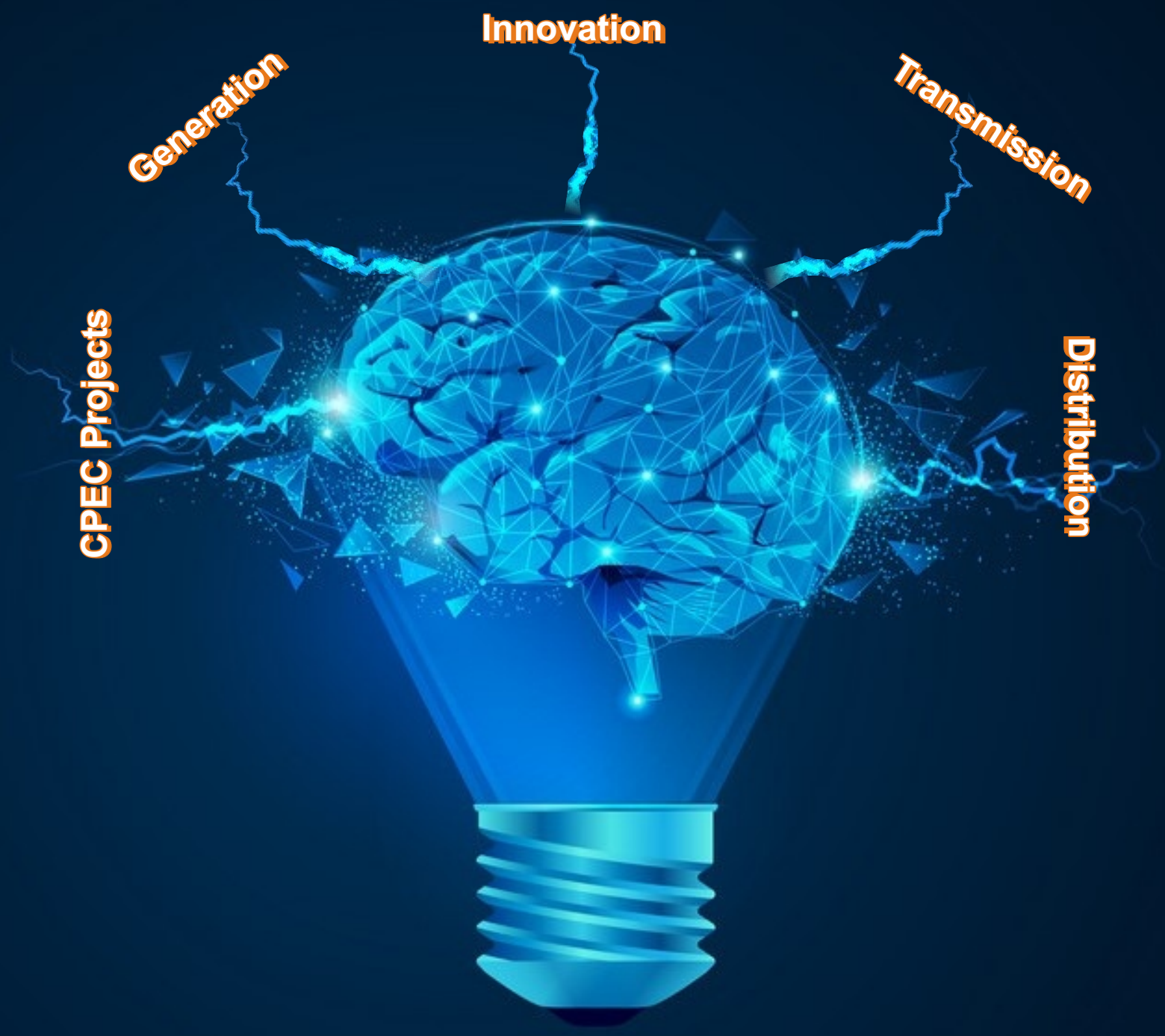
NEPRA ENERGY WEEK
2020



GENERATING IDEAS !

Feb 24 to Feb 28

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

NEPRA ENERGY WEEK
2020

EVENT SUMMARY

NEPRA Energy Week 2020, held from Feb 24, 2020 to Feb 28, 2020, was the first of its kind and the largest annual gathering dedicated to discuss Pakistan's power sector issues at NEPRA Headquarter, in the heart of Islamabad. The Energy Week provided a powerful platform to connect local realities and priorities with the regional and global energy outlook. Hosted for the first time in the country, the events of Energy Week brought together the entire power community from Pakistan and all over the globe, with public sector, private sector and academia addressing the whole power challenges, driving practical action, and helping shape the future of Pakistan's power sector.

Under the guidance of Chairman NEPRA, Mr. Tauseef H. Farooqi, the Management Committee, led by Mr. Anwar Malik (Director General), brought the whole plan to life and provided a unique space for the local and international energy stakeholders to convene and engage in strategic dialogue on critical developments in the power sector. Spreading over a time period of 5 days, the Energy Week had each day dedicated to the following focus areas:

Day 1: Inaugural & China Pakistan Economic Corridor (CPEC) Session

Day 2: Generation Session

Day 3: Innovation Session

Day 4: Transmission Session

Day 5: Distribution Session

During the Energy Week, Chairman NEPRA and the Members of NEPRA Authority welcomed the Worthy Federal Minister for Energy, Chairman WAPDA, Chairman CPEC Authority, Ambassador of China, Ambassador of Republic of Germany, professionals from the relevant Government Organizations, and leading National and International Private Sector Companies to participate in the proceedings. All days of the event concluded with a set of recommendations for improving the Generation, Innovation, Transmissions and Distribution areas of the Power Sector, as follows:

