Opportunity Track in Modernization Infrastructure for Thermal Power Plants in India- 2017

E-RP Market Research Series

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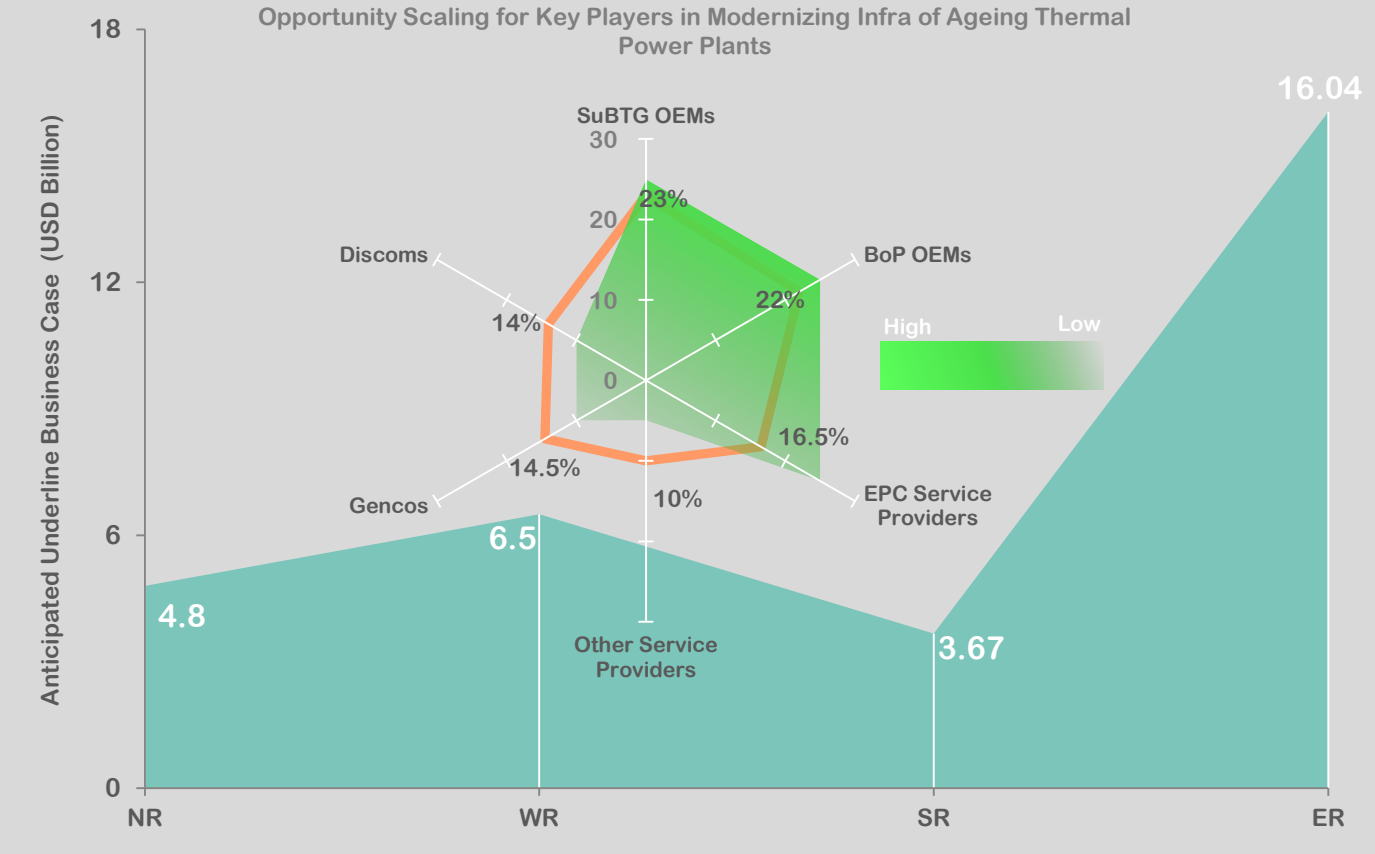
Why enincon's report upon " Opportunity Track in Modernization Infrastructure for Thermal Power Plants in India – 2017 ? "

LOWERING CARBON EMISSIONS, FOCUS ON SUPERCRITICAL FRESH CAPACITIES AND AGING THERMAL POWER PLANTS – STRONG BUSINESS CASE FOR MORDENIZATION OF INFRASTRUCTURE IN THERMAL POWER PLANTS OF INDIA

INCREASING THERMAL POWER PLANTS WITH AGE CLOSE TO 25 YEARS OR MORE, GLOBAL PRESSURES IN TERMS TO LOWER CARBON EMISSIONS AND PLANS OF GOVERNMENT TO HAVE FUTURE THERMAL CAPACITY ONLY UNDER SUPERCRITICAL THERMAL PRESENCE, SCORE OF OPPORTUNITIES IN AGEING THERMAL POWER PLANTS UNITS

