CENTRAL ASIA ENERGY EFFICIENCY LEARNING PORTAL

This project was implemented by ICF under the USAID Energy Efficiency for Clean Development Program (EECDP) Leader Award

March 2017

The Central Asia Energy Efficiency Learning Portal (CAEELP) includes a number of presentations to support its education objectives, including:

- Promoting energy-efficient lighting in Kazakhstan – highlights the energy efficiency potential in different building types and a pilot project in Kazakhstan schools which corroborated prior research and resulted in GHG emissions
- Opportunities to deploy renewable energy sources in Kazakhstan (Pavlodar city case study) – discusses the regions in Kazakhstan that have potential for wind energy development
- Overview of integrated energy solutions company (Danfoss) and heating systems of buildings - describes the type of equipment that helps reduce the amount of heat consumption in apartment buildings and private homes, given the specific weather conditions

INTRODUCTION

One of the major barriers to implementing energy efficiency is the need for a skilled workforce to do the necessary analysis, installation, and management of energy technology and best practices. While implementing the Central Asian Energy Efficiency Support Program (CAEESP) – an Associate Award conducted under the same EECDP cooperative agreement – the CAEESP team recognized stakeholder interest and need for a region-specific online learning platform to support continued technical education through shared reports, tools, and trainings.

From May, 2013 through March, 2014, USAID EECDP developed the Central Asia Energy Efficiency Learning Portal (CAEELP). Due to its relatively high Internet penetration and low population density, the Central Asian region was ideal for the design and implementation of such a project. The project used the solid infrastructure of in-country and regional experts created for CAEESP to develop the content and functionality of the Portal. The Portal was designed as a Russian language, interactive educational platform and database of energy-efficient equipment to help establish a community of practice within Central Asia. The Portal brings together suppliers and consumers of energy efficiency knowledge, equipment, technologies, and best practices in the region. CAEELP is available online at www.caeelp.org.

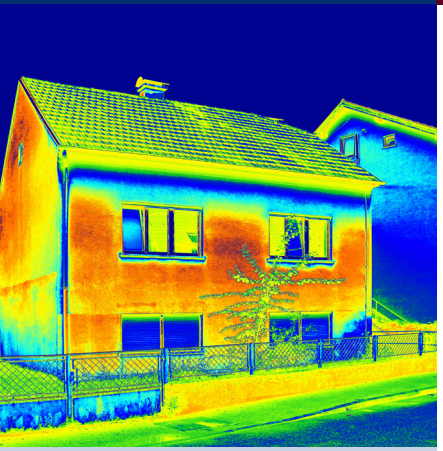
Framework Overview

1. Establish project team and develop CAEELP concept paper

Project goals were to provide a Russian language platform to disseminate energy efficiency (EE) best practices within the region, create an interactive education platform, a case study database and an EE equipment database to help establish a community of practice. To accomplish these goals, the project:

- Established a project team and program developers utilizing CAEESP team members and regional contractors selected for their knowledge of the region, technical abilities, and Russian language skills.
- Developed a concept paper to determine Portal contents and design, featuring:
  - A live, peer-to-peer social network program to foster personal communications and discussions on EE decisions and equipment between members in real time.

USAID FROM THE AMERICAN PEOPLE ICF



In order to introduce the Portal and its content, the project team leveraged a number of events dedicated to learning and energy related issues to make PowerPoint presentations. These presentations included:

1. MDP/ Global Classroom on Sustainable Development – an educational event for students to learn about energy efficiency and savings opportunities in the Central Asia region
2. Silk Way Model United Nations – a model UN ECOSOC simulation was organized for government officials to introduce them to the functionality of CAEELP
3. Targeted Stakeholder Meeting – A discussion with stakeholders about the functional capabilities of the CAEELP as well as the projects conducted by CAREC
4. AWARE Project – discussion of the CAEELP capabilities and uses for different target groups
5. AWARE Project Multi-stakeholders' Dialogue – A discussion with a targeted group of representatives mostly from the business sector on how to to use the CAEELP and LED-CA.net resources

- A course section that allows contemporaneous live broadcast from a single location to all registered participants.
- "Open source" programming allowing users to upload content to encourage information sharing.
- A technology and equipment database, project case studies, and training videos on technology installation.
- The ability to virtually link users with both positive and negative experiences with equipment and applications and for users to share their experiences through reviews and a rating system, as well as via best practices.
- Case studies of projects that successfully employed EE practices.
- Training videos on how to install energy-efficient technology.

