*ASEM Eco-Innovation Capacity Building Program for SMEs*

PROJECT CONCEPT FORM

**Project Title:** ASEM Eco-Innovation Capacity Building Program for 2017 ‘Sustainable energy management for SMEs’

‘Training of Trainers for energy efficiency in Vietnam’

# Objectives

* To aim to raise the Eco-Innovation awareness and strengthen SMEs green competitiveness
* To increase local capacity of energy efficiency by training energy experts in Vietnam

**Cooperating Partner:** SME Development Support Center 2 (SMEDEC2), Ministry of Science and Technology (MOST), Vietnam

# Background

The ASEM SMEs Eco-Innovation Center (ASEIC) has been providing customized consultation for eco- innovation enhancement in terms of improvements in energy efficiency and process management, along with dissemination of environmental management know-how to SMEs in Asia including Vietnam, the Philippines and Malaysia for several years. In 2017, ASEIC launched a capacity building program to raise awareness of SMEs on how they can enhance their competitiveness and bring eco-innovation perspectives in their products and management.

At the first meeting between SMEDEC2 and ASEIC in June 2017, the keen interest and willingness of SMEDEC2 in the improvement of energy efficiency has been recognized. Since the energy consumption of the industry sector accounts for more than 50% in Vietnam and energy demand is forecasted to triple over the next decade with potential industrial growth, energy efficiency has emerged as one of the important themes of eco-innovation. Through the capacity building workshop, ASEIC will introduce energy management for SMEs and provide a lecture-type seminar on energy management and emission trading systems. Also, knowledge sharing on measuring energy consumption using equipment and energy data management in the furniture and food & beverage sectors will be arranged. An additional, small-group Training of Trainers (ToT) seminar will be organized to facilitate the dissemination of eco- innovation know-how in Vietnam.

Through its eco-innovation capacity building program, ASEIC hopes to raise awareness on Eco- Innovation and share knowledge of relevant concepts and practices for SMEs by exploring various case studies.

# Expected Outcomes

* Improved eco-innovation capacity of SMEs
* Enhanced awareness on energy management of SMEs

**Program Outline (*Tentative*)**

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|  | **Day 1** | **Day 2** |
| Date | September 27 (Wed) | September 28 (Thu) |
| Venue | Candidate venue: TBD |
| Participants | (Morning) SMEs (Afternoon) SMEs, associations, gov.organization and trainers | SMEs, associations, gov. organizations and trainers |
| Target industries | Furniture and F&B industries | Furniture and F&B industries |
| Focus areas | Energy efficiency | Energy efficiency |
| Program type | (Morning) 80-100(Afternoon) 25-30 | 25-30 |
| Duration | 9 hours | 8 hours |

**Applied Modules**

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| EM 1 | Environmental Management | Why Eco-Innovation? |
| EE 1 | Energy Management | Introduction to energy consumption utility Energy management for sustainable development |
| EE 2 | Energy measurement basics |
| EE 3 | Measuring practice with equipment |
| EE 4 | Analysis of the result of measurement |
| EE 5 | Energy Management in industry |
| EE 6 | Energy Management in buildings |
| EE 7 | Energy audit basics |
| EE 8 | Reduction of energy for cost-saving |
| EE 9 | Self-energy management in workplace |
| EE 10 | Emission trading in South Korea |

**Program Draft (*Tentative*)**

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| **Day 1** |
| Ways to transform into an energy efficient enterprise for SMEs |
| Time | Area | Module | Course details | Lecturer | Format |
| 0820-0840 | Registration |
| 0840-0900 | Welcome Remarks from SMEDEC2 Opening Remarks from ASEIC |
| 0900-0930 | Environmental Management | EM 1 | Why Eco- Innovation? | * Introduction to eco-innovation
* Best practices of eco-innovation
 | ENP | lecture |
| 0930-1020 | Energy Management | EE 10 | Emission trading in South Korea | - Introduction to Emission trading and opportunities | ENP | lecture |

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| 1020-1110 | Energy Management | EE 8 | Reduction of energy for cost-saving | - Introduction to energy management | Ensign | lecture |
| 1110-1120 | coffee break |
| 1120-1210 | Energy Management | EE 9 | Self-energy management in workplace | - Good practices on energy reduction in Furniture and F&B industries | Ensign | practice |
| 1210-1330 | Lunch |
| 1330-1420 | (Tot) EnergyManagement | EE 1 | Energy management for sustainable development | * Introduction to energy consumption utility
* Energy management for sustainable development
 | Ensign | lecture |
| 1420-1510 | EE 2 | Energy measurement basics | * How to Use of various equipment for measuring?
	+ Electric Power Analyzer
	+ Ultrasonic Flow meter
	+ Illuminometer
	+ Infrared ray’s camera
	+ Combustion gas analyzer
 | Ensign | Group practice |
| 1510-1520 | coffee break |
| 1520-1610 | (Tot) EnergyManagement | EE 3 | Measuring practice with equipment | - Practice for measuring basic parameters of the power flow, conductors, etc | Ensign | Group practice |
| 1610-1700 |

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| **Day 2** |
| Towards the realization of sustainable energy management for SMEs in Vietnam |
| Time | Area | Module | Course details | Lecturer | Format |
| 0900-1040 | (Tot) EnergyManagement | EE 4 | Analysis of the result of measurement | - Calculate the measured value and analyze the result of measurement data | Ensign | Group practice |
| 1040-1100 | coffee break |
| 1100-1150 | (Tot) EnergyManagement | EE 7 | Energy audit basics | * Program for the rationalization of consumption
* Case study on energy auditing
 | Ensign | lecture |
| 1150-1310 | Lunch |
| 1310-1400 | (Tot) EnergyManagement | EE 5 | Energy management in industry | * Methodology and general considerations
* Motive power, reactive power, peak power control systems, cogeneration systems
 | Ensign | lecture |

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| 1400-1450 |  |  |  | * Cost saving opportunities in Fans, pumps, compressors and lighting
* Good practices for energy management in industry
 | Ensign | lecture |
| 1450-1510 | coffee break |
| 1510-1600 | (Tot) EnergyManagement | EE 6 | Energy management in buildings | * Methodology and general considerations
* Heating ventilation and air conditioning system
 | Ensign | lecture |
| 1600-1650 | * Office equipment and lighting
* Energy management in buildings
 | Ensign | lecture |

※ Ensign: As a leading energy-auditing service company in South Korea, Ensign is committed to energy audit, ESCO(Energy Saving Company) project, greenhouse gas reduction MRV(Monitoring, Reporting and Verification), climate change response consultations, energy monitoring system, CDM/Off-set and energy management consultations.