



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



**REPORT: AHEF TASK AM.93 WORKSHOP,
CAPACITY BUILDING for FINANCING of EE/RES PROJECTS
14-18 January 2014,
Yerevan, Armenia**

by the Sustainable Energy Component of the New ITS Project

**“INOGATE Technical Secretariat & Integrated
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All training materials are electronic and can be found at the INOGATE web-site:

http://www.inogate.org/index.php?option=com_inogate&view=activity&layout=documents&pid=72&cid=321&Itemid=75&lang=en

1. EXECUTIVE SUMMARY

To increase investments in sustainable energy (SE), the expert team of the INOGATE New ITS Project held a workshop in Yerevan, Armenia, in January 2014, on SE financing for loan officers and credit analysts of the Ameria Bank. This workshop increased the bankers' awareness of new, European style, SE financing methods. Eighteen participants from the bank attended the workshop. Seventeen met all requirements and received certificates.

This workshop achieved its objective of enhancing the bank's capacity to capitalize the EE/RES sector in Armenia. Instructors introduced bank officers to skills specific for evaluating EE/RES projects by applying international standards: a) how to identify and mitigate risks through support and guarantee mechanisms, b) how to perform a sensitivity analysis, and c) how to create optimal financing tools, conditions and monitoring plans.

Loan officers	11 (61%)
Heads of Units	2 (11%)
Factoring Specialists	2 (11%)
Energy Specialists	2 (11%)
Financial Security	1 (6%)
Total	18 (100%)

EE/RES financing workshop participants breakdown

The workshop included 18 hours of instruction spread over 5 days. It had lectures with group exercises. The team of instructors, experienced in EE/RES projects in the EU and INOGATE PCs, intentionally designed the group work to encourage internal exchange of ideas. Each workshop exercise included a hidden pitfall (erroneous assumption or gap in information), which groups had to identify and propose a solution for. The presentation of the solution to the audience by each group led to fruitful discussions on the subtleties of EE/RES financing. Thus, bank officers became familiar with the EU experience. Now they can apply their improved evaluation skills to EE/RES projects.

ITS also delivered a presentation on effective communication and awareness raising on sustainable energy issues, highlighting the potential role and engagement of banks in building their own market. Spreading SE awareness to customers improves business.

Due to weather conditions (leading to the late arrival of the key instructor) and in response to the Bank's request there were changes in the agenda during the course of the workshop.

All training materials, including spreadsheet tools, appear on the INOGATE website:

http://www.inogate.org/index.php?option=com_inogate&view=activity&layout=documents&pid=72&cid=321&Itemid=75&lang=en

The following table, taken from the application, shows the beneficiary's commitment to achieve SE investment results in terms of ITS aggregated indices.

TASK RESULTS	RESULTS	COMPONENT INDICATORS	AGGREGATED INDICES
Component C - Sustainable Energy			
<p>After the subject training the number of EE/RES projects financed by Ameria Bank is expected to increase as a result of more streamlined identifying and processing of EE/RES proposals. Expected number of additional loans granted as a result of current workshop during the six coming months – 3-4, for 2014 – more than 6.</p> <p>As the training is expected to increase awareness of bankers in the field of EE, the number of projects financed by will increase, causing subsequent increase in the utilization level of our facilities from IFIs in this field.</p> <p>Expected amount of loans granted as a result of current workshop during the six coming months – USD 1'000'000 – 1'500'000, for 2014 – appr. 3'000'000.</p> <p>Expected number of jobs created as a result of current workshop during the six coming months – 60, for 2014 – more than 90.</p>	<p>Increased local and EU investments in the field of RES/EE</p>	<ul style="list-style-type: none"> • No. of EE/RES investment projects • € invested • Fossil energy consumption decreased (EE) • Increase of RES energy produced 	<p>Tonnes GHG reduction/abated</p>

2. METHODOLOGY

The broad objectives were to improve the EE/RES investment climate and increase capitalization of EE/RES sector in Armenia. Following the experience of the ITS combined banking workshop and study tour last year in Vienna, this event made participants actively work to find solutions, not just listen. The Head of Corporate Lending Department, Marina Karapetyan, who participated in the Vienna event, submitted the application for this workshop in Armenia. The Bank's goals are threefold: a) to familiarise the bank officers with the skills to expand the bank's operation into a new niche – energy efficiency; b) to apply the training material for further training of more bank officers, and c) to introduce international standards of evaluating EE/RES projects, so loan officers will be better prepared to finance with EBRD, IFC and KfW credit lines.

Most of all, participants appreciated the workshop's practical assignments. Class discussions showed these bankers what to do under various conditions. Werner Weihs-Raabl's discussions especially drew active participation. He showed how SE business is done in the EU and how to find practical, alternative solutions to Armenian problems. In particular he pointed out the lessons to be learnt and how to avoid consequences of the most relevant critical financing parameters such as: lack of equity, unproven technology issues and weak project sponsors. He specifically recommended the inclusion of export credit agencies in larger scale RES projects.