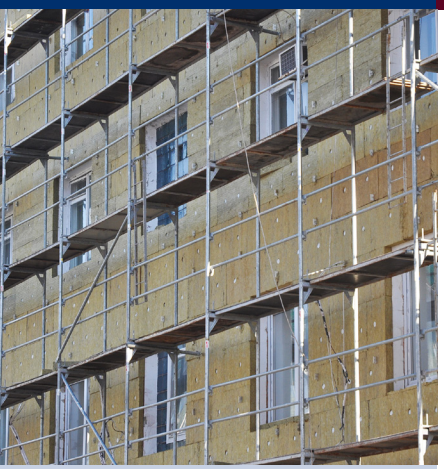
2. Engage key stakeholders

Portal relevance and sustainability requires local and regional support. Five main stakeholder categories were approached to ensure the success of the Portal, these include:

- Private sector companies
  - Equipment suppliers and manufactures interested in presenting their energy efficiency information to a broad audience of stakeholders were required to upload a full case study of their equipment, and other members were allowed to provide their own feedback, including positive or negative experiences.

    Companies involved include: Danfoss, Grundfos, Honeywell, Schneider Electric, Buderos, and TA Hydronics.
  - Companies seeking energy efficiency expertise included the largest industrial companies in the Central Asian region (i.e., ENRC, Kazakhmys, Kazphosphate, Samruk-Kazina) as well as medium and small-size private sector companies.
- Financial institutions interested in increasing their energy efficiency lending portfolios in the region and interested in presenting their current activities and financing possibilities (e.g., the European Bank for Reconstruction and Development, Asian Development Bank, Eurasian Development Bank, and the IFC).
- Universities with both technical and policy programs focused on energy efficiency in the region agreed to support the Portal – Nazarbayev, Al-Farabi State, Seyfullin Agro-Technical, and Eurasian Innovative Universities in Kazakhstan.
- Government entities/associations interested in knowledge sharing, access to the energy efficiency technologies and equipment database and those interested in using the Portal for training and certification (e.g., Ministry of Industry and New Technologies, Covenant of Mayors Office, East Energy Auditors' Association, the Central Asia Regional Environmental Center, Energy Auditors Association of Kazakhstan, the business union "Atameken", KazEnergy Expertise, Kazakhstan Association of Modern Innovative Technologies and Equipment).
- International organizations working in Central Asia on energy efficiency issues (e.g., United Nations Development Programme, United Nations Economic Commission for Europe, the Covenant of Mayors, UNECE and the United Nations Economic and Social Commission for Asia and the Pacific).

CAEELP



To engage the community in using and contributing to the Portal, outreach activities targeted:

- Private-sector companies
- Financial institutions
- Universities
- Government entities and associations
- International organizations

CAEELP (www.caeelp.org) is hosted by the Regional Environmental Centre for Central Asia (CAREC) on their website (www.carececo.org).

3. Develop the Portal and establish a sustainable platform

- Upload Portal content as established in the concept paper.
  - The Portal hosts multiple forms and types of technical content as well as tools to encourage interaction between users, including:
    - Electronic catalog of orders, suppliers and prices.
    - Marketing tools of newsletters, news subscription, subscription plans and certificates.
    - Thematic presentations developed in close consultation with leading national experts.
    - Fifteen expanded thematic case studies ranging from energy efficiency in public health service to the future of alternative energy to irrigation ditches as an energy source for the village.
    - Three video links on: Integrated energy saving solutions for the heating systems in buildings, Individual flat-based heating systems in buildings, and Integrated Water Resource Management as a part of energy efficiency [water pumping].
- Establish a reliable and respected local host organization
  - ICF partnered with the Regional Environmental Center for Central Asia (CAREC) as the permanent regional organization to maintain the Portal and conduct outreach and promotion for a minimum of three years.
- Conduct stakeholder presentations to expand outreach and interest
  - Presentations were given at five events dedicated to energy related issues. Target audiences included students, energy experts, business, and private sector stakeholders dealing with efficient and renewable energy in Kazakhstan.

Project Accomplishments

- Developed a Russian language platform to disseminate energy efficiency best practices within the region.
- Engaged stakeholders from five main categories, the private sector, financial institutions, universities and government entities, professional associations, and international organizations.
- Established a sustainable platform to increase the likelihood of Portal success over time.

Recommendations for Replication and Scaling-up

- Enable continuous updating of the equipment and practice data base, best practices and other trainings to ensure that users will maintain interest in the Portal and encourage others to join.
- Support development of government standards, regulations and "energy efficiency" awards to foster increased interest in energy efficiency and membership in the Portal.
- Collaborate with major stakeholders improve stability and sustainability of interest and support in energy efficiency programs.