DIVERSIFICATION AGENDA OF CPSU's

Diversification was felt a necessity, especially in the light of climate change narrative, diversifying into non-coal, secure new businesses, productively utilize sizeable reserves/funds in their Balance Sheet, fiduciary responsibility towards long-term future of coal-mine workers, leveraging economic growth, particularly in eastern region, need to invest in coal mines and related infrastructure to eliminate substitutable coal imports and support coal gasification and likely coal exports.

1. Surface coal gasification:

Background:

- With reforms in the coal sector, private sector is now emerging as a major coal producing contributor. From a production of 93.468 million tonnes in FY 2022, the captive coal mines have produced 124.90 MT in 2023 and are likely to produce 224 MTs of coal in FY 2025.
- CIL coal production is poised to grow from 600 MTs in FY 2022 to 1 BT by FY 2025. This huge increase in coal production has opened up possibilities for supply of coal to other end uses after meeting the full requirement of power sector and thermal coal consumers.

- With comfortable coal availability, the Government has decided to promote gasification of coal in a big way. Coal gasification can yield multiple energy, chemical and petro-chemical products, most of which are presently being imported. For example, methanol can be used as a transport fuel, DME can be mixed with LPG for cooking, and ammonia has use in urea manufacture and ammonium nitrate as an explosive in the mining sector. India is import dependent for all the above products.
- In order to set up **02 Coal based** and one lignite based gasification project to promote indigenous gasification technology, Coal India Limited has signed two MOUs with BHEL and GAIL on 12.10.2022 to set up coal based gasification projects at MCL **Odisha** to produce ammonium nitrate using high ash coal and at ECL **West Bengal to produce** Synthetic Natural Gas with low ash coal. NLCIL has signed MOU with BHEL for Methanol from Lignite in **Tamilnadu** under the aegis of Ministry of Coal.

Details of Coal Gasification Projects

	CIL Subsidiary		NI CII
	ECL	MCL	NLCIL
Partnering with	GAIL	BHEL	BHEL
Product*	Synthetic Natural Gas	Ammonium Nitrate	Methanol
Product Quantity	633.6 Mn Nm3	Subject to PFR	0.396 MT
Mines	SonepurBazari (G4-G5)	Lakhanpur Mines (High ash)	Lignite
Coal (MT)	1.4 MMTPA	1.3 MMTA	2.26 MMTPA Lignite

2. Coal to Hydrogen Mission

- (i) Roadmap of Coal to Hydrogen has been prepared by Expert Committee.
- (ii) Roadmap of Coal to Hydrogen has been lunched by Hon'ble Minister of Coal in May'2022 at Mumbai.
- (iii) Initiatives for the 500 TPD demo scale coal to hydrogen plant has been taken by M/s EIL with technically support from BHEL. The study would be conducted with indigenous gasification technology (M/s BHEL) as directed by the Ministry.
- 3. PIT-HEAD THERMAL POWER PROJECTS:Coal India Limited (CIL), the largest coal mining company in the world, will set up following two Pithead Thermal Power Plants, through its subsidiaries, with a view to provide cheaper power to the country.
- a) 1×660 MW Supercritical Coal-Based Thermal Power Plant (TPP) at Amarkantak Thermal Power Station in Village Chachai, Anuppur District, Madhya Pradesh, through JV between SECL and Madhya Pradesh Power Generating Co Ltd (MPPGCL). SECL will invest Equity Capital

- of Rs.823 Crore (± 20%) by considering a Debt-Equity Ratio of 70:30 and 49% Equity Investment in JV Company with an estimated Project Capex of Rs.5,600 Crore (accuracy of ±20%) for the proposed 1×660 MW Supercritical Thermal Power Plant through JV of SECL and MPPGCL at Amarkantak Thermal Power Station in Village Chachai, Anuppur District, Madhya Pradesh.
- b) 2×800 MW Supercritical Thermal Power Plant, in Sundergarh District, Odisha, through 'Mahanadi Basin Power Ltd' (MBPL), a Wholly Owned Subsidiary of MCL. MCL will invest Equity Capital of Rs.4,784 Crore (± 20%) for the proposed 2×800 MW Super-Critical Thermal Power Plant in Sundargarh District, Odisha with an estimated Project Capex of Rs.15,947 Crore (accuracy of ±20%) through MBPL.

The Cabinet Committee on Economic Affairs chaired by the Prime Minister Shri Narendra Modi have approved proposal for equity investment on 18-01-2024 by (i) South Eastern Coalfields Limited (SECL) for setting-up 1×660 MW Thermal Power Plant through JV of SECL and MPPGCL; and (ii) Mahanadi Coalfields Limited (MCL) for setting-up 2x800 MW Thermal Power Plant through Mahanadi Basin Powe Ltd (MBPL - a subsidiary of MCL).