

Certified Energy Manager **CEM**[®]

*“The most recognized and respected
Certification in Energy Management”*

This report takes a comprehensive look at how the Certified Energy ManagerSM is being utilized by both the public and private sectors in enhancing the energy management field. There are references to how Utilities & States mandate a CEM[®] be a part of an energy team for project funding. The International section details how there is a growing network of Certified Energy Managers around the globe.



ANSI Accredited Program
PERSONNEL CERTIFICATION
#1088

The CEM certification program is accredited under ANSI/ISO/IEC Standard 17024

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Certified Energy Manager®

“The Most Recognized and Respected Certification in Energy Management”

The Certified Energy Manager® (CEM®) was established in 1981 to meet the growing needs of individuals and organizations wishing to advance their position in the energy efficiency field. The Association of Energy Engineers (AEE) has certified more than 26,000 professionals, 14,000 of them CEMs, thus enabling them to receive special recognition for their expertise in a variety of specialized areas of the energy, power and green facilities industry. The CEM® is a registered trademark with the United States Trademark and Patent Office and the term “Certified Energy ManagerSM” is a registered service. Individuals granted the use of this designation by the Association of Energy Engineers have distinguished themselves as earning the highest level of competency in energy management.

Why earn the Certified Energy Manager (CEM®) Certification?

The CEM® provides a recognizable affirmation of demonstrated competencies in a wide range of energy related principles and practices. Professionals seeking the CEM® designation must meet a board approved list of pre-qualifications in experience in the field and/or prior educational achievements. This certification helps an individual distinguish themselves and helps them obtain their career objectives.

The CEM® is nearly universally accepted and recognized by a cross-section of institutions both public and private. **Certified Energy Managers** are now found engaged in all the various aspects of the energy industry including: major multi-national corporations, utilities, controls & performance contractors, federal, state and local governments, universities, industrial facilities, commercial buildings, big box retail chains, hospitals, school districts, local entrepreneurs and as well as consultants in the energy field.

The Certified Energy Manager designation and program is widely accepted and promoted both in the **United States and internationally.**

ANSI Accreditation

The CEM certification program is accredited under ANSI/ISO/IEC Standard 17024. ANSI Standard 17024 is well-recognized within the industry as the highest standard in personnel certification accreditation.



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Employment and Consulting Opportunities

With fierce competition and opportunities for obtaining **employment** in the energy industry, professionals might be astounded to know how many employers already require a **Certified Energy Manager** as a condition of hiring. Here is a list of some you may recognize:

- Johnson Controls
- Siemens
- Honeywell
- General Motors
- General Services Administration
- Department of Defense
- Sain Engineering Associates
- Trane Corporation
- Florida Power & Light
- Southern California Edison
- University of Minnesota
- US Department of Energy
- Goodyear
- Corning

The Certified Energy Manager (CEM®) designation is an energy industry wide accepted standard to help to evaluate a professional's experience in the field. Several States, as well as the Federal Government / Agencies require a Certified Professional such as the Certified Energy Manager, Certified Sustainable Development Professional, Certified Carbon Reduction Professionals, Certified Energy Auditor, and Certified GeoExchange Designer professional.

The following are some examples.

U.S. Department of Energy Strategic Sustainability Performance Plan

In its recent Strategic Sustainability Performance Plan, Discovering Sustainable Solutions to Power and Secure America's Future, Report to The White House Council on Environmental Quality and Office of Management and Budget, the U.S. Department of Energy is requiring Certified Energy Manager (CEM) designation of key facilities staff. According to the report, the Strategic Plan calls for:

FY 2012

- Ensure facility energy managers are **qualified Certified Energy Managers (CEM)**; include requirement for GOCO sites to have a CEM certified facility energy manager during next contract amendment or renegotiation (SEP 2012) [Goal 1.a.vi, pg. 25]
- Ensure all sites comprising greater than 5 million square feet of facility space have full-time energy managers (SEP 2012) [Goal 1.a.vi, pg. 25] To view the whole U.S. DOE Plan (PDF):http://www.energy.gov/media/DOE_Sustainability_Plan_2010.PDF

Data Centers

As part of its “Save Energy Now” program, the US Department of Energy has created the [Data Center Energy Practitioner \(DCEP\) Program](#). The objective of the DCEP Program is to create energy savings by training energy professionals to evaluate energy status and efficiency opportunities in data centers.

In order to obtain LEVEL 2 (expert) status, the individual must pass the LEVEL 1 examination and be a Certified Energy Manager® (CEM®), or Professional Engineer (PE) or equivalent, as a prerequisite.

State of California

The City of San Francisco Environment Code Chapter 20 Existing Commercial Buildings Energy Performance Ordinance requires “Benchmark energy use each year, and get an energy audit every five years. This ensures decision-makers can compare their building to others, and have a plan for cost effective improvements.” A Certified Energy Manager with at least two years’ experience performing energy efficiency audits is recognized by the Department of Environment to provide energy auditing services.

