International Copper Association India
Copper Alliance

ICF

3rd INDIA COPPER FORUM 2017
EVENT REPORT
India Copper Forum (ICF) – both 2015 and 2016 – have been successful in deliberating on trending themes such as “Copper. Makes The World Work Better” and “Future with Copper”. The success of the previous two editions established ICF as the only platform to focus entirely on copper and related trends and opportunities. This year, International Copper Association India (ICA India) hosted the third edition of India Copper Forum, 2017, in association with Hindalco Industries Ltd, Vedanta Ltd, Multi Commodity Exchange investor (Client) Protection Fund (MCX-IPF), and Caldeyrs India Refractory Limited.

As a non-commercial platform, India Copper Forum attracts attendees representing not only the complete copper value chain from miners, fabricators and end users but also industry experts, government officials, policy makers and thought-leaders thereby providing them with an opportunity to exclusively network with the largest and influential entities from the industry. The long-term growth prospects of the Indian economy are positive and with its increasing integration into the global economy, India is poised to take center stage as the World’s fastest-growing major economy. Growth drivers, such as technology innovations, rapid urbanization and rising consumer demand is predicted to boost copper usage in the coming years. Recognizing the future that copper has in nation building and new technologies like electric vehicles, energy infrastructure, energy storage, renewable energy and many more, the theme for 2017 was –

“One India One vision – Copper for Technology, Innovation and Transformation”

High on agenda is to discuss the strength of copper and hear about the very latest information on industry forecasts and industry direction.

✧ Global, Asia and India Overview on Usage and supply of Copper
✧ Opportunity and challenges for the copper fabricators
✧ Readiness of India to adopt transport electrification
✧ Role of renewable energy for sustainable development
✧ Implementation and enforcement of standards and policies

We were honoured by the presence of both dignitaries and delegates at the India Copper Forum, 2017 and wish to thank all the participants for their insights and expertise.
AGENDA

"One India One Vision – Copper in Technology, Innovation and Transformation"
Date: 8th Nov 2017, 09:00 to 17:00 hrs | Venue: Shangri-La’s – Eros Hotel, New Delhi

REGISTRATION (09:00 - 09:30 HRS)

INAUGURAL SESSION (09:30 - 10:45 HRS)

Chief Guest
Honourable Shri Suresh Prabhu,
Minister of Commerce and Industry, Government of India

Dignitaries

Welcome Address
Mr. Sanjeev Ranjan, Managing Director – International Copper Association, India

Guest of Honour and Keynote address
Shri Arun Kumar, Secretary - Ministry of Mines, GOI
Shri. S. Chadha, Joint Secretary - Ministry of Commerce, GOI

Special Address
Mr. JC Laddha, CEO (Copper) – Hindalco Industries Ltd.
Mr. P Ramnath, CEO – Sterlite Copper, Vedanta Ltd.
Mr. Shreegopal Kabra, MD – RR Kabel Global

INDUSTRY RECOGNITION (EXCELLENCE AWARDS 2017) (10:45 - 11:05 HRS)

TEA BREAK (11:05 TO 11:30HRS)/ MEDIA INTERACTION (11:05 - 11:30HRS)
PANEL DISCUSSION

SESSION 1: ELECTRIC VEHICLE – TECHNOLOGY, INNOVATION AND TRANSFORMATION (11:30 TO 13:00 HRS)

PANEL DISCUSSION POINTS:

Electric vehicle growth in India
New business models and policies
Charging infrastructure
Battery storage
Manufacturing capabilities

SESSION CHAIRMAN:

Prof. Dr. Ashok Jhunjhunwala, Principal Advisor – Minister of Power

PANELISTS:

Mr. Victor Zhou, MD – International Copper Association China
Dr. Ajit Jindal, Head Tech, Vice President – Tata Motors
Mr. Tarun Mehta, Co-Founder & CEO – Ather Energy
Mr. Prem R. Kumar, CEO – BSES Yamuna Power Ltd.

LUNCH BREAK (13:00 to 14:00 hrs)
PANEL DISCUSSION

SESSION 2: COPPER SCENARIO (14:00 TO 15:30 HRS)

PANEL DISCUSSION POINTS:
• Global, Asia and India overview on usage and supply of copper
• Copper usage trends in China
• Copper opportunities in low carbon megatrends
• Opportunity and challenges for the copper fabricators

SESSION CHAIRMAN:
• Shri. Subhash Chandra, Joint Secretary – Ministry of Mines, Gol

PANELISTS:
• Mr. Colin Bennett, Global Manager Market Analysis – International Copper Association
• Mr. Joe Zhou, Project Manager Market Analysis - International Copper Association China
• Ms. Yashika Singh, Lead – Economics, Strategy and Corporate Relations – Rio Tinto India
• Mr. Gyanendra Thakur, Director – Metals and Mining Consulting – Wood Mackenzie
• Ms. Rashmi Nihalani, Assistant Vice President – Multi Commodity Exchange of India Ltd
• Mr. D K Jain, CMD – Agrawal Metal Works Pvt Ltd

