ISGF Welcomes Shri Sanjiv Nandan Sahai as the Power Secretary, Ministry of Power, Government of India

Shri Sanjiv Nandan Sahai assumed the charge as Secretary, Ministry of Power, Government of India from November 2019 after serving as Additional Secretary to the Government of India in the Ministry of Power for 18 Months. Sanjiv Sahai started his career with Tata Administrative Service and then went on to join the Indian Administrative Service (IAS) in 1986. Over the years he has served on a number of positions, including five years in the Indian Prime Minister’s Office where he was closely associated, amongst others, with development of road and transport infrastructure. Sahai was posted as Finance Secretary in the Government of NCT of Delhi where he was instrumental in formulation of a detailed outcome budget as part of the restructuring governance. He was also concurrently the Home Secretary.

Indian Delegation at Innovation for Cool Earth Forum (ICEF 2019) in Tokyo

The sixth annual meeting of the Innovation for Cool Earth Forum (ICEF 2019) was held in Tokyo on October 9 and 10, with more than 1,000 participants from government institutions, international organizations, industry, and academia, from approximately 70 countries and regions. The theme of this year’s forum was “Bending down the emissions trajectory by Innovation and Green Finance.” ICEF’s mission is to facilitate discussion and encourage cooperation among participants with a view to promoting technological and social innovation in the field of energy and environment. During ICEF 2019, various topics were taken up in the three plenary sessions. In addition, twelve different approaches to accelerating innovation—six in the social context and six in the technological context—were chosen and discussed in depth in concurrent sessions.
The EU-India Clean Energy and Climate Partnership foresees strengthened cooperation in energy research and innovation, in particular related to renewable energy and its integration in the energy system. India Smart Grid Forum (ISGF) played a pivotal role in strengthening and facilitating the partnership between EU and India on the electricity sector. As part of the implementation of this Partnership, a joint call for proposal has been launched which aims at smartly integrating large amounts of renewable energy in local energy systems, thus making energy supply cleaner, more efficient and affordable. The European Union has committed €9 million under Horizon 2020, Work programme (2018-2020) on Secure, clean and efficient energy; and the Department of Science and Technology (DST), Government of India, agreed to match that amount by contributing €9 million. In total, funding of €18 million will be available for the project which will have at least 3 demonstration sites in India and matching in European Utilities.

Proposals should develop and demonstrate novel solutions, integrating all energy vectors (electricity, heating, cooling, water, wastes, etc.), including possibilities offered by batteries and electric vehicles, interconnect them and optimize joint operation with increased share of renewables and a higher energy efficiency. Cooperation will take the form of a proposal demonstrating a local energy system (or several) in Europe and/or India.


Last date for the submission of proposals is 31 Jan 2020. ISGF has been working closely with European Commission, DG Energy and DST, GoI for designing and approval of this Project.

Indian Delegation Participated in ICEF 2019 was led by Mr. Reji Pillai, President, ISGF. The important participants from India included Mr. Dhesi, Chairman, HERC; Trilok Chand Gupta, Additional Chief Secretary - Energy, Haryana; Pravinder Singh Chauhan, Member, HERC; Naresh Sardana, Member, HERC; Starujeet Singh Kapoor, CMD, UHBVN & DHBVN; Aajay Mathur, DG, TERI; Dheeraj Kumar, Representative, NEDO - India; AM Siddiqui, Representative, NEDO - India. To Read the full Statement released by ICEF 2019 Steering Committee, Please visit page 9.


ISGF has been awarded the project Study “Development of Roadmap for Implementation of Smart Grid-Concepts, Practices and Technologies in SAARC Region” by SAARC Energy Centre, ISGF had carried out detailed assessment of power sector of the eight SAARC member states and developed a smart grid framework along with a milestone matrix defining the key smart grid activities needed to enhance the business and operational performance of the utilities. ISGF also identified various projects that need to be implemented in SAARC member states as part of near term smart grid interventions.
To disseminate the findings of the study among the leaders from the power sector in SAARC member states, SAARC Energy Center in collaboration with Department of Hydropower and Power Systems, Ministry of Economic Affairs, Bhutan had conducted a workshop on 30th September and 1st of October, 2019 in Thimpu, Bhutan. ISGF experts had presented the key findings and results of the study including high level roadmap on smart grid activities that need to be undertaken by utilities of each SAARC member states in short term (FY 2020), medium term (FY 2025) and long term (FY 2030).

**Appointments and Transfers**

- **MD Ravi** has been appointed as Member of Karnataka Electricity Regulatory Commission
- **MR Kothari** has been appointed as Managing Director of Madhya Gujarat Vij Company Ltd.
- **SP Sakkari** has been appointed as Managing Director of Hubli Electricity Supply Company Ltd.
- **Arvind Mallappa Bangali** has been appointed as the Managing Director of the Paschimanchal Vidyut Vitrang Nigam Ltd (Meerut)
- **Ajay Kumar** has been appointed as Managing Director of Kanpur Electricity Supply Co. Ltd.