Area	Recommendations
Generation	• Renegotiation of long-term expensive PPAs/EPAs and LNG Contracts • No more Take or Pay Agreements in future. • Feasibility Studies for hybrid and floating solar projects. • Project financing in PKR for local investors. • Surplus and affordable grid power to displace inefficient captive plants. • Targeted price incentives to quickly increase baseload and bring captive consumers back on gird. • Exploring newer cost effective indigenous generation technologies (impoundment of water, pumped storage hydel plants and floating solar PV projects)
Innovation	• Optimizing Coal Procurement through Competitive Pricing Mechanism • Wind and Solar Hybrid System • Development of Mini/ Micro Grids for harnessing the RE resources to provide easy and affordable electricity • Strategic Alignment of Power Sector Stakeholders • Energy Storage with Li Batteries, hydrogen, pump storage hydro and etc. • Finalization and approval of IGCEP, CTBCM, Power Policy, Rules and Regulations etc.
Transmission	• Identification of sites for private transmission lines & grids and preparation of RFP in the given timelines. • Implementation of SCADA-III at National Power Control Centre • Competition in the transmission sector: More Provincial Grid Companies. • Addition of relevant provisions for HVDC facilities in the Grid Code. • Accurate demand projections and preparation of priority investment plans by NTDC. • Chalking out the terms and conditions for land acquisition and Right of Way (ROW) by NTDC. • Special laws for procurement of land for timely completion of transmission lines and grids. • Best operational practices and development of an advanced and automated monitoring tool to generate periodic performance reports. • Wheeling of Power.
Distribution	• Roadmap for improving commercial and operational performance of DISCOs. • Strict monitoring of investment for loss reduction. • Unbundling of Large/Huge DISCOs in terms of area i.e. PESCO, QESCO, MEPCO, SEPCO & HESCO. • Automation in DISCOs for effective and timely planning, procurement, operation & maintenance, technical and financial audits, load planning, load analysis and disposal of complaints. • Breaking DISCOs into Retail and Wire businesses • Mechanism for transferring committed PPAs into market domain. • Privatization of the DISCOs. • Third party checking of meters. • Zero tolerance policy on safety violations and Demand Side Management (DSM)

Day 1:
Inaugural & China Pakistan Economic Corridor(CPEC) Session

Day 1: Inaugural & China Pakistan Economic Corridor (CPEC) Session

Inaugural & China Pakistan Economic Corridor (CPEC) Session of the NEPRA Energy Week was held on February 24, 2020 (Monday) with the following agenda:

Agenda

DAY - 1: Monday, 24th February 2020
Inaugural & CPEC Sessions

Inaugural Session			Time
	Proposed Activities / Speakers		10:00 am to 11:50 am
	Guest to be Seated		
	Opening Remarks by the **Chairman NEPRA, Mr. Tauseef H. Farooqi**		
	Address of Ambassador of China, **His Excellency Mr. Yao Jing**		
	Address of Chairman CPEC Authority, **Lt Gen (R) Asim Saleem Bajwa**		
	Address of Chairman WAPDA, **Lt Gen (R) Muzammil Hussain**		
	Address of Senator **Mr. Mushahid Hussain Syed**		
	Address of Federal Minister for Energy, **Mr. Omar Ayub Khan**		
	Distribution of Souvenirs & Group Photo		
	HI TEA (40 Min.)		
CPEC Session	**Topic**	**Speakers**	**Time**
	Power Projects Under CPEC-Progress and Way Forward	**Mr. Shah Jahan Mirza** MD, PPIB	12:30 pm to 12:50 pm
	Q&A Session		12:50 pm to 01:00 pm
	Innovation under the umbrella of CPEC	**Mr. Liaqat Ali Shah** Project Director, CPEC.	01:00 pm to 01:30 pm
	Q&A Session		01:30 pm to 01:35 pm
	LUNCH & PRAYER (1 Hour)		
	Lahore – Matiari HVDC 4000 Project under CPEC and CASA – 1000 HVDC Project	**Ms. Saniya Awais** MD, PPDB	02:35 pm to 02:50 pm
		Mr. Najeeb Ahmed Country MD, ABB	02:50 pm to 03:05 pm
		Mr. Hassan Ejaz Marketing Head, ABB	03:05 pm to 03:20 pm
		Mr. Wang Bo CEO, PMLTC	03:20 pm to 03:35 pm
	Q&A Session		03:35 pm to 03:45 pm
	Presentation	**Mr. Farrukh Raees Ahmad** Country Director, GE Power Services	03:45 pm to 04:05 pm
	Q&A Session		04:05 pm to 04:15 pm
	TEA BREAK (15 Min.)		
	Hydro Power Potential in Indus Cascade	**Mr. Javed Akhtar** Member Power, WAPDA	04:30 pm to 04:45 pm
	Q&A Session		04:45 pm to 04:55 pm
	Distribution of Participation Certificates/Souvenirs & Group Photo		

Activity for Day-1

The following were the prominent guests of the Inaugural Session:

i. **NEPRA Authority including Chairman and Four Members**
ii. **Mr. Omar Ayub Khan, Federal Minister for Energy**
iii. **Lt. Gen (Rtd) Muzamil Hussain, Chairman WAPDA**
iv. **Lt. Gen (Rtd) Asim Saleem Bajwa, Chairman CPEC Authority**
v. **H.E. Yao Jing, Ambassador of China**
vi. **H.E. Bernhard Schlagheck, Ambassador of Republic of Germany**

Proceedings of the session commenced with the recitation of verses from the Holy Quran, followed by the National Anthem. Chairman NEPRA, Mr. Tauseef H. Farooqi, welcomed all the distinguished guests and the participants of the Energy Week and assured that the event will go a long way in addressing the challenges faced by the power sector of Pakistan. He further stated that NEPRA is taking steps for encouraging investment in the power sector besides protecting the interests of end-consumers.