3. ACTIVITIES

The most important activities of each day follow:

1st day

- Short quiz
- Lecture topics: OECD plan, project LCC short analysis
- Tools: Feasibility assessment of EE/RES projects via life cycle cost analysis

2nd day

- Lecture topics: Main risks in construction and operational phases, risk mitigation options, financial modelling in practice, EE/RES technologies and business, corporate vs. project financing, bankability criteria, risks and mitigation, project structure, feasibility study, train-the-trainers session
- Tools: risk identification and evaluation, extensive data base of crucial project parameters, benchmarking

3rd day

- Lecture topics: due diligence, financial engineering, financial modelling, key ratios, mandatory project documents, sensitivity analysis with practical exercise to apply it to real RES projects, monitoring projects, train-the-trainers session

4th day

- Group presentations and discussions
 - Group 1 – lighting (EE)
 - Group 2 – biogas (RES)
 - Group 3 – pumps (EE)
 - Group 4 – pre-insulated pipes (EE)
- Lecture topics: EU experience, how to structure projects, how to foresee and mitigate risks, awareness raising, train-the-trainers session
- Group work: preparing financing schemes, lending conditions and monitoring plans



ITS Expert, Vahan Babajanyan, explaining group exercise on biogas to participants

5th day

- Group presentations and discussions
 - Group 1 – Wind park lending terms and conditions (RES)
 - Group 2 – IT Centre lending terms and conditions (EE)
 - Group 3 – Congestion system lending terms and conditions (EE)
 - Group 4 – Small HPP lending terms and conditions (RES)
- Final quiz
- Awarding of certificates

4. PARTICIPANTS

The training was planned for the Ameria Bank to improve their capacity so that they could evaluate EE/RES projects, especially for EBRD, IFC and KfW credit lines. The Bank's focus was on training credit officers from its head office. Most participants were credit officers. Two participants were Heads of Units which handle IFI's and corporate's credit lines.

It became evident that most of the participants have actual project finance know-how mostly

in the context of small HPPs and are eager to expand their knowledge into other areas such as wind and biomass. This interest was taken care of by running two specific case studies for these sectors.



Key Expert, Larry Good, awarding certificates to participants

5. INSTRUCTORS

The key instructor was Werner Weihs-Raabl, Head of Infrastructure Finance of Erste Bank, Austria. He has significant experience in EE/RES projects in Central and Eastern Europe as well as in some INOGATE Partner Countries. Vahan Babajanyan ITS banking expert, Khatuna Didbaridze ITS expert for awareness raising, and Larry Good key expert for sustainable energy, also instructed.



Instructors (left to right): Khatuna Didbaridze, Vahan Babajanyan, Werner Weihs-Raabl, Larry Good, Bagrat Bagratunyan (local expert), Vladimir Ternytskyi (translator/coordinator)

6. TESTING

ITS tested participants twice to find out what they knew before and after the workshop. The preliminary quiz and final quiz included the same 6 core questions. The final quiz also contained 4 additional questions, including two rather difficult calculation problems to solve. They required proposals on ways to deal with EE/RES financing problems. The four new questions evaluated the effectiveness of the seminar's new information. Participants applied their knowledge in practical exercises.

Scores:

6 CORE QUIZ QUESTIONS	% correct answers
Correct answers at start of workshop	51%
Correct answers at end of workshop	97%

4 ADDITIONAL QUIZ QUESTIONS	% correct answers
Correct answers at end of workshop	71 %

Scores of the calculation problems were somewhat lower than in most workshops due to a security restriction at America Bank that people in the bank could not use computers on the day of the test. ITS observed all security rules.

7. TRAIN the TRAINERS SESSION

On request of the Ameria Bank the train-the-trainers (TTT) session was delivered during the seminar at the end of each day. During those sessions the ITS experts worked with future instructors and those participants who would like to learn more about EE/RES financing. Seventeen out of 18 participants stayed for TTT sessions each day. The sessions focused extra attention on:

1. Typical mistakes in financing EE/RES projects
2. Checking possible financial solutions to make RES projects feasible
3. Mitigating technological risks
4. Mitigating financial risks in in EE/RES projects

8. PARTICIPANT QUESTIONNAIRE

At the end, participants answered a questionnaire (see appendix). The consensus was positive, averaging over 85% overall approval. Security restrictions in the bank (no use of personal computers, no desks, no flash drives, limited Saturday access) seemed to affect participant satisfaction. ITS honoured all security rules.

The following tables summarize seminar quality:

A. Event content (ITS)

Lectures	90%
Exercises	92%
Experts	95%
Help & guidance	90%
Discussions	89%
Translation	95%

B. Event organisation(beneficiary)

Venue	80%
Meals	76%
Equipment	73%
Organization	74%

9. CONCLUSIONS

GENERAL

Most important is that participants plan to apply the new knowledge to their work in the future (Q 7). Further, based on the pre- and final quiz scores, the bankers greatly improved their capacity to mitigate risks in SE.

SPECIFIC

- 1) Participants said they will use what they learned to develop risk management skills, and to convince clients to invest in SE (question 8). One way is to apply the newly acquired practical skills in feasibility evaluation (question 3). ITS will follow up every 6 months by asking participants exactly how they have done this. Benefits of the workshop will be measured by the number of new SE deals or money invested in SE projects.
- 2) Participants put a high value on solving problems in the group work and discussions (question 6). It led participants to find workable solutions to developing EE/RES projects. Exercises with hidden pitfalls and traps stimulated discussion of lending conditions and led to flexible, alternative solutions. ITS will continue to apply this approach in future training.
- 3) Interest in practical exercises (Q 10) and their discussions proved their value. Participants would like to see more exercises and more focus on financial / investment solutions in EE/RES projects in different areas of SE.

NEXT STEPS

- 1) As a result of participant demand from all recent audiences, ITS will add more focus on alternative solutions to the group exercises in future banking workshops.
- 2) This workshop identified an area in which the participants face many challenges, namely issues linked with due diligence. Thus it is expedient to organize a follow up seminar and study tour for the banks that have participated in the workshop on EE/RES financing. The subject topic for such an event would be due diligence and application of financial due diligence results into the relevant financial model and the resulting financial analysis.