DT Tracker Launch (15:30 – 15:40)
PANEL DISCUSSION

SESSION 3: CHALLENGES FOR IMPLEMENTATION AND COMPLIANCE OF STANDARDS AND POLICIES (15:40 TO 17:10 HRS)

PANEL DISCUSSION POINTS:
• Policy & Standards awareness
• Challenges in implementation
• Mandatory policy compliance
• Role of testing labs

SESSION CHAIRMAN:
• Shri. Shailendra Shukla, Chairman, Haryana Renewable Energy Development Agency (HAREDA)

PANELISTS:
• Mr. Hassan Omar, Chief Operating Officer – DuCab Cable Manufacturing Company, UAE
• Mr. Jayavilal Meegoda, President Elect - Institution of Engineers, Sri Lanka
• Shri. Prasada Rao, DDG Certification, Bureau of Indian Standards
• Shri. Goutam Roy, Chief Electrical Inspector – Central Electricity Authority
• Mr. Mukund Joshi, Former Special Director General – Central Publics Work Department

CONCLUSION AND VOTE OF THANKS
The following summary is prepared on the deliberations held at India Copper Forum (ICF) 2017, by three panel sessions.

INAUGURAL SESSION

Mr. Sanjeev Ranjan, Managing Director – International Copper Association, India welcomed the gathering and highlighted the key topics of discussion in the upcoming session. He discussed ways in which copper fraternity can help to achieve 'One India One Vision' mission with the help of innovation and available technology to bring transformation in the life of a common man.

The keynote speaker Mr. Arun Kumar, Secretary – Ministry of Mines, GOI shared grave statistics about where the copper industry is and in which direction it is going near future. He mentioned two major players in Copper industry of India- Hindalco and Vedanta. He spoke about mining condition in India and plan of Ministry of Mines of conducting aeromagnetic survey which is specially prepared for improvement of copper mining in India. He stressed that Copper is the metal of future and we will have more copper production in the future.

Mr. Sanjay Chaddha, Joint Secretary – Ministry of Commerce, GOI addressed the gathering and talked in commerce perspective for the forum. He said, copper forms the backbone of electrical and telecomm industry. He mentioned that as China is not able to meet the downstream demand for the copper, it is attractive market place for India. With Make in India initiative, copper demand is going to increase and hence we should look to increase the value of our products which we are exporting. He concluded with stressing the point that we should focus more on value addition.

Mr. J.C. Laddha, CEO (copper), Hindalco Industries Ltd. gave special address on the occasion and said that we should work as one partner and one copper industry for the nation building. He gave brief information about the physical and chemical properties of copper and its importance for the industry. He said, GDP and per capita consumption of Copper is correlated and going to increase in near future. He gave information about the increased demand of copper due to introduction of EVs. Similarly, as solar power concept is emerging there will be an increase in demand of copper. He mentioned that two reforms done by GOI-demonetization and GST, will definitely boost the manufacturing in India.
INAUGURAL SESSION

Mr. P. Ramnath, CEO – Sterlite Copper, Vedanta Ltd. was the next speaker on the occasion. He said, we should look for positive side and the positive points which will be helpful for the industrial growth. He mentioned the total smelter production capacity of different countries like China – 67%, Japan – 13% and India – 2-3%. He said, this scenario can be changed in India by giving a slight attention towards it. He said, that copper demand is going to be double in next few years due to more focus towards renewable energy and EVs. He stressed that we have very less resources of copper and it is the need of the hour to increase copper production capacity in India.

Mr. Shreegopal Kabra, MD– RR Kabel Group addressed the gathering and expressed his regret about electrical accidents in India. He said, electrical product standards are very poor in India. To make India successful it is very important to use and produce good quality of copper. He said, considering our economy we are producing very less copper (only 3%). There is good scope to become global player in copper business if we pay focus towards enhancing our copper production. He said, our BIS standards are very low. We should make strict laws for manufacturing products. He concluded with stressing that it is high time to market ‘Make in India’ for the global business.

SESSION 1: ELECTRIC VEHICLE – TECHNOLOGY, INNOVATION AND TRANSFORMATION

The first panel discussion was on Electric Vehicle. It was moderated by Prof. Dr. Ashok Jhunjhunwala, Department of Electrical Engineering – IIT Chennai. He introduced the discussion topic ‘Electric Vehicle in India’. He mentioned public fast charging and battery swapping are the noble and viable options for charging infrastructure. He listed some of the major advantages of EVs and possible duration to start operation of EVs in India.

The first panelist Mr. Victor Zhou, MD – International Copper Association, China gave an overview on China’s New Energy Vehicle (NEV) market and opportunities for copper. He highlighted the strategies used by China to boost copper market. He mentioned that in 2015 China produced 500k Battery operated vehicles and plans to produce 5 million by 2020. He said, government regulation played a key role in enhancing the NEV market in China and that subsidy was a key turning point for the market.
SESSION 1: ELECTRIC VEHICLE – TECHNOLOGY, INNOVATION AND TRANSFORMATION

The second speaker Dr. Ajit Jindal, Head Tech, Vice President – Tata Motors spoke about the status quo and challenges in manufacturing of EVs. He mentioned that initial cost of EV is a big challenge for the industry for which different business models need to be worked out. Dr. Jindal also spoke about how architecture of the vehicle impacts the efficiency of the EV.

