

ESCO Training

“Dynamic Investment Grade Calculation”

**Organised by Thai-German Programme on Energy Efficiency
Development Plan (TGP-EEDP)**

19-21 January 2016

Withthayu room, 2nd floor, Grande Centre Point Ploenchit Hotel, Bangkok, Thailand

▪ **Project Overview**

Under the Thai-German Programme on Energy Efficiency Development Plan or TGP-EEDP, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) is cooperating with the Energy Policy and Planning Office to contribute to the further development and support implementation of Thailand’s Energy Efficiency Development Plan (EEDP). The 3-year project is funded through the German Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety (BMU) and has officially started in May 2012 and will run until August 2016. The main project partners of TGP-EEDP include the Energy Policy and Planning Office (EPPO) and Department of Alternative Energy Development and Efficiency (DEDE). The TGP-EEDP Project aims at promoting the increase of energy efficiency in industry and building sectors by supporting the implementation of the EEDP which will have a direct impact on CO₂ emission reduction.

One of the seven core activities in the TGP-EEDP project focuses on supporting and enhancing the business of energy service companies or ESCOs. The development of ESCO market in Thailand is affected by several market barriers, e.g., lack of confidence in ESCO business, lack of information and low understanding of the EPC concept, relative low energy prices, access to financing and business risk for ESCOs (according to an overview report from The Wuppertal Institute for Climate, Environment and Energy (01/2014)).

To support the ESCO market development, so far TGP-EEDP had supported an 8-day intensive training for the members of the Thai ESCO Association in July 2014 and had conducted a fact-finding mission for ESCO facilitation approach in June 2014

to assess the feasibility of implementing the facilitator approach which could help overcoming the barriers. The results of the fact-finding mission and seminar indicated that the facilitator approach is seen as a means to systematically address and overcome essential market barriers for the development of ESCO markets in Thailand (BEA's final mission report, 28 August 2014).

To further support the ESCO market development, TGP-EEDP has contracted a German expert on ESCO market development, Mr. Jan W. Bleyl and Mr. Simon Zellner, to conduct 3-day training on Dynamic Investment Grade Calculation.

▪ **Objectives of the training**

- 1) Enable the participants to perform life/project cycle cost calculations;
- 2) Create knowledge on the basics of dynamic economic calculations for complex ESCO projects;
- 3) Give detailed introduction to a comprehensive ESCO calculation tool for Energy Performance Contracting (EPC) project;
- 4) Enable the participants to calculate and model own EPC project;
- 5) Improve the participants' skills for reporting to management, financing institutions and others.

▪ **Invited organisations for the training (maximum 30 persons):**

- Energy Services Company (ESCO)
- Financial Institutes
- Government agencies
- ESCO Facilitators

Remark:

Participants should have some knowledge on energy savings, ESCO business, economic and MS Excel program.

Training on Dynamic Investment Grade Calculation

19-21 January 2016

Tuesday 19 January : Training Day 1		
Time	Topic	Speakers
08.30-09.00	Registration	
09.00-09.10	Introduction to TGP-EEDP and the training	Dr. Milou Beerepoot Project director, GIZ/TGP-EEDP
09.10-09.40	Training goal, agenda and introduction to life cycle cost concept	Mr. Jan W. Bleyl Senior consultant and owner, Energetic Solutions
09.40-10.00	Personal introduction of participants, wishes and expectations for the training	All Participants
10.00-10.15	Coffee break	
10.15-11.30	Basics of dynamic economics calculation for ESCO/EE/RES projects	Mr. Jan W. Bleyl Energetic Solutions
11.30-12.00	Group work 1: Cost components and data sources of your projects	All Participants
12.00-13.00	Lunch	
13.00-14.30	- Calculation tool : Liability exclusion and NDA; - Introduction to calculation tool and manual focusing on savings model (EE) and RES; - Joint calculation of EE project examples	Mr. Jan W. Bleyl Energetic Solutions Mr. Simon Zellner GIZ/TechKoop
14.30-14.45	Coffee Break	
14.45-16.00	Group Work 2: Own Calculation + presentation & discussion of calculation example incl. financing ... Q&A	All Participants Mr. Simon Zellner Mr. Jan W. Bleyl
<i>agenda adjustments possible, subject to training needs</i>		
End of Training Day 1		

Wednesday 20: Training Day 2

Time	Topic	Speakers
08.30-09.00	Registration	
09.00-09.30	Summary of calculation tool and Q&A from previous day	Mr. Bleyl and all participants
09.30-10.30	Group work 3: Calculation of own EE projects	All Participants with support from Mr. Simon Zellner, Mr. Jan W. Bleyl
10.30-10.45	Coffee break	
10.45-12.00	Group work 3 (continue): - Presentation and discussion of the results, including KPIs, CFADS, financial engineering, parameter sensitivity, etc.; - Q&A	All participants with support from Mr. Bleyl, Mr. Zellner
12.00-13.00	Lunch	
13.00-14.00	- Manual and automatic sensitivity analysis with calculation tool	Mr. Jan W. Bleyl Energetic Solutions
14.00-14.30	- „Quickcalc“: Intro and PV example - Deepening of selected training topics based on participants project calculation examples, present and discuss.	Mr. Bleyl, Mr. Zellner and all participants
14.30-14.45	Coffee break	
14.45-16.00	Deepening of selected training topics (continue)	Mr. Bleyl, Mr. Zellner and all participants
<i>agenda adjustments possible, subject to training needs</i>		
End of Training Day 2		

Thursday 21: Training Day 3

Time	Topic	Speakers
08.30-09.00	Registration	
09.00-09.30	Summary of calculation tool and Q&A from Day 2	Mr. Bleyl and all participants
09.30-10.30	Group work 4: Project risks: Identification and mitigation	Mr. Bleyl and all participants
10.30-10.45	Coffee break	
10.45-11.30	ESCo calculation tool as management instrument for projects: Reporting, risk-sensitivity analyses, price development	Mr. Bleyl
11.30-12.00	- Wrap up discussion, your next steps toward investment projects; - Feedback on the training; - Q&A	All participants, Mr. Bleyl, Mr. Zellner
12.00-13.00	Lunch	

13.00-13.30	Financing of ESCO/EE/RES projects from a bank's perspective: Strategy, procedures, approval criteria ... Q/A	Mr. Ittiporn Intravisit Department Director Corporate Credit Product Dept. (CR) Thai Kasikorn Bank
13.30-14.00	ESCO Fund: strategy, procedures and approval criteria. Q/A	Mr. Anant Tapaneyasorn ESCO Fund Manager, Energy Conservation Foundation of Thailand
14.00-14.30	Revolving Fund: strategy, procedures and approval criteria. Q/A	Mr. Chetapong Chiralertpong Director of Energy Efficiency Promotion Division, Department of Alternative Energy Development and Efficiency
14.30-14.45	Coffee break	
14.45-15.30	Certificate ceremony and final remark	Dr. Milou Beerepoot Project director, GIZ/TGP-EEDP
<i>agenda adjustments possible, subject to training needs</i>		

Remarks:

1. Certificate of Attendance will be given to the participants who attend for not less than 80% of the total training time.
2. The final presentation and workshop materials will be available for online for download on **Friday 29th January 2016** at http://www.thai-german-cooperation.info/project/content/7_or_goo.gl/rwv53p