

 24 x 7 SMART electriCITY



Indian Electrical & Electronics Manufacturers' Association

67th Annual Report 2013 - 2014



Chief Guest Mr Siddaramaiah, Chief Minister, Karnataka State visiting ELECAMA-2014 Exhibition

Mission Plan 2012-2022 being launched by Mr Praful Patel, Union Minister of Heavy Industries and Public Enterprises



IEEMA CEO SUMMIT 2014 at Bangalore



ChangeXchange 2014: 400+ Buyers



Dr. Swatee Kulkarni, Consul General (3rd from left), Indian Consulate office – being visited by IEEMA Delegation



ELECAMA-2014



## President's Message

IEEMA as the apex association of the power equipment manufacturer's fraternity of India echoes the 'Make in India' pitch of the honourable Prime Minister of India. IEEMA is a Made in India brand and we have incessantly endeavoured to make IEEMA more and more relevant to its members in consonance with the national interest.

One of the key initiatives of the Government of India, where IEEMA finds a foothold is that of Smart cities, in view of the much needed power and infrastructure for the latter to prosper. After all, a smart India needs smart and safe products and services portfolio: 24 x 7. In consonance, IEEMA and IEEE together are organising a world class expo cum conference – INTELECT in January 2015. This is a first of a kind live-wire - low voltage platform on the intelligent electricity ecosystem. Let's put our best foot forward to participate and demonstrate the technology prowess of India.

To recap few many successes during my stint as the President of IEEMA, thanks to our team work:

- Large Events: ELECRAMA 2014 – record breaking footfalls and the only event in the world to showcase the entire T&D range from the lowest level to 1200 kV. Further, concurrent event: Reverse Buyer Seller Meet (RBSM) generated a \$150M from the exhibitor's point of view.
- Membership and Utility Outreach: Utility outreach programmes to enhance interface between members and its customers - the outcome has been very encouraging. Furthering the same objective, IEEMA leadership has planned to consolidate IEEMA's presence in 10 prominent States of the country. At the time of publication of this report following 10 States will have active resident representatives at - Srinagar, Chandigarh, Lucknow, Jaipur, Bhubaneswar, Raipur, Guwahati, Ahmedabad, Chennai and Hyderabad.
- Government Interactions: Activities to engage more actively with the Government of India were stepped up and regular interactions were established with the Ministry of Power, Ministry of Urban Development and Ministry for Commerce and Industry, Cabinet Secretariat and the Department of Heavy Industry.
- Distribution Reforms: The Ministry of Power has recently included IEEMA in its newly formed committee for Distribution Reforms.
- Standard Bidding Document: IEEMA is engaged with the Ministry of Power in developing the same both for purchases as well as for EPC contracts.
- Made in India Brand for Electrical Products: Ministry of Commerce has invited IEEMA to partner with its innovative initiative of creating a Made in India brand for electrical products in overseas markets of relevance.
- Combating China Imports: The issue was highlighted through newspapers and also in meetings with senior government officials. One immediate success is imposition of safeguard duty on insulators. Discussions are now happening at the highest level to safeguard our interest.
- Skill Intervention for Utilities: Due to its regular interactions with utilities, IEEMA has recognised that there is an urgent need for skill intervention at various levels, since many of them do not have in-house resources for such expert interventions. An initial list of the utilities has been drawn.
- Media Presence - IEEMA's visibility in media has been worked upon to have meaningful presence.

Connecting the dots to the 'Make in India' plan, IEEMA too is geared up 24 x 7, and I see it as a great opportunity for us to respond to this positive change. If it were to be sustained, it will be a paradigm shift and the most powerful 'by and for - India' model in recorded history.

As I step down as the President of IEEMA, would sincerely like to claim that I am proud to be part of a Smart IEEMA mission, to deliver and pass on the baton to my successor, hoping IEEMA is made even more relevant to its members.

Best wishes,  
Raj Eswaran

## EXECUTIVE COUNCIL



**PRESIDENT**

**Mr. Raj H. Eswaran**

Managing Director  
Easun Reyrolle Limited



**VICE-PRESIDENT**

**Mr. Vishnu Agarwal**

Chairman & Managing Director  
Technical Associates Limited



**VICE-PRESIDENT**

**Mr. A. S. Chouhan**

Management Board Member  
President & CEO – Speciality Sector  
RPG Enterprises  
Raychem RPG Private Limited



**PRESIDENT (PREVIOUS YEAR)**

**Mr. J. G. Kulkarni**

Executive Vice President &  
President – Power Business Unit  
Crompton Greaves Limited

## ELECTED MEMBERS



**Mr. Aaditya R. Dhoot**

Managing Director  
IMP Powers Limited



**Mr. Anand B Hunnur**

Vice President – Sales & Marketing  
Kirloskar Electric Co. Limited



**Mr. Anil Saboo**

Managing Director  
Elektrolites (Power) Pvt. Limited



**Mr. Babu Babel**

Jt. Managing Director  
Secure Meters Limited



**Mr. Chaitanya Desai**

Jt. Managing Director  
Apar Industries Limited



**Mr. Deepak Khandelwal**

President -Projects  
Emco Limited

## ELECTED MEMBERS



**Mr. Jitendra Kumar Agarwal**  
Director  
Genus Power Infrastructure Limited



**Mr. Manish Pant**  
Vice President  
Schneider Electric India Pvt Limited



**Mr. Narayan Sethuramon**  
Managing Director & CEO  
W.S. Industries (India) Limited



**Mr. P. K. Bajaj**  
Head – Product SBG  
Larsen & Toubro Limited



**Mr. R. K. Chugh**  
Vice President & Head  
Smart Grid Division – South Asia  
Infrastructure & Cities Sector  
Siemens Limited



**Mr. Sanjeev Sardana**  
Managing Director  
Yamuna Power & Infrastructure  
Limited



**Mr. S. G. Jagdale**  
General Manager  
CTR Manufacturing Industries  
Limited

## CO-OPTED MEMBERS



**Mrs. Indra Prem Menon**

Executive Director & President  
Lakshmanan Isola Pvt. Limited



**Mr. Mustafa Wajid**

Managing Director & CEO  
MEHER Group  
MHM Holdings Pvt. Limited



**Mr. Ramani Kasi**

President  
Raychem RPG P Limited



**Mr. Somesh Sehgal**

General Manager – T&D  
Crompton Greaves Limited



**Mr. Vikas Jalan**

Jt. Managing Director  
Deccan Enterprises Limited



**Mr. Vimal Kejriwal**

President (Transmission &  
Distribution)  
KEC International Limited



**Mr. Vikas Khosla**

President  
Aditya Birla Insulators

## STANDING INVITEES



**Mr. Atul Kshirsagar**  
Director  
General Cable Energy India Pvt.  
Limited



**Mr. Arun Gupta**  
General Manager (Business  
Development)  
NTPC Limited



**Mr. Dilip Chenoy**  
Managing Director & CEO  
National Skill Development  
Corporation



**Mr. M. K. Shah**  
Acting Director  
Electrical Research & Development  
Association (ERDA)



**Mr. N. Murugesan**  
Director General  
Central Power Research Institute



**Mr. S. Rajavel**  
Executive Vice President & Head –  
Water & Renewable Energy  
Larsen & Toubro Limited



**Mr. Shreegopal Kabra**  
President  
Ram Ratna Wires Limited



**Capt. V. W. Katre**  
Director  
C/o 20 Cube Logistics P Limited



**Mr. W. V. K. Krishna Shankar**  
Director (IS&P)  
Bharat Heavy Electricals Limited

## HONoured INVITEES & COUNSELLORS



**Mr. R. D. Chandak**  
Managing Director & CEO  
KEC International Limited



**Mr. Vimal Mahendru**  
President  
Legrand Group



**Mr. Murali Venkatraman**  
Vice Chairman  
W.S. Industries (India) Limited



**Mr. V. V. Paranjape**  
Past President - IEEMA



**Mr. S. C. Bhargava**  
Sr. Vice President – Electrical &  
Automation  
Larsen & Toubro Limited

## DIVISIONAL CHAIRMEN



### CABLE DIVISION

**Mr. G. K. Banerjee**

President (Marketing)  
Finolex Cables Limited



### CAPACITORS DIVISION

**Dr. Venkatesh Raghavan**

President, Power Quality Solutions  
EPCOS India Pvt Limited



### CONDUCTOR DIVISION

**Mr. Chaitanya Desai**

Jt. Managing Director  
Apar Industries



### ELECTRICAL INSULATING MATERIALS DIVISION

**Mr. Inderpal Singh Khandpur**

Executive Director  
PRS Permacel Pvt Limited



### INTERNATIONAL BUSINESS DIVISION

**Mr. Vimal Kejriwal**

President (Transmission &  
Distribution)  
KEC International Limited



### INSTRUMENT TRANSFORMER DIVISION

**Mr. Jayaprakash Padavath**

Dy. General Manager – R&D  
Alstom T&D India Limited



### INSULATORS DIVISION

**Mr. K. S. Ramiah**

Executive Director (Mktg &  
Business Development)  
W.S. Industries (India) Limited



### METERS DIVISION

**Mr C. P. Jain**

Director  
HPL Electric & Power Pvt Limited

## DIVISIONAL CHAIRMEN



**POWER GENERATION SYSTEMS  
DIVISION**

**Mr. S. C. Mittal**

Executive Director (Finance)  
Bharat Heavy Electricals Limited



**ROTATING MACHINES DIVISION**

**Mr. Anil M Naik**

Head – New Business Initiatives  
Bharat Bijlee Limited



**MV & HV SWITCHGEAR DIVISION**

**Mr. Maadhav Digraskar**

Managing Director & CEO  
Cable Corporation of India Limited



**LV SWITCHGEAR DIVISION**

**Mr. Hemu T. Mistry**

General Manager -  
Design & Development  
Larsen & Toubro Limited



**SMART GRID DIVISION**

**Mr. Satish Kumar**

Energy Efficiency Ambassador-  
Vice President  
Schneider Electric India Pvt.  
Limited



**SURGE ARRESTERS DIVISION**

**Mr. Milind Z. Zodage**

Sr. Manager (Marketing)  
Crompton Greaves Limited



**TRANSFORMERS DIVISION**

**Mr. B. Ukil**

Vice President –  
Indian Sub-Continent  
Crompton Greaves Limited



**TRANSMISSION & DISTRIBUTION  
PROJECTS DIVISION**

**Mr. Somesh Sehgal**

General Manager – T&D  
Crompton Greaves Limited

## COMMITTEES, CELLS & SUB-COMMITTEES CONVENERS



### ELECTRICAL LAMINATIONS COMMITTEE

**Mr. Saif Qureishi**

CEO & Managing Director  
Kryfs Power Components Limited



### QUALITY CELL

**Mr. M. G. Sathyendra**

QmartGlobal



### RENEWABLE ENERGY COMMITTEE

**Mr. Satya N. Vijayvergiya**

Sr. Vice President  
Genus Power Infrastructures  
Limited



### PUBLIC POLICY CELL

**Mr. Narayan Sethuram**

Managing Director & CEO  
W.S. Industries (India) Limited



### ECONOMIC & TAXATION COMMITTEE

**Mr. Vardhan Dharkar**

Executive Director – Finance  
KEC International Limited



### EASTERN REGION COMMITTEE

**Mr. Bhaskar Sen**

Director Transformers & Rectifiers  
(India) Limited

## IEEMA SECRETARIAT

**Sunil Misra**

Director General

### MUMBAI

**Anil Nagrani**

Dy. Director General

**Vilas M. Patil**

Dy. Director

**Suhas Nawathe**

Dy. Director

**Himanshu Chitnis**

Director

**Ninad Ranade**

Dy. Director

**Nishant Arora**

Dy. Head – Trade Fairs Marketing

**Shalini Singh**

Sub Editor, IEEMA Journal

**Pragati Sohoni**

Executive Officer

**Madhura Bhivandkar**

Executive Officer

### NEW DELHI

**J. Pande**

Sr. Director

**Ajay Mahajan**

Head – Trade Fairs Marketing

**Sudeep Sarkar**

Dy. Director

**Reema Shrivastava**

Dy. Director - HR

**Naveen Upreti**

Executive Officer

**Gopal mallik**

Head - HR

**Nishchal Churamani**

Head - Corporate Communications & PR

**Anita Gupta**

Dy. Director

**Jayant Chopra**

Executive Officer

**Anil Mehta**

Executive Officer

### BANGALORE

**K. Seetharaman**

Executive Officer

### KOLKATA

**Anupam Banerjee**

Executive Officer

### BANKERS

Bank of India, Mumbai  
Indian Overseas Bank, Mumbai, Delhi & Kolkata  
State Bank of India, Bangalore, Mumbai  
The Oriental Bank of Commerce, New Delhi

### AUDITORS

Singhi & Co., Mumbai

### INTERNAL AUDITORS

S.R. Rege & Company

### TAX AUDITORS

Sharp & Tannan, Mumbai

### SECRETARIAL CONSULTANT

V.N. Deodhar & Co.

## COMMITTEES AND SUB-COMMITTEES

### FOR THE YEAR 2013-2014

#### Committee of Administration:

Mr. Raj H. Eswaran (President)  
 Mr. Vishnu Agarwal (Vice President)  
 Mr. A.S. Chouhan (Vice President)  
 Mr. Sunil Misra (Director General)

#### Membership Committee:

Mr. Raj H. Eswaran (President) }  
 Mr. Vishnu Agarwal (Vice President) } Invitees  
 Mr. A.S. Chouhan (Vice President) }  
 Mr. Bhaskar Sen  
 Mr. Sunil Misra

#### Advisory Committee for Investment & Audit:

Mr. Raj H. Eswaran (President) }  
 Mr. Vishnu Agarwal (Vice President) } Invitees  
 Mr. A.S. Chouhan (Vice President) }  
 Mr. Chaitanya Desai  
 Mr. Sanjeev Sardana  
 Mr. Deepak Khandelwal  
 Mr. Sunil Misra

#### HR Committee:

Mr. Raj H. Eswaran (President) }  
 Mr. Vishnu Agarwal (Vice President) } Invitees  
 Mr. A.S. Chouhan (Vice President) }  
 Mr. Aaditya R Dhoot  
 Mr. Vikas Jalan  
 Dr. (Mrs) Jaya Sathe  
 Mr. Sunil Misra

#### Advisory Committee for IEEMA Journal:

Mr. Raj H. Eswaran (Chairman)  
 Mr. R.G. Keswani (Founder Chairman)  
 Mr. Narayan Sethuramon  
 Mr. Babu Babel  
 Mr. Mustafa Wajid  
 Mr. Sunil Misra  
 Mr. J. Pande

#### Economic & Taxation Committee

- Mr. Vardhan Dharkar, Executive Director – Finance and CFO, KEC International Limited. (Chairman)
- Mr. G S Sharma, Former Chairman, Economic & Taxation Committee and Consultant (Taxation), L&T – MHI Boilers Pvt. Ltd.
- Mr. P. Ramakrishnan, Head – Finance & Accounts, Larsen & Toubro Ltd.
- Dr. (Mrs.) Jaya Sathe, MD, Gilbert & Maxwell Electricals Pvt. Ltd.
- Mr. Ganesh Tawari, General Manager (Finance), EMCO Limited
- Mr. Adarsh Jain, General Manager (Finance / Commercial), KEI Industries Ltd.
- Mr. S. N. Kannan, Director – Tax & Customs, Schneider Electric India Pvt. Ltd.
- Mr. Arbind Aggarwal, Associate General Manager – Taxation, Schneider Electric India Pvt. Ltd.
- Mr. Ashok Sahijwani, Sr. Dy. General Manager, Larsen & Toubro Ltd.
- Mr. Sudhir Zutshi, Head-Government Affairs India, Underwriters Laboratories Ltd.
- Mr. P. Sridharan, Sr. Manager (Indirect Taxation), Siemens Ltd.
- Mr. Anand Thakur, Sr. Manager (Commercial), KEI Industries Ltd.
- Mr. Rahul Shah, Chief Financial Officer, Transformers & Rectifiers India Ltd.
- Mr. Chirag Thakkar, Manager (Indirect Taxes), Transformers & Rectifiers India Ltd.
- Mr. Sandeep Tilak, Vice President (Finance & Corporate Strategy), Bharat Bijlee Ltd.
- Mr. Yogendra S. Agarwal, Sr. General Manager, Bharat Bijlee Ltd.
- Mr. I. C. Thakur, DGM (Indirect Taxes), Apar Industries Ltd.

## REPRESENTATIVES ON VARIOUS BODIES FOR THE YEAR 2013-14

<b>Governing Body of Central Power Research Institute</b>	Mr. Raj H. Eswaran Mr. Aaditya Dhoot Mr. Anil Saboo
<b>R&amp;D Committee of Central Power Research Institute</b>	Mr. Mustafa Wajid Mr. Chaitanya Desai
<b>Development Council for Heavy Electrical &amp; Allied Industries (DCHEAI)</b>	Mr. Raj H. Eswaran Mr. Deepak Khandelwal
<b>Governing Council of National Power Training Institute (NPTI)</b>	Mrs. Indra Prem Menon Mr. R K Chugh
<b>Governing Body of Quality Council of India</b>	Mr. Vikas Khosla Mr. Ramani Kasi Mr. Sunil Misra
<b>Managing Committee of ERDA</b>	Mr. Vikas Jalan Mr. Babu Babel
<b>Indian National Committee (INC IEC)</b>	Principal Nom: Mr. Mustafa Wajid; Mr. Atul Kshirsagar; Mr. Sunil Misra Alternate: Mr. J. Pande
<b>Governing Council of MSME-Technology: Development Centre</b>	Dr. Jaya Sathe Mr. Ramani Kasi
<b>CII National Committee on 'Capital Goods &amp; Engineering'</b>	Mr. A.S. Chouhan Mr. S. Rajavel Mr. Sunil Misra
<b>Advisory Board on Sectoral (M&amp;E) – STQC Certification Services, Ministry of Communication &amp; Inf. Technology</b>	Mr. R. K. Chugh Mr. Harish Agarwal
<b>CII – ASCON</b>	Mr. Vishnu Agarwal Mr. A. S. Chouhan Mr. Sunil Misra
<b>Power Sector Skill Council – Central Electricity Authority</b>	Mrs. Indra Prem Menon Mr. Manish Pant Mr. J. Pande
<b>Mission Plan – IMG on Industry Competitiveness, Exports and Conversion of Latent Demand</b>	Mr. Raj H. Eswaran Mr. Vimal Mahendru Mr. Sanjeev Sardana
<b>Mission Plan – IMG on Technology Upgradation and Skills Development</b>	Mr. Raj H. Eswaran Mr. Vimal Mahendru Mr. Chaitanya Desai





L to R: Mr. Vishnu Agarwal - President Elect, IEEMA; Mr. Raj Eswaran - President, IEEMA & Mr. Ajit Chouhan - Vice President, IEEMA

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## REPORT OF THE EXECUTIVE COUNCIL TO THE MEMBERS

The Executive Council takes pleasure in submitting its report on the activities during the year along with the audited statement of accounts for the year ended 31.3.2014.

Following meetings of Executive Council were held in the year 2013-14

Meetings of the Council		
Sr. No.	Date	Venue
1.	5th April 2013	New Delhi
2.	4th July 2013	Bangalore
3.	13th August 2013	Mumbai
4.	27th September 2013	Mumbai
5.	26th October 2013	New Delhi
6.	10th December 2013	New Delhi
7.	7th January 2014	Bangalore
8.	27th February 2014	New Delhi

### MEMBERSHIP

#### Ordinary Members

During the year 36 Companies joined the membership of IEEMA, whereas 5 members discontinued their membership and 1 member company amalgamated. The new members are:

1. AGRAWAL METAL WORKS PRIVATE LIMITED
2. AJMERA INDUSTRIAL & ENGINEERING WORKS
3. AMAR INDUSTRIES
4. ASHOKA BUILDCON LIMITED
5. AUTOCAL SOLUTIONS PVT LIMITED
6. B. C. POWER CONTROLS (P) LIMITED
7. BLUE STAR LIMITED
8. CLORIDE POWER SYSTEMS & SOLUTIONS LIMITED
9. CORRUB INDUSTRIES
10. DANIELI INDIA LIMITED
11. EXCEL POWER SWITCHGEAR
12. GALAXY TRANSMISSION PVT. LIMITED
13. GREATWHITE ELECTRICALS PVT. LIMITED
14. H. R. STEEL INDUSTRIES
15. HARDEEP ELECTRICAL P LIMITED
16. HIVELM INDUSTRIES
17. INTELUX ELECTRONICS PVT LIMITED
18. JAGABANDHU ENTERPRISES (P) LIMITED
19. JOHNSON LIFTS PRIVATE LIMITED
20. LUSTRE ENGINEERING CORPORATION
21. MOSDORFER INDIA P LIMITED

22. MUSKAN POWER INFRASTRUCTURE LIMITED
23. NANGALWALA IMPEX P LIMITED
24. NGEF (HUBLI) LIMITED
25. NOVOFLEX MARKETING PVT LIMITED
26. PASCAL SWITCHGEAR INDIA P LIMITED
27. RUBY CABLES LIMITED
28. S.K.INDUSTRIAL CORPORATION
29. SESA STERLITE LIMITED
30. SHYAMA POWER INDIA LIMITED
31. SIMPLEX INFRASTRUCTURE LIMITED
32. TECHNOCRAFT INDUSTRIES (INDIA) LIMITED
33. TRITECH CORPORATION
34. ULTRACAB (INDIA) PVT LIMITED
35. UNITECH INSULATIONS & CABLES (INDIA) PVT LIMITED
36. VOLTECH MANUFACTURING COMPANY LIMITED

At the end of the year, number of Ordinary Members stood at 619 a net addition of 30 Members.

#### Associate Members

During the year 12 Companies joined the Associate Membership of IEEMA, whereas 15 Companies discontinued their membership. New membership list during the year was as follows:

1. APPLIED MATERIALS INDIA
2. CERAMICS RESERCH & DEVELOPMENT SOCIETY
3. CRADLE RUNWAYS (I) PVT LIMITED
4. DOBLE ENGINEERING PRIVATE LIMITED
5. EXCELSIOR MERCHANTS PVT LIMITED
6. HARTEK INDIA PVT LIMITED
7. NASHIK ENGINEERING CLUSTER
8. PANVA ENGINEERING PVT LIMITED
9. SCHINDLER INDIA PVT LIMITED
10. TOMORROW'S MARKET INNOVATORS PVT LIMITED
11. TTL TECHNOLOGIES PVT LIMITED (A FLUKE COMPANY)
12. ZAMIL INFRA PVT LIMITED

At the end of the year, Associate Membership stood at 166 down by 3 as 12 members joined while 15 members resigned.

#### Membership Position

**The total IEEMA membership at the end of the year stood at 785**

## IEEMA – Annual Convention and 66th Annual General Meeting

IEEMA Annual Convention with the theme 'Mission Plan 2022: Go Global' was held on 27th September 2013 at Hotel Grand Hyatt, Mumbai. Mr. E.M. Sudarsana Natchiappan, Hon'ble Minister of State for Commerce & Industry, Govt. of India was the Chief Guest. In his speech he said that "The Indian electrical equipment sector a \$25 billion industry, which contributes 1.4% to the nation's GDP, should focus on developing human resource capital and needs to increase its investment in creating more skilled manpower in order to compete with the global markets".

Mr. Ajoy Mehta, Managing Director, MSEDCL was the Guest of Honour. In his address he mentioned that the "Indian electrical equipment has a much bigger role to play in the domestic market before going global".

Following speeches of the dignitaries, the IEEMA SME Quality Awards (ISQA) ceremony took place. The winners of ISQA 2012 and 2013 were felicitated with awards at the hands of Hon'ble Chief Guest and the Guest of Honour. The Convention was followed by the 66th IEEMA Annual General meeting. Mr. J. G. Kulkarni, President for the year 2012-13 could not attend the AGM due to bereavement in his family. A one minute silence was observed to pay respects and pray for the soul of the deceased. In the absence of Mr. Kulkarni, Incoming President Mr. Raj Eswaran chaired the AGM and conducted the business session.

## IEEMA Executive Council Meetings

The Executive Council met eight times during the year 2013-14.

In its 1st meeting on 5th April 2013 at Gurgaon, the Council discussed about the status of electrical industry and expressed dismay at the abysmal condition of the electrical industry and its downtrend. The President suggested the industry

Members also stated that continued imports of large transformers and other equipment from countries like China and Korea were also causing harm to the industry. Further, It was noted that some of the major PSU buyers were openly opting for cheap Chinese equipment despite the Indian electrical industry suffering from over capacity which was created based on the anticipated 11th & 12th Plan demand for electrical equipment

should immediately brainstorm and meet the Minister for Power / the Secretary Power and convey their serious concern about the lack of demand and new investment.

The 2nd meeting was held on 5th July 2013 at Bangalore, where Members discussed and decided 'Mission Plan 2022: Go Global' as the theme for the 66th AGM. Members expressed serious concern over the general condition of the industry and felt that in addition to transmission we should also focus more on the various issues facing the distribution segment, based on the presentation made by the Chairman, T&D Projects Division.

The 3rd meeting was held on 13th August 2013 at IEEMA, Mumbai. It was a special meeting to approve the Financial Accounts for the year 2012-13.



Chief Guest Mr. E. M. Sudarsana Natchiappan, Hon'ble Minister of State for Commerce & Industry, Govt. of India; IEEMA President and Vice-Presidents at the Press Meet

The 4th meeting of the Executive Council was held on 22nd September 2014 at Mumbai after the 66th AGM. The 1st meeting of the newly elected Executive Council was held on 27th September 2013 at Mumbai. Mr. Raj Eswaran thanked members for electing him as President and also thanked Mr. J. G. Kulkarni, the Immediate Past President for the excellent work carried out by the Council under his leadership during the year 2012-13. In the presentation on State of Industry, Increasing imports in products like Transformers, Motors and Insulators was noted as a point of concern. In the discussion on extension of deadline for implementation of CRGO Notification, mention was made of the desirability of the notification being extended to domain refined CRGO.

The 5th meeting of the Executive Council was held on 26th October 2013 at Delhi. Council discussed about the state of electrical industry for the period April to August 2013 and felt that instead of aggregate figures in the Industry Overview, the Secretariat should also present Division-wise figures from the next EC meeting. During the meeting, presentations by respective Division Chairman about Cable Industry and Transformer Industry were made.

Members appreciated Mr. Mustafa Wajid for his presentation on Engineer Infinite and felt the programme has very good potential and should be taken forward. The Council was also given an update about ELECRAMA-2014 and ISQA Awards.

The 6th meeting of the Executive Council was held on 10th December 2013 at New Delhi. During the meeting Council discussed about enrolling Educational Institutions under a new category of 'Institutional Membership' of IEEMA.

During the Meeting, Chairman of Meter Division and Capacitor Division presented their respective industry status. President advised the Divisions to aim for 6-7 Utility outreach programmes per year in States in order to enhance relationship with utilities. An interaction with Mr. Tarun Vijay, Member of Parliament, Rajya Sabha was also organised during the meeting, adding great value to the discussions.

Council also suggested the Secretariat to engage in one-on-one and telephonic interactions with members, so as to elicit issues faced by them, acquaint them with the latest developments in the industry and chalk out a path on how IEEMA could interface better with the members and relevant government bodies in the long run. In this engaging process more involvement of members in IEEMA activities would be generated



Guest of Honour Mr Ajoy Mehta, MD, MSIEDCL delivering his address

The 7th meeting of the Executive Council was held on 7th January 2014 at Bangalore with a single point agenda - ELECRAMA-2014.

