

# 2<sup>ND</sup> INTERNATIONAL HYDROPOWER CONFERENCE - PAKISTAN 2022

Theme: Sustainable Dams and Drains in mitigating the Climate Change

December 21, 2022 - Islamabad **Serena Hotel**

CHALLENGES  
PROGRESSION  
PROSPERITY



ORGANIZED BY



SUPPORTED BY



PEDC



International Hydropower  
Association

## INDUSTRY REVIEW

Development of Hydro Power Plant (HPP) has always been big challenge due to its complexity, gestation period and inherent risks associated with it unlike developments of any other fossil fuels or wind & solar based power plants. Globally, China takes the lead in development of mega hydroelectric Dams. It consists of world largest power station having 22,500 MW installed capacity with annual production nearly reached 112 TWh in 2020. China remains the world leader in respect of total hydropower installed capacity with over 370 GW; thereafter Brazil, USA, Canada and India lead in world's hydro power plants. The world hydropower installed capacity reached at least 1360GW in 2021 and generation hit a figure of 4,252 (TWh) approx. In year 2021 alone, 26 GW was added to the world's total hydropower installed capacity

The total installed capacity of the hydropower stations in Pakistan is about 10852MW, out of which 5789 is in KPK, 2524 MW in Punjab, 2370 MW in AJK and 169 MW in Gilgit Baltistan. However, an abundant hydel potential is still untapped which needs to be harnessed.

Today, no country has come close to achieving 100% renewables without hydropower in the energy mix. According to REN21 2020, around 60% of all renewable electricity is generated by hydropower. The Independent research suggested that use of hydropower instead of fossil fuels for electricity generation has helped to avoid more than 100 billion tons of carbon dioxide in the past 50 years alone.

Pakistan has approx. 64GW of hydropower potential but due to non-hydroelectric development culture in the country during the last 4-decades, it has yet reached 10 GW. But now, with the arrival of present government, multiple developments of various dams and power stations are on full-swing, these included Diamir-Basha, Mohmand, Dasu, Tarbela 5th Extn HPPs etc. Further, under Game Changer's CPEC Projects many other hydro power plants are already being built in KPK, Punjab, and Azad Kashmir. It's imperative that the situation of water storage, flood tackling and power generation through cheap, ingenious and clean energy would make the economy of Pakistan better than ever.

To meet the projects financing demand of other HPPs in Pakistan under Public-Private-Partnership (PPP), recently WAPDA had successfully launched Green Eurobond (Indus bond) in 2021. PPIB and other Govt Institutions are playing pivotal role in attracting Private Sector and Financing Institutions for development of much needed hydropower sector for sustainable, greener and prosper Pakistan. Moreover, with rapid developments of over 1000 Mini-Macro Power Projects in KPK alone is benefitting the local communities.

## OBJECTIVES

01

### Contemporary Techniques

To learn about latest developments and modern techniques; about the hydro power stations that are being built Worldwide and in Pakistan

02

### Challenges

To learn directly from national & international Projects Consultants about Challenges in meeting the deadlines to achieve CODs

03

### Substantial Knowledge

To gain substantial knowledge about Government's Policies vis-a-viz Water & Power

04

### Renewable Energy

To foster Renewable Energy Resources in mitigating the Climate Change

05

### Multipurpose Dams

Roles of multipurpose Dams in power generation and shaving the flood peaks

06

### Networking

To build network and strengthen relationships with peers



# Thematic Sessions

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Ceremonial with  
Keynote  
Addresses on reaping  
benefits from  
Hydroelectric Dams



HPPs Challenges,  
Sustainability and  
Upgradation to  
Generate-Transmit-D  
ispatch (GTD) of  
clean and cheap  
energy to the  
consumers



Energy Storage,  
Integrated  
Energy,  
Transmission &  
Dispatch



Project  
Financing,  
Co-Financing  
Opportunities to  
get best ROIs



Concluding  
Remarks  
with Conference  
Recommendations



# TOPICS

- 1** Government Policies, Guarantees & ROIs
- 2** Indicative Generation Expansion Plan (IGCEP)
- 3** Competitive Trading Bilateral Contract Market (CTBCM)
- 4** Design & Construction: Civil Works & Project Safety
- 5** Hydropower, an unmatched booster for local construction industry
- 6** Modernize Hydro Power Stations
- 7** Mitigating Climate Change with Dams
- 8** Investments, Financing and Co-financing Opportunities
- 9** Hydro Hybrid: Floating Solar Energy Prospects or go for Wind
- 10** Pumped Storage: Energy storage technologies
- 11** Asset Management: Integrity, O&M and Reliability
- 12** Small Hydro Power Stations for Sustainable Villages
- 13** Social & Environmental Impacts on Communities due to displacements Smart & Micro Grids and Transmission Challenges

