



JEITA

SUMMARY REPORT OF THE PROJECT

**JEITA ENERGY SAVING SOLUTION
INTRODUCTION COURSE
IN INDIA**

**SEPTEMBER 19TH AND 20TH, 2013
DELHI, INDIA**

SUBMITTED TO:

**Mr. SHOICHI INOUE
VICE PRESEIDENT AND GENERAL MANAGER,
INTERNATIONAL AFFAIRS DEPARTMENT
JAPAN ELECTRONICS AND INFORMATION TECHNOLOGY,
INDUSTRIES ASSOCIATION (JEITA)**

PRESENTED BY:

VASUDHA FOUNDATION

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Summary report of the Project
2013 Vasudha-JEITA Energy Saving Solution Introduction Course in India
September 19th and 20th 2013, India International Centre, New Delhi, India

I. Report Summary:

In partnership with Vasudha Foundation and with support from Dua Consulting, the Japan Electronics and Information Technology Industries Association (JEITA) organized a two day introduction course on energy efficiency and saving measures, titled, “Energy Saving Solution Introduction Course in India” at the India International Centre, New Delhi, India. The introduction course on energy efficiency was designed to introduce the concept of energy saving solutions for various industrial applications and to cater to the needs of representatives from industries, governmental institutions working on energy efficiency such as the Bureau of Energy Efficiency, energy consulting firms and others.

A total of 30 participants attended the programme on both the days, with Dr. Ajay Mathur, The Director General of the Bureau of Energy Efficiency, Government of India, addressing the participants by delivering the special address in the opening session of the training workshop.

In addition to Dr. Ajay Mathur, the inaugural session was also addressed by Mr. V. Subramanian, the Former Secretary of the Ministry of New and Renewable Energy, India, Mr. Srinivas Krishnaswamy, Chief Executive Officer, Vasudha Foundation, New Delhi and Mr. Masanao Deguchi, Senior Chief Expert, Sales Management Department, Fuji Electric Company Limited, Japan.



Dr. Ajay Mathur in his special address gave an overview of the importance of implementing energy saving solutions in Indian Industries. He also highlighted some of the work that the Bureau of Energy Efficiency, Government of India had initiated

in implementing energy efficiency solutions in India. He very warmly welcomed the participants to the first such training course on energy saving solutions, calling this workshop as very much needed and timely.

Mr. Subramanian gave some examples of how energy efficiency solutions is an important cross cutting solution, which cuts across various energy usage. He highlighted the fact that, in a World which is constrained by Climate Change, in addition to encouraging renewable energy solutions, energy efficiency solutions needs to be a strong pillar that all energy applications needs to factor in. In his view, energy saving solutions are “low hanging fruits” that would need to be harvested and would lead to reach returns in terms of energy savings with a very quick return on investments.

Mr. Deguchi, on behalf of JEITA; International Cooperation Committee, thanked all the participants and the partners of JEITA in organizing this workshop and also gave a background of the work of JEITA. He also in his speech gave a brief overview of the two day training workshop. Some excerpts of his speech is as below:

“JEITA was established to promote the healthy manufacturing, International Trade and consumption of electronics products and components to contribute to the overall development of the electronics and information technology (IT) industries, and thereby further Japan’s economic development and cultural prosperity.

The world is now connected via the internet, and electronic technologies and IT are penetrating global markets. With the evolution of electronics and progress of IT, technologies in information, communications, imaging and audio are converging to create new system and products, which are causing enormous changes not only in the economy, but also in our lives and culture.

JEITA’s mission is to foster a digital network society for the 21st century, in which IT advancement brings fulfillment and a higher quality of life to everyone.

To this end, the Association is actively submitting plans and proposals to government organizations on behalf of the industries, supporting the diffusion of products into new fields, and promoting environmental preservation initiatives, including those to combat global warming.

JEITA is also promoting several international cooperation activities to proceed the development of mutual economical expansion and friendly relations with many countries. So the opening of this seminar is one of such international cooperation activities.

India, having second position of the world with around 1.2 billion population, is showing the drastic economic growth as a part of BRICs due to the progress of industrialization. With this development of economic expansion, the consumption of energy is enlarging and India is in a position of Energy consumption country just after China.

In addition, India have a lot of first-class personnel and is expected not only the production base but also of the largest consumer nation.

On the other hand, although India have a plenty natural resources such as coal etc., the degree of dependence of importation of natural resources for energy consumption has been recently becoming higher and we believe the technology of the Energy Saving Solution as well as renewable energy technologies become a key factor to utilize the Energy effectively.

As the fossil fuel such as coal, oil and gas are deemed to be a cause of global warming and air pollution, other source of clean energy is required to be procured and used. At the same time, it is believed that the adoption of Energy Saving Solution is really important to save the current natural energy.

With this solution technique and skill, the deduction of energy cost, the save of natural resources as well as the preservation of natural environment is supposed to be realized.

This seminar of introduction course enables the participants to obtain the sufficient skill of energy saving solution and adopt it in the field of current factory effectively with the latest Japanese technology”.

Mr. Srinivas Krishnaswamy on behalf of Vasudha Foundation welcomed the participants and thanked JEITA for taking the initiative of organising the very much needed workshop. He also took the opportunity to thank Dr. Ajay Mathur, Director General of the Bureau of Energy Efficiency for taking time off from his busy schedule to address the gathering. He thanked Mr. Subramanian for being part of the initiative and also thanked Dua Consulting for all their efforts in making this training workshop a reality.



The participants who attended the workshop were mainly from industries, with a few representing civil society groups working on energy efficiency measures. While the participants were not very senior representatives of the industries they represented, they were all engineers and efficiency practitioners and therefore, the level of enthusiasm seemed very high.