<http://www.sfenvironment.org/energy/energy-efficiency/commercial-and-multifamily-properties/existing-commercial-buildings-energy-performance-ordinance>

State of Georgia

The Energy Efficiency and Renewable Energy Competitive Grant Program, administered by the Georgia Environmental Facilities Authority (GEFA), awarded an Industrial Energy Efficiency Grant to the Association of Energy Engineers (AEE.). The grant was used to award Certified Energy Manager® (CEM®) scholarships (based on CEM® eligibility and availability) to members of Georgia’s industrial community.

The Energy Efficiency and Renewable Energy Competitive Grant Program was launched in July 2009 and funds 16 projects as a result of the American Recovery and Reinvestment Act (ARRA). The CEM® training program and certification facilitates GEFA’s objectives of implementing projects focusing on long-term, strategic initiatives that develop industrial energy efficiency in Georgia and apply energy-saving measures to industries across the state.

Through the Governor’s Energy Challenge, Governor Perdue has committed all state agencies, businesses, residents, non-profits, schools, and local governments to reduce energy consumption by 15 percent by 2020. The goal of the Energy Challenge is to reduce Georgia’s dependence on traditional energy sources, support the economy and improve the environment. Programs such as The Energy Efficiency and Renewable Energy Competitive Grant Program and other GEFA initiatives, will help the state meet the Governor’s Energy Challenge.

State of Nevada

Southwest Gas is a natural gas local distribution company that offers rebates for commercial energy audits in Nevada. For a customer to qualify for a rebate, they must use an energy auditor on their authorized list. The CEM designation is one of the eligible certifications for inclusion on that authorized list of energy auditors.

State of New York

Green Jobs Green New York Act of 2009 (A.8901/S.5888 and chapter amendment A.9031/S.6032).

Certified Energy Auditors (CEA) and Certified Energy Managers (CEM) are recognized as qualifying team members standards for qualified auditors under the commercial building energy auditing and building commissioning legislation. The New York State Public Service Commission (NY PSC) approved a Workforce Development Program to be administered by NYSERDA to support the training needs of over 6,200 workers during 2010-2011. According to Garry Brown, Chairman of the NY PSC, "The demand for qualified energy auditors and energy managers is increasing as building owners and managers work to reduce overall energy consumption and improve operations. NYSERDA's Workforce Development Program will help train the workforce needed to meet the energy goals of the EEPs, and help further establish a green, energy efficient New York."

[NYC Local Law 87](#) requires all buildings in New York City over 50,000 square feet to perform retro-commissioning of systems and submit an energy efficiency report based on a building audit performed by a qualified energy auditor. A Certified Energy Manager is an approved credential for auditing and commissioning under Local Law 87.

The Association of Energy Engineers has partnered with the Department of Citywide Administrative Services, Energy Management (DEM) for New York City, the Citywide Training Center, and the City University of New York (CUNY) to offer training programs to develop the necessary skills for energy efficient building operations and maintenance.

<http://www.nyc.gov/html/dem/html/conservation/operations.shtml#CityOM>

State of Illinois

Chicago recognizes the CEM as fulfilling the Data Verification Requirement / Recognized Data Verifiers for their benchmarking ordinance.

<http://www.cityofchicago.org/city/en/progs/env/building-energy-benchmarking---transparency.html>

State of Utah

Rule R638-2. Renewable Energy Systems Tax Credits.

(D) In order to be eligible for residential or commercial tax credits, a geothermal heat pump system must have been designed by either:

1. A professional engineer licensed in Utah;
2. A person designated as a "**Certified GeoExchange Designer**" by the Association of Energy Engineers; or
3. A person designated as a "**Certified Energy Manager**" by the Association of Energy Engineers

State of Michigan

Public Act 295 of 2008 (Act 295), MCL 460.1001 et seq., which became effective on October 6, 2008, requires certain customers, who are eligible to self-direct their own energy optimization (EO) plan, to utilize the services of an energy optimization service company (EOSC) to design and implement the EO plan. Act 295 requires the Commission to establish an approval process for these companies. The Commission must issue an order to establish the approval process and then maintain a list of approved EOSCs on its website.