The 8th meeting of the Executive Council was held on 27th February 2014 at IEEMA, New Delhi. The Council discussed about IEEMA Membership from Educational Institutions and suggested that affiliated Educational Institutions recognized by UGC / AICTE could be granted 'Institutional Membership of IEEMA with no voting rights and decided to restrict such membership to Head of the Institution / Departmental Head of only those Educational Institutions which have cleared at least five batches of students. There would be a proposer and seconder at the time of admission of these institutions. Divisional membership charges for these Institutions would be restricted to two Divisions as free and rest to be charged.

Council also discussed about the industry overview for the period of April to December 2013 and felt that the industry overview should portray the reasons for the state of industry and also depict

a forward looking picture in view of approved power projects coming up. Council discussed about IEEMA's new initiative plan for Membership Outreach and Training programme for utilities with the objective to strike a relationship with members and nurture it.

Council also discussed about the forthcoming event of INTELECT-2015 scheduled in Mumbai from 22nd

to 24th January 2015. Council appreciated and adopted the 'Guidelines for Office-Bearers of IEEMA' that establishes a model code of conduct for Office-Bearers of IEEMA. Council discussed about SME Connect Initiative based on the presentation made by Dr. Jaya Sathe. Council nominated Dr. Jaya Sathe as chairperson of IEEMA SME Connect Initiative.

There was a presentation by Chairman, Smart Grid division and Mr. Mustafa Wajid presented an update on IEEMA's Collaboration with IEEE. Council also discussed about ELECRAMA-2014.

## REGIONAL ACTIVITIES

### Eastern Region

The first Eastern Region Committee meeting of 2013-14 was held in Kolkata on 17th May, 2013, at Kenilworth Hotel. The meeting started with a parting speech by Mr. P. Dhar, Head IEEMA Eastern Region narrating his experiences of 10 long years with IEEMA. The members gave him a standing ovation for his achievements and endeavour for the brand building of IEEMA in the Eastern Region. There were two presentations on - 'Balance of Plants' by Mr. P. Dhar and 'Design & Development of 1200KV Transmission Line Accessories & Hardwares' by Mr. H. Agarwal of Supreme & Co. Pvt. Ltd.

The second Eastern Region Committee meeting of 2013-14 was held in Kolkata on 19th July, 2013, at Calcutta Swimming Club. The meeting was addressed by Mr. C. S. Kumar - Chairman, Quality Cell, ISQA, for the promotion of ISQA 2014. This was followed by a presentation on 'State of Industry' by Mr. A. Banerjee of IEEMA Secretariat.

The third Eastern Region Committee meeting, 2013-14 was held in Kolkata on 19th September, 2013, at Calcutta Swimming Club. A presentation was given by Supreme & Co. Pvt. Ltd. with the objective of spreading awareness among small and medium industries for following established Quality Systems in Products and Processes and to further involve them in continuous improvement initiatives. A presentation was also made by Mr A Banerjee of Kolkata Secretariat on "Grid Stability-Progress since the July 2012 Blackout".

A meeting of Eastern Region members with the new Director General of IEEMA, Mr. Sunil Misra took place in Kolkata on 15th November, 2013. The Chairman

ERC, Mr. Bhaskar Sen welcomed Mr. Misra, on his first official visit to Kolkata. All the members present for the meeting not only introduced themselves but also participated in an interactive session regarding the present state of industry and issues pertaining to it. It was followed by two presentations by Mr. S. K. Dutta-CEO of EMC Academy on "Grid Stability in the Context of Grid Failure in July 2012" and by Mr. A.C. Lodha of Allied Ceramics Pvt. Ltd. on "General Scenario of Electrical Insulator Industry in India and Abroad".

The 5th ERC Meeting of 2013-14 took place in Kolkata on 22nd February, 2014, at Tata Steel Room, The Bengal Chamber of Commerce and Industry. The highlight was a presentation - 'The Wonders of Dabbawallas' by Mr. Gangaram L. Talekar, Special Executive Officer and Mr. Raghunath D. Medge from Mumbai Dabbawalla's Association.

## NETWORKING WITH GOVERNMENT

### Important Meetings

As the voice of the electrical equipment industry, IEEMA maintained a continuous dialogue and policy interface with the government and its various agencies and proactively engaged with them on issues of concern and challenges faced by the industry.

### Indian Electrical Equipment Industry Mission Plan 2012-2022

The Department of Heavy Industry (DHI), Government of India, with support from IEEMA and various stakeholders, over a period of almost two years and through numerous meetings and consultations, developed the Indian Electrical Equipment Industry Mission Plan 2012-2022 with a view to support the domestic electrical equipment industry's future and enhance its global competitiveness.

The Mission Plan envisages making India the country of choice for the production of electrical equipment and endeavour to achieve an output of USD 100 billion by balancing imports and exports. The Mission Plan seeks to steer, coordinate and synergise the efforts of all stakeholders to accelerate and sustain the growth of the domestic electrical equipment industry. It identifies five key areas for action: (i) industry competitiveness; (ii) technology up-gradation; (iii)





Mission Plan 2012-2022 being launched by Mr Praful Patel, Union Minister of Heavy Industries and Public Enterprises

skills development; (iv) exports; and (v) conversion of latent demand. Detailed recommendations have been formulated for strategic and policy interventions in these five critical areas that need to be addressed by the industry, with support from the government.

Post launch of the Mission Plan, DHI has set up two Inter-Ministerial Groups (IMGs) to formulate a cogent and common approach (Sep'14 to Jan'15) to deal with the various recommended interventions under the key areas. Members of the IMGs include government ministries / departments like Department of Heavy Industry (DHI), Ministry of Heavy Industries & Public Enterprises; Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry; Department of Commerce (DOC), Ministry of Commerce & Industry; Ministry of Power (MOP); Department of Revenue,

Ministry of Finance; Planning Commission; National Manufacturing Competitiveness Council (NMCC); Central Power Research Institute (CPRI); Central Electricity Authority (CEA); Bureau of Indian Standards (BIS); and industry representatives and IEEMA.

The first meeting of the IMGs took place on 28th October 2013, under the chairmanship of Mr. Ambuj Sharma, Additional Secretary, DHI. It looked at ways to provide a level playing field in India for domestic manufacturers to compete vis-à-vis imported equipment, reducing the transaction costs of exports from India, addressing technical barriers to trade in foreign markets to Indian products, standardisation, upgradation of testing facilities, equitable contract conditions and skills development.

The Mission Plan was launched by Mr. Praful Patel, the then Union Minister of Heavy Industries & Public Enterprises on 24th July 2013 at New Delhi. The launch took place in the presence of Dr. Sutanu Behuria, Secretary, DHI; Mr. Ambuj Sharma, Joint Secretary, DHI; Mr. Raj H Eswaran, President Elect, IEEMA; Mr. Vishnu Agarwal, Vice President, IEEMA; apart from more than 220 participants, including senior government officials and industry representatives at a function jointly organised by DHI and IEEMA

Several meetings were also held during the course of the year with Dr. Sutanu Behuria, Secretary, Mr. Ambuj Sharma, Additional Secretary, Mr. K K Tiwari, Industrial Adviser, Mr. Sunil K Singh, Director, Ms. Sanyukta Samaddar, Director, and other officials of DHI.

## MEETINGS

Numerous meetings took place with government officials across different Ministries and Departments of the Government of India during the year. A brief update on some of the significant meetings is given below:

### Meeting on Amendment of BIS Act

A meeting was convened by Mr. Sunil Soni, Director General, Bureau of Indian Standards on 17<sup>th</sup> April 2013 to get inputs / suggestions from all stakeholders on amendment of BIS Act.

IEEMA Secretariat officials raised the issue of conflict between the Indian Standards and the BIS Act. Whereas IS on Instrument Transformers specified that reference to the standard should be made in the rating plate along with other details; on the contrary, BIS Act prohibits reference to standard anywhere related with the product unless licensed by BIS.

### Meetings on Inverted Duty Structure

Tariff Commission, Ministry of Commerce & Industry, has been entrusted by the National Manufacturing Competitiveness Council (NMCC) to study the inverted duty structure of various products impacting the manufacturing sector. IEEMA Secretariat officials attended a meeting convened by the Tariff Commission on the subject on 11<sup>th</sup> June 2013, chaired by Ms. Smita Chugh, Member Secretary, and highlighted the instances of inverted duty structure faced by the domestic electrical equipment industry and also submitted a detailed note on the same.

### Inclusion of CRGO in Quality Control Order

Over a dozen meetings were called by various Ministries during the year on the issue of inclusion of CRGO in Quality Control Order as summarised below:

Mr. U P Singh, Joint Secretary, Ministry of Steel, held meetings to review the status of implementation of the said Order. On 6<sup>th</sup> March 2014, a meeting was convened by Mr. U P Singh to discuss the status of BIS certification of mills for various steel items,

including CRGO, that have been given exemption from mandatory certification till 31<sup>st</sup> March 2014. IEEMA was represented by Secretariat officials at the meeting. Having been satisfied with the progress, he gave the last extension to the Domain Refined Grades for 3 months in March 2014. All other grades had already been brought under mandatory BIS certification on 30<sup>th</sup> September 2013.

Mr. Devendra Chaudhry, Additional Secretary, Ministry of Power, held meetings to impress upon all stakeholders to work for speedy registration of all foreign mills with BIS for all grades of CRGO. On 12<sup>th</sup> March 2014, a meeting was convened by Mr. Devendra Chaudhry to discuss issues of mandatory BIS certification on CRGO, particularly Domain Refined Grades, and Transformers Quality Control Order. Secretariat officials represented IEEMA at the meeting.

On 19<sup>th</sup> March 2014, IEEMA Secretariat officials met Mr. Sunil Soni, Director General, Bureau of Indian Standards (BIS), to discuss issues related to the Quality Control Orders on Electrical Steel and Distribution Transformers, issued by the Department of Heavy Industry and the Ministry of Steel respectively. The revision of the corresponding Indian Standard on CRGO (IS 3024) and DT (IS 1180) were also discussed. Senior BIS officials from the Marks, Metallurgical and Electro technical Departments were also present.

Mr. Ambuj Sharma, Additional Secretary, Department of Heavy Industry, Ministry of Heavy Industries & Public Enterprises, took meetings to take stock of the situation with respect to tardy progress of mill registration with BIS for DR grades, impressing upon the Ministry of Steel to give extension to the higher grades.

### Quality Control Order on Electrical Transformers

Meetings of stakeholders were convened by Mr. Ambuj Sharma, Joint Secretary, DHI, on the Draft Quality Control Order on Electrical Transformers, on two occasions - 12<sup>th</sup> June 2013 and 3<sup>rd</sup> July 2013. IEEMA representatives highlighted the views of the industry on the issue.

After due consultative meetings, on 27<sup>th</sup> January 2014, DHI notified the above order, bringing transformers up to 100 kVA under mandatory BIS certification as per IS 1180. The Order shall come into force on 27<sup>th</sup>



July 2014. The standard is currently under revision with BIS to enhance the ratings to 2,500 kVA.

### Meetings on Insulators / Transformers

A meeting on import of insulators from China was convened by Mr. Devendra Chaudhry, Additional Secretary, Ministry of Power, on 17<sup>th</sup> June 2013. IEEMA representatives, led by Mr. Narayan Sethuram, Chairman, Public Policy Cell, highlighted the massive growth in import of Chinese insulators into India, resulting in serious threat to the survival of the Indian insulator industry.

On 14<sup>th</sup> February 2014, a meeting was convened by Mr. Devender Chaudhry, to discuss various issues related to transformer and insulator industry. Mr. K S Ramiah, Chairman, and Mr. D P K Udas, Vice Chairman, Insulator Division; and Secretariat officials represented IEEMA at the meeting.

### Working Group on Revision of Current Series of WPI (2004-05=100)

The Government of India has constituted a Working Group to revise the current series of Wholesale Price Index (WPI), under the chairmanship of Dr. Saumitra Chaudhuri, Member, Planning Commission. IEEMA has been nominated as a member of the Working Group. IEEMA Secretariat officials attended a meeting on 5<sup>th</sup> July 2013 to discuss the basket of commodities and the final meeting of the Working Group on 27<sup>th</sup> March 2014. At the earlier meetings of the Working Group, IEEMA submitted its detailed views on the subject, especially with respect to the over 30 price variation clauses (PVCs) operated by IEEMA for different kinds of products which are widely accepted and used by power utilities

### Meeting on Regional Comprehensive Economic Partnership (RCEP)

Mr. Rajeev Kher, Special Secretary, Department of Commerce, Government of India, convened a meeting of all stakeholders on 26<sup>th</sup> July 2013 to address Rules of Origin criteria under the Regional Comprehensive Economic Partnership (RCEP).

The concept of Regional Comprehensive Economic Partnership (RCEP) [or "ASEAN+6" pact] was initiated as

an effort towards strengthening regional integration among the 10 ASEAN nations and 6 partner countries namely, China, Japan, South Korea, Australia, New Zealand and India.

Once implemented, RCEP will lead to India's Free Trade Agreement with China (which does not exist at present) and it will have significant implications for Indian trade and industry. IEEMA later submitted a detailed representation in this regard.

### Meeting on Adoption of IS 12615:2011 as Mandatory Standard for Energy Efficient Motors

Mr. Anil Naik, Chairman, IEEMA Rotating Machines Division and Secretariat officials met Mr. D V Prasad, Joint Secretary, Department of Industrial Policy and Promotion, Government of India, on 8<sup>th</sup> August 2013 to discuss Mandatory BIS Certification for Energy Efficient Motors.

The electric motors manufactured in India conform to the Indian Standard IS 12615, which was harmonized in August 2011 with Global IEC standard 60034-30 for the efficiency classes (IE2 and IE3) and testing methods. IS 12615 is a voluntary standard, whereas the relevant IEC or equivalent international standards are mandatory in most of the countries, such as, EU, USA, Japan and China. These countries manufacture and sell only efficient motors in their countries, whereas freely export below IE2 level motors to countries like India, as there is no mandatory standard of high efficiency IE2 motors in India. This has been causing serious injury to domestic manufacturing capacity.

### Meeting on Difficulties Related to Tendering of Scott Type Transformers in Dedicated Freight Corridor Project

Mr. R K Tiwari, Chairman, and members of IEEMA Transformer Division and Secretariat officials met Mr. Navin Tandon, Additional Member (Electrical) and Mr. M C Chauhan, Executive Director (Railway Electrification), Railway Board, on 24<sup>th</sup> October 2013 regarding Tendering of Scott Type Transformers in DFCC.

Dedicated Freight Corridor Corporation of India Ltd. floated a global tender for various types of transformers, including Scott Connected Power



Transformers and Auto Transformers. The concerns raised by the industry were about the qualifying requirements of 60/84 MVA, 220/132 kV/54 kV Scott-Connected Traction Power Transformers and 8 MVA, 54 kV, 50Hz Auto Transformer for 2 X 25 kV feeding system for installation in Dedicated Freight Corridor Project. The qualifying requirements of this tender stipulated that the bidders might buy transformers from only those companies who had previously delivered such transformers to railway traction systems and which had been in operation for more than 5 years.

### Meetings on Imports from China

IEEMA Secretariat officials met Mr. Ajay Shankar, Member Secretary, and other officials of National Manufacturing Competitiveness Council (NMCC), on 12<sup>th</sup> November 2013 and Mr. Rajeev Kher, Additional Secretary, Department of Commerce, Ministry of Commerce & Industry, on 18<sup>th</sup> November 2013, and apprised them of the escalating imports of electrical equipment from China, and the threat it was posing to the commercial viability of the domestic industry which was already suffering on account of the slowdown in the country's power sector.

On 11<sup>th</sup> March 2014, an IEEMA delegation met Mr. Gautam H Bambawale, Joint Secretary (East Asia), Ministry of External Affairs. The delegation consisted of Mr. Ajit Singh Chouhan, Vice President; Mr. Narayan Sethuram, Chairman, Public Policy Cell; Officials from BHEL and IEEMA Secretariat. Other officials from MEA were also present at the meeting. IEEMA presented issues emanating from increasing imports of electrical equipment from China across the entire segment of industry, coupled with underutilisation of manufacturing capacity of domestic industry.

### Meeting on Power Sector Skill Council

On 24<sup>th</sup> January 2014, a meeting was convened by Ms. Neerja Mathur, Chairperson, Central Electricity Authority (CEA), to finalise the constitution of the Governing Body of the Power Sector Skill Council

(PSSC) and to decide the promoters' / industry's contribution to the initial corpus of fund for PSSC, amongst other administrative matters. IEEMA was represented at the meeting by its Secretariat officials.

### Meetings on Research & Development (R&D)

On 31<sup>st</sup> January 2014, IEEMA Secretariat officials met Mr. P K Sinha, Secretary, Ministry of Power, to discuss various issues including conducting research at CPRI and imparting training of State Utility officials on managerial and technical aspects.

On 3<sup>rd</sup> February 2014, Mr. N Murugesan, Director General, Central Power Research Institute (CPRI), visited IEEMA Delhi Office and met IEEMA Secretariat officials to discuss areas of cooperation between CPRI and IEEMA.

The QR terms were effectively going to eliminate participation of Indian transformer manufacturers. Industry recommended to waiving off the 5 year experience clause and allowing participation on a trial order basis unlike the conventional L1 bidder criteria

On 12<sup>th</sup> February and 27<sup>th</sup> March 2014, meetings were convened by Mr. Devendra Chaudhary, Additional Secretary, Ministry of Power, to discuss aspects of the Model on Innovation for Small & Medium Enterprises of Power Sector similar to SBIRI (Small Business Innovation Research Initiative) which has been put

in place for biotech enterprises. IEEMA Secretariat officials attended the meeting.

### Road Map of the National Smart Grid Mission

On 12<sup>th</sup> February 2014, a meeting was convened by Mr. P K Sinha, Secretary, Ministry of Power, to review the Road Map of the National Smart Grid Mission. Mr. R N Chaubey, Additional Secretary and Mr. B N Sharma, Joint Secretary (Distribution), Ministry of Power, were also present. Mr. C P Jain, Chairman, Meter Division; Dr. Satish Kumar, Chairman, Smart Grid Division; Mr. Vikram Gandotra, Vice Chairman, Smart Grid Division; and Secretariat officials represented IEEMA at the meeting.

### Meeting on India-Korea Energy Cooperation

On 13<sup>th</sup> February 2014, an internal meeting of the Working Group on Energy between Government of India and Government of Republic of Korea to promote cooperation in the energy sector was convened by



Mr. B N Sharma, Joint Secretary (Distribution), Ministry of Power, Government of India. IEEMA was represented by Mr. C P Jain, Chairman, Meter Division, and Secretariat officials. IEEMA highlighted the need to address the huge imbalance in bilateral trade in electrical equipment, promotion of technology transfers and joint ventures, and cooperation in areas like smart grid.

### Meeting on CEA's Performance Standards on Generation Equipment

On 14<sup>th</sup> February 2014, a meeting was convened by Mr. Ambuj Sharma, Additional Secretary, DHI, on Quality Standards for Power Generation Equipment. IEEMA was represented by Mr. Rajan Chandra, Vice Chairman, Power Generation Systems Division, and Secretariat officials. IEEMA highlighted the need for making the Performance Standards issued by CEA in 2010 for thermal power plants mandatory and to identify a designated agency for implementing the standards and imposing penalties in cases of default.

## PRE-BUDGET MEETINGS

### Economic & Taxation Committee

The IEEMA Economic & Taxation Committee 2013-14 was re-constituted, by the Executive Council, under

The Committee steered the pre-budget exercise and represented the IEEMA Pre-Budget Memorandum for Budget 2014-15 to the Government of India. Besides this, the Committee also submitted its recommendations on Foreign Trade Policy and reduction on transaction cost in exports

the Chairmanship of Mr. Vardhan Dharkar, Executive Director (Finance) and CFO, KEC International Ltd. and other senior finance / taxation officials of member organisations as members of this Committee.

The Committee deliberated and addressed issues of members in areas of finance; implications of taxes and duties; impact of Government notifications/ circulars on the industry; and policy amendments. The Committee also played an advisory role and provided guidance to members in these areas.

The Committee conducted two meetings during the period, where it addressed various taxation and policy issues faced by the industry, which include, denial of deemed exports benefits to projects funded by JICA; high stamp duties in the State of Maharashtra; denial of TED refund under ICB; and provisions under Companies Act.

## BRAND IMAGE OF IEEMA

### Publications, Web Presence Media Coverage, and Advertising Promotion

The IEEMA Corporate Communications, PR & Brand department has expanded the visibility and positive image of IEEMA both in India and abroad. This has been successfully executed particularly in the ELECRAMA year, during Membership Meetings and interactions with key Government bodies.

### IEEMA Journal

IEEMA Journal has been consistently furnishing value added content to its readers, covering current topics pertaining to the industry and in particular power sector. Keeping up with the practice, in the year 2013-2014 too, the journal offered varied content to its readers through insightful cover stories, interview sections namely face2face, special features and other popular sections



like product showcase, news, seminars & fairs and power scenario.

The important highlight of IEEMA Journal in the year 2013-2014 was the coverage of some important cover stories on varied subjects like Union Budget, High Performance Conductors, Trade Agreements, Electricity Act 2003, Annual Review of Industry Growth and Financial Analysis of Electrical Equipment industry FY 12-13.

IEEMA Journal underwent one major change in the year 2013-2014, in the view of change in Editorship. Mr. Sunil Misra, newly appointed Director General of IEEMA took over as Editor of IEEMA Journal, from December 2013 issue onwards.

Key events of IEEMA like launching of Indian Electrical Equipment Mission Plan 2012-202, IEEMA's participation in African Utility Week 2013 at Cape Town and IEEMA delegation meeting with Consul General of India in Cape Town, Utility Outreach programme with Maharashtra Utilities, IEEMA-IEEE MoU were also covered in the special feature section.

Over a period of last one year, IEEMA Journal has extensively covered interviews of top officials of utilities and SEBs and the same have received positive feedback, from the concerned state government bodies and other readers too, in terms of the depth of the quality of the content

## IEEMA Website

Over the last 1 year IEEMA website has undergone some critical changes including faster updating of content including news and activities IEEMA is in the process of coming out with an online PVC calculator, Online IEEMA publication and Online payment facility through secure payment gateway. Microsites continue to be created based on the events, for example [www.intelect.in](http://www.intelect.in), for the integrated event cum conference platform on smart electricity - Intelect 2015.

## IEEMAIL

IEEMAIL, the monthly e-bulletin prepared by IEEMA for members, is updated monthly on our website [www.ieemail.com](http://www.ieemail.com). The bulletin covers happenings in the power sector as reported in leading national financial dailies. It also includes Growth Indices for Electrical Industry, Production Statistics, Export and Import data, Foreign trade, Rate of inflation, Bank interest rate, World Commodity Price Data and Public Finance.

## IEEMA News & Views

The monthly newsletter IEEMA News & Views (IN&V) is also available on the IEEMA website [www.ieemail.com](http://www.ieemail.com). It gives details of news related to IEEMA-representations to the Central & State governments, interaction with various Ministries & Government's arms, delegation visits to & from India, divisional & regional activities, national & international seminars, production statistics, list of Basic Prices issued by IEEMA during the month, and forthcoming training programmes organized by IEEMA.

## Media Coverage and Advertising Promotion for Special Events like ELECRAMA - 2014

International B2B magazines widely covered IEEMA in terms of the work it has been doing as an apex power transmission and distribution association in India. Also, the contribution of ELECRAMA-2014 as a

major platform for India and international players in the power segment, has been conspicuously promoted. The president, vice president for IEEMA and brand ambassadors for ELECRAMA-2014 have

been instrumental in highlighting the consistent contribution of IEEMA members to the value chain of power generation, transmission and distribution.

## UNDERSTANDING MEMBERS' NEEDS / COMMUNICATING WITH MEMBERS

### IEEMA Membership Outreach Initiative (New Activity)

With a view to make the organisation relevant to the Members, one of the initiatives that flowed from this objective is the Membership outreach programme. As in many industry associations in IEEMA also we have a substantial number of member companies who are less active or not active in regular activities. More so, we realise that there is a lack of connect with these dormant members. The membership outreach programme aimed at first identifying these companies and then approaching for a one-to-one meeting at their work place with the intention of establishing

and nurturing a relationship 445 out of 790 members were identified as dormant and a target was set to connect with all of them. 190 members were met in person by IEEMA Secretariat at their workplace and 235 were contacted through a telephone call. Other than establishing a relationship, they were briefed about IEEMA structure, divisional and other activities. Many needs and aspirations of the members came out during these interactions. Many of them where immediate response was needed, necessary action was taken.

The Council had set out at the beginning of the year to engage more deeply with the membership. To achieve this membership and utility outreach programmes were undertaken in the course of the year to enhance interface between members and its customers. The outcome has been very encouraging.

To meet the same objective, it was decided by the IEEMA leadership to have its presence established in 10 prominent States of the country. At the time of publication of this report following 10 States have active resident representatives at the following locations - Srinagar, Chandigarh, Lucknow, Jaipur, Bhubaneswar, Raipur, Guwahati, Ahmedabad, Chennai and Hyderabad.

Skilled & knowledgeable manpower is the need of the hour for almost all the sectors in the country, more so in the critical electrical sector. IEEMA has launched a new initiative for such skill interventions known as A.S.K, for members and also for the utilities.

A.S.K stands for:

A = Attitudinal / Behavioural change

S = Skill Upgradation

K = Knowledge Upgradation

Based on the needs identified, course material will be prepared and deployed. These programmes would be of open, in-house or residential type, depending on the customer requirement. The expert faculty will be drawn from the industry and international organisations like CIGRE, IEEE, IET and other industry experts.

IEEMA realises that there is a lack of connect with few dormant members. 190 members were met in person by IEEMA Secretariat at their workplace and 235 were contacted through a telephone call



IEEE-IEEMA MoU exchange; Dr. Konstantinos, MD, IEEE SA & Mr Sunil Misra, DG, IEEMA

To enhance its technical knowledge pool, IEEMA has also recently entered into a comprehensive MoU with IEEE (with a membership strength of 4.75 lakh engineers) which will be engaged with IEEMA

in knowledge exchange, joint training programmes, expert lecture series, technical seminars, workshops, expositions, etc. IEEMA has also entered into a similar MoU with IET (Formerly EE) which is UK based and has about 1.5 lakh members.

### IEEMA Utility Outreach Initiative (New Activity)

The relevance of an organisation can be gauged by the degree / frequency of its engagement with its various stakeholders, including the user industry. Continuing in this vein, the Executive Council of IEEMA has decided to engage more closely with the numerous utilities across the country for understanding their needs and expectations from the industry and try to address them in the best and fastest possible manner.

IEEMA launched its A.S.K programme for utilities in March 2014 at Jaipur. IEEMA has embarked on a journey of positively engaging with its user industry and also help them upgrade their K = knowledge about the latest available technology, enhancement of S = skills like technical, soft, managerial, etc.

A = Change in Attitude / Behavior is also highly desirable by both members and utilities for smoother functioning of their business. This activity has been taken up on priority basis by IEEMA.

The IEEMA team plans to meet the heads of various utilities and their HRD departments over the next several months as a first step. The idea is to understand the training intervention needs of various utilities. IEEMA also plans to conduct pilot programs at various substations to closely understand needs and provide customized in-house / residential intervention. Webinars are also planned, where physical access may be limited.

IEEMA has also decided to spread its wings across various regions and open 10 state level offices to help understand and address stakeholder requirements at a more detailed level. IEEMA has also recognized a need for creating awareness about its price variation clause, formulas and indices across the country which help mitigate volatility in price for long term contract. IEEMA is also creating an 'Online Calculator' for price variation clause (PVC) which can be easily used by its stakeholders.

IEEMA is also planning to provide a biannual networking platform for utility heads from across the country, wherein specialised intervention at a macro level will be carried out. IEEMA will also seek participation of Ministry of Power for this unique platform.