**ISGF Welcomes New Members**

- National Institute of Technology, Warangal as Associate Member
- Torrent Power Ltd as Utility Member

**Join the Indian Delegation to DistribuTECH 2020 from January 28 - 30, 2020, San Antonio, TX, USA**

ISGF with support from US Department of Commerce (USDOC) of the American Embassy, New Delhi is taking an official delegation from India to the DTECH 2020 which will be held from January 28 - 30, 2020, San Antonio, TX, USA. DistribuTECH (DTECH) is the premier North American trade show for equipment vendors and service providers from across the transmission, distribution, and smart grid technology industries, attracting around 12,000 attendees and around 500 exhibitors from around 70 countries. The event also attracts attendees from electric utilities, water utilities, gas utilities, federal power agencies, energy service companies, energy service providers, energy end users (retailers, hospitals, data centers, etc.) and a wide-range of manufacturers and vendors. Visit the event’s website for additional information: [http://www.distributech.com](http://www.distributech.com).

As part of the Indian Delegation, the delegates will be entitled to the following benefits:
- Complimentary Pre-Registration for the show (value of the exhibit hall access is $125)
- Discounted Registration for full conference
- Pre-arranged and facilitated briefings, meetings (including Meet and Greet meetings) with U.S. Exhibitors and U.S. industry associations, customized according to the delegates interests
- List of exhibitors who export or indicate an interest in exporting to the group’s country and/or region of the world
- Optional site visits to smart grid project sites and technology companies. Please note that the site visit will be organized subject to response received from the delegation.

To join the delegation or for more information, please contact: Ms. Reena Suri (reena.suri@indiasmartgrid.org)
INDIA

New Guidelines on Bidding Process for Wind-solar Hybrid Projects

The Ministry of New and Renewable Energy (MNRE) has issued its draft guidelines for the tariff-based competitive bidding process for the procurement of power from grid-connected wind-solar hybrid project. The guidelines allow the storage component to be added to hybrid projects to curtail variability of power. Bidders would be selected on the basis of the lowest quoted tariff bids (per kWh) for power purchase agreements (PPA) of a minimum period of 25 years. Like solar and wind projects, hybrid renewable projects will also be awarded on the basis of an e-reverse auction. Read More: https://bit.ly/3zxf0FZ

Revised Guidelines for Setting up of EV Charging Infrastructure

To facilitate the usage of electric vehicles (EV) in the country, Ministry of Power has approved the amendments in electric vehicle charging guidelines and specifications. The revised guidelines have also specified the type of chargers of different standards (viz. CCS, CHAdeMO, Type-2 AC, Bharat AC 001), ensuring that the charging station owners have the freedom to install the chargers as per the market requirement. It also specifies that any charging station or a chain of charging stations can obtain electricity from any generation company through open access. Read More: https://bit.ly/3xq5wmg

Assam Draft Policy sets Solar RPO Target at 7.25 Percent for FY 2019-20

The Assam Electricity Regulatory Commission (AERC) has issued a draft policy announcing its renewable purchase obligation (RPO) target from 2019 to 2022 i.e. 17.5%, 19%, and 21% RPO target for FY 2020, FY 2021, FY 2022 respectively. The obligation will be considered based on the energy input in the system of the licensee after the adjustment of losses. According to the draft policy, the RPO will apply to the total consumption of electricity by an obligated entity, excluding the consumption met from hydropower. Further, in case the entity achieves the solar RPO compliance to the extent of 85% and above, the remaining shortfall if any, can be met by excess non-solar energy purchased beyond the specified non-solar RPO for that particular year and vice versa. Read More: https://bit.ly/321OQ0j

MNRE readies Blueprint for Developing Decentralized Solar Projects

The Ministry of New and Renewable Energy (MNRE) has issued draft guidelines for the development of decentralized solar power projects. The proposed guidelines apply to solar power projects connected to rural distribution substations of 33/11kV, 66/11 kV and 110/11 kV in their respective areas of jurisdiction. The draft mentions that the power distribution companies (DISCOMs) will notify substation-wise solar power capacity which can be injected in a rural distribution substation. As per the implementation arrangement, the MNRE in its proposed guidelines has mentioned that the DISCOM may decide the capacity of the solar project permitted to be set up for the connection to the grid. Read More: https://bit.ly/2J8ewmL

Gujarat Seeks EV Manufacturers to Market and Distribute Battery-operated School Vans

The Gujarat Energy Development Agency (GEDA) has invited expressions of interest (EoI) for the authorization of manufacturers for marketing and distribution of 100 battery-operated school vans in Gujarat. The project falls under the GEDA Subsidy Program for 2019-20. In terms of technical criteria, the bidder should have adequate infrastructure to manufacture these vans; should have dealers, service stations, or must be ready to provide after-sales services in Gujarat. The bidders should own manufacturing facilities to manufacture and supply the required quantity of battery-operated school vans with a stable financial background. Read More: https://bit.ly/2MnSU1F