B. APPLICANT REQUIREMENTS

3. An EO plan shall be prepared by an individual with the following qualifications for electric customers as described under (4):
 - a. A professional engineer (PE), currently licensed by the State of Michigan.
 - b. A certified energy manager (CEM) with current certification by the Association of Energy Engineers (AEE).
 - c. A Master Energy Analyst (MEA) with current certification by Ferris State University (FSU).
 - d. A Building Analyst Professional with current certification by Building Performance Institute (BPI).
 - e. An Energy Rater with current certification by Residential Energy Services Network (RESNET).
 - f. A Building Energy Modeling Professional (BEMP) with current certification by the American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE).
4. The following customer types shall have their EO plans designed and implemented by EOSCs with the appropriate qualifications under (3):
 - a. Heavy industrial: PE. The PE shall seal the EO plan per Act 299 of 1980.
 - b. Medium industrial: CEM or PE.
 - c. Light industrial: CEM, FSU or PE.
 - d. Medium and large commercial: CEM or PE.
 - e. Small commercial: CEM, PE, FSU, BPI, RESNET or BEMP.

State of Virginia

Executive Order 48

All agencies and institutions shall provide adequate management support to their energy savings activities. In order to ensure agencies have sufficient expertise in energy management, every Agency energy manager for an agency or institution with energy costs exceeding \$1 million shall be certified as an energy manager by the Association of Energy Engineers.

[http://www.lva.virginia.gov/public/EO/eo48\(2007\).pdf](http://www.lva.virginia.gov/public/EO/eo48(2007).pdf)

State of Nebraska

Technical Analysis Loans

A technical analysis of energy saving improvements or waste minimization projects may be financed with a Dollar and Energy Saving Loan provided it will be done, as appropriate, by a Professional Engineer or Architect, **Certified Energy Manager, Certified Lighting Efficiency Professional** or Home Energy Rater. Use [Form 30](#) and [Form 31](#) to apply for a technical analysis loan through a participating Nebraska lender.

<http://www.neo.ne.gov/loan/index.html>

General

There is a collection of **Electric and Gas Utilities, Municipalities, Cities, Colleges, School Districts** both local and statewide, as well as nearly every **ESCO** and an enormous amount of private employers who seek CEM® qualified professionals.

For example, Pepco & Delmarva Power offer training reimbursement funds for individuals taking the following approved courses and certification programs.

- Certified Energy Manager (CEM)
- Certified Energy Manager in Training (CEIT)
- Certified Building Commissioning Professional (CBCP)
- Existing Building Commissioning Professional (EBCP)
- Certified Business Energy Professional (BEP)
- Certified Energy Auditor (CEA)

Improving operation and maintenance (O&M) practices can significantly improve the energy efficiency of a building. The Pepco C&I Energy Savings Program offers an Operations & Maintenance Training Incentive for Pepco commercial and industrial customers. The incentive provides partial reimbursement for training enrollment and/or tuition costs for building operation personnel that support commercial and industrial facilities in the District of Columbia and Maryland.

<https://cienergyefficiency.pepco.com/OMTraing.aspx>

State of Minnesota

AEE's CEM certification program meets the statutory compliance requirements of MN statute 216C.435 – PACE Program

State of Kentucky

In the State of Kentucky, the CEM is the benchmark in qualification for the work experience requirement of a new classification of state employee in Kentucky, the “energy manager.”

United Kingdom

The UK Environment Agency has approved the Certified Energy Manager (CEM) and Certified Energy Auditor (CEA) certifications, provided by the Association of Energy Engineers (AEE), as meeting the requirements of the UK Energy Savings Opportunity Scheme (ESOS) to implement Article 8 (4-6) of the [EU Energy Efficiency Directive \(2012/27/EU\)](#).

This Lead Assessor register recognizes professionals holding the CEM or CEA credential as having the required competencies to assist large organizations to reduce their energy spending and improve their impact on the environment in a practical and cost effective manner. AEE has over 17,000 current CEM and CEA professionals worldwide.

AEE International Certified Energy Managers (CEMI) and International Certified Energy Auditors (CEAI) are eligible to conduct energy audits for organisations looking to comply with ESOS, a mandatory scheme for large UK organisations

AEE's certification programs are truly internationally recognized. AEE's long standing mission "*to promote the scientific and educational interests of those engaged in the energy industry and to foster action for sustainable development*" through AEE chapter activities and training and certification programs assist in developing individuals of the highest standard who have been assessed and found to meet and exceed the competency requirements outlined in the recently developed PAS 51215, Competencies of a Lead Energy Assessor.

AEE certification programs in the UK can be found by visiting www.aeecenter.org/internationalcertification.

United Arab Emirates

The United Arab Emirates' government's Regulatory and Supervisory Bureau for the Electricity and Water Sectors put out an [ESCO Accreditation Scheme](#) in January 2014 which requires several AEE certifications under the scheme. Under the Existing ESCO requirements, it is now required that an ESCO has a minimum of two engineers, including one Certified Energy Professional and Certified Measurement & Verification Professional (CMVP). Under the Personnel Technical Competency requirements, to be considered a "Certified Energy Professional," applicants must have a relevant professional qualification, such as the Certified Energy Manager (CEM) or Certified Energy Auditor (CEA), as well as an engineering degree. They also must have two years of relevant experience in the energy services sector or have completed a minimum of three energy audits in the last three years.