The third speaker Mr. Tarun Mehta, Co-Founder & CEO – Ather Energy said that as an OEM people will have to think broader. OEMs will have to gear up to produce EV subsystems, batteries and not just market them. Mr. Mehta said, the ambitious vision of displacing ICE vehicles with EV by 2030 will require 400GWh batteries every year and this is just for two wheelers and cars. Adding commercial vehicles will only double up the number to 800GWh. He mentioned that this is a big opportunity for OEMs in India that will scale up cell manufacturing.

The fourth panelist Mr. Prem R. Kumar, CEO – BSES Yamuna Power Ltd. gave his remark on role of DISCOMs in the development of Electric Vehicle. He said, the huge demand of charging infrastructure has to be fed through the grid. The DISCOMs have to be geared up for integration of EV in the grid. The regulatory challenges in deployment of the EV program will be a challenge for DISCOMs. He said, as the electricity sector is largely subsidized, EV deployment of such large scale should not be funded through subsidy. A self-sustaining model should be implemented as far as EV deployment is concerned.

SESSION 2: COPPER SCENARIO

The second panel discussion was on copper scenario which was moderated by Shri. Subhash Chandra, Joint Secretary – Ministry of Mines, GOI. He addressed the gathering and introduced the topic of discussion. He talked about the ways to increase efficiency and productivity of the industry. He also focused on the point of increasing copper consumption of India and contribution of Indian copper industry globally.
SESSION 2: COPPER SCENARIO

The first speaker of this session Ms. Yashika Singh, Lead – Economics, Strategy and Corporate Relations – Rio Tinto India spoke on "India’s evolving economy and implications of copper demand". She said, more than growth of GDP, its composition matters. She cited in her presentation that India is positioned at very low base in per capita consumption as compared to China which is a more populous country than India. She spoke on how megatrends like urbanization, renewable energy integration, electric mobility system and infrastructural change will fuel copper demand in future.

The second speaker of this session Mr. Colin Bennett, Global Manager Market Analysis – International Copper Association focused on business future of copper industry. He mentioned that globe is looking at India for copper trade as it is favorable market. He gave a brief about demand share of copper globally. Mr. Colin Bennett gave a detailed presentation on global and regional demand drivers of copper. He shared the future plan of China in terms of industrial growth for scaling copper demand.

The third speaker from this session Mr. Joe Zhou, Project Manager Market Analysis – International Copper Association China discussed primarily China’s copper usage and its global impact. He gave brief idea about current copper market segmentation in India. He also mentioned future trend of China’s copper demand. He concluded by giving informative presentation about copper use in China’s power cable market.

The fourth speaker of this session Mr. Gyanendra Thakur, Director – Metals and Mining Consulting – Wood Mackenzie spoke about copper opportunities in low carbon megatrends. He said, low carbon megatrends are driven by initiatives of various stakeholders. He mentioned that copper will play an important role in sustainable development with renewable energy, EVs and energy efficiency devices being key contributors to increase copper demand.

Mr. D K Jain, CMD – Agrawal Metal Works Pvt. Ltd addressed the people focusing on opportunities and challenges copper fabricating industry at a glance. He said, EVs will play an important role in consumption of copper in India. He also mentioned that implementation of GST will boost copper fabrication industry. He described challenges in the industry such as surge in imports, price volatility and high capital cost. He concluded by suggesting different ways for copper fabricators to maximize their production output.
SESSION 2: COPPER SCENARIO

The last speaker from this session Ms. Rashmi Nihalani, Assistant Vice President – Multi Commodity Exchange of India Ltd talked in commercial perspective. She spoke about price volatility in India and its effect. She said that high level of price volatility has direct impact on the business margins of the industry. Ms. Nihalani explained the concept of hedging and how it will help Indian economic industry to reduce price volatility. She mentioned the benefits of hedging and presented the case study to demonstrate it, hence concluding her session.

The panel chair, Shri. Subhash Chandra gave token of appreciation to dignitaries at the end of this session.

SESSION 3: CHALLENGES FOR IMPLEMENTATION AND COMPLIANCE OF STANDARDS AND POLICIES

The third panel discussion was on ‘Challenges for implementation and compliance of standards and policies’ which was moderated by Shri. Shailendra Shukla, Chairman, Haryana Renewable Energy Development Agency. He introduced the topic of discussion and mentioned different quality issues in Indian industry. He stressed that India is a quality conscious country. He mentioned there are challenges in compliance of standards and policies such as lack of awareness and understanding.

The first panelist of this session was Mr. Hassan Omar, Chief Operating Officer – DuCAB Cable Manufacturing Company, UAE. He majorly talked about the industrial condition in UAE. He mentioned that ‘quality is a key differentiator’ for products in UAE. He stressed the point of quality consciousness. He said, government of UAE promotes quality and the products that are environment friendly. UAE government listens the industrial suggestions for betterment of quality of product and growth of the industry.