Honorable Minister for Energy, Mr. Omer Ayub Khan, emphasized on the importance of Energy Sector and said that the incumbent Government is striving hard for ensuring affordable and sustainable electric power for the consumers. He pointed out that most of the energy is generated from imported fuel, which is putting a huge burden on Pakistan's economy. According to the Honorable Minister, efforts are underway for generation of power through indigenous and alternate resources. He also appreciated NEPRA's efforts in improving the power sector by organizing such events.

H.E. Mr. Yao Jing, Ambassador of China, lauded the overall structural reforms taking place in the power sector and assured the continued cooperation of China with Pakistan in energy, agriculture, science and technology sectors. He also assured that the CPEC funded energy projects would be completed on time,

The Chairman CPEC Authority, Lt. Gen (Rtd) Asim Saleem Bajwa, appreciated the role and keen interest of NEPRA in effective handling of the CPEC Energy projects. He informed that the Phase-I of CPEC has been completed, Phase-II is in progress and the approvals for the Phase-III are in the pipeline.

Chairman WAPDA, Lt. Gen (Rtd) Muzammil Hussain, gave a brief overview of various completed and upcoming hydro-electric power projects. He assured the Mohmand and Dasu Hydropwer projects would be completed within the specified time.

The Chairman NEPRA, in his closing remarks on conclusion of the CPEC session, thanked all the participants of the session and stressed the energy experts to come up with innovative ideas and suggestions for addressing the issues faced by the Power Sector; so as to ensure a reliable, affordable, and sustainable electric power to the consumers.

Day 2:
Generation Session

Day 2: Generation Session

Generation Session of the NEPRA Energy Week was conducted on February 25, 2020 (Tuesday) by the following team:

Mr. Khawar Hanif (Team Lead)
Mr. Muhammad Ramzan
Mr. Muhammad Noman
Mr. Hafiz Muhammad Faizan
Ms. Hudaima Qadir

Agenda

DAY- 2: Tuesday, 25th February 2020 Generation Session			
	Topic	**Speakers/Panellist**	**Time**
Generation Session	**Opening Speech**	**Engr. Bahadur Shah** VC/ Member, NEPRA	**10:00 am to 10:15 am**
	Brief Introduction of Generation Session	**Mr. Khawar Hanif** Dy. Director, NEPRA	**10:15 am to 10:25 am**
	World Energy Outlook	**Mr. Ali Yasir** Program Officer, TAS, IRENA	**10:25 am to 10:55 am**
		Mr. Gul Hassan Bhutto Energy Expert	**10:55 am to 11:10 am**
	Introduction of New Regimes Generating Electricity in an Efficient Way	**Dr. Kashif Imran** NUST, Islamabad	**11:10 am to 11:40 am**
	TEA BREAK (15 Min.)		
	Development of Hydropower Projects in Pakistan and Key Challenges	**Mr. N. A. Zuberi** Energy Expert	**11:55 am to 12:30 pm**
	Energy Storage Technologies	**Dr. Selim Mokadem** SIEMENS	**12:30 pm to 01:00 pm**
	Technological Advancements at Commercial Stage	**Mr. Qasim Latif** BDM, Wartsila	**01:00 pm to 01:30 pm**
	LUNCH & PRAYER (1 Hour)		
	Panel Discussion: Upcoming Challenges & Opportunities	**Syed Manzoor Hussain Zaidi** CEO, Engro Thar **Mr. Kamran Kamal** CEO, Laraib **Mr. Dhanpat Kotak** CEO, Haveli Bahadur Shah Power Project **Mr. N. A. Zuberi** Energy Expert **Mr. Muhammad Azam Khan** Energy Expert **Mr. Moin Iqbal** Director GE **Mr. Gul Hassan Bhutto** Energy Expert **Moderator:** **Mr. Fiaz Ahmed Chaudhry** LUMS Energy Institute	**02:30 pm to 03:30 pm**
	Affordability of Electricity	**Mr. Asad Aleem** Energy Specialist, ADB	**03:30 pm to 03:45 pm**
	TEA BREAK (15 Min.)		
	Generation Planning Balancing Supply & Demand: **Supply Side**	**Dr. Fiaz Ahmed Chaudhry** LUMS Energy Institute	**04:00 pm to 04:35 pm**
	Demand Side	**Mr. Asad Mahmood** Manager Technical, NEECA	**04:35 pm to 05:00 pm**
Distribution of Participation Certificates/Souvenirs & Group Photo			

Day-2 Activity

February 25, 2020 (Tuesday): The second day of NEPRA Energy Week 2020 started with the opening speech of Vice Chairman NEPRA Mr. Bahadur Shah. Vice Chairman NEPRA expressed hope that with the active interaction of industry and academia NEPRA will be able to steer the power sector on a path of sustainability where all Pakistanis will have access to affordable, reliable and sustainable electricity.

The generation session focused on the four major areas which included comparison of power sector of Pakistan with other countries around the globe, investments in renewable energy, modern electricity storage technologies and promotion of indigenous resources for electricity generation.