### Compilation and Circulation of Statistical data

IEEMA continues to publish Production / Sales statistical report for 12 different electrical products and one Order Book position report (OBP) every month on the basis of data furnished by the members.

IEEMA used this data effectively for showcasing status of Power Sector, updates on growth of electrical equipment industry and EXIM analysis highlighting key issues like threat imports & its adverse impact on the domestic industry.

Collection and compilation of data process follow Competition Compliance rules & regulations. Individual company wise data is never disclosed to anyone and kept confidential and only aggregate

compiled statistical report is published. The average lead-time of furnishing Sales / Production reports was about 55 days.

Due to its regular interaction with utilities, IEEMA has recognised that there is an urgent need for skill interventions in various utilities at various levels, since many of them do not have in-house resources for such expert interventions. An initial list of the utilities to be engaged with has already been drawn and meetings are under planning

With the guidance of respective industry division members, estimation of Indian T&D equipment industry size was carried out along with impact of EXIM data on the same. IEEMA also circulates import and export data for major electrical items

collected from select ports made available by private agency with time lag of 45 days.

### IEEMA Prices and Indices Services

IEEMA PV clauses & circulars are being increasingly used by all concerned stakeholders to mitigate their risks from fluctuations in the raw material prices.

PV clause for 'Polymer/Composite Insulator' was evolved and made operational from January 2013.

PV clauses for 'Instrumentation Cables' and 'Amorphous Core Transformers' were under discussions and deliberations of concerned IEEMA divisions. Conductor division has initiated incorporation of LME CSP Aluminium price along with domestic price for selection of PV settlement. The same is offered in Cable and Transformer PV circulars also. In Cable PV circulars, instead of 1<sup>st</sup> working day price; the monthly average price of domestic Aluminium was replaced from August 2013.

Average lag time for publishing monthly prices/ indices circulars for different products was around 40 days since there is a delay in publishing monthly wholesale price indices (WPIs).

Statistics Reports and PV circulars are being published through a dedicated web site <http://publications.ieema.org>

### SME Focus

#### IEEMA SME Quality Awards (ISQA)

IEEMA organized ISQA felicitation function for ISQA 2012 and ISQA 2013 winners concurrently with IEEMA Annual Convention on 27<sup>th</sup> September 2013 at Hotel Grand Hyatt, Mumbai.

Dr. E.M. Sudarsana Natchiappan, Hon. Minister of State for Commerce & Industry and Shri. Ajoy Mehta, Principal Secretary (Energy), Govt. of Maharashtra and Chairman and Managing Director MSEDCL were present as Chief Guest and Guest of Honor respectively and also felicitated the winners. The function was attended by more than 200 industry leaders along with press & media.

ISQA is a special initiative for SMEs being conducted by IEEMA for past 6 years and has now gained a substantial credibility in the quality circles.

The objective of the same is to encourage the SMEs to understand, imbibe, and make relevant (institutionalize) Quality Systems in all the processes that go into creating, a world-class product.

IEEMA through the ISQA process primarily provides an opportunity for the SMEs, to not only, focus on the product Quality but also on the entire process.

Following are the list of winners of ISQA 2012 and ISQA 2013 at various levels:

## ISQA 2012 - Winners

### IEEMA SME QUALITY CERTIFICATE

**(For Strong Commitment to Quality Systems) Under Category 'A'**

- Exalt Engineering Industries, Mumbai
- Micaply, Mandideep, Bhopal

### IEEMA SME QUALITY CERTIFICATE

**(For Strong Commitment to Quality Systems) Under Category 'B'**

- Chhabi Electricals Pvt. Ltd., Jalgaon
- Narayan Powertech Pvt. Ltd., Vadodara
- Pragati Udyog, Nashik
- Terminal Technologies (I) Pvt. Ltd., Vasai

### IEEMA SME QUALITY COMMENDATION

**(For Significant Achievement in Quality Systems) Under Category 'A'**

- Consolidated Dynamics Pvt. Ltd., Virar

### IEEMA SME QUALITY COMMENDATION

**(For Significant Achievement in Quality Systems) Under Category 'B'**

- Ashida Electronics Pvt. Ltd., Thane

### IEEMA SME QUALITY PRIZE

**(For Sustainable Quality Systems) Under Category 'B'**

- PRS Permacel Pvt. Ltd., Ambarnath

## ISQA 2013 - Winners

### IEEMA SME QUALITY PRIZE

**(For Sustainable Quality Systems) Under Category 'B'**

- PRS Permacel Pvt. Ltd., Ambarnath
- IEEMA SME QUALITY COMMENDATION

**(For Significant Achievement in Quality Systems) Under Category 'A'**

- Exalt Engineering Industries, Mumbai
- Micaply, Mandideep, Bhopal

### IEEMA SME QUALITY COMMENDATION

**(For Significant Achievement in Quality Systems) Under Category 'B'**

- Chhabi Electricals Pvt. Ltd., Jalgaon
- Narayan Powertech Pvt. Ltd., Vadodara
- On Load Gears, Chennai
- Terminal Technologies (I) Pvt. Ltd., Vasai

### IEEMA SME QUALITY CERTIFICATE

**(For Strong Commitment to Quality Systems) Under Category 'A'**

- Anshuman Tech Pvt. Ltd., Pune



## IEEMA SME QUALITY CERTIFICATE

### (For Strong Commitment to Quality Systems) Under Category 'B'

- Inspros Engineers Pvt. Ltd., Mandideep
- Pragati Udyog, Nashik
- Quality Power Electrical Equipment Pvt. Ltd., Sangli

## IEEMA SME QUALITY CERTIFICATE

### (For Strong Commitment to Quality Systems) Under Category 'C'

- Supreme & Co. Pvt. Ltd., Kolkata

Examiners are the pillars of the assessment process of ISQA. To encourage them to deliver the best, IEEMA also felicitates the 'Best Examiner' Award. Mr. S. R. Kulkarni and Mr. Projit De were felicitated with this award for ISQA 2012 & ISQA 2013 respectively.

## New SME Connect Programme

The landscape of the Indian MSME, which is the backbone of our Industrial economy, is likely to undergo dynamic changes, especially with the changing global business and trade equations. India along with GCC and S E Asia is fast emerging as huge market potential, which hitherto was Europe's domain. India is a recognized global hub for Value Engineering and Reverse engineering, with almost all of the global MNC's having their Engineering & development centres in India.

It is imperative, that the Indian MSME segment adapts to the changing dynamics and positions itself as global technology and engineering hub of the world.

Given the fact that over 75% of IEEMA members are from the MSME fraternity and keeping in view the Presidency's direction to be more relevant and add significant value, IEEMA will soon be launching an all new MSME Connect initiative titled iSME.

The objective of this initiative is to transform SME's into Global, Best in class, Intelligent SME's. The ISQA initiative, which was primarily aimed at improving Quality processes of SME's will now be a subset of this new iSME program. A core team comprising of Mr. Ajay Dhagat, Capt. Katre and Dr. Jaya Sathe have already completed the pilot phase with 9 organizations and

are in the process of giving the finishing touches to this new initiative.

This soon to be launched project, iSME will offer interventions and consultations, including hand holding, by renowned Experts with demonstrated capabilities for various aspects of business & organization development, like modern and intelligent manufacturing practices, best industrialization processes, bench-marking with European SME's, global market intelligence and anticipation of trends, leveraging the Indian native human capital and innovation, branding, global sourcing, taxation, new product development, etc. The response and review of the pilot phase is indeed very encouraging and this initiative of IEEMA is all set to augur in new beginnings and paradigm shift in the way the world perceives the Indian MSME.

## NETWORKING WITH OVERSEAS INDUSTRY ASSOCIATIONS AND ORGANISATIONS

### ORGANISING ELECRAMA

#### ELECRAMA-2014 - Global Business opportunity

As per estimates of the International Energy Agency (IEA) demand for energy is expected to grow exponentially but the transmission and distribution losses will also grow unless T&D equipment makers improve their efficiency. The World Bank (Department of Sustainable Energy) plans to lend US\$8 billion to entities producing and transmitting power. Estimates put the need for incremental global investments of US\$100 billion for power (including renewable sources), where the share of T&D equipment and services is expected to be around 20 – 25%.

Under this backdrop, a colossal power transmission and distribution (T&D) ecosystem came alive in January 2014, at the 11th edition of IEEMA's flagship event – ELECRAMA-2014 (Bangalore International Exhibition Centre), which is the world's largest exposition of electrical T&D equipment.

India is on the threshold of a major power revolution and would add 100 GW of power generation capacity in the 12th Plan period, one of the biggest additions of





ELECRAMA-2014 inauguration by Mr. K. Siddaramaiah, Hon'ble Chief Minister of Karnataka

power capacities in the world. With this undercurrent, the exposition showcased products and technologies through the entire voltage spectrum, from 220 V to 1,200 kV, conforming to global standards and specifications; significant logistics – spread over six halls, having a gross area in excess of 70,000 sqm. It hosted 805 exhibitors from India and 165 from 25 countries at the BIEC exhibition centre in Bangalore.

At this dynamic platform, the organisers pioneered the international transmission and distribution (T&D) Conclave. Supported by the ministry of power, ministry of heavy industries and public enterprises and ministry of commerce and industry, the government of India, ELECRAMA-2014 attracted a record number of visitors from the global electrical industry. ELECRAMA also played host to a number of technical and commercial interactions through concurrent events and technical conferences:

#### Inauguration, 8th January 2014

ELECRAMA-2014 was inaugurated by Shri. Siddaramaiah, Hon'ble Chief Minister of Karnataka on 8th January 2014. Shri. D K Shiva Kumar, Energy Minister of Karnataka; Shri. Devendra Chaudhry,

Additional Secretary, Ministry of Power, Government of India; amongst others were also present. In his inaugural address, Shri. Siddaramaiah, called on the Indian electrical equipment industry to play a vital role in improving the country's power infrastructure and asked the manufacturers to rapidly absorb new technologies to meet the evolving global standards for efficiency and sustainability.



ELECRAMA-2014 inside hall view

Shri. Shiva Kumar conveyed the happiness of the State Government to partner with ELECRAMA-2014 as Karnataka continued to be in the forefront

of the country's industrialisation. Shri. Chaudhry highlighted that India was on the threshold of a major power revolution and would add 100 GW of power generation capacity in the 12th Plan period, one of the biggest additions of power capacities in the world.

## CEO Summit



CEO Summit being facilitated by Ms Mini Menon

- The third IEEMA CEO Summit; theme: The power situation in Karnataka and the state's plan to support industry with power.

## ChangeXchange 2014 – 2<sup>nd</sup> Reverse Buyer-Seller Meet (RBSM)

- 6,000+ meetings over two days done by foreign buyers.
- Positive feedback by Indian sellers (ELEC RAMA-2014 exhibitors) resulting in estimated business generated of over US\$150 million.
- Attended by 400+ buyers from 42 countries of Africa, Asia, Latin America, SAARC and Iran.

The RBSM was organised with support from the Department of Commerce, Ministry of Commerce & Industry, Government of India, under the Market Access Initiative (MAI) Scheme. ChangeXchange 2014 was much bigger and power-packed than the first edition and was attended by 400+ buyers from 42 countries of Africa, ASEAN, Latin America, SAARC and Iran.

Indian Sellers (ELEC RAMA-2014 exhibitors) expressed a great deal of satisfaction over business conducted at the RBSM resulting in an estimated business generation of over USD 150 million

## CIGRE Technical Sessions

– For the second time, presentations by globally eminent CIGRE experts were organised by IEEMA and CIGRE India. These covered high voltage equipment, overhead lines, substations, HVDC and power electronics, distribution systems and dispersed generation.



Networking Session with Members of Parliament from 19 African Countries

Attendees included The National Water and Electricity Company of Gambia, Central Electricity Board of Mauritius, Dhaka Power Distribution Company Ltd., Rural Electrification Board of Bangladesh, SBEE Benin, Kenya Power Lighting Company, Kenya Rural Electrification Authority, Electricity of Mozambique (EDM), Transmission Company of Nigeria, Electricity Vietnam, ZESCO Zambia, Zimbabwe Electricity Supply Authority, Electricity Supply Corporation of Malawi and Hydrochile.

## Seminar on New Generation High Performance Conductor, 10th January 2014

For over a hundred years, electricity has been traditionally delivered using bare overhead conductors such as ACSR and AAAC. However, industry today is in a flux, resulting in shifting to next generation of conductor technology, which is High Performance Conductor (Low Loss and High Temperature Low Sag Capabilities).

To showcase the next generation conductor technology to the users, a seminar was organised on 10th January 2014 concurrently with ELEC RAMA-2014 giving insight to the participants to understand in detail about the types of HPC and their benefits,

stringing techniques, types of hardware used, etc. Speakers included Mr. S K Negi, MD GETCO; Mr. Mataprasad, renowned technocrat; Mr. Surender Kumar, PGCIL; Mr. Ajay Bhardwaj, Sterlite Grid; and Mr. Shubhramshu Pattanaik, Deloitte. The Seminar was attended by 175+ participants from various power utilities across India.

### **TRAFOTECH 2014, 10th and 11th January 2014**

TRAFOTECH 2014, the 9th International Conference on Transformers was held concurrently with ELECRAMA-2014, with the theme 'Transformers for Smart Grid'. Mr. B.N. Sharma, Joint Secretary, Ministry of Power, Government of India, was the Chief Guest at the inaugural session and addressed the more than 500 delegates. Mr. Sharma, in his inaugural address, stated that the government would soon launch a national smart grid mission and monitor the implementation of policies and programmes envisioned in the smart grid road map for the power sector, which would help in finding solutions for some of the daunting challenges being faced. Other dignitaries at the session included, amongst others, Mr. G Kumar Naik, MD, KPTCL; Mr. S.K. Negi, MD, GETCO; Mr. N. Murugesan, DG, CPRI.

There were six technical sessions on - Transformer Applications for Smart Grid; Transformer Efficiency; Reliability through Materials, Accessories and Processing; Sustainability Issues for Transformers; Towards Maintenance Free Transformers; and Fail Safe Transformers. In all 54 papers including 21 from overseas were presented over the two days of the Conference.

Three keynote addresses were delivered by eminent international experts - Mr. Thomas Fogelberg, ABB power Technologies, Sweden on 'Transformer Losses - European Commission Regulations and European Standards'; Mr. Thomas Lazarz, CG Power, Belgium on 'Transformers for a Smart Grid'; Dr. Rajamani, Chief Consultant- Reliance Infrastructure Ltd., India on 'Functional Features of Transformer - Expectations

from User Perspective'.

### **Engineer Infinite 2014 and Innovation Day, 11th January 2014**

ELECRAMA believes in the power of the future, more so in the power of the youth and the student, and the Engineer Infinite initiative is geared towards unleashing the creative potential of this powerful youth, for the benefit of this country, and for the world itself. Engineer Infinite 2014 included recent trends in the subjects related to electrical energy sector, IT and computer science branches along with the traditional 'electro technology' branches. It received an overwhelming response and widespread participation from all over the country with more than 1,800 entries + a highly filtered 74 were selected for final display and demonstration during ELECRAMA-2014.

Representatives of 50+ Indian Central and State power utilities, including over 45 chairmen, managing directors and directors, visited the exhibition and were exposed to the latest products and technology on display. Procurement officials of power utilities from across the world visited the exhibition to get a first-hand view of the wide array of electrical equipment manufactured in India

ELECRAMA-2014 was supported by the Ministry of Power, Ministry of Heavy Industries & Public Enterprises and Ministry of Commerce & Industry, Government of India.

For the first time ELECRAMA received state level support. The Government of Karnataka

hosted and extended unstinted support to the event. Further BESCO was the Distribution Utility Partner and KPTCL was the Transmission Utility Partner. KREDL the state renewable energy department also actively supported the Event.

This time around for ELECRAMA-2014 internationally renowned industry leaders agreed to be the Brand Ambassadors and included Mr. Gregoire Poux-Guillaume, President, Alstom Grid; Mr. Jean Pascal Tricoire, Chairman & CEO, Schneider Electric SA; Mr. Tony M. Gatt, President, Energy Division; and Mr. R N Nayak, CMD of Powergrid Corporation of India.

**Innovation Day** witnessed a lively panel discussion on the theme of 'Future of Electricity - Technology, Energy Security and Empowerment' with distinguished panelists including Mr. Pankaj Kumar Pandey, Managing Director, BESCO; Mr. Tarun Vijay, Member of Parliament; Mr. Anil



Swarup, Additional Secretary, Cabinet Secretariat, Government of India; Mr. Mustafa Wajid, CEO, Meher Energy Ventures; and Dr. V K Aatre, Former Scientific Advisor to Defence Minister.

The Innovation Day event ended with the prize distribution for the Best Student Projects of Engineer Infinite 2014 competition. A Jury of eminent persons from diverse engineering backgrounds did a thorough evaluation of the projects on display and decided the winners.

### Awards to Exhibitors at a special Function at The Exhibitors Nite - JOSH 2014

IEEMA awards the efforts and entrepreneurship of the exhibitors who participate in the show. The exhibitors participated under different categories with different space allotments for the Best Stall and Best Product categories. The Jury was selected based on their strong technical expertise and long industry experience.

About 75 entries were received for the Best Product category and the assessment was made based on parameters like innovation, usability of product in long run, energy saving criteria, etc.

### The following products were chosen as the winners for Best Product under various categories

1. Overall Product developed by an Indian or Foreign Exhibitor: Omicron Energy Solutions Pvt. Ltd. for CIBANO 500 & OMS 605
2. Best Product developed by an Indian Exhibitor: Larsen & Toubro Ltd. for AU series of Final Distribution Products – A Complete Solution
3. Certificate of Appreciation: Sterlite Technologies Ltd. for ULTRA EFF Low Loss Cable
4. Best Product developed by an Indian Exhibitor in Small Scale Sector: Jognics for Mpp Capacitor Winding Machine

Certificate of Appreciation: Teknocrats Control System (I) Pvt. Ltd. for Solar Pump Controller

The Best Stall contest had a separate Jury under each category that included eminent Architects and Planners, Corporate Communications Consultants, Industry Counsellors, etc. The assessment was made

taking into consideration various parameters which included overall appeal, optimum use of space, branding and brand projection, use of green materials / technology, innovation in products, behaviour of stand staff towards visitors etc.

### The following stalls were chosen as the winners for Best Stall under various categories:

1. Certificate of Appreciation: Best Stall in the category of IEEMA SSI Pavilion: Yoshama and Company Pvt. Ltd.

Certificate of Appreciation: Balaji Electro Controls Pvt. Ltd.

2. Best Stall in the Category of Shell up to and including 15 sq.m.: Veritek Engineering Pvt. Ltd.

Certificate of Appreciation: Kloeckner Desma Machinery P.L.

3. Best Stall in the Category of Shell above 15 and up to and including 30 sq.m.: Abhi Metals

Certificate of Appreciation: Jay International

Special Mention: Bharat Electro Instrument Mfg. Co.

4. Best Stall in the Category of Shell above 30 sq.m.: Citizen Metalloys Ltd.

Certificate of Appreciation: Ensto India Pvt. Ltd.

5. Best Stall in the Category of Bare Space up to and including 100 sq.m.: DSM India Pvt. Ltd.

Certificate of Appreciation: Quality Power Electrical Equipments Pvt. Ltd.

Special Mention: Qualitrol (Div. of DHR Holding India Pvt. Ltd.)

6. Best Stall in the Category of Bare Space above 100 and up to and including 300 sq.m.: Ravin Cables Ltd.

Certificate of Appreciation: Jyoti Ltd.

Special Mention: Raychem RPG Ltd.

7. Best Stall in the category of Bare Space above 300 sq.m.: Anchor Electricals Pvt. Ltd.

Certificate of Appreciation: Skipper Electricals (India) Ltd.

Special Mention: Crompton Greaves Ltd.



#### 8. Best Stall in the Category of Overseas Exhibitors: Hyosung Corporation

Certificate of Appreciation: Chint Electrics Co. Ltd.

#### Exhibitors' Night, 11th January 2014

On 11th January 2014, an electrifying evening of fun, food and entertainment was organised for exhibitors featuring the Bollywood's hottest dynamic duo, Vishal & Shekhar. Over 2,300 participants enjoyed the scintillating musical evening with a thanksgiving dinner by the Chairman ELECRAMA

#### INTELECT - 2015

India is on the threshold of change. The Government has stepped on the accelerator to take the Smart India mission to a higher level through substantial budgetary provisions and providing the much-needed thrust under the 12<sup>th</sup> five-year plan.

The bold vision encompasses 100 Smart cities, which specifically includes the original 30 cities envisaged under the NSGM (National Smart Grid Mission). The contours of the plan augur a major role for 'Intelligent' Electricity & Equipment to play a major role in realizing this vision.

In the context of Smart cities, which is a wider domain, encompassing multiple stakeholders, ranging from planning, IT, transportation, Security, Education and all services under public domain, Intelligent Electricity is a key area, which would define the smart aspect in terms of powering this phenomenon.

IEEMA has a key role to play in this equation by being the pre-eminent representative of the power transmission and distribution sector and as a key member of the technical committee of the National Smart Grid Mission. IEEMA aims to take the driver's seat in rallying the Industry to gear up to this challenge and INTELECT plays a pivotal part as a part of that strategy.

Jointly planned & developed by IEEMA and IEEE, as part of its MoU for cooperation and exchange of knowledge and expertise, INTELECT is a first-of-its-kind technology demonstration show around the theme of 'connected intelligence in electricity of things' conceptualized and designed by a committee of leading minds in the space. The core themes in the form of pavilions would be in the space of Smart cities & Smart Grids including H3O – an automation driven experiential demonstration in home, hotel, hospital and Office segment which represents a majority part of the social communities, Integration of Renewables, Micro-grids & Rural Smart Electrification

INTELECT looks at the future of increased and intelligent automation towards sustainability through interconnected power systems by bringing together the entire electricity and electronic ecosystem as a connected ecosystem of all things - electric, electronic and is intelligently networkable on to a single event platform.

This will be the first ever event to break the silos of renewables, off grid systems, distribution automation, rural electrification, InfoTech, HVAC, LVDC, people movers, e-mobility, lighting, building automation, power storage, security, micro grids, cloud computing,

M2M communications and present an integrated view of the holistic ecosystem.

The maiden edition of INTELECT is slated for 22 to 24 January 2015 and comprises of eminent Members from the Industry. INTELECT is well appreciated by the industry and also features a conference themed '**Smart Electricity for Emerging Markets**' designed by IEEE and supported by IEEE Power

Engineering Society, IEEE Computer Society & IEEE Communications society. The parallel tracks of the conference include:

1. Efficient Distribution Systems
2. LVDC
3. Smart Rural Electrification
4. E - Mobility & People Movers
5. Smarter Grids & Smarter Consumers
6. Understanding Standards & Protocol

Supporting the event would be a traditional exhibition format featuring stands of key Marquee players in this Intelligent Electricity domain who would showcase their expertise in this space.

It offers IEEMA members a tremendous platform to launch their future-ready smart product and technologies, to comprehend the changing dynamics



and absorb a ringside view to the future of electricity across the complete value chain. It gives them critical opportunity to build networks, exchange ideas and evolve to be the energy evangelists of the future.

INTELECT offers an early adopter advantage to a segment that currently has no parallel and precedence but a promise of an immense possibility of being part of the Indian Smart city revolution. With the involvement and support of the Government of India through its initiatives, it brings the key Smart City stakeholders on the same table that can be shared by an IEEMA member to contribute his share to the cause and in the process build the business vision for the future.

Planned to feature during the 'non-Elecrama' years, INTELECT is all set to break traditional approach to events and is perceived to become a long term, strategic property of IEEMA in association with IEEE and with enthusiastic participation and support from the industry.

## PROMOTING 'MADE IN INDIA' BRAND

### IEEMA - Participation in African Utility Week - *Delivering beyond tomorrow*

**14-15 May 2013, Cape Town, South Africa:** The 13th Annual African Utility Week (AUW), Conference and Exhibition, a show dedicated to electricity and water, was held in the city of Cape Town in South Africa. AUW, organised by Spintelligent – Publishers of ESI Africa and other publications, provided a vibrant platform to exchange business opportunities for solution providers, utilities and large power users. Held at the Cape Town International Convention Centre, the entire show offered a combination of presentations through various workshops, discussion panels, networking opportunities and at the main exhibition around 250 exhibitors displayed their products and technologies. The exhibition and conference focused on areas like transmission and distribution, smart grids, generation, metering, clean power, water, large power users, investment and finance. The event was inaugurated by Mr. Brian Dames, CEO, Eskom, South Africa. Eskom was the host utility for AUW.



Dr. Swatee Kulkarni, Consul General (3rd from left), Indian Consulate office – being visited by IEEMA Delegation

Among the audience were officials of power and water utilities of Africa and provided a platform for organisations in the power and water sector to find solutions to current challenges and optimise performance. Around 5,000 power and water professionals from across the world attended the event. The AUW exhibition hall included around 250 exhibitors, out of which a special dedicated exhibition area for 'Clean Power Africa exhibition' showcased around 40 exhibitors from renewable energy sector, such as solar and wind power.

IEEMA had a special pavilion in the AUW exhibition where three IEEMA members also participated. Apart from these, a few more IEEMA members also participated in the exhibition independently. IEEMA had its own stall which was suitably set up, with a bright colour scheme, to apprise about IEEMA and its activities and promote ELECRAMA-2014 with facts and figures on the African market for electrical equipment and the trade relations between India and Africa.

Mr. Sanjeev Sardana, IEEMA Executive Council Member and Chairman, ELECRAMA-2014 Organising Committee, was also present throughout the exhibition and interacted with many delegates and exhibitors. Over the two days of the exhibition, the IEEMA stall was visited by over 150 delegates, including several officials of the power utilities of Ghana, Kenya, Madagascar, Malawi, Namibia South Africa, Sudan, Tanzania, Uganda, Zimbabwe, etc. Delegates who visited the Stall were briefed about the Indian electrical equipment industry, IEEMA, ELECRAMA-2014 and the concurrent Reverse Buyer-

Seller Meet (RBSM), eliciting great interest in IEEMA activities. Many other delegates from EPC companies, consultants, electrical equipment users also visited the IEEMA stall and almost all of them took note of the strengths and capabilities of the Indian electrical equipment industry. IEEMA officials also availed the opportunity to meet African power utility officials at the several networking receptions organised at the exhibition venue.

On the first day of AUW, Mr. Sanjeev Sardana made a presentation on 'Grid Expansion and Improvements in India', during which he briefed the audience about the Indian power sector, new technologies adopted in the Indian transmission system, existing and emerging economic and business relationship between India and Africa, the areas for bilateral business co-operation, especially in the power sector, and the capabilities of the Indian electrical equipment manufacturing industry. He also briefed the delegates about IEEMA and ELECRAMA-2014 and its concurrent events and invited them to visit ELECRAMA-2014 and see first-hand the Indian electrical equipment and technologies that would be showcased.

During AUW, many pre-conference and conference workshops were held in parallel covering subjects like power (transformers, substations, metering, cables, motors, generators), hydro-electricity, wind, solar, renewable energy for large power users, etc.

A day prior to the exhibition, on 13th May, IEEMA delegation of 13 members, led by Mr. Sanjeev Sardana met Dr Swati Kulkarni, Consul General, Consulate General of India, Cape Town, South Africa. Mr. Sardana apprised Dr Kulkarni about IEEMA and its activities and ELECRAMA-2014 and its concurrent events. Dr Kulkarni took a keen interest in the discussions.

On 15th May, Dr Swati Kulkarni, Consul General, hosted a dinner at her residence in honour of the visiting IEEMA delegation. Other guests included a mix of people from industry, academics, legal and other consultants and some businessmen of Indian origin. Mr. Sardana briefed the gathering about IEEMA, ELECRAMA-2014 and trade relations between India and Africa.

