



















SAARC ENERGY CENTER (SEC) CONVERTING ENERGY CHALLENGES INTO OPPORTUNITIES FOR DEVELOPMENT



### About SAARC Energy Centre (SEC)

Energy cooperation is a driver for the SAARC process leading to durable peace in the region. SAARC Energy Centre has been created through Dhaka Declaration in 2005, as the Special Purpose Vehicle to realize the vision of SAARC leaders to establish an Energy Ring in South Asia. It has started journey from 1st March 2006 in Islamabad. SAARC energy cooperation program provides a major substantive element for economic prosperity of South Asia through meeting the energy demand of the countries. SAARC Energy Centre is converting energy challenges into opportunities for development. It is the platform involving officials, experts, academia, environmentalists and NGOs to tap potentials of cooperation in energy sector including development of hydropower, renewable and alternative energy, promoting technology transfer, energy trade, energy conservation and efficiency improvement in the region.

Vision:

The Centre is envisioned as a catalyst for the economic growth and development of South Asia region by initiating, coordinating and facilitating

regional as well as joint and collective activities on energy.

### Mission:

The Centre will provide technical inputs to the SAARC Working Group (and other) meetings on Energy, and will facilitate accelerating the integration of energy strategies within the region by providing relevant information, state-of-the-art technology and expertise.



### SAARC ENERGY CENTRE (SEC)

697, St 43, Sector E-11/4 (NPF) Islamabad, Pakistan Tel.: +92 - 51 - 222 8802 & 04 Fax: +92 - 51 - 222 1937 E-mail: info@saarcenergy.org Web Site: www.saarcenergy.org Twitter: @sec **QUARTERLY ISSUE, 2019** 

### Content

Editor in Chief: Ms. Mehnaz Khurshid Gardezi

Concept & Design: Ms. Mehnaz Khurshid Gardezi

Contributing Editor: Mr. Arshad Munir

Publisher: SAARC Energy Centre

Phone: +92 - 51 - 222 8802 & 04 Fax: +92 - 51 - 222 1937

E-mail: info@saarcenergy.org Web: www.saarcenergy.org

- 04. Message from the Director
- 05. Messaage from the Secretary General
- 06. Director, SEC meets Foreign Secretary

Webinar on Sharing Australian 07. Experiences in Solar PV Technolog

> Dissemination Webinar on Promotion of Energy Conservation

- 09. in Muncipalities of SAARC
- SAARC Energy Center Joint Audit

Mr. Mohammad Naeem Malik Director, SEC

called on Ms. Tehmina Janjua Foreign Secretary, Pakistan





Webinar on Sharing Australian Experiences in Solar 07. PV Technology



07. **ACTIVITY** CALENDAR



DISSEMINATION WEBINAR ON PROMOTION OF ENERGY **CONSERVATION IN MUNCIPALITIES OF SAARC** 

### Message from the Director





SEC started its journey in 2006 as technical arm of the SAARC Secretariat on all Energy related matters. Since then, the Centre is striving hard to implement the vision of SAARC Heads of States by providing an important platform for the Member States to cooperate and engage with each other, to work collectively to overcome the challenges of energy crisis in the region. The Centre has paved way for the region to pool its vast knowledge and expertise and also bring latest international skills to capitalize on synergies in the energy sector.

With the economic development, nations energy needs and priorities change. As the economies develop, we have to adopt more efficient technologies for provision of energy services at affordable prices. In line with the economic evolution, SAARC Energy Center always kept itself abreast to latest technological development and facilitated Member States in the same spirit.

During 2018 SEC was more focused on reduction in region's dependency on imported oils, through programs such as Promotion of Energy Conservation, Study on mobilizing International and Regional Financing / Funding for Implementation of Renewable Energy Projects in the Member States, SAARC Energy Outlook 2030, requirement of Infrastructure and importance of enabling environment for road electric transport and trade etc.

For the year 2019, SEC has developed a strategy to start the demonstration projects in other Member States in alphabetical order and to increase the ratio of physical projects.