The generation session was attended by academia which was represented by NUST and LUMS, international experts including professionals from SIEMENS, International Renewable Energy Agency (IRENA), Asian Development Bank (ADB) and Wartsila. Moreover, public and private sector entities also shared their ideas and suggested way forward for Pakistan to achieve the goal of sustainable development.

The session concluded with the agreement of experts that Pakistan needs to tap the hydro potential on Indus cascade, which is almost 60,000 MW and there is a need to promote indigenous resources such as Thar coal and renewable energy to achieve energy security, reliability, affordability and ensure sustainable development in the country.

The Chairman NEPRA, Mr. Tauseef H. Farooqi, in the closing remarks appreciated and thanked the team lead, speakers, panelists and all the participants for their valuable inputs. He also distributed souvenirs and certificates among the resource persons.

Actionable Outcomes

- Renegotiation of long-term take or pay PPAs/EPAs, LNG contracts is required. Further, it is recommended to do away with Take or Pay agreements in future to lower capacity payments.
- Feasibility Studies for hybrid and floating solar projects needs to be conducted for cost benefit analysis as compared to standalone large-scale solar projects.
- Issues related to development of hydropower projects need to be resolved. Coordination among different government entities including inter-provincial coordination needs to be enhanced. Implementation of Policy framework is required on fast track basis through removal of bureaucratic hurdles.
- Surplus, reliable, and affordable grid power can displace inefficient captive plants. Targeted price incentives are required to quickly increase baseload by bringing captive consumers back on gird and lower generation tariff.
- Guidelines should be introduced for impoundment of water, pumped storage hydel plants, floating solar PV projects and relocation of affected etc.

Day 3:

Innovation Session

Day 3: Innovation Session

Innovation Session of the NEPRA Energy Week was conducted on February 26, 2020 (Wednesday) and partially on February 27, 2020 (Thursday) by the following team:

Mr. Noor Saleem Khan (Team Lead)
Mr. Syed Salman Rehman
Mr. Ali Feroz Khan
Mr. Saad Amin
Mr. Ather Rehman
Ms. Atiqa Dawood

Agenda

DAY- 3: Wednesday, 26th February 2020 Innovation Session			
	Topic	**Speakers/ Panellist**	**Time**
Innovation Session	**Opening Speech**	**Mr. Saif Ullah Chattha** Member, NEPRA	**10:00 am to 10:10 am**
	Brief Introduction of Innovation Session	**Mr. Noor Saleem** Dy. Director, NEPRA	**10:10 am to 10:15 am**
	Global Trends in Renewable Energy (RE) Technologies	**Mr. Ali Yasir,** Programme Officer, Technical Advisory Services, IRENA	**10:15 am to 10:50 am**
	Q&A Session		**10:50 am to 10:55 am**
	Integrated Energy Planning (IEP) for Sustainable Development of the Country	**Mr. Imran Ahmed** Project Management Specialist, USAID	**10:55 am to 11:20 am**
	Q&A Session		**11:20 am to 11:25 pm**
	TEA BREAK (15 Min.)		
	Solar/Wind Hybrid Model	**Ms. Siglinde Just,** SIEMENS	**11:40 am to 12:10 pm**
	Virtual Generation & Grid	**Mr. Farhan Ali Syed,** SIEMENS	**12:10 pm to 12:30 pm**
	Digitalization and Cyber Security to Hybrid Solutions	**Mr. Martin Piesker,** SIEMENS	**12:30 pm to 12:50 pm**
	Q&A Session		**12:50 pm to 01:00 pm**
	LUNCH & PRAYER (1 Hour)		
	Strategical Alignment of Stakeholders to Combat the Challenges of Power Sector	**Mr. Salis Usman** GM Planning, NTDC	**02:00 pm to 02:30 pm**
	Q&A Session		**02:30 pm to 02:40 pm**
	Emerging Prospects of Distributed Generation	**Mr. Mujtaba Haider Khan** Chief Executive Officer, REON ENERGY LIMITED	**02:40 pm to 03:00 pm**
		Mr. M. Omar Malik, Director Business Development, SHAMS SOLAR POWER LTD	**03:00 pm to 03:20 pm**
	Q&A Session		**03:20 pm to 03:30 pm**
	TEA BREAK (15 Min.)		
	Advanced ideas in Power Sector	**Mr. Tobias März** Project Manager & Senior Advisor Pakistan/Asia, 8.2 Renewable Energy Experts Hamburg **Moderator**: **Dr. Fiaz Ahmed Chaudhry**	**03:45 pm to 04:25 pm**
	Q&A Session		**04:25 pm to 04:30 pm**
	Prospects of Electric Vehicles (EV)	**Mr. Musa Khan Durrani** GM Business Development, SAIF GROUP	**04:30 pm to 04:50 pm**
	Q&A Session		**04:50 pm to 05:00 pm**
Distribution of Participation Certificates/Souvenirs & Group Photo			

Day-3 Activity

February 26, 2020 (Wednesday): The third day of the very first NEPRA Energy Week 2020 was regarding Innovation, which started with the opening speech of Member (Tariff) NEPRA, Mr. Saif Ullah Chatha. The Member (Tariff) highlighted that the idea behind conducting Innovation session was to learn more about the advancements in technology as well as the latest approaches in planning, policy making, financing and the required regulatory regime.

The main objective of Innovation session was to have a meaningful discussion about the issues of power sector and to explore innovative ideas, techniques and International best practices that can be helpful in addressing the existing and emerging challenges of the power sector of the country.