II. Background of the Course:

India, having second position of the world with around 1.2 billion population, is showing the drastic economic growth as a part of BRICs due to the progress of industrialization. With this development of economic expansion, the consumption of energy is enlarging and India is in a position of Energy consumption country just after China.

In addition, India have a lot of first-class personnel and is expected not only the production base but also of the largest consumer nation.

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With this solution technique and skill, the deduction of energy cost, the save of natural resources as well as the preservation of natural environment is supposed to be realized.

This seminar of introduction course enables the participants to obtain the sufficient skill of energy saving solution and adopt it in the field of current factory effectively with the latest Japanese technology.

III. Cooperation Agreement:

In order to organize the course in India, a cooperation agreement was entered into between JEITA and Vasudha Foundation, with Dua Consulting being the liaison between JEITA and Vasudha Foundation and Mr. V Subramanian, Former Secretary of the Ministry of New and Renewable Energy, agreeing to be the mentor for the programme.

This formal cooperation agreement was signed by JEITA and Vasudha Foundation in April 2013, with the agreement that the training course would be organized on the 19th and 20th September 2013 in Delhi.

It was also agreed that Vasudha Foundation would ensure that Dr. Ajay Mathur, Director General of the Bureau of Energy Efficiency would participate in the inaugural session and this was accomplished.

IV. Objective of the Course:

The objective of the course was to provide a broad understanding among medium to large scale industries in India about the benefit of energy saving program and methods of implementing such programs in their respective industries.

It also gave an overview of the technologies and implementation mechanism of various energy saving applications ranging from electrical equipment, saving of heat and transforming it into energy. The course also gave an overview of the smart technologies available today cutting across various industry sectors and segments, including electricity transmission and grid solutions.

Keeping in view the importance of addressing climate change, the course also covered issues related to green industries, Green IDC and also on electric vehicle high speed charging stations, a concept that should soon catch up in India.

While on one hand, the course introduced certain concepts related to energy saving solutions for medium and large scale industries, it also gave an overview of detailed applications of various solutions, in order to enable engineers to actually look at implementing some of the suggested solutions in their own industries.

V. The Venue and logistics arrangements

The Venue of the training workshop was the India International Centre, New Delhi. The India International Centre is one of Delhi's most well known and preferred convention centre and the centre per se is also the favourite meeting place of the the important people of Delhi and India. It is located in the heart of Lyuten's Delhi and is well connected to the airport, Five Star Hotels and also the New Delhi Railway Station.

Since the instructors were giving their lessons in Japanese, simultaneous translation facility from Japanese to English and vice-versa was arranged for and the translators did an excellent job of translating even the highly technical issues very efficiently and in a manner that every one understood.

Lunch was provided on both the days of the training workshop and catered to the taste buds of Indians and Japanese participants.

VI. The Instructors:

The instructors of the training workshop were:

- 1) Mr. Mitsuhiro Ootsuki, Assistant Manager, Smart Factory Dept. General Engineering Division, Industrial Infrastructure Business Group, Fuji Electric Co., Ltd, Tokyo, Japan
- 2) Makoto Yamada, Power System Control & Energy Management Department, Social Engineering System Division, Power & Social Infrastructure Business Group. Fuji Electric Co., Ltd. Tokyo, Japan

VII. The Materials:

The course materials were prepared well in advance and distributed to the participants and in addition to be screened through a power point projector. The course material had two parts to it.

The first part titled, “Road to Excellent company by effective use of Energy”, covered a wide range of issues, from giving a background of energy saving potential by highlighting world energy consumption and price trend and also introducing the concept of energy optimization. This section also introduced the concept of energy saving in electrical equipment and also giving examples of its implementation. The first part of the course material was covered in the first day’s training session.

The second part of the material, which was covered in the second day of the training session was titled, “Smart Communities Technology” – “Towards leading edge organization on Energy and Environment”. This section starts off by introducing the concept of smart community technologies, by giving examples of the trend of usage such technologies in Japan. It also then introduces the concept of smart technologies in various specific applications such as power generation equipment, geothermal binary generation, fuel cell power pack, micro water wheel generation amongst others. This section also touched upon key issues relevant for countries like India such as smart grid and grid solution optimum voltage control technology and also covered issues such as electric vehicle high speed chargers, green factory etc.

VIII. Profile of Participants:





The participants of the training course represented large and medium industries, think tanks, NGOs and from the Bureau of Energy Efficiency. Broadly, they covered the following categories:

- a) Medium to large industries
- b) Energy Producers
- c) Energy Consulting Companies
- d) Civil Society Groups
- e) Nodal agency for implementing energy efficiency programmes in India (Bureau of Energy Efficiency)
- f) Industry Association (PETROFED)

A total of 80 invites were sent and we got a total confirmation of 50, though, there were last minute drop outs and finally, we had a total participation of 30 people. While the total invite acceptance percentage was 62.5 percent, the final attendance was a mere 37.5 percent. However, this being the first time that such a training programme is being organized and that too in Delhi, where the manufacturing base of industries is rather less, we got a fairly good attendance.

However, the enthusiasm levels of participants was very high and it was extremely interactive.

IX. Concerns around Energy saving implementation (As expressed by the participants)

All the participants found the course to be extremely useful and timely, given that many of them have already started to explore the possibility of implementing energy saving solutions in their respective industries. There was also a very high interest shown on some of the examples and trends in Japan particularly around smart technologies.

However, the participants raised some pertinent points on the return on investments of such practices and wanted the trainers to give them some concrete return on investments for some of the identified technology implementation and practices. For example, when they learnt that introducing an inverter in some applications could actually result in a return on investment in just one year, the participants expressed the desire that such cases are brought out in public domain and create large scale awareness of this issue, as the general practice in India is that even if the return on investment is 3 years, industries generally tend to invest in such implementation mechanism.

