

Greetings!!!

From the time immemorial, human race has survived, grown, flourished and prospered on the basis of energy produced, established and utilized. The invention of fire accidentally proved a major boost for early man to evolve into the modern world. This discovery paved ways to exploration of the tremendous potential. Major inventions of science focused on harnessing energy and converting it from one form to another to achieve mechanical work. Energy and Power are two of the most critical components of infrastructure crucial for the economic growth and welfare of nations. The existence and development of adequate infrastructure is essential for sustained growth of the Indian economy.

The power utility sector worldwide is characterised by a range of business model subsets – independent power producers, merchant generators, unbundled operators of network assets and others but at its heart is the core traditional power utility business model of companies delivering profit from a mix of generation, distribution and retailing activities across centralised grids. Companies have been used to high investment credit ratings enabling them to develop capital-intensive asset bases with predictable long-term cost recovery from a mix of regulated and unregulated returns. Sources of power generation range from conventional sources such as coal, lignite, natural gas, oil, hydro and nuclear power to viable non-conventional sources such as wind, solar, and agricultural and domestic waste. The Indian power sector is one of the most diversified in the world, compared to many developing countries where crude oil and natural gas and renewables play a major role. The demand for electricity in the country has also been growing at a rapid rate and is expected to grow further in the years to come.

Energy is the primary input for almost all economic activities and has become vital for improvement in the quality of life. In fact, the whole infrastructure rests upon energy. India ranks third among 40 countries in EY's Renewable Energy Country Attractiveness Index, on back of strong focus by the government on promoting renewable energy and implementation of projects in a time bound manner. India has a vast supply of renewable energy resources, and it has one of the largest programs in the world for deploying renewable energy products and systems. Indeed, it is the only country in the world to have an exclusive ministry for renewable energy development, the Ministry of Non-Conventional Energy Sources (MNES).

The increasing availability of green power enables electricity customers to accelerate installation of renewable energy technologies. As more green power sources are developed displacing conventional generation the overall environmental impacts associated with electricity generation will be significantly reduced. Green power has been an important agenda of India's energy planning process especially since climate change has taken centre stage in the domestic and international policy arena.

Indian power and energy sector are witnessing major changes over the periods. Growth of the concerned sectors in India since its independence has been noteworthy. The breakup of the components of power sector viz. generation, transmission and distribution has created a competition in the generation, open access transmission with retail competition in distribution. The competition in generation reduces cost of power, open access transmission provides access to transmission grid for various generation which enhances reliability of power supply. Government of India has taken various initiatives to achieve its aim of providing an affordable and environment friendly "power for all" by 2019, which include preparation of state specific action plans and implementation of Green Energy Corridor for transmission of renewable energy among other measures.

This issue presents a good number of articles on the cover story theme 'Transforming Energy Sector' by distinguished experts and authors. We look forward to constructive feedback from our readers on the articles and overall development of the journal. Please send your mails at editor@icmai.in. We thank all the contributors to this important issue and hope our readers enjoy the articles.

