

KAZ-77 Case Story

“Capacity Building: Energy Audit Analysis for Bankable Energy Projects”

Small-scale technical assistance

1. The idea

During the SEMISE fact finding missions in 2009, the common theme of capacity building for energy auditing kept coming up. It was a general desire throughout the Partner Countries. Therefore, SEMISE designed a seminar to satisfy a critical part of this demand, specifically the focus on audit analysis to communicate with banks and investors, and taught it in a few cities. Then, when the SEMISE team was in Almaty on another AHEF task, the beneficiary (Chokin Institute) asked if it could also have the seminar. The Institute applied, and the EC approved the task.

2. Implementation

The SEMISE training team travelled to Almaty in August, 2011, to present the seminar. It was intended:

- To teach sound business practice using life cycle cost (LCC) analysis in development of EE/RES projects;
- To teach how to optimize energy conservation measures (ECMs) for maximum benefit and avoid life cycle losses;
- To teach realistic analysis, free of hypothetical input, through rigorous reality checks.

This was the 5th in a series of these seminars, preceded by Tbilisi, Yerevan, Astana and Minsk. SEMISE experts presented a 10-step procedure to determine project feasibility via LCC analysis. The method applies to both EE and RES projects.

The key feature of the seminar was the two workshop exercises, one with an EE example and the other with RES. The 22 participants formed 5 working groups



SEMISE coordinator assisting working group



Working group presentation

and solved problems that the instructors assigned. After each working session, a representative from each group made a presentation of its “project proposal” to “investors” (other participants). Instructors graded the presentations on content and form. Other participants evaluated whether they would invest their own money in the proposed projects. Participants learned by doing.

In post seminar evaluations, participants said they valued learning how to improve project feasibility through analysis and “*how to convince bankers.*”

Dr. Makhsut Ordabaev, the beneficiary’s deputy director, later wrote, “*The above mentioned workshop allowed us to learn new aspects of financial analysis of energy conservation measures and improve the skills of our specialists. Further, the training material we received during the seminar can be used for training energy auditors as well as for conducting energy audits in the Republic of Kazakhstan.*”

“*Another benefit is that this seminar brought together engineers engaged in energy saving and bankers. This is of high importance for the country in which, apart from the Kazakh Sustainable Energy Fund established by EBRD in 2008, there are no other targeted credit lines for EE.*”

“*We would like to thank the SEMISE project for this effective cooperation and look forward to continuing our cooperation in the future.*”

3. Results achieved

- Participants came away from the seminar with
 - a) working spread sheet tools and examples of analysis.
 - b) new skills to use the tools in actual practice.
- Two participants, Drs. Anton Bucharin and Marat Korshumbaev, immediately applied their new skills to actual energy audits in the next SEMISE task in the Republic of Kazakhstan. These energy engineers joined the SEMISE team the following week to perform energy audits on two small hydropower plants near Almaty. The beneficiary, wrote, “*The energy audits have demonstrated that the Republic of Kazakhstan has a huge potential in improving EE and the work towards this goal has just begun.*”
- The seminar introduced bankers to energy audit analysis as well as engineers to bankers’ requirements. Two bankers from Delta bank in Almaty participated in the whole seminar.

90% of the participants said they will definitely use the new knowledge in their work, and 95% said the material could be used in university courses. Overall satisfaction with the seminar was about 95%.



Class with certificates of completion

4. The future

The senior banker in attendance, Ms. Tolkyln Iskakova, was glad to receive an overall understanding of EE/RES technologies and to learn how energy auditors calculate feasibility. However, she noticed that these technologies start paying off in a longer period of time, which is not of interest for Kazakh second tier banks (STBs). “These banks pursue profit in a much shorter period,” she said. Change requires certain investment actions under strict conditions, preceded by an awareness campaign, according to Ms. Iskakova.

Examples of investment actions:

- Investment funding by STBs to finance projects meeting investor requirements for EE/RES projects, where STBs act as operators bearing greater risks in evaluating and monitoring the credited projects.
- Financing through delivery of new technologies and equipment that is still being paid off but sitting idle at manufacturing enterprises in Europe. This is voluntary execution of debtor assets which fail to meet obligations, but where sale of assets may reduce debt pressure.

There is a need in Kazakhstan to improve awareness campaigns about EE/RES economics and environmental topics, especially to upper income people. Ms. Iskakova noted, “According to my observations, this category of the Kazakh population has started thinking about the issues discussed at the seminar.” This



ENERGY COOPERATION BETWEEN THE EU, THE LITTORAL STATES OF THE BLACK & CASPIAN SEAS AND THEIR NEIGHBOURING COUNTRIES



category includes actual business owners and top managers of industrial enterprises and financial institutions.

Therefore, seminars and meetings similar to this one, aimed at owners, may encourage quicker progress in this area. They will lead to decisions taken in informal situations and discussions, and give impetus to development of EE/RE projects.

Both Ms. Iskakova and SEMISE's own banking expert agree that EE/RES projects designed to be feasible in pure analysis require further motivation by investors to establish credit. Ms. Iskakova's recommendations for next steps in awareness raising and innovative financing under local Kazakh conditions are clear.