Further the participants also felt that while the potential for energy saving in Japan due to implementation of some technologies could be far higher, it may not be the same in India due to ambient temperatures and were wondering if the trainers had factored in these issues, particularly related to tropical countries. They were assured that this was the case.

The participants also felt that, we need to bring out some cases and examples to policy makers to ensure that the right policies are in place to incentivize energy efficiency implementation. While recognizing that the Bureau of Energy Efficiency, Government of India was doing a great job in policy formulation for energy efficiency, the potentials for energy saving implementation in India was very large.

X. Evaluation of the effectiveness of the course:

The course was designed to be an interactive session with the participants encouraged to solve issues, such as computing energy saving potential given certain assumptions. There was some enthusiastic response to them and participants actually worked on computing those.

In addition to those methods, there were question and answer sessions after every session and participants were also encouraged to share their experience if any in implementing energy saving solutions in their own industries.

An evaluation form was also circulated to all the participants and many of them enthusiastically filled them up.

All the participants felt that we needed more such courses and expressed their feeling to JEITA to continue organizing this series of training courses in India from time to time.

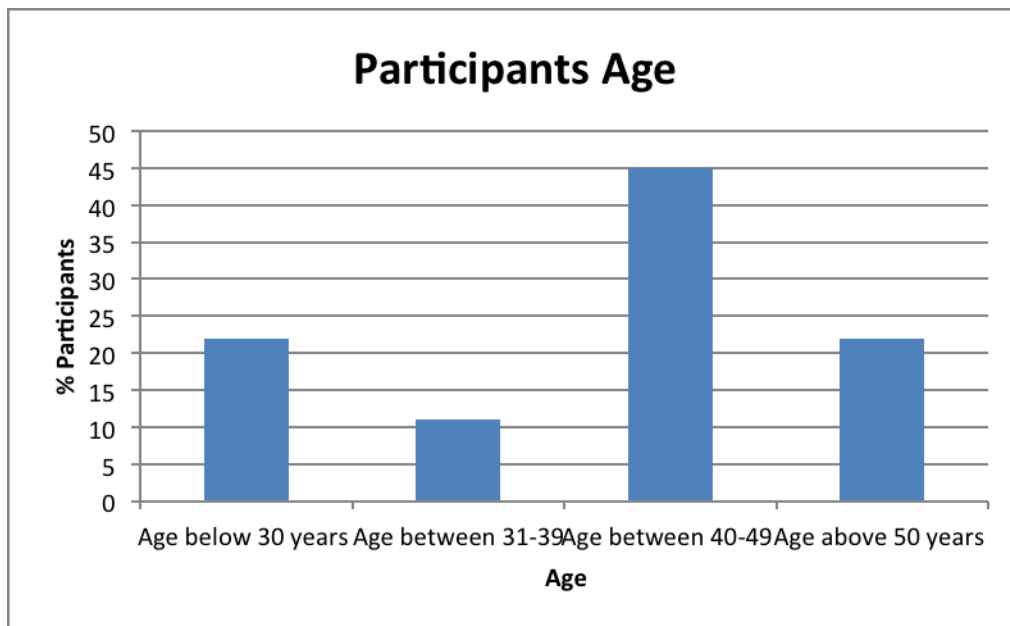
Interestingly all the 30 participants were aware of JEITA and were aware of the work that JEITA has been doing to promote energy efficiency in Japan.

XI. Overview of the feedback

Office of Directorate of Energy Conservation together with Japan Electronic and Information Technology Association (JEITA) prepared one set of questionnaire to attract feedback from participants about the overall two-day course including the materials presented.

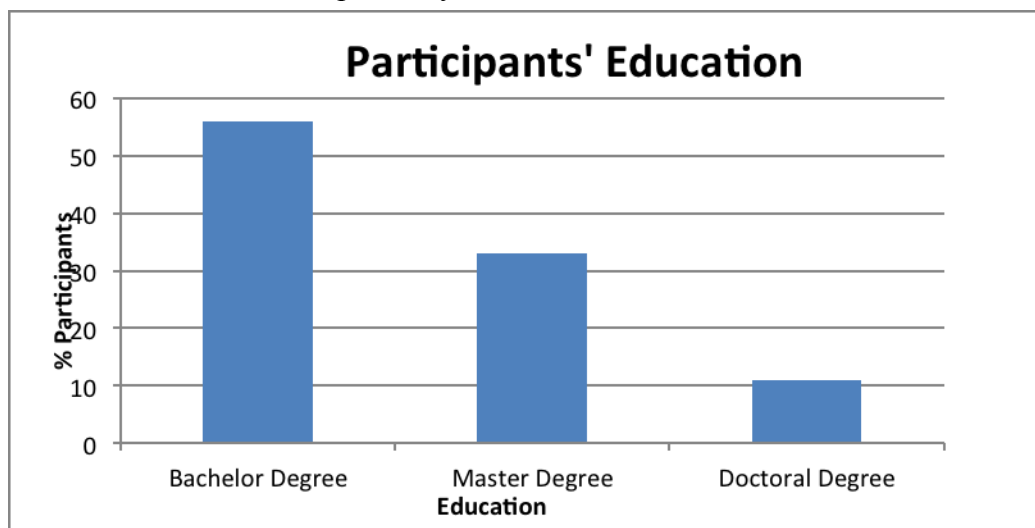
After reviewing the questionnaires results by applying tabulation matrix, the demographic data of the participants can be conclude as follow:

Profile of Participants' by Age



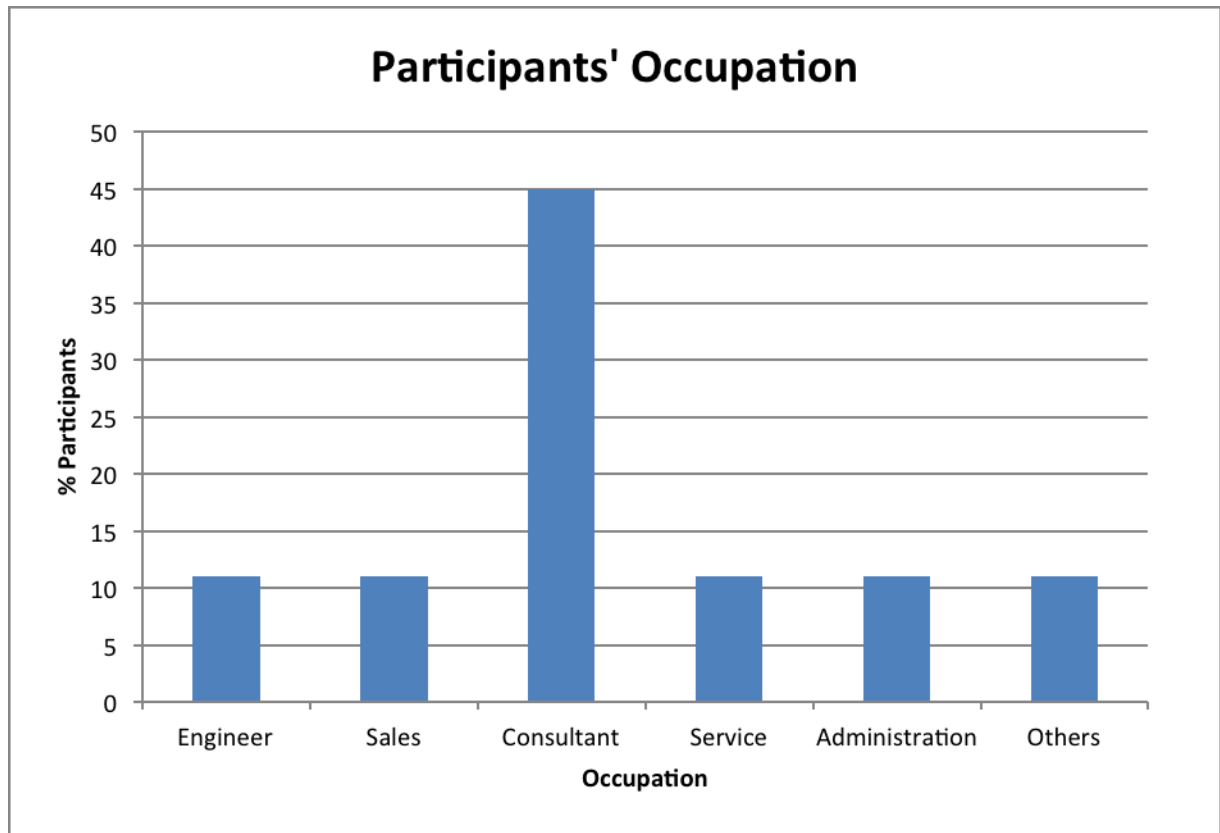
22% of the participants were below 30 years age, 11% participants were between 31 to 40 years old, 45% participants were between 40 to 49 years age and 22% participants above 50 years of age.

Profile of Participants' by Educational Qualifications



In term of educations, 56 % of the participants hold bachelor degree, 33 % hold master degree and 11% hold Doctoral degree.

Profile of Participants' by Occupation



In term of occupation, 11 % of the participants were engineers, 11 % worked in the field of service, 45 % were consultant, 11 % worked in the field of administration, and the rest were others.

Interestingly, 22% participants stated that the company or institution they are working for had been nominated as factory corresponding to the guideline of Energy Saving factory issued on July 2004. However, 45% participants admitted that this course was the first course on energy saving they attended. Most of the participants received invitation from Vasudha Foundation.

Moreover, 62.5% participants stated that their companies have applied energy saving program, whereas 12.5% participants said that their companies are planning to implement it in 1 year horizon, and the rest of the participants said that the companies they are working for are planning to implement the program in within 2 -3 year horizon.

The driving factor that attracted them to join the seminar mostly was because the title of course was attractive to them and the course was suitable for their work. Therefore, almost all participants found that the course was interesting and beneficial for them. This led to the interest to attend another course in the future as 89% participants requested to be invited again next time. They also believe that the course if very

useful and therefore they will share the information they acquired from this course to their colleagues.

Almost all the participants knew about JEITA before.

When asked about the course for future reference, the participants suggested that such similar course should be held at every 6 months (suggested by 22% participants), and 33% participants suggested that such the course should be held every year. Regarding the length of the course, 78% participants thought that the two-day course had a suitable length. Only 11% participants believed that it was too long.

Most of the participants who returned the questionnaires agreed that all materials were given during the first day (September 19th) and the second day of the course (September 20th).

XII. Conclusions:

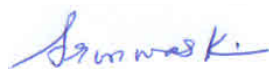
Overall, the general feedback of the training course was that it was excellent and extremely useful. The participants also liked the arrangements that was made in terms of the exhibits, the simultaneous translation and also the quality of food provided to them.

While the number of participants was far lesser than what was expected, just 30 out of a total expected participation of 45 people, the enthusiasm of the participants made up of the lack of full participation.

The participants appreciated the course material provided to them.