# OUTCOMES

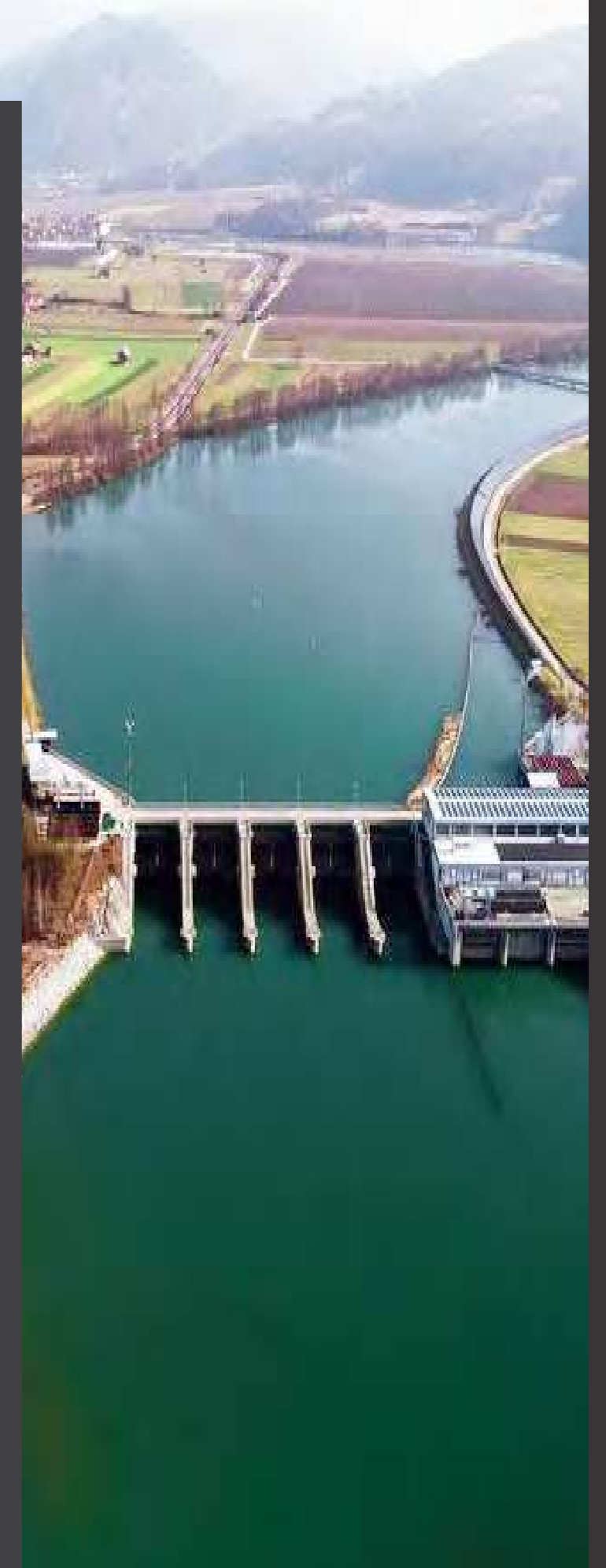
- Support the initiatives to avail cheapest and sustainable energy resource
- Collaborate and develop Partnerships with Hydro Experts, Academia and Financing
- Submit the Conference Multiple Sessions' Outcomes to the authorities concerned for necessary actions, corrective decisions-making and avail other alternative opportunities

## Conference Participants

This interactive conference will attract around 250 participants from national and international Renewable Energy, Water & Power Industries i.e. Foreign Delegates, Consultants, Investors & Financers, Banks & DFIs, Research Labs, OEMs Suppliers, O&M Contractors, Project Planners, Energy Experts, Researchers, Government Departments, Academia and Media.

## Event Organizer

Monthly Energy Update - Pakistan's premier monthly magazine dedicated to the Energy Sector, Power Generation, Oil & Gas, Alternate & Renewal Energy, Environment and Engineering. It was launched to fill the niche, as this important and vibrant sector lacked a dedicated publication, and it is the stated aim of the magazine to become the 'voice of industry'. The magazine has completed its journey of 16-years of successful publications. The Team Energy Update is also actively engaged in providing platforms for Energy Industry by organizing and managing various successful events in recent past like Solar Clean Energy Pakistan, Conferences on LNG and CNG-CONEX, LPG ExpoCon, Wind Energy Summit as well as Webinars on Renewable Energy. These interactive events were largely attended by local and international delegates and government officials.



ORGANIZED BY

SUPPORTED BY

PPIB

International Hydropower Association



# PHOTO GLIMPSSES OF 1<sup>ST</sup> INT'L HYDROPOWER CONFERENCE



# 2<sup>ND</sup> INTERNATIONAL **HYDROPOWER**

## CONFERENCE-PAKISTAN 2022

DECEMBER 21, 2022 | ISLAMABAD, SERENA HOTEL

### CONFERENCE REGISTRATION FORM

#### REGISTRATION FORM

**Name of Participant(s):**

1. \_\_\_\_\_ 2. \_\_\_\_\_

3. \_\_\_\_\_ 4. \_\_\_\_\_

**Company:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Participation fee:** \_\_\_\_\_

**Payment through online:** \_\_\_\_\_

\_\_\_\_\_  
**Authorised signature  
& Company seal**

#### CONFERENCE FEES

*(Fee included networking tea, food  
and certificate)*

@ PKR 25,000 + Taxes per participant  
(1-3 persons)

@ PKR 20,000 + Taxes per participant  
(Group of 4 or above persons)

#### ACCOUNT DETAILS

**Payable in advance via Online Transfer:**

Account Title: **Monthly Energy Update**


MCB Bank Limited


1422 Mehdi Tower, Branch,


Shahra-e-Faisal, Karachi


**IBAN:** PK66 MUCB 1029 0940 7100 3748

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