The Innovation session mainly focused on the recent trends in Renewable Energy (RE), Integrated Energy planning, solar wind hybrid Model, virtual Generation & Grid, emerging prospects of Distributed Generation, prospects of Electric vehicles in Pakistan and optimization of Coal procurement mechanism.

The Innovation Session was attended by various representatives of utilities and industry, academia of NUST & LUMS, International & National Energy Experts including SEIMENS, IRENA, USAID and various project developers.

The Innovation Session concluded with a vote of thanks from Chairman NEPRA, Mr. Tauseef H. Farooqi. He also appreciated the efforts of the innovation day's managing team for conducting such a fruitful session. Furthermore, the innovative ideas and valuable recommendations shared by the experts were highly appreciated by NEPRA Authority and the participants. At the end, the Chairman NEPRA presented souvenirs & certificates to the resource persons.

Actionable Outcomes

- Optimizing Coal Procurement through Competitive Pricing Mechanism: In the Energy Week, we had a detailed panel discussion about different methods of procurement of coal. The representative of IPPs propose changing the current index based mechanism being used to arrive at the pricing of coal and also highlighted a number of problems regarding the infrastructure constraints. International experts emphasized to go for procurement of coal based on tendering/competitive bidding basis while referring the examples of different countries. As coal is a major cost component in the power purchase prices of DISCOs, therefore, every attempt needs to be made to make sure the price discovery of coal is transparent to ensure that the price being paid by consumers is fair. It is believed that competition in coal procurement will ensure the transparency, fairness and will reduce the level of due diligence required to approve monthly coal price adjustment request of IPPs. It was noted that the Authority has already initiated a proceeding to revise existing coal pricing mechanism for which comments have already been received from various stakeholders. While closing the proceeding the Authority may decide to introduce international competitive bidding as a way of arriving at imported coal price after taking comments from all concerned.

- Wind and Solar Hybrid System: We learnt that solar and wind hybrid system can help address the technical constraints being posed by wind and solar plants when setup in standalone form. It was also discussed that the hybrid plants also help producing more energy with greater consistency, i.e. more reliable power. NEPRA may consider writing the Government that for the development of forthcoming renewable power generation; the renewable plants based on hybrid systems may be given the priority. Moreover, the Authority may also consider advising the Government to work on the possibilities of asking the existing wind power plants (which have tariffs touching to the level of Rs. 27/kWh) to convert their operational plants into hybrid system with installation of solar plants there. With plunging cost of solar equipment, this arrangement can largely neutralize the higher rates of existing wind power plants established when the cost per MW was higher.

- Mini Grids are one of the emerging solution for harnessing the RE resources and also a developmental goal for countries to provide easy and affordable access to electricity: Technology advancement and cost reductions of renewable have made a good case for the mini grids to provide the access to electricity to the consumers where extension of grid would not be a good proposition. The Authority may ask the relevant agencies provincial (energy divisions) and federal (AEDB) to carry out the comprehensive study in this regard covering the potential, the requirement, feasibility etc. Based on the findings of that study, the relevant policy and regulatory actions can be prescribed to create an enabling environment for this arrangement.

- Strategic Alignment of Power Sector Stakeholders: Preparation, finalization and approval of any document/instrument of national interest (e.g. IGCEP, CTBCM, Power Policy, Rules and Regulations etc.) demands for a lot of coordination and cooperation from the concerned entities. However due to command & control approach, lack of harmony, lack of proper coordination and cooperation, finalization of such important instruments are being considerably delayed. In this regard, the Authority may consider forming a joint coordination and implementation committee of professionals from relevant entities, for timely finalization and implementation of any such instrument related to power sector of the county.

Day 4:
Transmission Session

Day 4: Transmission Session

Transmission Session of the NEPRA Energy Week was conducted on February 27, 2020 (Thursday) by the following team:

Mr. Shahzad Anwar (Team Lead)
Mr. Muhammad Safdar
Mr. Zeeshan Ghias
Mr. Shahzad Khan
Mr. Tayyab Ilyas
Ms. Palwasha Hamid

Agenda

DAY- 4: Thursday, 27th February 2020 Transmission Session			
	Topic	**Speakers/Panellist**	**Time**
Transmission Session	**Opening Speech Introduction of Transmission Session**	**Mr. Rehmatullah Baloch** Member, NEPRA	**10:00 am to 10:10 am**
	Brief Introduction of Transmission Session	**Mr. Shahzad Anwar** Dy. Director, NEPRA	**10:10 am to 10:20 am**
	GOP Transmission Line Policy for Private Sector	**Mr. Shah Jahan Mirza** MD, PPIB	**10:20 am to 10:45 am**
	Q&A Session		**10:45 am to 10:55 am**
	Bringing Competition in Transmission Sector though Provincial Grid Companies	**Mr. Rehan Hamid** CEO, STDC	**10:55 am to 11:10 am**
	Role of NTDC	**Mr. Zafar Abbas** MD, NTDC	**11:10 am to 11:20 am**
		Mr. Salis Usman GM, (Planning) NTDC	**11:20 am to 11:30 am**
		Mr. Amir Waheed Ahmed GM, (Finance) NTDC	**11:30 am to 11:40 am**
	TEA BREAK (15 Min.)		
	Panel Discussion: ▯ Upcoming Challenges & Opportunities in Transmission Sector (HVDC and Solar/Wind Integration, Evacuation Issues) ▯ Planning and Operational Issues of Transmission Sector	**Mr. Zafar Abbas** MD, NTDC **Dr. Rana Abdul Jabbar Khan** CEO, AEDB **Mr. Mushtaque Ahmed Soomro** GM, (Technical) NTDC **Mr. M. Kamran Siddqui** Chief Engineer HVDC, NTDC **Dr. Khawaja Riffat Hassan** GM Design, NTDC **Mr. Muhammad Ayub** GM, (SO) NPCC **Mr. Malik Javed Mahmood** GM (Asset Management) NTDC **Mr. Khalid Javeed** Energy Expert **Moderator:** **Mr. Gul Hassan Bhutto** Energy Expert	**11:55 am to 12:50 pm**
	Transmission Network Safety Practices and Challenges	**Mr. Sheraz Ahmed** GM (Corporate Safety), KE	**12:50 pm to 01:00 pm**
		Mr. Jawad Ahmed Dy. Director (Safety), IESCO	**01:00 pm to 01:10 pm**
		Mr. Fahad Ahmed Safety Expert	**01:10 pm to 01:20 pm**
	LUNCH & PRAYER (1 Hour)		

