakthroughs in utility-scale and rooftop solar photovoltaic (PV), concentrated solar power (CSP), geothermal (including Enhanced Geothermal Systems), nuclear, retrofit and new build Carbon Capture and Sequestration (CCS), and on- and off-shore wind. The rate of innovation for each technology was determined by improving capital expenditure, fixed and variable operating expenses, capacity factor, and heat rate (where applicable). This influenced the Levelized Cost of Electricity (LCOE) for each technology.

Figure 2.

Breakthrough LCOE by Technology (\$/MWh)



At the core of the power sector model is an hour-by-hour dispatch model that estimates hour-by-hour power dispatch by utility district for the entire US generating fleet and determines power pricing accordingly. Deployment of renewable resources is then modeled from the investor perspective, such that the cost of a new asset is measured against the lifetime returns from either the sale of electricity on the wholesale market or through power purchase agreements (PPAs). In order for an energy source to be deployed, its LCOE must be less than the regional wholesale electricity price, which in most regions is based on the marginal cost of generation from traditional sources such as coal and natural gas.

We optimistically assumed that all necessary transmission is built for new generation. Transmission costs were factored for a given generation source when deployed, which in most cases added between \$5–10/MWh to its LCOE. Renewable energy costs were also influenced by resource distribution and availability, based on historical time-of-day generation performance.

1. McKinsey & Company's US Low Carbon Economics Tool: This analysis was prepared by Google.org using McKinsey's US Low Carbon Economics Tool, which is a neutral, analytic set of interlinked models that estimates potential economic implications of various policies using assumptions defined by Google.org. The policy scenarios, input assumptions, conclusions, recommendations and opinions are the sole responsibility of Google.org and are not validated or endorsed by McKinsey. McKinsey takes no position on the merits of these assumptions and scenarios or on associated policy recommendations. More background about McKinsey's US Low Carbon Economics Tool is available at: http://www.mckinsey.com/client-service/sustainability/low_carbon_economics_tool.asp.

2. US Energy Information Administration, Annual Energy Outlook 2011.

Grid-Storage

We modeled two primary storage technologies: short duration storage capable of discharging loads for less than one hour; and larger scale storage capable of discharging for over one hour. We then modeled five business cases for storage: 1) Frequency Regulation; 2) Load Following; 3) Price Arbitraging; 4) Capacity Deferment; and 5) Grid Reliability.

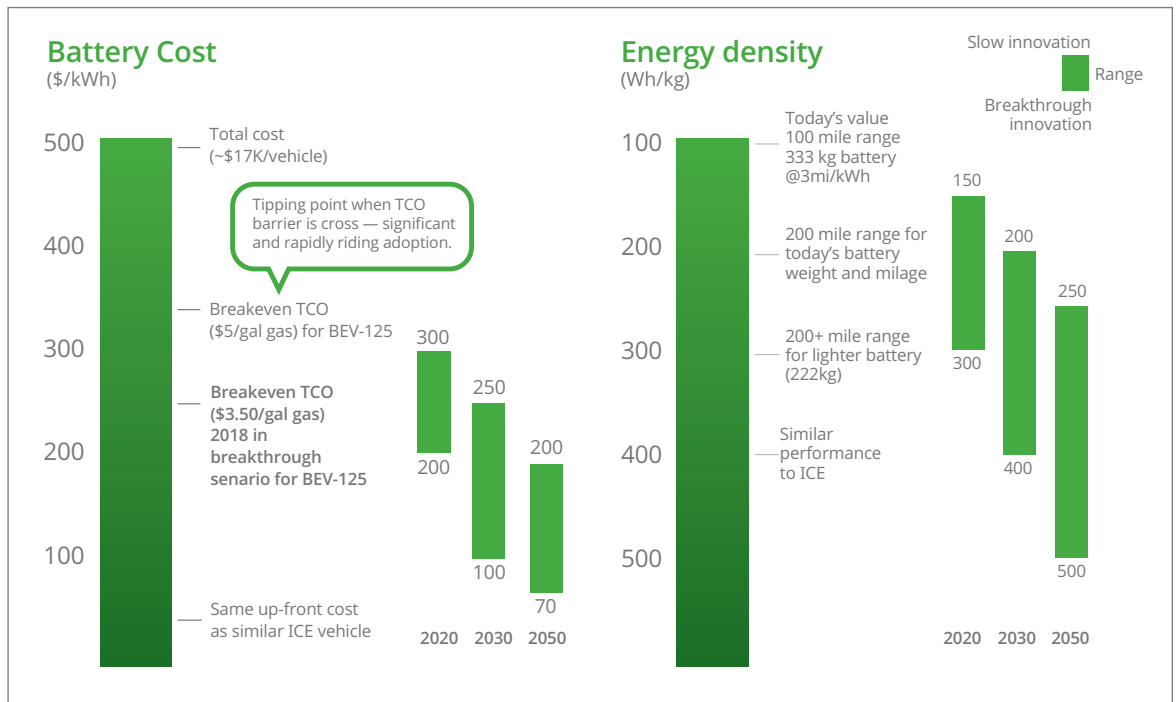
Similar to the process described above for new generating capacity, battery deployment is modeled from the investor perspective. Batteries are installed when future cash flow for the five business cases above, less any operating costs over the lifetime of the battery, is greater than the capital cost. Modeling storage is done iteratively as increasing storage capacity eventually degrades the market for its services, inhibiting the deployment of more storage. Some storage capacity can serve multiple business cases, which is also captured by our modeling. For instance, batteries performing price arbitrage by charging at off-peak hours and discharging at on-peak hours could also bid into spinning reserve markets and perform load following.

Transportation

To model breakthroughs in transportation, we set breakthrough cost performance levels for vehicle battery technology. Energy capacity cost (\$/kWh), energy density (kWh/kg), duty life (charge cycles), and range (miles) were all improved at optimistic rates. These parameters then influenced vehicle cost and range, which drove vehicle purchasing.

Figure 3.

Battery Cost Tipping Points



Our estimate of vehicle adoption relied on a consumer choice model that estimates vehicle purchasing preferences as a function of sticker price, Total Cost of Ownership (TCO), and range, including realistic customer segmentation based on average vehicle miles driven, local climate (which affects heat and air conditioning use), and urban vs. rural driving patterns.

Modeled vehicle options included Electric Vehicles (EV), Plug-In Hybrid Electric Vehicles (PHEV), Hybrid Electric Vehicles (HEV), Compressed Natural Gas (CNG), and Internal Combustion Engine vehicles (ICE) in light, medium, and heavy duty variations (LDV, MDV, HDV). We assumed that charging infrastructure would be built in response to demand and would not act as a bottleneck.

Natural Gas

To model the impact of continued innovation in natural gas extraction and its effect on the energy system, we assumed an optimistically low Henry Hub spot gas price of \$3/million British Thermal Units (MMBTU) and held it constant until 2030. We optimistically assumed that all gas demand triggered by the low price is able to be satisfied with production from domestic gas basins. The low natural gas price consequently increases the competitiveness of natural gas generation and Compressed Natural Gas vehicles.

Policy

The impact of innovation was explored within three policy scenarios (see appendix for full descriptions and policy assumptions):

1. **BAU** (Current Policies), which held existing state and federal energy policies as they exist today and expiring on their approved timeline.
2. **Clean Policy**, a collection of existing or proposed federal policies including a Clean Energy Standard (25% CCS, renewables, and new nuclear by 2030), Energy Efficiency Resource Standard (EERS), increased Corporate Average Fuel Economy (CAFE), increased EPA regulations on coal, extended Investment and Production Tax Credits, and a Loan Guarantee credit facility capped at \$15 billion per year. This scenario optimistically assumes a very high level of effectiveness and efficiency in implementing these policies. For example, we assume that the energy efficiency regulations trigger only the most cost-effective among potential energy-savings measures.
3. **\$30/ton Price on Carbon**, a power sector-only carbon price used to fund a cut in personal income tax rates. The \$30/ton price was chosen because it can cause natural-gas generation to be dispatched ahead of coal, since the carbon intensity of coal generation can be more than double that of combined cycle gas turbines. Absent very aggressive cost reductions in clean energy, much higher natural gas prices, or regulation on natural gas, a price on carbon below \$30/ton may not sufficiently incentivize cleaner sources.

Since we did not model all potential clean energy policies (e.g. economy-wide cap-and trade, smart grid policies, utility deregulation, etc.) or assess optimal mixes of policies, these scenarios offer a limited assessment of the potential impacts of clean energy policies.

Scenarios Modeled

In total, we examined fourteen different scenarios with various combinations of technology innovation rates, policy conditions, and commodity prices (see appendix for full scenario descriptions).

Scenario	Innovation Rate (Sector)	Policy Condition	Commodity Price
1. BAU	BAU	BAU	BAU (AEO 2011)
2. Clean Power Breakthrough	Breakthrough (Power Only)	BAU	BAU (AEO 2011)
3. Storage Breakthrough	Breakthrough (Storage Only)	BAU	BAU (AEO 2011)
4. EV Breakthrough	Breakthrough (EVs Only)	BAU	BAU (AEO 2011)
5. All Tech Breakthrough	Breakthrough (Power, Storage, and EVs)	BAU	BAU (AEO 2011)
6. Clean Policy	BAU	Clean Policy	BAU (AEO 2011)
7. Clean Policy + Breakthrough	Breakthrough (Power, Storage, and EVs)	Clean Policy	BAU (AEO 2011)
8. \$30/ton Price on Carbon	BAU	\$30/ton Price on Carbon (Power Sector Only)	BAU (AEO 2011)
9. \$30/ton Carbon + Breakthrough	Breakthrough (Power, Storage, and EVs)	\$30/ton Price on Carbon (Power Sector Only)	BAU (AEO 2011)
10. High Commodities	BAU	BAU	AEO 2011 + 50%
11. High Commodities + Breakthrough	Breakthrough (Power, Storage, and EVs)	BAU	AEO 2011 + 50%
12. Cheap Natural Gas	BAU	BAU	\$3/MMBTU Gas