The second panelist Mr. Jayavilal Meegoda, President – IESL, Deputy General Manager – Ceylon Electricity Board, President – Federation of Engineering Institutions of South and Central Asia gave a brief note on industrial situation of Sri Lanka. He said, few years back Sri Lanka was facing same industrial problem of non-compliance of regulations as the other nations do. To overcome this problem government established the separate public commission to look over the issue. He also mentioned that today safety standards are very high in Sri Lanka.
SESSION 3: CHALLENGES FOR IMPLEMENTATION AND COMPLIANCE OF STANDARDS AND POLICIES

The third panelist Shri. N K Sharma, Head CMD-I – Bureau of Indian Standards stressed upon problems faced by the Indian government while implementing new rules and policies. He said, small scale industries do not follow the rules and do not comply with the standards. He made the point that non-compliance has very high value in present time and the strict rules should be made to address the problem.

The fourth panelist from this session Shri. Goutam Roy, Chief Electrical Inspector – Central Electricity Authority gave grave statistics of electrical accidents in India. He said that number of electrical accidents is proportional to the quality of the product we are using. According to the statics he said that the scenario is not very pleasing and we need to look into the quality of the products than the quantity of products.

The last speaker from this session Mr. Mukund Joshi, Former Special Director General – Central Publics Work Department highlighted the usage of copper in different industries in India. He mentioned that construction and energy sector uses the copper to maximum. He said, implementation of standards should be made strict in construction sector. Safety measures should always be kept in mind irrespective of class of people. He concluded by saying that all the stakeholders have to come together to overcome all the challenges in industry to make efficient India.

Mr. Mayur Karmakar gave vote of thanks and the token of appreciation was given to the dignitaries at the end of the session.
India Copper Forum 2017, 8th November, 2017, New Delhi

“Electric Vehicle – Technology, Innovation and Transformation”

Moderator:
• Prof. Dr. Ashok Jhunjhunwala, Principal Advisor - Minister of Power; Professor of Electrical Engineering, IIT Chennai

Panelists:
• Mr. Victor Zhou, MD – International Copper Association China
• Dr. Ajit Jindal, Head Tech, Vice President – Tata Motors
• Mr. Ajay Goel, COO – Sun Mobility Pvt. Ltd.
• Mr. Tarun Mehta, Co-Founder & CEO – Ather Energy.

Government of India has indicated that it would be in National interests to move towards Electric Vehicles in the country completely by 2030, driven by two Key factors; One, Climate change Targets set under United Nations Framework Convention on Climate Change in Conference of the Parties 21, Two, need to reduce dependence on imported Crude Oil. Such an extraordinary vision is likely to displace all ICE (Internal Combustion Engine) based vehicles to Electric Vehicles (EVs) which in turn is expected to open huge opportunities for Indian EV market.

EVs have developed in countries like USA, Europe, China with 30 to 40% subsidy. For India, the scenario is a little different, it cannot afford to provide subsidy at this scale. However, it can, definitely, consider the Chinese Regulation of ‘NEV credit’. The critical question is “How will India scale EVs without subsidy?”

EV Segment broadly differs from conventional ICE based Vehicles in three areas viz., Charging Infrastructure, Storage System & Electric Powered Engine. Grid availability or alternative sources of Energy and their connectivity with Electric Vehicles is another Key aspect of EVs. Hectic work is being carried out in all these areas to develop Solutions and Innovations specially catering to Indian Market conditions. India is developing strong R&D to apprehend risks and provide solutions while keeping the common Indian man in mind.

Storage System – Panel opined that size of battery needs to be reduced to minimum possible as it is the most expensive component of EV. The battery ecosystem will have to be developed within the country, else India will land up importing EV sub-systems and batteries instead of oil. On the battery manufacturing front, there are not enough manufacturers in India. “This should be a priority for government under its ‘Make In India’ initiative. This will make the future EV market an opportunity for OEMs with a market size of $300 USD billion provided manufacturing is done in India” said Mr. Tarun Mehta at International Copper Forum 2017.
Copper Usage - For developing the battery ecosystem, copper production will have to be geared up. Copper is the building block in development of EV as it has wide usage in the construction of the vehicle. Electric vehicles use a substantial amount of copper in their lithium ion batteries, power inverters, winding and copper rotors of electric motors and busbars. A single EV car can have up to six kilometres of copper wiring. Another source of demand of copper is charging station and supporting infrastructure. A hybrid electric vehicle uses nearly 40 kg of copper and a plug-in hybrid electric vehicle uses 60 kg. The panel informed that India has taken a step forward to increase availability of copper by opening blocks for copper mining. The Ministry of mines has launched aeromagnetic surveys on a large basis covering 8.2 lakh sq.km. for a period of 3 years for making blocks ready for auction.

"The future EV market has an opportunity for OEMs with a market size of $300 USD billion, provided manufacturing is done in India"

Charging Infrastructure - Advanced battery charging infrastructure being a key factor for EV adoption, public fast charging and battery swapping models are being considered as noble and viable options. Infrastructure for fast charging up to 50kV is ready for launch and enhancing this will need more deliberation and is a long-term project.

Grid Connectivity – Another important aspect of EV deployment in India observed by the panel, is its sustainability with existing grid network. The integration of large number of EVs with varying demand curve will have to be managed by the grid. Electrical safety will also be important while working in the ‘Electric Vehicle’ environment. Moreover, management of Power Quality due to slow and fast charging will need special attention. For tackling all these, there is a need to develop a resilient grid network to support the scalability of EVs. The responsibility of network augmentation will rest on the shoulders of state owned DISCOMs. They will have to ensure that the grid stability is maintained.

