



CALCULATION OF BASELINE EMISSION FACTORS AND EMISSION REDUCTIONS OF 7.7 MW RICE HUSK BASED COGENERATION POWER PROJECT: VANDANA VIDHYUT LIMITED						
Scenario 2: Baseline calculations using Weighted Average Approach						
Year of offer	2000-01		2001-02		2002-03	
<b>Capacity addition and Installed capacity</b>			<b>BASE YEAR</b>			
Sector	Cap.Addn.	Instl. Cap.	Cap.Addn.	Instl. Cap.		Instl. Cap.
Coal Based, MW (CSEB)				1240		
Coal Based, MW (Central)				414		
Coal Based, MW (Pvt)				95		
Gas Based, MW (Central/state)				61		
Hydro, MW (CSEB)				120		
Hydro, MW (Central)				0.00		
Micro / Small Hydro				0.2		
Nuclear, MW(central)				23		
Renewable - Rice husk, MW				6		
Total, MW				1959		
<b>Generation Mix</b>						
Sector	mJ	%	mJ	%	mJ	%
Thermal Coal based(CSEB)			7756.00	58.03		
Thermal Coal based(Central)			4085.93	30.57		
Gas Based (Central)			348.38	2.61		
Hydro (CSEB)			392.00	2.93		
Nuclear (Central)			186.67	1.40		
CPP			560.00	4.19		
Renewable - Rice husk			35.64	0.27		
Total			13364.62	100.00		
% of generation by coal out of total generation				88.61		
% of generation by gas out of total generation				2.61		
<b>Baseline Emissions (kgCO<sub>2</sub>/kWh)</b>						
<b>Weighted average of the current generation mix</b>						
Emission factor for coal			1.085			
Emission factor for Gas			0.418			
Net emission factor for thermal (Coal)				0.961		
Net emission factor for thermal (Gas)				0.011		
<b>Weighted Average Net Emission Factor</b>			<b>0.972</b>			
<b>Baseline Emissions Factor (kgCO<sub>2</sub>/kWh)</b>			<b>0.972</b>			
<b>On-Site Project Emission Reductions</b>						
Net no. of units exported to grid, millions excl. T&D loss						45.41
No. of units replaced in the grid, millions						45.41
Emission factor considered, kg CO <sub>2</sub> /kWh						0.972
Baseline Emissions [in tonnes of CO <sub>2</sub> /annum]						44151.11
Project Emissions [in tonnes of CO <sub>2</sub> /annum]						14351.00
Emission Reductions [in tonnes of CO <sub>2</sub> /annum]						29800.11
Commitment period			2002-2012			
No. of years of delivery of ERUs					10	
Total baseline emissions in 10 years						298001

Year	2002-03	Total in 10 Years Crediting Period (ton of CO <sub>2</sub> )
Baseline emissions	44151	441511
Project emissions	14351	143510
Net Emission Reduction Units	29800	298001