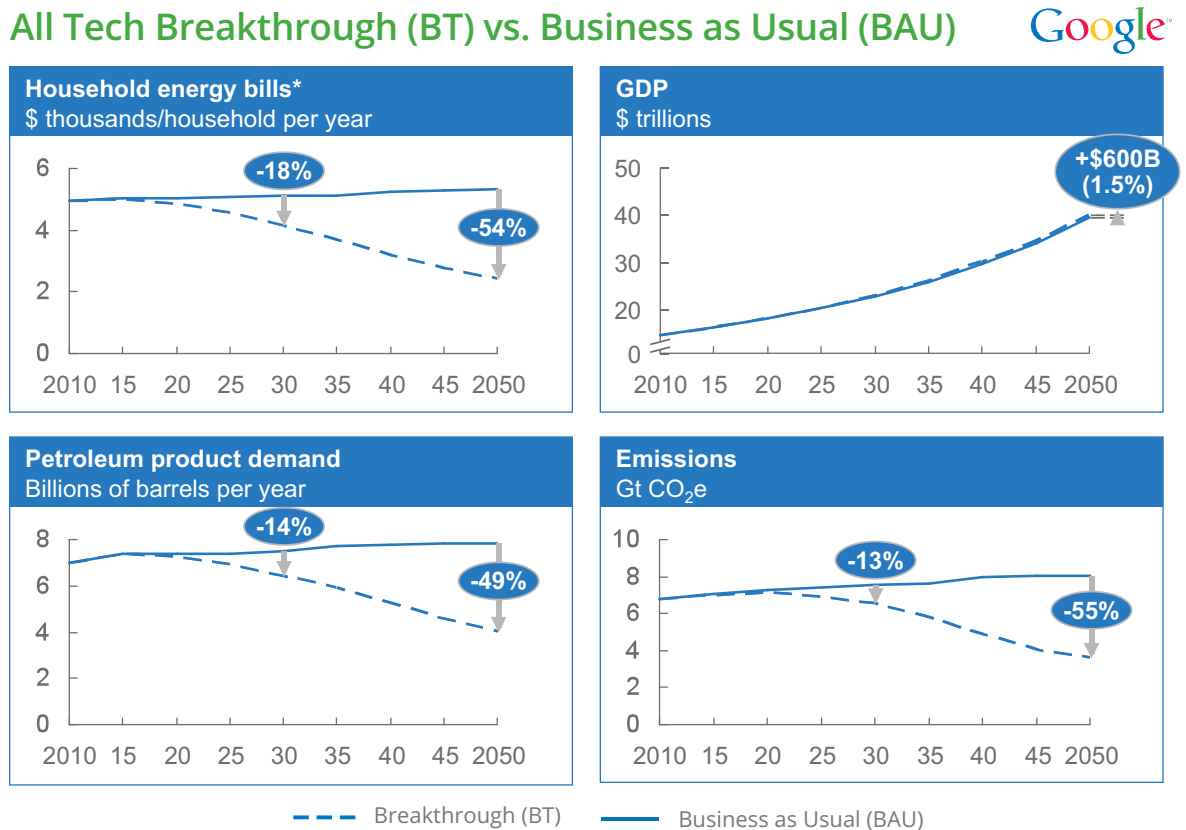
13. Cheap Natural Gas + Breakthrough	Breakthrough (Power, Storage, and EVs)	BAU	\$3/MMBTU Gas
14. Delay Breakthrough	All Tech Breakthrough (delayed 5 years)	BAU	BAU (AEO 2011)

Key Findings

I. Innovation Could Pay Off Big

1. Innovation Benefits GDP, Jobs, Security and Emissions. Clean Energy Innovation could accelerate economic growth and improve energy security while significantly reducing carbon pollution. All the breakthrough technology and policy scenarios examined here created substantial economic and net job growth across the country by 2030. Breakthrough innovations in clean energy added \$155 billion per year in GDP, creating 1.1 million net jobs, while reducing household energy costs by \$942 per year, oil consumption by 1.1 billion barrels per year, and GHG emissions 13% by 2030 vs. BAU.

Figure 4.



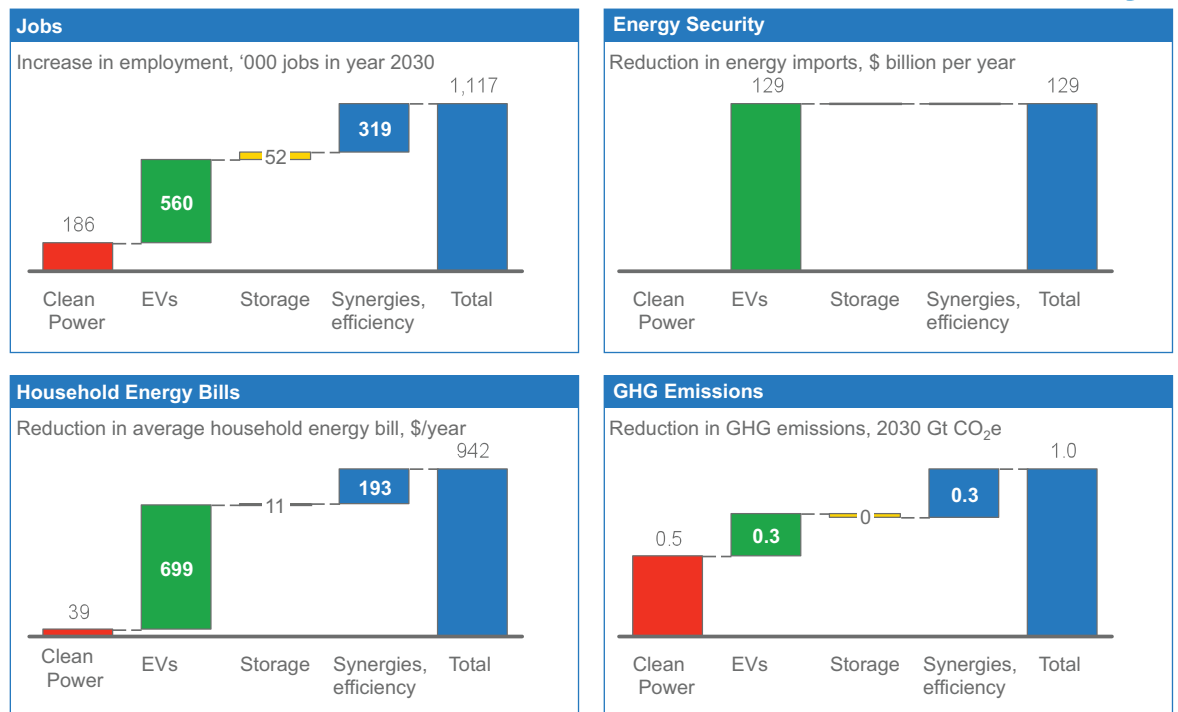
* Electricity, natural gas, and gasoline only

Innovation drove job creation and economic growth in two primary ways. First, innovation reduced energy costs, which increased productivity, competitiveness, and demand. Lower-cost energy also created consumer savings on the order of \$942 per household by 2030. These consumer savings, when circulated back into the economy, drove substantial economic and job growth outside the energy sector. Second, lowering the costs of clean technologies increased their deployment – driving associated manufacturing, construction, and operational employment.

The bulk of innovation’s benefits by 2030 were attributed to advances in battery technology, enabling adoption of EVs, PHEVs, and HEVs. Overall benefits from power breakthroughs were less than EVs by 2030 for two reasons. First, most consumers spend less on electricity than on gasoline, leading to less household savings from cheaper power. Second, due to the very low cost of coal in the US, clean power technology did not attain as large a cost advantage over fossil alternatives as was the case in the transportation sector with electric vehicles by 2030 .

Figure 5.

Benefits of Innovation Through 2030 (All Tech BT)



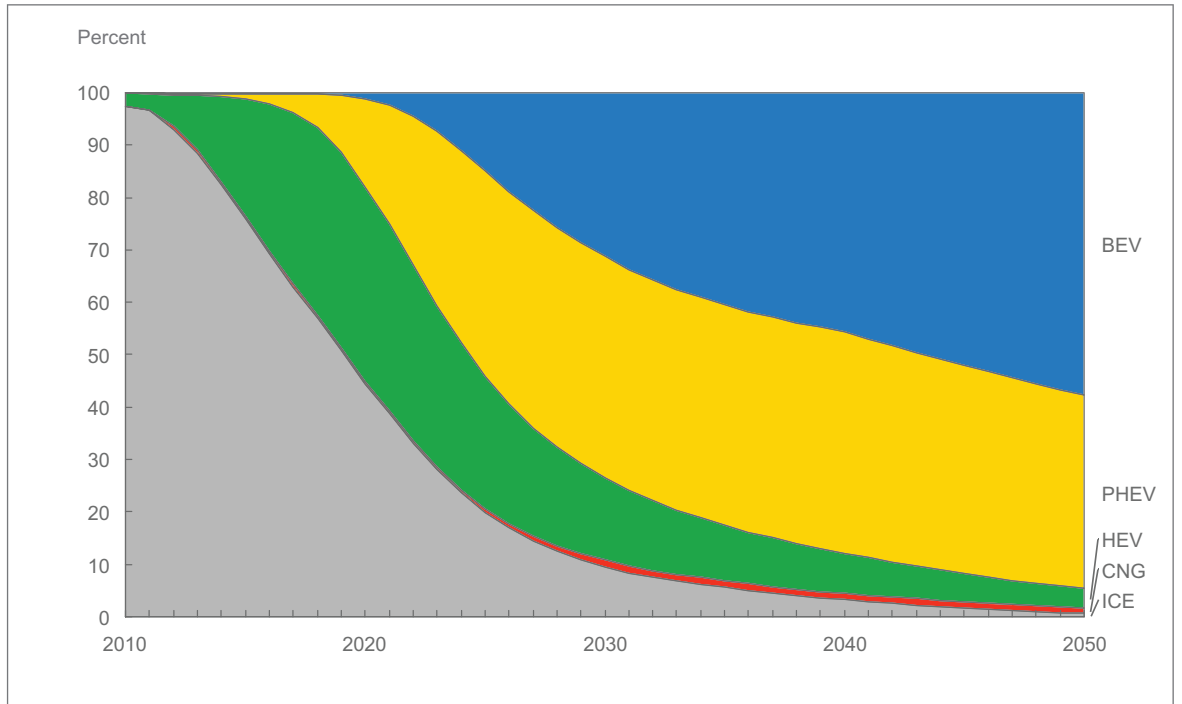
The benefits of breakthroughs pay even larger dividends out to 2050. By 2050, annual gains in GDP increased to \$600 billion, net additional jobs to 3.9 million, reduced oil consumption by 3.7 billion barrels per year, and emissions reductions of 55% vs. BAU.

2. Reaching tipping points in Electric Vehicle (EV) battery technology could be transformative.

Breakthroughs in battery technology could push EVs over cost-performance tipping points, enabling mass adoption. In our model, rapid decreases in battery costs and increases in energy density by 2030 enabled the production of electric vehicles with 300 mile range and a total cost of ownership (TCO) lower than that of internal combustion vehicles. This led to EVs, Hybrid Electric Vehicles (HEVs) and PHEVs achieving 90% market share of new light duty vehicle sales in 2030, reducing oil consumption by 1.1 billion barrels per year — or more than Canada’s entire 2009 production.

Figure 6.

