

Sustainable Development

The project activity will lead to sustainable development and promote sustainable Industrial growth by promoting technological excellence, conserving natural resources and preventing the thermal pollution even though no such statutory requirement exists.

Social benefit to State: The project activity contributes in reducing the CSEB grid deficit by not making demand for electricity. This allows CSEB to supply electricity to other Consumers. This enables the CSEB to satisfy more consumers leading to more employment for skilled and professional people in the state.

The project activity also increases the employment within and outside the company for skilled manpower and professionals as well as for semi-skilled & unskilled manpower also. The company has provided financial support to the residents of the neighboring villages and Raipur City for carrying out community development activities.

Economic Benefits to State: The state will generate revenue out of the manufacturing activities, supported because of this captive power generation by way of Sales Tax; Excise Duty; Entry Tax etc.

Environmental Benefit: The waste heat recovery CPP in GPIL will displace /replace the coal based FBB Captive power generation; thus Project activity saves further depletion of natural Coal reserves, thus there is no generation

of any solid waste like fly ash which would otherwise been generated. The disposal of fly ash has been a serious environment concern. Thus the Environment is also benefited by reduced solid waste problem, reduces CO₂ emission which would have been otherwise emitted from coal based captive power plant. The proposed ESP shall remove the ash from Flue Gases thus reducing ambient SPM level, ash will be given free of cost to cement plants & brick manufactures for further economic benefit and

use. The ash used for production of bricks saves the valuable productive Soil; also it reduces the Air Pollution caused by the conventional Brick Kilns, due to the Coal burning. The Project activity uses Waste heat recovery based Power Plant by utilizing waste heat from flue gases coming from process and thus effectively saving environment of thermal pollution.

Technological Benefit: The Project activity uses Waste heat from flue gases coming out of ABC of sponge iron kiln, wherein the remaining heat of flue gas is transferred on water to generate steam for power generation.

The adoption of air cooling technology for cooling and condensing of turbine exhaust steam will help to save water resource.

Reduction of T&D Losses of Power: CSEB State grid has almost 37% T&D losses. The Power generated by new Project activity will be used mainly for in house without any significant T&D losses in comparison to grid.

Reduction in Water consumption & Waste Water Generation: The Water consumption and Waste Water generation will be minimised by using the Air Cooled condensers. The generated waste water will be used for in house activities like firefighting, sprinkling for dust emission control, spraying on sponge iron cooler and green belt development etc.