DAY- 4: Thursday, 27th February 2020 Transmission Session			
	Topic	**Speakers/Panellist**	**Time**
Transmission Session	**Panel Discussion:** ▯ Transmission Network Contingency Scenarios ▯ Setting Transmission Reliability Benchmarks and their Compliance ▯ Transmission Performance Monitoring Tools	**Mr. Zafar Abbas** MD, NTDC **Mr. Abid Latif Lodhi** CEO, CPPA-G **Mr. Rehan Hamid** CEO, STDC. **Mr. Hassan Jafar Zaidi** CEO, PPI. **Mr. Muhammad Ayub** GM, (SO), NPCC **Mr. Gul Hassan Bhutto** Energy Expert **Mr. Khalid Javeed** Energy Expert **Moderator:** **Dr. Fiaz Ahmed Chaudhry** LUMS	**02:20 pm to 03:50 pm**
Distribution of Participation Certificates/Souvenirs & Group Photo			

Innovation Session Extension

Topic	Speakers/Panellists	Time
Panel Discussion: Optimizing Coal Procurement Through Competitive Pricing Mechanism	**Mr. Patrick Markey** Managing Director, Sierra Vista Resources, Singapore **Mr. John Howland** Vice President Coal, Metals and Mining, IHS Markit, London, UK **Mr. Daffyd Davies** Trade Cloud Services, Singapore **Mr. Yao Jie** Dy. General Manager, (Coal), Port Qasim Electric Power Co. **Mr. Zhao Yonggang** CEO, China Power Hub Generation Co. Pvt. Ltd. **Dr. Li Xin** CEO, Huaneng Shandong Ruyi (Pakistan) Energy (Pvt) Ltd **Mr. Tahir Ahmed** CEO, Lucky Commodities **Moderator: Mr. Salman Rehman, Dy. Director, NEPRA**	**04:00 pm to 05:30 pm**

Day-4 Activity

Transmission Sector has vital role in provision of safe, reliable and sustainable electricity to the consumers. This was stated by Mr. Rahmatullah Baloch, Member (Balochistan) NEPRA, in his opening speech on the fourth day of NEPRA Energy Week 2020, as he continued to highlight the issues and challenges faced by the transmission sector. He stressed on resolving the issues i.e. evacuation from renewable resources (wind and hydro), timely completion of the interconnection and frequent tripping.

The transmission session was attended by representatives of various power utilities such as NTDC, STDC, CPPA-G and AEDB. Moreover, power sector researchers and academia i.e. NUST, LUMS etc. also shared their ideas and suggested way forward for Pakistan to achieve the goal of sustainable development through effectiveness in transmission sector.

The Transmission session focused on the role of transmission companies, upcoming challenges (i.e. issues of right of way, competition in shape of provincial grid companies, HVDC transmission line etc.). The session concluded with the agreement that for a reliable and sustainable electricity provision, transmission sector needs to be revamped in light of the new challenges.

In addition to the Transmission session, an extension of the Innovation session was planned, wherein the international experts from the United Kingdom and Singapore discussed the details about optimizing the procurement of imported coal through competitive pricing mechanism. This session was held keeping in

view the share of imported coal power plants in the generation mix and its financial implications on the fuel pricing mechanism. During the session the experts provided the global comparison of the international coal pricing, mechanism of price adjustment and its impact on electricity price.

The day closed with a vote of thanks from Chairman NEPRA, Mr. Tauseef H. Farooqi. He also appreciated the efforts of the Transmission session's managing team and the innovative ideas and valuable recommendations shared by the experts. In the end, the Chairman NEPRA distributed souvenirs & certificates among the resource persons.

