



# Training Workshop for ESCOs on Energy Efficiency (EE) Financing in India



20 - 21 JUNE 2019 - BHUBANESWAR



## 1. ABBREVIATIONS

SL. No	Abbreviation	Extended Form
1.	BEE	Bureau of Energy Efficiency
2.	CC	Climate Change
3.	DPR	Detailed Project Report
4.	EE	Energy Efficiency
5.	EEFP	Energy Efficiency Financing Platform
6.	ESCO	Energy Service Company
7.	ESPC	Energy Savings Performance Contract
8.	EU	European Union
9.	FI	Financial Institution
10.	GHG	Green House Gases
11.	GoI	Government of India
12.	IBA	Indian Banks Association
13.	IFC	International Finance Corporation
14.	IREDA	Indian Renewable Energy Development Agency
15.	IRR	Internal Rate of Return
16.	M&V	Measurement and Verification
17.	SDA	State Designated Agency
18.	NBFC	Non-Banking Financial Corporation
19.	NDC	Nationally Determined Contribution
20.	PRGFEE	Partial Risk Guarantee Fund for Energy Efficiency
21.	RE	Renewable Energy
22.	SDA	State Designated Agency
23.	SIDBI	Small Industries Development Bank of India
24.	SME	Small and Medium Enterprises
25.	ToT	Training of Trainers
26.	VCFEE	Venture Capital Fund for Energy Efficiency
27.	WBG	World Bank Group



## 2. OVERVIEW

Energy Efficiency (EE) has emerged as one of the major resources, a viable and the most cost effective solution to meet escalating energy demand in India. EE measures helps in meeting the energy demand without further addition of generation capacities but instead exploring opportunities of doing demand side management. EE measures have three-fold benefits – they are cost-effective, increase energy security and mitigate greenhouse gas emissions.

In India, the Industries (Large and Small and Medium Enterprises (SMEs)), the Buildings (Commercial and Government) and the Municipalities consume around 50% of the total electricity consumption. There exists substantial energy saving potential in these sectors by adopting EE technologies. The Bureau of Energy Efficiency (BEE) estimates that more than INR 1,50,000 crores investment potential exists in EE implementation out of which INR 56000 crore of investment potential exists with the Industries, Buildings and Municipality sectors alone.

A significant EE potential is left untapped in India and ESCOs are the main vehicle to harness this potential, however the ESCO market is yet to take up. After consultation with various stakeholders, it has been identified that the ESCOs face many barriers like financing, Measurement & Verification (M&V) issues and contract disputes etc. In order to address these barriers, BEE has been taking various initiatives and had launched training programs for commercial banks under its Energy Efficiency Financing Platform (EEFP) in June 2015 (to address the supply side barriers of EE financing).

After taking many initiatives on supply side of EE financing, BEE with technical support from IFC is organizing out capacity building workshops for ESCOs on EE financing (demand side of EE financing) across 5 locations in India.



### 3. TRAINING WORKSHOP IN BHUBANESWAR

BEE in collaboration with the State Designated Agency (SDA) - Odisha organized “Training Workshop for ESCOs on EE Financing” on 20 and 21 June, 2019 in Bhubaneswar, Odisha. IFC extended the technical support to the workshops, as part of IFC’s Eco-Cities program in India, supported by the European Union (EU).

The two-day training workshop provided a broader perspective of the ESCO market dynamics, its assessment process, upcoming areas of the Energy Efficiency sector, Measurement and Verification (M&V) protocols, the recent initiatives of BEE and other organizations to support EE financing and technical and financial appraisal of an EE project.

In order to provide practical exposure to participants regarding EE projects executed through ESCO, visit to manufacturing facility of Odisha Milk Federation was undertaken to showcase EE interventions. The workshop also included quiz, assessments and activity sessions for the participants to assess their knowledge of the subject. The following modules were covered as part of the workshop –

- Module 1: Introduction to ESCO Market
- Module 2: ESCO Assessment Process and ESCO Case Studies
- Module 3: Emerging areas in EE and M&V protocols
- Module 4: Introduction to EE financing
- Module 5: EE financing scheme - BEE initiatives
- Module 6: EE financing scheme - Other initiatives
- Module 7: EE Project- Technical Appraisal
- Module 8: EE Project- Financial Appraisal

The workshop conducted in Bhubaneswar was attended by 48 participants from different ESCOs, Energy Auditing companies, Accredited Energy Auditors, Certified Energy Auditors and professionals who wish to start their own companies to undertake EE interventions.

The workshop in Bhubaneswar was fourth of the five workshops BEE intends to conduct for capacity building of the energy sector professionals especially ESCOs. BEE had conducted the other three workshops in New Delhi, Mumbai and Bengaluru in 2018 and will conduct one similar workshop in Chennai over the course of next two to three months.

## 4. BHUBANESWAR – WORKSHOP PROCEEDINGS



### 4.1. INAUGURAL SESSION

The workshop was inaugurated by Ms. Pravatanalini Samal, Joint Director, BEE in the presence of Mr. Sriraj Kumar Mishra, Engineer-in-Chief, SDA – Odisha, Mr. Santosh Das, Chief Engineer, SDA Odisha, Mr. Hari Govindarajan, Consultant, International Finance Corporation; and Mr. Amresh Kumar Ray, Project Engineer, BEE.



### Mr. Santosh Das, Chief Engineer, SDA - Odisha



Mr. Das welcomed the distinguished guests, eminent speakers, ESCOs, Energy Auditing firms, Energy Auditors and other stakeholders to the workshop. He thanked BEE and IFC for their support in organizing the workshop. He highlighted the potential of EE Financing in the state of Odisha and Eastern part of India. He highlighted on the climate change vulnerabilities that the state has been facing and how initiatives like energy efficiency can combat such challenges. He requested all participants to take these platforms to share knowledge and bring in solutions on energy efficiency.

### Mr. Hari Govindarajan, Consultant, International Finance Corporation (IFC)



Mr. Hari shared the climate change programs carried out by IFC and WB. He discussed about the WBG investments in Climate Change (CC) and their future plans. He highlighted about IFC's Eco-Cities program that is been implemented in partnership with European Union (EU). He also listed various initiatives taken by IFC on EE financing. He discussed in detail about global ESCO market specifically on How China ESCO market has been successful in harnessing EE potential of China. He invited ESCOs to replicate the success of ESCOs across the world in India as well and hoped that the workshop will help them have better understanding and prepare them better for their business as well as for their financing requirement.

### Mr. Sriraj Kumar Mishra, Engineer in Chief, SDA-Odisha



Mr. Mishra thanked BEE and International Finance Corporation for conducting the workshop in Bhubaneswar. He appreciated participants from ESCOs, Accredited and Certified Energy Auditors and Energy Efficiency professionals for taking out their valuable time for the workshop. He shared various the initiatives taken by SDA-Odisha for promoting EE projects in the state. He mentioned that more schemes and awareness need to be created on financing of EE projects in the Eastern part of India. He assured that SDA - Odisha would provide all possible help to ESCOs and professionals in EE sector in developing ESCO market in the state.

### Ms. Pravatanalini Samal, Joint Director, Bureau of Energy Efficiency

Ms. Samal, Joint Director, BEE thanked the distinguished guests, eminent speakers, ESCOs, Energy Auditing firms, Energy Auditors and other stakeholders for attending the workshop. She shared that there is significant energy efficiency potential in India which is yet to be tapped and ESCOs are the main vehicle to harness this huge potential. She shared various initiatives of BEE for promoting ESCO market in India and also briefed the participants about various EE financing schemes available in India. She shared Global ESCO market scenario and key lessons which can be utilized for promoting ESCO market in India. She requested energy auditing companies to get empaneled with BEE and shared the benefits of empanelment.



### Mr. Amresh Kumar Ray, Project Engineer, BEE



Mr. Ray acknowledged the valuable information shared by all the dignitaries. He shared the initiatives taken BEE in developing the ESCO market. He thanked the dignitaries for the highly useful insights on ESCO market.



## 4.2. TECHNICAL SESSION

### Day 1:

#### **Module 1: Introduction to ESCO Market: National and International Experience**

**By – Ms. Pravatanalini Samal, Joint Director, BEE**



The first module “Introduction to ESCO Market: National and International Experience” presented by Ms. Pravatanalini Samal, Joint Director, BEE. She emphasized the importance of efficient management of energy resources in order to achieve sustainable economic growth. She started her presentation highlighting the NDC goals of India related to energy efficiency and GHG emissions. She discussed about various schemes and programmes of BEE which promotes EE implementation and financing. She discussed on ESCO market scenario in India and various business opportunities for ESCOs. She appraised the audience by highlighting on the ESCO market scenario like market potential, revenues, type of ESCO projects, policies and programs promoting ESCO market etc., of various countries like China, US, South Korea etc. She also discussed in detail the key lessons (on ESCO market promotion) from these countries. She highlighted various BEE initiatives for

promoting ESCO market in India.