Efficiency - The panel noted that India will have to build energy efficient Electric Vehicles with low Wh/km.

Scenario in CHINA:

China is leading the EV production globally with over 60% of the total share, hence is one country to look for possible solutions and draw inspirations from. The country's policies and regulations, of which subsidy is a crucial component, have proved to be one of the key drivers in the mass movement. The government came out with Regulation of 'New Energy Vehicle (NEV) credits'; vide this Regulation any Auto Manufacturing entity producing 1 million conventional vehicles annually was mandated to produce at least 26,000 Battery Electric Vehicles (with electric cruising range >250km) annually to be eligible for NEV target credits. This Regulation has played a significant role and hence today China's EV market is mostly dominated by domestic companies with brand making monopoly in the sector.

Conclusion - In order that only EVs are on the roads in 2030, all Stakeholders must put in their best efforts and the responsibility of successful implementation of EVs with all them. They need to work in tandem to understand the appetite of EV Market and make it affordable for the common man. Regulators will play a key role in developing comprehensive long-term and stable policy for EVs, including policy to incentivise setting up new technology industries in order to attract investment.
India Copper Forum 2017,
8th November, 2017, New Delhi
“Copper Scenario”

Moderator:
- Shri. Subhash Chandra, Joint Secretary – Ministry of Mines, GoI

Panelists:
- Mr. Colin Bennett, Global Manager Market Analysis – International Copper Association
- Mr. Joe Zhou, Project Manager Market Analysis – International Copper Association China
- Ms. Yashika Singh, Principal Adviser – Rio Tinto India
- Mr. Gyanendra Thakur, Director – Metals and Mining Consulting – Wood Mackenzie
- Ms. Rashmi Nihalani, Assistant Vice President – Multi Commodity Exchange of India Ltd.
- Mr. D K Jain, CMD – Agrawal Metal Works Pvt. Ltd

Copper is an important contributor to the economics of developed as well as developing countries. Copper has wide applications due to its good conductivity and corrosion free nature. The demand for copper is increasing every year globally. It stands at the third place in terms of global consumption after aluminum and steel. Highest volume of copper got used in 2016. The reality is that demand for copper has grown to 27.3 million tonnes in 2016, up from a low of 22.1 million tonnes in 2009.

“The biggest demand for copper will come from these megatrends, especially from building & construction sector

In regard to the regional distribution, Asia is the largest user of copper. China is the leading country in copper demand with 46% of total global use. Talking about China’s copper usage, building construction is the largest copper usage market, 22% of country’s total copper usage. Power cables was also a key area where copper is used (20%).

The demand of copper increases with flourishing megatrends. The megatrends such as urbanization, electric vehicles and energy infrastructure are driving copper in the world regions. “There are a lot of trends which will underpin copper demand going forward. The majority of demand will be in wire and cable however water products will also factor” said Mr. Colin Bennett at International Copper Forum 2017.
"The biggest demand for copper will come from these megatrends, especially from building & construction sector"

The nature of consumption as it changes with time at different points of development tends to impact the demand of commodities, including copper. In India, the per capita consumption of resource is at low base. India needs to increase its per capita consumption with growing megatrends. The biggest demand for copper will come from these megatrends, specially from building & construction sector. Schemes like 'Housing for all' and integration of renewable energy are some of the policy decisions leading to increased copper demand. These are the trends to watch out for and the movement of copper demand will happen when these trends move ahead.

With the increasing demand of copper, we can foresee a lot of opportunities for copper fabricators. Growth in infrastructure and automotive industries will lead to increase in demand of copper fabricated products. Similarly, growth in power sector will definitely trigger the growth in demand of power cables, transformers and electrical switchgears which will increase demand of copper. India's electric car project is the good news for copper producers.

There are some challenges and threat for the copper production also. Threats from imports has lately become biggest hurdle for copper industry. Government needs to reconsider Free Trade Agreement (FTAs) that has lowered barriers for export and raised custom duty for downstream products so that it does not hurt domestic industry. Another, most important challenge is high capital cost. Interest rates in India are very high (8–9%) as compared to European countries (1%).

High volatility in price of copper is also a big challenge. Volatility is the pace at which price moves higher or lower. The higher level of volatility has direct impact on business margins of the industry. To reduce risk of this type of adverse price movement, people make investment called as Hedging. It is used by industry to predict their margins. It acts as insurance against price risk. It ensures continuity of cash flow and most importantly it enhances firm's value.