India, historically has been dependent upon coal based thermal generation at large to meet its base load requirements which indeed is a polluting source of energy generation. Cognizant of this fact tagged as one of the fastest growing economies of the world, India has positioned itself gradually to migrate the alternative sources of electricity generation. Of the current installed capacity of 188 GW coming from the coal based thermal power plants, it is anticipated (arguable) 40-50 GW shall meet up their useful plant life criterion shortly or certainly exceed 20 years of their operation. With, such capacities functional at lower efficiencies it is pertinent to replace the same with modernized infrastructure with supercritical units. Recognizing this, one of the India's largest thermal power generator NTPC limited has already announced a plan of replacing 11000 MW of aging capacity through supercritical units. With fresh order due to come only from CPSUs or the respective SEBs, the opportunity stands limited for the key value chain players. Following this scenario, modernizing the infrastructure, presence huge opportunity even if we consider 11 GW out of 40 GW of capacity. However, challenges are intermittent like land area availability and inclusive R&R implications , the capex in modernization , potential fuel supply security and obviously the power off take. This development demands an in-depth and holistic study which shall be unfolded in our latest research to demystify the potential involved around the modernization of coal based thermal power plants in short, medium and long term basis. We shall conduct in-depth primary research well supported model based analysis to project the "MW" tune in which the modernization and capacity expansion will be a reality by both 2022 in mid – term and 2030 by long term.

Exhibit 01: Underline Business Case for Supercritical Thermal Power Plants in India (USD Billion) Till 2020, Status as on 2016 Along with the Opportunity Scaling for Key Players in Modernizing Infra for Ageing Thermal Power Projects



Source: enincon research and analysis

Not only this, the report will categorically identify opportunity for BTG OEMs, BoP OEMs, EPC and other service providers for modernization. It is a path finding guide for tracking investment potential for central power generation units, state electricity boards and independent power producers. Further, it also throws light on reality versus perceptions in terms of evaluating business case for key players in modernizing ageing thermal power assets. Details like this and many more shall find their way in this dossier.

BUSINESS CASE FOR MODERNIZING INFRA OF OLD THERMAL POWER PLANTS

- December 2017 to be the deadline fixed for coal based thermal power units in India to meet stricter emission norms
- Replacement of 11GW of capacity underlined for replacement with an investment of close to USD 8 Billion by 2020-21
- Impetus on adding more of supercritical thermal power capacity during 13th Five Year Plan
- Government of India planning modernize 25-40 GW of old coal fired power plants by setting up new super-efficient with an investment of INR 1.6 Trillion on cards
- Essar Power Ltd's combined operational capacity is set to increase from 4,590 MW to 6,100 MW by 2020 at its various power generation plants where expansion is in progress. The company is investing nearly INR 30,000 crore on this expansion. This expansion shall be based on supercritical technology

REPORT INSIGHTS

- Opportunity track for BTG OEMs in modernizing infra for thermal power units
- Opportunity track for BoP OEMs in modernizing infra for thermal power units
- Evaluating Mid & long term business case till 2022 and 2030 in modernizing ageing thermal power units
- Capacity escalation of modernization in MW size by independent power producers (IPPs)
- Capacity escalation of modernization in MW size by CPSU
- Business case for super critical capacity expansion

KEY HIGHLIGHTS

- Unwinding immediate need for replacing ageing thermal power units
- Assessing player wise need for replacing ageing thermal power plants in India
- Potential for modernizing infra of coal fired power plants on 10 years horizon from now
- Evaluating perceptions versus reality tracker for opportunity – Digging a comparison between fresh capacities and modernization
- Tracking degree of competition of modernizing infra versus RE power
- Opportunity track for BTG OEMs in modernizing infra for thermal power units
- Opportunity track for BoP OEMs in modernizing infra for thermal power units
- Evaluating Mid & long term business case till 2022 and 2030 in modernizing ageing thermal power units

PRESS EXCERPTS

In a bid to cut emissions, country's largest power producer, **NTPC** lined up investments worth INR 50, 000 crore and has decided to replace its over 25 year old power plants totalling 11 GW capacity in the next five years.

IIFL

Power Ministry in India is planning to shut coal-fired power plants with capacity of about 8,000 MW that are more than 25 years old, a move that will help curb carbon emissions.

The Economic Times

KEY QUERIES ADDRESSED

- What would be the business case for supercritical capacity expansion ?
- What would be the short , medium and long term impacts of the modernizing the ageing coal fired power plants in India?
- What would be the capacity escalation of modernization in MW size by 2022 ?
- What would be the capacity escalation of modernization in MW size by independent power producers (IPPs) ?
- What would be the capacity escalation of modernization in MW size by SEBs ?
- What would be the capacity escalation of modernization in MW size by CPSU ?
- What would be the opportunity track for BTG & BoP OEMs in USD ?
- What would be the opportunity track for BTG & BoP OEMs by states/ regions ?
- What would be the opportunity track for EPC service providers by states/ regions ?
- What would be the player wise opportunity track for EPC service providers ?

MUST BUY FOR

- CPSUs
- SEBs
- Independent Power Producers
- EPC Players
- BTG OEMs
- BoP OEMs
- Project Contractors
- Project Consultants
- Research Firms
- Research Bodies / Institutes
- Financing institutes
- Industry Associations / Technical Consulting Group

WHAT YOU CAN LEARN ? A SNAPSHOT

- Assessing need for modernization infra for thermal power plants in India
- Mapping immediate need for replacement of ageing thermal power infra need
- Figuring challenges from going sub critical to super critical thermal units
- Opportunity track for BTG OEMs in modernizing infra for thermal power units
- Opportunity track for BoP OEMs in modernizing infra for thermal power units
- Opportunity track for EPC & other service providers in modernizing infra for thermal power units
- Evaluating Mid & long term business case till 2022 and 2030 in modernizing ageing thermal power units
- Business case for super critical capacity expansion