Light Duty Vehicle Sales by Type (All Tech BT)

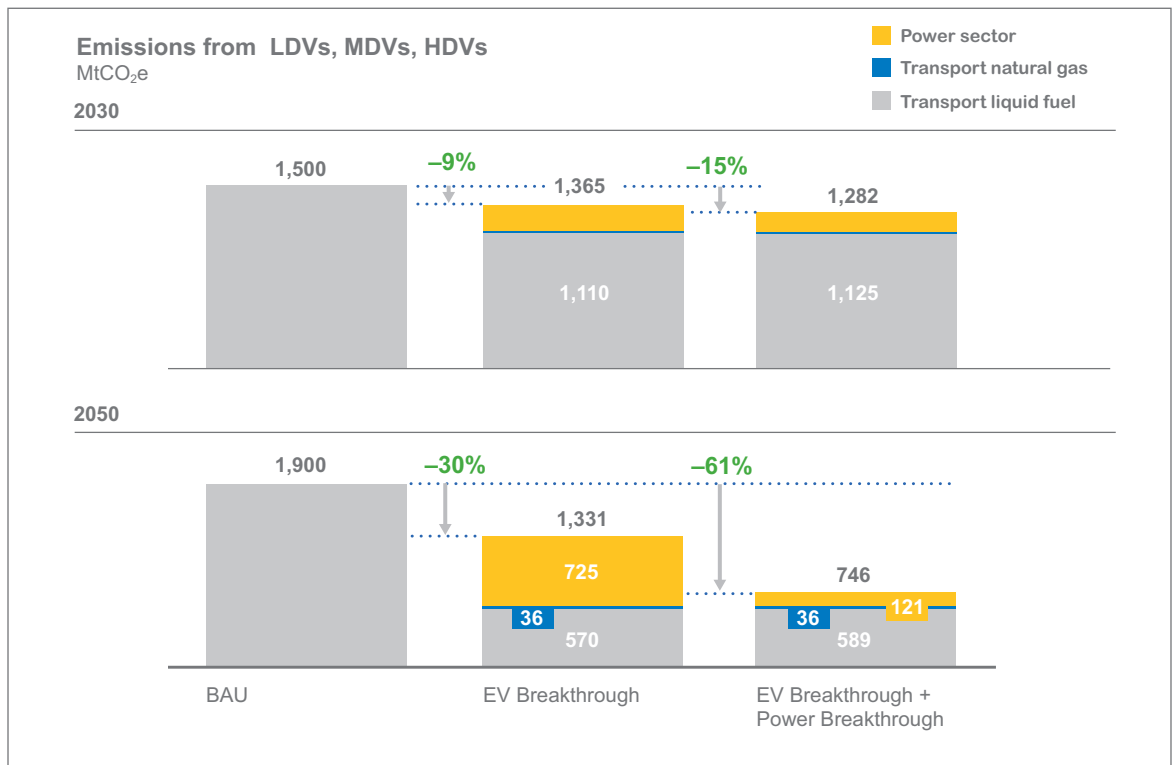


The outcomes of battery breakthroughs are striking. By rapidly reaching TCO and driving range tipping points, battery breakthroughs enabled EV, PHEV, and HEV light duty vehicles to comprise 58% of the US light duty vehicle fleet by 2030. The high rate of sales held even when EV breakthroughs were modeled against increasingly efficient internal combustion vehicles mandated by (CAFE) standards. Gasoline prices also heavily affected the hurdle for EV adoption. For example, at gasoline costs of \$3.50/gal., breakeven TCO is reached at battery costs of ~\$255/kWh for a 125 mile range BEV, while at \$5/gal., breakeven TCO is reached at ~\$355/kWh.

Electrifying transportation, even in scenarios where coal remained the dominant source of electricity, still reduced total transportation emissions (from all energy sources including electricity) by 9%, despite increasing electricity consumption by 13%. This resulted from two factors. First, much of the incremental electricity demand was met with incremental generation from natural gas and (in some scenarios) renewables sources. Second, electric drivetrains have a higher conversion efficiency (i.e., the power plant that generates the incremental electricity has a higher thermal efficiency than a vehicle's internal combustion engine).

Figure 7.

Transportation Emissions With and Without Power Breakthroughs



Oil consumption was cut by 1.1 billion barrels per year by 2030 in the EV breakthrough scenario. This equals a reduction of nearly 14% vs. BAU demand and over 26% of projected US oil imports in 2030.⁴

By replacing high cost gasoline with cheap electricity, battery breakthroughs in our model also yielded substantial economic benefits from new manufacturing and consumer savings. GDP increased by \$86 billion per year by 2030 and jobs by 560,000. Perhaps most compelling, EV breakthroughs alone generated net savings of \$699 per household by 2030.

3. Cheap Grid-Storage: Significant Opportunity and Unintended Consequences. In the long run, cheap grid-scale electricity storage can create large economic and environmental benefits for the US. Storage improved power quality and reliability, lowered power prices by allowing more efficient dispatch, and enabled much higher penetrations of intermittent solar and wind than would otherwise be possible.

In the absence of storage, wholesale prices in regions rich in renewable resources can plummet when wind or solar energy peaks and supply overwhelms demand. For example, this has already forced some wind farms in Texas to shut down at night, inhibiting additional deployment. Storage can alleviate this constraint by charging at times when renewable sources are strongest and then discharging when other demand is available. When storage and power breakthroughs were combined, we estimated that storage enabled an additional 35% renewables generation by 2050.

In the short term, much cheaper storage, absent innovations in wind and solar that reduce their cost to below coal, could actually drive an increase in coal consumption. Cheaper storage would enable already cheap coal units to run at peak efficiency 24 hours/day, store energy at night and dispatch it during the day — reducing the demand for load-following natural gas capacity and ultimately resulting in a slight (0.3%) increase in CO₂ emissions.

When storage breakthroughs were modeled alone, electricity prices decreased by 1%, job creation was modest at 52,000 jobs, and emissions slightly increased by 0.06 GT, or 0.3% by 2030. Storage

4. US Energy Information Administration, International Energy Outlook 2010.

alone created \$8.6 billion in annual economic opportunity by 2030, with \$4.4 billion accounted for by grid reliability services. However, when combined with power breakthroughs, storage enabled significant increases in wind and solar generation after 2030. When combined with storage, onshore wind, offshore wind, solar PV, and CSP accelerate from 18% of total generation in 2030, to 48% of total generation by 2050.

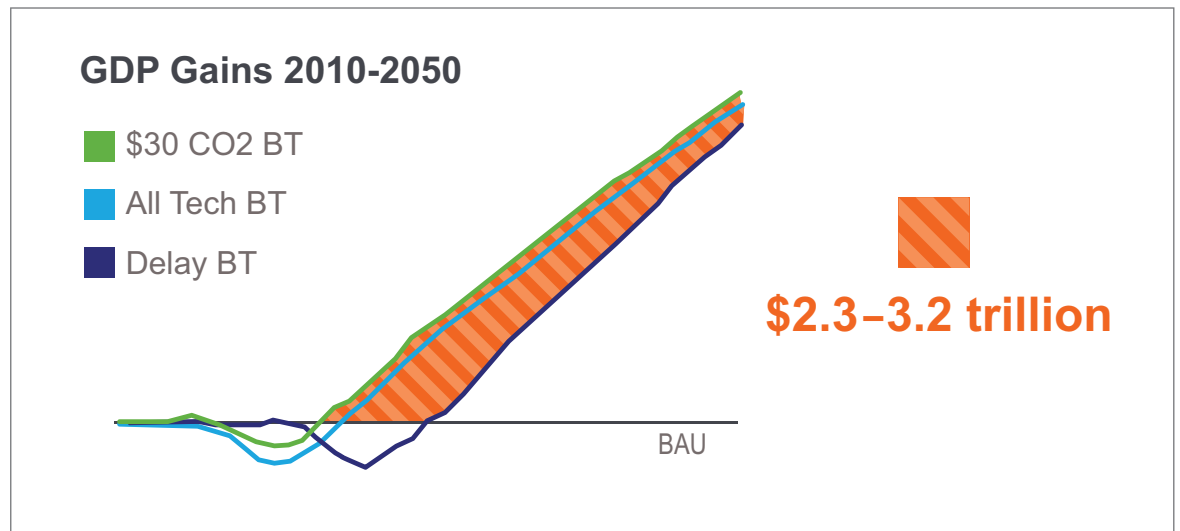
II. Speed Matters

4. Delaying Breakthroughs = Delaying Benefits. Breakthroughs in clean energy can provide enormous benefits to the economy, national security, the environment, and the job market. But the longer we delay achieving those breakthroughs, the greater the benefits we stand to give up.

In the delay scenario, the same rates of innovation were assumed as in the All Tech Breakthrough scenario (Power, EVs, Storage), except that they started in 2015 from the projected 2015 BAU level, rather than in 2010.

Figure 8.

Delaying Breakthroughs = Delaying Benefits

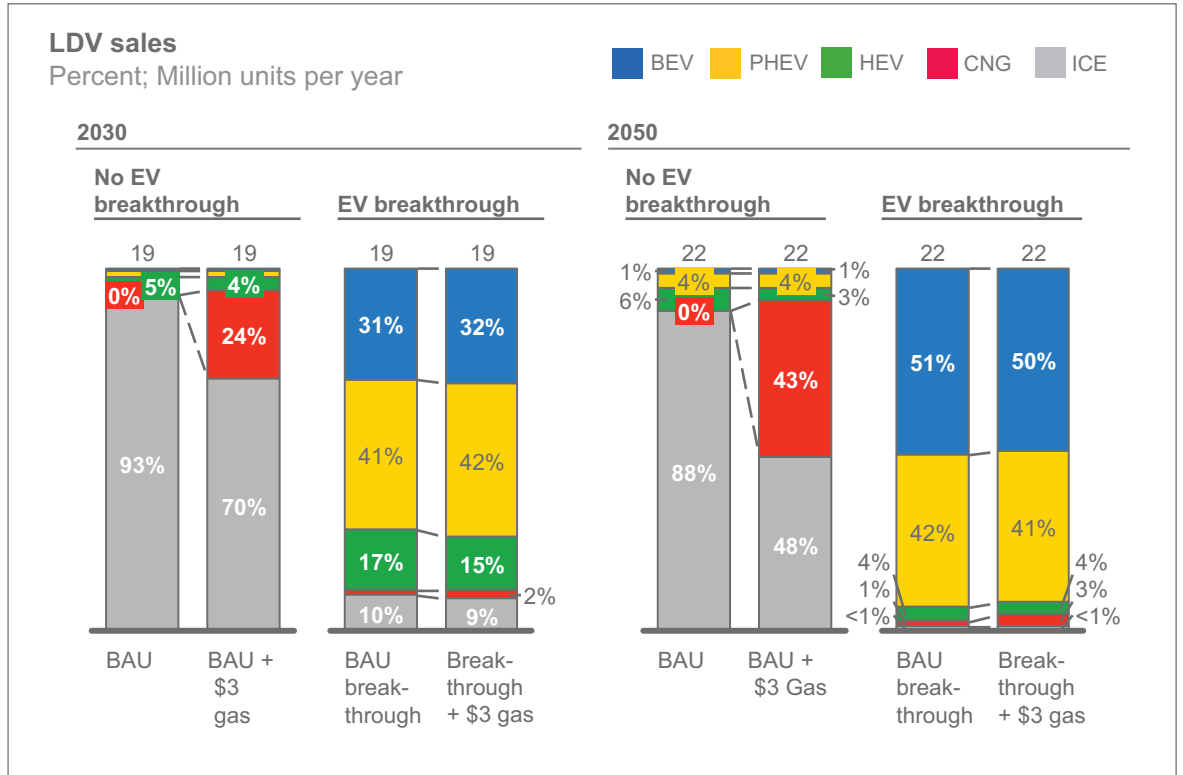


In our model, a mere five year delay in starting aggressive cost reduction curves could cost the economy an aggregate \$2.3–3.2 trillion in unrealized GDP gains, 1.2–1.4 million net jobs and 8–28 gigatons of potential avoided CO₂ emissions by 2050 (Delay Breakthrough vs. All Tech Breakthrough and \$30/ton Carbon + Breakthrough)

5. Technologies that Innovate Fastest Win. The technologies that become cheaper than coal and oil fastest will dominate our clean energy future. An “innovation arms race” between clean technologies will encourage healthy competition, while benefiting consumers.