### HANNOVER FAIR 2014 7th to 9th April 2014 (visit)

HANNOVER MESSE- 2014 attracted more than 180,000 visitors from more than 100 different nations,

matching 2012 with a high percentage of industry professionals and top buyers and decision-makers among attendees. The visitors came to Hannover to explore the future of industry and invest in the latest factory and energy technology on show by some 5,000 exhibitors.

This year's HANNOVER MESSE Partner Country was the Netherlands. 250 companies from the Netherlands exhibited at HANNOVER MESSE 2014, setting a new record for Partner Country participation.

IEEMA has been participating in the Hannover Fair since 1984. This year IEEMA did not have a stand. However, three representatives from IEEMA visited the Fair at Hannover after visiting the Light + Build Fair at Frankfurt, Germany. Our members present there missed our stand and requested our continued presence.

Sixty five Indian companies including thirteen from IEEMA membership participated in the Hannover Messe.

### IEEMA Visit to Light & Building Fair 2014 Frankfurt Germany

The Light + Building Fair is held at Frankfurt Messe, Frankfurt, Germany every 2 years. This year's Light+Building took place between 30 March – 4 April, with the theme '**Explore Technology for Life – the best energy is the energy that is not consumed**', had a record 2458 exhibitors and attracted a record 211,500 trade visitors from 161 countries, with nearly half coming from outside Germany.

At the completely booked out trade fair grounds of more than 240,000 m<sup>2</sup>, on display were numerous innovations in the four official product segments: lighting, electrical engineering, home and building automation as well as software for the construction industry.

Besides countless new luminaire designs, one of the main topic deals with energy, which is intelligently controlled and networked in a Smart Grid, so that the potentials of different sources, storage devices and consumers can be efficiently exploited.

Nine Indian companies out of which three are IEEMA members participated in the exhibition. Also present



were about 300 Chinese companies predominantly in hall 10.1 along with exhibitors from Taiwan & Hong Kong. The International sales partners across the globe promoting this show number in excess of 150 in that many countries.

The 6-day exhibition attracted more than 2,00,000 visitors, about 50% from Europe and balance 120 other countries.

The IEEMA contingent comprising of Capt. V. W. Katre, Executive Council Member IEEMA, Mr. Anil Nagrani, Deputy Director General IEEMA and Mr. J. Balaji, Head Exhibition, IEEMA visited the fair, with the objective of meeting with various important entities like KNX, BAC-NET, Frankfurt Messe Authorities, German counterpart ZVEI, Associations from Spain, Italy, Hong Kong, Croatia and USA. Project Builders and system integrators predominantly for INTELECT-2015.

More than 100 interesting stands in 6 shortlisted halls were visited and initial contacts established with regard to INTELECT exhibition.

## ORGANISING SEMINARS, WORKSHOPS AND TRAINING PROGRAMMES

### 7th T&D Industry Conclave

Division hosted the 7th T&D Industry Conclave on 11<sup>th</sup> December 2013 at Hotel Westin, Gurgaon.

Industry Conclave is one of the flagship events of IEEMA, where the entire industry meets to deliberate on issues and challenges of the industry and the way forward. From a modest beginning of 125 participants in 2007, the figure doubled in 2013. The Conclave has emerged as the most eagerly awaited annual event for the entire Electrical industry.

The prime objective of this event was to provide an interactive platform to the T&D industry. Initial two years had the theme focusing on inter-Divisional issues, moving to capacities and technology in 2009. The theme was broad-based in 2010, when external experts were invited for the first time to address members on wide ranging issues.



7th T&D Conclave inauguration: L to R: Mr. Ajit Chouhan - Vice President, IEEMA; Mr. Vimal Mahendru, President, Legrand Group; Mr. R. D. Chandak, Managing Director & CEO, KEC International Limited; Mr. Vishnu Agarwal - President Elect, IEEMA; Mr. Raj Eswaran - President, IEEMA

The 2013 Conclave had Additional Secretary, Cabinet Secretariat, Mr. Anil Swarup and Advisor Energy, Mr. I. A. Khan addressing members on diverse topics. Other guest speakers were:

1. Mr. Rohit Chandra, Consultant to Power Sector Skill Council (Skill Development – Engaging the Manufacturing Sector)
2. Mr. Gagan Kakkar, GE South East Asia (Best Management Practices & Business Ethics)
3. Mr. Shailendra Kumar, L&T Construction-PT&D (Attaining Global Bench Mark – Environment Health & Safety)
4. Mr. Michel Augonnet, Sr. Vice President, Alstom Grid, France ( Global T&D Solutions - Recent Trends)
5. Mr. Vimal Mahendru, Past President, IEEMA (Mission Plan 2012-2022, The Way Forward)

Dabbawalas of Mumbai were the star attraction of the Conclave. Mr. Raj Eswaran, President, IEEMA also shared his Vision during the Conclave.

### SEMINAR ON GLOBAL TRENDS IN EHV INSULATORS

IEEMA Insulator Division organised an international Seminar on usage of EHV Insulators on 25<sup>th</sup> September 2013 in New Delhi, focusing on latest global trends for selection of insulators for different voltage and different environment. The seminar was organised in association with CEA and under the guidance of Ministry of Power to provide a forum for experience sharing and interaction with domestic and international experts. It was inaugurated by Mr. Devendra Chaudhry, Addl. Secretary, Ministry of Power. Mr. Ravindra, the then Chairman CEA gave the keynote address. The Seminar had presentation on:

- Evolution of Insulator Technologies
- Latest developments in Porcelain, Composite and RTV Insulator Coating Technologies
- Experience with different types of Insulators in different environments
- World-wide Field Experiences
- Field Experiences in Indian states.

Eminent international speakers included Dr. Ravi Gorur (USA), Mr. Ralf Bebensee (Germany), Dr. Igor Gutman

(Sweden), Mr. Chris McConnery (Canada) and Mr. Arthur McPhee (Australia). Field experiences in Indian sector were presented by Mr. S. K. Negi, Managing Director, GETCO and Mr. Oomen Chandy, Executive Director, PGCIL. Presentations were followed by a panel discussion chaired by Mr. Ravindra, Chairman CEA to draw conclusions and identify further actions to be taken up on this vital subject. The seminar was attended by around 200 participants from utilities, industry and other stakeholder groups.

### TRAINING PROGRAMMES

IEEMA Training Center organizes training programmes aimed at providing inputs to industry on technological, managerial and industry related topics, thereby assisting them to gain competitive edge needed for the progress of the organization. During April 2013 to March 2014, IEEMA Training Centers in the four regions organized over 20 training programmes on diverse topics. Organized at various locations across India, these programmes received enthusiastic response from industry and were appreciated by participants. More than 250 participants attended the programmes.



■ ■ ■ PRODUCT DIVISION REPORTS

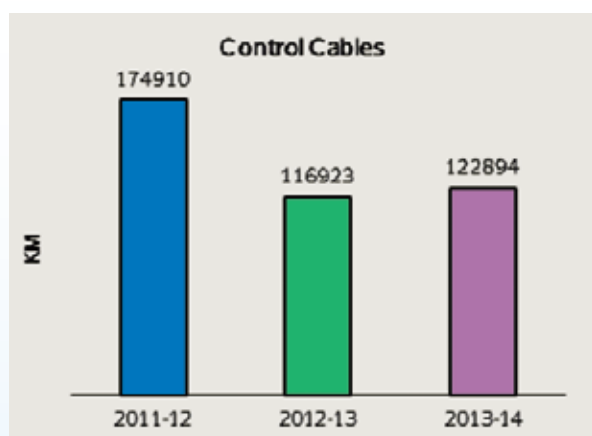
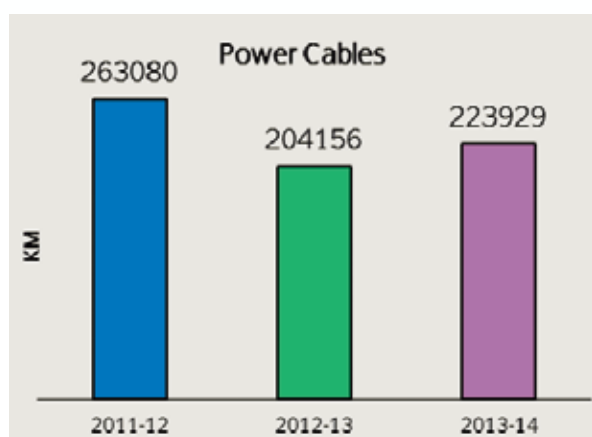


## PRODUCT DIVISION REPORTS

### CABLES

Indian power cable industry is the matured industry and can manufacture cables up to 400 KV. The industry is struggling to remain competitive in the global scenario despite having higher local costs as well local taxes and duties.

The year 2013-14 commenced on a sluggish note as there was decline in power cable demand. However some improvements were observed in the export orders. In the last quarter, the enquiry inflow was observed to be improved a little, still no improvements observed in commercial terms.



The industry also faced the situation that import duty of polymer has been raised from 5% to 7.5% creating an Inverted duty structure; and felt the need to bring it to the attention of the IEEMA Policy Cell and government for remedial measure. Members generally were of the

opinion that imports is a big concern going forward and Cable sector should be given a sufficient duty protection, thereby discouraging imports and save the valuable foreign exchange.

#### Key Issues:

- In many cases Buyers are not honoring contractual terms mainly payment terms, resulting in cash flow problem for the members.
- The industry faces the problem of over capacity due to continued slowdown in economy. This has resulted into prolonged fierce competition and erosion of margins.
- It is also a matter of great concern that "Project Imports" and FTAs of our Government with various countries has helped foreign manufacturers become more competitive due to reduced / NIL duty on import of Cables, whereas corresponding benefits are not available to the Industry for RM import. This has created an inverted duty structure and put the Industry in a difficult situation.
- There is threat from imports in the voltage range of 66 KV and above, resulting due to inappropriate policies of the government. Huge imports were observed in the areas of specialty cables as well. No import threats observed in MV segment.
- Further, accessories of higher voltages above 33 kV are also being imported in a big way, in the absence of technology in this segment.
- Divisional Activities:
- **Study on standardization & Specifications:** It was observed that specifications change substantially from customer to customer. Some customers also ask for type test reports from independent labs for each voltage / type / size of cables which is not required as per relevant specifications. It was decided that members will study specifications of a few utilities and make a comparative study. This will be analyzed further by the technical committee.
- **LME issue** – Local Aluminium producers wanted to shift to LME as price source. The same was

unanimously accepted by the Division and it was also informed to the Conductor Division.

- **Evolution of PVC for Instrumentation cables:**  
The division deliberated on this subject and it was decided to evolve separate formula for instrumentation cables. Initially only copper factors were compiled and finalized based on the data received from major members. However, it was decided to evolve steel factors also to make the formula complete. The process is on.

## CAPACITORS

### Status of Industry

Capacitors are one of the most efficient of manmade electrical products and have one of the widest ranges in terms of ratings and applications: covers the entire spectrum from a few pico Farads to Farads, few volts to Mega volts, micro amperes to Mega amperes and DC to few Giga Hertz.

Capacitors provide reactive power compensation, transient suppression, harmonic filtering and is a key element of power transition from 2 dimension (Quantity & cost) to 3 dimension (quantity, cost & quality) and helps to increase T & D efficiency, drive energy conservation and paves way for sustainable development.

Reactive Power management is an essential element of any electrical power network and with emphasis on sustainable development and energy conservation the reduction of network losses has gained significant importance. The use of Capacitors is long been accepted as the most practical solution to improve power factor in any electrical power system. The application of Capacitors has multiple benefits like reduction in current losses, reduction in demand, better asset management, deferred capital expenditure, enhanced voltage stability margins, higher quality of power, release of blocked capacity etc.

The industry delivers multiple products for multiple applications like low and medium voltage shunt power capacitors, medium voltage series capacitors, surge capacitors, energy capacitors, capacitors for appliances, harmonic filters, static VAR compensators etc. for reactive power compensation, harmonic filtering, transient suppression, energy storage etc.

India's rapid electrification and development of electrical network have led to an unprecedented development of power capacitor industry.

Increasing growth of HVDC transmission technology and advanced SVC is expected to drive the future need for capacitors. Growth in renewable energy sources like wind and solar energy and need for large scale grid integration of renewable energy sources are expected to be a potential target area for capacitors as well as power conditioning solutions. Evolving grid codes is expected to drive the business for power as well as energy storage capacitor.

Electric mobility is another emerging segment which is growth driver for capacitors coupled with high speed electrical traction. Proliferation of non-linear loads and stringent norms for harmonic distortion is expected to drive the demand for harmonic filter capacitor and harmonic filtering solutions. Electrical energy storage system and smart grids are futuristic potential growth drivers for the industry.

Capacitor technology is increasingly moving towards compact capacitors, capacitors with higher harmonic capabilities, capacitors for high temperature applications, capacitors with green materials etc.

In the first nine months of the current fiscal, Capacitor industry has grown by 44.6%,

### Division Members

There are about 40 member organisations, where 18 are capacitor manufacturers.

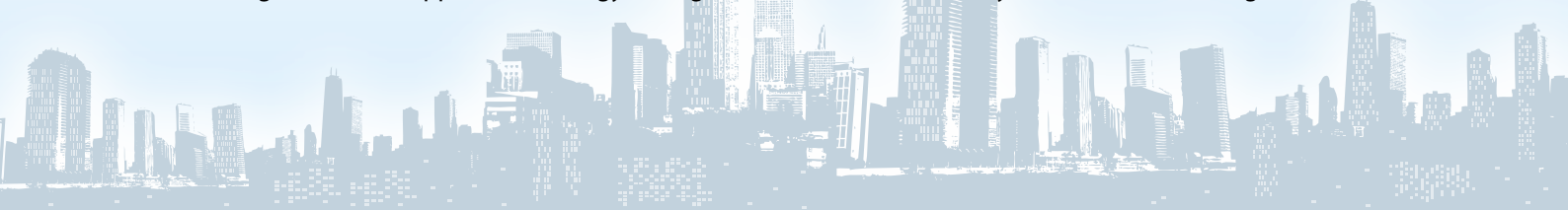
### Division activities

The drivers for capacitor industry include growth in power sector, increasing penetration of non-linear loads such as drives, inverters, converters etc., regulations & norms for power quality, increasing cost and awareness of impact of poor power quality etc.

Aligned to the growth drivers, the activities of IEEMA capacitor division are mainly focused on:

#### **i. Increasing awareness amongst various stake holders on various aspects of power quality and benefits of power conditioning.**

The capacitor division of IEEMA has been for the past 18 months actively involved in increasing awareness



amongst various stakeholders on aspects and impact of harmonics and benefits of harmonic filtering.

To promote this activity, the division conducted an interactive session on 10<sup>th</sup> July 2012 at New Delhi. The session was held amongst Policy makers from REC, CEA, CERC, CBIP and PFC and participants from Industry to understand and explore the demand of Capacitors.

The Interaction was held to make understand the benefits and usage of capacitors to stakeholders in India which at present are not fully utilized.

Mr. Pankaj Batra, Chief Engineer, CERC, also Chairman of Indian Smart Grid forum (ISGF) group 6 participated in the session, invited IEEMA to present the application

of the product at various regions through workshops conducted by smart grid forum. In this financial year IEEMA Capacitor division participated in Workshops held at Lucknow, Gandhinagar and Bhubneshwar. The delegates to these workshops are from state regulators, utilities, Industry etc. The presentation is made by the division representative where topics on application and benefits of capacitors along with harmonic filtering and emerging trends in design etc. are covered. The sessions were also marked by practical demonstration of harmonic analysis and this is expected to go a long way in increasing awareness amongst participants on certain aspects of power quality.

Participation in smart grid workshops at different regions has helped to increase brand of IEEMA and take it closer to some of the key stakeholders of Indian power sector.

## ii. Formulating standards for products and systems

The Capacitor division of IEEMA actively participates in standards formulation for Capacitors as a step towards raising the industry standards in all Government

Committees including BIS. Chairman, IEEMA Capacitor division is a principal member on BIS ET 29 committee on power Capacitors that formulates Indian standards for Capacitors and its related products.

The major current activity undertaken by division members is the formulation of Indian Standards for Low Voltage Automatic Power Factor Correction (APFC) Panels. IEEMA Capacitor division has worked

One of the major initiatives undertaken by the division was preparation of the product specifications for MV power capacitors and banks jointly with NRPC (Northern Region Power Committee under CEA). IEEMA capacitor division worked proactively to formulate these standards. The final specifications had been submitted to NRPC to be used by northern region utilities. The division has taken the task of horizontal deployment of this standardization to other regions and also come up with a manual for good installation and Operation & Maintenance practices for MV shunt capacitor banks

jointly with BIS and CPRI to formulate the specifications for APFC panels which is expected to raise the standards of the product as well as the entire industry. Members of IEEMA capacitor division actively contributed in the preparation of the document, participated in technical discussions and also contributed in the workshop organized by CPRI jointly with BIS and IEEMA. This platform

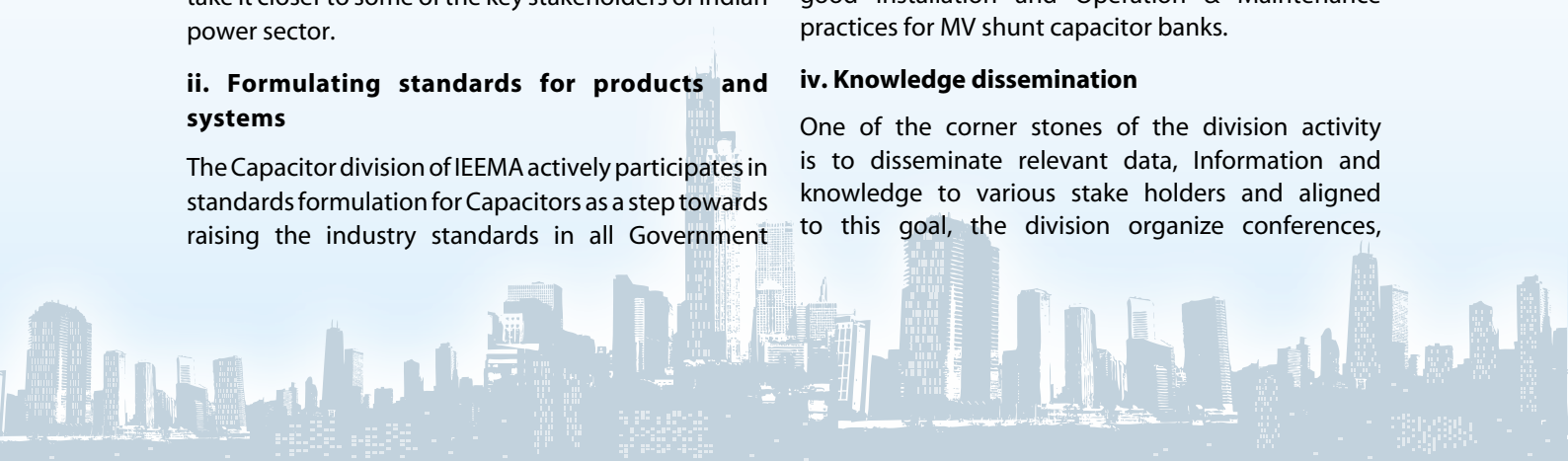
helped to bring the various stake holders together to capture the industry voice. The initiative was supported by providing sample APFC panels to CPRI for validation of some of the proposed tests in the new standards.

## iii. Standardization of products

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## iv. Knowledge dissemination

One of the corner stones of the division activity is to disseminate relevant data, Information and knowledge to various stake holders and aligned to this goal, the division organize conferences,



seminars, and training sessions. These knowledge management sessions target various stake holders such as capacitor manufacturers, end users (Utilities & Industries), consultants, regulators, testing & research organizations etc. The flagship event in this aspect is "CAPACIT", held once in four years.

CAPACIT held once in four years by IEEMA provides a platform to discuss the latest developments in Capacitor technology, recent advances and futuristic trends. This International Conference provides a common and a unique platform to all the stake holders such as manufacturers of capacitors and raw materials for capacitors, manufacturers of power conditioning devices, users of capacitors and power conditioning devices from industries and utilities, regulators, research and development organizations, testing and standardization organizations, academicians and students. The event is marked by 2 days of knowledge sharing and intense deliberations on recent developments, operational experience, and requirements for future. The 8<sup>th</sup> International Conference on Capacitors "CAPACIT 2014" is planned in November 2014 at New Delhi with theme "Smart Capacitors for Smart grids".

#### v. Value added services to members

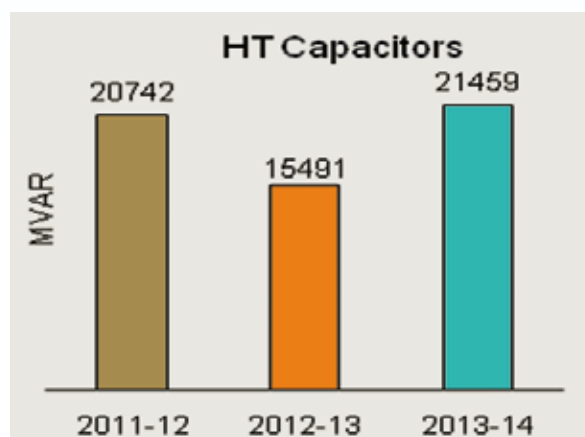
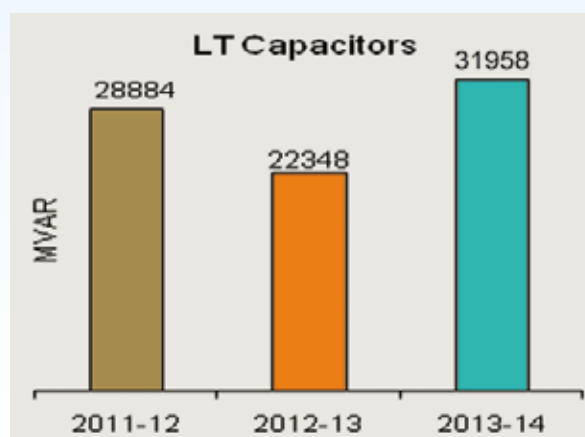
Other value added services the division provides to its members include:

##### Formulation of PVC clause

IEEMA plays an important role in updating and revising the price variation clause (PVC) that helps to provide coverage to certain extent for increased raw material and labour cost. Price variation clause currently in force for Capacitors came into effect in 2001. Taking cognizance of the changes occurred since then, new Price Variation formula came into effect from Jan. 2011.

##### Production Statistics

The market size of this Industry as against the size of the overall T & D equipment industry is very low in India as compared to other developed countries. The Indian Capacitor industry represents a very small portion of the global Capacitor market. The weightage of Capacitor Industry is not even 1% compared to total Electrical Equipment Industry index.



Out of 40 division members, 16 manufacturers report the production figures. About 4 to 5 members who are manufactures do not report the production data. The cumulative growth of both LT and HT capacitor Industry for FY 2013-14 as highlighted in production statement shows positive growth of about 40% for this FY compared with the same period in last FY 2012-13. The industry size for FY 2013-14 is Rs. 560 crs with net market size of Rs. 360 crs which include imports and exclude exports.

The growth is driven mainly by a high growth in exports of LT Self-Healing capacitors (43%) and domestic growth in HT capacitors (38%). The period also witnessed a moderate growth in domestic LT self-healing capacitors and decline in export of HT capacitors.

##### Policy interventions and support required

Policy support is an essential element of sustainability & growth of an industry, which is very small for this product compared to the total T & D industry. This

industry has a high dependence on imported raw materials and thus subjected to foreign exchange variations, fiercely competitive in a small market base, but nevertheless is very critical to the operation of entire power sector! (Just cannot imagine an AC power system without reactive power!!)

**Some of the policy support required would be in:**

#### **I. Increasing the size of the market**

The benefits of installation of capacitors are well understood and established but the actual installation is still lagging in India as compared to what would be required for optimal operation of our T & D network. With very high T & D losses and limited availability of good quality low cost coal, installation of capacitors is a very effective way of releasing MW that could be used to augment generation. The aspects and impact of various power quality issues is well understood and installation of power conditioning devices / capacitors is expected to improve the efficiency of entire system.

Enabling policies for accelerated addition of capacitors / power conditioning devices by utilities as well as end customers is expected to go a long way in growing this critical industry. Some of the policy measures could include:

- Joint study on reactive power management and its impact on system operation and efficiency. IEEMA capacitor division is open to partner with CEA / PFC / REC to prepare such a study.
- Formulate and implement norms for harmonic distortion for utilities and industries.
- Financial incentives / penalties for harmonic pollution.
- Accelerated installation of shunt capacitor banks across the system to improve operational efficiencies and reduce T & D loss.
- Guidelines for installation of series reactors with shunt capacitor banks to reduce harmonic distortion.
- Minimize delays in project execution
- Standardize specification
- Change buying practices

#### **II. Creating a level playing field**

Eliminate distortion in cost due to local taxes such as LBT, Octroi, etc. and implement policies to reduce the overall cost to the industry to enhance its (global) competitiveness.

#### **III. Reduce transaction cost in exports / imports**

#### **IV. Incentivize export of power capacitors**

The industry is characterized by a high capital cost and high breakeven levels and when subject to low domestic demand or volatile domestic demand can spell doom and thus incentivizing exports is step towards de-risking the industry. Such incentives (e.g. power capacitors under FPS) will help to offset some additional costs to be borne by manufacturers in assessing and servicing demand global markets.

#### **Division meetings**

Four division meetings have been conducted in the last financial year (2013-14)

### **CONDUCTORS**

Power stations, which are into the process of generating electrical energy, are generally located far away from the urban areas where the consumers are located. In order to transmit power to the end user there is huge and complex network of conductors between the generating stations and the consumers. These networks together form a complete Transmission and Distribution system but the function of both the systems is marginally different from each other. The main function of Transmission system is to deliver bulk power from generating stations to the load centers and large industrial consumers who are residing beyond the economical service range of regular primary distribution lines. The power is further stepped down in substations where it is distributed to domestic and commercial users. The power can be transmitted either employing overhead system or underground system.

In early days conductors used on transmission and distribution lines were usually copper. But aluminium conductors have completely replaced copper because of much lower costs and lighter weight of aluminium as compared to copper, having similar resistance. Aluminium Conductors are of different types such as (i) All Aluminium Conducts (AAC) (ii) All Alloy Aluminium

Conductors (AAAC), (iii) Aluminium Conductors Steel Reinforced (ACSR), and iv) All Aluminium alloy conductor steel reinforced (AACSR). These are used in Transmission and Distribution system to carry the generated electrical energy from the generating station to the end user. The major difference between AAC, AAAC, and ACSR conductors are the materials they are constructed from. AAC is manufactured from electrolytically refined aluminium with 99.7% minimum purity. AAAC is made from an Aluminium alloy whereas ACSR contains a combination of Aluminium reinforced with steel.

AAC Conductors were developed as a consequence of the galvanic corrosion that ACSR Conductors are susceptible to. AAC is used as bus bars in substations, mainly in urban areas where the spacing is short and the supports are closer. Due to its property of high corrosion resistance, they can be extensively used in coastal areas.

The ACSR conductors are most commonly used for overhead transmission system, whereas AACSR and Extra high strength ACSR conductors are used for river crossing, where installation involves extra-long spans. The high tensile strength and balanced aluminium to steel ratio for weight and strength allows to use ACSR where longer spans with less support is required. The different strengths ACSR can be achieved by varying percentages of steel core. The major advantage of this type of conductor is that desired strength can be achieved without losing ampacity.