AEE certification programs in UAE can be found by visiting www.aeecenter.org/internationalcertification.

Elsewhere

Many government organizations require a Certified Energy Manager, as in the case of the **State of Virginia**, which requires that any agency with an annual energy budget of \$1,000,000 or more have a **CEM**® on its staff.

Recently, **The Air National Guard** selected the Certified Energy Manager's Program for continuing education units (CEU's) for its energy and facility engineers throughout the United States.

Another important aspect of the Certified Energy Manager comes about as being “highly suggested” or “recommended” and no small amount of organizations consider it essential for advancement. Some of these include, **Southern California Edison, Duke Energy, the U.S. Postal Service, Ford Motor, GM, NYSERDA, TAC America, PEPCO, Ameresco, Macy's, Toyota Motor Company**, as well as many other corporations and institutions.

Many companies and governmental agencies have required Certified Energy Managers in their "Request for Proposals" or in auditing opportunities. Recently the utility company the National Grid (which is one of the largest investor-owned energy companies in the world) offered an [Energy Efficiency Engineering Study](#) whereby it will Finance 50% (up to \$10,000) of the cost incurred as part of an approved energy efficiency engineering study. “The study must be completed by a ***Certified Energy Manager (CEM®)*** or a professional engineer (PE).” In the U.S., the National Grid serves nearly 5 million electric and 3.4 million gas customers in Massachusetts, New Hampshire, New York, and Rhode Island.

What the Industry Has to Say about the CEM® Program

There is clearly significant value in the **Certified Energy Manager** and that is why all these highly visible and respected organizations make it a requirement for employment. Corporations frequently insist, request or strongly encourage the **Certified Energy Manager**. Here are a few experiences from AEE members:

Bob Galler, C.E.M., of Intel says:

“At **INTEL** site audits were conducted at almost every Intel major manufacturing location in the last 5 years, and a list of projects that can be proliferated as findings, were produced. This work was done by corporate engineers that must have one or more **Certified Energy Manager** on their membership body.”

Tom Reinsel, PE, C.E.M., Coordinator, Energy Management, Fairfax County Public Schools tells us that:

“Fairfax County Public Schools, Virginia, the nation’s 12th largest public school district has the following position: Energy Management Coordinator – **Certified Energy Manager (CEM®) preferred.**”

Vince Marshall, C.E.M., MBA, Cherokee Energy Management & Construction, LLC., offers:

“I’m a Resource Efficiency Manager for the **US Navy** (Contractor). CEMs are not *always* required, but highly encouraged. There are 7 of us currently working for the Navy. Two of us are CEMs and there are five others who are pursuing that qualification.”

Linda Popik, C.E.M., Siemens Building Technologies tells AEE that: “Lakeland Community College put the Measurement & Verification by a **Certified Energy Manager**, in their latest RFP. More and more organizations are requiring a CEM on a potential bidder’s staff because they appreciate the extent of the training and testing needed to earn the CEM.”

Jay Garbarino, PE, C.E.M., LEED® AP, US Sales Manager says:

“**Delta Controls** recommends that all of our dealers in North America have at least one **Certified Energy Manager** on staff.”

Kathy Loftus, C.E.M., Whole Foods Market says:

“While working as Director of Business Development for EnerNOC from 2004-2006, I was the only CEM on staff, and since I had the best sales record and developed business with utilities, I recommended strongly that folks in the organization take the course. The VP of Sales & Marketing then made it a requirement for the sales team, and several leaders of the organization also went through the training.”

The Association of Energy Engineers (AEE) is widely recognized as a valuable certification organization. Under the recent Stimulus Package, the **U.S. Department of Labor** has approved AEE-approved training providers for workforce training in energy for several states including California, Colorado, Georgia, Idaho, Kentucky, Maine, Massachusetts, Minnesota, Montana, New York, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Vermont, Virginia, Washington, and Wisconsin. Please refer to the [American Recovery and Reinvestment Act page](#) on AEE’s website for additional information and for new States added to the program.

Career Objectives and Opportunities

The **Certified Energy Manager (CEM)** allows a potential employer to assess the qualifications of a candidate in a very efficient manner knowing the individual has demonstrated certain capabilities.

The following bullet points are from the **Certified Energy Manager** application and highlight the pre-requisites of the program as well as the professional objectives of the program.