As the demand is increasing day by day, copper will play an important role in sustainable development. That's why it is very important for copper producers to opt best practices so as to maximize output. Proper implementation of GST will play an important role in copper production. Interest subvention should be given to copper industry to increase productivity. Government should address the inverted duty structure under which finished products are taxed at lower rates than raw material so as to boost manufacturing sector.
India Copper Forum 2017, 8th November, 2017, New Delhi

“Challenges for implementation and compliance of standards and policies”

Moderator:
- Mr. Shailendra Shukla, Chairman, Haryana Renewable Energy Development Agency

Panelists:
- Mr. Hassan Omar, Chief Operating Officer - DuCab Cable Manufacturing Company, UAE
- Mr. Jayavilal Meegoda, President Elect - Institution of Engineers, Sri Lanka
- Mr. Mukund Joshi, Former Special Director General - Central Publics Work Department
- Shri. N K Sharma, Head CMD-I, Bureau of Indian Standards
- Shri. Goutam Roy, Chief Electrical Inspector - Central Electricity Authority

A key determinant of government effectiveness is how well regulatory systems achieve their policy objectives. In recent years, governments have increased their efforts to examine how they can achieve policy objectives more cost-effectively through better regulation. Rapid improvisation in regulation and policies has produced impressive gains in some areas of economic and social well-being, but too often the results have been disappointing. The esteemed panel at ICF 2017 reviewed the emerging challenges regarding the implementation and compliance of regulatory standards & policies and focused on assessing possible reasons for low level of compliance.

The reasons for rising issues in implementation of policies or non-compliance can be found at different levels,

1) The level of Consumer Awareness about the new standards and policies:

A basic assumption is that the consumer will understand how to comply with standards and policies when it is published. Such that efforts for right dissemination to the users is limited. Additionally, rapid increase in the complexity of new regulations can make this basic assumption unrealistic. For example, if you are an office owner or a shop owner and you get electricity on a commercial connection with load more than 20kW, then you have to pay power factor penalty. These are the terms that are used in commercial connections in various part of our country but very few end users are aware. The responsibility of regulators does not end with publication of the regulation. It should be accompanied by awareness campaigns to ensure that they are brought to the notice of and made clear to the consumer.
"Quality is a differentiator for the products"

2) The level to which Consumer is willing to comply:

"Quality is a differentiator for the products" The main challenge for implementation of regulations and standards is that the target group is not willing to accept the changes. Many small-scale industries do not follow standards. There is no fear in contractors to register compliance. Today, there is high price of non-compliance. Regulations that fail to elicit sufficient level of compliance create unnecessary cost through fruitless administration and implementation without delivering effective results. There is a need to create awareness about importance of use of regulations. Strict rules should be prepared against non-implementation of policies and standards for every industry.

Worldwide experiences on implementing quality standards and compliances

When we talk about product standards, there comes an important point, Quality of Product. Talking about industries and businesses in UAE, Mr. Hassan Omar highlighted that ‘Quality is a differentiator for products’. UAE pays more attention towards quality rather than amount of production. When one analysis in the country found out that quality of products is degrading, then the government immediately brought mandatory rules for making Product Quality as an important parameter in the certification process.

Similarly, Sri Lanka was facing the quality problem regarding the power sector few years back. To overcome this problem, the country established a Public Service Commission specially to examine the Regulatory Acts in Sri Lanka. This has resulted in stricter safety standards in Sri Lanka. The commission works independently, free from the politics and aiming only towards the betterment of implementation of the rules."In India, prosecution must be considered for the ones who compromise on quality"

"In India, prosecution must be considered for the ones who compromise on quality"

India is also a quality conscious country. The Indian Standards Institution (ISI) came into existence on 6th January, 1947. Indian government continuously works for well-being of the society by deriving different standards and policies, but the challenging part is its implantation. The statistics of electrical accidents occurring in India is not very encouraging. Implementation of standards has to be strict starting with the construction sector which creates infrastructure. Today, there is no fear with the contractors for non-compliance of electrical safety standards. Contractors tend to use low grade material for lower section of the society which lacks awareness of quality standards and is more price conscious. Hence, efforts need to be taken to ensure that safety measures are kept in mind irrespective of class of people (slum or posh civilization) by strictly monitoring and taking action on contractor licenses in cases of non-compliances.

The Government’s attention is also needed on high amounts of copper scrap coming from producers who do not have machines to remove impurities from copper. Copper scrap, dруд, residues and dross gets converted to a low purity wire bar and thereafter into low purity copper wires and cables. Use of such cables in electrical systems poses a safety hazard. Also, with use of low quality copper, energy efficiency levels are reduced in addition to breaching safety standards.

The panel noted that prosecution must be considered for those who compromise on quality beyond acceptable limits. Strict actions should be taken if there is violation of the standards or policies. The panel concluded that Consumers, Regulatory Agencies, Governments and Industry have to come together to overcome the issue of standards and policy compliance and work in synchronization for an efficient India.
COPPER EXCELLENCE AWARD FOR TECHNOLOGY ADOPTION
Bluestar Ltd.
Award for adopting smaller diameter (5mm) inner groove copper tube for room air conditioner.

COPPER EXCELLENCE AWARD FOR ELECTRICAL SAFETY
Mr. D. H. Basavaraju
Chief Electrical Inspector, Karnataka
Award for successful implementation of low voltage electrical inspection in residential and commercial buildings as per notification released by Central Electricity Authority.

COPPER EXCELLENCE AWARD FOR TECHNOLOGY ADOPTION
Voltas Ltd.
Domestic Projects Group
Award for adopting smaller diameter (7mm) copper tube for packaged air conditioner.