INTERNATIONAL

AfDB and CIF Commissioned Coalition for Green Capital

The African Development Bank, in partnership with the Climate Investment Funds (CIF), has commissioned the Coalition for Green Capital (CGC) to prepare a study on the creation of national climate change funds and green banks in Africa. Green Banks and National Climate Change Funds can play an important role in mobilizing finance to support low-carbon, climate-resilient development, using methods such as blended finance to drive increased private investment. When paired with effective grant programs through National Climate Change Funds and strong enabling environments and policies, locally-based Green Banks are powerful tools to address market needs, understand local risk and drive private investment. Read More: https://bit.ly/31zkAvG

Malaysia’s Renewables Capacity to Grow by 1 GW by 2030

Malaysia’s non-hydro renewables capacity is expected to grow by 1GW in the next ten years as it gears to boost the share of renewables (including hydro) in the power mix to 20% by 2025. The increased renewables capacity will be supported by strategies such as peer-to-peer electricity trading or transitioning toward a mandatory renewable energy certificate (REC) market, which is expected to be launched by the end of 2019. The government is also planning to introduce more financing incentives into the sector, such as those similar to the existing Green Investment Tax Allowance and Green Technology Financing Scheme 2.0, and enhancing green energy trading with the private sector. Read More: https://bit.ly/35PsKTk

New rules make Household Appliances more Sustainable

In a continued effort to reduce Europe’s carbon footprint and to make energy bills cheaper for European consumers, the European Commission adopted new eco-design measures for products such as refrigerators, washing machines, dishwashers and televisions. For the first time the measures include requirements for repairability and recyclability, contributing to circular economy objectives by improving the life span, maintenance, re-use, upgrade, recyclability and waste handling of appliances. Read More: https://bit.ly/2mBwNAO
Smart Grid Updates: Technology & Projects

Grid Modernization and Smart Metering

Dominion Energy files 10-year Grid Modernization Plan with a Virginia State Regulator

US utility a Dominion Energy has filed a Grid Modernization Plan with the Virginia State Corporation Commission. The 10-year plan, is expected to help the utility to improve customer services through the implementation of new and innovative technologies and programs. The plan includes the utility completely decarbonizing by 2050 and investing up to $594 million in digital technologies, electric vehicles charging infrastructure and renewable energy resources. Dominion Energy will invest in new customer information platforms to enable consumers to digitally manage their energy usage. The plan also includes installing nearly one million smart meters, which would more than triple the number currently deployed. The plan will result in the utility achieving full smart meter deployment in its Virginia service area by 2024. Read More: https://bit.ly/2OOGdC

Xcel Energy (XEL) to Install Smart Meters, teams with Itron, Washington, United States

Xcel Energy Inc. is a utility holding company, recently announced that it has signed an agreement with Itron, Inc. to install smart meters across its system. Itron provides technology and service solutions to measure, manage as well as analyze energy and water usage. The collaboration will enable Xcel Energy to develop next generation smart meters as well as enhance grid reliability and improve response time to outages. The company is undertaking initiatives to provide clean reliable energy and install smart meters, which will enable customers to save money and control energy usage. Electric utility companies make consistent investments in their infrastructure to provide 24x7 uninterrupted services to customers. These companies focus on maintenance and upgrade of electric lines and poles, grid modernization as well as usage of smart meters and drones to retain its position amid intense competition. Read more: https://bit.ly/2VIRms9

EESL Joins Hands with NIIF for Roll-Out of Smart Meter Program in India

The National Investment and Infrastructure Fund (NIIF) and Energy Efficiency Services Limited (EESL), have announced a new joint venture called IntelliSmart Infrastructure Private Limited or ‘IntelliSmart.’ This joint venture has been formed to implement, finance and operate the smart meter roll-out program of power distribution companies. Smart meters will play a transformational role in bringing efficiencies and generating significant commercial benefits for power distribution companies, while at the same time empowering end-consumers to make informed choices regarding power consumption. According to the company, “Smart meters will lay the foundation for smart grids, which will be crucial to meet the challenges of the evolving energy mix and the government of India’s target of providing uninterrupted 24x7 power supply to every Indian. This venture will support the ambitions of ongoing government programs, such as UDAY and National Smart Grid Mission. The Government of India (GOI) plans to install 250 million smart meters in the next few years. Leveraging its extensive experience with smart meter technology, EESL has already secured contracts for IntelliSmart to install and maintain over 10 million smart meters across various state distribution companies. Read more: https://bit.ly/2okH0R

Tenders Floated for First Phase of Smart Meter Project in Chennai, Tamil Nadu, India

