

## CDM-PDD-FORM

### Contribution to Sustainable Development

The JLHEP will contribute strongly to the sustainable development of the region and surrounding areas in the following ways:

- The generation of electricity by the project will not result in the emission of greenhouse gases to the atmosphere.
- The electricity to be generated displaces grid-sourced electricity that is dominated by non-renewable fossil fuel resources, thereby reducing the carbon intensity of the Eastern Regional grid.
- The project will result in a reduction in air borne pollutants, such as oxides of nitrogen, oxides of sulphur, carbon monoxide and particulates, through a reduction in the combustion of fossil fuels.
- The project will generate local employment, on a temporary basis during the construction phase, with more permanent on-going employment during the operational phase.
- The project will encourage the demand for materials, spare parts, equipment and on-going consumables.
- The project will not compromise access to the river resources for downstream users as the Raman River flows into the Rangit River approximately 4 kilometers downstream of the proposed diversion barrage, and two other streams, Ramam Khola and Chhoti Rangit flow into the Rangit River within this 4 kilometer stretch. In addition, provisions have been made for approximately 0.3 cumecs of sacrificial discharge throughout the year. To ensure there is no negative impact on local fish populations, a hatchery (including hatchery, nursing ponds, rearing ponds and stocking ponds) is proposed to be built in the vicinity of Rangit River.
- A greenbelt of approximately 24.74 ha will be created around the reservoir, to mitigate soil erosion and prevent landslips.
- The project will not involve the construction of any major roads, except for a small length of approach road and minor link roads. The project will carry out maintenance and upgrade of existing roads, which will improve access to the area whilst limiting environmental disturbance.
- Twelve percent of the total electricity generated will be provided free to the Sikkim State Government as a royalty.
- Local villages partially depend on firewood for their daily energy needs, which can lead to adverse ecological impacts, such as forest degradation, soil erosion and reduction in soil fertility. Increased availability and reliability of power supply from this project to the villages will reduce the need for firewood.