In all this training session concluded successfully on the afternoon of the 20th September 2013

This report is made available to JEITA as final report and concluding this project, today, the 3rd October 2013 by Srinivas Krishnaswamy, Chief Executive Officer, Vasudha Foundation, New Delhi



Srinivas Krishnaswamy
CEO, Vasudha Foundation
CISRS House, 14 Jungpura B,
Mathura Road,
New Delhi – 110 014
Ph: +91-11-2437-2680
Fx: +91-11-2437-3680
Mobile: +91-98451-12130
Web: www.vasudha-india.org

Place: New Delhi
Date: 3rd October 2013

Annexes
Annexe 1. Agenda of the training course

I. General program on September 19th, 2013

No.	Time	Agenda	Slide	Speaker
1	09:00-09:30	Registration		
2	09:30-10:00	General Session 1		
2.1	09:30-09:35	Welcome Speech		Mr. V Subramanian
2.2	09:35-09:40	Opening Speech		Mr. Mike Deguchi
2.3	09:40-09:50	Special Speech		Dr. Ajay Mathur
2.4	09:50-10:00	Introduction		Mr. Srinivas Krishnaswamy
		Road to excellent company by effective use of Energy (Chapter 1 to Chapter 4)		Mr. Mitsuhiro Ootsuki
3	10:00-10:30	Chapter 1: Background of energy saving		
3. 1	10:00-10:30	World Energy consumption and price trend	2	
4	10:30-10:50	Tea Break		
4. 1	1030-10:50	Chapter 2: Concept of Energy saving		
5	10:50-11:10	Concept of Energy optimization	2	
6	11:10-13:00	Chapter 3: Energy saving of Electrical equipment	14	
7	13:00-14:00	Lunch Break		
8	14:00-14:50	Chapter 3: Energy saving of Electrical equipment (Continued)	10	
9	14:50-15:10	Tea Break		
10	15:10-16:30	Chapter 4: Energy saving of Heat	19	
11	16:30-17:00	General Session 2 (Closing)		

II. General program on September 20th, 2013

No.	Time	Agenda	Slide	Speaker
1	09:00-12:10	Smart communities technology Toward leading edge Organization on Energy and Environment		Mr. Makoto Yamada
1.1	09:00-09:10	Trend of smart community technologies	2	
1.2	09:10-09:30	Trend of smart community technologies for Japan	4	
1.3	09:30-09:40	Smart community Solution Technologies	1	
1.4	09:40-09:50	Power generation Equipment overall view	2	
1.5	09:50-10:05	Geothermal Binary Generation	3	
1.6	10:035-10:20	Fuel cell power pack	4	
1.7	10:20-10:30	Micro water wheel Generation	2	
	10:30-10:50	Tea Break		
1.8	10:50-11:05	Grid solution Optimum voltage control technology	3	
1.9	11:05-11:25	Wind-power Nishime-wind power plant in Japan	5	
1.10	11:25-11:40	External of demonstration facility (Kuro island)	2	
1.11	11:40-11:45	Grid solution smart meter	2	
1.1 2	11:45-11:50	Grid solution Multi-Relay wireless unit	1	
1.13	11:50-11:55	Electric vehicle High speed chargers	1	
1.14	11:55-12:00	Green store	1	
1.15	12:00-12:05	Green IDC	2	
1.16	12:05-12:10	Green factory	1	
2	12:10-12:40	General Session 2 (Closing)		Mr. Srinivas Krishnaswamy
3	12:40-13:30	Lunch Break		

Annex 2: List of Participants

List 1: List of Invitees

S.No.	Name	Institution
1	Mr. T. Fukamiya	Embassy of Japan
2	Mr. Ejima	Japan International Cooperation Agency
3	Mr. T. Ichiguchi	Japan International Cooperation Agency
4	Mr. Murayama	Japan International Cooperation Agency
5	B.Ramabhadra	ASA BHANU Hyderabad

6	B.Sarang	ASA BHANU Hyderabad
7	K.Reddy	ASA BHANU Hyderabad
8	Mr. Y. Ishikawa	ASA BHANU Hyderabad
9	Mr. O.P.Bhutani	BHEL
10	Mr. S.C.Mittal	BHEL
11.	Mr. Jagdish Prasad	BHEL
11	Mr. N. Noguchi	JETRO, New Delhi
12	Mr. K. Toyofuku	JETRO, New Delhi
13	Mr. T. Nishizawa	JETRO, New Delhi
14	Mr. I. Abe	JETRO, New Delhi
15	Mr. S. Mitani	JETRO, New Delhi
16	Mr. H. Sekine	JETRO, New Delhi
17	Mr. R.Khanna	BIZ-TECH
18	Mr. C.D.Rai	BIZ-TECH
19	Mr. Kanji Obata	ANUPAM-MHI Industries Limited
20	Mr. Takayuki Tanaka	ANUPAM-MHI Industries Limited
21	Mr. Mark Yanagida	OMRON AUTOMATION PVT LTD.
22	Mr. Hidekazu Hasegawa	Japan Electronics & Information Technology Industries Association
23	Mr. Shigeyuki Aoki	YOKOHAMA INDIA PRIVATE LIMITED
24	Mr. Takeyoshi Miki	Idemitsu Lube India Pvt.Ltd.
25	Mr. Masakazu SAKAKIDA	Mitsubishi Corporation India Pvt. Ltd.
26	Mr. Makoto SUZUKI	Mitsui & Co. India Pvt. Ltd.
27	Mr. Yutaka SEKINE	Marubeni India Pvt. Ltd.
28	Mr. Ichiro SHIMIZU	ITOCHU India Pvt. Ltd.
29	Mr. Masazumi KONISHI	Sojitz India Pvt. Ltd.
30	Mr. Katsuya OKIHIRO	Sumitomo Corporation India Pvt. Ltd.
31	Mr. Takao TOMITA	Toyota Tsusho India Pvt. Ltd.
32	Mr. Akihiko SHIMIZU	Kinden India Pvt. Ltd.
33	Mr. Deb Mukherjee	Enfragy Solutions India Pvt. Ltd.
34	Dr Ajay Mathur	BEE
35	Dr G C Datta Roy	Development Environergy Services Ltd. (Dalkia)
36	Mr. R Rajmohan	Development Environergy Services Ltd. (Dalkia)
37.	Mr. Yogendra Naik	Darashaw & Co Pvt. Ltd
38.	Mr. Anudeep Hajela	TUV SUD South Asia Pvt Ltd
39.	Mr. Nitin	India Energy Exchange
40.	Mr. Arun Kumar	PTC
41.	Mr. Debashish Majumdar	IREDA
42.	Mr. Rajesh Mediratt	IEX India
43.	Mr. Arora	Petrofed
44.	Mr. Rajeev Sharma	REC