Tamilnadu Generation and Distribution Corporation Limited (TANGEDCO) has floated tenders for smart meters in Chennai’s Thyagaraya Nagar at a cost of Rs 1200 Million. Consumers can choose between prepaid and postpaid connections just like mobile connections. The smart meter system reduces errors in reading, data entry errors by removing need for manual reading. It can reduce transmission and commercial losses and address billing inefficiencies. These meters, connected through a web-based monitoring system, would enhance revenue and serve as a crucial tool in power sector reforms. Read more: https://bit.ly/2OMsdLF

Renewable Energy and Microgrids

Europe has the Wind Energy to Power the World

On windy days, Europe’s growing number of wind farms could run entire nations on clean energy. Researchers at the University of Sussex in the U.K. and Aarhus University in Denmark have developed techniques to map the total potential of onshore wind energy across the European continent. The research suggests that Europe could produce 100 times more energy than it currently does from onshore wind farms. The research team used digital wind atlases to provide finely detailed information on wind patterns across Europe. Armed with this data, they identified that 46% of the European landmass would be suitable for the installation of wind turbines, and that’s after excluding urban areas, military sites and other landscapes unsuitable for reaping the wind. The study estimates that more than 11 million additional wind turbines could, theoretically, be installed over almost 5 million square kilometres of suitable terrain. The report concludes that if this potential were fully exploited, Europe could provide the whole planet with all the energy it requires as far into the future as 2050. Read more: https://bit.ly/2fEfEDB

Australia is the Runaway Global Leader in Building New Renewable Energy Resources

In Australia, renewable energy is growing at a per capita rate ten times faster than the world average. Between 2018 and 2020, Australia will install more than 16 gigawatts of wind and solar, an average rate of 220 watts per person per year. This is nearly three times faster than the next fastest country, Germany. Australia is demonstrating to the world how rapidly an industrialised country with a fossil-fuel-dominated electricity system can transition towards low-carbon, renewable power generation. When the Clean Energy Regulator accredited Tasmania’s 148.5 megawatt (MW) Cattle Hill Wind Farm in August, Australia met its Renewable Energy Target well ahead of schedule. Read more: https://bit.ly/2IEUmpT
PM Modi Vows to more than Double India’s Non-Fossil Fuel Target to 450 GW by 2022

India’s renewable energy target will be increased to 450 GW, Prime Minister Narendra Modi said at the United Nations Climate Action Summit. India would spend approximately $50 billion “in the next few years” on the Jal Jeevan Mission to conserve water, harvest rainwater and develop water resources. Mr. Modi also said India planned to “considerably increase the proportion of the biofuel blend in petrol and diesel.” He said India had plans to make the transport sector green through the use of electrical vehicles. The Prime Minister highlighted his call for banning single-use plastics and that India has provided 160 million families with cooking gas connections. Read more: https://bit.ly/2kYGUyV

NTPC to Capitalize 250 Billion to Set Up Largest Solar Park in Kutch, Gujarat

NTPC has announced that it will not commence any new coal-based generation for the next few years as part of procedures to cut its carbon footprint and has decided to capitalize about 250 Billion to set up one of the world’s largest solar parks at Kutch in Gujarat. The solar park will be developed in stages over the next five years. The company also anticipates to disconnect some of its coal-based capacity from morning till evening to make way for inexpensive solar and wind power generation. Also, it plans to set up solar power plants of 1,000-MW capacity which will sell electricity in open market. NTPC’s plan to acquire renewable power from plants across the country and bundle it with its coal-based generation will be executed in a month. The government regulations to cap emissions from coal-fired power plants, which increase the costs of building such projects, have also prompted the company to turn to green energy for growth. Read more: https://bit.ly/2mO7qvv

New York Nixes Microgrid in Favour of Solar Power Project

New York State has abandoned plans for a combined heat and power microgrid at the state capital and instead will build a solar project in Oneida County, about 90 miles west of Albany. The New York Power Authority (NYPA) and the Office of General Services (OGS) said they would jointly develop the solar project on state-owned land near the former Oneida County airport. The capacity of the solar project has not yet been determined, but it is being designed to be able to provide up to half of the energy needs of the Empire State Plaza, a complex of state government buildings on a 98 acre site in downtown Albany near the capitol. The solar power generated would be injected into the grid and credited to powering the plaza. Read more: https://bit.ly/2mEdeHX

Smart Cities

New Delhi Municipal Council (NDMC) bags Smart City Award in Bengaluru, Karnataka, India

The Secretary of New Delhi Municipal Council (NDMC), Dr Rashmi Singh received the ‘Smart City’ award at a function held at Bengaluru on 25 September 2019. According to a NDMC official the award is given for mobile application for city centric services delivery under “smart citizen service delivery” and “smart metering solution” under “Smart Energy” categories. These awards were presented by Anjum Parwez, Principal Secretary, Urban Development Department, Government of Karnataka and Kunal Kumar, Joint Secretary and Mission Director (Smart City Mission), Government of India. Read More: https://bit.ly/33oT7xo

