

Ministry of Coal initiates India's First Ever Pilot project for Underground Coal Gasification in Jharkhand

Initiative aims to Revolutionize the Coal Industry by using in-situ coal gasification to convert it into valuable gases such as methane, hydrogen, carbon monoxide and carbon dioxide for industrial applications

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Under the strategic direction of the Ministry of Coal, Eastern Coalfields Limited (ECL) has embarked on an innovative pilot project for Underground Coal Gasification (UCG) at the Kasta coal block in Jamtara District, Jharkhand. This underscores the Ministry's proactive diversification efforts within the coal sector. This first ever groundbreaking initiative aims to revolutionize the coal industry by using in-situ coal gasification to convert it into valuable gases such as methane, hydrogen, carbon monoxide, and carbon dioxide. These gases can be utilized to produce synthetic natural gas, chemical feedstocks for fuels, fertilizers, explosives, and other industrial applications. The Ministry of Coal is fully committed to promoting coal gasification projects, recognizing their potential to transform coal into various high-value chemical products.



Underground Coal Gasification offers a significant advantage by providing access to coal resources that are

economically unviable through traditional mining methods. This pilot project represents a significant milestone for Coal India Limited (CIL) and its subsidiaries, positioning India as a leader in adopting advanced coal gasification technologies.

In December, 2015, the Ministry of Coal approved a comprehensive policy framework for UCG in coal and lignite-bearing areas. In alignment with this policy, Coal India selected the Kasta coal block to implement UCG technology tailored to Indian geo-mining conditions. Managed by ECL in collaboration with CMPDI Ranchi and Ergo Exergy Technologies Inc. (EETI) from Canada, this project spans two years and comprises of two phases.



The first phase, which commenced on June 22, 2024, involves preparing a Technical Feasibility Report through borehole drilling and core testing. The second phase will focus on coal gasification at a pilot scale. This ambitious R&D project, funded by the CIL R&D Board, exemplifies collaboration between Eastern Coalfields Ltd and Ergo Exergy as sub-implementing agencies. The successful execution of this pilot project is expected to create transformative opportunities for India's energy sector, showcasing the sustainable and efficient use of the country's coal resources.

Ministry of Coal to provide unwavering support for the successful implementation of this pioneering initiative and looks forward to its positive impact on India's energy landscape. This strategic initiative led by Eastern Coalfields Limited (ECL) represents a significant advancement in coal gasification technology, enhancing energy security and promoting sustainable development. As the pilot project progresses, it aims to establish new standards in coal resource utilization, contributing to India's journey towards energy self-reliance. The Ministry remains dedicated to fostering innovation and efficiency in the coal sector, paving the way for a resilient and environmentally sustainable energy future for the nation.

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