

# Ministry of Coal hosts Roadshow on Coal Gasification-Surface and Underground Technologies in Mumbai

Posted On: 12 SEP 2025 4:30PM by PIB Mumbai

: Mumbai, 12<sup>th</sup> September 2025

The Ministry of Coal today hosted a high-level Roadshow on Coal Gasification- Surface and Underground Technologies in Mumbai, bringing together policy makers, industry leaders, investors, technology providers and other key stakeholders to accelerate India's shift towards cleaner and more efficient use of coal. The programme showcased how coal gasification can transform the nation's vast coal reserves into sustainable sources of energy and chemical feedstock, reduce import dependence and open up new avenues of economic growth.



Delivering the keynote address, Additional Secretary and Nominated Authority, Ministry of Coal, Ms. Rupinder Brar, highlighted the historic milestone of crossing 1 billion tonnes of coal production, describing it as a landmark achievement that underscores the sector's pivotal role in powering India's growth story. She emphasised that coal remains the country's most predominant source of energy and will continue to meet its growing requirements, playing an intrinsic role in driving economic growth and national development. Outlining the Ministry's far-reaching vision, she said coal gasification is being positioned as a central pillar of India's energy transition and industrial expansion. Ms. Brar underlined that coal gasification provides an environmentally friendlier way to utilise domestic coal reserves while producing clean fuels, chemicals, fertilisers and other value-added products essential for national self-reliance — a pathway that also symbolises "giving back to Mother Earth" by reducing the ecological footprint of coal use.

She highlighted that the roadshow reflects the Government's unwavering commitment to building a robust ecosystem for both surface and underground coal gasification projects. Ms. Brar called for scaling up indigenous technologies, strengthening research and development, fostering innovation, forging partnerships with private players to attract significant investments and evolving suitable business models to ensure the viability and long-term sustainability of gasification ventures. She urged stakeholders to think futuristically aligning every investment and innovation in coal gasification with global best practices in environmental protection, decarbonization, circular

economy principles and sustainable development goals so that India's energy security, industrial competitiveness and environmental stewardship progress hand in hand for decades to come.



A detailed presentation on coal gasification, highlighting its benefits, key enablers and proposed methodology, was showcased during the roadshow, underscoring its role in driving cleaner energy and industrial growth. It was explained that coal gasification converts coal into a synthetic gas (syngas) containing hydrogen (H), carbon monoxide (CO), methane (CH) and carbon dioxide (CO). This syngas can be used to generate electricity, produce fertilizers and chemicals, and serve as feedstock for hydrogen. The session also highlighted Underground Coal Gasification (UCG), which gasifies deep, unmineable coal seams in-situ using oxidants such as air, oxygen or steam. Hydrogen from UCG can power India's clean fuel and hydrogen economy initiatives, while syngas and value added products can be generated through partial oxidation of CO and H.

It was informed that UCG offer significant environmental and operational benefits. They exploit deep seated unmineable seams with minimal surface disturbance, less water usage than conventional coal processes, and enable the production of cleaner fuels such as methanol, dimethyl ether (DME) and synthetic natural gas (SNG).

As part of its action plan to promote coal gasification, the Ministry has undertaken wide-ranging stakeholder consultations with state governments, the Ministry of Environment, Forest and Climate Change (MoEFCC), Directorate General of Mines Safety (DGMS) and the Central Ground Water Board (CGWB) to ensure that safety standards are well understood and effectively implemented. A dedicated committee has been constituted to review mining plan guidelines and integrate UCG-specific provisions, while efforts are underway to streamline approvals and incorporate these provisions in the next round of coal mine auctions.

An interactive Q&A session allowed stakeholders to engage directly with senior officials and experts on policy frameworks, technology options and investment avenues in coal gasification.

By combining cleaner technology with robust regulatory and policy support, the Ministry of Coal aims to make coal gasification including Underground Coal Gasification a key pillar in India's journey towards sustainable and secure energy. The roadshow reaffirmed the Government's commitment to advancing innovative technologies and fostering partnerships to unlock new value streams from India's vast coal reserves in an environmentally responsible manner.

Follow us on social media:  @PIBMumbai  /PIBMumbai  
 /pibmumbai  pibmumbai[at]gmail[dot]com  /PIBMumbai  /pibmumbai

(Release ID: 2166006)