Indonesian Smart City Project open to Microsoft

Microsoft has signed an agreement with Sinar Mas Land to convert Bumi Serpong Damai (BSD is a privately developed planned community at Serpong district of South Tangerang, within Greater Jakarta in Indonesia) into a smart city in Indonesia, calling on channel partners to provide specialized solutions. Terms of the agreement will see Sinar Mas Land, a real estate development firm, leverage digital technologies such as cloud, artificial intelligence and the Internet of Things to create the country’s first “large-scale resilient and innovative” smart city. As part of the agreement, Microsoft will also offer opportunities for channel partners to co-create with Sinar Mas Land and develop solutions based on different areas of expertise, targeting independent software vendors and IP builders within the ecosystem. Read More: https://bit.ly/2MAFyE4

Pune Smart City, Maharashtra, India inks MoU with Dell to set up Centre of Excellence for Smart Solutions

The Pune Smart City Development Corporation Ltd (PSCDCL) recently signed a memorandum of understanding (MoU) with multinational technology giant Dell to set up a centre of excellence to jointly work towards establishing and implementing smart solutions in urban development. The pact was signed at the Invest India-Smart Cities Mission Technology Showcase hosted by PSCDCL. Read More: https://bit.ly/2IREevI

Work begins on Vietnam’s $4.2 Billion Smart City

Japanese finance firm Sumitomo and the conglomerate BRG Group have formed a joint venture for the development in the Dong Anh district. Work has commenced on the 272-hectare smart city development in northern Hanoi, Vietnam. Japanese finance firm Sumitomo and conglomerate BRG Group have formed a joint venture for the initiative in the

Japanese finance firm Sumitomo and conglomerate BRG Group have formed a joint venture for the development in the Dong Anh district with an investment of more than $4.2 billion

The agreement will see Sinar Mas Land, a real estate development firm, leverage digital technologies such as cloud, artificial intelligence and the Internet of Things to create the country’s first “large-scale resilient and innovative” smart city
Dong Anh district with an investment of more than $4.2 billion. The site lies to the north of Nhat Tan Bridge, located halfway between Noi Bai International Airport and the centre of Hanoi City. According to Phnom Penh Post, the project has received close cooperation from the Japanese government, which is working with Vietnam to promote the sustainable development of smart cities between 2019 and 2030. The latest development is divided into five phases, with work kicking off on the residential area for around 20-25,000 people. The city will reportedly be fully operational by 2028. It will be underpinned by smart city technologies including artificial intelligence, the Internet of Things (IoT), 5G, blockchain and facial recognition software. Read More: https://bit.ly/32qM2Pp

Standards and Cyber Security

NIST, United States Releases Cybersecurity Guide for Energy Sector to Improve Operational Technology

The National Cybersecurity Center of Excellence (NCCoE) at the National Institute of Standards and Technology (NIST) built a laboratory environment to demonstrate how energy organizations can strengthen their operational technology (OT) asset management practices by leveraging capabilities that may already exist within their operating environment or by implementing new capabilities. The NIST Cybersecurity Practice Guide provides detailed steps on how energy organizations can identify and manage OT assets and detect cybersecurity risks associated with those assets. Read More: https://bit.ly/2OMwoTB

USA to help secure Baltic Energy Grid against Cyber Attacks

The United States and Baltic States agreed to cooperate to protect the Baltic energy grid from cyber-attacks as they disconnect from the Russian electricity grid. US Energy Secretary Rick Perry and his Lithuanian, Latvian and Estonian counterparts termed the agreement a critical moment for the Baltic States in strengthening cybersecurity in strategic energy infrastructure. Lithuania said it was looking for US technology firms able to modernise software used to control energy systems to prevent attacks by Russian hackers that could disrupt energy supplies.

New Context and Idaho National Laboratory, United States to Develop Operational Cybersecurity Technology

New Context, an innovator in cybersecurity research for highly regulated industries, today announced its ongoing collaboration with the U.S. Department of Energy (DOE) and the Idaho National Laboratory (INL) to research and develop next-generation operational technology (OT) cybersecurity tools. These technologies will strengthen the protection of U.S. critical infrastructure, including the electric grid, from cyber threats. Read More: https://bit.ly/2BbNdn0

NIST, USA is Hunting for Tech to Secure the Energy Sector’s Network

The National Institute of Standards and Technology is seeking input from technology and cyber experts on how to secure the countless internet-connected devices that are attached to the nation’s power grid. Officials want to help power companies bolster their digital defenses as renewable energy resources like solar panels and wind turbines introduce more vulnerabilities to the grid. Through the program, NIST’s National Cybersecurity Center of Excellence aims to create guidance and reference architectures that energy companies could use to build stronger defenses for their digital infrastructure. Read More: https://bit.ly/2VsI17G