#### **New initiatives of IFC and BEE for ESCO market development**

**By - Mr. Hari Govindarajan, Consultant, International Finance Corporation**

Mr. Hari Govindarajan, IFC, enlightened the participants by highlighting the importance of Climate Change- the opportunities and the associated climate risks which are becoming more apparent. He mentioned that India has great potential as almost 22% of total GHG emission reduction opportunities exist in India. He discussed on various programs/ activities carried out by IFC on energy efficiency. He informed the participants about their collaboration with BEE for improving the accessibility to EE finance, creating the necessary awareness and training of FIs, providing technical assistance to FIs for supporting EE projects like developing EE financing toolkit. He explained in detail IFC initiatives for promoting ESCO market in India.





## Module 2: ESCO Assessment Process and ESCO Case Studies

By – Mr. Chandan Roy, Program Manager, Frost & Sullivan India Pvt. Ltd.



Mr. Roy initiated the discussion with the audience on benefits of ESCOs getting empanelled with BEE. As part of his presentation, he apprised on the ESCO empanelment process and frameworks that are getting used for the empanelment which will help aspiring ESCOs to get the empanelment.

He also highlighted on the different criteria that the rating agencies apply which assessing ESCOs and grading them.

## Module 3: Emerging areas in EE and M&V protocols

By – Mr. Devinder Singh, Managing Director, Indona Innovative Solutions



The technical session on “Emerging areas in EE and M&V protocols” was presented by Mr. Devinder Singh, Managing Director, Indona Innovative Solutions. Mr. Singh initiated the session by providing details on market opportunities for ESCOs. He shared various ESCO opportunities in sectors like Large industries, MSMEs and Buildings. He discussed in detail few successful ESCO case studies.

He shared details on M&V protocols for ESCO projects and highlighted the need and benefits of M&V. He explained different aspects of M&V like cost associated, methodologies, and the options available etc., He concluded the session by sharing details on M&V plan and associated risks.

## M&V of energy performance & its usefulness for deemed saving calculation for ESCO

By – Mr. Bibhu Swain, Senior Consultant, Powertech Consultants



The technical was taken by Mr. Swain, where he shared his experiences of working with Energy Efficiency Services Limited on different EE projects and how M&V has resulted in huge benefits for customers. He highlighted case studies on energy efficient motors used in Surat textile sector and savings. He also shared case studies on solar lighting. He also shared that how M&V helps in shaping the ESPCs better.

## Visit to EE projects implemented by Odisha Milk Federation, Bhubaneswar

A site visit was arranged to Odisha State Milk Federation (OMFED), Bhubaneswar which has successfully implemented EE projects financed through SDA-Odisha.

The OMFED officials explained in detail about the milk production process and EE interventions implemented in their plant. The participants were then taken to the various departments where EE interventions were implemented or under implementation. The OMFED personnel explained how energy cost plays an important role in total production cost. They further explained about various EE interventions implemented/ under implementation. They shared that a monthly savings of INR 7.52 lakhs is already being achieved through EE project implementation in Phase 1 and he further shared that INR 28 lakhs per month is expected to be saved after completing the Phase 2 of EE implementation. He thanked Odisha SDA for financing the EE projects through their revolving fund. After witnessing successful implementation of EE projects in Bhubaneswar unit, they informed that the other units of OMFED are also planning to undertake EE interventions.



## **Day 2:**

### **4.2. TECHNICAL SESSION (CONTINUED)**

#### **Module 4: Introduction to EE Financing**

**By – Mr. Joseph Prakash, Associate Director, Meghraj Capital Advisors Private Limited**

The technical session on “Introduction to EE Financing” was presented by Mr. Joseph Prakash, Associate Director, Meghraj Capital Advisors Private Limited. He started the session highlighting details on various global instruments for ESCO financing. He discussed in detail on Loan instruments like Soft loans, infrastructure funds, EE funds, Risk Sharing funds etc., Bond instruments like Green Bonds, Secondary market Bonds and also Maintenance instruments like Energy Service Agreements, On-bill financing, Property Assessed Clean Energy Financing etc. He also provided details pertaining to EE Financing in context to Indian ESCO market and discussed in detail various EE financing options available for ESCOs in India.



#### **Module 5: EE financing schemes – BEE’s initiatives**

**By – Mr. Amresh Ray, Project Engineer, BEE**



The technical session on “EE financing schemes – BEE’s initiatives” was presented by Mr. Amresh Ray, Project Engineer, BEE. He discussed in detail about the Partial Risk Guarantee Fund for Energy Efficiency (PRGFEE) including the objectives, benefits, application process etc., He highlighted the fund features viz. the institutional structure of the fund (lenders, implementing agency, verifier and borrower), minimum eligibility of the borrowers and projects/sectors which are eligible to apply for risk fund. He also elaborated on the size and feature of EE loans that can be guaranteed by PRGFEE. He further discussed on technical & financial evaluation process of PRGFEE. In a thoroughly interactive session, he replied to various queries of the participants on PRGFEE and requested ESCOs to utilize PRGFEE scheme.

## Module 6: EE financing – Other initiatives

By – Mr. K V Kiran Kumar, Senior Technical Expert, SIDBI



The technical session on “EE Financing – Other Initiatives” was presented by Mr. KV Kiran Kumar. He discussed in detail about Partial Risk Sharing Facility (PRSF) scheme for EE projects. He shared the objective of PRSF, its components, risk coverage offered under PRSF. He detailed out the Institutional Framework of PRSF highlighting roles of Project Execution Agency (PEA), Participating Financial Institutions (PFIs), ESCOs and the host. He provided details of Guarantee Fee structure under PRSF. He also shared few successful case studies of ESCO projects implemented under PRSF.

## Module 7: Technical Appraisal of EE Projects

By – Mr. K P Phillip, DGM, IREDA

Mr. K P Philip, DGM, IREDA presented the module on “Technical Appraisal of EE projects”. He discussed in detail about the various technical aspects of EE project appraisal. Mr. Philip elaborated about the possible EE projects in different sectors. He discussed in detail about the various documents/ information sources like DPR, Investment Grade Audit Report (IGAR), Technology/Equipment specifications, and Operations and Maintenance manuals, which should be referred for carrying out technical appraisal. He highlighted that the technical appraisal of EE projects should include a detailed evaluation of the products and technologies, assessment of energy savings calculation and consideration of risks and uncertainties and project implementation plan. He reiterated that it was important to comply with legal and environmental regulations. He explained in detail about the technical appraisal of EE projects by providing relevant case studies. In a thoroughly interactive session, he mentioned the challenges and ways of addressing it during technical appraisal of EE projects.



## Module 8: Financial Appraisal of EE Projects

By – Mr. Sunil Agrawal, Vice President, Tata Cleantech Capital Ltd.



An interactive session on "Financial Appraisal of EE projects" was presented by Mr. Sunil Agrawal, Vice President, Tata Cleantech Capital Ltd. He started the session by explaining the key elements in financial appraisal like project costs, financial parameters, financial structure, ESPC etc., of EE projects and also shared about the investment opportunities in EE sector. He highlighted to the ESCOs that comprehensive review of various agreements such as ESPC are carried out by the bankers while appraising projects. He discussed in detail the various financial risks and the mitigation measures that bankers undertake. He also shared the different types of loans (technology based and project based) available for EE projects. He also provided an overview of the loan security conditions of EE projects. He actively engaged the audience and shared insights on the typical challenges that bankers face during financial appraisal of ESCO projects. He concluded with highlighting the details ESCOs should

ensure while applying for financing of their projects.

## Interactive session on EE opportunities in Odisha

By – Mr. Santosh Das, Chief Engineer, SDA-Odisha



Mr. Das interacted with ESCOs, Energy Auditors and Industry Professionals and highlighted the amount of potential that the state of Odisha has in the context of Energy Efficiency. He said that it's a privilege to be selected as one of the Eco-cities and said that SDA-Odisha will extend its utmost support to effectively implement EE projects in Odisha.

He urged the participants to share knowledge amongst each other and bring in solution which will help the industry at large.

## EE Case Study- ESCO Experience

By- Mr. Pradipta Kumar Panigrahi, CEO, G-ON Energy Controls



Mr. Pradipta shared about his EE experience especially the ESCO experience. He shared various EE/ESCO projects implemented by his company in Odisha like EE lighting project (LED) in Odisha Legislative Assembly; Flyover bridge at Rajmahal Square, Bhubaneswar; Rail Sadan, Bhubaneswar; Odisha Judicial Academy, Cuttack; National Law University, Cuttack; etc. He also shared that the current EE projects have been financed by Oriental bank of Commerce.