We are also focused on Training on "Energy Conservation and Efficiency in Buildings", Action Plan for "Electricity to Introduce EV Charging Infrastructure" (India, Pakistan and Bhutan) and capacity building etc. Further to the guidelines by His Excellency, Secretary General of SAARC for inclusion of physical projects in our programs, SEC will launch two Solar PV Demonstration Pilot Projects, initially in Afghanistan and one at the SAARC Secretariat.

The work programs of the Centre are demand driven. This edition will bring you an idea of latest energy developments and insight in South Asia. We present a brief look at each story as well as the opportunity where SEC took a proactive approach and emerged as a credible energy Center in the region. We encourage the reader to give input for next year's programs.

My sincere appreciation and thanks to Ms. Mehnaz Khurshid Gardezi, Editor- In -Chief of this issue and all those who contributed towards bringing out this edition.



H. E. Mr. Amjad Hussain B. Sial Secretary-General of the South Asian Association for Regional Cooperation (SAARC)

Regional cooperation in energy received impetus with the identification of the concept of a "South Asia Energy Ring" during the Twelfth SAARC Summit in Islamabad in January 2004. In 2005, the leaders of SAARC decided to establish the SAARC Energy Centre, which has been working as a Centre of Excellence in initiating, coordinating and facilitating regional cooperation in energy.

The SAARC Framework Agreement for Energy Cooperation signed during the Eighteenth SAARC Summit in Katmandu in November 2014 is a milestone achievement. The Agreement is aimed at facilitating unrestricted cross border trade of electricity. I wish to avail myself of this opportunity to commend the role being played by the SAARC Energy Centre (SEC) in promoting energy cooperation in the region.

I wish the Centre great success in its future endeavours.

AMJAD HUSSAIN B. SIAL

Home to about one fourth of the global population, South Asia, with tremendous human and natural resources, has great potential for socio-economic development. The region also has abundant energy resources, which are yet to be fully tapped. On the other hand, rapid urbanization and fast economic growth have led to unprecedented surge in the demand for energy, requiring effective collabroation among the Member States in energy generation, its efficient use, transmission, trade and integration of energy strategies.

The process of regional cooperation in energy began with the establishment of a Technical Committee on Energy in 2000. Recognizing that this vital area of cooperation required focused attention, the Council of Ministers established a specialized Working Group on Energy, replacing the erstwhile Technical Committee.





Mr. Mohammad Naeem Malik, Director SEC meets H.E. Ms. Tehmina Janjua, Foreign Secretary, Pakistan.

Director SEC, Mr. Mohammad Naeem Malik presented Ms. Tehmina Janjua with a volunteer cheque for the Diamer-Bhasha & Mohmand Dam fund from the SEC staff.

Ms. Tehmina assured full co-operation to the energy centre in accomplishing their goal to meet expectations of people of the region towards energy access to all.

Director SAARC Energy Center (SEC) presents a voluntary donation's cheque from SEC staff to Ms. Tehmina Janjua, Foreign Secretary, Ministry of Foreign Affairs, Islamabad for the Dam Fund.





Opening by Mr. Merrille Gonnetilleke, Chairman Governing Board, SEC

### SAARC WEBINAR ON SHARING AUSTRALIAN EXPERIENCES IN SOLAR PV

26 FEBRUARY 2019, ISLAMABAD, PAKISTAN SAARC Energy Centre (SEC), Islamabad had successfully conducted a SAARC Webinar on "Sharing Australian Experiences in Solar PV Technology" on Tuesday, February 26, 2019. The Webinar highlighted Australian experiences in Solar PV with the SAARC Member States. The experts from Australia shared best practices, case studies and provided participants with information on

successful policy interventions and large scale programmes /projects implemented in field of Solar PV by Australian Government.

The Webinar was attended by professionals, delegates from Member States,

Representatives of Regional/International organizations, academia and private sector.

The Webinar report, presentations and photographs are available on SEC website.

### DIRECTOR, SEC MEETS FINANCE MINISTER, PAKISTAN

Mr. Mohammad Naeem Malik, Director SEC, called on Mr. Asad Umar, Finance Minister, Ministry of Finance, Islamic Republic of Pakistan. They discussed matters of mutual interests and Mr. Mohammad Naeem Malik, Director, SEC congratulated Mr. Asad Umar on his oath taking as Finance Minister..