Figure 9.

Cheap Natural Gas vs. EV Breakthroughs



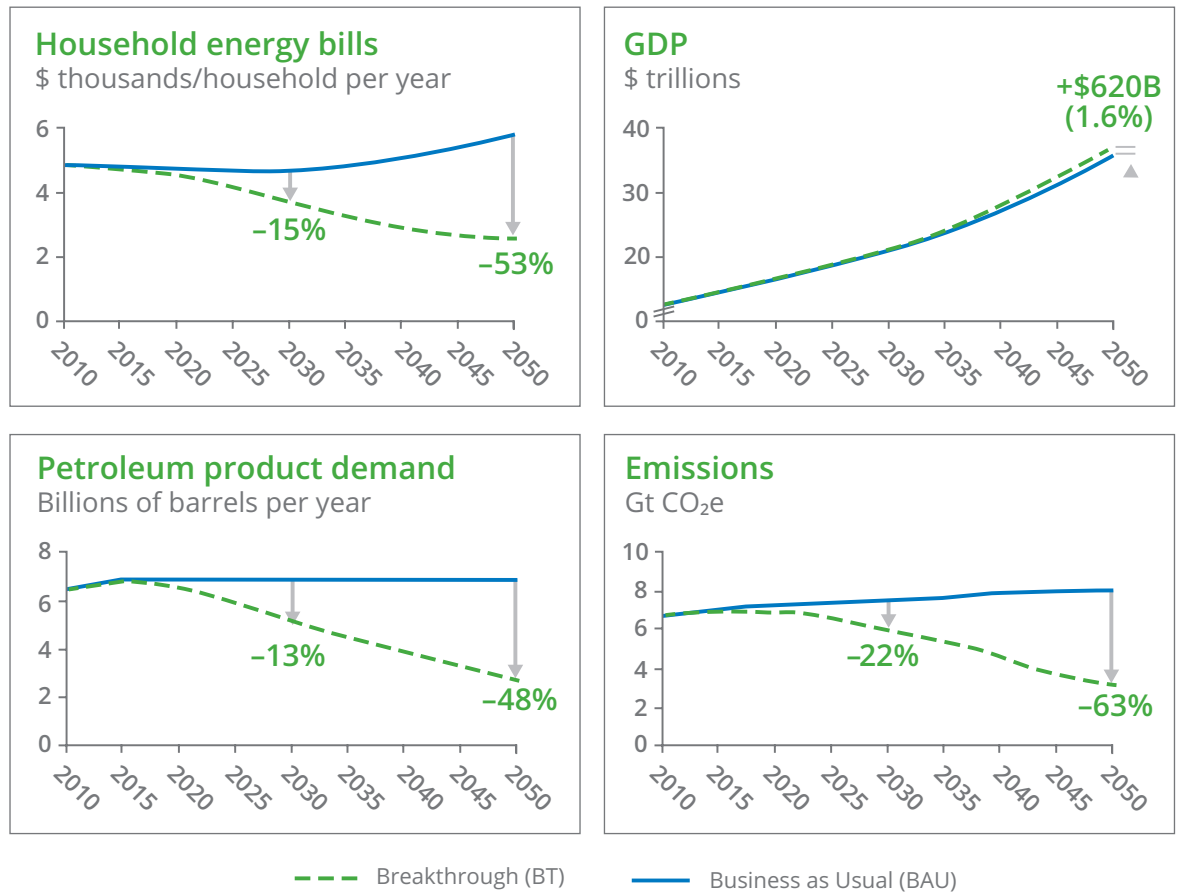
For example, in transportation, we explored EV and PHEV competition against Compressed Natural Gas (CNG). In the EV Breakthrough scenario, EVs rapidly became cost competitive against CNG, leading to dominant market share for EVs, PHEVs, and HEVs. However, in a sustained era of cheap gas (\$3/MMBTU), if EV breakthroughs do not happen quickly, CNGs will dominate the market and make it much harder for EVs to reach scale.

III. Policy and Innovation Can Enhance Each Other

6. Smart Energy Policies and Breakthroughs are Mutually Beneficial. Breakthroughs in clean energy technology can reduce the cost associated with implementing policies such as Clean Energy Standards or carbon prices — growing the economy while de-carbonizing our energy use. Policies can also amplify the economic, security, and pollution benefits of breakthroughs by creating markets, dis-incentivizing the highest-emitting technologies, and leveling the playing field for clean energy, leading to increased adoption.

Figure 10.

\$30/ton CO₂ + All Tech Breakthrough vs. BAU



When \$30/ton carbon price on the power sector was modeled on its own, with revenues returned to consumers through a cut in personal income tax rates, by 2030 annual GDP and job growth numbers were \$53 billion and 558,000 respectively, while GHG emissions dropped by 9%. Consumer energy bills increased \$152 per household by 2030 in this scenario. But, when combined with All Tech Breakthroughs, GDP growth increased to \$182 billion, job growth to 1,558,000, while also reducing emissions 22% vs. BAU. Consumers now saved \$761 per household when combined with breakthroughs.

When Clean Energy Policy was modeled on its own without breakthroughs, by 2030 annual GDP and job growth were positive at \$37 billion and 458,000 respectively, while achieving a 16% reduction in GHG emissions. When combined with All Tech Breakthroughs, GDP growth increased to \$244 billion, job growth to 1,959,000, while reducing emissions 21% vs. BAU. Consumer savings for the combined scenario was \$995 per household.

Breakthroughs on their own did not create as much value as when combined with policy. In the All Tech Breakthrough scenario, by 2030 annual GDP and job growth were slightly higher than Clean Policy at \$158 billion and 1,117,000 respectively, and achieved a 6% reduction in GHG emissions vs. BAU.

The differences between All Tech Breakthrough's impact with and without policy, were due to the difficulty reducing coal-fired generation without policy support for the technologies modeled. The marginal cost of coal is so low that existing coal was displaced only when cost breakthroughs were almost fully realized, which occurred after 2030 for most renewable generation technologies.

On the other hand, policy was a much stronger lever for reducing carbon from coal in the near term — either through pollution regulation, mandated retirements, or a carbon price. However, without the cheaper technologies produced by innovation, policy-only options led to fewer jobs and lower GDP than when combined with aggressive innovation.

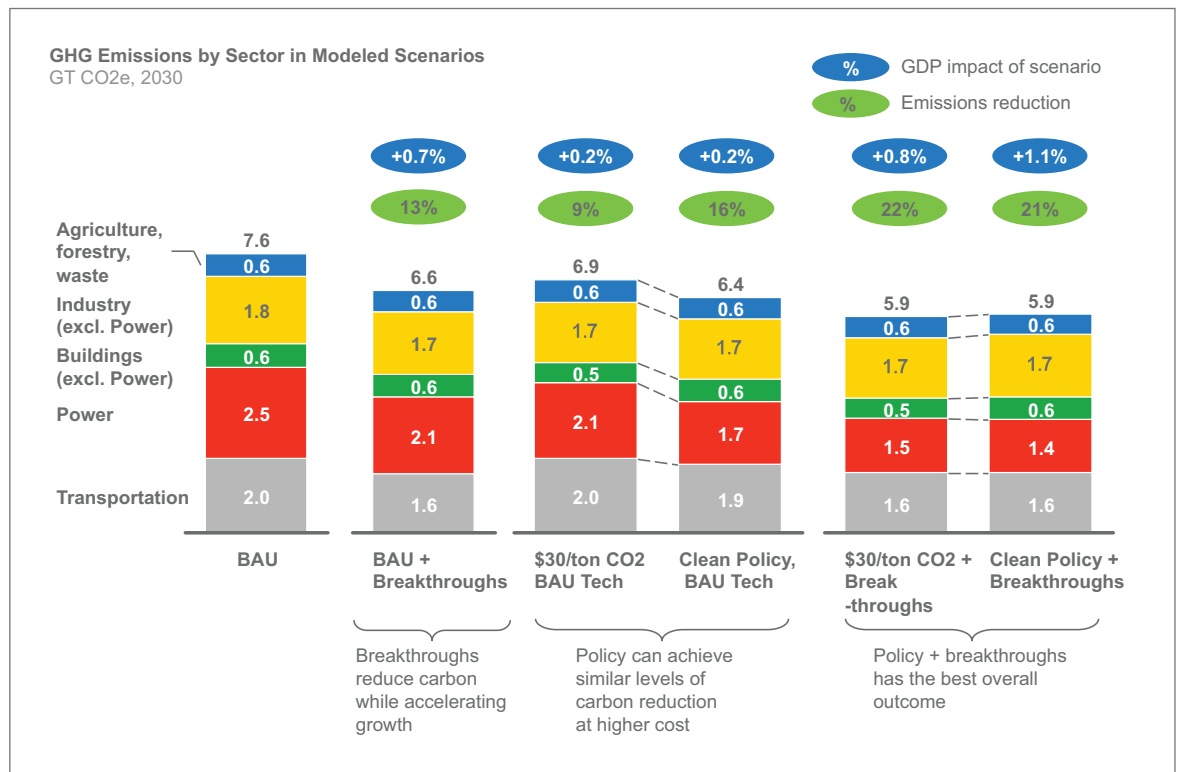
7. Reaching 80% reductions in GHG emissions by 2050 requires multiple solutions based on the scenarios and technologies we modeled. We set very optimistic rates of innovation, pushing technologies hard on cost and performance. Even with aggressive breakthroughs, by 2050 we achieved only a 49% reduction in GHG emissions vs. 2005 emissions in the All Tech Breakthrough scenario, well short of the standard, IPCC-inspired reduction targets of 80% by 2050.^{5 6}

However, we only modeled innovations in a limited group of energy technologies. We did not model innovations in many promising sectors, including low-carbon fuels, internal combustion engines, industrial efficiency, advanced building materials, advanced building energy management, or agricultural practices. Since the subset of technologies we modeled achieved 49% emissions reduction, it is likely that a more comprehensive mix of innovations could achieve 80% reductions.