He presented an innovative product termed as Self Illuminating LED based Solar Paver Blocks. The product is a unique combination of EE (LED) and Renewable Energy (Solar). The product uses solar energy for LED illumination. He mentioned that the product can be implemented in various places like railway stations, road intersections, highways, etc.

### Objective:

1. Energy Audits.
2. Automation
3. LED Lighting Solution.
4. Technical Up gradation.
5. Lighting Designs & Simulations.
6. Trunkey basic Projects.
7. ESCO Projects.
8. Water management & monitoring system.
9. Conservation and optimization of natural resources.

### Energy service company (ESCO)

An **energy service company (ESCO)** is a commercial business providing a broad range of energy solutions including designs and implementation of [energy savings](#) projects, [retrofitting](#), [energy conservation](#), energy infrastructure outsourcing, [power generation](#) and [energy supply](#), and [risk management](#).

### Energy efficiency?

Energy efficiency means doing more with less: that is, squeezing as much useful power out of as little energy as possible, and not letting any go to waste.

### ESCO Financing Models:

- An ESCO charges the building owner a fee to deliver energy savings on the owner's utility payments.
- Savings are often guaranteed over a set period of time.

### BANKABLE PROJECTS:

- Industries Process
- Industries Common
- Smart Metering
- Water Management
- Smart City
- Smart Town
- Smart Playground
- Smart Bus Stand etc...

### New Innovative Product

**Self Illuminating PAVER BLOCKS for Outdoor Application:**

Comparison 400W HPSV Vs 200W LED Flood Light			
Existed 400W HPSV	No.	24	
Replaced by 200W LED Flood Light	No.	24	
Existed KW	KW	10.20	
Replaced KW	KW	4.80	
Saving in KW	KW	5.40	
Run hour /day	Hr	10.00	
Annual Energy Saved	KWh	16200.00	

### Savings Achieved



## EE Case Studies – Analytics for Energy Efficiency and Conservation

By - Mr Sayandeep Mohapatra, Director, iPredictCognitive Technologies Pvt. Ltd



Mr. Mohapatra shared details about his company and said that the company provides the next generation platform capability energy/utilities companies for a strong foundation on digital transformation and to become energy efficient. Mr. Mohapatra highlighted how these IoT based smart platforms will help clients in decision making and M&V from an EE project perspective. He highlighted some features of the products which will help companies in smart metering and analysis.

### 4.3 QUIZ

All the participants actively participated in the quiz round. The quiz questionnaires covered the learning on overall session and modules presented during the workshop. All the participants performed well in the quiz. The quiz results were announced at the end of the workshop and the top performers were honored with prizes.

The prizes were won by Ms. Jyotirmoyee Raj from NTPC Ltd., Mr. Anjan Majumdar from NU Energy India and Mr. A K Mohini from Energy Consultancy Services.





## 4.4 CONCLUDING SESSION

### Distribution of Certificates

The workshop concluded with Certificate distribution to all the participants.



### Vote of Thanks

Mr. Amresh Ray, Project Engineer, SDA - Odisha thanked the participants for sparing their time to be part of the workshop, and speakers for taking the time to share their experiences with the participants.

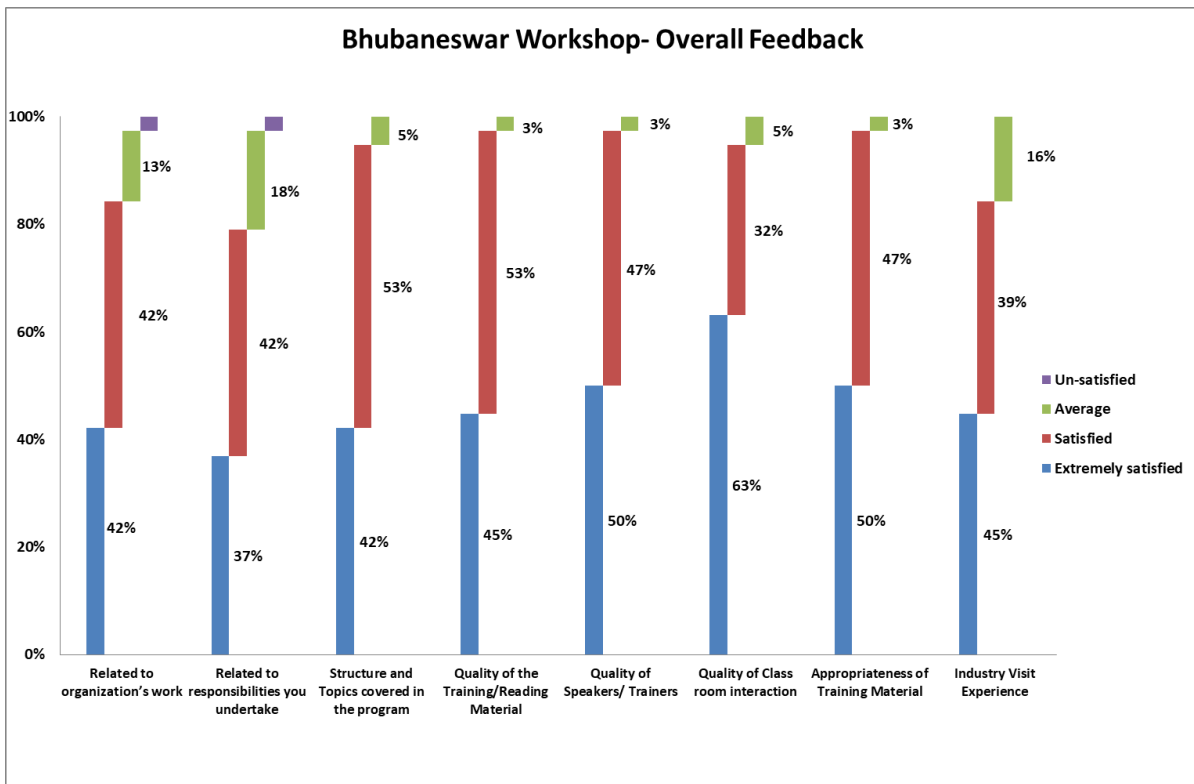
## ANNEX A – BHUBANESWAR WORKSHOP – FEEDBACK EVALUATION

The workshop in Bhubaneswar was attended by 48 participants from different ESCOs, Energy Auditing Companies and EE consultants etc.

The summary of the overall feedback of the workshop provided by the participants is given below:

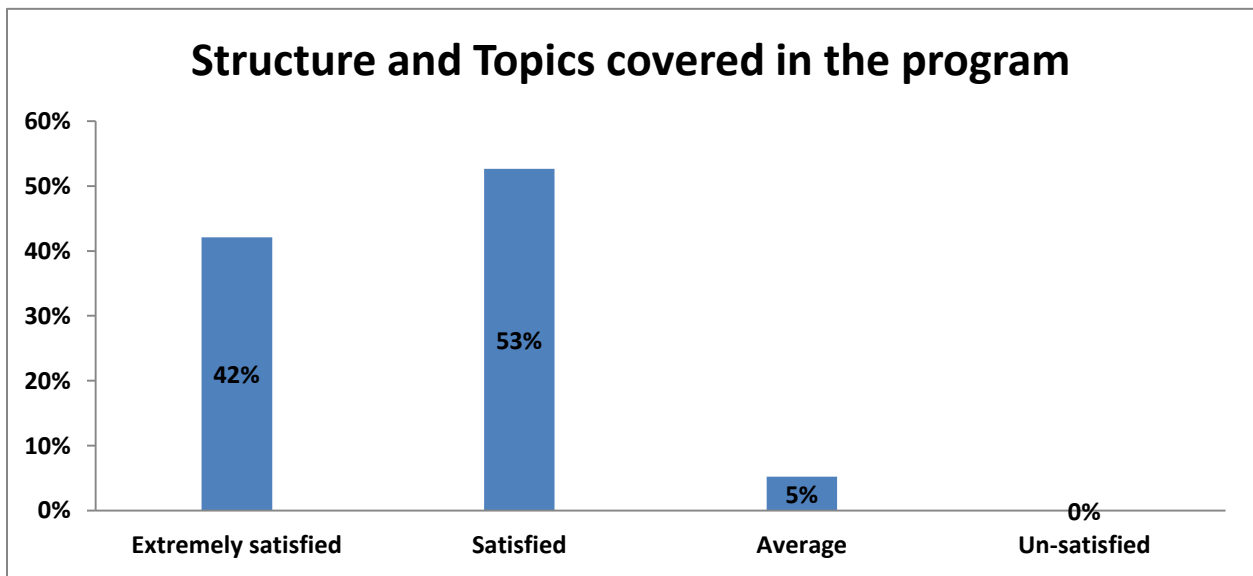
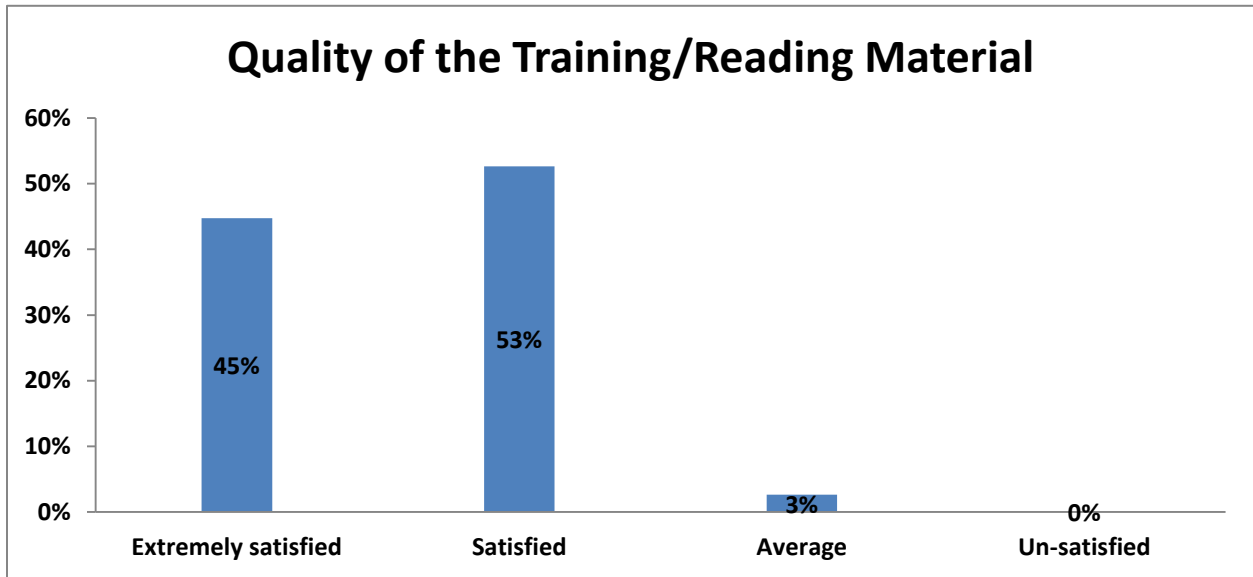
- ⇒ 84% of the participants rated the program high<sup>1</sup> on “Relevance of workshop to the organization”
- ⇒ 79% of the participants rated the program high on “Relevance of workshop to their work within the organization”
- ⇒ 95% of the participants rated the program high on “Structure of topics covered in the workshop”
- ⇒ 97% of the participants rated the program high on “Quality of training and reading materials”
- ⇒ 97% of the participants rated the program high on “Quality of Speakers/Trainers”
- ⇒ 95% of the participants rated the program high on “Quality of classroom interaction”
- ⇒ 97% of the participants rated the program high on “Appropriateness of training material”

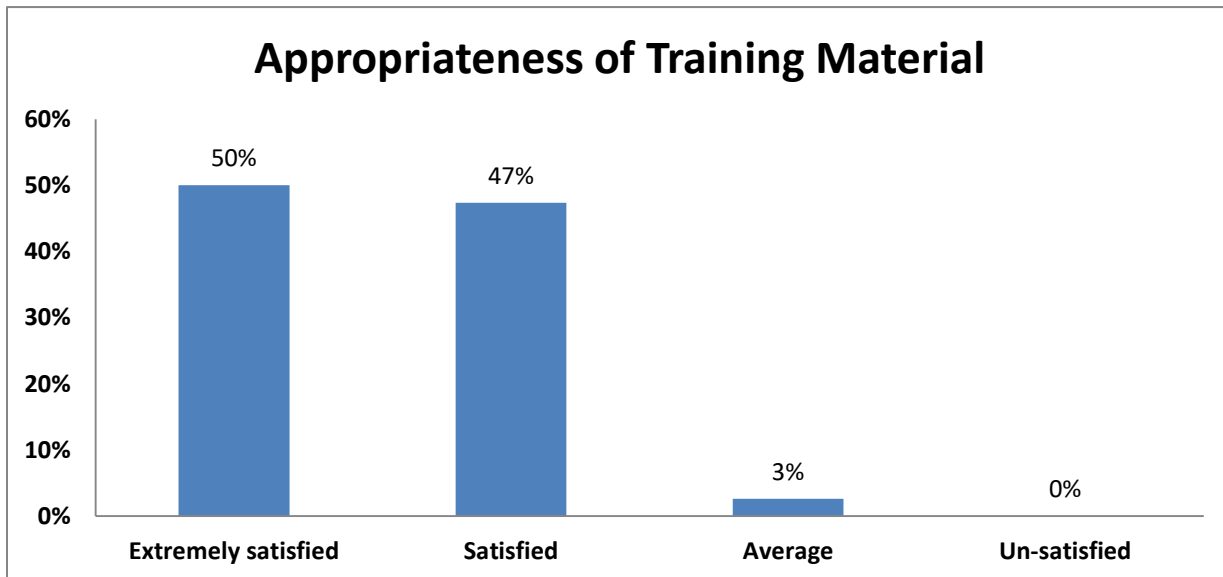
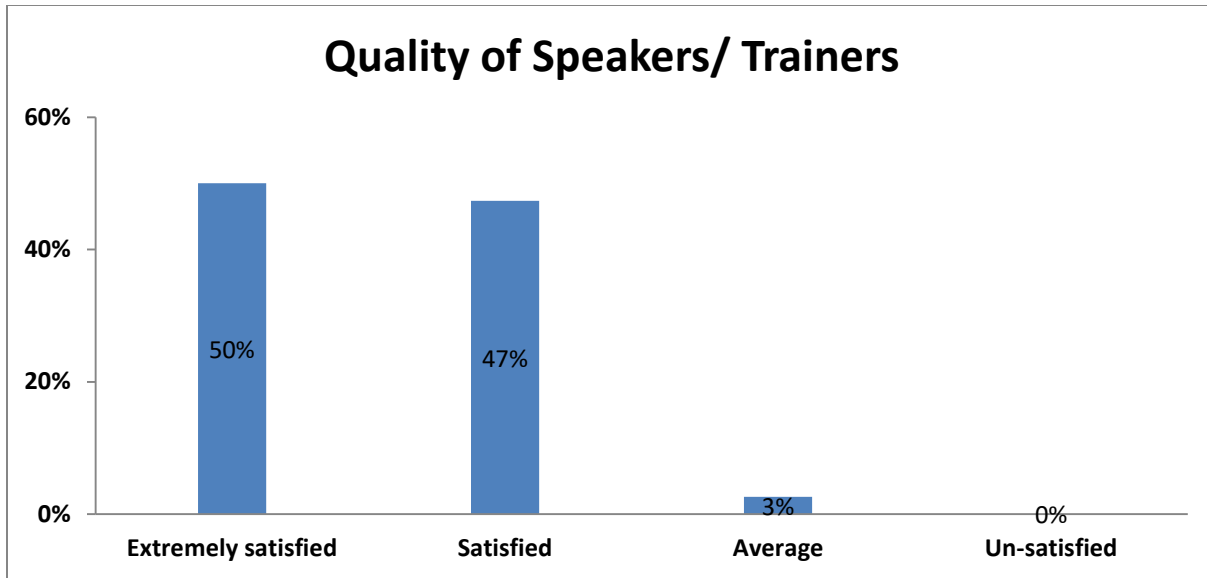
A summary chart of the above parameters are presented below

