



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



**REPORT: AHEF TASK AM-82 WORKSHOP:
CAPACITY BUILDING for FINANCING of EE/RES
PROJECTS**

**5-9 November 2013,
Yerevan, Armenia**

***by Component C of the New
ITS Project***

**“INOGATE Technical Secretariat & Integrated
Programme in support of the Baku Initiative and
the Eastern Partnership energy objectives”**

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Checked by

Approved by

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Werner Weihs-Raabl, V. Babajanyan

L. Good

B. Klinke

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APPENDICES (separate electronic documents)

Appendix 1: Agenda

Appendix 2: List of seminar participants

Appendix 3: Participant evaluation

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APPENDICES (cont., separate electronic documents)

Training materials in English and Russian

1st day

- Day 1.1** Presentation: "INOGATE new ITS project: Sustainable energy"
- Day 1.2** Presentation: "Following the OECD plan to climate stabilization"
- Day 1.3** Lecture: "Making EE/RES financing attractive to banks: Sources, tools, methods, forms"
- Day 1.4** Lecture: "EE/RES project structures, Part I: Risk identification and management, bank guarantees, main evaluation tools & indicators"
- Day 1.5** Presentation: "Introducing Erste Bank, EE/RES financing, bank's policy, portfolio, partners"

2nd day

- Day 2.1** Presentation: "Examples of lending for EE/RES"
- Day 2.2** Presentation: "EE/RES technologies and business in Armenia"
- Day 2.3** Lecture: "EE/RES project feasibility assessment through life cycle cost (LCC) analysis"
- Day 2.4** Lecture: "EE/RES project structures, Part II: Risk identification and management, bank guarantees, main evaluation tools & indicators"

3rd day

- Day 3.1** Presentation: "EE/RES financing, terms and technologies, European experience, success stories"
- Day 3.2** Lecture & tool: "Project LCC short analysis"
- Day 3.3** Presentation: "EE/RES project analysis methodology"
- Day 3.4.a** Lecture: "Sensitivity analysis for EE/RES projects"
- Day 3.4.b** Tool: "Sensitivity analysis spreadsheet"

4th day

- Day 4.1** Presentation: "EE/RES financing schemes, lending conditions and monitoring plan"

5th day

- Day 5.1** Presentation: "Austria: Financial support facilities and projects available for EE/RES"
- Day 5.2.a** Special Session: "Train the trainers: Common mistakes"
- Day 5.2.b** Special Session: "Train the trainers: Financing & partner countries"
- Day 5.2.c** Checklist: "Requirements, hydro projects"
- Day 5.2.d** Checklist: "Requirements, wind projects"

1. EXECUTIVE SUMMARY

In November, 2013, the sustainable energy (SE) team of the INOGATE New ITS Project, in cooperation with the Finance for Economic Development (FED) Program of USAID-Armenia, held a workshop on SE financing for loan officers and credit analysts of the Converse Bank in Yerevan, Armenia. This workshop increased the bankers' awareness of new, European style SE financing methods. Also, loan officers and credit analysts from Arexim Bank, ArmSwiss Bank and ArmBusiness Bank and the staff of the R2E2 Fund participated. Out of 36 invited participants, 31 met requirements and received certificates.

Corporate Finance	3 (10%)
Credit Unit	18 (58%)
SME Finance	3 (10%)
Risk & Monitoring	3 (10%)
Chief economist	1 (3%)
Advisor	3 (10%)
TOTAL:	31 (100%)

This workshop achieved its objective of enhancing bank capacity to capitalize the EE/RES sector in Armenia. To this end, the instructors introduced bank officers to skills specific for EE/RES projects: 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.

EE/RES financing workshop participants



The workshop included four half days and one full day of lectures and group exercises. The primary INOGATE instructor came from Erste Bank in Austria with extensive experience in EE/RES projects across Central & Eastern Europe. Instructors intentionally chose the group work to encourage internal exchange of ideas. Discussions developed ways to find workable alternative solutions. Audience enthusiasm was high.

Each workshop exercise included a hidden pitfall (erroneous assumption or gap in information), which groups had to identify and propose a solution for. Then each group presented its solution to the rest. It led to considerable discussion on the subtleties of EE/RES financing. Thus, the EU experience was introduced. Now bank officers can better apply their evaluation skills to EE/RES projects.

A surprise outcome was another application for the workshop from the Armenian Union of Credit Organizations. 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=299&Itemid=75&lang=en

RESULTS	INDICATORS	IMPACT (completed by beneficiary)
Increased local and EU investments in the field of REE/EE	<ul style="list-style-type: none"> • Number of EE/RES investments; 	<p>After the subject training the number of EE/RES projects financed by BOG is to be increased as a result of the increased speed of identifying and processing EE/RES.</p> <p>Expected number of loans for six coming months - 4, for 2013 - more than 10</p>
	<ul style="list-style-type: none"> • € invested; 	<p>As the training is expected to increase awareness of bankers in the field of energy efficiency, the number of projects financed will increase, causing subsequent increase in the utilization level of our facilities from IFIs in this field.</p> <p>Expected amount of loans for six coming months - €500,000, for 2013 - approximately €1,200,000</p>
	<ul style="list-style-type: none"> • No of jobs created; 	<p>Expected number of jobs created for six coming months - 60, for 2013 - more than 100</p>

2. METHODOLOGY

The objectives were to improve the EE/RES investment climate and increase capitalization of EE/RES sector in Armenia. Building on the experience of the recent ITS Vienna combination banking workshop and study tour, this event made participants actively work to find solutions, not just listen. The Deputy Executive Director of the Converse Bank, who participated in Vienna, applied for this workshop in Armenia to train his bank's officers and cement its leading position in EE/RES banking.