Energy policies alone also did not develop trajectories for 80% reductions by 2050. But when carbon pricing was combined with breakthroughs, reductions reached 59% vs. 2005 levels. This indicates that policy and innovation combined likely increase the potential for reaching climate mitigation targets.

Figure 11.

2030 GHG Emissions by Scenario



Reaching 80% reductions by 2050 will be difficult and likely require much more aggressive innovation and policy than we currently have today. Thus, this analysis supports the need for a multi-pronged US strategy, combining both aggressive innovation and policy to mitigate climate change while growing the economy.

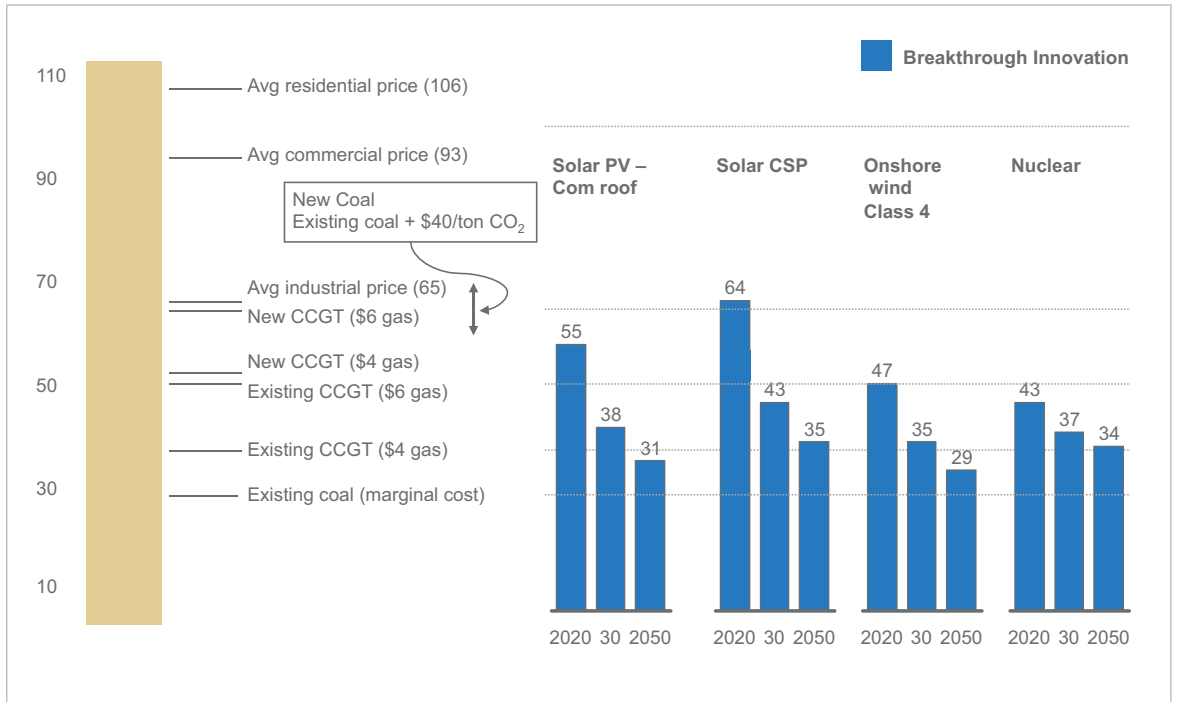
8. Coal is Very Hard to Displace on Economics Alone: Coal power is abundant and cheap, especially from older and fully depreciated plants. Major displacement of coal generation did not occur until clean energy became cheaper than the marginal cost of coal, which occurred predominately after 2030 even with breakthroughs.

5. Environmental Protection Agency, inventory of US GHG Emissions Sinks: 1990–2005.

6. Intergovernmental Panel on Climate Change, Climate Change 2007: Synthesis Report.

Figure 12.

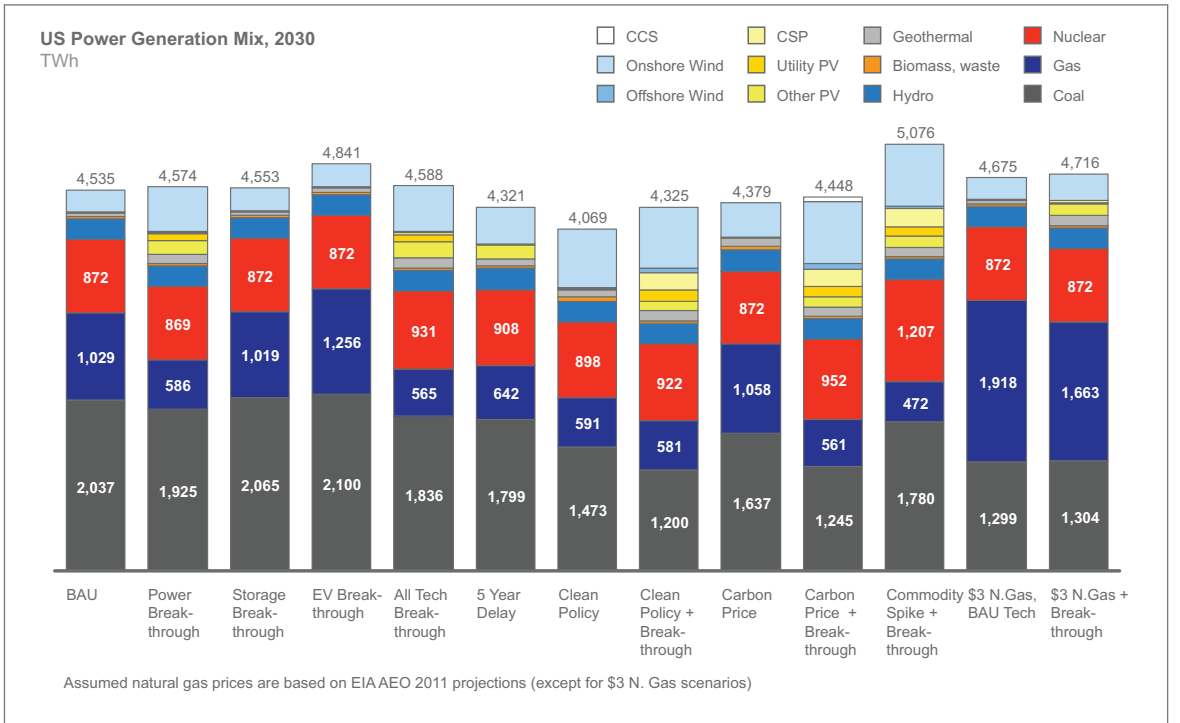
Generation Cost Tipping Points LCOE



We used LCOEs of \$66/MWh and \$28/MWh for new and existing coal respectively. In BAU, coal use is held roughly flat to 2020 by existing state CES laws and EPA regulations. But once RPS targets are achieved, coal use increases again in tandem with demand, rising a net 12% by 2030.

Figure 13.

2030 US Power Generation Mix by Scenario



Assumed natural gas prices are based on EIA/AEO 2011 projections (except for \$3 N. Gas scenarios)

Only our breakthrough assumptions for Solar PV and Geothermal were cheap enough to replace existing coal by 2030. Thus, none of the breakthrough-only runs reduced 2030 coal generation by more than 5%.

Policies alone also did not reduce much coal use by 2030. Clean Policy reduced coal use 17% and \$30/ton Carbon reduced coal by 15% vs. BAU. Clean Policy's higher impact was driven by aggressive EPA regulations, increasing compliance costs, and driving retirements of existing coal units. The highest reductions seen were from the \$30/ton + Breakthrough scenario, which achieved nearly 20% reductions vs. BAU.

Post-2030, breakthroughs in generation become cost advantaged and start to pay off significantly. As clean power reaches its lowest price points, displacement of coal accelerates rapidly from 2030 to 2050. By 2050, All Tech Breakthrough reduced coal 66%, and the \$30/ton CO₂ + Breakthrough scenario reduced coal use 87%.

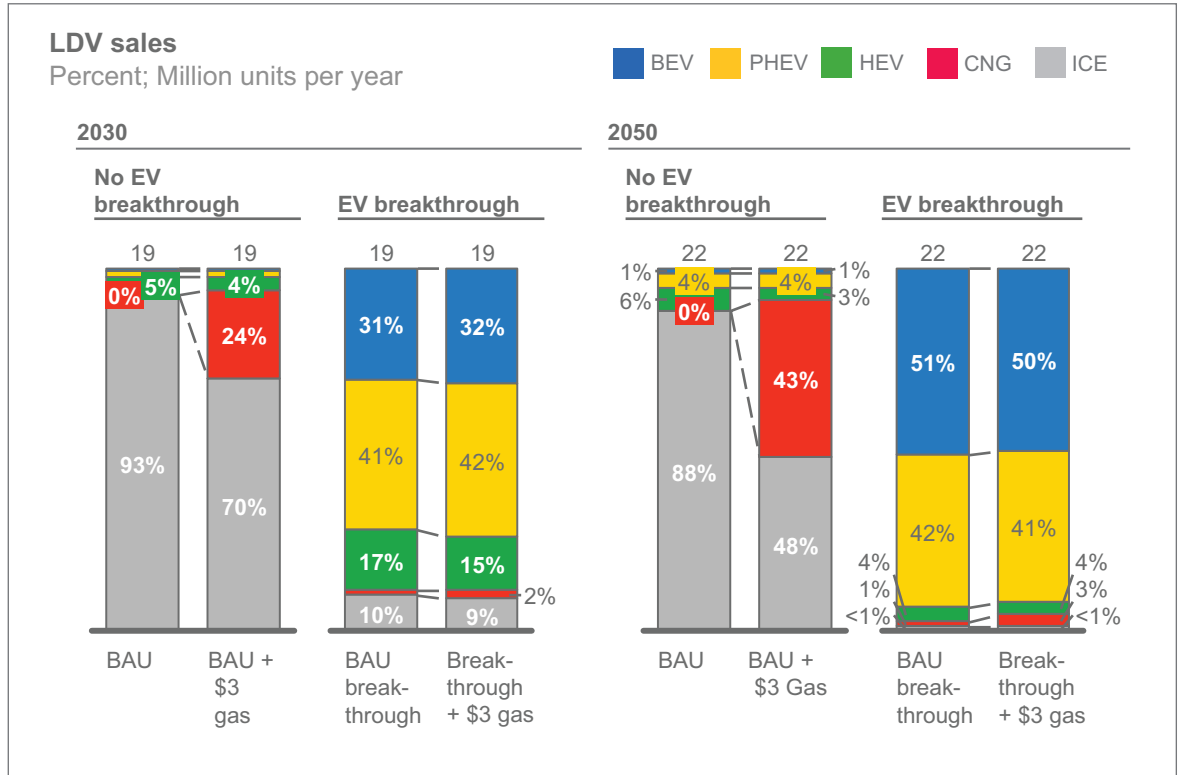
9. Cheap natural gas could reduce GHG emissions in the short term but also slow the deployment of clean energy sources in the long term. Initially, the improved economics of natural gas in our hypothetical \$3/MMBTU price environment led to coal-to-gas switching and made coal plant retirements more economical. In the long term, when prices were held low, gas out-competed carbon-free energy. By 2030, in our Cheap Gas scenario, total generation from gas surged by 86%, overall emissions were reduced slightly by 6% from coal displacements, and households saved an average of \$555 through switching to CNG vehicles and cheaper electricity. But cheap gas on its own reduced the total deployment of renewables, CCS and nuclear by 47% vs. All Tech Breakthrough and 57% vs. Clean Policy + Breakthrough.