Ms. Mehnaz Khurshid Gardezi Communication Specialist SAARC Energy Centre

Ms. Mehnaz is Editor in Chief of SAARC Magazines and is responsible for all external communication with the SAARC Secretariat & Member States. She has expertise in Programme Management, Humanitarian Development, Media & Communications & Gender.

Ms. Mehnaz Khurshid Gardezi joined SAARC Energy Center (SEC) as a Communications Specialist on 13th March 2019. She worked with leading national, regional and international organizations.

Ms. Mehnaz is a multifaceted Communications Specialist with eight (8) years' experience, a dedicated professional who is passionate and highly motivated individual with written and verbal communications and a thorough understanding of communications tools. She energetically communicating with both the internal and external stakeholder of SAARC Energy Center (SEC). She is committed to engage and maintain audience through print, electronic and social media.

Ms. Mehnaz holds a Masters degree in Information Technology from Mohi-Ud-Din Islamic University. She is currently pursuing her Bachelor's degree in Law..

### GEOHECRAS ONLINE WEBINAR TRAINING SESSION

13 FEBRUARY, 2019 SEC

Professionals of SAARC Energy Center attended an online training on GeoHECRAS software, delivered by Engr.
Chuck Baker of CivilGeo group on 13th February this year.
GeoHECRAS is an AutoCAD and ESRI ArcGIS compatible interactive 2D/3D graphical user interface data wrapper to the US Army Corps of Engineers HEC-RAS software. The one hour training session provided an introduction to some of the advanced capabilities of GeoHECRAS. Director SEC appreciated CivilGeo group for arranging this insightful session for the SAARC professionals and share his warm wishes to promote the use of modern computing tools among the energy professional community of SAARC region.



# Dissemination Webinar on Promotion of Energy Conservation in Municipalities of SAARC

12 MARCH, 2019 SAARC ENERGY CENTRE

SAARC Energy Centre had successfully organized a Webinar on "Promotion of Energy Conservation in Municipalities of SAARC" on 12th March 2019.

The objective was to promote and encourage the culture of energy conservation in Municipal sector, share best practices for energy conservation in the urban municipalities & to increase the sense of competition among municipalities in the area of energy conservation.

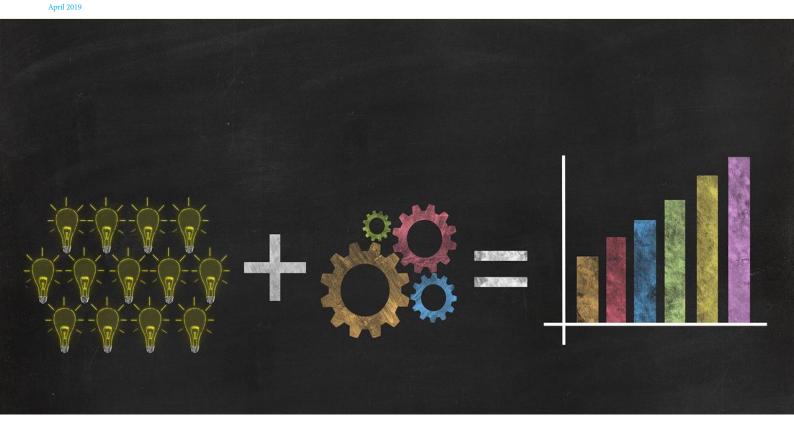
The webinar discussed about Energy consumption in Municipalities & potential areas for energy savings, Role of municipalities in energy conservation – International best practices, Smart Cities of Future, Solar street lighting and Ultra LEDs for buildings. The experts during the course of the webinar suggested solutions and recommendations for effective implementation of energy conservation and efficiency in Municipalities. The webinar was attended by officials from municipalities/ local governments/urban local bodies and relevant Government departments of SAARC Member States. The webinar presentations, report and photographs are available on the SEC website.

### SAARC ENERGY CENTER(SEC) JOINT AUDIT



Joint Audit on the Accounts and Operations of SAARC Energy Center (SEC) for the period 1st January to 31st December 2018 was conducted by joint Audit Team from Pakistan and Nepal and was facilitated by SEC Office in Islamabad.