The prerequisites to qualify for the certification process have been designed to take into account the possible diversity of education and practical experience an individual may have. However each CEM® candidate must meet one of the following criteria:

- *A four-year engineering degree or architecture degree. Or a Professional Engineer (PE) or Registered Architect (RA) with at least three years experience in energy engineering or energy management.*
- *A four-year degree in environmental science, physics, or earth science management, with at least four years experience in energy engineering or energy management.*
- *A four-year business or related degree, with at least five years experience in energy engineering or energy management.*
- *A two-year technical degree, with eight years experience in energy engineering or energy management.*
- *Ten years or more verified experience in energy engineering or energy management.*

Program Objectives:

- *To raise the professional standards of those engaged in energy management.*
- *To improve the practice of energy management by encouraging energy managers in a continuing program of professional development.*
- *To identify persons with acceptable knowledge of the principles and practices of energy management related disciplines and laws governing and affecting energy managers through completing an examination and fulfilling prescribed standards of performance and conduct.*
- *To award special recognition to those energy managers who have demonstrated a high level of competence and ethical fitness for energy management.*

CEM® and Career Enhancement

An important aspect of this certification is how an individual is perceived as a **Certified Energy Manager (CEM®)** and how the program has helped their career. Here are just a few of the letters and comments AEE has received:

My CEM certification enabled me to obtain my position with McCain Foods USA, Inc. My designation with them is as a resource conservation engineer and I utilize the expertise I acquired by holding my CEM certification (#6160). McCain's is one of, if not the largest, producer of french fries (potato) in the world. I truly believe if not for my CEM certification I would not have my job at McCain's today.

Burl Ray Chambers, C.E.M., C.E.P.
Resource Conservation Engineer
McCain Foods USA

To whom it may concern. As a longtime member of the AEE and holding a CEM, BEP and CSDP certification I have found this to be tremendously beneficial to my career. I have been designing and engineering energy conservation projects for both the Private and Public business sectors for over 15 years. Holding these accreditations has been invaluable in the sense of giving me instant credibility when approaching potential customers. Historically, salesmen have developed a stigma of being pushy, overly persistent and lacking knowledge of their product. Anyone who has been in this business is aware of all of the snake oil which leads up to energy reduction short falls and or inoperative systems. To fully achieve the long term goals of Global energy conservation all projects must be analyzed thoroughly from many perspectives. CEM certification is not an easy moniker to be awarded. This badge personifies the true energy professional and their dedication to the art of reducing the need for fossil fuels. Do not listen to anyone not holding one or more of these coveted certifications.

Rick W Konkel, C.E.M., B.E.P., C.S.D.P

I believe the CEM is an invaluable Certification. Please allow me to elaborate. I received my CEM in 1994 while working with Johnson Controls. In 1995, I took a contract management position as a Project Engineer/Project Manager with the Corps of Engineers (COE) at the Walter Reed Army Institute of Research. During this project, I was afforded the opportunity to work with the Directorate of Public Works Federal Energy Managers's. I was able to sit in the Federal Energy Managers Course, which eventually led to implementing Energy Conservation Measures during construction. I was assigned the task to perform as a Commissioning Agent while performing concurrent duties as the Mechanical Engineering Representative with the COE. The result was a Commissioning Program that has influenced the way the COE aggressively approach Commissioning, and Building Automation System (BAS) Quality Verification and TAB in the field.

As a Team we had a great project, but as an individual with a CEM designation, I was able to approach the project with outside the box thinking, which eventually was recognized by the COE as a Controls Systems Expert at the time. Prior to the COE, I spent (4) years with JCI at the Chrysler Technology Center, in Auburn Hills, Michigan after my stint with the US Army as a Gulf War Era Veteran. After surviving the Enron situation as a National Facilities Maintenance Manager, I was able to use my CEM designation to focus on Facilities Maintenance Management with an emphasis in Energy Engineering. My CEM allowed me to obtain my Certified Plant Maintenance Manager (CPMM), and now the CSDP designation

Again, if I were not a CEM, during the Enron situation, I am not sure professionally how I would have been able to expedite my career search. I took a position with Aramark two weeks after we were affected by change. I used the CEM as an up sell to a Facilities Manager/Project Manager, thus, I am "Back in the Saddle", and eventually became a, "Legend in Energy." I would like to be your poster child for the CEM. If I were not a CEM, I would not have had the opportunity to build a boiler plant, and receive the EarthWise Chiller Award from Trane for the WRAIR Project.

Terrence Rollins, CEM, CPMM, CSDP
Facilities Project Manager, US Facilities, Inc.
Philadelphia, PA

CEM is something good that happened at the end of the world. It will increase the awareness in the energy field and increase the number of professionals in energy in this part of the world. The numbers of CEM will keep going up as soon as the Renewable Energy projects start and the demand for professionals increase. Definitely people from Jordan will be attending and will appreciate receiving the latest information in the field.

Samer Zawaydeh, Msc., PMP, AVS, CRM Mentor
Independent Consultant
Amman, Jordan

CEM® and Business Opportunities

Another critical reason to have the **Certified Energy Manager** designation comes about while bidding for a contract or project in the public or private marketplace. Certification can have a positive impact and be a differential asset to the potential customers. The **Certified Energy Manager (CEM®)** Certification allows a customer to know that the proposal submitted is based on sound energy engineering principles and that the individual has passed the required ([exam](#)) to **earn** the distinction.