New York adopts Utility-ESCO Cyber Security Standards

The New York Public Service Commission adopted new security requirements for third-party energy suppliers in order to provide “a universal foundation of cybersecurity and data privacy protections” for customer data and related utility IT systems. Energy Serving Entities (ESEs) that fail to maintain these minimum levels of protections shall not have access to customer data, and/or the Utility IT systems. Regulators also determined utilities have little say over what a customer may do with their data, a win for stakeholders advocating standardized access to data. Read More: https://bit.ly/2MthJPO

Disruptive Technologies

Xage Security and ComEd in USA to Demonstrate New Use for Blockchain

ComEd, one of the USA’s largest energy delivery companies, recently announced partnership with Xage Security, Inc. to demonstrate how blockchain technology can enhance the security and operational efficiency of electric systems as they integrate distributed energy resources (DER), such as solar, storage, energy efficiency and demand management. Blockchains use multiple servers that operate like decentralized record-keeping and verification systems. They’re seen as a promising solution for energy companies bringing more DER onto their systems and creating marketplaces offering an array of Internet of Things (IoT) devices and innovative energy services.

ComEd has been investigating how blockchain technology can provide operational and security benefits while enabling the customers and communities we serve to realize their sustainability and resilience goals. Read more: http://www.indiasmartgrid.org/viewnews.php?id=5953
## Smart Grid Projects in India

All Smart Grid Pilot Projects are declared Go-Live. Details about the Pilot Projects are given at: [http://www.nsgm.gov.in/en/sg-status](http://www.nsgm.gov.in/en/sg-status)

### Ongoing Tenders

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<thead>
<tr>
<th>Sl. No.</th>
<th>Utility</th>
<th>Tender Details</th>
<th>Submission Dates</th>
<th>Source</th>
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<tbody>
<tr>
<td>1</td>
<td>Energy Efficiency Services Limited (50,00,000 smart meters for Pan India)</td>
<td>Bihar (Purnia, Katihar, Saran, Patna, Bhagalpur, Darbhanga) – 11,05,000 smart meters</td>
<td>10th December, 2019</td>
<td><a href="https://bit.ly/2mrc4PH">https://bit.ly/2mrc4PH</a></td>
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<tr>
<td></td>
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<td>Odisha (Bhubaneshwar, Cuttack, Behrampur) - 5,65,000 smart meters</td>
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<td></td>
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<td>Telangana (Medak, Nagarkurnool, Nalgonda, Adilabad, Hyderabad, Janagaon) - 11,10,000 smart meters</td>
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<td></td>
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<td>Andhra Pradesh (Vishakhapatnam, Anantpura, Chittoor, Guntur, Srikaluram) - 5,55,000 smart meters</td>
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<td></td>
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<td>Rajasthan (Ajmer, Jodhpur, Jaipur, Nagaur, Churu) - 5,55,000 smart meters</td>
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<td></td>
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<td>Jharkhand (Ranchi, Jamshedpur, Palamu, Godda, Bokaro, Dhanbad) - 5,45,000 smart meters</td>
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<td>North East (Guwahati, Dibrugarh, Itanagar, Shillong, Imphal, Gangtok, Agartala) - 5,65,000 smart meters</td>
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### Expected Tenders

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<tr>
<td>1</td>
<td>Meghalaya Power Distribution Corporation Limited</td>
<td>Supply of 2,00,000 smart meters</td>
<td>DPR and budget under approval</td>
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<td>2</td>
<td>Himachal Pradesh State Electricity Board Limited</td>
<td>Supply of 2,00,000 smart meters for Dharamshala area in Himachal Pradesh</td>
<td>DPR being prepared</td>
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<tr>
<td>3</td>
<td>Chhattisgarh State Power Distribution Company Limited</td>
<td>Supply of 4,40,000 smart meters for Raipur and Bilaspur area in Chhattisgarh</td>
<td>DPR under approval</td>
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<td>4</td>
<td>Daman &amp; Diu Electricity Department</td>
<td>Supply of 60,000 smart meters for Daman &amp; Diu</td>
<td>DPR being prepared</td>
</tr>
</tbody>
</table>

### Key Contacts

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(For suggestions and feedback on the ISGF SMART GRID Bulletin, please write to contactus@indiasmartgrid.org)

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India Smart Grid Forum (ISGF), registered under Indian Societies Registration Act (Act XXI of 1860) is a Public Private Partnership initiative of Ministry of Power, Government of India for accelerated development of Smart Grid technologies in the Indian power sector.


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ICEF 2019 Statement from the Steering Committee

October 10th, 2019

1. Preamble

The sixth annual meeting of the Innovation for Cool Earth Forum (ICEF 2019) was held in Tokyo on October 9 and 10, with more than 1,000 participants from government institutions, international organizations, industry, and academia, from approximately 70 countries and regions. The theme of this year’s forum was “Bending down the emissions trajectory by Innovation and Green Finance.”