06 MARCH, 2019 SEC



### PROGRAMME ACTIVITIES FY - 2019

KNOWLEDGE SHARING WORKSHOPS

SAARC Energy Center(SEC)'s upcoming activities under its approved programme for FY 2019 are as follows;

- Dissemination Workshop for the Study on "Promotion of Trans-Border Business of Crude Oil and Petroleum Products in the SAARC Region". (02 days; Nepal)
- on "Mobilizing International & Regional Finances/ Funding for Implementation of R.E. Projects in SAARC Member States". (02 days; Pakistan)
- Dissemination Workshop for the Study on "Infrastructure and Enabling Environment for Road Electric Transport in SAARC Member States". (02 days; India)
- Dissemination Workshop for the Study on "SAARC Energy Outlook 2030". (02 days; Nepal)
- Dissemination Workshop for the Study on "Development of Roadmap for Implementation of Smart Grid: Concepts, Practices and Technologies in SAARC". (02 days; Bhutan)
- Workshop on "Participation of Private Sector in Overcoming Energy Poverty in SAARC Member States". (02 days; Sri Lanka)
- Workshop on "Promotion of RE Net-Metering in SAARC Member States". (02

- days; India)
- Webinar on "Waste-to-Energy Municipality-level Demonstration Project in Selected Areas of Member States"
- Webinar on "Hybrid RE Power Plants: Opportunities and Challenges"
- Webinar on "Use of Solar Energy in Water Desalination"
- Webinar on "Sharing Australian Experiences in Solar PV Technology"
- Webinar on "Exploring Financing Opportunities for Clean Energy, Environment and Energy Efficiency Projects"
- Webinar on "Promotion of Energy Conservation in Municipalities of SAARC"
- Webinar on "Solar PV System Design and Simulation Using Appropriate Software"



### PROGRAMME ACTIVITIES FY - 2019

### **STUDIES**

- Study on "Possible Uses of Crop Residue for Energy Generation Instead of Open Burning"
- Study on "Assessment of "Industry Readiness for Manufacturing of Battery Electric Vehicles in SAARC countries (India and Pakistan)"
- Study on "Assessment of Clean Power Generation Technologies Using Low Calorific Value Coal in SAARC Region"
- Study on "Assessment of Pipelines as Preferred Mode of Movement of Crude/Oil Products Within SAARC Member States"
- Study on "Action Plan for Electricity
   Utilities of SAARC Countries to Introduce
   EV Charging Infrastructure" (India,
   Pakistan and Bhutan).



### SPECIAL PROJECTS

- SAARC Solar PV Demonstration Project: Tapping the Indigenous Generation Resources. (Afghanistan). Roll-over from 2018
- 2. Development of "SAARC Energy Data Portal"
- 3. Capacity Building of SEC Professionals Through External Expert Services
- Training for Professionals of Afghanistan Public Private
   Partnership Unit and Afghanistan Electricity Regulatory
   Authority on Power Regulatory System. (5-days; Pakistan)
- 5. Training on "Energy Conservation and Efficiency in Buildings". (03 days; Sri Lanka)
- SAARC Solar PV Demonstration Project: Tapping the Indigenous Generation Resources. (Nepal)

## DIRECTOR SEC MEETS MR. REHMATULLAH BALOCH, VICE CHAIRMAN / MEMBER BALUCHISTAN, NEPRA

7 FEBRUARY 2019, ISLAMABAD PAKISTAN

SEC team lead by Mr. Mohammad Naeem Malik, Director, SEC met with the Vice Chairman National Electric Power Regulatory Authority (NEPRA) on Thursday, 7th February. Being the federal regulatory authority of Pakistan, NEPRA is mandated to enforce transparent and judicious economic regulations in country's power industry. These regulations ensure a coordinated, reliable and adequate supply of electric power across the country and promote a competitive power industry. In the meeting, Mr. Mohammad Naeem Malik, Director, SEC appreciated NEPRA's critical role towards modernization of Pakistan's power sector over the past two decades. He also invited NEPRA's lead to join hands with SAARC Energy Center's upcoming initiative to train a group of power sector professionals from Ministry of Energy and Water, Afghanistan on the power system regulatory operations. Both agreed to organize the training in Islamabad from 16th - 20th September 2019.