On the other hand, AAAC has large mechanical resistance than AAC which permits its use as a bare overhead conductor on aerial circuits for power transmission and distribution lines. It also has better sag characteristics and strength to weight ratio as compared to AAC. Its weight per unit and resistance is also lower which gives it advantage over the ACSR. Also, AAAC conductor has better corrosion protection than ACSR conductors. Due to these reasons, AAAC is most preferred conductors as compared AAC and ACSR.

Central and State Government are in continuous process to make power accessible to every corner of the country. Due to this massive, rural electrification programme and commitment have been initiated to electrify each and every house in a remote village.

Various reforms have been started to ensure electricity is reached to all section of society. This initiation has drastically increased the demand and scope of conductors and boosted the business of conductors manufacturing industries.

### Emerging Trends

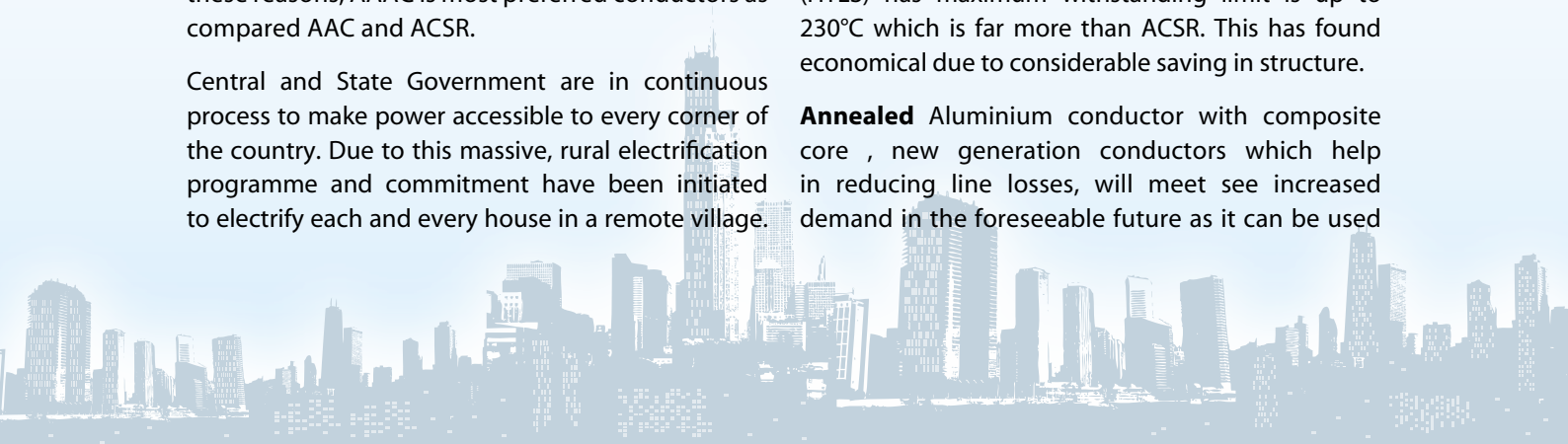
With increase in population and growing industrialisation the power consumption in the domestic and industrial market is expected to surge exponentially. Due to urban congestion, the site for new conventional overhead transmission lines is difficult to acquire. The energy demand is growing and on the other hand the electricity infrastructure is ageing, there is urgent need to upgrade and install new transmission lines. The power lines which are over utilised and sagging are major bottlenecks for electrical distribution systems as these are major reasons for power losses. Due to these reasons, the conductor manufacturers are continuously focusing on latest technologies to develop conductors which have an ability to increase the current carrying capacity of existing lines so as to improve the overall economics on new lines. With the help of new technology, new types of High Performance conductors have been developed. These are two categories which are listed below:

### High Temperature Conductors

- AI-59
- TACSR
- ACSS/TW
- High Temperature Low Sag (HTLS) Conductor
- GAP
- Invar
- Annealed Aluminium with Carbon Composite

The maximum withstanding temperature limit for Aluminium conductor Steel Reinforced (ACSR) is 85°C where as High Temperature Low Sag Conductors (HTLS) has maximum withstanding limit is up to 230°C which is far more than ACSR. This has found economical due to considerable saving in structure.

**Annealed** Aluminium conductor with composite core , new generation conductors which help in reducing line losses, will meet see increased demand in the foreseeable future as it can be used



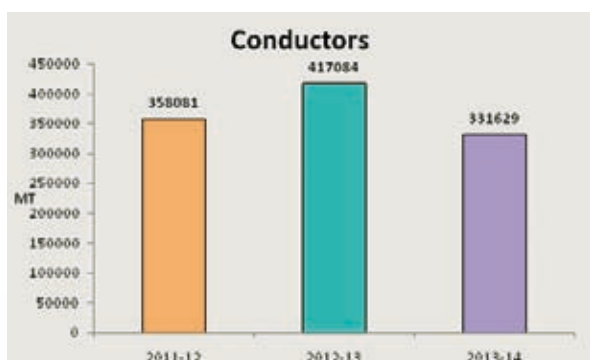
for replacing conductors on existing towers and transmit more power.

Presently, many conductor manufacturers are manufacturing these types of conductors in India.

### State of Industry

The estimated size of Indian Conductor industry for FY 13-14 is INR 7500 crores. Indian conductor industry manufactures a complete range of High Performance Conductors at extra high voltages (400kV to 800kV), high voltages (66kV to 220kV) and power distribution conductors (11kV- 33kV).

The capacity of rate of power generation of the country is slow. This is due to the reason of coal shortages in our countries. To overcome this shortage the coal is imported from other countries which makes the fuel costlier. Also, the distribution sector is facing huge power losses. This has impacted the overall demand of the conductors, where the demand has been slow as compared to the capacity. Thus, the industry is facing overcapacity situation.



### Divisional Activities

During the year 2013-14, the Conductor Division had 4 meetings on 3<sup>rd</sup> July, 11<sup>th</sup> September, 12<sup>th</sup> December and 18<sup>th</sup> February where the members actively participated in developing new PV Clause for Aluminium conductors.

In addition to this, Division is also working on bridging the testing gaps in CPRI. To review the testing gaps, Division members have had 3 meetings with CPRI on 3<sup>rd</sup> August, 28<sup>th</sup> September and 15<sup>th</sup> March.

The Division is also working on developing alternative packing solution for Conductors. Presently members are recommending using replaceable re-cyclable

steel drums as an alternate for packaging instead of using wooden drums. The manufacturers are also in process of developing hybrid drums using steel frame & PP Sheets which are more robust and economically viable solution. The conductor is better protected in these hybrid drums, as unlike wooden drums there are no nails, fungus / mould / termite development in these types of drums, resulting into more shelf life, even in an open environment.

Development of these packaging solutions is also helping in preventing cutting of trees and huge deforestation.

### IEEMA Seminar on New Generation High performance Conductor

A seminar was organised by the Conductor Division on 10<sup>th</sup> January 2014 in Bangalore during ELECRAMA – 2014 to showcase the next generation conductor Technology to the users.

The Seminar gave insight to the participants about the types of HPC, their benefits, stringing techniques, types of hardware used, etc. The key leaders of Power industry including Mr. SK Negi, Managing Director GETCO, Mr. Mataprasad, FNAE and other eminent speakers from PGCIL, Torrent, Deloitte and Sterlite etc. presented different aspects of this topic, as well as shared case studies & experiences.

The Seminar saw 150+ participants from various utilities across India in very interactive sessions throughout the day.

### Representations

IEEMA Conductor Division made following representations to different ministries/CPSUs during the financial year 2013-14

- Representations to Director General of Foreign Trade & Central Board of Excise and Customs requesting the government to exempt/ grant reimbursement of CST charged on procurement of raw materials from Domestic producers against advance authorization.
- Representations to Ministry of Commerce & Industry and Director General of Foreign trade on inclusion of Power Transmission Industry Products viz. Galvanized Transmission Line

Towers & Aluminium Conductors under the Special Focus Product Scheme benefits to avail 5% duty credit scrip, under Table 1 of Appendix 37D, under Chapter 3 of the Foreign Trade Policy, 2014-19.

- Representation to all State Electricity Board requesting to switch over to IEEMA LME based Rupee Price Indices for Conductor Price Variation purposes.
- Representation to PGCIL requesting to change in PV formula for Conductor, change in indices to LME.
- Representation to PGCIL to allow for returnable steel drum and highlighting variation in USD for HTLS Tenders.

## ELECTRICAL INSULATION MATERIALS

### State of Industry

The year 2013-14 has passed on a bad note. Government projects have not taken off. Labour cost is increasing. OEMs are in competition with each other. Profit margins are very low. Auto Industry is on a decline and Railways do not have funds. Major projects might be considered after the recent election. Infrastructure investment is not happening in the Electrical Sector.

### Divisional activities

During the year, 5 divisional meetings have been held. The participation is increased significantly.

**IEEMA Electrical Insulation System (IEIS)** – a comprehensive UL recognised insulation system – was licensed to one more manufacturer. Advertisements in IEEMA Journal are being used to publicize IEIS. The total count as of now is 15.

**The Electrical Insulation Technology (EIT) Course** for practicing Engineers and Technicians is being constantly upgraded in terms of content and delivery based on experience and feedback.

**INSULEC 2015**, the 9th International Seminar on Electrical Insulating Materials is being planned on 22<sup>nd</sup> & 23<sup>rd</sup> January, 2015, Mumbai with the theme “Reliable Insulating Materials & Systems – 2020”. Mr. I.P.S. Khandpur of PRS Permacel Pvt. Ltd., is the Chairperson of the Organising Committee and the Technical Committee is, headed by Mr. Nalin Sheth of Indotech Solutions Company.

## INTERNATIONAL BUSINESS

India's exports of electrical equipment were INR 29,227 crores (around USD 4.9 billion) in 2013-14, but were less than 1% of the global trade in electrical equipment. With the electricity sector being a sunrise sector across the entire developing world, there exists significant potential for India to tap the export markets. India should target a 5% share of global trade in electrical equipment in the next ten years so that our exports reach a level of USD 25 billion.

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The major export markets for Indian electrical equipment are USA, Germany, UAE, Saudi Arabia, France, UK, Nigeria, China, Kenya and Brazil, which testifies to the quality of Indian manufactured electrical equipment.

Over the years, the Indian electrical equipment industry has developed a

diversified, mature and strong manufacturing base, with robust supply chain, and a rugged performance design of products. Globally Brand India presents a huge opportunity thus it is imperative to promote the growth of exports of electrical equipment that have a strong manufacturing domestic base and manufactures need to move up the value chain.

A market diversification strategy based on the changing dynamics of growth in the world economy is necessary to sustain growth of exports. The industry should rethink its market strategy and focus on newer markets.



- Essential to retain presence and market share in existing geographies
- Moving up the value chain in providing quality products
- Exploring and penetrating new and emerging markets
- Focus on: Africa, CIS, Latin America, ASEAN region

The industry needs the support of the Government in introducing policy changes which will specifically support exports of electrical equipment from India. These include policies related to export financing, taxation, marketing, etc. which will immensely help the Indian exporters compete better in the global arena. The Focus Product Scheme (FPS), under the Foreign Trade Policy, should be extended to cover all electrical equipment.

Indian manufacturers also need to focus on product innovation, technology, R&D, packaging, cost competitiveness. Together, we need to build a Brand India in electrical equipment domain.

### Divisional Activities

International Business Division has been actively participating in international trade shows to promote exports of Indian electrical equipment. The Division is committed to stepping up its engagement with the world on issues relating to exports of Indian electrical equipment.

1. In the period under review the International Business Division conducted two divisional meetings on 1<sup>st</sup> July 2013 and 08<sup>th</sup> October 2013. During the first meeting a detailed presentation on export insurance and related areas was made by Mr. Bhavesh Patel, Vice President, Head Specialty Lines of Business, ICICI Lombard and Mr. Ankur Gupta, Associate Vice President, International Business Group-ICICI Lombard. Ms. Dhruti Parikh, Executive officer from IEEMA Secretariat also gave a presentation on the Import Export Scenario in India.

At the second meeting the Knowledge Sharing Session was addressed by Mr. Pankaj Kalani, Chief Commercial Officer – Transmission, KEC International Ltd. on Export benefits. Further, Ms. Dhruti Parikh, Executive Officer from IEEMA

Secretariat gave a presentation on the Indian Electrical Equipment Industry Mission Plan 2012-2022.

2. IEEMA took part at the 13<sup>th</sup> edition of Africa Utility Week (AUW) from 14<sup>th</sup> to 15<sup>th</sup> May 2013 to promote ELECRAMA-2014 and the Reverse Buyer Seller Meet (RBSM). IEEMA had a special pavilion at the AUW exhibition, where three IEEMA members also participated (Secure Meters, KGS Engineering, Archon Engicon).
3. IEEMA participated in the 6<sup>th</sup> International Exhibition on Electrical Technology and Equipment – Vietnam ETE, from 24<sup>th</sup> to 27<sup>th</sup> July 2013 at Ho Chi Minh City, Vietnam.
4. The 9<sup>th</sup> FAEMA meeting was held on 27<sup>th</sup> August 2013 at Shanghai, China. Senior representatives from CIEEA China, IEEMA India, JEMA Japan, KOEMA-Korea and TEEMA Taiwan, were present and delivered presentations on the topic “User Side – Smart Grid Initiatives and Equipment Development”.
5. IEEMA participated in the Electric, Power & Renewable Energy Expo, Jakarta, Indonesia, from 4<sup>th</sup> to 7<sup>th</sup> September 2013.
6. IEEMA participated in the Central Asia Electricity World 2013, Almaty, Kazakhstan, 10<sup>th</sup> to 12<sup>th</sup> September 2013
7. IEEMA took part in the Seoul International Electric Fair from 10<sup>th</sup> to 13<sup>th</sup> September 2013.

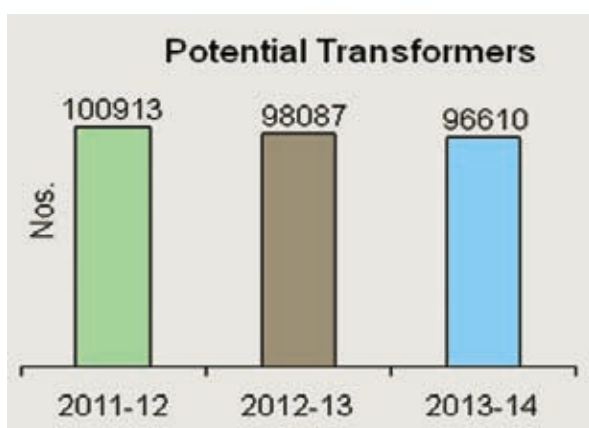
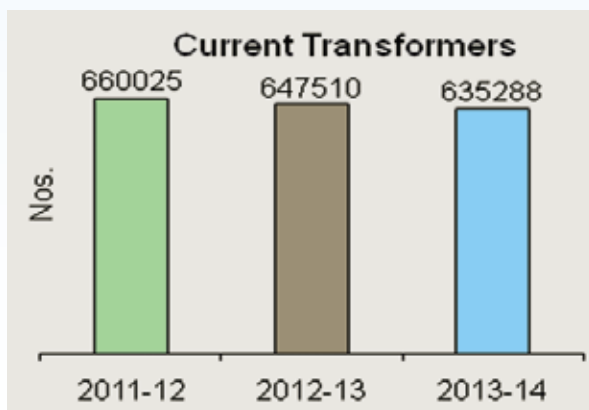
## INSTRUMENT TRANSFORMERS

The Instrument Transformers industry in India manufactures current transformers and voltage transformers of various rating from 0.66 KV to 765 KV, for indoor and outdoor applications. The industry also exports instrument transformers in the range of indoor up to 36 KV and outdoor above 12 KV. Over the past 2 years, the industry has also demonstrated its capabilities by manufacturing 1200 KV CVT for 1200 KV test station by PowerGrid at Bina, Madhya Pradesh.

The estimated value of instrument transformer industry is about 1500 crores; comprising for CTs and VTs.

Over the last year, generally there was slowdown in the requirement of equipment and hence no improvement in the industry scenario as compared

to year 2012-13. Even the market size was observed to be shrinking in 400 KV segment as well as 220/120 and 66 KV segments. The reduction in 765 KV segment was observed, mainly due to shift from AIS to GIS.



However no major threat was observed due to exports. In the changed industry scenario, many surge arrester players have started manufacturing CTs and many players have entered the field with manufacturing of CTs up to 220 KV range.

While raw material costs were not showing any downward trend, the expectations of the market is reduction in product selling prices. Porcelain insulator, which is one of the major part of the product become almost a rare commodity with limited manufacturers offering quality products. The cost of the insulators have shot up which has abated the growth of the industry

It was also observed that the customers raising the quality standards and imposing stringent quality acceptance criteria for these products.

## DIVISIONAL ACTIVITIES

All the major instrument transformer manufacturers in the country are members of this Division. Members regularly meet to discuss the industry issue of their common interest.

- During the meetings held in one year, the members discussed about forming Joint Industry – Utility Committee to review the specifications to overcome problem of over specification and standardization and to facilitate an open interaction between users and the industry. In this context, the Chairman of the Division had also met one of the Utility officials. It was informed that the Industry is required to present the Utilities, the complete protection system package and ground work for the same needs to be done. The study of specification will not be limited only to ITs but it will also involve study on relays, as Utilities require complete database oriented representation. The Division intends to undertake this study along with technical experts from relay manufacturers' side and take this project ahead.
- The Division has undertaken one more activity over the year on identifying test gaps at ERDA and CPRI and intends to make representation to these institutes. Division will address various issues faced by manufacturers at these leading test stations in India. The need is felt because in spite of the products are being tested for several years in India; it is unfortunate that neither CPRI nor ERDA has all test facilities for all range of instrument transformers.
- The major forthcoming activity of the Division is TECH-IT 2014, the 3<sup>rd</sup> international conference on instrument transformers which will be held on 12-13 June 2014, at New Delhi. The theme for the conference would be 'Instrument Transformers for Modern Power System and Grids.' There will be 22 presentations spread over 5 sessions and special invited lectures from PowerGrid, GETCO, ABB USA and IEEMA Instrument Transformers Division.

## INSULATORS

Insulators are used in power transmission overhead lines to provide mechanical support and electrical protection. They are classified on the basis of material as well as voltage levels. There are broadly three types of insulators on the basis of material - Ceramic/Porcelain insulators, Composite/ Polymer insulators and Glass insulators. On the other hand as the voltage level increases the size of the insulator required is large and vice-a-versa is also true. The insulators are generally designed on the basis of pollution level by calculating the creepage taking dielectric material, shed profile, and shed angle into consideration. The shape of insulators is influenced by considering electrical, mechanical and thermal aspects considerations.

The insulators are used in transmission and distribution network, electrical traction system (railway, trolley bus, tramway etc.) telegraph and telephone lines or in equipment like Surge arresters, circuit breakers and instrument transformers.

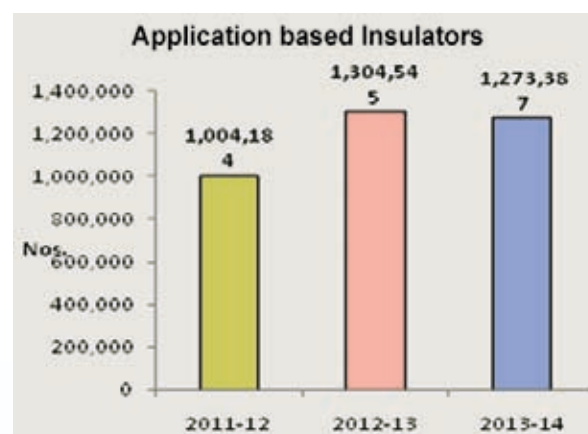
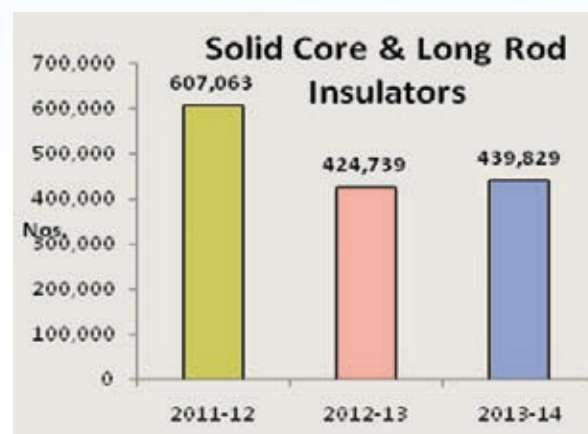
Indian Insulator Industry is continuously keeping pace with technological advancement that is occurring globally. The domestic industry manufactures various types of insulators in all ranges for LT, HT and EHT. The industry is also manufacturing for the range up to 1200 KV.

Central power sector, state electricity boards, distribution companies, private sector power transmission companies, railways and telecom sector are all major customers for this industry. The insulator manufacturers have already supplied significant volumes of 765 KV insulators i.e. more than 4 million insulators in Indian market. In order to meet the country's growing demand of up to 1200KV, all major domestic insulator manufacturers have also strived to build sufficient swappable capacity of insulators since. Indian manufacturers are not only catering to Indian market but it has also reached to more than 75 countries including Europe, USA and Latin America. This has proved the technological capabilities of our countries to supply high quality products.

### State of Industry

The Government of India is into the process of initiating various Power Sector programme up

to 2017 and to meet such huge requirement, the well-established manufacturers have doubled their production capacities over the last few years. However, the overall actual demand of the insulator is far behind the projected demand which resulted in overcapacity situation for this industry.



As compared to last year, the overall sale by volume has fallen down by 7-8%. The major loss of sales has been observed for Hollow Insulators of LA, CTs & CAPs with over 50% decline. Pin & Post Insulators was marginally declined whereas Disc Insulators registered a moderate growth of 4%. Solid core Insulators declined by 12% however Long Rod Insulators grown by 11%. Insulators used in Transformers declined by 4%. Although, an import of Insulators through direct imports was declined by 40%; the Imports through Project Imports route continued to the tune of INR 350 crores including Insulators & other components, parts & fittings etc.

Cheaper imports from China have eroded the top line in

both Porcelain and Composite insulator manufacturers including glass insulators, despite a growth in overall transmission line network. Unfortunately, the Indian procurement agencies float tenders with competing technology in the same tender harming the domestic industry and benefiting the Chinese.

The continuous rise in costs of fuel, power, raw materials and other inputs have been major cause of concern for the industry. Also, considerable delay in realization of payments faced by certain SEBs is aggravating the adverse situation. There has been a gradual shift of majority of the projects to EPC domain which requires altogether a different business model.

### Division activities

During the year 2013-14, the division held four meetings on 8<sup>th</sup> June, 22<sup>nd</sup> June, 12<sup>th</sup> December and 21<sup>st</sup> March. The insulator industry, which was facing huge threat from China imports, worked cohesively and finally got respite after the Finance Ministry imposed safeguard duty on imports of electrical insulators from China in December 2012 which was applicable for a period of two years.

The new PV Clause for Composite insulators was also made operational. Division is also trying to push BIS ET06 committee for revision of standards for Porcelain insulator and for developing standard for Composite insulators.

### Representation

- Representation to PGCIL on 30<sup>th</sup> May 2014 requesting for incorporating IEEMA PV Clause for Composite Insulators in upcoming tenders.
- Representation to Ministry of Commerce & Industry on 25<sup>th</sup> March 2014 on Anti-dumping investigation concerning imports of 'Electrical Insulators' originating in or exported from China PR.
- Representation to Ministry of Commerce & Industry on 23<sup>rd</sup> October 2013 on indiscriminate dumping of electrical insulators by Chinese Producers in Indian market.
- Representation to Minister of State for Commerce & Industry on 23<sup>rd</sup> October 2013 on Indiscriminate dumping of electrical insulators by Chinese Producers in Indian market.

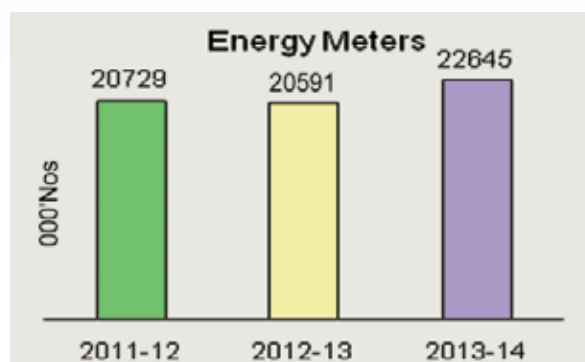
- Representation to Ministry of power on 3<sup>rd</sup> April 2013 requesting for support to Indian Domestic Porcelain Insulator Industry.

### Seminar on Global Trends in EHV Insulators (Detailed description in previous pages)

## METERS

### State of Industry

IEEMA members hold 95% of the total market share of Meter Industry and combined revenue is around 2500 crores.



Financial year 2013 was started on a negative note. Industry saw a sharp decline and Meter industry was no different. Demand for meters, both for Single Phase and Three Phase has shrunk. However, there were some tenders available but finalization the same were taking too much time. Also, the budget allocation under R-APDRP and RGGVY have been substantially reduced. Due to this, by the mid of 2013, the payment situation went from bad to worse with payment cycle being around 6 months on an average. Also, volume enquires dropped as major chunk was for R-APDRP. In addition to orders from 14 Smart Grid Pilots, there were some short term tenders from Tamil Nadu, Rajasthan and Gujarat, which provided some relief to industry.

Additionally, fluctuating exchange rates added to the problem. By mid of 2013, INR has depreciated by almost 10% against USD. This has put further pressure on the margins which are already under squeeze.

With some news of relief came when R-APDRP scheme has been extended to XII and XIII Plan periods as well.

## Division Activities

Since April 2013, Meter Division conducted 7 meetings with average attendance of 16 members (highest attendance 21) and 12 Companies (maximum 16) on 5th April 2013, 21st June 2013, 22nd August 2013, 18th October 2013, 16th December 2013 and 14th March 2014.

## Technical Committee Activities

During the year lots of utilities were procuring DLMS meters with extra parameters. Hence, need of a common software was felt to integrate different reporting format. The same was developed by technical team and IEEMA provided it to all utilities for free of cost.

This was the time when industry was moving towards the Smart Devices and Ministry of Power formed the committee under the CEA Chairman to draft specification for Smart Meters.

And Technical Committee is working closely with CBIP and CEA in drafting specification for metering protocol, net metering for RE applications and smart meter respectively.

The Forum is now working on various other technical areas such as Interoperability standards, MRI Specification, Smart Meter, Smart Grid, AML, etc.

## Engagement with BIS

Division members and Technical Committee members are actively participating in meetings of BIS ET-13 Committee. Division worked closely with BIS to in amendment and circulation activities of various standards including 13779, 15959 and data exchange.

## Engagement with Ministry of Power

Members of the Division have been involved in various activities of the Ministry. Prominent activities where members have playing substantial role and have contributed their expertise include development of specifications for Smart Meter under the aegis of CEA.

Also, Division represents IEEMA in the National Smart Grid Mission and initiative my Ministry of Power.

Division members are also active in India Smart Grid Forum.

IEEMA is engaged with the Ministry of Power in developing a Standard Bidding Document both for purchases as well as for EPC contracts

## Contentious Issues with Utilities/Customers

Contentious issues of techno commercial nature were discussed in Division meetings during the year, resulting in representations made to utilities such as State Utilities of J&K, Tamil Nadu, Kerala, Uttar Pradesh, West Bengal, TANGEDCO, Gujarat etc. Success was met in few cases.

Following representations has since been sent during the financial year 2013-2014

- Representation to Maharashtra Transmission and Distribution Utilities on 15<sup>th</sup> July 2013 regarding issues faced by Meter Manufacturers regarding Penalty clause in the tender document.

Representation to Jammu & Kashmir Power Development Department on 17<sup>th</sup> October 2013 regarding commercial terms in tender document issues by Chief Engineer.