Global CO2 emissions are increasing at about 2% per year, which is in line with the long-term historical trends since the beginning of the industrial revolution. We affirm our goal of achieving net-zero CO2 emissions, meaning that immediate peak and vigorous decline of CO2 emission is necessary. Since the gap between current trends and our goal is still getting worse, we have to re-emphasize the necessity of innovation in deployment as well as R&D, which are the key to narrow the gap. Additional policy measures such as fiscal incentives and new technologies that could reduce emissions at scale must be deployed on an urgent basis.

ICEF’s mission is to facilitate discussion and encourage cooperation among participants with a view to promoting technological and social innovation in the field of energy and environment.

The following statement summarizes how the world will accelerate actions that should be taken with high priority.

2. Importance of ESG investing and a virtuous cycle of environment and growth

At the G20 Ministerial Meeting on Energy Transitions and Global Environment for Sustainable Growth held in June, ministers realize the importance of a virtuous cycle of environment and growth that is strongly supported by innovations, mobilization of finance including investment, and improvement of the business environment.

According to G20 Ministerial meeting’s communiqué, the G20 Energy Ministers will step up existing international efforts to unlock the potential of hydrogen as a clean, reliable and secure source of energy including cooperation in research and development, evaluating hydrogen’s technical and economic potential, cost reduction pathways and addressing the various challenges including regulations and standards.

Fundamental decarbonization of industrial activities is one of the major challenges to realize net-zero CO2 emissions. New approaches such as CCUS, hydrogen-based direct reduced iron, carbon recycling and zero-emission cement are inevitable.

While recognizing that public finance and gender lens investing plays an important role, we call upon all players to support efforts to mobilize private finance and increase transparency through more enhanced climate-related financial disclosure based on the TCFD’s recommendation with effective communication between business and financial sectors, as well as to improve the market and investment environment.

During ICEF 2019, these topics were taken up in the three plenary sessions. In addition, twelve different approaches to accelerating innovation—six in the social context and six in the technological context—were chosen and discussed in depth in concurrent sessions. Conclusions are as follows:

3. Acceleration of activities toward realization of Social Innovation

- For promotion of larger scale deployment of carbon dioxide removal technologies, social understanding and awareness as well as the clarification of the magnitude of emission reduction are indispensable.

- Involvement of businesses as well as customers in accelerating technologies and innovation is of great importance. Enhancing the efficacy of climate communications could contribute widely.

- Electrification of the transport sector requires enhancement of electricity infrastructure, including massive expansion of EV charging systems.

- Scaling up renewable energy use and extensive introduction of Zero Energy Buildings could contribute to coping with growing energy demand and to easing environmental damages, such as air pollution resulting from rapid urbanization.

- Demand-side driven transformation has been happening; and digitalization utilizing AI and IT devices as core technology can contribute to the realization of a low energy demand scenario.

- Evaluation of benefits and impacts of plastics at each phase of use, such as value of plastics use for durable products and contribution to food preservation, is necessary to substantially protect the marine and land ecosystem, as well as could contribute to the development of alternatives for plastics.
4. Acceleration of activities toward the realization of Technology Innovation

<i>Innovations in deployment stage</i>
- Deployment of existing renewable technologies such as solar, wind and storage should be accelerated. Advancing grid technologies and acknowledging economic value of system stabilization can contribute to the efficient use of renewable energy. Microgrid technology utilizing renewable energy and network technologies can play an important role in improving grid resilience.
- Expanding the use of fuel cells, setting standards for element technologies, as well as the standardization and modularization of total systems are major concern.
- Wider application of digital technology on both the supply and demand side of electricity and heat such as remote control and unmanned operation, enables efficient use of distributed power sources.

<i>Innovations in R&D stage</i>
- Small modular and nuclear fusion reactors are currently under development by various actors, including venture businesses. Policy and R&D strategy from a longer-term perspective will effectively guide actors, especially venture businesses, in their endeavors.
- The rapid advancement of genome technologies shows huge potential in contributing to CO2 emission reductions, but such technologies need to be treated carefully from an ethical perspective to avoid negative implications.
- In order to promote research and development in the field of CO2 utilization, comprehensive assessment of life-cycle CO2 emission/absorption is recommended.

5. Strategies for bending down the emissions trajectory

Achieving and deploying innovation requires the engagement of all industrial sectors, academia, governmental institutes, financial institutions, and investors in promoting research, development, investment, and business creation. Although “Bending down the emissions trajectory” itself is difficult to realize at this immediate moment, the short-term target should be attained within a few years to pave the way towards the long-term goal of net-zero emissions. We call upon all players to join forces in further cooperation and collaboration, and to carry out with unprecedented urgency the “Three Key Actions” identified at ICEF 2018: 1) inspire investment in technology, products, and services for green growth; 2) involve industry and consumers in accelerating technologies and innovation for decarbonization; and 3) internationalize cooperative efforts for deploying innovation outcomes. In addition, we call for urgent policy support for accelerated emission reduction from carbon-intensive facilities.