When combined with breakthroughs, the benefits of cheap gas increased. As EV breakthroughs kicked in, EVs became advantaged vs. CNG vehicles, leading to higher household energy and oil savings. The cheaper electricity prices created by cheap gas actually increased EV, PHEV, and HEV combined sales by 100,000 vehicles per year. By increasing EV penetrations and some breakthrough low-carbon generation, Cheap Gas + Breakthroughs reduced overall emissions 15% by 2030.

However, the breakthrough renewables, CCS, and nuclear technologies needed for deep long-term GHG reductions, struggled in competition with cheap gas. Even with breakthroughs, their deployment was reduced 26% vs. All Tech Breakthrough and 40% vs. Clean Policy + Breakthrough by 2030.

Figure 14.

Cheap Natural Gas vs. EV Breakthroughs



Our hypothetical future of cheap gas is clearly optimistic as gas prices are notoriously volatile. But the advent of abundant and cheap unconventional resources has pushed gas spot-prices to the low \$4/MMBTU range. Thus, it is critical to understand the impact sustained cheap gas could have on the energy system.

Conclusion

Energy innovation is a powerful tool capable of simultaneously addressing society's goals of economic growth, enhanced energy security, environmental health, and de-carbonization.

This project's analysis suggests that breakthroughs in clean energy technologies could meaningfully improve the quality of our lives. Some of these benefits could accrue quickly, such as switching away from oil to electric transportation. Others, like lower-cost clean generation technologies, are long-term investments which begin paying enormous dividends around 2030, increasing through 2050.

Getting there will take the right mix of effective policy, a major sustained national investment in innovation by public and private institutions, and the increased mobilization of the private sector's entrepreneurial energies.

The benefits are clear, so let's go!

Appendix A

About

Google's Energy Initiatives: Google supports the development and deployment of clean energy through a variety of initiatives. Our commitment starts with our operations. We went carbon neutral in 2007. We have installed the largest corporate electric vehicle charging infrastructure in the country, developed some of the most efficient data centers in the world, and buy and use renewable energy whenever possible, including long-term power purchase agreements for over 200 MW of wind energy generation. Our investments in the clean energy sector total more than \$780 million in large-scale renewable energy projects spanning a wide range of technologies, and over fourteen venture-backed technology start-ups. For more information, visit google.com/green.

Limitations of this Analysis: We conducted this analysis to evaluate — at a basic economic level — the benefits of breakthroughs in clean energy technology.

This analysis does not represent a comprehensive assessment of energy technology or technology broadly. For example, we did not model breakthroughs in building science, industrial efficiency, smart grid, or biofuels. We also did not estimate spill-over or convergence effects of breakthroughs (e.g. the combination of fiber optics and the Internet enabling online video and telephony), which can multiply wealth creation from a given technology. Lastly, we did not quantify potential positive externalities — such as reduced health care costs from avoided pollution. This was a function of our own time constraints and not of the merits of those questions. Thus, while our breakthrough scenarios were inherently optimistic, our conclusions may significantly underestimate the value of clean energy innovation.

Since predicting the probability, timing and magnitude of breakthroughs is likely to be impossible we assumed breakthroughs as fact and modeled their impact. We did not examine the likelihood of breakthroughs occurring, the exact improvements required to achieve our modeled breakthrough levels, the most effective policy drivers of innovation, the cost of achieving these breakthroughs, or which technologies should be prioritized over others. These are critical questions which demand their own investigation.

Upon the project's completion, we were so compelled by energy innovation's potential that we wanted to share our analysis and the associated data (google.org/energyinnovation), in the hope that it encourages further discussion and debate about these important issues.

Acknowledgements

This project was developed under Google.org's Renewable Energy Cheaper than Coal (RE<C) initiative, dedicated to developing fully cost-competitive clean energy technologies. We are indebted to many Googlers from our engineering, product, business operations, policy and advocacy teams for their contributions and support including: Charles Baron, Bill Weihl, Ross Koningstein, Jacquelline Fuller, Michael Terrell, Parag Chokshi, Eric Nguyen, Kevin Chen, Alec Brooks, Alec Proudfoot, John Fitch, David Fork, Mel Guymon, Chris Uhlik, Rick Needham, Joel Conkling, Arielle Bertman, Amy Walsh, Susie Sahim, Anna De Paula Hanika, Mark Eastman, Kedar Deshpande and Jonathan Padilla.

Appendix B

Scenario Descriptions:

1. Business As Usual (BAU): BAU uses the projected technology costs, gasoline and natural gas prices, demand, and learning rates of technologies as defined by the US Energy Information Administration's Annual Energy Outlook 2011. In some cases, such as solar PV, CAPEX and OPEX, prices were adjusted to better reflect the market. Policy frameworks were held to existing state and federal policies expiring on their current schedule. For example, we assumed a state RPS that terminates in 2025 would not continue after that date. BAU operates as our control scenario in this exercise.

2. Clean Power Breakthrough: Major clean energy technologies that are at or near commercial readiness, have substantial resource bases, or are being pursued aggressively by industry were modeled. Included were nuclear, solar PV (Utility and Rooftop), solar CSP, onshore and offshore wind, geothermal including Enhanced Geothermal Systems (EGS), and new and retrofit Carbon Capture and Sequestration (CCS). In each case, we selected an extremely aggressive CAPEX, OPEX, LCOE and performance target defined as the "breakthrough" for 2020 and 2030. These rates were set by our own aspirational estimates of each technology's potential, informed by technical cost models and industry experts. State and federal policies remained the same as BAU.

3. Storage Breakthrough: Two basic types of breakthroughs in grid-storage were modeled: short duration storage capable of discharging loads for less than 1 hour; and larger scale storage capable of discharging for over 1 hour. We then modeled five business cases for storage: 1) Frequency Regulation; 2) Load Following; 3) Price Arbitraging; 4) Capacity Deferment; and 5) Grid Reliability. State and federal policies remained the same as BAU.

4. EV Breakthrough: Cost factors were driven by total cost of ownership (TCO), energy density, cycle life, and total unit cost for vehicle batteries. Impacts of battery technologies on PHEV, HEV, and EV technologies were assessed. Vehicle adoption was driven by a consumer choice model that was triggered by TCO and vehicle range, in competition with Compressed Natural Gas (CNG) and conventional internal combustion engine vehicles (ICE). Impacts were modeled for both the light duty and medium duty vehicle segments. Breakthrough energy densities were not high enough to displace long-haul heavy trucks, so they were not covered by this model. State and federal policies remained the same as BAU.

5. All Tech Breakthrough: A combination of the clean power, storage, and EV breakthrough scenarios. This scenario observes the impacts of simultaneous breakthroughs, the convergence effect of cheaper storage and renewables. As in each of the breakthrough scenarios, only cost/performance levels of technologies are adjusted. All state and federal policies are the same as BAU.

6. Clean Policy: The Clean Policy scenario modeled a collection of existing and proposed federal mandates, regulations and incentives. The modeled package is far less aggressive than a major comprehensive policy such as an economy-wide cap-and-trade program. We modeled the Clean Policy scenario to explore the potential impact of non-carbon based policies on CO₂ emissions and the economy. It includes: a national CES of 15% by 2020 and 25% by 2030; national EERS of 5% by 2020 and 10% by 2030 (roughly 20% capture of total energy efficiency potential); extension of PTC and ITC through 2030 capped at \$10 billion annually along with loan guarantees for all techs capitalized at \$15 billion; CAFE standards increased by 4%/year from 2016 to 2025, 1%/year thereafter for LDVs; and coal retirements of roughly 55GW by 2020 based on strict EPA regulations along with tightening of SOx/NOx caps, MACT/HAPs, transport rule 316b (cooling towers), and CCR (ash disposal).

7. \$30/ton Price on Carbon: A \$30/ton CO₂ price was implemented on the power sector only and was similar to proposed tax and dividend structures. Revenues generated through the fee were collected by the federal government, then rebated to taxpayers in proportion to their tax receipt. The \$30/ton price was chosen because it is high enough to push the LCOE of coal above natural gas and thus lead to coal-gas switching.

- 8. Clean Policy + All Tech Breakthrough:** Combination of Clean Policy and All Tech Breakthrough scenarios.
- 9. \$30/ton Carbon + All Tech Breakthrough:** Combination of the All Tech Breakthrough scenario with a \$30/ton carbon price scenario.
- 10. High Commodities:** This scenario explored the impact of rising commodity prices. Since it is incredibly difficult if not impossible to predict energy prices twenty years in the future, the EIA's AEO 2011 prices were increased by 50%.
- 11. High Commodities + All Tech Breakthrough:** Combination of the High Commodities and All Tech Breakthrough scenarios.
- 12. Cheap Natural Gas:** Natural Gas has undergone a revolution in the last decade driven by the advent of shale technology. What if innovation in gas technology continues, bringing additional low-cost resources online? To model gas innovation (and assuming shale gas is not heavily regulated), gas prices were held at the arbitrarily low level of \$3/MMBTU and assumed to have sufficient supply to meet all demand.
- 13. Cheap Natural Gas + All Tech Breakthrough:** Combination of Cheap Natural Gas (\$3/MMBTU to 2030) and the All Tech Breakthrough scenarios.
- 14. Delay Breakthroughs:** The same rates of innovation as "All Tech Breakthrough," except instead of starting breakthrough learning curves in 2010, they start in 2015 at the 2015 BAU level.