- Representation to Tamil Nadu Generation and Distribution Corporation on 20<sup>th</sup> March 2014 regarding commercial terms in supply tender document.

## Metering India 2015 Seminar

Metering India Seminar is a thought provoking bi-yearly event; it enjoys popularity among stakeholders of the Metering Industry.

Organizing Committee for Metering India – 2015, Seminar was constituted on 17<sup>th</sup> December 2013. Since then 4 meetings were conducted.

12<sup>th</sup> and 13<sup>th</sup> February 2015 are the dates for the Seminar with Hotel Le Meridien, New Delhi as the venue. The theme of the seminar is Metering India – 2015... The Smart Indian Dimension.

## POWER GENERATION SYSTEMS

### Status of Industry

The power sector is currently at a crucial juncture of its evolution from a dominantly public sector environment to a more competitive sector, with many private producers also playing a significant role in various capacities, and greater reliance on markets, subject to regulation. The policy makers in India have

aimed for ensuring energy security for the nation as well as for providing adequate energy of desired quality in various forms in a sustainable manner and at competitive prices.

The performance of the power sector shows many positive features, especially related to the pace of addition to power generation with a specific focus on improving the efficiency and reliability of the plant as well as promoting eco-friendly renewable source of energy. However, in recent times, there are numerous constraints in power sector related to fuel supply, financial health of the State distribution companies, land acquisition, and regulatory clearances which have resulted in finalizations of fewer new projects and slowdown in execution of some projects. Issues of Gas availability has muted the demand for gas based power plants and is expected to continue in the near future.

Government of India have recently taken certain steps to propel growth in power sector - such as allocation of coal blocks to PSUs, 'pass through' of variation in coal price, expeditious clearance of projects through intervention of Cabinet Committee on Infrastructure etc. In addition, extension of CEA's advisory to Central/ State Utilities for condition of Phased manufacturing Programme (PMP) are positive initiatives for BHEL and domestic Industry. The above initiatives have already helped the on-going projects and the benefits to the new projects are expected to be available soon.

Hydro sector is poised to grow at unprecedented levels considering India's huge potential of 148 GW of which only 40 GW has been realized till date. The Nuclear business is primarily driven by government policies, public perceptions and global dynamics. Government of India has proposed developing large scale Nuclear Parks, spread across various locations, with the participation of leading global nuclear power companies. Various Indian companies including BHEL have contributed in supplying critical equipment in Nuclear Plant.

### Divisional Activities

In 2009, IEEMA Power Generation Systems division was started with a thought to position IEEMA as the voice of Indian Electrical Industry. IEEMA was positioned to represent the entire Electrical Equipment Industry Manufacturers of Generation, Transmission &

Distribution Industry after starting this platform. The members of this division includes the manufacturers of Boiler, Turbine & Generator along with balance of Plant equipment.

Mr. S.C Mittal, Chairman of the division being a member of almost all Government Committees including DHI and Planning Commission helped IEEMA to represent concerns of Manufacturers of this sector to policy makers.

The imports of power generation equipment from China were highlighted at various Government and other stakeholder levels. The issues related to doubtful quality of such imports and their impact on the Indian economy were expressed along with security concerns.

Large number of orders placed on Chinese suppliers caused harm to domestic manufacturers. It was felt that if measures for level playing fields would not be notified immediately, the sustenance of domestic manufacturing capacities would be seriously impeded.

IEEMA Power Generation systems Division efforts helped to increase customs duty which gave a marginal relief to domestic industry though the Planning Commission had recognized disadvantage of 14% for domestic industry.

Looking to the reduction of PLF of thermal Power plants with reference to previous years due to installed units by Chinese manufacturers, the plants were non-operational for long months. Division deliberated and proposed to raise concern on performance parameters guidelines issued by CEA to try and make them mandatory. A meeting was held with Mr. A. K. Bakshi, Chairman, CEA (Central Electricity Authority) and it was pointed out that the parameters for imported equipment are not been strictly adhered. It was opined that CEA or CERC to devise a mechanism to monitor / verify the performance through some independent body. The body is to be given powers to assess the performance vis-a-vis Guaranteed / CEA minimum specified performance with penal provisions.

Chairman CEA welcomed IEEMA's suggestions with an assurance to formulate a Committee under Member (Thermal).



Inter-Ministerial coordination being the key factor for removal of constraints faced by the Power equipment manufacturers is taken as priority agenda.

The division proposes to organize a **Seminar on Manufacturing of Power Generation Equipment** to bring concerned stakeholders on a common platform. The workshop is thought to be an interactive session between Industry, Utilities and other stakeholders.

Three division meetings had been conducted in FY 2013-14.

## RENEWABLE ENERGY COMMITTEE

Nearly all major economies have responded to the environmental challenge with the European Union leading the global initiative. EU has placed a major focus on solar where PV capacity addition during 2010 was 13.3 GW. Germany has led the world in the solar initiative with 7.4 GW in 2010 and a target of 51 GW by 2020.

India also devised many policy initiatives looking to the challenge. The National Action Plan on Climate Change required minimum renewable energy purchase standard of 12% by 2017 and 17% by 2020. India's renewable energy installed capacity has grown to about 27.3 GW. Issues on land acquisition were required to be addressed. States like Gujarat, Rajasthan, Karnataka, MP and Maharashtra were quite active in promoting renewable energy but their policies tend to be in isolation.

### Solar Energy

The National Solar Mission was launched in 2010 with a targeted solar capacity of 20000 MW (grid connected) and 2000 MW (off-grid) to be put in place by 2022. Part 1 of the phase moved on schedule with projects getting the financial closure. Reverse bidding process established tariff levels with discounts of nearly Rs 5 to Rs 7 per unit way below the CERC level of Rs 17.91 per unit for PV and a similar situation in CSP.

Round 2, Phase 1 of the National Solar Mission targeted 350 MW of solar PV projects of capacity between 5 and 20 MW each. Reverse bidding had seen challenging tariff levels as low as Rs 7.49 per unit and averaging at Rs 8.70 per unit.

The off-grid segment which has a target of 200 MW by 2013 has projects of 45 MW sanctioned so far. This scheme incentivizes solar energy through a 30% capital subsidy. The Government is involving corporate entities to promote this segment as Channel Partners.

The Phase 2 of the National Solar Mission targets a cumulative 4000 MW to 10000 MW (grid connected) and 1000 MW (off-grid) capacity in 2013 to 2017.

During Phase 3 of the National Solar Mission between 2017 and 2022, 20000 MW of grid and 2000 MW off-grid cumulative solar capacity is targeted.

### Wind Energy

Wind energy in India leads the renewable domain with a capacity of 18420 MW. There are plans to add 15000 MW during the 12<sup>th</sup> plan period. This is a more mature renewable segment.

The second initiative is the introduction of GBI scheme which gives a generation incentive of Rs 0.50 per unit over the SERC tariff. This scheme is administered by IREDA. While there is a mixed response to the GBI scheme compared to the Accelerated Depreciation scheme (which may go away after DTC is implanted next year) over 1100 MW of projects have registered under GBI till November 2011. Several large IPPs including international players have chosen GBI. Funding from PE funds, IFC, MNRE/ IREDA and through IPOs has been happening in recent times.

Manufacturing capacity for wind turbines which is presently 7500 MW is expected to reach 17000 MW in the next few years with several international majors setting base in India. The other notable factor is the increase in turbine sizes to 2 MW-2.5 MW and moving towards global standards.

The division majorly deliberates on the presence of a strong domestic base that is essential for Energy Security in the country. To provide level playing field to domestic manufacturers the fiscal benefits given to encourage import and the disadvantages faced by domestic suppliers to be removed

## Bio Energy

A National Bio-Energy Mission is planned during the 12<sup>th</sup> and 13<sup>th</sup> plan periods. The idea is to tap the 18000 MW potential in the country and take the capacity to 9950 MW by the 13<sup>th</sup> plan.

Cogeneration has a potential of 14000 MW while only 2239.63 MW has been developed so far. Cogeneration attracts a subsidy of Rs 20 to Rs 50 lakhs per MW. Bio-fuels have a large potential although the earlier policy of 2003 stipulating mandatory blending of 5% was not successful. New policy may seek blending up to 20% for bio-ethanol and bio-diesel. For this to succeed, bio-diesel prices will have to be raised to INR 36 per liter.

There is a lack of organized supply chain in this segment. For bio-energy to be really successful, much of the supply side constraints have to be addressed.

## Renewable Energy Certificates and Renewable Purchase Obligations:

RECs were notified in November 2010 and made operational in February 2011. The mechanism is now gaining momentum and 95000 RECs have been traded in the Indian Energy Exchange and the Power Exchange of India. 192 (1241 MW) non solar and 1 (8.5 MW) solar projects have registered with the NLDC.

Grid connectivity still remains a concern and so is open access with many states not allowing sale outside the state or imposing cross-subsidy surcharge. Stronger implementation of RPOs has to be mandated for the states with penalties for non-implementation for the renewable markets to see the desired development.

In conclusion, India's growth story in the renewable energy area has been commendable and with the right policy drivers by the governments at the center as well as the states, this sector will not only play its role in the abatement of global warming but also fulfill the energy needs of the country during the next several decades.

## Renewable Energy Committee Activities

Looking to the commendable growth story of Renewable Energy globally and in India, IEEMA Renewable Energy Committee was formed in 2011.

Three meetings had been held in this financial year. The Committee since starting has given

emphasis on the promotion of RECs (Renewable Energy Certificates) and RPOs (Renewable Purchase obligations). To begin with the committee decided to focus on solar and wind energy aspects only till the forum stabilizes and create credibility amongst stakeholders. Majorly the equipment used for solar and wind energy like solar PV crystalline cells, wind turbines etc. are not manufactured indigenously so issues on equipment and its related products are not discussed. The discussions in the meetings on policy issues are concerned more with developers of solar and wind energy.

The main agenda of the committee since its inception has been to increase the membership and work on promotion of RECs and RPOs. On the activity to increase awareness of RECs and RPOs presentation was sent from IEEMA to all state regulators with copy to state utilities to know their RPOs obligations. On this few utilities replied with their % met and to be met. A letter was again sent as a reminder to the utilities those which did not respond. This was to make the utilities aware of RPO regulation, being an important subject and to be taken seriously by every state utility to abide by their RPO regulations.

However, the committee intends to take the agenda to formulate the standards for Renewable Integration Box which would include inverters, junction boxes, cables etc involved in Renewable Energy generation. A technical committee has been constituted under the convener ship of Mr. Kishor Narang from Narnix.

The committee has also come to a consensus that they would work with stakeholders on promotion of solar roof top panels. Chairman of the committee Mr. Vijayvergia being a member of ISGF group 9 (Renewable and microgrid) is already raising the aspect of solar roof tap panels to be taken serious through this platform. The inverters are charged from main grid that leads to harmonics in the power supply system.

The Committee is discussing to promote charging of inverters through solar roof top panels and the whole system to work on net metering. The energy consumed and energy fed to the grid should be metered accordingly.

Three meetings had been conducted in FY 2013-14



## ROTATING MACHINES

### Introduction

The demand for electric motors is rapidly shifting from standard efficiency electric motors to high and premium efficiency motors. This shift in trend is directly contributing to revenue growth of electric motors manufacturers. The study highlights current trends and dynamics affecting the growth of this market. In addition, it also provides detailed information about current effective efficiency standards in each major market and their impact on electric motors market development.

Value chain of electric motors market helps to understand the role of each player involved in the industry. Porter's Five Forces and competitive landscape gives an overview of industry competition and identifies entry barriers for stakeholders looking to enter this market. The company profiles section included in the report gives an idea about key players in the global electric motors market and their growth strategies

### State of Industry

The Indian electric motor industry had its beginning in early thirties with a couple of manufacturing units supplying small size motors. Over the decades, up gradation of technology has been taking place through local research and development efforts and also by importing technology. Concept of Energy Efficient motors is gradually picking up.

The Rotating Machines (RM) Division of IEEMA by and large comprises of manufacturers of Motors and Alternators.

This division has around 56 organisations as its members. Divisional meetings are being conducted in every quarter with average participation is around 11.

Four division meetings had been conducted in FY 2013-14.

The Major highlights / discussion points during the meetings for the year 2013-2014 are below:

- Lots of enquiries but conversion factor is poor.
- Usage of motors past their life after multiple repairs. It was suggested that this is eating into the profit as people do not know the implications

it has on the efficiency when the same motor is being used for 15 to 20 years, even after it reaches its durability. An awareness program needs to be conducted.

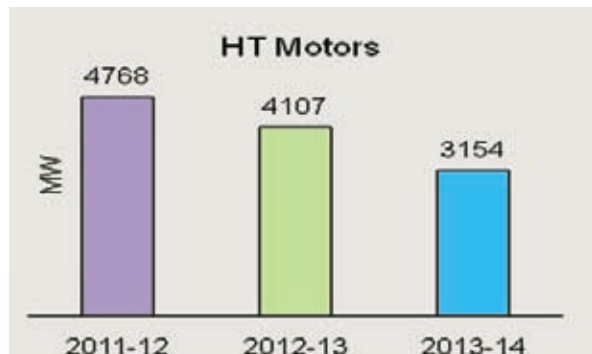
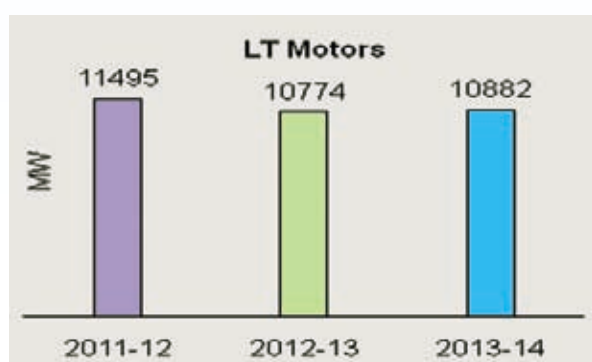
- The Electric motors manufactured in India conform to IS 12615, which was harmonized in August 2011 with Global IEC standard 60034-30 for the efficiency classes (IE2, IE3) and testing methods. Though IS 12615:2011 is a voluntary standard, if the standard is not mandatory in line with the global mandatory regulations, there exists a threat to India's energy conservation drive through influx of inefficient motors into the Indian market. This has already impacted adversely to motor manufacturers in India, due to steep increase observed in imports of these motors particularly from those countries where the relevant IEC standards are mandatory e.g. EU, USA, Japan and China. Adoption of IS 12615 as mandatory standard needs to be done on priority.
- Division followed up with DIPP, BIS & other ministries to have one standard IS12615 for motor manufacturers to measure efficiency and in a due course to make it mandatory so that import will be against permitted standard in the country. Now IS325 stands abolished by BIS & IS12615 to follow by all motor manufacturers.
- Also import of Integral Horsepower (IHP) motors above 750 W has increased over 60 % in this FY resulting underutilization of capacity of domestic manufacturers. This accounts major market of about 75%. IEEMA has taken this up and a study has initialized for the same.
- Gaps in Motor testing facilities at CPRI, ERDA etc. needs to be taken care of.
- Reservation of purchase of up to 100Kw 440v motors from SMEs by PSU's has been recently mandated by the MSME, which is a serious concern.

### Market Size

One of the salient features of IEEMA is the collection and dissemination of the equipment production / order booking details. Members / Non Members report their production figures on a monthly basis to IEEMA, which then is combined into a consolidated report

to envisage the current market scenario and thereby predicting what might be the future approximately.

Market Size Estimation			
	2013-14	2012-13	% growth
Industry Size	5736	6225	-8%
Import	3117	2475	26%
Export	1335	1050	27%
Total market size Rs. Crores	7518	7650	-2%



## MV - HV SWITCHGEAR

### Introduction

In the electric power system, switchgear is the combinations of electrical disconnect switches, fuses or circuit breakers used to control, protect and isolate electrical equipment. Switchgears are used both to de-energize equipment to allow work to be done and to clear faults downstream. This type of equipment is directly linked to the reliability of the electricity supply.

Switchgear has to perform the function of carrying, making and breaking the normal load current like a

switch and it has to perform the function of clearing the fault in addition to that it also has provision of metering and regulating the various parameters of electrical power system. Thus the switchgear includes circuit breaker, current transformer, voltage transformer, protection relay, measuring instrument, electrical switch, electrical fuse, miniature circuit breaker, lightning arrestor or surge arrestor, electrical isolator and other associated equipment.

Electric switchgear is necessary at every switching point in the electrical power system. There are various voltage levels and hence various fault levels between the generating stations and load centres. Therefore various types of switchgear assembly are required depending upon different voltage levels of the system.

Besides the power system network, electrical switchgear is also required in industrial works, industrial projects, domestic and commercial buildings.

### State of Industry

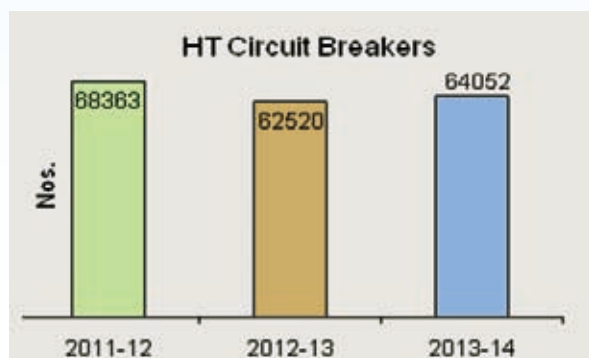
The Indian MV&HV Switchgear industry is a matured, well established industry using contemporary technology to manufacture a large variety of switchgear and controlgear ranging from 6.6 KV to 1200 KV equipment.

Indigenous development of 1200 KV AC electrical equipment including switchgear in a short period of 5 years demonstrates the capability of Indian equipment manufacturers to absorb the latest technology and develop the products.

The MV&HV switchgear segment is primarily in the organized sector. However, equipment from 6.6KV to 11KV is increasingly being manufactured by small scale units as there is not much technology / capex required at this level and most of such manufacturers are mere assemblers sourcing components at cheaper rates from China. This segment is therefore witnessing cut throat competition eroding both top-line and bottom-line. This also impacts quality and reliability of such equipment. IEEMA is striving to tighten to QR norms for sourcing such equipment based on parameters like quality, reliability, efficiency etc.

This industry segment is likely to face consolidation if anticipated demand does not materialize quickly.

The industry increased its capacity over the last several years in view of announced power addition programme which did not materialize fully leading to over capacity and intense competition. The L1 procurement system followed by Government PSU's also does not help.



The precarious financial conditions of the DISCOMs are another unwanted complication impacting the entire electrical industry including switchgear. The Government is actively looking at these issues and has come out with various programmes including financial assistance on a matching basis from the State and the rating system for enabling further loans to such entities.

However, it may take a very long time to put all this in practice as electricity is a concurrent subject and every State has its own priorities. The DISCOMs are expected to focus on the quality of power supply to the consumers which includes the safe & continuous power supply - this will increase the demand of strengthening the distribution network whereby the requirement of switchgear & equipment will go up. DISCOMs also need to focus on the safety aspects which may also need to increase the requirement of switchgear & associated items.

### Divisional Activities

Since the split of Switchgear Division, MV -HV Segment could only meet once in the month of January for 2013. Since then Technical Committee has been formed to expedite working on Technical issues with various stakeholders like State Utility Boards, CPRI, PGCIL, CEA etc. IEEMA made representations to various EBs for awareness of MV/HV Switchgear Price Variation Clause and inclusion of the same in all purchases and also urging them to use the IEEMA

PVC, which is a fair tool for mitigating risks in times of high volatility in raw materials like copper, steel, insulating materials etc.

Also, members have started working on re-initiating the GIS committee under CEA to work on standards and testing facilities in country for GIS.

### SWICON - 2015

MV & HV Switchgear Division has started working on SWICON - 2015 with LV Switchgear Division.

Organizing and Technical Committee has been constituted and 26<sup>th</sup> and 27<sup>th</sup> November are the dates for the Seminar.

The theme for SWICON - 2015 edition is **"Switching ON to the Future"**.

## LV SWITCHGEAR

### State Of Industry

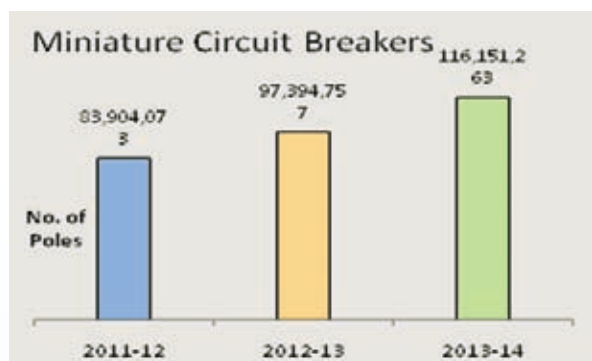
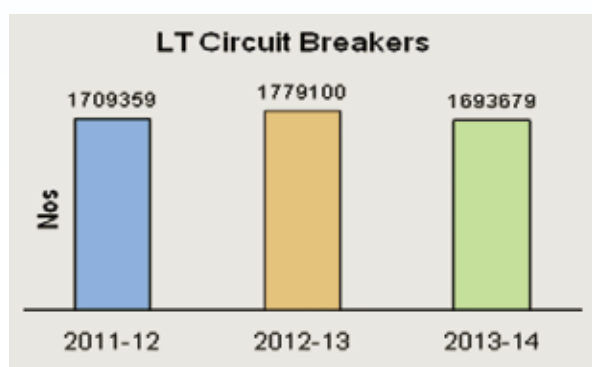
IEEMA Switchgear division got bifurcated into LV and MV / HV divisions in 2012 to increase focus on the divergent issues of these segments and address existing and emerging market needs.

Low voltage switchgear is one of the well-established industries in India. The present size of the LV Switchgear industry including domestic modular switches is estimated at around Rs. **11,050** crs.

This Industry covers Low Voltage switchgear products such as Air Circuit Breakers, Moulded Case Circuit Breakers, Miniature Circuit Breakers, Residual current devices, Fusegear products, H.R.C fuses, Thermal overload and protection relays, Contactors, Starters, Distribution boards and Factory- built assemblies. The industry caters to end-user segments such as manufacturing industries, buildings - residential and commercial, agriculture, infrastructure entities, utilities and OEMs. Weight of LV switchgear industry in entire electrical industry is about 10.1%. In value terms, the L.V. switchgear industry grew by 5.6% during 2013-14. However, in volume terms all major product groups showed negative growth except MCBs, RCCBs and contactors. MCBs grew by 19.3% while contactors by 6.6 %.

In 2013-14, imports of L.V. Switchgear products reached Rs.4522 crores (an increase of 5.2% as compared to 2012-13) while export reduced by about 4%.

Increasing imports is a matter of concern, in particular because its major constituents are not transparent e.g. within these imports, 86 % is contributed by products reported in the category 'others' – Others (85369090 – 39%), other relays (85364900 – 17%), other switches (85365090 – 23%), other circuit breakers (8536 2090 – 7%). A redeeming aspect of the Indian LV switchgear industry has been its growing competitive strength in a few products like miniature circuit breakers, earth leakage circuit breakers, HRC fuses and air circuit breakers where its exports are significantly higher than the imports.



### Emerging Trends

Current trends indicate a demand for compact products with enhanced capability, high quality, high reliability and low maintenance requirements. There has been a noticeable shift towards upgraded technology amongst major industry players of today. Indian manufacturers are becoming increasingly competitive with respect to their product designs, manufacturing and testing facilities. Increasing competitiveness in the industry and constantly changing consumer requirements have led to new and upgraded versions of products being launched in

the market. At the same time, products with enhanced capability take a longer time to move from the "early adoption" stage to becoming "volume drivers" in the Indian market.

The recent trends observed for switchgear products are

- Increased use of electronics in L.V. switchgear leading to intelligent and communication enabled switchgear
- Use of advance engineering materials for compact yet safer products
- Increased compliance to environmental regulations
- Increasing demand for submersible pump controllers;
- Soft Starters
- Increased use of modular devices in buildings
- Increasing use of Vacuum contactors for higher current applications

Division has decided to work on following challenges.

- 1 Promotion of safe usage practices
- 2 Standardization
- 3 Promotion of the National Electric Code, along with the Bureau of Indian Standards,
- 4 Review and revision of National Electric Code to further align wiring code to evolving electricity usage practices
- 5 Deeper analysis of imports of products in 'others' category

### Divisional Activities

The Division will be holding the next edition of the SWICON in November 2015. A majority of the work to host a successful conference will be done in the coming twelve months.

The division has worked jointly with BIS to promote the NEC standard in interest of safety of the user. The workshop has been conducted jointly with BIS at Delhi and Bhubaneswar in last financial year. The division has planned to submit the proposal to organise these workshops at different regions in FY 2014-15

to BIS. Division members work proactively with BIS Electrotechnical (ET- 07) committee for formation and up-gradation of standards for LV switchgear and Controlgear products. Chairman of the division is Principal member from IEEMA on this committee. The comments discussed in ET committees are further raised in the division meetings for consensus from all members to support the whole Industry.

LV Switchgear division had 4 meetings in FY 13-14. There are about 40 manufacturers of LV switchgear products who are IEEMA members. Members actively participate in meetings. 'Moving Annual Average (MAT) trends for last three years for each product group are analysed and deliberated. Division had discussions on Export/ Import figures of HS codes of these products. The first stage analysis sent by TPM, consultant to IEEMA was discussed and commented. TPM was requested to submit the 2<sup>nd</sup> stage analysis and specify the products under particular segment.

### Production Statistics

Out of 40 member manufacturing companies, 26 report the production quantities. The division has worked and devised a format for reporting the production data of Distribution Boards that include SPN DBs, TPN DBs, Special purpose DBs and MCB enclosures. Division is presently working on a reporting format for wiring accessories. Four meetings have been conducted in FY 2013-14.

## SMART GRID

Smart Grid facilitates efficient and reliable end-to-end intelligent two-way delivery system from source to sink through integration of renewable energy sources, smart transmission and distribution. In this way Smart Grid technology shall bring efficiency and sustainability in meeting the growing electricity demand with reliability and best of the quality.

Smart Grid also enables real time monitoring and control of power system as well as helps in reduction of AT&C losses, demand response and demand side management, power quality management, outage management, smart home energy system etc. Smart Grid will act as a backbone infrastructure to enable new business models like smart city, electric vehicles, smart communities apart from more resilient and efficient energy system and tariff structures.

Recognizing the importance, POWERGRID has taken pioneering steps in bringing Smart Grid technology to all facets of power supply value chain & developed smart grid pilot project at Puducherry through open collaboration covering all attributes of smart grid in distribution.

Since its reconstitution in the month of September 2013, 6 Division meetings were conducted during the financial year 2013 – 2014.

During the year, Smart Grid Division achieved the following milestones:

1. Formalization of the Division: This was announced and since then 17 member companies opted for Smart Grid Division membership.
2. Division recognized main stakeholders



3. Identification of key motivation factors, which were divided in the following sub sets:

1. Advocacy and Business Interest
  - a. To work with national and state govt. organizations with regulatory and policy setting powers
  - b. To work closely with the IT companies and industry associations involved with the development of the SG
  - c. To partner and work with international leaders and trail blazers
2. Convergence (Business + Sustainability + Technology)
  - a. Urbanization and Infrastructure Development

- b. Technological Innovations
- c. Energy Efficiency, Energy Access and Sustainable Development
3. Technical/Thought Leadership
  - a. Main custodian and spokesperson for IEEMA on Smart Grid matters
  - b. Occupy a thought leadership position
  - c. Ensure safety, reliability, and flexibility of SG through active engagement with regulators, policy makers, transmission and distribution companies
- Additionally, Division set some aspirational goals like Higher Grid Efficiency, Reliability and Resilience
- Create megawatts as a fifth fuel and monetize the potential of energy efficiency and demand response
- Reduced CO2 emissions: Development and Utilisation of Distributed Energy Resources and Renewable Energy
- Job Creation and Marketplace Innovation

## SURGE ARRESTER

### State of Industry

Surge arrester, like a fuse in a house hold, is provided to protect the connected equipment and ultimately sacrifice itself if required in the process. Surge Arrester, being a protective device for limiting surge voltages on equipment by discharging or bypassing surge currents plays an important role in the Electrical Transmission and Distribution system. However, Surge Arresters still remain one of the most misunderstood items in an electrical system. Over-voltage Protection is of key Importance to Utilities to improve their Network Quality and Reliability Surge.