Prospective clients and customers apply different methodology in the selection of an ESCO or an Energy Conservation Contractor. In many cases the customer is in need of analysis and recommendations to implement the project. A certified professional is one of the most qualified individuals to make the required calculations and proposed retrofits. Additionally, more and more manufacturers and system distributors are encouraging or insisting their representatives obtain their **Certified Energy Manager** since it provides the potential customer with a measure of assurance knowing the training and testing that the representative has received.

International CEM Accomplishments

The CEM course and exam have been administered in over a dozen countries outside the U.S. The course material and certification exam have been translated into five languages and are presented on a regular basis in close to ten countries worldwide. Professionals from over twenty-eight countries currently hold the esteemed title of **Certified Energy Manager® (CEM®)**. Outside the US, training programs for energy managers and the CEM® exam are presented in SI units.

Contracts for International CEM

AEE-approved training providers have successfully performed U.S. government contracts for the following countries: Armenia, Bulgaria, Cyprus, Egypt, India, Iraq, Jamaica, Jordan, Romania, Russia, Turkey, and Ukraine.

The U.S. Agency for International Development has used the Certified Energy Manager program to develop the energy efficiency infrastructure in **Egypt, Romania, Bulgaria, Armenia, Hungary, Ukraine, Poland, India** and **Jamaica**.

The U.S. State Department used the CEM Program to train a very select group of high level engineers from **Iraq**. The CEM workbook and exam were translated into Arabic and a CEM course and exam were presented.

In **India**, through a **U.S. Agency for International Development (USAID)** program initiated in 2003, AEE-approved training providers developed the country-specific curricula to train and certify energy managers in response to government's implementation of the Indian Energy Act. The [Bureau of Energy Efficiency](#) operates the **Energy Manager (EM)** in India and has trained and certified hundreds of EMs.

The USAID program developed in **Egypt**, administered by the **Egyptian Energy Service Business Association**, has resulted in the training and certification of over 300 CEMs since 2000. AEE has now partnered with National Energy Corp.-TARSHEED and the original Egyptian AEE Authorized Trainers to continue the CEM program in Egypt.

Ongoing International CEM Training Programs

AEE Chapters have teamed with universities and other well known training entities to present regularly scheduled Certified Energy Manager (CEM) training courses in the following countries: **Australia, Canada, China, Egypt, Hong Kong, Hungary, Ireland, Jamaica, Jordan, Mexico, South Africa, Spain, Taiwan, United Arab Emirates, and United Kingdom.**

AEE has also teamed with **Econoler**, who has offered several CEM programs in association with AEE in locations such as **Chile**.

In addition, the **AEE Ireland Chapter** has assisted in presenting several specialized courses in **Italy** and **Germany**.

Australia

AEE-approved training providers presented the first CEM course in Australia in early 2012. They teamed up with local partner, Energetics to offer continued local training. They have held several courses in locations across Australia, providing much needed training for Australian energy professionals.

Canada

In Canada, the CEM course has been presented in English for approximately 10 years through the [Canadian Institute for Energy Training \(CIET\)](#). Hundreds of professionals have received their CEM certification through this program. CIET has teamed up with another AEE-approved training provider, Econoler, to also present certification courses in French in Canada.

China

Since 2008, the Certified Energy Manager course has been presented over 25 times in mainland China in cities such as Beijing, Shanghai, Guangzhou, and Shenzhen with a total of close to 300 participants. The course and exam have been translated into Mandarin.

Hong Kong

Since 2006, the **AEE Hong Kong Chapter**, in cooperation with AEE, has presented two CEM courses each year and trained over 150 professionals. The CEM program has also been recognized by the Hong Kong government.

Hungary

CEM training was first conducted in Hungary under a USAID funded program close to 15 years ago. The AEE Hungarian Chapter was established at that time and has remained active and successful, creating an extremely successful and ambitious AEE Hungarian Student Chapter. In 2011, the AEE Hungarian Chapter started presenting regularly scheduled CEM training programs again.

Ireland

The AEE Ireland Chapter has presented close to 30 CEM training courses since the Chapter's establishment in June 2007. They have held many training courses and have worked with the Irish Defense Forces and the Irish Naval Service to train their energy managers.

Jamaica

The AEE Jamaican Chapter, **Jamaica Society of Energy Efficiency (JSEE)** is authorized to teach the Certified Energy Manager course in Jamaica through the **University of Technology Jamaica**. The establishment of the program was in response to a request from the Jamaican government to train and certify energy professionals. The CEM program continues to be the accepted certification for energy auditing used by banks and government institutions in offering loans and grants to Micro, Small and Medium Size Enterprises (MSME's).