Government of India approves Phase-II of Grid Connected Rooftop Solar Program for achieving cumulative capacity of 40,000 MW from Rooftop Solar Projects by the year 2022

The Cabinet Committee on Economic Affairs chaired by the Prime Minister, Shri Narendra Modi has given its approval for the Phase-II of Grid Connected Rooftop Solar Program for achieving cumulative capacity of 40,000 MW from Rooftop PV (RTPV) Projects by the year 2022. The program will be implemented with total central financial support of Rs 11,814 crore covering following components:

(i) Component A: Setting up of 4000 MW of Grid connected RTPV in Residential sector with Central Financial Assistance
(ii) Component B: Incentives to DISCOMs based on achievement for installing additional grid connected rooftop capacity in all sectors over and above the base level, with the incentive being limited to the first additional 18000 MW of rooftop capacity added in the country

In the Phase-II, Central Financial Assistance (CFA) for the Residential sector has been restructured with availability of 40% CFA for RTPV systems up to 3 kW capacity and 20% for RTPV system capacity beyond 3 kW and up to 10 kW. For Group Housing Societies/Residential Welfare Associations (GHS/RAW), CFA will be limited to 20% for RTPV plants for supply of power to common facilities, however, the capacity eligible for CFA for GHS/RAW will be limited to 10 kW per house with maximum total capacity up to 500 kW, inclusive of RTPV put in individual houses in the GHS/RWA. CFA under residential category will be provided for 4000 MW capacity and the same will be provided on the basis of benchmark cost or tender cost, which is lower. Central financial support will not be available for other category i.e., institutional, educational, social, government, commercial, industrial, etc.

Under this Program, focus will be on increased involvement of DISCOMs. Performance based incentives will be provided to DISCOMs based on RTPV capacity achieved in a financial year (i.e. 1st April to 31st March every year till the duration of the scheme) over and above the base capacity i.e. cumulative capacity achieved at the end of previous financial year.

For more details, please visit:
Third edition of DUM 2019 will be held on 07 - 08 November 2019 in New Delhi and will be hosted by BRPL, BYPL, TPDDL and Tata Power Mumbai. DUM provides a unified voice to influence and enable the DISCOM community to leverage each other’s experiences for successful nationwide smart grid roll outs and to bridge the gap between strategy and execution. Leading Utilities from USA, Canada and Europe also participated in DUM 2018 and shared their experiences in implementing Smart Grid Technologies. Smart grid is still an emerging concept and utilities around the world have started gaining experience in smart grid technologies. As India embarks on its Smart Grid journey, it is imperative that we do not make the same mistakes but learn from each other’s experiences.

**OBJECTIVES**

- Evaluate Regulatory, Policy, Financial and Business Challenges of Discoms for Sustainable Solutions
- Discuss and Evaluate New and Emerging Business Models and Monetization Options
- Emerging Technologies, their Benefits and Brainstorm Demonstration Projects.
- Discuss Case Studies and Best Practices from Across the Globe

**THEMES**

**New Programs & Projects**
- 24x7 Quality Power Supply – What needs to be done on ground to achieve this?
- 300 Million Smart Meters -Rollout Plans and Challenges
- Preparedness of Discom and the Industry for 300 million Smart Meters

**Sustainability of Discoms**
- Business Models for Discom’s Sustainability
- Impact of SAUBHAGYA on AT & C Losses and Discom Finances
- Training & Capacity Building
- EVSE Business Models
- New Revenue Streams

**New Technologies & New Challenges**
- Grid Stability with increasing penetration of DER and Electric Vehicles
- Peer to Peer Trading of Rooftop Solar Energy on Blockchain
- Leveraging Artificial Intelligence (AI) & Machine Learning (ML) in Utility Operations
- Business Case for Energy Storage Systems
- Next Generation Distribution Automation Systems
- Augmented & Virtual Reality for Utility Operations
- Cyber Security for Power Systems

**Voice of the Customer**
- What Customers want?
- New Platforms for Customer Engagement
  - Customer Portal
  - Chatbots
  - Voicebots

**Special Session with City Gas Distribution Utilities**
- Common Billing and Collection Systems for Electricity and Gas Utilities
- Sharing of Customer Data
- Common Call Centers
- Sharing of GIS Maps
- Sharing of Last Mile Communication Systems

Contact us

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India SMART UTILITY Week 2020
03 - 07 March 2020
Manekshaw Centre, New Delhi, India

International Conference & Exhibition on
SMART UTILITIES FOR SMART CITIES

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Conference Themes of ISUW 2020

- Flexible Grids & Digital Utilities
- 24x7 Quality Power
- Cross Cutting Themes
- Smart Microgrids & Energy Storage
- Artificial Intelligence, Blockchain and Advanced Analytic
- Voice of the Customer
- Smart Mobility & Electric Vehicles
- Smart & Sustainable Cities
- Smart Water Distribution
- Smart City Gas Distribution
- Voice of the Customer

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