List 2: List of Confirmation

S.No.	Name	Institution
1	Mr. T. Fukamiya	Embassy of Japan
2	Mr. Murayama	Japan International Cooperation Agency
3	Mr. Jagdish Prasad	BHEL
4	Mr. I. Abe	JETRO, New Delhi
5	Mr Arun Vohra	BIZ-TECH
6	Mr. Abhishek	BIZ-TECH

7	Mr. Amit Gupta	Enfragy Solutions India Pvt. Ltd.
8	Dr Ajay Mathur	BEE
9	Mr. Rajeev Sharma + 1 representative	REC
10	Mr. Arun Kumar + 1 representative	PTC
11	Mr. Debashish Majumdar + 1 representative	IREDA
12	Mr. Rajesh Mediratt + 1 representative	IEX India
13	Mr. Arora + 1 representatives	Petrofed

List 3: List of Attendees

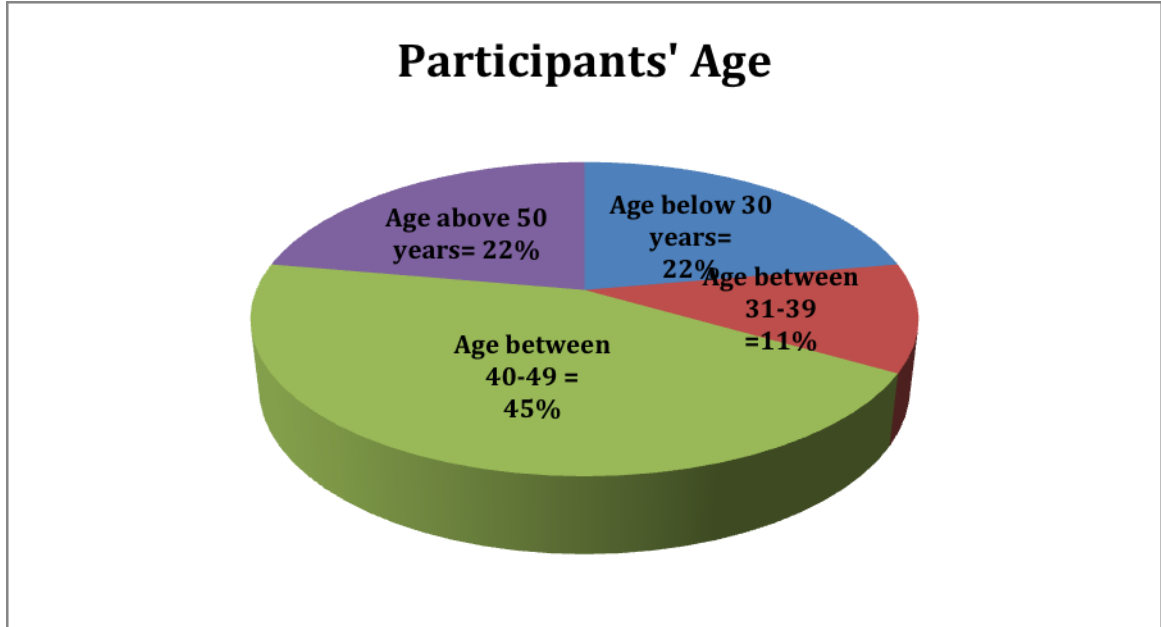
S.No.	Name	Designation	Institution	Email-id	Contact No.
1	Mr. Tomofumi Fukamiya	First Secretary	Embassy of Japan	tomofumi.fukamiya@mofa.go.jp	+91-11-2687-6564
2	Dr. Ajay Mathur	Director General	Bureau of Energy Efficiency	dg-bee@nic.in	011-26178316/26178328
3	Mr. V. Subramanian	Chairman & CEO	India Wind Energy Association	subram71@gmail.com	+91-9810401174
4	Mr. Srinivas Krishnaswamy	CEO	Vasudha Foundation	srinivas@vasudhaindia.org	+91- 9845112130
5	Mr. Abhishek Kumar	Manager-Business Development	BIZ Tech Consultants	akumar@biztech.in	+91-9971488636
6	Mr. Arun Vohra	DGM-Business Development	BIZ Tech Consultants	avohra@gmail.com	+91-11-26218993
7	Mr. S.S. Ramgarhia	Director (Policy and Planning)	Petrofed	petrofed@petrofed.org	+91-9810158088
8	Mr. Biren Das	Joint Director-Upstream	Petrofed	birendas@petrofed.org	+91-9810703319
9	Mr. Akihiko Shimizu	Managing Director	Kinden India Pvt. Ltd.	shimizu_akihiko@kinden.co.in	+91-124-411-5362
10	Mr. Tirthankar Mandal	Programme Coordinator	CANSA	tirthankar.mandal@gmail.com	+91-9910021252
11.	Mr. Amit Gupta		Enfragy Solutions India Pvt.	Amit.gupta@enfragy.com	+91-9836666991