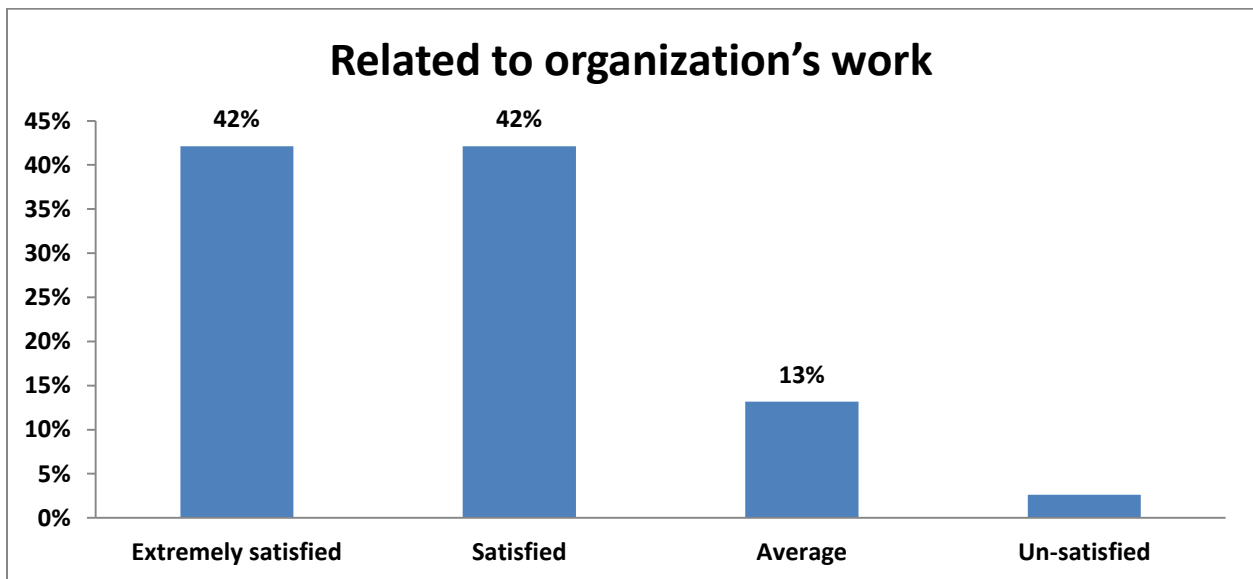
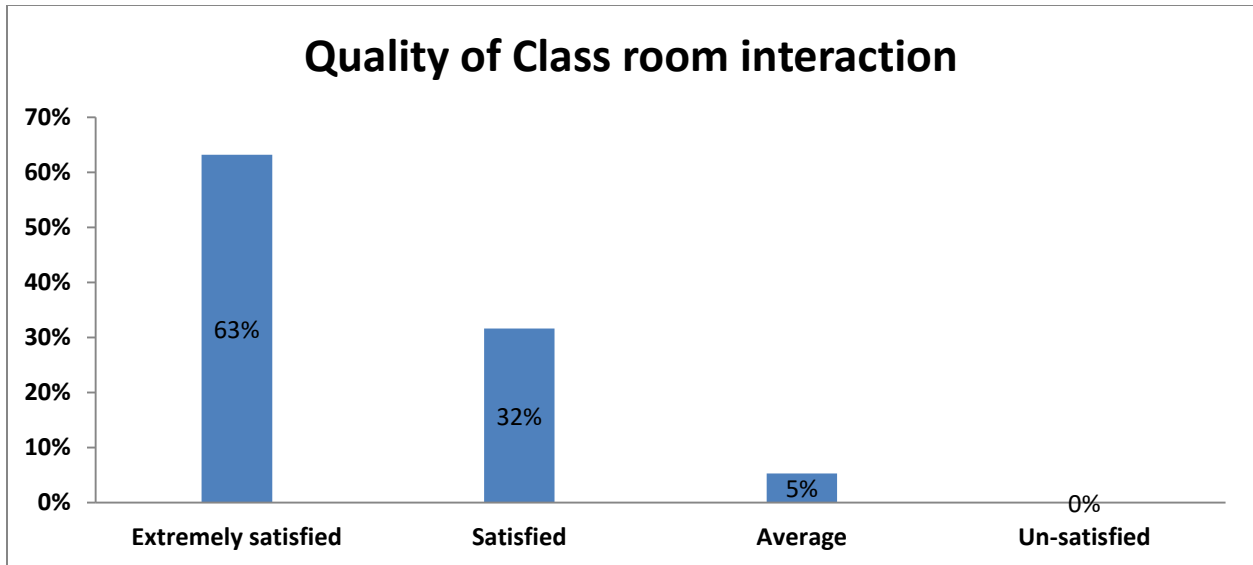


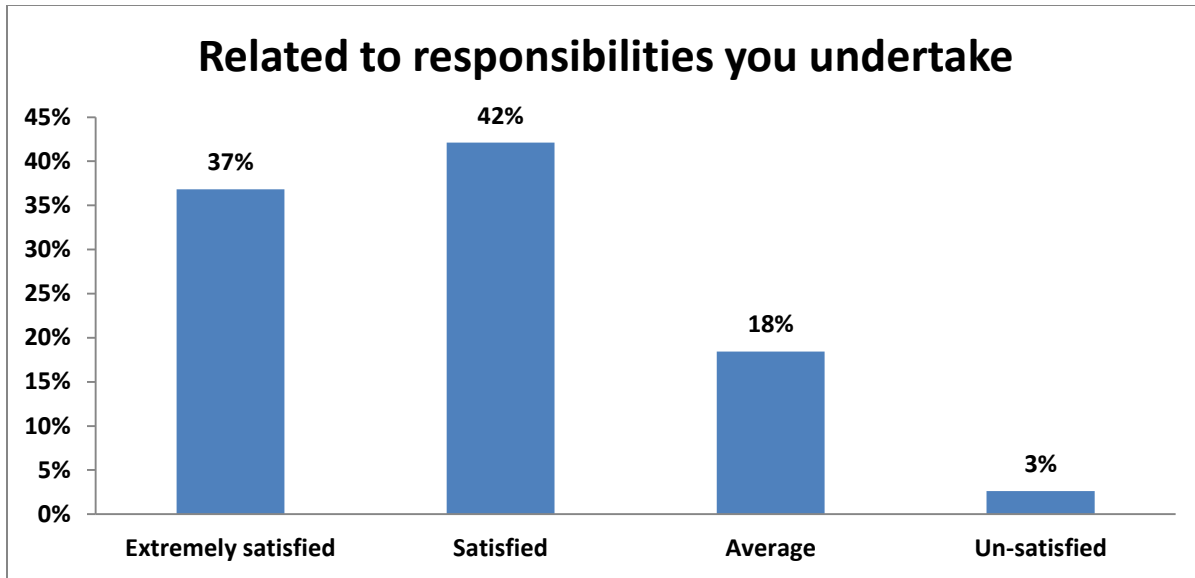
<sup>1</sup> Either “extremely satisfied” or “satisfied”

