

Concept Paper
SAARC Webinar on “Urbanization-Energy demand Nexus: Challenges and Mitigations”
Friday, 25 th October 2024: 1000 – 1200 hrs Pakistan Standard time (PKT)

Background

Urbanization involves demographic, social and environmental evolution in the form of physical and economic changes arising due to shift from primary sector (agriculture) to secondary/tertiary sectors like manufacturing and services. The physical changes are primarily the provision of utilities through a municipal entity compared to rural communities where most of these are managed individually or informally. Therefore, urbanization has direct relation with high increase in energy demand, that is influenced by various factors associated with the process of urban development. Urbanization leads to increased energy consumption due to energy intensive large buildings, lifestyle, energy intensive transportation, technological advancements, industrialization, waste management, urban heat Island effect, and nature of businesses etc. If we look at the global energy consumption, cities account for two third of global energy consumption and three-quarters of global carbon emissions. From the beginning of the twenty first century, more than 130 million population has been added to cities of the region. With the predicted increase of 2.5 billion in urban population by 2050, the energy consumption will also increase accordingly¹. Not an exception, urban population in South Asia has significantly increased (mainly in India, Pakistan, Bangladesh and Nepal), so has the energy demand².

Given the growth in the region, urbanization will continue at a very high rate in the future, which will result in increased energy demand. Per capita energy consumption in urban areas is almost double of the rural population. Increased urbanization reflects increased national energy demand³. Effective planning and policies are required to cater this ever-increasing energy demand to ensure future economic growth.

Introduction

In this context, SEC is organizing a knowledge sharing webinar on “Urbanization-Energy demand Nexus: challenges and mitigations” on 25th October 2024. The proposed webinar shall discuss the urban growth patterns in the SAARC Member States, the impact of urbanization on energy demand, and ways to better respond to resultant increase in energy demand. The Webinar shall feature presentations, and interactive discussion sessions led by resource person(s) from regional/ international market.

Objectives

The objective of the webinar is to explore the interconnected dynamics of urbanization and resultant increase in energy demand, identify key challenges, examine case studies, highlight technological solutions, discuss relevant policies and planning, explore mitigation strategies and encourage collaboration among member states for efficient energy consumption. By achieving these objectives, the webinar aims to contribute to a better understanding of the complexities surrounding urbanization and energy, fostering discussions that lead to actionable insights and solutions for more sustainable and resilient urban development.

¹ J. L. K. Z. J. F. M.-P. K. Qiang Wang, "Does urbanization lead to less residential energy consumption? A comparative study of 136 countries," *Energy*, p. 117765, 2020

² World Bank, "Demographic Trends and Urbanization," World Bank Group, Washington, 2021

³ M. Z. Pengjun Zhao, "The impact of urbanisation on energy consumption: A 30-year review in China," *Urban Climate*, pp. 940-953, 2018

Major Aspects /Topics to be covered during the Webinar

The following major areas/ topics shall be covered in this webinar:

- Introduction to Urbanization-Energy Nexus
- Impact of urbanization on energy demand and environmental consequences
- Responding to energy demand optimally, utilizing indigenous renewable resources
- Smart Cities and energy efficiency
- Mitigation Strategies and Best Practices to manage the increased energy demand
- Future Trends & Opportunities

Potential Professional Resource

During the Webinar, the experts/resource persons engaged for the purpose will deliver their presentations and respond to questions by the participants.

Venue of the Webinar

The webinar will be broadcasted from the office of SEC on Friday, 25th October 2024 from 1000 – 1200 hrs Pakistan Standard time (PKT).