

### **Reply to the review comments:**

1. Many of the technological barriers listed appear to be technological problems related to the operation of the kilns rather than the implementation of the project activity. Further, page 7 of the PDD states that, “The technology for the boilers and turbines is well established and available in India and the project activity does not involve any transfer of technology and no additional training of personnel is required for operating the boilers and turbines.” Further justification of the technological barriers and how the CDM will overcome these barriers is required.

The operation of the waste heat recovery (WHR) based power generation project activity is solely based on the availability of the waste gases emanating from the DRI kilns. The waste gases are highly corrosive with the quantity and quality (temperature) varying in nature. The corrosive nature of the waste gases due to the high particulate load leads to frequent boiler tube failures thereby disrupting the power generation as well as the DRI production. The technology to reduce or remove the particulate load and at the same time simultaneously produce power is still not available in India. Thus frequent boiler tube failure will be associated with the project activity. Also the small capacity DRI kilns are having high accretion rate thereby leading to frequent shut downs. Thus the overall plant load factor from the project activity is lower. Due to these reasons the implementation of the project activity is not carried out in the business as usual scenario. This is also evident from the prevailing practice scenario. Anticipating these failures the project activity was conceived taking revenues from carbon credits into consideration. The supporting to the same – the communication from the senior management to the Board of Directors is being submitted. The CDM revenues will be helpful in the mitigation of the losses due to the project activity.

Further, as explained at page 7 of the PDD, the project activity does not involve any overseas transfer of technology and this is established and available in India hence no additional overseas training was required to run the project activity. However, after the Board approval for the project activity, a training program was also organized to train the employees for the operation of the waste heat recovery boilers. The purpose being to minimize the failures and thereby the associated losses due to the WHRBs. The supporting of the same is being submitted.

2. Prior to the project activity power was sourced from JSPL (CDM project activity (0351)). Further justification is required that the methodology is applicable and applied correctly as it appears that the project activity is displacing power from JSPL rather than the grid.

Prior to the project activity power was being sourced from JSPL but not from the CDM project activity (0351). Further, JSPL is also supplying power to the western grid. Thus JSPL has been considered as a part of the grid and the baseline emission factor has been calculated accordingly. Moreover the JSPL (CDM project activity (0351)) would be used for captive consumption to meet the power requirement of the plant expansion. There also grid has been adopted as the baseline.

Further being on the conservative side also, if JSPL was to be taken as the baseline, the emission factor would have been more than the grid. The power

plants at JSPL are either based on coal (washery rejects & char) or waste gases from the DRI kilns and non-recovery type coke oven plant (CDM project activity (0351)). The details of the power generation facilities at JSPL are as follows:

<b>S. No.</b>	<b>Description</b>	<b>Capacity</b>	<b>Year of commissioning</b>	<b>Fuel used</b>
1	Unit-1	70 MW	1992-2003	Washery rejects & Wash char in the AFBC boilers (263 tph) and DRI exhaust gas in the WHRBs (210 tph)
2.	Unit-2 – phase 1 and 2	110 MW	2001-2003	Washery rejects & Wash char in the AFBC boilers (660 tph)
3	Unit-2 – phase 3	50 MW	2004-2005	DRI exhaust gas in the WHRBs (228 tph)
4	Unit-3	75 MW	2006	Coal fines fired in the CFBC boiler (150 tph) and Non-recovery coke oven exhaust gas in the WHRBs (264 tph)

The power generation report of these power plants over the past three years is being submitted from which it is evident that about 80% of the power is being generated from coal (washery rejects and char). Thus the emission factor would be much higher as compared to the emission factor of the western regional grid of which JSPL is a part. Thus being on the conservative side grid has been taken as the baseline.

3. In determining the baseline, the continuation of importing power from JSPL has not been identified as an alternative. This alternative should have been assessed separately from importing power from the grid.

As per the explanation provided above, since JSPL has been considered as part of the baseline thus this alternative is not applicable.

4. The monitoring plan does not account for electricity generation that may be based on fossil fuels, rather than from only waste heat recovery. The monitoring plan should ensure that additional heat gain based on fossil fuels before entering the waste heat recovery boilers is accounted for.

Since there is no provision of additional heat gain and also the boilers are unfired type, so the monitoring plan does not contain such a parameter as it is not applicable to the project activity. The purchase order of the WHRBs depicts the design and technical specifications from which it is evident that the boilers have not been designed for any additional heat gain based on fossil fuels.