



PAKISTAN'S ENERGY SECTOR

ISSUES, CHALLENGES AND THE WAY FORWARD

Report of the

National Seminar on

Pakistan's Energy Sector

Issues, Challenges, and the Way Forward

NUST Institute of Policy Studies (NIPS)

NUST | Islamabad

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Participants

Speakers

- Ms Veeraya (Kate) Somvongsiri, Mission Director, United States Agency for International Development (USAID), Pakistan.
- Mr. Muhammad Ali, Former Caretaker Federal Minister for Energy, Power & Petroleum.
- Mr. Noor Ul Arifeen Zuberi, Senior Advisor, China Three Georges South Asia Investment Ltd.
- Dr. Fiaz Ahmad Chaudhry, Professor and Werner-Von-Siemens Chair, Syed Babar Ali School of Science and Engineering.

Moderator

- Dr. Ashfaque Hasan Khan, Director General, NUST Institute of Policy Studies (NIPS).

Discussants

- Dr. Osman Hasan, Pro-Rector Academics, NUST.
- Ambassador Fauzia Nasreen, Former Ambassador of Pakistan to Nepal, Poland and Czech Republic.
- Dr. Amir Azam Khan, Principal, NUST School of Chemicals & Materials Engineering (SCME).
- Dr. Adeel Waqas, Principal, US-Pakistan Center for Advanced Studies in Energy, NUST.
- Dr. Abdul Qayyum Khan, Principal, School of Art, Design and Architecture, NUST.
- Professor Dr. Rizwan Ashraf, Principal, NUST School of Health Sciences (NSHS).
- Dr. Majid Ali, Associate Professor, Department of Thermal Energy Engineering, USPCAS-E NUST.
- Dr Nadia Shahzad, Associate Professor, Department of Energy System Engineering, USPCAS-E NUST.

- Dr Rabia Liaqat, Associate Professor, Department of Thermal Energy Engineering, USPCAS-E NUST.
- Dr. Muhammad Yousaf, Assistant Professor, Department of Electrical Power Engineering, USPCAS-E NUST.
- Dr. Faisal Jamil, Head of Research, School of Social Sciences and Humanities (S3H), NUST.
- Dr. Hafiz Mubbasher Anwer, Director (Exploration), Ministry of Energy, Petroleum Division.
- Mr. Ali Shah, Director, NUST Institute of Policy Studies.
- Mr. Amer Iqbal, Former President, Rawalpindi Chamber of Commerce & Industry (RCCI).
- Dr. Khalid Waleed, Research Fellow, Sustainable Development Policy Institute (SDPI).
- Ms Irum Zaidi, Advisor to Pro-Rector, Research, Innovation & Commercialisation (RIC) NUST.
- Mr. Baseer Daud, Former Member, Islamabad Chamber of Commerce & Industry (ICCI).
- Mr. Muhammad Afzal Malik, Chief Executive Officer, Universal Systems Engineering and Networks (USEN).
- Mr. Muhammad Shakir, Senior Research Officer, Center for International Strategic Studies, Islamabad.
- Mr. Faisal Kabir, Deputy Director Projects, Research, Innovation & Commercialisation (RIC) NUST.
- Mr. Umer Farooq, Senior Assistant Director Administration & Exam, SEECs NUST.
- Faculty, US-Pakistan Center for Advanced Studies in Energy (USPCAS-E).
- NIPS Core Team.
- NUST Student



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About the Speakers

Ms Veeraya (Kate) Somvongsiri

Ms Somvongsiri is a career member of the Senior Foreign Service, assumed the role of Mission Director for USAID Pakistan in August 2023. Prior to this, she served as the Mission Director to Tanzania from 2021-23, Deputy Mission Director in Tanzania from 2019-21 and was Acting Deputy Assistant Administrator for USAID's Bureau of Democracy, Conflict, and Humanitarian Assistance from 2017-19. She has served as a Democracy, Rights and Governance Officer in Indonesia, Afghanistan, Ukraine, and Washington. Ms. Somvongsiri began her career with USAID in 2002 as a Presidential Management Fellow and joined the Foreign Service in 2006.



Mr. Muhammad Ali

Mr. Muhammad Ali served as the Caretaker Federal Minister at Ministry of Energy (Power Division). He has thirty years of domestic and international work experience in the public and private sectors, including as Chairman of the Securities and Exchange Commission of Pakistan.



He also Chaired the Committee on Power Sector Audit, Circular Debt Resolution and Future Roadmap which prepared a detailed report for reforming Pakistan's power sector, and was member of the negotiation team which successfully negotiated revised power tariff and signed the MoUs with private power producers.

Mr. Ali revamped the capital market and corporate governance landscape of Pakistan by ensuring successful passage and implementation of the Demutualization Act, 2012, and developing a revised capital gains tax regime.

He served on Boards of leading Pakistani corporates, stock exchange, credit rating agency, Capital Market Advisory Council, Federal Board of Revenues' Tax Advisory Group and Government of Pakistan's Economic Coordination Committee of the Cabinet. Moreover, he led the team advising the Government of Pakistan on IPOs of the largest Commercial bank and one of the largest E&P companies in the country.