The Indian Surge Arrester Industry has come of age and is today able to design, test, and supply Surge arrester required for up to 1200kV Substations, for all different applications and system requirements. The concept and design is totally developed indigenously. The surge Arresters supplied for 1200kV PGCIL Sub Station at Bina is a classic example.

The Indian surge arrester industry has absorbed the polymer technology and has been able to develop and supply the polymer housed surge arresters to meet the market requirements for up to 1200 kV.

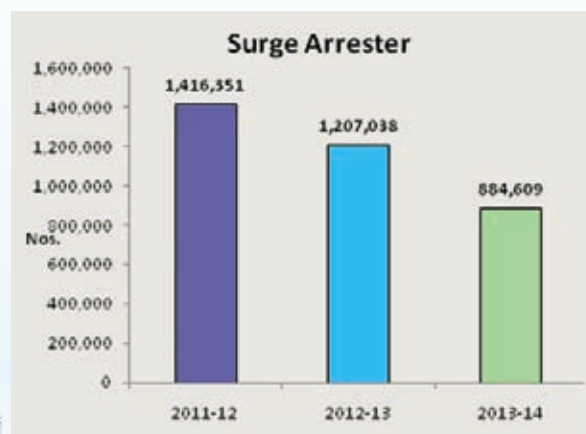
The big and qualified players in the field have made large investments in the manufacture of surge arresters with the polymer technology / up gradation and doubling their capacity taking into account the figures which are projected for generation, transmission and distribution sectors. However the targets in these areas have not been met and this has led to huge underutilized capacities left with the manufacturers.

Today in India with the development of the EHV Transmission System, bringing the grid voltage to 800kV level, has shown a light at the end of the tunnel to the EHV Surge Arrester Industry, looking forward to supplying arrester for these 800kV Substations that are being built to stabilize the Grids.

The development of 1200kV has given a further boost to the Industry which has fully developed these surge arresters indigenously.

Surge Arresters production reported for month of December 2013 shows decrease in polymer surge arresters both for domestic and exports. In case of porcelain arresters the decrease is seen in domestic sales but the increase is there in exports.

After continuous growth last year, Surge Arrester industry up to 3 quarters of this fiscal FY13-14, have declined by 28% in both Porcelain and Polymer segment. However, there is a growth in Exports of Polymer type mainly up to 72 KV



## Division Activities

Members participate actively in BIS Electrotechnical Committee meetings (ET 30) for discussions on IEC and Indian Standards to share the Indian Industry inputs during formulation of standards as and when the meeting is organized.

The publication on LAs (selection, Application guidelines, tests) existing in IEEMA is too old. Considering this, the division embarked to work on contents and the get the guidelines published again. The work was distributed amongst all and members volunteered to contribute. The draft contents as formulated are awaiting to be discussed and finalized, considering the forthcoming changes proposed in the IEC standards.

GETCO had invited LA manufacturers for a meeting at their office as they were intending to procure 66kv to

400 kV lightning arresters with polymer (silicon composite) insulators instead of porcelain housed ones presently being used by them. The discussions were on the design aspects / production capabilities of manufacturers and finalization of technical specifications of polymer Arresters.

Members found the DRUM programs being held earlier very useful which were held to impart training to utility personnel on the product, technology, operation, testing etc. It was decided to organise sessions with utility personnel similar to those held for DRUM programs. Members thought to hold similar workshops with local utilities where the division meeting is held. The workshops has been conducted at NPCL, Noida Power Company Limited, at Greater Noida and BYPL, New Delhi. At NPCL, about 20 engineers working in operation, maintenance and other systems participated. An interactive session was held between division members and utility officials. Next day a similar session was held at BYPL (BSES Yamuna Power limited) where about 30 engineers from operational level participated. This was an

informative session and members could resolve many technical queries raised by BYPL officials.

Looking to the good response received during the above two programs, members proposed to organise similar sessions at other places also as and when required.

## Sales Statistics

IEEMA compiles statistics for Surge Arrester Division on monthly basis based on the data received from its members. As on day six members report the sales figures.

## Concerns

Currently in this Industry there are about 8 active manufacturers. The scope to increase the membership to this division is very limited.

The industry in India has been facing problem of overcapacity for last few years. The numbers

of players in unorganized sector have increased substantially over the time especially for the medium voltage in the distribution sector where the technology has stabilized.

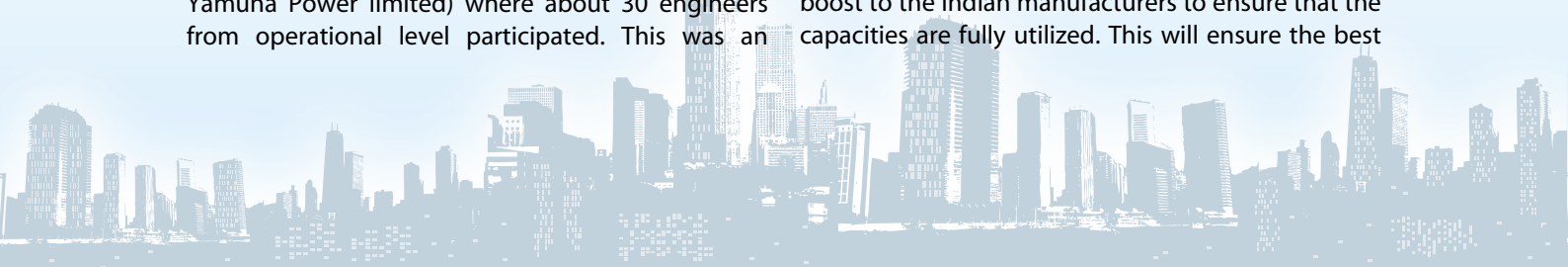
Considering the large number of 765kV substations floated and consequent requirement of surge arresters for these stations, the manufacturers from China have offered low prices which are not feasible for the Indian manufacturers and have taken orders for these surge arresters.

Subsequently this has further lead to reducing prices by Indian Manufacturers and taking orders at very low prices. These manufacturers quote much higher prices in the international markets especially in Europe where the quality requirements are more stringent.

The authorities and major organizations like PGCIL, NTPC should look at ways and means to block dumping of Electrical products into Indian Market and give a boost to the Indian manufacturers to ensure that the capacities are fully utilized. This will ensure the best

Division had organized an International conference on HV Surge Arresters Technology and Applications (SURGEPROTECH) in November 2012, to promote the new technological developments. It was the first conference of this kind. It has also been decided to organise the next SURGEPROTECH in 2015 but to be conducted in a more aggressive and planned manner. Two meetings were held during the year

Members found the DRUM programs being held earlier very useful which were held to impart training to utility personnel on the product, technology, operation, testing etc



quality of indigenous products and also better and quicker service at times of breakdowns.

Two Division meetings were held over the past one year.

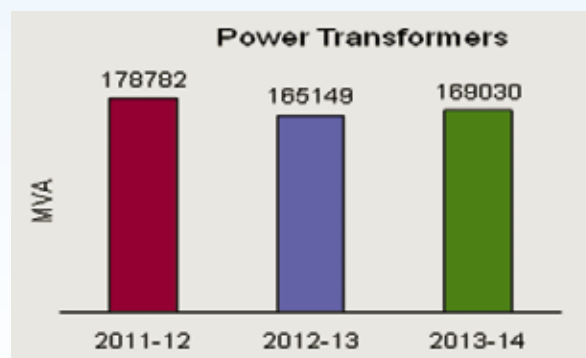
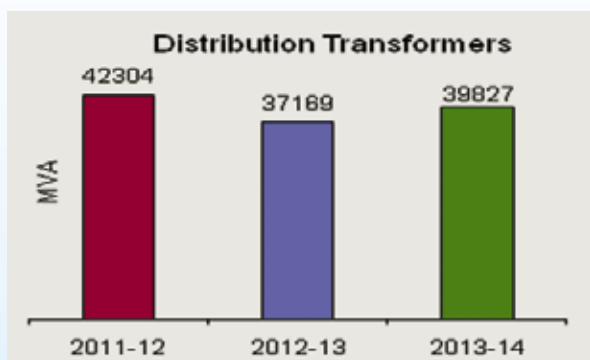
## TRANSFORMERS

### STATE OF INDUSTRY – CURRENT STATUS

As per IEEMA Statistics, Distribution Transformers production has grown by 7% whereas Power Transformers Production has increased by mere 2%. There has been a good growth in the export of Distribution Transformers. However, IEEMA secretariat informed that the 4<sup>th</sup> quarter saw an overall decline by 3% mainly due to slippage in production of Power Transformers up to 6%. There was a marginal decline of 2.5% in Exports of Power Transformers, whereas domestic growth is attributed to only 132 KV & Above 440 KV segment only.

Order Book Position remains flat in last couple of months at the level of 2 lakhs MVA “within 12 months” and 1.06 lakhs MVA “beyond 12 months”. Although there is an increase in OBP under 10-15 MVA category “Above 80 MVA” witnessed declining trend in OBP.

EXIM data broadly reveals that Transformers of value about Rs.2,000 crore are being imported through direct and project import route( 98010013) mainly from Sweden (for HVDC) and China & Korea (for 765 kV). This overall import share is likely to be about 15-20% of domestic market of FY 2013-14.



Overall domestic Transformer industry in FY2013-14 was about Rs. 10,500 crores with 60:40 share of Distribution and Power. It is stagnant in terms of value as compared to last fiscal although there is a volume growth; indicating decline in per MVA sales value due to cut-throat competition.

It was observed that dedicated Freight and Cargo Corridors (DFCC) are being put across the country and if offers an opportunity of about Rs. 30,000 Crores for electrical equipment for the next few years. Currently, Scott-Connected traction transformers are currently being imported from Japan due to the fact that the same are under JBIC funding mandating purchase from Japan.

Considering the large number of 765kV substations floated and consequent requirement of surge arresters for these stations, the manufacturers from China have offered low prices which are not feasible for the Indian manufacturers and have taken orders for these surge arresters

### Division Activities

During FY2013-14, four division meetings were held across India having average attendance of more than 25 members shows the vibrancy of the division.

### TRAFOTECH 2014 THE 9<sup>TH</sup> INTERNATIONAL CONFERENCE ON TRANSFORMERS

(Detailed description in previous pages)

### POWER TRANSFORMER STANDARDIZATION MANUAL – IEEMA-25-2014

IEEMA has recently published Power Transformer Standardization Manual during TRAFOTECH 2014, 9th International Conference concurrently held with ELECRAMA 2014 at Bangalore.

This Manual is the outcome of efforts made by Design Experts, Manufacturers and Utility Engineers for

providing an easy to adopt reference manual from procurement to commissioning process.

## ISSUES FACING THE INDUSTRY

### Second Steel Quality Control Order and Transformer Quality Control Order

Second Quality Control Order for mandatory certification of CRGO as per IS: 3014 which was to be made effective from 1st April 2013 was postponed till 30th September 2013 on various representations & interactions made by IEEMA since at that juncture, only 4 mills were certified by BIS out of 14 and who are able to supply only about 78,000 Tons of CRGO. Also, this Certification is valid only for a year which has to be re-certified.

IEEMA also recommended that Thickness and Watt Loss/per Kg (as per IES i.e. 1.5 Tesla 50 Hz) could be the two criteria along with test report comprising of these parameters instead of registering various grades of CRGO under mandatory Quality Control order.

Finally, BIS mandatory Second Quality Control Order for certification of CRGO as per IS 3024 was imposed with effect from 1st October 2013. Almost all the mills were registered or in the final stage of registration. However, during the last six months post the order was made effective, transformer industry observed price rise coupled with supply bottlenecks.

However, currently this order does not cover Domain Refined Grade of CRGO which is increasingly being used for Star Rated Distribution Transformers and Power Transformers and non-availability of testing of the same will create shortage. However, BIS is working on testing of the same and the same grade is likely to be covered from next fiscal.

### ET 16 Activities - Revision of IS 1180 (Part 1 & 2)

A panel constituted by BIS for amending IS 1180 (part 1 & 2) has submitted the revised document

which is currently under vide circulation. The revision intends to expand the coverage of Transformer ratings from 100 KVA to 2500 KVA, amongst other areas. Transformer Quality Control Order issued by DHI, which intends to mandate BIS regulations on transformers as per IS 1180. The purpose is as a starting

point, mandate, sale and storage of transformers as per BIS 1180 which is currently under revision and specifications are being tightened.

### Representations done during 2013-14

IEEMA made a representation to the MSEDCCL requesting for a fair and transparent process of purchase of Transformer Oil.

### Constitution of Divisional Technical Committee

According to the Mission Plan 2022 of Electrical Industry, one of the recommendations to IEEMA is to set up Technical Committee under all divisions to work on areas pertaining to standards, testing, development etc.

IEEMA has requested to DHI regarding taking up a study to investigate and understand the transformer failures especially the Distribution Transformers range. Further, IEEMA has also suggested that the positive impact of the BEE Five Star rating

Transformer division is finalizing the formation of Technical Committee to work on activities like review of Standards, evolving new IEEMA Standards, Technical Training program contents & deliveries etc. The representatives of this Technical Committee will also represent IEEMA and Transformer industry on BIS ET-16 committee

### Gaps in CPRI Testing Facilities & Revision of Radiator Standard

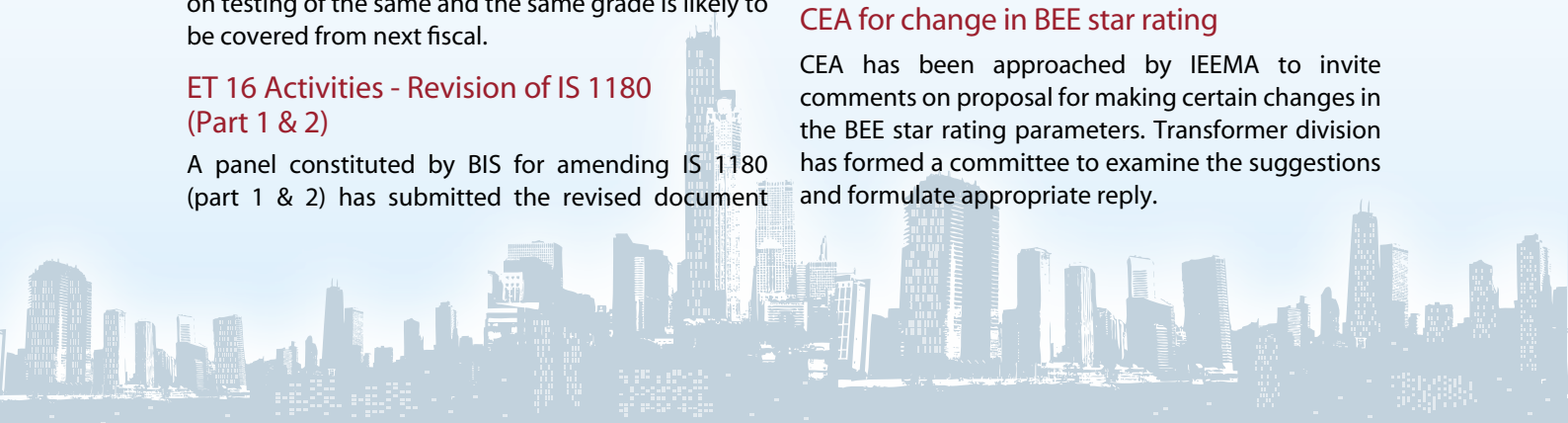
One of the actions proposed by the department of Heavy Industry in the Mission Plan 2012-22 aims to

identify the gaps in testing facilities in the country and strengthens the testing infrastructure. IEEMA Technical Committee will also look into identifying such gap areas based on the inputs from members.

### Technical Committee will also explore revising the IEEMA Standard for Radiators which was published in 1990.

### CEA for change in BEE star rating

CEA has been approached by IEEMA to invite comments on proposal for making certain changes in the BEE star rating parameters. Transformer division has formed a committee to examine the suggestions and formulate appropriate reply.



## PV formula for Amorphous Core Distribution Transformers

The Draft Price variation Clause for Amorphous Core Distribution Transformers based on costing data received from members is under review/scrutiny of the division including the sources of major raw materials.

## Non-tariff barriers in Export Market

Division members shared any non-tariff barriers like non-acceptance of CPRI/ERDA test certificates, ROHS, frequent type Tests etc. faced by members who are regularly exporting Transformers. IEEMA is compiling this data to chalk out an action plan through various working committees of Govt. agencies under the Mission Plan initiative.

## T&D PROJECTS

For sustained economic growth and good quality of life, an efficient power supply system must exist as a key ingredient. Assured availability of quality power at reasonable cost will not only act as a catalyst in the socio-economic development of the nation but also enhance the global competitiveness of the domestic industry leading to greater employment generation and higher levels of per capita income.

As India's annual GDP is estimated to grow at the rate of around 8 to 9% over the next 20 years, the demand for electricity will also increase. This in turn requires increase in the present electricity generation capacity from around 209 GW to over 800 GW by 2032 to meet the increasing demand. The increase capacity should equally match with up gradation and enhancement of Transmission as well as Distribution (T&D) segment of power system. Thus, there is a need of huge investment of about US\$ 300 billion over the next 3-4 years.

It is estimated that the elasticity of GDP vis-à-vis electricity generated in India is currently 0.9. That is for every 1% growth in GDP, there has to be 0.9% growth in electricity generated. The elasticity is expected to be broadly 0.9 during the 12<sup>th</sup> Five Year Plan (2012-2017) and 0.8 during the 13<sup>th</sup> Plan (2017-2022).

According 12th year plan (2012-2017), the additional capacity of 88,537 MW must add to existing capacity against an achievement of 54,964 MW during 11th year plan (2007-2012). The share of private sector is also expected to increase to 53% as per the 12th

year plan as compared to 42% in the 11th year plan, original target in 11th year plan was 78, 700 MW. As per 12th plan, about 90,000 MW of the capacity is under construction. If the problems such as non-availability of fuel, problems in land acquisition, delays in environmental and other statutory clearances, lack of supportive infrastructure, etc are addressed by government, it is expected that capacity addition will get complete by the end of 12th year plan.

In Transmission sector, planned addition of transmission line is estimated to be 1,10,340 ckm. In addition to this, 2, 70,000 MVA of AC transformation capacity and 19,250 MW bi-pole link capacity of HVDC system, has to be added as per 12th year plan. This is against an incremental addition of 70,286 ckm of transmission lines; 1,50,362 MVA of AC transformation capacity and 3,000 MW of HVDC systems achieved in the 11<sup>th</sup> Plan. The projected increment during 12th year plan is around 65,550 MW as compared to 27, 750 MW at the end of 11th year plan. In order to achieve the projected plans, it is important to mitigate challenges such as right-of-way, sub-optimal operational efficiency, flexibility in line loading and regulation of power, etc. faced by transmission sector addressed at the earliest.

The delay in financial realization for the distribution sector is one of the severest challenges which hinges on its ability to generate revenue and hinders its sustainability. The privatization of the state discoms has not added any improvements in the financial health of this sector and there is a need for deep concerted action by the respective state government. The greater revenue can be realized by rationalization of tariff, lower AT&C losses, better demand side management and introduction of smart grid. More emphasis should be given to separate the rural feeders. As per 12th year plan, there is a need to restructure whole RGGVY program to achieve universal electrification. Other alternatives like Public Private Partnership (PPP), privatization of discoms, and greater role of private sector by the expansion of franchise model must be practiced to bring the distribution sector out from the major challenge of revenue realization.

In 2012, government announced the 'Financial Restructuring of Discoms' package wherein it made mandatory for discoms to take measurable and concrete actions such as annual revision in tariffs, bringing in private investment in distribution etc. to

be strictly monitored by government. If the guidelines are strictly followed, it can help in substantially reforming the ailing condition of distribution sector. To strengthen the entire power sector, it is important to improve the operational performance by making discoms technically as well as financially efficient. Unfortunately not many States have evinced interest in the debt restructuring plan for the discoms.

The projected budget required by power sector to bring improvement in transmission and distribution sector is estimated to be Rs. 13.72 lakh crores. The allocation of budget for each sector can be further divided as Rs. 6.39 lakh crores for generation, Rs. 1.80 lakh crores for transmission, Rs. 3.06 lakh crores for distribution and the rest Rs. 2.47 lakh crores for R&M, captive, RES, R&D, DSM & EE and HRD.

### Divisional Activities

During the year 2013-14, the T&D Projects Division held 6 meetings on 4<sup>th</sup> May, 4<sup>th</sup> July, 4<sup>th</sup> September, 24<sup>th</sup> October, 24<sup>th</sup> January and 13<sup>th</sup> March. Discussions largely revolved around issues with PGCIL and State Electricity Boards.

The Division has now decided to reach out to States for which regional teams have been formed and conducted "Utility Outreach Session". During 2013-14, division meetings were conducted along with utility outreach in different locations (Jaipur, Bangalore, Mumbai, Panchkula and Guwahati), which saw increase in participation of wider cross-section of members across regions.

The Division has also been discussing various issues affecting the industry such as non – closure of contracts, Tower-wise packing of angles, Self-certification of Vendors, JPC prices, Projects held up on account of RoW, forest clearance, level playing field for domestic players and unfriendly government policies. These issues have been brought to the notice of membership at large at the T&D Conclave and also flagged with the government functionaries at various Ministries and Departments.

### Representations:

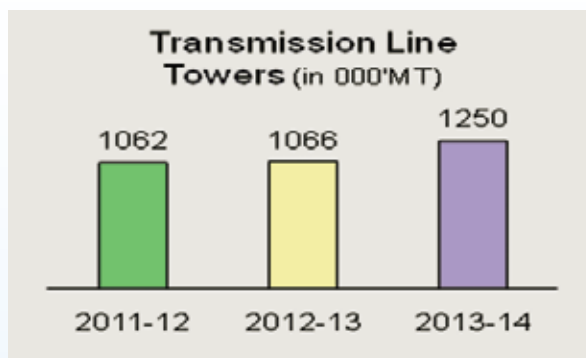
- Representation to Karnataka Transmission and Distribution Utilities on 24<sup>th</sup> August 2013 regarding issues faced by EPC contractor while executing Transmission and Distribution Projects.

- Representation to Rajasthan Transmission and Distribution Utilities on 3<sup>rd</sup> December 2013 regarding issues faced by EPC contractor while executing Transmission and Distribution Projects.
- Representation to Maharashtra Transmission and Distribution Utilities on 27<sup>th</sup> December 2013 regarding issues faced by EPC contractor while executing Transmission and Distribution Projects.
- Representation to PGCIL on 22<sup>nd</sup> January 2014 regarding non closure of Transmission and Distribution projects commissioned by EPC contractors.
- Representation to Ministry of Power on 10<sup>th</sup> March 2014 regarding non closure of Transmission and Distribution projects commissioned by EPC contractors.
- Representation to PGCIL on 31<sup>st</sup> March 2014 requesting for not implementing its "new Directive on Tower wise bundling of Tower Parts" on retrospective basis.
- Representation to Ministry of Power on 23<sup>rd</sup> May 2014 regarding Standard Terms & Conditions for Turnkey Transmission, Distribution and Sub-Station Contracts.

### 7<sup>th</sup> T&D Industry Conclave:

(Detailed description in previous pages)

Production data trend of Transmission Line Towers



### PUBLIC POLICY CELL

Domestic electrical equipment industry has been facing serious challenges due to increasing imports of electrical equipment, which captured almost 40% of the domestic market. China's share in Indian imports

has dramatically increased in the last few years – from 15.3% of the total in 2005-06 to 45% in 2012-13. Imports from China grew at a CAGR of 45.5% during the last seven years.

India's imports duties on most of the electrical equipment are already low (BCD 7.5%), which was further aggravated by signing of Free Trade Agreements by India with various countries, under which the import duties were further lowered or made nil. There has been serious underutilisation of installed capacities across several products. Also, non-tariff and technical barriers imposed by various countries hinder India's exports of electrical equipment. All these significantly impacted commercial viability of the domestic industry.

Besides creating a knowledge base on product-wise imports and exports of electrical equipment, the Cell deliberated and addressed issues related with surge in imports and non-tariff / technical barriers creating exports bottlenecks for the industry

With this scenario, IEEMA Executive Council constituted the Public Policy Cell, in December 2012, under the Chairmanship of Mr. Narayan Sethuram, Managing Director and CEO, WS Industries (India) Ltd. and Co-Chairmanship of Mrs. Indra P Menon,

Executive Director and President, Lakshmanan Isola Pvt. Ltd. The Chairmen and the Vice Chairmen of all Product Divisions of IEEMA are members of this Cell, besides other nominated members who have been contributing towards this endeavour.

The Public Policy Cell had four meetings in 2013-14, and also conducted a Strategizing Meeting with stakeholders of the industry on imports from China and a Brainstorming Meeting with Divisional Chairmen and Vice Chairmen on issues faced by the industry.

Besides creating a knowledge base on product-wise imports and exports of electrical equipment, the Cell deliberated and addressed issues related with surge in imports and non-tariff / technical barriers creating exports bottlenecks for the industry. It also examined and represented on impact of signed Free Trade Agreements, proposed concessional duties on products to be covered under future Trade Agreements, Rules of Origin and other collective issues of importance, like non-closure of T&D projects commissioned by EPC contractors, standard terms & conditions for turnkey T&D and sub-station contracts, abuse of duty benefits under chapter 9801, etc. The Cell also played an advisory role for Product Divisions of IEEMA and suggested suitable remedial measures for safeguarding their interests.





■ ■ ■ REPRESENTATIONS 2013-2014



## REPRESENTATIONS 2013-2014

### SUMMARY

Representations by IEEMA, during the year, on various issues facing the electrical industry are summed up below:

#### IEEMA Pre-Budget Memorandum 2014-15

On the basis of members' feedback, IEEMA submitted its pre-budget memorandum 2014-2015 to the union ministries of Finance and Industry highlighting the following:

#### A. Indirect Taxes

1. Import duty on Mega / Ultra Mega and Expansion Projects
2. Interest on excise duty for differential price
3. Merit Rate of Excise Duty for Power Generation, Transmission & Distribution Equipment
4. Denial of Excise Duty Exemption on Steel and Cement for Mega / Ultra Mega Power Projects
5. Concessional Rate of Excise Duty for Agricultural Products
6. Denial of Excise Duty Exemption to Sub-Contractors
7. CENVAT Credit of Excise Duty / CVD paid on Capital Goods
8. NIL Basic Customs Duty for CRGO electrical steel
9. Extend Service Tax Exemption to Power Sector
10. New Definition of Works Contracts
11. Automatic expiry of stay order if appeal is not disposed of within 180 days
12. Amendment to CST Act - Statutory Forms
13. Exemption of Central Sales Tax / Value Added Tax on Mega Power Projects
14. Supply of goods to SEZ Units/Developers/Co-Developers by sub-contractors / sub-vendors
15. Allow Inter-Unit Transfer of CENVAT Credit to all Manufacturers

### DIRECT TAXES

- Increase Depreciation Rate and Time Limit for Investment Allowance
  - Difficult Terrain Exemption
1. CSR activities under Companies Act 2013
  2. Corporate Tax
  3. Tax Deduction at Source (TDS)

### Other Representations

1. Request to include Laser Grades of CRGO Steel under IS 3024
2. Inverted Duty Structure and Anomalies in Indian Electrical Equipment Industry
3. Adoption of IS 12615:2011 as Mandatory Standard for Energy Efficient Motors
4. Inclusion of Electrical Equipment under Focus Product Scheme
5. Non-Tariff/Technical Barriers and non-recognition of CPRI Test Certificate
6. Recommendations on Reduction of Transaction Cost in Exports
7. Non-closure of Transmission and Distribution Projects Commissioned by EPC Contractors
8. High stamp duties in the State of Maharashtra
9. Standard Terms & Conditions for Turnkey Transmission, Distribution and Sub-Station Contracts

### REPRESENTATIONS & OUTCOME

#### A. Indirect Taxes

- **Import Duty on Mega / Ultra Mega and Expansion Projects**

Government had imposed 5% BCD, 12% CVD and 4% SAD, with effect from 10<sup>th</sup> September 2012, on imports of equipment for Mega / Ultra Mega and expansion projects, other than 113 notified power projects.