Appendix C

Assumptions

Power Generation

Technology	Scenario	BAU			Breakthrough				
		2010	2020	2030	2010	2020	2030	2040	2050
New Build CCS									
	Overnight Capital Cost (\$/kW)		4,684	3,721		1,800	1,600	1,540	1,522
	Fuel Cost (\$/MMBtu)		2	2		2	2	2	2
	Variable O&M (\$/MWh)		4.5	4.5		4.5	4.5	4.5	4.5
	Fixed O&M (\$/kW/yr)		47	47		47	47	47	47
	Heat Rate if Applicable (BTU/kWh)		10,000	8,300		9,000	6,000	6,000	6,000
	Capacity Factor		85%	85%		85%	85%	85%	85%
	LCOE (\$/MWh)		93	77		53	44	42	41
Retrofit CCS									
	Overnight Capital Cost (\$/kW)		1,670	1,300		1,000	900	870	861
	Fuel Cost (\$/MMBtu)		2	2		2	2	2	2
	Variable O&M (\$/MWh)		0.7	0.7		0.7	0.7	0.7	0.7
	Fixed O&M (\$/kW/yr)		4	4		4	4	4	4
	Heat Rate if Applicable (BTU/kWh)		2,500	2,500		2,500	2,500	2,500	2,500
	Capacity Factor		85%	85%		85%	85%	85%	85%
	Delta LCOE (\$/MWh)		28	24		20	18	18	18
Onshore Wind									
	Overnight Capital Cost (\$/kW)	2,000	1,900	1,800	2,000	1,300	1,000	910	883
	Fuel Cost (\$/MMBtu)	-	-	-	-	-	-	-	-
	Variable O&M (\$/MWh)	-	-	-	-	-	-	-	-
	Fixed O&M (\$/kW/yr)	31	31	31	31	25	15	10	8
	Heat Rate if Applicable (BTU/kWh)								
	Capacity Factor (class 4)	35%	35%	35%	35%	36%	36%	36%	36%
	LCOE (\$/MWh)	73	69	66	73	47	35	31	29
Offshore Wind									
	Overnight Capital Cost (\$/kW)	6,100	5,347	4,320	6,100	1,600	1,300	1,210	1,183
	Fuel Cost (\$/MMBtu)	-	-	-	-	-	-	-	-
	Variable O&M (\$/MWh)	-	-	-	-	-	-	-	-
	Fixed O&M (\$/kW/yr)	86	86	86	86	62	56	53	52
	Heat Rate if Applicable (BTU/kWh)								
	Capacity Factor (class 6)	39%	41%	43%	39%	41%	45%	45%	45%
	LCOE (\$/MWh)	196	166	133	196	60	46	43	42

Technology	Scenario	BAU			Breakthrough				
		2010	2020	2030	2010	2020	2030	2040	2050
Solar PV - Utility Scale									
	Overnight Capital Cost (\$/kW)	3,100	2,950	2,876	3,100	800	500	410	383
	Fuel Cost (\$/MMBtu)	-	-	-	-	-	-	-	-
	Variable O&M (\$/MWh)	-	-	-	-	-	-	-	-
	Fixed O&M (\$/kW/yr)	20	20	20	20	15	10	8	7
	Heat Rate if Applicable (BTU/kWh)								
	Capacity Factor (Arizona)	23%	23%	23%	23%	23%	23%	23%	23%
	LCOE (\$/MWh)	157	150	147	157	45	29	23	22
Solar PV - Rooftop									
	Overnight Capital Cost (\$/kW)	4,000	3,500	3,000	4,000	1,000	700	610	583
	Fuel Cost (\$/MMBtu)	-	-	-	-	-	-	-	-
	Variable O&M (\$/MWh)	-	-	-	-	-	-	-	-
	Fixed O&M (\$/kW/yr)	20	20	20	20	15	10	8	7
	Heat Rate if Applicable (BTU/kWh)								
	Capacity Factor	23%	23%	23%	23%	23%	23%	23%	23%
	LCOE (\$/MWh)	200	176	152	200	55	38	33	31
Solar CSP									
	Overnight Capital Cost (\$/kW)	8,000	6,429	5,714	8,000	2,857	2,143	1,929	1,864
	Fuel Cost (\$/MMBtu)	-	-	-	-	-	-	-	-
	Variable O&M (\$/MWh)	-	-	-	-	-	-	-	-
	Fixed O&M (\$/kW/yr)	90	80	80	80	65	45	40	37
	Heat Rate if Applicable (BTU/kWh)								
	Capacity Factor (including effect of storage)	48%	50%	55%	48%	60%	66%	69%	70%
	LCOE (\$/MWh)	204	159	130	201	64	43	37	35
Geothermal									
	Overnight Capital Cost (\$/kW)	4,500	4,050	3,600	4,500	3,000	2,500	2,350	2,305
	Fuel Cost (\$/MMBtu)	-	-	-	-	-	-	-	-
	Variable O&M (\$/MWh)	-	-	-	-	-	-	-	-
	Fixed O&M (\$/kW/yr)	225	175	135	225	125	75	60	60
	Heat Rate if Applicable (BTU/kWh)								
	Capacity Factor	87%	90%	95%	87%	95%	98%	98%	98%
	LCOE (\$/MWh)	78	64	52	78	45	33	29	29
Nuclear									
	Overnight Capital Cost (\$/kW)	4,750	4,500	4,300	4,750	2,300	1,700	1,520	1,466
	Additional Capital Costs (over-runs, etc.)	15%	10%	5%	15%	0%	0%	0%	0%
	Variable O&M Including Fuel (\$/MWh)	10	10	10	10	10	10	10	10
	Fixed O&M (\$/kW/yr)	90	90	90	90	90	90	90	90
	Heat Rate if Applicable (BTU/kWh)								
	Capacity Factor	90%	93%	94%	90%	95%	98%	98%	98%
	LCOE (\$/MWh)	78	70	65	78	43	37	35	34

Transportation

Technology	Scenario	BAU			Breakthrough				
		2010	2020	2030	2010	2020	2030	2040	2050
EV Batteries									
	Energy Capacity Cost (\$/kWh)	500	300	250	500	200	100	80	70
	Energy Density (Wh/kg)	100	150	200	100	300	400	450	500
	Max Calendar Lifetime (years)	10	10	10	10	10	20	20	25
BEV Car (compact sedan) - Other Assumptions									
	Efficiency (miles/kWh)	3.0	3.5	4.0	3.0	5.0	6.0	6.5	7.0
	Range (miles)	100	200	300	100	200	300	350	400
	Electric Drivetrain Cost (\$/vehicle)	5408	4,058	3,290	5408	4,058	3,290	2,667	2,162
	Battery Cost (\$/vehicle)	16,667	17,143	18,750	16,667	8,000	5,000	4,308	4,000
	Other Costs - body, chasis, labor (\$/vehicle)	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800
	Total Capital Cost (\$/vehicle)	35,874	35,001	35,840	35,874	25,858	22,090	20,775	19,962
	Maintenance and Repairs (cents per mile)	2.0	1.9	1.8	2.0	1.9	1.8	1.7	1.6

Grid Storage

Technology	Scenario	BAU			Breakthrough				
		2010	2020	2030	2010	2020	2030	2040	2050
Grid Storage - Short Timescale (<1 hr)									
2010 Based on Today's Li ion	Battery Cost (\$/kWh)	500	400	300	500	100	50	35	30
	Min Charge Time (hr)	1.0	1.0	1.0	1.0	0.5	0.1	0.1	0.1
	Round-Trip Efficiency	85%	90%	93%	85%	94%	95%	95%	95%
	Cycle Lifetime @ 80% DoD (cycles)	3,000	3,500	4,000	3,000	10,000	20,000	40,000	80,000
	Max Calendar Lifetime (years)	10	10	10	10	15	20	20	20
Grid storage - long timescale (>1 hr)									
2010 Based on Today's Li ion	Energy Capacity Cost (\$/kWh)	500	400	300	500	100	50	35	30
	Min Charge Time (hr)	7.0	7.0	7.0	7.0	5.0	3.0	0.1	0.1
	Round-Trip Efficiency	80%	80%	80%	80%	85%	90%	95%	95%
	Cycle Lifetime @ 80% DoD (cycles)	2,000	2,500	3,000	2,000	10,000	20,000	40,000	80,000
	Max Calendar Lifetime (years)	15	15	15	15	20	25	20	20

Clean Energy Policy

	BAU	Clean Policy	\$30/ton CO₂
Description	EIA AEO + existing state and federal policies	More aggressive CES, EE, CAFE, incentives and regulation	Same as BAU
CES	No federal CES, existing state RPS' only	National CES: 15% by 2020; 25% by 2030; eligible sources are renewables, CCS, and new nuclear; no exemptions	Same as BAU
Efficiency	Existing national mandates, standards and state EERS	National EERS: 5% by 2020, 10% by 2030 (~20% of capture potential)	
Clean Incentives	Existing PTC, ITC expire on authorized timelines	Extend PTC and ITC through 2030 capped at \$10B annually, loan guarantee for all clean techs capitalized with \$15B	Same as BAU
Transportation	Existing CAFE – Proposed NHTSA rule: 34.6 mpg for “passenger vehicles” (cars and light trucks combined) for model year 2016, no improvements thereafter	CAFE + 4%/yr. improvement from 2016–2025, 1%/yr. Thereafter for LDVs: CAFE + 4%/yr. in 2016–2025, +1%/yr. after 2025. For MDVs/HDVs: proposed fuel efficiency rules in 2007–2022, +1%/yr. after 2022.	Same as BAU
Coal Retirements	Announced retirements + uneconomic coal plants given existing regulations (~20 GW of retirements)	55GW by 2020, strict EPA regulations includes tightening SO _x /NO _x caps, MACT/HAPs, transport rule 316b (cooling towers); and CCR (ash disposal)	Same as BAU
Carbon Price	None	None	\$30/ton CO ₂ , power sector only. Revenues distributed to states based on proportional tax receipts

Glossary

AEO – US Energy Information Administration’s Annual Energy Outlook 2011

BEV – Battery Electric Vehicle. A type of electric vehicle that uses entirely electric propulsion, with energy stored on-board in battery packs.

Break over Point – The crossover point at which one technology becomes cheaper than another.

Breakthrough – In this study, breakthrough is used to represent a highly aggressive cost/performance level. Practically, it does not represent a single technical innovation but rather represents the sum of multiple major advances in a given technology.

Business As Usual – Continuation of status quo (policy and technology).

CAFE Standards – Corporate Average Fuel Economy Standards. Federal regulations that set baseline minimum average fleet efficiency for miles per gallon (mpg) of cars sold in the United States. Historically CAFE standards have applied to cars and light trucks, but beginning in 2011 the standards will begin to expand to other vehicles. Current standards (2011) require cars to achieve at least 30.2 mpg and light trucks to achieve at least 24.1 mpg.

CAPEX – Capital Expense. Expenditures that are designed to provide future benefits. Occurs when businesses spend money to buy fixed assets or add value to existing assets that will have a life that extends beyond a taxable year.

Cap and Trade – Cap-and-Trade is a policy mechanism for emissions management, which sets a mandatory cap on emissions and creates tradable emissions credits which emitters can purchase or sell as needed to comply with the cap.

CCS – Carbon Capture and Sequestration, a process by which CO₂ emissions are captured and then sequestered. In this study, CCS refers to CCS for coal fired generation.

