

The Role of Natural Gas in Reducing Carbon Emissions

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Abstract : In the face of escalating climate change concerns, the concept of smart cities emerges as a promising approach to mitigate carbon emissions and move towards carbon neutrality. This paper provides a comprehensive review of the role of Natural Gas in achieving carbon neutrality. Natural gas has often been seen as a transitional fuel in the context of reducing carbon emissions. Its main role stems from being cleaner than coal and oil when burned for electricity generation and industrial processes. The urgent need to address this global issue has prompted a global shift towards cleaner energy sources and sustainable practices. In this endeavor, natural gas has emerged as a pivotal player, hailed for its potential to mitigate carbon emissions, and facilitate the transition to a low-carbon economy. With its lower carbon intensity compared to conventional fossil fuels, natural gas presents itself as a promising alternative for meeting energy demands while reducing environmental impact. As the world stands at a critical juncture in the fight against climate change, exploring the potential of natural gas as a transitional fuel offers insights into pathways towards a more sustainable and resilient future. By critically evaluating its opportunities and challenges, we can harness the potential of natural gas as a transitional fuel while advancing towards a cleaner, more resilient energy system. Through collaborative efforts and informed decision-making, we can pave the way for a future where energy is not only abundant but also environmentally sustainable and socially equitable.

Keywords : natural gas, clean fuel, carbon emissions, global warming, environmental protection

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