COPPER EXCELLENCE AWARD FOR TRANSFORMING INDIA
Energy Efficiency Services Ltd.
Award for path breaking energy efficiency programs implemented nationally - LED bulbs (UJALA scheme), Street Lighting Program, Air Conditioner, AgDSM and Electric Vehicles.

COPPER EXCELLENCE AWARD FOR ENERGY EFFICIENCY
Andhra Pradesh Productivity Council
Award for rendering commendable services towards promoting and propagating energy efficiency for implementation of High Efficiency Motors and Pumps.
COPPER EXCELLENCE AWARD FOR ENERGY EFFICIENCY
Rourkela Steel Plant (SAIL)
Award for being the first public sector integrated steel plant to adopt IE3 rated motors for better energy savings and improving plant efficiency.

COPPER EXCELLENCE AWARD FOR ENERGY EFFICIENCY
Mr. Pawan Kumar Jain
CMD, Kotsons Pvt. Ltd
Award for adoption and promotion of energy efficiency standards to improve performance and reliability in distribution transformers.

COPPER EXCELLENCE AWARD FOR TECHNOLOGY ADOPTION
Mr. Milan Mehta
Vice Chairman and Managing Director
Award for his leadership role in manufacturing high quality enamelled copper winding wire for its application in large and medium electrical and electronic equipment manufacturers both in India and abroad.

COPPER EXCELLENCE AWARD FOR TECHNOLOGY INNOVATION
Dr. Ashok Jhunjhunwala
Prof. Department of Electrical Engineering, IIT Chennai
Award for his initiative to light up remote villages using low-voltage DC solar systems and speeding up the innovations and development of electric vehicles and ecosystem in India.
**PR COVERAGE**

**MEDIA HIGHLIGHTS**
- 25 Media attendees
- 10 Interviews executed
- 11 Print coverages
- 81 Media exposure, Reuters & PTI flashed the news

**TOTAL AVE**
7,355,245

**TOTAL REACH**
237,561,679

**VISIBILITY**

- Online media: 85%
- English dailies: 5%
- Trade journals: 4%
- Regional dailies: 1%
- Electronic: 5%
<table>
<thead>
<tr>
<th>Category</th>
<th>Media Outlets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wires</td>
<td>cogencis, PRESS TRUST OF INDIA, REUTERS</td>
</tr>
<tr>
<td>Financials</td>
<td>THE FINANCIAL EXPRESS, BusinessLine</td>
</tr>
<tr>
<td>Magazines</td>
<td>BusinessWorld</td>
</tr>
<tr>
<td>Electronics</td>
<td>antv, ET NOW, NDTV</td>
</tr>
<tr>
<td>Online</td>
<td>Bloomberg, Quint, NewsRise, THE KI, PUBLIC TALK OF INDIA</td>
</tr>
<tr>
<td>Regional</td>
<td>लीक मार्हती, राष्ट्रीय उजाला, nai</td>
</tr>
<tr>
<td>Photographers</td>
<td>प्रेरणा NEWS, Bloomberg, Quint, दैनिक भाषा, NDTV</td>
</tr>
<tr>
<td>Videographers</td>
<td>प्रेरणा NEWS, Bloomberg, Quint, दैनिक भाषा, NDTV</td>
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</tbody>
</table>
We are expecting government’s Infra push to drive demands: P Ramnath, Vedanta

Talking to ET Now, P Ramnath, CEO – Sterlite Copper, Vedanta (NSE-0.19%), says Nearly about 50% of the total copper is driven by the Chinese demand which around 10 to 11 million tonnes per annum.

Edited excerpts:

In this fiscal, there will be no maintenance shutdowns, probably next fiscal we may take a shutdown but in this fiscal we will not have any maintenance shutdowns.

Company Summary

<table>
<thead>
<tr>
<th>Company</th>
<th>NSE</th>
<th>BSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vedanta</td>
<td>-1.00 (0.32%)</td>
<td>+</td>
</tr>
<tr>
<td>Rural Elo...</td>
<td>3.15 (1.93%)</td>
<td>+</td>
</tr>
</tbody>
</table>

Current global demand for copper is roughly around 22 million tonnes per annum and it is growing roughly about 1.5% to 2% per annum and basically it is being driven by the Chinese demand that has been the traditional forerunner for the market for copper. Nearly about 50% of the total copper is driven by the Chinese demand which is around 10 to 11 million tonnes per annum.

Copper Consumption to Get Boost as World Wagers on Electric Cars

Bloomberg | Quint

(Bloomberg) -- Demand for copper globally is set to jump 22 percent in as soon as five years on increasing usage of the metal in electric vehicles, solar and wind power sectors, according to Indian billionaire Kumar Mangalam Birla’s Hindalco Industries Ltd.

Consumption is seen rising to 28 million metric tons in the next five to seven years from about 22 million tons now, J.C. Laddha, head of the Indian company’s copper unit, said in New Delhi at an industry conference. Electric vehicles alone will boost global copper demand by 1.2 million tons, he said.