Actionable Outcomes

- In order to implement GOP Transmission Line Policy, PPIB is required to identify sites for private transmission lines & grids and also prepare RFP in the given timelines.
- For bringing competition in the transmission sector through Provincial Grid Companies, Provincial Governments need to opt for Licenses for Provincial Grid Companies similar to that of the Government of Sindh.
- Implementation of SCADA-III at National Power Control Centre to effectively monitor real time data and corresponding dispatch operations.
- In the existing Grid Code, relevant provisions for HVDC facilities are not included. In this regard, GCRP (Grid Code Review Panel) and NTDC are required to formulate Grid Code amendments regarding HVDC facilities construction, planning, Operation and maintenance and submit the same for review and approval by NEPRA.
- In order to resolve power evacuation and curtailment issues, NTDC needs to prepare Transmission System Expansion Plan (TSEP) in light of IGCEP and ensure its execution and implementation within the stipulated timeline. GCRP must also draft a framework for Grid Code amendments in light of the new GOP ARE Policy.
- To manage transmission networks constraints, NTDC needs to properly identify load requirements during the peak and off-peak times. Further, NTDC is required to prepare priority investment plans and utilize NEPRA's allowed investments appropriately.
- In order to resolve planning issues of NTDC, GOP needs to chalk out terms and conditions for land acquiring and ROW by NTDC. GOP also needs enforce special laws for procurement of land for timely completion of transmission lines and grids.
- For setting benchmarks for transmission reliability and their effective monitoring, there is a need to identify the hindrances in efficient performance of transmission sector and also formulate a set of transmission reliability indicators which can be complied by all transmission licensees. Further, transmission licensees to implement the best operational practices and develop an advanced and automated monitoring tool which generates periodic performance reports.
- To encourage the Wheeling of Power, there is a need to carry out an impact analysis of impact of issues, such as burden of additional technical losses, less revenue collection and low UoSC etc. and to draft modification proposal in the existing Wheeling Regulations.

Day 5:

Distribution Session

Day 5: Distribution Session

Distribution Session of the NEPRA Energy Week was conducted on February 28, 2020 (Friday) by the following team:

Syed Aqib Ali Shah (Team Lead)
Mr. Mubashir Jalal Bhatti
Mr. Irfan Ahmed Sheikh
Mr. Muhammad Imran
Mr. Ikram Shakeel
Mr. Abdullah Qureshi
Ms. Saadia Batool

Agenda

DAY-5: Friday, 28th February 2020 Distribution Session			
	Topic	**Speakers/Panellist**	**Time**
Distribution Session	**Opening Speech**	**Mr. Rafique Ahmed Shaikh** Member, NEPRA	**10:00 am to 10:10 am**
	Introduction of Distribution Session	**Mr. Aqib Ali Shah** Asst. Director, NEPRA	**10:10 am to 10:20 am**
	Distribution Sector of Pakistan & Initiative by NEPRA	**Mr. Sajid Akram** Addl. DG, NEPRA	**10:20 am to 10:30 am**
		Mr. Imtiaz Hussain Baloch Addl. DG, NEPRA	**10:30 am to 10:40 am**
		Mr. Mazhar Iqbal Ranjha Director, NEPRA	**10:40 am to 10:50 am**
	Role of RE & Net Metering in Distribution Sector	**Dr. Irfan Yousuf** Director, AEDB	**10:50 am to 11:05 am**
	Q&A Session		**11:05 am to 11:10 am**
	Cost of Electricity & its Impacts on Pakistan's Economy	**Ms. Asma Khalid** Sr. Economist, State Bank	**11:10 am to 11:30 am**
	Panel Discussion:	**Mr. Abid Latif Lodhi** CEO, CPPA-G **Ms. Saadia Qayyum** Energy Specialist, World Bank **Mr. Fazal Ahmed Shaikh** CEO, Fatima Energy **Mr. Ali Nawaz** Director, PPIB **Mr. Sajid Akram** Addl. DG, NEPRA **Syed Imran Shah** Manager Business Development, FFC **MODERATOR: Ms. Asma Khalid** Economist, State Bank	**11:30 am to 12:00 pm**
	TEA BREAK (15 Min.)		
	Competitive Market of Electricity in Pakistan	**Mr. Abid Latif Lodhi** CEO, CPPA-G	**12:15 pm to 12:30 pm**
	Panel Discussion:	**Mr. Abid Latif Lodhi** CEO, CPPA-G **Mr. Fazal Ahmed Shaikh** CEO, Fatima Energy **Mr. Imtiaz Hussain Baloch** Addl. DG, NEPRA **Syed Sohail Ali Zaidi** Director, Bridge Factor Pvt. Ltd **Dr. Fiaz Ahmed Chaudhary** Professor, LUMS Energy Institute **MODERATOR:** **Ms. Saadia Qayyum** Sr. Energy Specialist, World Bank	**12:30 pm to 01:00 pm**
	LUNCH & PRAYER (1 Hour)		