Dr. Fiaz Ahmad Chaudhry

Dr. Chaudhry is an Electrical Engineer with over 34 years of experience in electric utility industry, consulting engineering and academic environments. He specializes in areas of energy policy, power system planning



and operation, restructuring of electric utilities, electricity markets, smart grid solutions, project, program and utility management. Prior to joining LUMS as Professor of Practice, he was MD, NTDC and held other senior management and practice lead positions in multiple electric utilities and two consulting engineering firms. He is founding Director of LUMS Energy Institute and also holds distinguished position of Siemens Verner-Von Chair. He supervises applied research projects for the electric utility industry and developing many technical and technology transfer courses for capacity building of professionals in Pakistan's Power Sector. He authored hundreds of technical reports and articles, given numerous technical talks and delivered keynote addresses and speeches internationally.

Mr. Noorul Arifeen Zuberi

Mr. Zuberi serves as a Senior Advisor for China Three Gorges South Asia Investment Limited (CSAIL), a subsidiary of China Three Gorges Corporation (CTG), a role he took on in 2015. In this capacity, he oversees the operations of China Three Gorges in Pakistan, which includes managing projects such as the 720 MW Karot, 1124 MW Kohala, and 640 MW Mahl Hydro Power Projects in AJK, as well as the 150 MW Wind Power Project. Notably, his



acumen and leadership were pivotal in commissioning the 720 MW Karot Hydro Power Project one year ahead of schedule on June 29, 2022, achieving significant cost savings.

With a robust career spanning over 45 years in the Power Sector of Pakistan, Mr. Zuberi has contributed significantly to prestigious institutions such as the National Engineering Services Pakistan (NESPAK), the Ministry of Planning & Development, and the Private Power Infrastructure Board (PPIB). Throughout his career, he has played a pivotal role in the development and implementation of various prestigious power projects.

Mr. Zuberi is a well-recognized repository of Independent Power Producer (IPP) knowledge in Pakistan. In recognition of his exceptional contributions, Mr. Zuberi was awarded the Outstanding Performance Employee by CTG in 2017.

1. Executive Summary

NUST's US-Pakistan Centre for Advanced Studies in Energy (USPCAS-E) in collaboration with the NUST Institute of Policy Studies (NIPS) organized the national seminar on Pakistan's energy sector issues, challenges, and the way forward on Thursday, May 16, 2024. Moderated by Dr Ashfaque Hasan Khan, DG NIPS, the seminar brought together leading energy experts and professionals, private sector representatives, and a large number of academics, scholars, researchers, and students.

The seminar's special guest, Mission Director USAID Pakistan, Madam Veeraya Kate Somvongsiri, was welcomed on arrival by Rector NUST, Lt. General Javed Mahmood Bukhari (Retd). Speaking at the occasion, USAID Mission Director appreciated the role of NUST in nation-building and highlighted that the U.S.-Pakistan cooperation was focused on stronger economy, better governance, and healthier and smarter people. Dr. Osman Hasan, Pro-Rector, Academics, NUST, in his opening remarks, emphasized the need for exploring affordable, resilient, viable, pro-people, and sustainable pathways to national energy futures.

One of the seminar's speakers, Dr. Fiaz Ahmed Chaudhry, Director, LUMS Energy Institute, underscored the need for energy efficiency and smart demand management to deal with the power shortfall as opposed to an exclusive focus on supply-side measures like increasing power generation capacity. Dr. Chaudhry proposed the

establishment of a national energy security council or a national energy commission as the apex body for dealing comprehensively with energy and power sector challenges.

Talking about the active role that the private sector could play in the development of the hydropower potential of Pakistan, Mr. N. A. Zuberi, Senior Advisor - CSAIL, highlighted that the unique and distinctive features of 750 MW Karot Hydropower Project, as a major private-sector success story, included the project's proximity to load centre, closeness to national grid requiring only 3 km of transmission line, no significant environmental impacts, and elaborate community development initiatives like hospitals, schools, bridges, roads, and engineering scholarships for the project area.

Highlighting the need for energy and power sector reforms, Mr. Muhammad Ali, former Caretaker Federal Minister for Energy, Power and Petroleum, proposed that the energy ministry needed to focus on policy and regulatory functions and devolve all other powers. He stressed the privatization of power transmission and distribution companies along with the unbundling of Sui companies coupled with greater private access to all parts of the energy and power supply chain to make commercially-driven and market-based solutions possible. The former caretaker energy minister stressed the need for the implementation of a robust supervisory, control and data acquisition system in the energy

sector consisting of well-head telemetric systems for gauging gas and crude oil reserves, on the one hand, and attracting investment for exploration and production of indigenous energy resources, on the other. The former minister also advocated the removal of all cross-subsidies and broadening the tax base to avoid burden on utilities to make things easy for common consumers.

In his closing remarks, Dr. Adeel Waqas, Principal, USPCAS-E, underscored NUST's commitment to pursuing high-quality innovative research, technology development, and human capital formation in energy science and engineering for sustainable national development.