			Ltd.		
12	Mr. K. Murayama		Japan International Cooperation Agency	murayamak@aol.com	+91-8800909074
13	Mr. Amit Dwivedi			amitad82@gmail.com	
14	Mr. Shashi Khurana		UWAD	shakhurana@hotmail.com	
15	Mr. Vijay Bhasin		Emerson Network Power Pvt. Ltd.	vbhasin2001@gmail.com	+91-9871112124
16	Mr. Harsh Kumar Sharma		Deft Advisory and Research Pvt. Ltd.	HKSMGR@gmail.com	
17	Mr. Tadao Yamamoto	Director, Senior Vice President- Energy Business Group	Mitsubishi Corporation India Pvt. Ltd.	tadao.yamamoto@mitsubishicorp.com	+91-11-4354-4170 M: +91-88004-33316
18	Mr. I. Abe	Director & Industry Researcher	JETRO, New Delhi	Ichiro_Abe@jetro.go.jp	+91-9711309184
19	Mr. Manish K. Singh		India Wind Energy Association	KSManish@gmail.com	+91- 124-411-5362
20	Mr. Aditya Singh Katoch	Regional Representative,	Global Emergency Group	aditya.katoch@globalemergencygroup.com	+91-888-208 8808
21	Mr. Sanjay Vashist	Director	Climate Action Network	sanjayvashist@gmail.com	
22	Mr. Gaurav Gupta	Director	Deloitte Consulting	ggupta@gmail.com	
23	Mr. Ankit Gupta	Programme Officer	Vasudha Foundation	ankit@vasudhaindia.org	+91-9718015330
24	Ms. Shradha Dagar	Research Officer	Vasudha Foundation	shradha@vasudhaindia.org	+91-11-24373680
25	Mr. Jagadish Prasad	Director	BHEL		+91-11-66337497
26	Mr. Bhutani	Director	BHEL		
27	Mr. S C Mittal	Ex-Director	BHEL		
28	Dr. G C Dutta Roy	Chief Executive Officer	DALKIA		
29	Mr. Nitin		India Energy	nitin.sabikhi@iexindia.com	+91-11-4004070

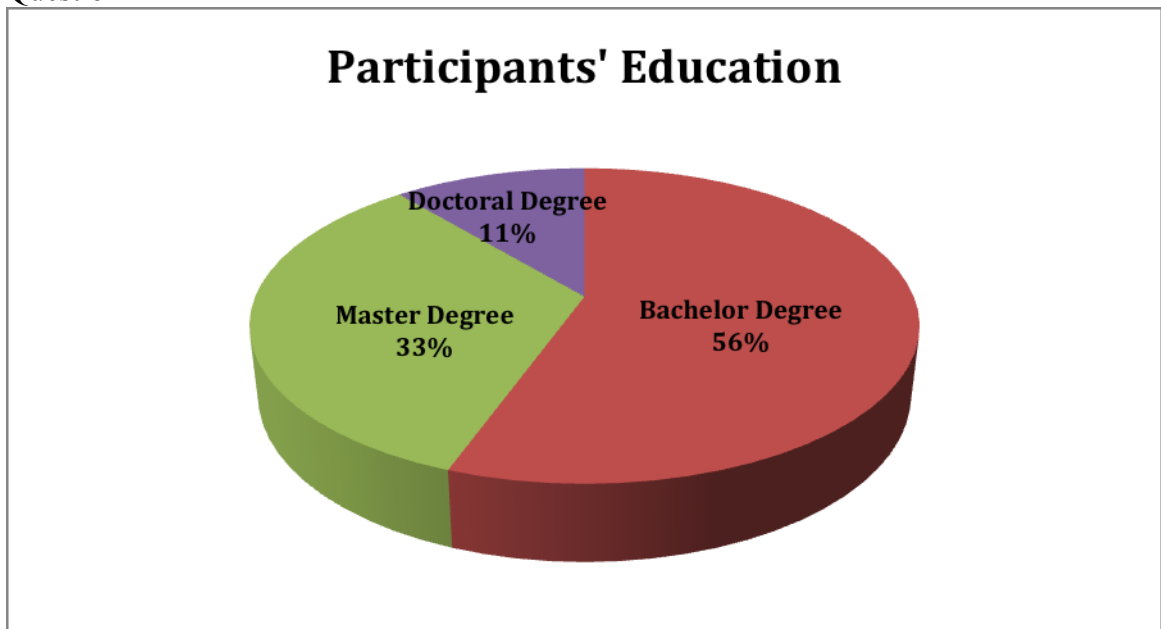
			Exchange		
30	Mr. Dinesh Tomar		Vasudha Foundation	denesh.245101@gmail.com	+91-11-24373680