However, the 14% cost disadvantage suffered by the domestic industry (as estimated by the Committee

under chairmanship of Member-Industry, Planning Commission) was not completely addressed. The imposed duty structure compensates the domestic suppliers only to the extent of 4.7%.

### IEEMA Recommended

Increase BCD to 10% and simultaneously, excise duty paid by the domestic manufacturers should be refunded by the government as deemed export benefits.

- **Interest on Excise Duty for Differential Price**

The delay in raising of supplementary invoice, in case of price variation contracts, is caused due to delay in declaration of prices of various inputs by the government.

### IEEMA Recommended

Amendment in Sub-Rule 4 of Rule 7 of Central Excise Rules 2002, replacing 'the month **for which** the duty is determined' by 'the month **in which** the duty is determined', to avoid applicability of interest.

- **Merit Rate of Excise Duty for Power Generation, Transmission & Distribution Equipment**

Electrical equipment goes to one of the most significant and critical infrastructure sectors; however these attract the same level of excise duty as applicable to many FMCG and luxury products.

### IEEMA Recommended

Till the time a uniform GST is implemented, a merit rate of 6% excise duty be imposed on power generation, transmission & distribution equipment.

- **Denial of Excise Duty Exemption on Steel and Cement for Mega / Ultra Mega Power Projects**

Notification no. 12/2012-CE, dated 17.03.2012, provides excise duty exemption and is applicable to all goods falling under 'any chapter'. This exemption is only available when there is corresponding customs duty exemption.

However, corresponding customs exemption notification 12/2012-Cus, dated 17.03.2012 (Sr. no. 507) is applicable only to chapter 9801. Structural steel / cement used in construction, are not covered under this chapter.

### IEEMA Recommended

Sr. no. 507 appearing under chapter 9801 of the notification number 12/2012-Cus, be amended to read as 'any chapter'. Amendment will help in reducing project cost.

- **Concessional Rate of Excise Duty for Agricultural Products**

Products such as Tractors; Power Driven Pumps and specific goods intended to be used for agricultural produce are wholly or partially exempted from excise duty, vide notification no. 12/2012-CE dtd. 17.3.12.

However, Motor Starters (up to 7.5 kW / 10 HP or up to relay range of 14-23A); Agricultural Capacitors (up to 6 kVAr) and Submersible Flat Cables (up to 6 sq. mm. cross section area), which are mainly used in the agriculture sector, attract normal rate of excise duty.

### IEEMA Recommended

Excise Duty rate on these products be reduced to 6%.

- **Denial of Excise Duty Exemption to Sub-Contractors**

Notification no. 108/95-CE, dated 28-08-95, provides excise duty exemption to goods supplied to specified international organisations. However, this benefit is available only to the main contractor and not to the sub-contractor, as per the Judgment of CESTAT in the case of Bird Machines.

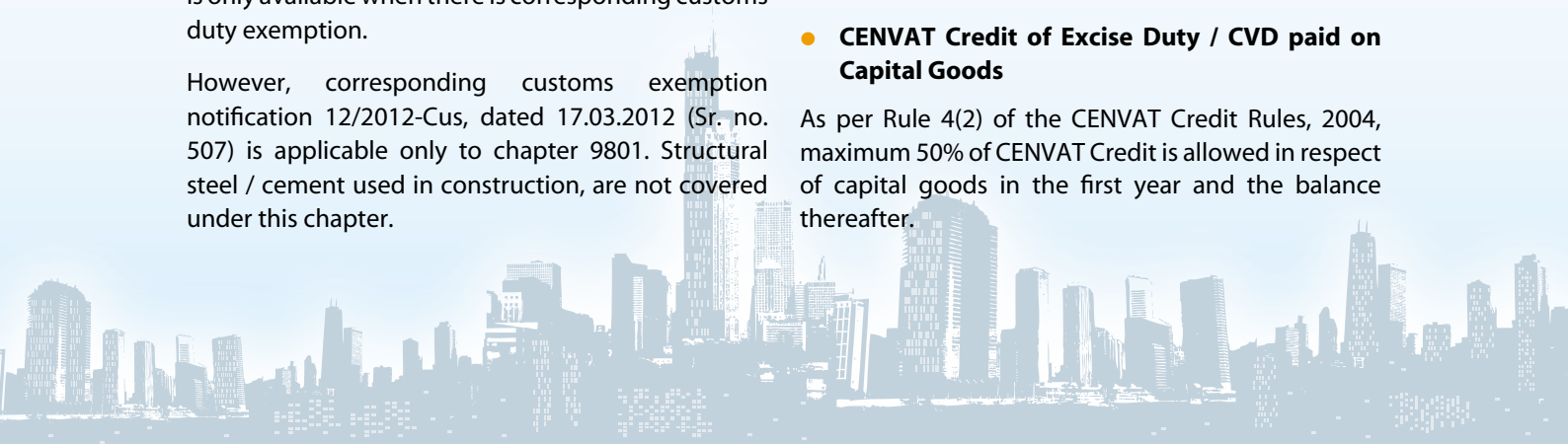
Internationally funded projects are generally of large magnitude and cannot be executed by a single contractor, without sub-contracting at least a part of the project. In some cases, several sub-contractors are required.

### IEEMA Recommended

A clarification be issued on notification no. 108/95-CE, dated 28-08-95, to ensure availability of excise duty exemption benefit also to the sub-contractors, supplying goods to the projects under the said notification.

- **CENVAT Credit of Excise Duty / CVD paid on Capital Goods**

As per Rule 4(2) of the CENVAT Credit Rules, 2004, maximum 50% of CENVAT Credit is allowed in respect of capital goods in the first year and the balance thereafter.



As a result, a lot of time and effort is spent in terms of year of entry, amount of credit available in each year. This also leads to errors and consequently, long-drawn disputes/litigation with the Department.

### IEEMA Recommended

For better cash flow management and to reduce the administrative process, full credit may be allowed in the first year itself for all types of assesses. This would be in line with the provisions on CENVAT Credit in respect of inputs.

- **NIL Basic Customs Duty for CRGO electrical steel**

Cold Rolled Grain Oriented (CRGO) Steel (under HS Codes 72251100 and 72261100) is a critical raw material for manufacturing of transformers. There is no indigenous manufacturing of CRGO Steel and the entire requirement is imported.

### IEEMA Recommended

Basic Customs Duty on CRGO electrical steel should be removed till such time the country sets up indigenous manufacturing capacity.

- **Extend Service Tax Exemption to Power Sector**

Service Tax exemption is available for construction of infrastructure facilities such as roads, airports, ports, railways, transport terminal, bridges, tunnels and dams, under Mega Exemption Notification no. 25/2012 dated 20<sup>th</sup> June 2012.

Construction activities undertaken in relation to setting up of power projects are liable to be taxed.

### IEEMA Recommended

Being an important infrastructure sector, works contract related services for power generation, transmission & distribution be exempted from payment of service tax.

- **New Definition of Works Contracts**

Under the reverse charge mechanism, the recipient of taxable service has the liability to pay service tax, which has been extended to works contract scheme vide Notification no. 30/2012-ST, dated 20-6-2012. As per this notification, liability of paying 50% of service tax has been put on recipient of works contract service, if the service provider is an individual, HUF

and partnership firm including AOP. The remaining service tax has to be paid by the provider of the service.

This is practically a double burden on the organisations from compliance point of view.

### IEEMA Recommended

Entire tax should be paid either by the provider or the recipient of the service.

- **Automatic expiry of stay order if appeal is not disposed of within 180 days**

Sub-Section 2(A) of Section 35C of Central Excise Act 1944, read with first provision stipulates an appeal, where a stay order has been made, to be decided within a period of 180 days. Second provision provides that if appeal is not disposed of within this period, the stay shall stand vacated.

Disposal of appeal is not within control of assessee, as such, the vacation of stay would result in undue hardship on account of which stay was granted.

### IEEMA Recommended

The above Section should be repealed.

- **Amendment to CST Act - Statutory Forms**

Amendment made to Rule 12 of the CST Act makes it mandatory to issue/collect single declaration form for all transactions of sale for each quarter of the year.

This has created a lot of hardship and increased the non-value added work of dealers, who are also harassed for non-submission of forms. Also, many State Governments do not have sufficient stock of the forms viz., F forms/C forms, E1/EII forms etc.

### IEEMA Recommended

The amendment made to Rule 12 of the CST Act be withdrawn and the statutory forms generated online be simplified in compatible to Rule 12.

- **Exemption of Central Sales Tax / Value Added Tax on Mega Power Projects**

Goods supplied by foreign suppliers do not attract CST / VAT, whereas, domestic supplies attract 2% CST and VAT varying from 4% to 14.5%. An office memorandum issued by the Ministry of Power had advised the State Governments to exempt

supplies made to Mega Power Projects from levy of local taxes.

However, some project authorities and customers do not accept this de-loading principle and evaluate bids taking these levies into account.

### IEEMA Recommended

Mega / Ultra Mega Power Projects should be mandatorily exempted from levy of CST / VAT by making a provision in the CST Act itself. Alternately, CST / VAT component, if any, should be excluded during evaluation of bids.

- **Supply of goods to SEZ Units/Developers/Co-Developers by sub-contractors / sub-vendors**

As per section 8(8) of Central Sales Tax Act 1956, there is exemption of CST for supply of manufactured goods to SEZs against form 'I'. Section 26 of SEZ Act, read with Rule 10 of SEZ Rules, allows exemption of CST to sub-contractors.

However, there is no corresponding provision in the CST Act to grant such exemption to sub-contractors/sub-vendors supplying goods to SEZ units/developers/co-developers.

### IEEMA Recommended

CST Act should be amended to include issuance of form I to both contractors and sub-contractors. Certificate 1 and 2 in Form I should also be modified suitably in line with amended provisions.

- **Allow Inter-Unit Transfer of CENVAT Credit to all Manufacturers**

Under Central Excise, manufacturers having multiple manufacturing locations are required to have separate excise registration, including maintenance of separate pool of CENVAT Credit and related records.

Unutilised CENVAT Credit gets accumulated at a certain manufacturing location, whereas, other manufacturing locations of the same manufacturer discharge their duty liabilities in cash.

### IEEMA Recommended

As allowed to Large Taxpayers Units, all assesses at their option, be allowed to transfer their Cenvat Credit amongst different registered premises (under both Excise and Service Tax). Amend Rule 10 A of the Cenvat Credit Rule, 2004 to extend the facility of

transferring the credit of SAD by one unit to other unit of the same legal entity to other eligible input credits as well.

## B. DIRECT TAXES

- **Increase Depreciation Rate and Time Limit for Investment Allowance**

Machinery used in electrical industry is extensively technology oriented and susceptible to frequent technological changes. Industry has to adopt new technologies at a faster rate, to remain competitive nationally and internationally.

### IEEMA Recommended

Higher and accelerated depreciation be allowed for construction equipment from present 15% to 30%, so that, these equipment can be written off in 10 years.

Time limit be extended from 2 yrs. to 5 yrs. under Investment Allowance (Section 32 AC) for acquiring and installing new plant and machinery by a manufacturing company.

- **Difficult Terrain Exemption**

Some organisations execute projects under difficult terrains and adverse political environments in countries like Afghanistan, Iraq, Africa or States like Jammu & Kashmir and North Eastern States.

### IEEMA Recommended

The Government should allow a special exemption or deduction for the organizations working under these conditions in order to encourage them to undertake projects in such regions.

- **CSR activities under Companies Act 2013**

Section 135 of the Companies Act, 2013 specifies responsibility of a company to spend a minimum 2% of its average net profit, during a block of 3 years, on CSR activities.

### IEEMA Recommended

Government in return, should provide a suitable weighted deductions or a set-off of 2% on this spending. This would not only encourage the domestic companies but also create a level playing field for them, otherwise, these would become less competitive vis-a-vis foreign companies doing business in India, which have no such responsibility of CSR.

### ● Corporate Tax

Spending INR 100 Crore in a period of 2 years, from 1-4-2013 to 31-3-2015, is applicable to big industry only and midsize industry will not get the benefit of this. Time period allowed for this is also less, as a project requires many clearances.

### IEEMA Recommended

Allow more flexibility to newly introduced Section 32 AC.

### ● Tax Deduction at Source (TDS)

Reduce Corporate TDS rate for contractor from 2% to 1%. Contracting / Sub-contracting businesses do not have sufficient margin or cash flow to withstand a deduction of 2% from their fund flow.

### Other Major Representations:

#### 1. Request to include Laser Grades of CRGO Steel under IS 3024

IEEMA represented the matter to the Bureau of Indian Standards.

There are some domain refined grades of CRGO Steel, produced by foreign steel mills, which are superior in quality and used by electrical equipment manufacturing industry. However, these grades are not covered under IS 3024. Thus the steel mills, inspite of being registered with BIS under IS 3024, are not able to supply these grades of steel to equipment manufacturing industry.

Based on the inputs received from foreign suppliers and industry users; IEEMA recommended BIS to include these Domain Refined grades of CRGO under IS 3024.

(BIS is deliberating on inclusion of these grades in their MTD meetings. The matter is under active consideration).

#### 2. Inverted Duty Structure and Anomalies in Indian Electrical Equipment Industry

IEEMA represented the matter to Tariff Commission, Ministry of Commerce and Industry, Government of India.

National Manufacturing Competitiveness Council had entrusted the Tariff Commission, under Ministry of

Commerce & Industry, to study inverted import duties of various products impacting the manufacturing sector.

IEEMA represented to the Tariff Commission the instances of inverted duties and anomalies reported by members in the electrical equipment manufacturing industry. IEEMA officials also had several meetings with the Tariff Commission in this regard.

(Tariff Commission has recommended rectification of inverted duties in the electrical equipment manufacturing sector)

#### 3. Adoption of IS 12615:2011 as Mandatory Standard for Energy Efficient Motors

IEEMA represented the matter to Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India.

The electric motors manufactured in India conform to the Indian Standard IS 12615, which was harmonized in August 2011 with Global IEC standard 60034-30 for the efficiency classes (IE2 and IE3) and testing methods. IS 12615 is a voluntary standard, whereas the relevant IEC or equivalent international standards are mandatory in most of the countries e.g. EU, USA, Japan and China.

The above countries manufacture and sell only efficient motors in their countries, whereas freely export below IE2 level motors to countries such as India, as there is no mandatory standard of high efficiency IE2 motors in our country.

This had been causing serious injury to domestic manufacturing capacity.

(The matter is under active consideration)

#### 4. Inclusion of Electrical Equipment under Focus Product Scheme

IEEMA represented the matter to Directorate General of Foreign Trade; Departments of Commerce and Heavy Industry, Government of India.

IEEMA secretariat had sought inputs from members for inclusion of electrical equipment under 'Focus Product Scheme' of Foreign Trade Policy. The objective of the scheme is to incentivise export of select products that have high export intensity and employment potential, thereby offsetting infrastructure inefficiencies and other associated costs involved in marketing of these

products. The incentive provided by the government is in the form of duty credit at the rate of 2% of FOB value of exports in foreign exchange.

Based on the inputs received from the members, IEEMA recommended inclusion of certain types of switchgears, capacitors, aluminium conductors and galvanized transmission line towers etc. under the Focus Product Scheme.

(DHI also recommended to DGFT regarding inclusion of some of these products under FPS. The matter is under active consideration).

### **5. Non-Tariff / Technical Barriers and non-recognition of CPRI Test Certificate**

IEEMA represented the matter to Ministry of Power; Departments of Commerce and Heavy Industry, Government of India.

IEEMA secretariat had sought inputs from member exporters on nature of non-tariff / technical barriers faced by them while exporting their products to any country.

Based on the inputs received from the members, IEEMA submitted details of these barriers to the government, which also include non-recognition of CPRI Test Certificates in various countries.

(The matter is under active consideration)

### **6. Recommendations on Reduction of Transaction Cost in Exports**

The matter was represented to Directorate General of Foreign Trade and Department of Heavy Industry.

Government of India was undertaking an exercise to reduce unavoidable transaction costs in exports and provide a boost to country's exports.

IEEMA sought inputs from members on non-essential transaction cost faced by exporters while exporting their products. Members reported various administrative impediments, procedural complexities and infrastructural bottlenecks while exporting their products, which unnecessarily get added to their export cost. The inputs received from members were submitted to the government.

(The matter is under active consideration)

### **7. Non-closure of Transmission and Distribution Projects Commissioned by EPC Contractors**

IEEMA represented the matter to Ministry of Power.

There were many T&D Projects in the country which were already commissioned however not commercially closed. This led to huge blockage of working capital for the industry.

IEEMA sought inputs from members to assess the quantum of such projects and represented the same to the government.

(The matter is under active consideration of the government).

### **8. High stamp duties in the State of Maharashtra**

IEEMA represented the matter to the Government of Maharashtra.

Members reported high stamp duties in the State of Maharashtra vis-à-vis those in other States on account of Share Certificates; Insurance Policies; Hypothecation; Debentures; Mortgages; Bank Guarantees; Mergers and Amalgamations etc.

(The matter is under active consideration of the government).

### **9. Standard Terms & Conditions for Turnkey Transmission, Distribution and Sub-Station Contracts**

It is generally observed that tender documents issued by different PSUs and Utilities are non-uniform and varying in nature. This leads to confusions, delays in projects execution and also increases administrative works of the bidders. IEEMA submitted a draft Standard Terms & Conditions for Turnkey Transmission, Distribution and Sub-Station Contracts to Ministry of Power requesting adoption of the same by all PSUs and Utilities (*The matter is under active consideration*).



# \$30B Global Business

CO-PUBLISHED CORPORATE PROFILE

As per estimates of the International Energy Agency, the world's power demand is expected to grow exponentially but the supply is not expected to grow unless T&D (Department of Sust. and transmitting power) equipment of US\$100 billion for

## FEATURE: MANUFACTURING



### ELECRA-2014 poised quantum leap

ELECRA-2014, to be held on January 8-12, is envisaged to be an experience in addition to a move to new locations.

Manufacturers, traders, utilities, consultants and decision makers from over 100 countries, market leaders with their latest products in the fields of power transmission and distribution will again converge at ELECRA-2014.

"ELECRA-2014 is envisaged to be an experience in addition to a move to new locations."

**ELECRA-2014**  
8-12 JANUARY 2014, BIEC, BANGALORE, INDIA



The RBSM provided a major impetus for Indian electrical exports by introducing Indian products and technologies to global buyers. It proved a very valuable experience for the foreign buyers from various countries, Indian industries. Altogether, 276 buyers from 31 countries from Africa, Latin America, ASEAN and CIS attended

## India's biggest power transmission & distribution expo comes up with the theme "Go Global"

Indian Electrical and Electronics Manufacturers Association's vice-president Raj Eswaran throws light on the high growth perspective of India's power sector and the ensuing ELECRA-2014.



of around 6.5 billion people. However, electrification in these countries which means there is scope of the get electrified."

With increasing trade between African countries gaining momentum the years, Eswaran sees a large opportunity for our electrical exports going ahead with the ELECRA-2014 event carrying "Go Global".

According to Eswaran, the a quantum leap in terms of environment, context, commercial the newest and world-class exhibition in the country - Bangalore International Exhibition Centre (BIEC), Bangalore.

In order to overcome the the 11th biennial event will which has 40,000 sqm of conditioned exhibition space compared with 33,370 previous ELECRA event 2012.

In order to meet the challenge, a facility conference centre 50,000 sqm including 4 Conference Amphitheater, VIP Lounge 10,000 sqm, a Machine Tool Training large outdoor area is being

CO-PUBLISHED CORPORATE PROFILE

## Indian electrical equipment makers look to booming Middle East for growth

Electricity consumption is growing at a breakneck pace in the Middle East, opening up lucrative opportunities for Indian manufacturers.

ELECRA, billed as the world's largest power transmission & distribution expo, has increased its focus on the Middle East. The Power T&D sector in the Gulf Council (GCC) countries - Kingdom of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia - is expected to witness rapid growth in power generation and distribution, and is expected to grow in the sector.



next 10 years will witness a boom in electrical equipment to meet domestic demand. In its presence as a global electrical expo to do so, he noted to identify new regions.

"The most reckoned continent, Middle East. These are the hot spots for rapid urbanization in the last five years due

PROFILE: ELECRA-2014

# ELECRA 2014 to showcase India's best

African market in focus at world's leading Transmission & Distribution

ELECRA, which takes place in Bangalore in early 2014, is set to return with a renewed focus on the African market.

The theme for the 2014 edition of ELECRA will be 'Go Global', as the flagship event of the Indian Electrical and Electronics Manufacturers Association (IEEMA) looks to promote the 'Made in India' brand and enhance India's exports of electrical equipment.

T&D CONCLAVE, technical conference TRAFOTECH 2014 and THE ENGINEER INFRA 2014 competition, which has encouraged third- and fourth-year engineering student from across India to share and display their innovative projects on the event's Student Pavilion.

**Attracting Africa**  
Africa is India's fourth largest trade partner and bilateral trade between the two has been estimated to reach US\$100bn by 2015, after growing from US\$35bn in 2008.

38 Annual Power Review 2013  
**ELECRA 2014**

## Bilateral trade can flourish further

ELECRA 2014 will be an

# Electrical equipment sector sees 2% rise in Q1 growth

**Our Bureau**  
New Delhi, Aug. 26  
The electrical equipment industry, after four consecutive quarters of decline in growth, recorded a 2 per cent increase during the April-June of this year.



**Imports of power transformers, insulators and AC motors and generators continued to increase.**

The growth, though minimal, was because of an increase in exports. The growth in domestic orders, however, continued to be negative, said the Indian Electrical and Electronics Manufacturers' Association (IEEMA).

The sluggish growth in the country's power sector, delays in project execution, and the precarious financial situation of State power distribution companies continue to severely hit domestic electrical equipment manufacturers.

The industry has witnessed some growth because of orders from transmission and substation projects, power generation stations, especially of renewable energy such as wind, solar and small hydro projects.

Members against the depreciation rate imposed the dollar has made critical imported raw material expensive. Manufacturers are seeing export growth in countries such as the US, Germany, the UK, Australia, Canada, the UAE, Saudi Arabia, Nigeria and Kenya.

Imports of power transformers, insulators and AC motors and generators continued to increase and are expected to increase in the coming months as the depreciation rate of the dollar has made critical imported raw material expensive.

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Manufacturers are seeing export growth in countries such as the US, Germany, the UK, Australia, Canada, the UAE, Saudi Arabia, Nigeria and Kenya.

# Project delays trip power biz

**AGE CORRESPONDENT**  
MUMBAI, AUG. 26

The sluggish growth in India's power sector, delays in project execution, and the precarious financial situation of the state power distribution companies continue to severely hit the ₹1,200 lakh crore domestic electrical equipment manufacturers.

However, after four consecutive quarters of growth, it has seen a two per cent rise in the first quarter of the current fiscal year.

The sluggish growth in the country's power sector, delays in project execution, and the precarious financial situation of the state power distribution companies continue to severely hit the ₹1,200 lakh crore domestic electrical equipment manufacturers.

# Electricals industry cries

**REPORTER**  
Mumbai, 26 July

A day after the Prime Minister held a meeting to push manufacturing in the country, the electrical industry on Wednesday sought his support against cheap imports.

The president of the electrical equipment industry association, Indian Electrical and Electronics Manufacturers' Association (IEEMA) said.

The industry body wants the government to stipulate a minimum percentage of the total procurement of electrical equipment to be made in India.

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# Inter-regional grids to help evacuate more power to South

**V. Rishi Kumar**  
Hyderabad, June 11

The commissioning of the inter-regional power transmission line between Raichur-Sholapur 765 kV two single circuit lines will help Southern states of Andhra Pradesh, Karnataka, Tamil Nadu and Kerala access more power from west and northern region.

Indications are that the Raichur-Sholapur transmission line taken up with an outlay of ₹1,930 crore last year and scheduled for completion by January is likely to be commissioned ahead of time, according to sources.

In addition to the Raichur-Sholapur line, three other inter-regional lines are under way. These include Kolhapur (new)-Nanded 765 kV double circuit line, Wardha-Hyderabad 765 kV double circuit line, and Angul-Sekakulam-Venagiri 765 kV double circuit line.

The PowerGrid Corporation of India had, in the past, indicated that the country will have a single grid by 2014 with the commissioning of a new line that strengthens and interlinks west and Southern region.

All the southern States have sought additional power allocation from the Central government to bridge the demand supply gap faced in the region.

**CORRIDOR CONGESTION**  
The Government has initiated several steps to ease the corridor congestion which is hindering the supply of power from the surplus states in the North to South.

The inter-regional links between New Grid and Southern region grid and intra-regional links within the South would help mitigate the corridor congestion. They are under various stages of execution.

The inter-state transmission system within the southern region include links between Vijayawada-Nellore, Chittoor-Thiruvananthapuram, Kurnool-Thiruvananthapuram, Madhupur-Salem, Somnath-Salem, Salem-Somnath and Mysore-Kolhapur.

The Central Electricity Authority has received requests for additional power allocation by all the southern States. The demand varies from each State depending upon the period of additional power supply has been sought.

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# Praful Patel wants 5% more duty on imported power gear

**Our Bureau**  
New Delhi, Aug. 26

Heavy Industries Minister Praful Patel has written to the Finance Ministry seeking an additional 5 per cent duty on imported power equipment.

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# ELECTRIC ELECARAMA

**ELECARAMA 2014, aims to position India on the world map of the power industry. It is from January 8 - 12, 2014, in Bangalore**

ELECARAMA is the largest international trade fair and exhibition for the power industry. It is from January 8 - 12, 2014, in Bangalore.

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# Cap goods industry for curbs on Chinese firms

**MITUL THAKKAR**  
New Delhi

India is a large and important market for the electrical industry and ELECARAMA 2014 is a key event for the industry.

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# Domestic demand helps electrical equipment sector post 6% growth in H1

**Our Bureau**  
New Delhi, Dec. 17

The country's electrical equipment industry has witnessed 6 per cent growth in the first half of 2013-14 due to a rise in domestic demand, said the Indian Electrical and Electronics Manufacturers' Association (IEEMA).

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# Govt should be wary of Chinese dominance in power equipment sector: IEEMA

**NEW DELHI**

The issue has arisen in the wake of rising demands by Indian power equipment makers from the Government to rely more on domestically produced machinery in the sensitive power sector.

IEEMA Director General Sanjay Mishra told media persons on Monday that Chinese equipment makers don't share technological know-how with Indian companies to whose power projects they are supplying equipment.

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## IEEMA Membership Spread



INDIAN ELECTRICAL & ELECTRONICS MANUFACTURERS' ASSOCIATION (IEEMA) is the first ISO certified industry association in India with 800+ member organisations encompassing the complete value chain in power generation, transmission and distribution equipment. IEEMA members have contributed to more than 90% of the power equipment installed in India.

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