Jordan

Through the USAID funded SABEQ program, in 2010 AEE assisted in the establishment of the **AEE Jordan Chapter, EDAMA**, and presented a CEM course and Train the Trainer program. The AEE Jordan Chapter has continued CEM training locally.

Mexico

Tecnológico de Monterrey, Mexico, in association with **AEE Chapter Nuevo León Chapter**, translated the Certified Energy Manager (CEM) course and exam into Spanish several years ago and have had over 100 participants take the course in Mexico to date.

Southern Africa

[Energy Training Foundation \(ETF\)](#), in conjunction with AEE and the **AEE Southern African Chapter**, has been presenting the Certified Energy Manager program in Southern Africa since 2002. The CEM course has been CPD (Continuous Professional Development) accredited and will earn professionals credits for the course. This successful CEM program in Southern Africa has trained over 400 professionals from 15 countries. They have also held In-house courses in countries such as Namibia and Kenya.

Spain

In 2012, AEE-approved training providers presented the first two CEM courses in Spain with the assistance of the AEE Nuevo Leon Chapter. Since that time, the **AEE Spain Chapter** has been chartered and is successfully offering the CEM program across Spain to local energy professionals in Spanish.

Taiwan

AEE has partnered with the **Industrial Technology Research Institute (ITRI)** in Taiwan to present Taiwan's first CEM training program. ITRI is a national research organization, with a mission of conducting technological research, promoting industrial development, creating economic value, and improving social welfare for Taiwan. ITRI is not only Taiwan's largest applied technology R&D institution, but a partner in creating Taiwan's high tech industry. They are now presenting courses on a regular basis in Mandarin.

United Arab Emirates

In 2007, the Vice President and Prime Minister of the United Arab Emirates and Ruler of Dubai implemented a historic resolution to take effect January 1, 2008 making Dubai the first city in the Middle East to adopt green building specifications. In response, the Certified Energy Manager (CEM) course and exam were presented in Dubai to a large group of top energy professionals. Since this course, AEE has held several energy management workshops.

AEE has now teamed up with the prestigious new partner, **The British University of Dubai** to train and certify Energy Managers in UAE.

United Kingdom

In 2012, an initial course has been presented in the UK with the assistance of the AEE Ireland Chapter. The future of the UK program is bright and AEE is working towards the development of a local Chapter and ongoing CEM training. In addition, the UK Environment Agency has approved the Certified Energy Manager (CEM) and Certified Energy Auditor (CEA) certifications, provided by the Association of Energy Engineers (AEE), as meeting the requirements of the UK Energy Savings Opportunity Scheme (ESOS) to implement Article 8 (4-6) of the [EU Energy Efficiency Directive \(2012/27/EU\)](#).

Please visit www.aeecenter.org/internationalcertification for more information

CEM® and AEE Training Partnerships

The Association of Energy Engineers is currently working with a cross-section of accredited institutions, organizations and Universities to offer additional energy management, green, sustainable, and industry training & educational programs. Featured programs include:

UC Davis University Extension



The Association of Energy Engineers (AEE) has a Memorandum of Understanding with UC Davis University Extension (UCDE) to advance the knowledge and professionalism in the field of energy management. As an adjunct to the Certified Energy Manager (CEM®) and Business Energy Professional (BEP®) AEE pleased to be an official sponsor of the **U.C. Davis University Energy Resource Management Certificate program**. This initiative aims at enhancing student's involvement and increases their role in the growing energy management discipline. The course will serve as a solid foundation for students to move towards obtaining their CEM® or BEP® Certification. For more information on the U.C. Davis certificate program [CLICK HERE](#). UC Davis Extension is the professional and continuing education branch of UC Davis and is a link to the many resources students can only get from the University of California.



Pepco & Delmarva Power Commercial & Industrial Operations & Maintenance Training Initiative

The Association of Energy Engineers announced that many of its professional seminars now qualify for partial reimbursement of seminar fees for pre-qualified professionals based on eligibility.

About the Program:

Financial incentives are available for training that will promote, either directly or indirectly, the enhanced energy performance of buildings. An applicant must describe his or her current position responsibilities and how the proposed training course is relevant to the employer, the applicant's current position, and/or career development with the employer. Only applicants who have the potential to influence a building's energy performance will be considered.

Incentives & Eligibility:

Each approved applicant is eligible to receive a cash incentive up to a maximum of \$1,000, or 80% of enrollment costs, whichever is less (additional costs such as travel, food, lodging, test fees, and materials will not be considered). To obtain incentives for participation and completion of a course, the applicant must complete and submit an application for pre-approval. If upon review of the application the applicant is approved to attend the course; the applicant will be notified by electronic/and or postal mail. Applicants must submit one application per course. The review process will be handled in a timely manner. The incentive payment is contingent upon completion of the coursework; therefore the applicant must provide documentation of attendance (certificate of completion or other similar documentation). Applicants must submit an application for each course they wish to take.