Annex 3. Demographic data of Participants

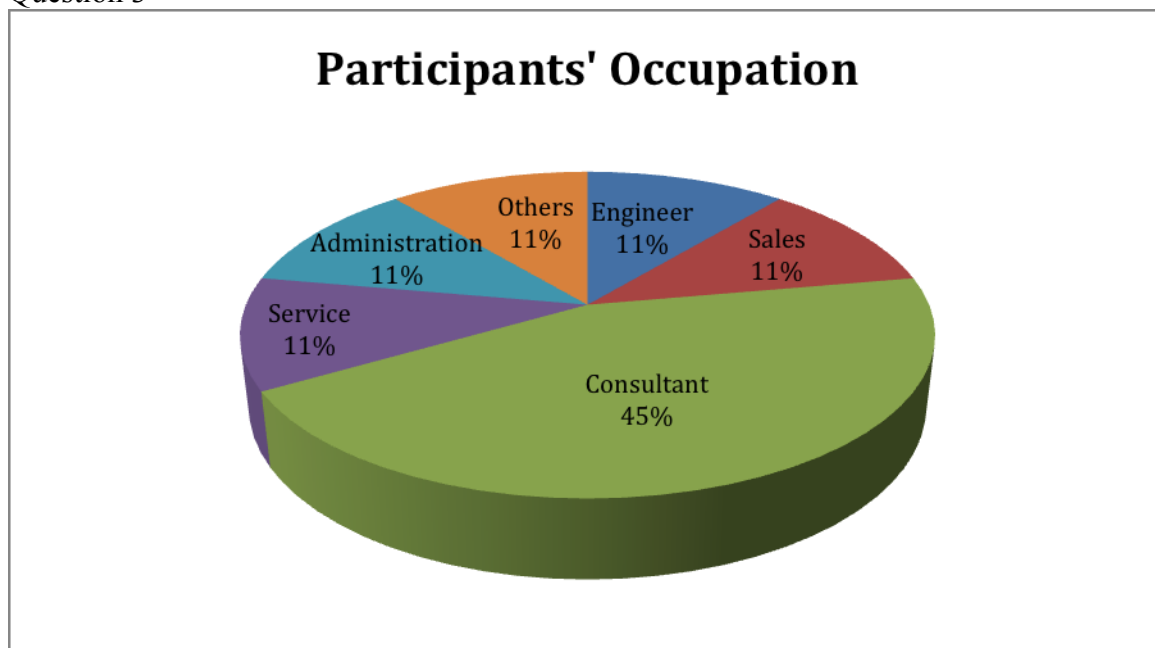
Question 1



Question 2



Question 3



Annex 4. Qualitative data on companies' field of Industry

Field of Industry	Automotive	Machinery, Shipbuilding	Consumer Electronics	Iron & Steel, Metal	Glass, Cement	Semiconductor	Others
% Participants	8%	8%	8%	8%	8%	8%	39%

Among others from the field of industry around 15% participants were from service sector, 8% participants were government officials, 8% from NGO's, 8% from Technical Consultancy Groups etc.

Annex 5. Participants' responses on general questions (questions 5-14, 17-19)

5. Are your company nominated factory corresponding to the guideline of Energy Saving factory?

Selection	% response
Yes, it is	22
No, it isn't	34
I am not sure	44

6. How often did you participate in the similar course before?

Selection	% response
First Time	45
2-5 times	55
More than 6 times	

7. How do you know this course?

Selection	% response
Letter/E-mail from Vasudha Foundation	78
Message from Colleague	
Information from Company	
Mass Media	
Others	22

8. Decision Factor to join the course

Selection	% response
Organization (Vasudha Foundation) is a good credit	
Course Title	56
Suitable for Work	22
Convenient Timing	
Convenient to site	
Reasonable Charge	
Others	22

9. Do you feel this course useful?

Selection	% response
Yes	100
No I don't	

10. Do you need information for the next course?

Selection	% response
Yes	89
No need	11

11. Do you recognize JEITA before?

Selection	% response
Yes	100
No	

12. Can you penetrate this knowledge to your colleague after this course?

Selection	% response
Yes absolutely	75
No, I can't	
I am not sure	25

13. When do you suppose to apply energy saving technology in your company/factory?

Selection	% response
Already applied	62.5
Within 1 year	12.5
Within 2-3 years	12.5
Over 4 years	12.5
No plan to apply	

17. How frequent you suggest to organize this course?

Selection	% response
Every 6 months	22
Every 1 year	33
Every 2 years	33
Depend on convenient	12
No need for this course	

18. How do you feel period of the course?

Selection	% response
Too short	11
Too long	11
Suitable	78
Others	

19. What is a problem for you about Energy Saving in your factory?
(Energy Saving Course) You can make multiple choices

Selection	% response
Cannot find where energy saving can be done	
Have difficulty in the stable supply of power	
There is nobody who can suggest/consult more friendly	
Do not know the measure for costdown	25
Others	75

Annex 6. Response to the course material

14. Is this section benefit for you?

14-1 General Session 1 (Opening Speech & Introduction) on September 19th

Selection	% response
4 Most Beneficial	37.5
3 Beneficial	62.5
2 Less Beneficial	
1 Others	

14-2 Lecture on September 19th (Energy Saving)

Selection	% response
4 Most Beneficial (content to be considered to apply)	50
3 Beneficial (content to be considered to apply in future)	50
2 Less Beneficial (content already known)	
1 Others	

14-3 Lecture on September 20th (Smart Community Technologies)

Selection	% response
4 Most Beneficial (content to be considered to apply)	45
3 Beneficial (content to be considered to apply in future)	55
2 Less Beneficial (content already known)	
1 Others	

15. What are interesting contents on September 19th?
(Energy Saving Course) You can make multiple choices

Selection	% response
Background of energy saving	6.5
Energy Management	16
Energy saving of motor (Inverter/high efficiency motor)	22.5
Energy saving of compressor (Number control)	19.3
Energy saving of boiler (Exhaust heat/heat pump)	9.7
Energy saving of air conditioner and refrigeration equipment	13
Energy saving of substation and lighting facilities	13
Others	

16. What are interesting contents on September 20th?
(Smart Community Technology) You can make multiple choices

Selection	% response
Photovoltaic System	5.9
Geothermal Binary Generation	8.8
Fuel Cell	14.8
Micro Waterwheel Generation	5.9
Optimum Voltage Control Technology	5.9
Power System Stabilization Technology	11.8
Micro-Grid at Isolated Island Technology	8.8
Smart Meter	8.8
Multi relay Wireless Technology	5.9
Electric Vehicle High Speed chargers	2.9
Green Store	8.8
Green IDC	2.9
Green Factory	5.9
Others	2.9