### Analysis of the Bhubaneswar ESCO Workshop





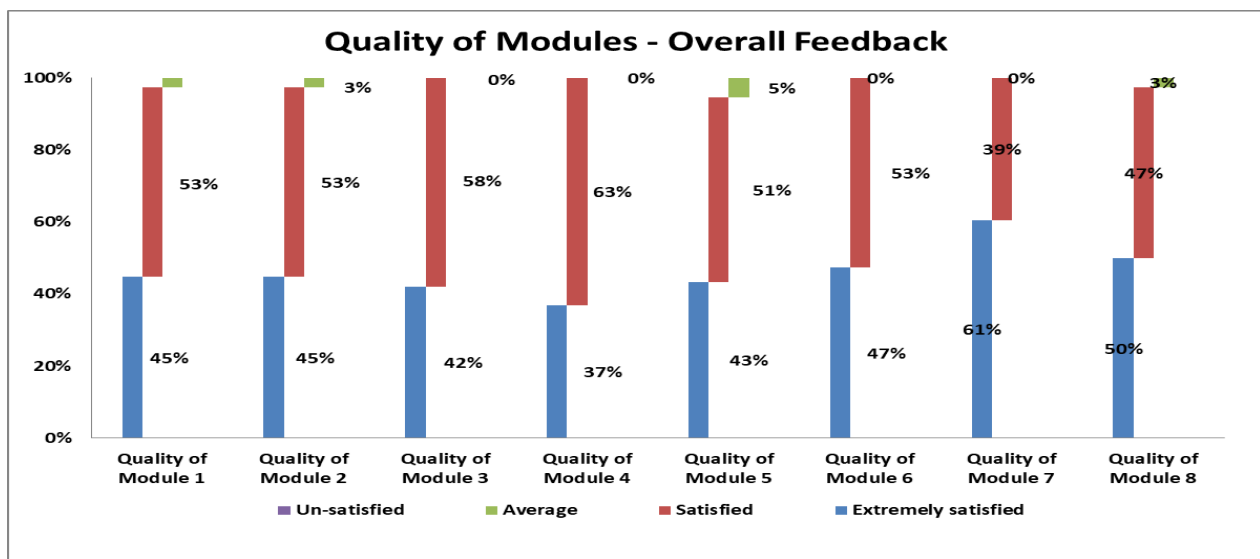


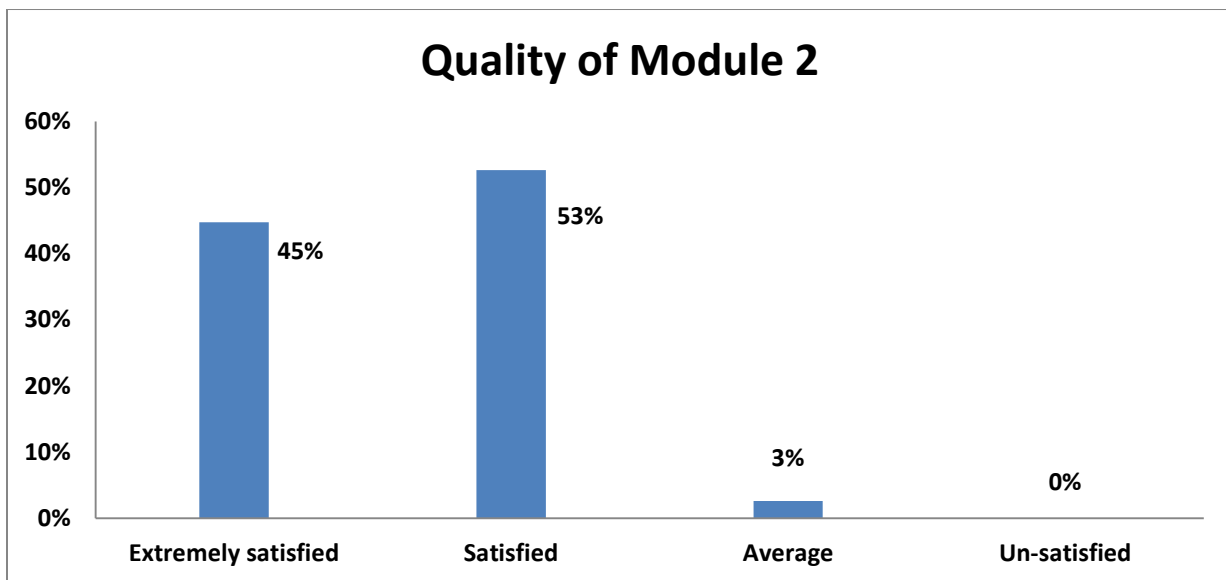
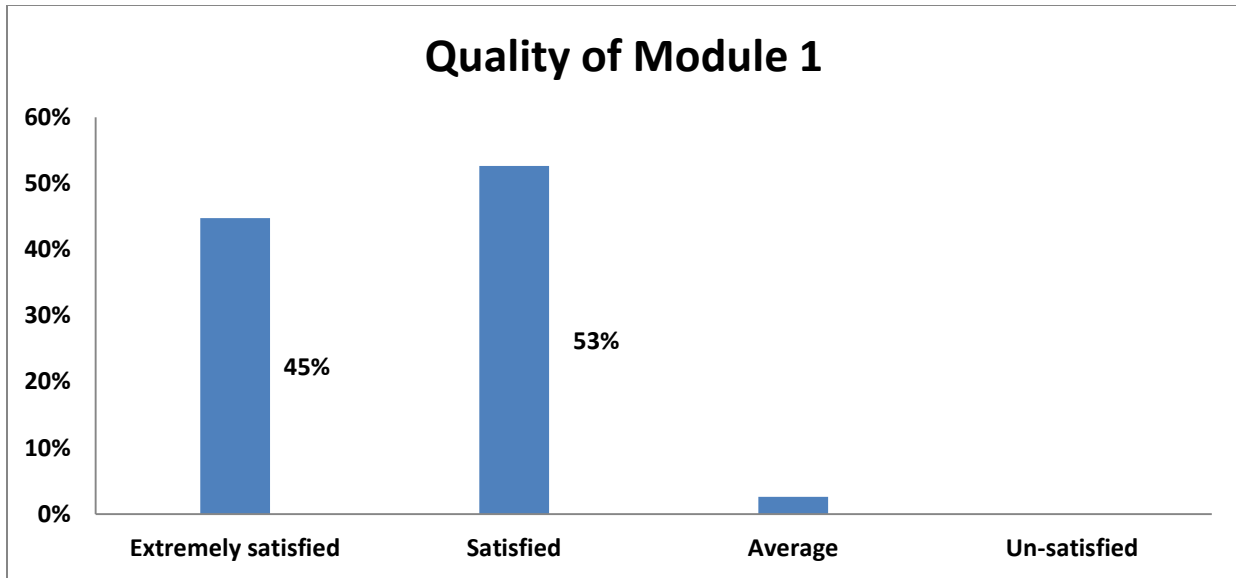


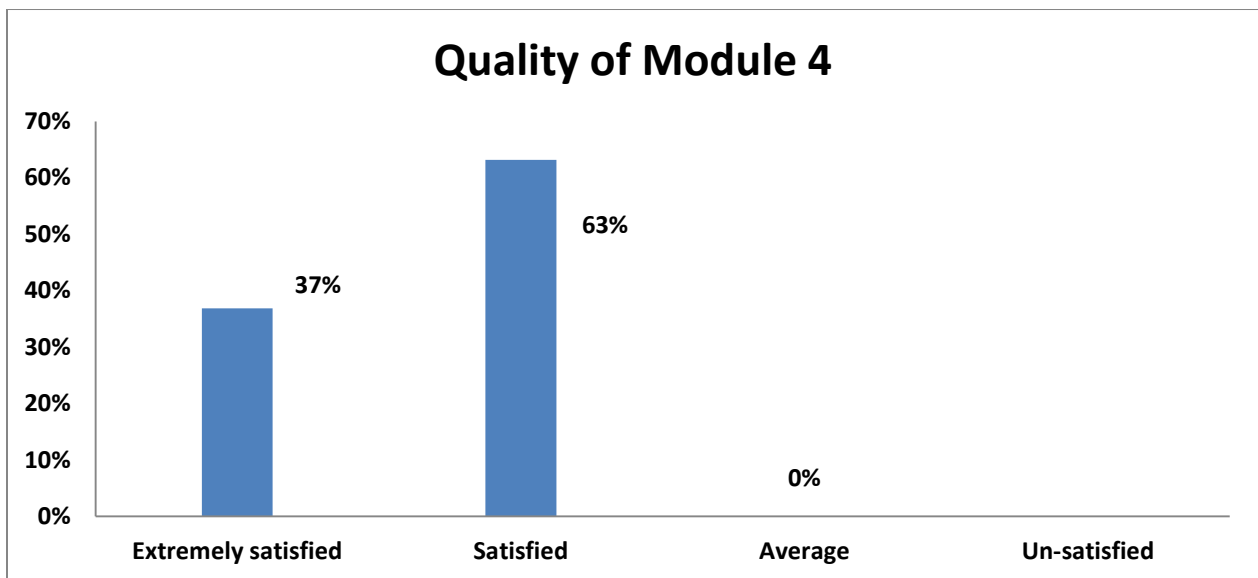
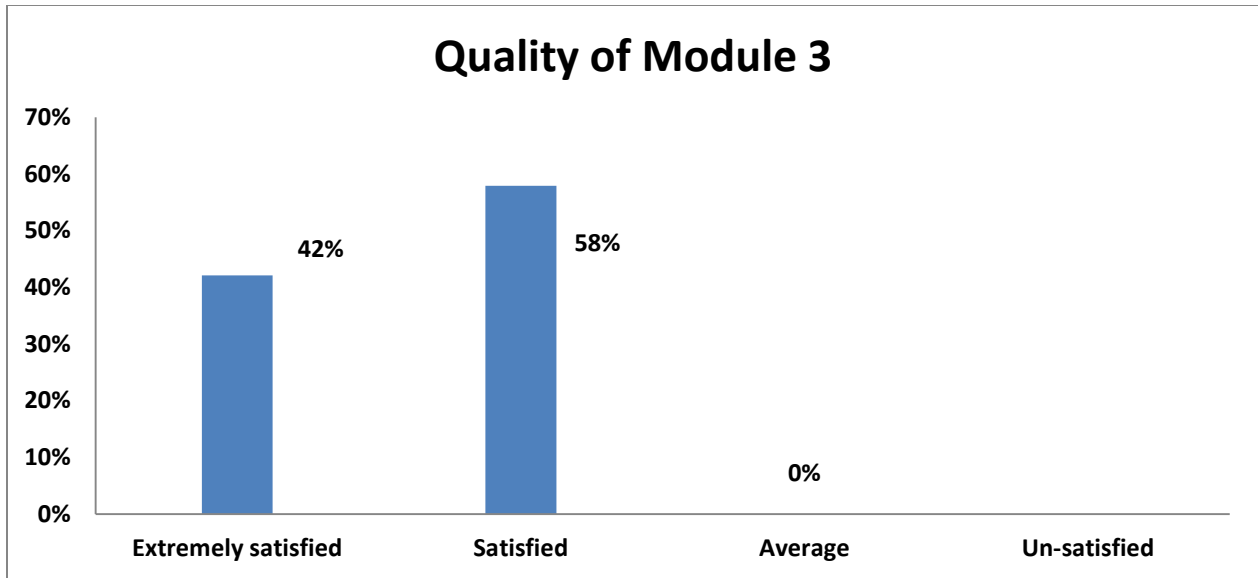
The workshop was imparted through 8 module sessions, covering –