Copper Rally

Prices topped $7,000 a ton in October for the first time since 2014.
We are expecting government’s infra push to drive demands: P Ramnath, Vedanta

"We expect moving forward, demand for copper will hit 8% to 9% per annum on a sustained basis."
Copper bigwigs seek govt intervention to check imports

Domestic copper sector is being adversely impacted by imports from Japan and ASEAN region, industry majors Birla Copper and Sterlite Copper said today while requesting the government for an intervention.

Speaking at the India Copper Forum here, J.C. Laddha, CEO, Birla Copper, said import is a big deterrent and a huge challenge for the domestic players.

The copper industry is being impacted by two free trade agreements (FTAs), one is with ASEAN and the other one is with Japan, he said.
Copper bigwigs seek govt intervention to check imports

By PTI | Published: 08th November 2017 03:43 PM | Last Updated: 08th November 2017 04:15 PM

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The copper industry is being impacted by two free trade agreements (FTAs), one is with ASEAN and the other one is with Japan, he said.

In 2016-17, the total import of wire was 89,000 tonne out of which 98 per cent had come under FTA from ASEAN region and that is creating problem for local manufacturers.

The commodity has a bright future in India as the per capita consumption of copper will double by 2025 to 1 kg. In China, per capita consumption is about 9 kg and in India it is 0.5 kg.

The need for copper will grow in sectors like power, automobiles, construction, solar, consumer durable and renewables, he said adding “we have to create a structure within the government that facilitates policy and decision making related to copper.”

These are the sectors having steady growth, he said.
India to auction copper mines over next two years

NEW DELHI (Reuters) - India's mines secretary said on Wednesday the government would auction copper mines with capacity of 200,000-300,000 tonnes per year in the next two years.

Copper bigwigs seek govt intervention to check imports

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These are the sectors having steady growth, he said.

He also requested the government to check the imports, and called the local industry to be globally cost competitive for which creating a level playing field for the domestic players is very important.

He urged the government to encourage growth and ensure adequate safeguard against import by various means such as non tariff barriers.

Further, he suggested the government to reconsider FTAs that lower barriers for exports, raise custom duty for downstream products to the extent that it does not hurt downstream industries.
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INTERNATIONAL COPPER ASSOCIATION HOSTS THE 3RD EDITION OF INDIA COPPER FORUM IN NEW DELHI; ANNOUNCES WINNERS OF COPPER EXCELLENCE AWARDS 2017

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In-depth analysis of the India and global copper industry trends, challenges and opportunities discussed

Theme of the 3rd India Copper Forum – ‘One India One vision – Copper in Technology, Innovation and Transformation’
OVERALL SUMMARY

TOTAL POSTS DONE ON SOCIAL MEDIA
294

OVERALL IMPRESSIONS/PEOPLE REACHED
220,320

SHARES/RETWEETS
454

NEW FOLLOWERS/LIKES
7393
FACEBOOK

- Total audience reach during the period: 1,285,200
- Total posts done during the period: 75
- Page like increase during the period: 2,906
- Total post comments: 340
- Total post likes: 7,337

INSTAGRAM

- Instagram stories: 12
- Total no of posts done during this period: 33
TWITTER

Tweet impressions: 91.8K
Profile visits: 2,071
Engagement rate: 3.6%
Tweets: 130
Mentions: 180

LINKEDIN

No. of shares: 17
No. of likes during the period: 117
No. of follows: 28
Total posts done during the period: 44
SOCIAL MEDIA COVERAGE

TWITTER

RT @CopperIndia: Because of its durability, high conductivity and efficiency, #copper is a main component used in #ElectricVehicles. Downl...

Copper India
2 days ago

Mr. Milan Mehta receives the award for manufacturing high quality, enamelled #Copper winding wire at #ICF2017. These wires have seen...

Copper India
2 days ago

Mr. Pawan Kumar Jain receives the award for adoption of #energyEfficiency standards for greater performance in distribution...

Copper India
2 days ago

Rourkela Steel Plant is the 1st public sector integrated plant with IE3 rated motors - a worthy winner of the #EnergyEfficiency award...

Copper India
2 days ago

muyucunuz muyucunuz oğrư kalendir. Siz de deneyin ve hangisi sizin

LINKEDIN

International Copper Association India
3w

Mr. S. P. Garnaik, CGM of EESL India and winner of the Copper Excellence Award for exemplary work in Energy Efficiency stands near the Innovation booth at #ICF2017

#CopperForAll #WhyCopper

International Copper Association India
3w

With the presence of dignitaries, industry leaders and delegates, we have amassed a wealth of knowledge from #ICF2017. Thank you from team International Copper Association India Sanjeev Ranjan
INAUGURATION
COPPER IN TECHNOLOGY, INNOVATION AND TRANSFORMATION ZONE

This year ICA India exhibited the latest technology and applications of copper and the way forward for the industry to the delegates at the 'Copper Technology, Innovation and Transformation Zone' that was installed at the India Copper Forum.

On September 25th, 2015, countries adopted a set of goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda. ICA India is aligned with the UN sustainable goals to achieve each target over the next 15 years, which was also showcased in the innovation center.

Key milestones and achievements of ICA India were also showcased at the event in the form of Hall of Fame. The association partners also leveraged this opportunity to showcase their range of 100% Copper products to the larger copper industry in attendance.