



Coal Gasification

Talcher Fertilizers Ltd.

04th March, 2022

Why Gasification for India – Strategic Benefits

- **Utilization of vast reserve of high ash indigenous coal in a sector other than conventional power production**
- **More environment friendly than directly fired coal plants – aid in fulfilment of commitments made under Conference of Parties**
- **The Gasification Project shall dependent on Indigenous Coal – Huge Foreign exchange Saving**
- **Opening of new route for making Fertilisers and Chemicals – Reduction in imports**

Talcher Fertilizers Project

Talcher Project – Salient Features

Sl.	Features	Description
1.	Talcher Fertilizers Ltd. registered	13.11.2015
2.	Foundation stone laying by Hon’ble PM	22.09.2018
3.	JV shareholding	CIL, GAIL & RCF – 31.85 % each FCIL – 4.45%
4.	Technology for Coal Gasification	M/s Air Product (Erstwhile M/s Shell)
5.	Capacity <ul style="list-style-type: none"> • Ammonia • Urea • Sulphur 	<ul style="list-style-type: none"> • 2200 MTPD • 3850 MTPD • 160 MTPD
6.	Total Area/Factory Area (acre)	933/439
7.	Raw Materials <ul style="list-style-type: none"> • Coal (Feed + Fuel) • Petcoke 	<ul style="list-style-type: none"> • 2.50 MMTPA • 0.33 MMTPA
8.	Sources: <ul style="list-style-type: none"> • Coal • Petcoke • Water • Power 	<ul style="list-style-type: none"> • Long term linkage from MCL • Paradip refinery, other sources • 17 MGD from Brahamani River • 90 MW
9.	Project Cost	INR 13,277 Cr.

- **Deployment of state of the art AP entrained bed technology – Processing of high ash containing Indian coal**
- **Financial closure achieved. Debt of INR 9560 cr. tied up**
- **Policy for realization price of urea notified**
- **Major LSTK/EPC packages awarded and tendering of balance OSBL packages to be done by June 2022**
- **Tenders amounting to more than INR 10,800 cr. awarded. Site work in progress**
- **Statutory approvals like EC, CTE, CTC etc. in place**
- **Overall physical progress ~ 20%, overall financial progress ~ 15%**

Fabrication of Gasifier – L&T

FABRICATION PHOTOS OF PRESSURE VESSEL



Skirt # SH 1+2+3 - 1st Gasifier



SH 4+5+6 - 1st Gasifier

FABRICATION PHOTOS OF PRESSURE VESSEL



SH 1+2+3 - 2nd Gasifier



SH 4+5+6 - 2nd Gasifier

Fabrication of Gasifier – L&T



QP Section – 1st Gasifier



QP Section – 2nd Gasifier

Benefits of TFL Project

Sl.	Project Benefits	Impact
1	Development of eastern India	Overall development of country
2	Better crop yield and agri business	Improved agriculture GDP
2	Utilization of indigenous source of energy (coal)	<ul style="list-style-type: none"> • Increased coal consumption • Reduced dependence on natural gas
3	<ul style="list-style-type: none"> • Reduced urea imports • Reduced Natural Gas imports 	<ul style="list-style-type: none"> • Saving of valuable foreign exchange • 2.32 MMSCMD Gas
3	Environment friendly Technology	<ul style="list-style-type: none"> • Supports CoP commitments • Reduced green house gases
4	Timely fertilizers availability	Increased food security
5	Employment opportunities and skill development	Socio – economic impact

- **Ensuring supply of uninterrupted & consistent quality of coal for project life – grant of long term coal linkage**
- **Impact of COVID**
- **Contextual issues related to issuance of VISAs to manpower of contractor**
- **Controlling time overrun due to COVID and cost overrun due to commodity price cycle**

Key Enablers for Gasification in India

- **Development of indigenous technology to gasify Indian coal – funding of related R&D by Govt.**
- **Formulation of Policy thereby ensuring consistent quality & uninterrupted supply of coal for gasification on priority from an identified mine at CIL notified price and not through auction of coal linkage**
- **Development of OEMs and vendors of coal gasification equipment under the auspices of Make in India initiative**
- **Facilitating investors through policy initiatives – single window clearance, ease in land acquisition, reduction in import duties for equipment's etc.**
- **Equity participation of Govt. at Central & State levels in such ventures for ease in project implementation**

Key Enablers for Gasification in India

- **Allocation of mine voids for ash disposal on priority for gasification project**
- **Discount to be provided in rail freight for transportation of coal to be used solely for gasification and ensuring availability of wagon**
- **Policy support for proliferation of coal gasification sector – Grant of VGF**
- **Waiver of GST Compensation Cess for Gasification**
- **Tax holidays and waiver of various duties and levies especially in the initial stages of production**

Thank You