1. Module 1: Introduction to ESCO Market
2. Module 2: ESCO Assessment Process and ESCO Case Studies
3. Module 3: Emerging areas in EE and M&V protocols
4. Module 4: Introduction to EE financing
5. Module 5: EE financing scheme - BEE initiatives
6. Module 6: EE financing scheme - Other initiatives
7. Module 7: EE Project- Technical Appraisal
8. Module 8: EE Project- Financial Appraisal

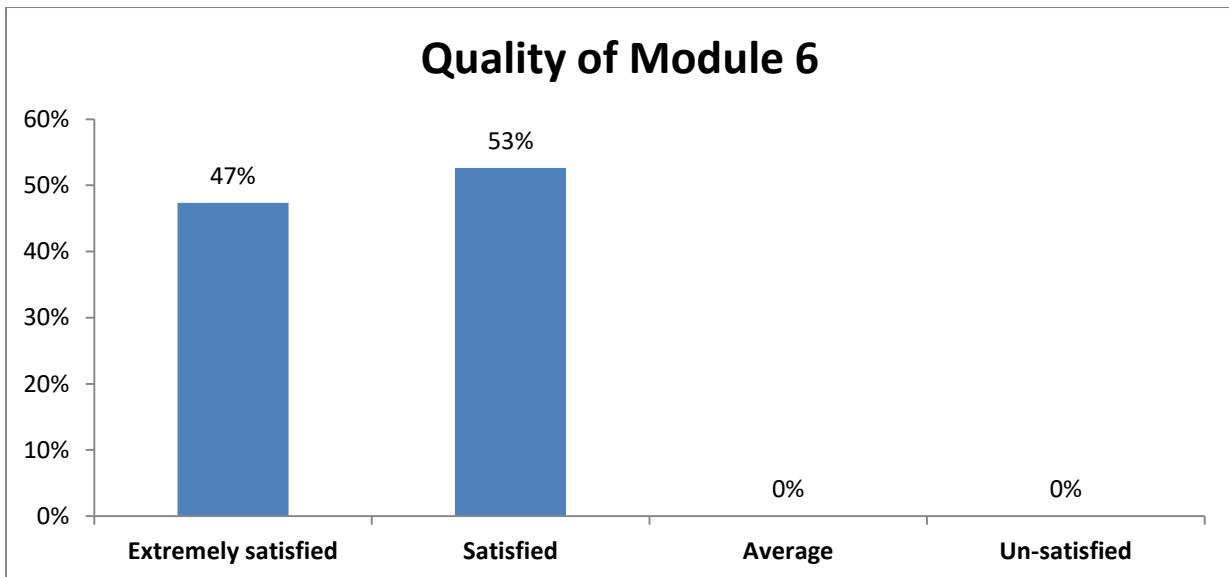
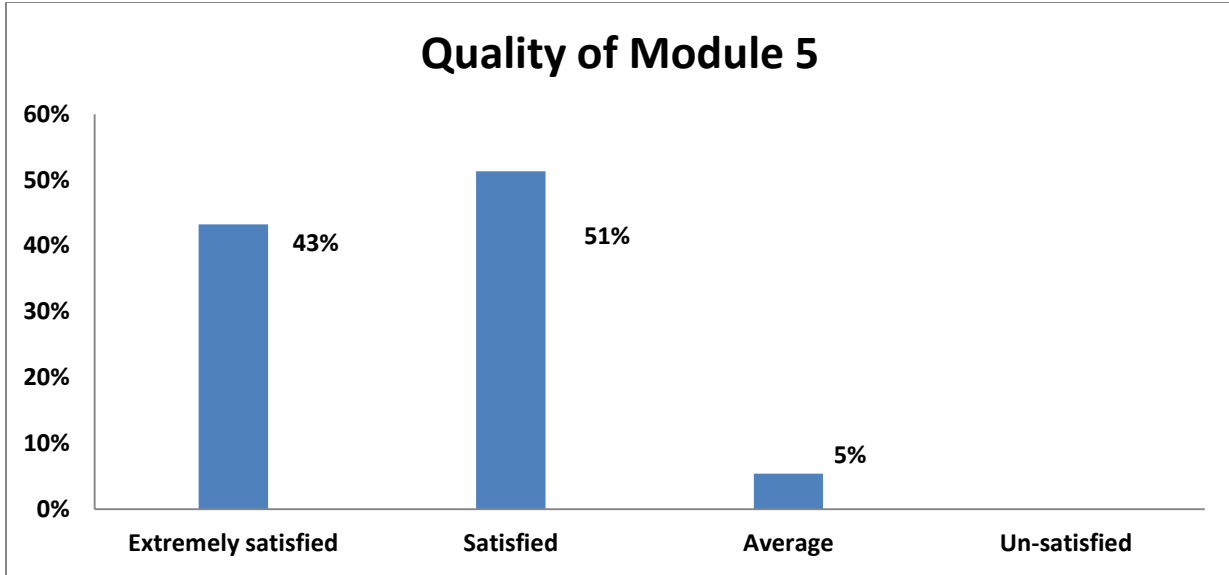
The summary chart of the feedback provided by the participants on all the training sessions delivered by the trainers / speakers is given below:

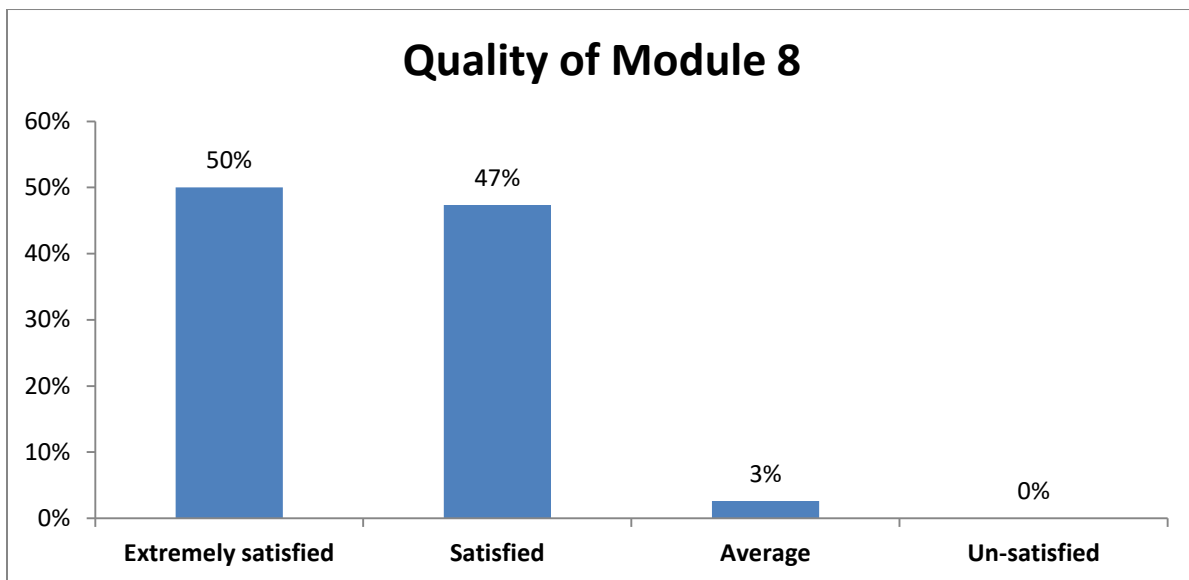
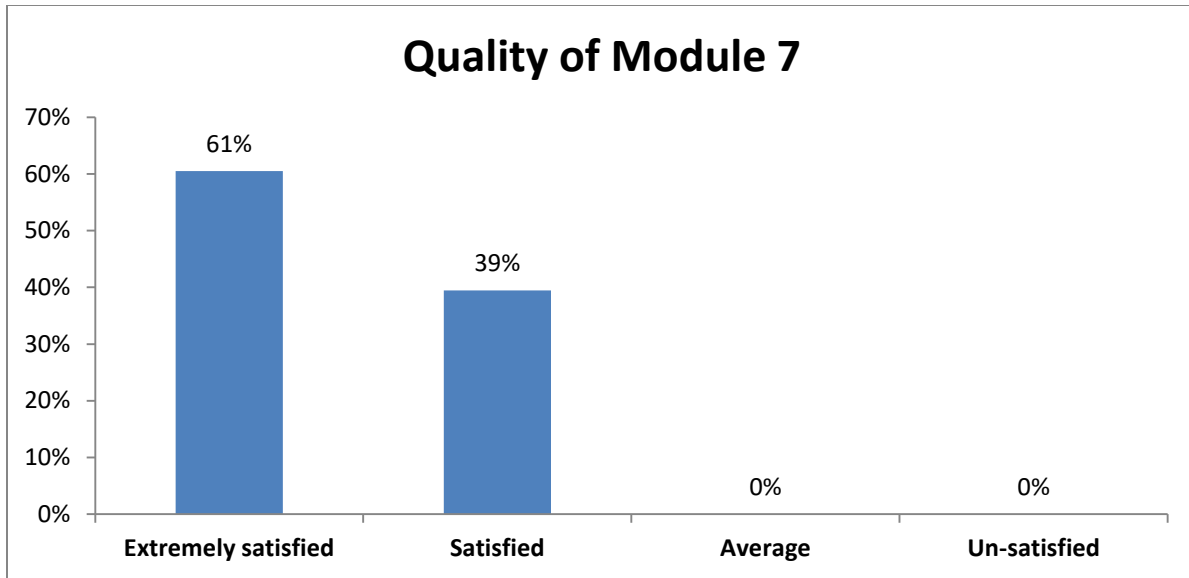