## MEETING WITH DR. MOHAMMAD ABBAS VICE CHANCELLOR VIRTUAL UNIVERSITY, PAKISTAN

13 FEBRUARY 2019, ISLAMABAD PAKISTAN

SEC team expresses its deepest condolences to Virtual University Pakistan for the sad demise of its Rector, Dr. Mohammad Abbas in March, this year. Been recently elected as Rector of VU, Dr. Abbas had so much to give to the SAARC region. SEC and VU Pakistan have been collaborating since 2015 to promote distance learning culture in the region. Together, they have developed the first ever SAARC Basic and Advanced courses on Power System Planning that would facilitate the ever-busy power planners of the SAARC region to update and strengthen their knowledge online. The late Dr. Abbas had also visited SEC office in Islamabad on 13th February this year, where he had expressed his strong commitment to expand the ongoing SEC-VU collaboration to promote online learning for SAARC professionals.



MR. MOHAMMAD
NAEEM MALIK,
DIRECTOR, SEC MET
TEAM OF SOLAR
HOME SYSTEMS

13 MARCH 2019 ISLAMABAD PAKISTAN

Ms. Sadia Tabasum, Head of Sales, Rural Energy Solutions Ltd. called on Director SEC along with her team on 13th March. She presented the work; her company is doing to strengthen the rural communities of Pakistan through portable and affordable Solar Home System (SHS) products. She also shared the inspiring story of a Slum school in Faisalabad where the children were provided with solar bags to provide light in the night for study. Director SEC appreciated the efforts of Rural Energy Solutions Ltd. and expressed his strong support for promoting the use of solar products in alleviating energy poverty in South Asia.



# DIRECTOR SEC, MET A VISITING TEAM OF UNIVERSITY OF ENGINEERING AND TECHNOLOGY, PESHAWAR

13 MARCH. 2019 SEC

A visiting team of UET Peshawar, headed by Dr. Gul Muhammad Khan, met with Director SEC on 14th March. Dr. Gul is the project director of Center of Intelligent Systems and Networks Research (CISNER) at UET Peshawar. He shared his center's work in smart grid technologies research. He also presented an electricity metering device, named as 'Electrocure', that his center developed indigenously. Dr. Gul apprised the Director SEC that the Electrocure meter works using the modern cloud computing features, which makes the device significantly cheaper then the commercially available smart meters in SAARC Region. He also shared the results of pilot field trials of Electrocure meter whereby the device helped in quick identification of phase unbalance on distribution transformers thus leading to actions which reduced the feeder losses significantly. Director SEC appreciated the inhouse R&D efforts of CISNER instituted and expressed his warm support in promoting their work across the SAARC region.

# DD (COORD) MET COMMERCIAL COUNSELOR MR. WANG ZHIHUA, EMBASSY OF CHINA

### 28 FEBRUARY. 2019 ISLAMABAD

Dr. Shoaib Ahmad, Deputy Director(Coord), SEC, met Mr. Wang Zhihua, Commercial Counselor and his team at the Embassy of the People's Republic of China,

Islamabad on 28 February 2019 . Dr. Shoaib made a detailed presentation on SAARC Energy Center (SEC) work and highlighted its energy related contributions.

Mr. Wang appreciated SEC's efforts in improving energy situation in South Asia and assured full cooperation of China for energy technologies; especially small hydro, photovoltaic, wind and biomass technologies. He also promised to introduce SEC to different academic, research and energy related institutions in China.

The meeting ended with exchange of souvenirs from both sides.

### MEETING WITH DR. MARTIN HERZER HEAD OF ECONOMIC SECTION GERMAN EMBASSY

### 14 FEBRUARY. 2019 ISLAMABAD

A team of SEC professionals led by Director, Mr. Mohammad Naeem Malik met with Dr. Martin Herzer Head of Economic Section, Embassy of the Federal Republic of Germany, Islamabad on 14 February 2019. Both sides discussed the opportunities of mutual cooperation in the field of energy. Special emphasis was given on the transfer of knowledge and technologies for power generation using Photovoltaic and coal.