Participants appreciated the workshop's connection to practical assignments that they had to carry out. Class discussions showed these bankers what to do under various conditions. Participants especially liked how Ruben Gevorgyan showed the application of sensitivity analysis to SE projects. There was active participation in Werner Weihs-Raabl's discussions on how SE similar business is done in the EU. The workshop helped to fill gaps in knowledge to help work with small hydropower plants, where Armenian banks are most active, and with other promising areas of RES (biogas, wind and solar).

In addition to lectures, USAID provided in-kind contributions of venue and catering.

3. ACTIVITIES

The most important activities of each day follow:

1st day

- TV coverage. (see appendix)
- Short quiz.



Larry Good, ITS Key Expert, giving TV interview about INOGATE Program and workshop objectives

Opening remarks by the Converse Bank and the INOGATE Technical Secretariat



2nd day

- Tools: Feasibility assessment of EE/RES projects using life cycle cost analysis, risk identification and evaluation, extensive data base on crucial parameters of projects and benchmarking.



Lecture on SE risk mitigation by SE banking expert Werner Weihs-Raabl



Lecture on financial modelling of SE projects by ITS finance expert Vahan Babajanyan



Participants following lectures



Stephen Strauss showing lending examples

3rd day

- EU experience in EE/RES banking
- How to structure a project, how to foresee and mitigate possible risks
- Sensitivity analysis & short practical exercise to apply it to a real RES project
- Group work
 - Group 1 – lighting (EE)
 - Group 2 – biogas (RES)
 - Group 3 – pumps (EE)
 - Group 4 – pre-insulated pipes (EE)



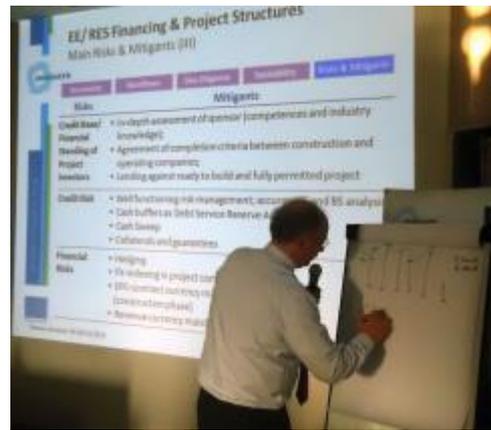
INOGATE Expert Vahan Babajanyan (c.) helping participants with group work



ITS coordinator Vladimir Ternitskiy (l.) helping groups calculate financial indicators

4th day

- Individual group presentations and discussions
- How to monitor projects
- Group work: preparing financing schemes, lending conditions and monitoring plans



*Werner Weihs-Raabl:
How to fix traps*



Participants presenting group exercise results

5th day

- Individual group presentations, discussion
- Final quiz
- Certificates
- Training the trainers



*Vahan Babajanyan:
How to fix traps*

4. PARTICIPANTS

Initially, the training was planned to be exclusively for the Converse Bank. Later several other banks wanted to join, showing growing interest in Armenia. Converse responded positively, and the group expanded.



Instructors Larry Good, Werner Weihs-Raabl and Stephen Strauss awarding certificates

5. INSTRUCTORS

The key instructor was Werner Weihs-Raabl, Head of Infrastructure Finance of Erste Bank, Austria. USAID instructors were Stephen Strauss, Chief of Party, Finance for Sustainable Development programme, experienced with EE/RES banking in several Central European countries, and Dr. Ruben Gevorgyan, Team Leader for Finance for Economic Development, and university professor of economics. ITS experts Vahan Babajanyan and Larry Good also instructed.

6. TESTING

ITS experts 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 the problems. The four new questions evaluated 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	48%
Correct answers at end of workshop	88%

4 ADDITIONAL QUIZ QUESTIONS	% correct answers
Correct answers at end of workshop	88%

7. TRAIN the TRAINERS SESSION

In the 2nd half of the last day, ITS conducted a train-the-trainers (TTT) session to work with future instructors. Eleven out of 31 stayed for TTT. The session focused extra attention on

1. Typical mistakes in financing EE/RES projects
2. Problems in monitoring SE projects
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 around 90% approval. The following tables summarize seminar quality:

A. Event content

Lectures	95%
Exercises	91%
Experts	98%
Help & guidance	95%
Discussions	65%
Translation	95%

B. Event organisation

Venue	95%
Meals	96%
Equipment	92%
Organization	94%

9. CONCLUSIONS

GENERAL

Most important is that participants plan to apply the new knowledge to their work in the future (Q 7) and that they intend to continue learning the subject (Q 9). Further, 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 (Q.8). One way is to apply international experience in evaluation of financial feasibility (Q.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 (Q.6). It led participants to find workable, alternative solutions in 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.