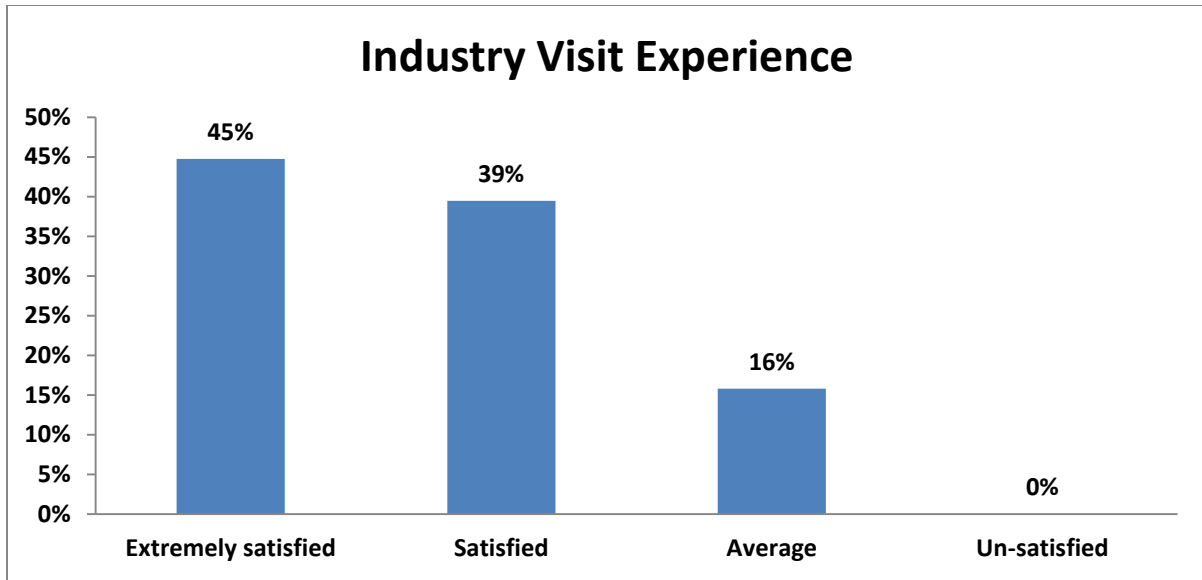














## Annex B – Bhubaneswar Workshop

### “Training Workshop for ESCOs on Energy Efficiency financing”

20 - 21 June 2019

#### Agenda

**Day-1 : 20 June, 2019**

**Venue : Hotel New Marrion, Bhubaneswar, Odisha**

Time	Topic	Speaker
09:30 AM - 10:00 AM	Registration	
<b>WELCOME SESSION</b>		
10:00 AM - 10:05 AM	Welcome Address	Mr. Santosh Das, Chief Engineer, SDA Odisha
10:05 AM - 10:10 AM	Special Address	Mr. Hari Govinrajan, Consultant, IFC, World Bank Group
10:10 AM – 10:15 AM	Keynote Address	Mr. Sriraj Kumar Mishra, Engineer in Chief, State Designated Agency (SDA) Odisha
10:15 AM - 10:20 AM	Inaugural Address	Ms. Pravatanalini Samal, Joint Director, Bureau of Energy Efficiency (BEE)
10:20 AM – 10:25 AM	Vote of Thanks	Mr. Amresh Ray, Project Engineer, BEE
10:25 AM – 10:45 AM	<b>Group Photograph followed by Tea</b>	
<b>TECHNICAL SESSION</b>		
10:45 AM - 11:30 AM	<b>Module 1:</b> Introduction to ESCO Market – National and International Experience	Ms. Pravatanalini Samal, Joint Director, BEE
11:30 PM – 11:45 PM	New initiatives of IFC and BEE for ESCO market development	Mr. Hari Govindrajan, Consultant, IFC, World Bank Group
11:45 AM - 12: 15 PM	<b>Module 2:</b> ESCO Assessment Process	Mr. Chandan Roy, Program Manager, Frost & Sullivan
12:15 PM- 01:00 PM	<b>Module 3:</b> Emerging areas in EE and M&V protocols, Baseline, Risk Mitigation	Mr. Devinder Singh, Managing Director, Indona Innovative Solutions
01:00 PM – 01:30 PM	M&V of energy performance & its usefulness for deemed saving calculation for ESCO in implementing energy conservation projects	Mr. Bibhu Swain, Senior Consultant, Power Tech Consultants
01:30 PM - 02:00 PM	<b>Lunch</b>	
02:00 PM – 06:00 PM	<b>Site Visit to Odisha State Milk Federation, Bhubaneswar</b>	



**“Training Workshop for ESCOs on Energy Efficiency financing”**

**20-21 June 2019**

**Agenda**

**Day-2 : 21 June, 2019**

**Venue : Bhubaneswar, Odisha**

<b>Time</b>	<b>Topic</b>	<b>Speaker</b>
10:00 AM - 10:30 AM	<b>Module 4:</b> Introduction to EE Financing	Mr. Joseph Prakash, Associate Director, Meghraj Capital Advisors Pvt. Ltd.
10:30 AM - 11:00 AM	<b>Module 5:</b> EE financing schemes – BEE's initiatives	Mr. Amresh Ray, Project Engineer, BEE
11:00 AM – 11:30 AM	<b>Module 6:</b> EE financing – Other initiatives	Mr. K V Kiran Kumar, Senior Technical Expert, SIDBI
11:30 AM – 11:45 AM	<b>Tea</b>	
11: 45 AM -12:30 PM	<b>Module 7:</b> EE Financing –Technical Appraisal	Mr. K P Phillip, Deputy General Manager, IREDA
12:30 PM – 01:15 PM	<b>Module 8:</b> EE Financing –Financial Appraisal	Mr. Sunil Agarwal, Financial Expert, Ex- VP of Tata Cleantech Capital
01:15 PM – 01:30 PM	Quiz	Coordinated by BEE & IFC
01:30 PM – 02:30 PM	<b>Lunch</b>	
02:30 PM – 03:00 PM	Interactive session on EE opportunities in states	Moderated by Mr. Santosh Das, Chief Engineer, SDA Odisha
03:00 PM – 03:30 PM	EE Case Studies – ESCO experience	Mr. Pradeepta Kumar Panigrahi , CEO, G-On Energy Controls
03:30 PM - 04:00 PM	EE Case Studies – Analytics for Energy Efficiency and Conservation	Mr Sayandeep Mohapatra, Director, iPredictCognitive Technologies Pvt. Ltd
04:00 PM - 04:20 PM	Distribution of Certificates & Quiz Prizes	Coordinated by BEE & IFC
04:20 PM- 04:30 PM	Vote of Thanks	SDA Odisha



### Annex C – Bhubaneswar Workshop – Participants

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### Annex D – Bhubaneswar Workshop – List of Organizers

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11	S Sahoo	SDA Odisha		
12	S Nayak	SDA Odisha		
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## Annex E – Bhubaneswar Workshop – List of Speakers

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# Training Workshop for ESCOs on Energy Efficiency (EE) Financing in India