Clean Energy Standard – Federal mandate for 25% of all generation by 2030 to be met with renewable sources, new nuclear generation, and carbon capture sequestration.

CNG – Compressed Natural Gas vehicles. Vehicles that use CNG as a substitute for gasoline or diesel fuel in conventional internal combustion engines.

CO₂ – Carbon Dioxide. CO₂ is a greenhouse gas that traps heat from solar radiation in the Earth’s atmosphere.

CSP – Concentrated Solar Power also known as Concentrated Solar Thermal (CST). Systems that use mirrors or lenses to concentrate a large area of sunlight onto a small receiver. Electrical power is produced when the concentrated solar energy heats a working fluid, producing steam which powers a turbine that generates electricity.

Emissions Regulation – Requirements that set specific limits to the amount of pollutants that can be released into the environment. In the United States these standards are set by the Environmental Protection Agency (EPA).

Energy Efficiency Resource Standard – A state (and potential federal) requirement that utilities meet a mandated portion of load with efficiency rather than generation.

Energy Storage – Storage from devices or natural processes of some form of energy to perform useful tasks at a later time.

GDP – Gross Domestic Product. Refers to the market value of all final goods and services produced within a nation over a given period of time. GDP is a common indicator of national standard of living.

Geothermal – The use of the earth’s natural heat to produce heat and power. Two primary geothermal resources were included in this study: Hydrothermal, the naturally occurring but limited geothermal systems like hot springs; and the potentially much more abundant Enhanced Geothermal Systems (EGS) in which geothermal reservoirs are artificially created.

Gigaton – One Billion Metric Tons.

HDV – Heavy Duty Vehicle. A vehicle that when operated has a gross weight of of 32,000 pounds or greater.

HEV – Hybrid Electric Vehicle. A vehicle that combines an electric propulsion system with an internal combustion engine (ICE).

High Commodity Prices – The sustained increase in price of commodities such as oil, metals, and other natural resources. In our High Commodity Scenario, commodity prices were held 50% above AEO estimates to 2030.

Household Energy Consumption – The amount of energy consumed annually by the average American household including heating fuels (natural gas, oil, wood etc.), transportation (gasoline, diesel etc.), and electricity.

ICE – Internal Combustion Engine

Investment Tax Credit – An investment tax credit equal to 30% of a project's cost of development.

IPCC – Intergovernmental Panel on Climate Change

Jobs – Job numbers reflect net new full-time positions created, including both direct and indirect employment.

kWh/kg – Energy to Weight ratio used as a common measure of energy density in storage technologies.

LCOE – Levelized Cost of Electricity, sometimes called the fully burdened cost of power. LCOE incorporates the costs of a generation facility's development, operation, finance, and required transmission over its operating lifetime. LCOE in this model is the \$/MWh price an operator can sell power at and remain Net Present Value positive.

LDV – Light Duty Vehicle. A US classification for trucks or light trucks that have a payload capacity of less than 4,000 pounds.

Loan Guarantee – A loan guarantee is a government promise to assume private debt obligations if the private enterprise defaults. These guarantees are typically used by governments to correct market failures or stimulate investment in higher-risk projects of national interest.

MACT/HAP – Maximum Achievable Control Technology Standards and Hazardous Air Pollutants.

Marginal Cost – Change in the total cost that arises when the quantity produced changes by one unit. The cost of producing one more unit of a good.

MDV – Medium Duty Vehicle. A vehicle that when operated has a gross weight that is greater than 14,000 pounds but less than or equal to 32,000 pounds.

Megawatt – A unit of power that measures the rate of energy conversation. A megawatt is equal to one million watts. A watt is defined as one joule per second.

Nuclear – Nuclear power is the sustained use of nuclear fission to generate heat which is then converted to electricity. In this study, nuclear refers to any fission or fusion process capable of achieving breakthrough cost/performance levels.

OPEX – Operating Expense. Refers to the ongoing cost for running a product, business, or system.

Other Renewables – This grouping includes hydrothermal geothermal, EGS, biomass, biomass co-firing, and waste-to-energy.

PHEV – Plug-in-Hybrid Vehicle. A hybrid vehicle that that uses batteries that can be recharged by connecting to an external electrical source, in combination with an internal combustion engine (ICE).

Production Tax Credit – Tax credit that incentivizes the production of renewable energy. Qualifying renewable energy sources are eligible for a 2.1 cent per kilowatt-hour credit for the first decade of the facility's operation.

Solar PV – Solar Photovoltaic. A method of generating electrical power by converting solar radiation into direct current through the photovoltaic effect. Solar PV in this study refers to any solar material or conversion system (e.g. photochemical, mono or poly silicon, Thin-Film, CIGS) capable of achieving the assumed breakthrough cost/performance levels.

TCO – Total Cost of Ownership. TCO is a financial estimate that estimates total lifetime direct and indirect cost of a product or system to consumers.

Vehicle Range – The distance that can be traveled by a vehicle on either a full tank of fuel or a single battery charge.

Wind Energy – The use of devices (typically mechanical turbines) based on land and at sea to convert the wind's energy into electricity. Wind in this study refers to any method of converting wind to electricity (e.g. high-altitude kites, turbines, aerial propellers etc.) capable of achieving the breakthrough cost/performance level.





CLEAN ENERGY
FINANCE AND INVESTMENT AUTHORITY

Memo

To: Board of Directors, Clean Energy Finance and Investment Authority

From: Bob Wall

Date: December 9, 2011

Re: Proposal to work with the CEEF and DEEP to develop a statewide marketing and outreach campaign on clean energy

BACKGROUND

Connecticut has established a series of aggressive near-term energy goals including becoming the most energy efficient state in the nation, delivering cleaner and cheaper energy and “leading by example” by reducing energy consumption in state buildings by 10 percent by 2013. Currently, Connecticut consumers are confronted with many different and competing energy marketing themes, channels, messengers and brands which have resulted in diluted impact and customer inertia. Furthermore, the integration of energy efficiency with renewable energy and the availability of new financing options have emerged as vital components that are lacking or underutilized in existing marketing strategies. Accordingly, representatives of the Department of Energy and Environmental Protection (DEEP), the Connecticut Energy Efficiency Fund (CEEF) and CEFIA discussed the most effective means of using limited marketing resources to motivate consumers to take action and suggested the creation of an ad hoc “Energy Marketing Committee” comprised of those three entities.

JOINT MARKETING AND OUTREACH CAMPAIGN

On November 17, 2012, Jonathan Schrag (DEEP), Rich Steeves and Rick Rodrigue (Energy Efficiency Board or EEB), Jeff Schlegel and Ellen Zuckerman (consultants to EEB), and Bryan Garcia and Bob Wall (CEFIA) met to discuss shared interests and opportunities for coordinated marketing efforts. In general, all parties agreed that there is a strong need for a central energy marketing campaign for the State of Connecticut. Such an approach would serve to integrate the entire portfolio of energy programs available to Connecticut consumers, underscore the important linkages between energy efficiency and renewables both from an energy management and financing perspective and maximize participation of businesses and residents in the state’s various energy programs. More important, a coordinated and jointly supported campaign would leverage ratepayer dollars to achieve the greatest results.

The joint marketing campaign would include selection of subcontractors, market research, analysis of national best practices and development of an overarching energy savings campaign together with appropriate resources and tools. The committee established an ambitious target for campaign rollout in or around April 2012. The committee will consider all available marketing tools for an “air war” including television, radio, print and electronic media, websites, social media, signs, posters and decals. In our experience, television advertising has been

prohibitively expensive and not the most effective use of limited marketing budgets. The campaign coordinators therefore would seek to achieve the greatest visibility and impact upon consumers within the available funding.

Furthermore, we would propose to augment the more conventional marketing tools with a “ground war” including the State’s Lead by Example campaign, community-based programs, citizen ambassadors, coaches and ground corps and competitions and challenges. The Lead by Example campaign could include public appearances and special events featuring state and municipal government leaders. CEFIA’s award-winning Connecticut Clean Energy Communities program has been recognized as a national best practice program that has significantly accelerated the voluntary market for of clean energy in Connecticut. CEFIA and CEEF are developing the next generation of the Communities program that will be jointly-administered by the two funds and will incorporate expanded targets and performance-based incentives for supporting energy efficiency and renewables. Similarly, the Connecticut Neighbor to Neighbor Energy Challenge, a U.S. Department of Energy grant program that is administered by CEFIA, has provided valuable lessons for affecting behavior change and scaling up the adoption of sustainable energy choices.

BUDGET ALLOCATION REQUEST

The committee members agreed that the funding for a central marketing campaign should be in proportion to the surcharge collected by the respective Funds (i.e., a 75%/25% split for CEEF/CEFIA). Under the 2012 Conservation & Load Management Plan, the EEB Marketing Committee has budgeted two alternate amounts for its marketing plan development activities, depending on which scenario is implemented. Under the Base Plan, it has budgeted \$250,000, whereas under an Increased Savings Scenario, the budget would be \$750,000. Thus, CEFIA’s share would be either \$83,333 or \$250,000, depending on which scenario is implemented. As with the CEEF, additional marketing funding will be maintained within individual CEFIA program budgets.

RESOLUTION

WHEREAS, the Clean Energy Finance and Investment Authority has identified a near-term need to coordinate with the State of Connecticut (i.e., the Department of Energy and Environmental Protection) and the Connecticut Energy Efficiency Fund and jointly support a statewide energy marketing campaign;

WHEREAS, the Energy Efficiency Board Marketing Plan and the 2012 Conservation & Load Management Plan have budgeted \$250,000 to \$750,000 for the marketing plan development activities, depending on whether its Base Plan or Increased Savings Plan is ultimately approved; and

WHEREAS, the above parties have agreed that any CEFIA contribution to this initiative should be in proportion to the surcharge collected by the respective Funds (i.e., CEFIA would contribute \$1 for every \$3 of CEEF contribution);

NOW THEREFORE BE IT:

RESOLVED, that Board approves an allocation of funding to coordinate and support a statewide energy marketing campaign in an amount that is one-third of the amount committed by the Energy Efficiency Fund for this initiative and not to exceed TWO-HUNDRED FIFTY

THOUSAND DOLLARS (\$250,000), and that said funding is contingent upon sufficient funds being available for this purpose.

RESOLVED, that the President of CEFIA and any other duly authorized officer of CEFIA is authorized to execute and deliver any contract or other legal instrument necessary to effect this Resolution on such terms and conditions as he or she shall deem to be in the interests of CEFIA and the ratepayers, in conformance with the wishes of the Board, and in conformance with CEFIA's operating procedures.

RESOLVED, that the proper CEFIA officers are authorized and empowered to do all other acts and execute and deliver all other documents as they shall deem necessary and desirable to effect the above-mentioned legal instrument.

RESOLVED, that this Board action is consistent with Connecticut General Statutes § 16-245n, as amended by Section 99 of Public Act 11-80, and with the CCEF's comprehensive plan.