[Click here for the Delmarva Operations & Maintenance Training Incentive Application](#) (PDF Format, application must be pre-approved by the program manager)

Please go to the following websites for more information about available incentives:

www.delmarva.com/business

U.S. EPA Energy Star



AEE Partners the Green Building Engineer Certification (GBE™) Program with US EPA ENERGY STAR Challenge. GBE's must be Certified Energy Manager (CEM®) and be a Professional Engineering (PE) License (*P.E. is U.S. only). AEE's participation in the ENERGY STAR Challenge – *Build a Better World 10% at a Time* is a natural extension of AEE's efforts to encourage its members to reduce energy usage in buildings by 10% or more. AEE is committed to provide training and certification opportunities to help the profession meet the ENERGY STAR Challenge ahead. To find a Professional Engineer (P.E.) and/or GBE™, please refer to EPA's online directory: http://www.energystar.gov/index.cfm?fuseaction=PE_DIRECTORY.

Green Building Certification Institute

USGBC's GBCI/CMP program facilitates access to high quality professional development courses to further enrich the knowledge and understanding of green building theory, techniques, and trends for building professionals. Each course is reviewed by third-party-trained reviewers and meets the criteria and guidelines established by the USGBC Professional Development Committee. This course qualifies for GBCI's Credential Maintenance Program (CMP) for LEED® professionals.



The Association of Energy Engineers is a Corporate Member of the U.S. Green Building Council (USGBC) and an approved EPP.

Georgia Tech Enterprise Innovation Institute



The Georgia Tech Enterprise Innovation Institute works with Georgia enterprises to help them compete nationally and internationally. By calling on the resources of Georgia Tech – one of the world's leading engineering, technology and research universities – our team can keep you current with the leading research, methods, technology and more in your industry.

The [Certified Energy Manager](#) (CEM) Program is recognized by the [Georgia Tech Enterprise Innovation Institute](#) and they have several faculty on staff with CEM Certification.



Corporate College has signed an agreement of partnership with the Association of Energy Engineers to deliver AEE training in the field of energy management in the Midwest region. According to Jessica Davis, program manager for Corporate College, "This partnership will ensure the region's talented workforce is prepared with the valuable credentials needed to meet the growing demand for energy management/green collar jobs." You can register online for courses offered under this partnership at www.corporatecollege.com or e-mail jessica.davis@tri-c.edu for information.



The Western New England College School of Engineering recently signed a Memorandum of Understanding (MOU) with AEE whereby the College will develop an extensive Renewable & Alternative Energy System Design course, and offer the Certified Energy Manager (CEM®) Certification Exam to attendees. The Association of Energy Engineers is expanding the Certified Energy Manager program offerings as more States are adopting the CEM as a standard, and numerous corporations are making the CEM credential a job requirement. To register for this course please contact the provider directly:

Email: CMFENGRINC@aol.com / Springfield, Massachusetts <http://www.wne.edu>

For Additional Information about CEM Certification:

If you have any questions about CEM certification, please write, call or email: Helen Johnson, CEM Certification Director, Association of Energy Engineers
3168 Mercer University Drive, Atlanta, GA 30341 Phone (770) 447-5083, ext. 218,
email: Helen@aeecenter.org

The Association of Energy Engineers, a non-profit professional association, was established in 1977. The AEE Association of Energy Engineers (AEE) is your source for information on energy efficiency, sustainability, renewable, end user energy management, combined heat & power, building systems, distributed generation, energy services & the environment marketplace. AEE offers several programs: seminars, conferences, books, tradeshow & expositions, job listings, and certification programs (such as Certified Energy Manager, Sustainability Professional, Business Energy Professional, Carbon Reduction Manager). AEE, with over 35 years of being a voice & resource for the energy industry, is a growing membership organization with over 16,000 professionals serving the commercial, industrial, institutional, and government marketplace.

CEM Information & Overview: <http://www.aeecenter.org/certification/cem>

CEM Applications: <http://www.aeecenter.org/i4a/pages/index.cfm?pageid=3377>

(Live Seminar Version)

<http://www.aeecenter.org/i4a/pages/index.cfm?pageid=3378>

(Remote Testing Center Version)

5-Day Seminar:

http://www.aeeprograms.com/store/detail.cfm?id=745&category_id=4

Fast Track Program:

http://www.aeeprograms.com/store/detail.cfm?id=948&category_id=4

Real-time Online Program:

<http://www.aeeprograms.com/realtime/FastTrackCEM/>

CEM Reference Books:

<http://www.aeecenter.org/i4a/pages/index.cfm?pageid=3376>

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CEM® Usage: Do you know of any programs which utilize the Certified Energy Manager designation? If so please let us know so we can help let the industry know – email megan@aeecenter.org