DAY-5: Friday, 28th February 2020
Distribution Session

	Topic	Speakers/Panellist	Time
Distribution Session	**Issues Faced by the Public Sector Distribution Companies (DISCO's)**	**Mr. Mujahid Islam Billa** EX-CEO, DISCO	**02:00 pm to 02:15 pm**
	Q&A Session		**02:15 pm to 02:20 pm**
	Panel Discussion **Impact of Power Reliability on Economy & Industrial Growth**	**Mr. Qaiser Khan Saddozai** Vice President, FPCCI **Mr. Shahid Sattar** Executive Director, APTMA **Mr. Sher Abbas** Chief Engineer, IESCO **Mr. Arshad Iftikhar** Director Projects, KE **Syed Sohail Ali Zaidi** Director, Bridge Factor Pvt. Ltd **Mr. Gul Hassan Bhutto** Energy Expert **MODERATOR:** **Hafiz Irfan Shaikh** Dy. Director, NEPRA	**02:20 pm to 02:50 pm**
	Automation in Distribution System Network and Its Prospects	**Mian Sultan Mehmood** CEO, Creative Group	**02:50 pm to 03:05 pm**
	Q&A Session		**03:05 pm to 03:10 pm**
	Panel Discussion: **Complaint Handling & Dispute Resolution**	**Syed Qamar Mustafa** Advisor, Wafaqi Mohtasib **Mr. Sher Abbas** Chief Engineer, IESCO **Mr. Saqib Jamal** Chief Engineer, FESCO **Mr. Naveed Illahi Sheikh** Addl. DG, NEPRA **Mr. Muhammad Shafique** Sr. Legal Advisor, NEPRA **Mr. Iqbal Tahir** Electric Inspector /POI **Mr. Imran Ur Rehman** Dy. Director, NEPRA **MODERATOR: Mr. Lashkar Khan** Dy. Director, NEPRA	**03:10 pm to 03:30 pm**
	TEA BREAK (15 Min.)		
	Safety Hazards in Distribution Network	**Mr. Tufail Ahmed Shaikh** Director, (HSEQ) PEPCO	**03:45 pm to 04:00 pm**
Distribution Session	**Panel Discussion:**	**Mr. Nadir Ali Khoso** Director General, NEPRA **Mr. Qaiser Khan Saddozai** Vice President, FPCCI **Mr. Mazhar Iqbal Ranjha** Director, NEPRA **Mr. Jawad Ahmad** Dy. Director, IESCO **Mr. Shahid Sattar** Executive Director, APTMA **Mr. Fahad Ahmed** Safety Expert **MODERATOR:** **Mr. Tufail Ahmed Shaikh** Director, (HSEQ) PEPCO	**04:00 pm to 04:30 pm**
	SUGGESTIONS/COMMENTS SESSION		**04:30 pm to 04:45 pm**
	Closing Remarks by the Chairman NEPRA		
	Distribution of Participation Certificates/Souvenirs & Group Photo		

Day-5 Activity

Distribution Sector is the last step in the supply chain of electricity and given its terminal nature, the overall financial health of the power sector greatly depends on efficient distribution. This was stated by Mr. Rafique Ahmed Sheikh, Member (Sindh) NEPRA in his opening speech on the fifth day of NEPRA Energy Week 2020. The Honorable Member (Sindh) highlighted the issues and challenges of high distribution losses, low recovery, distribution system constraints, and inefficient service provision, low outreach to the new clusters of consumers, lackluster expansion of networks and the fact that the financial mismanagement still plague the distribution sector.

The Distribution session was attended by representatives of various power utilities, stakeholders and organizations/institutions such as WORLD BANK, State Bank of Pakistan (SBP), FPCCI, APTMA, CPPA-G, PPIB, NTDC, Wafaqi Mohtasib, and AEDB etc. Moreover, power sector researchers and academia i.e. NUST, LUMS etc. also shared their ideas to achieve the goal of sustainable development through effectiveness and optimization of the distribution sector.

The Distribution session focused on the role of DISCOs, introduction of competition through Supplier Regime and CTBCM, wheeling and net metering arrangements, reasons and way forward to eliminate circular debt etc. Guest speakers highlighted the impact of higher consumer end tariffs on the economy particularly on the export sector and suggested the way forward to overcome these challenges.

The distribution session also concluded with the resolve to ensure provision of affordable electricity to the consumers, eliminating inefficiencies in the system, introduction of competition through supplier regime, CTBCM and wheeling & net metering arrangements.

At the end of the Distribution session, Chairman NEPRA officially concluded the Energy Week 2020. The Honourable Chairman thanked the NEPRA Management Committee and team lead for organizing an event which will help in revamping the power sector of Pakistan. Furthermore, he assured that innovative ideas, valuable recommendations, and latest approaches shared by the National and International Energy experts will be implemented at NEPRA to fix the state of Pakistan's power sector. At the end, the Chairman NEPRA distributed souvenirs & certificates among the participants and the resource persons.

Actionable Outcomes

- There is a need to develop a roadmap for improving commercial and operational performance of the DISCOs. For this, automation is required to be introduced in all DISCOs for effective and timely planning, procurement, operation & maintenance, technical and financial audits, load planning, load analysis and disposal of complaints.
- Energy conservation and efficiency improvements in household and buildings sector from design to construction, down to final use of appliances is important. NEECA can play an important role here and may be included in generation planning process to better integrate conservation efforts.
- NEPRA needs to develop the regulation work on retail and wire businesses in consultation with all stakeholders and a mechanism needs to be developed for transferring committed PPAs into market

domain. There is also a need for inclusion of private sector into power distribution network.

- Unbundling of Large/Huge DISCOs in terms of area can be beneficial for the health of distribution sector. There is also a need for financial autonomy and active regulatory oversight of DISCOS i.e. Financial Audits, Investment Audits, Technical Audits, Procurement Audits and etc.

- There is a need for an introduction of simulation tools, outages management system, statistical regression analysis in planning and adopting a smart grid architecture with reference to planning, meter reading, and collection with minimal contribution of human resource.

- Checking of meters through third party as the metering and testing reports are calibrated by DISCO's own staff. Further, an independent meter testing/standard laboratory is required to be established to check and verify that the locally produced meters are as per the international standards by taking into account the local environment, geography, temperature etc. So that various claims/complaints regarding speedy, faulty meters or meter tempering by DISCOs can be avoided.

- DISCOs should implement Zero Tolerance Policy on Safety Violations. Procurement of quality Tools and Personal Protective Equipment for Linemen. Development of Safety Manual and SOPs according to modern utilities and best practices in the world.

NEPRA Tower, Attaturk Avenue (East), G-5/1, Islamabad
Ph: +92 51 2013200, Fax: +92 51 9210215
E-mail: info@nepra.org.pk, web: www.nepra.org.pk