APPENDIX I

Sheet 1

CALCULATION BASELINE EMISSION FACTORS AND EMISSION REDUCTION OF 8.0 MW RICE HUSK BASED COGENERATION POWER PROJECT,
Kalinidi Power & Steel Ltd.

Scenario 1 : Baseline calculations using Margin Approach

Year after	**Average Generation**		**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Generation Mix											
Sector	MU	%									
Coal Based Thermal Power Plant	129361	76.98%									
Gas Based Power Plant	21571	12.84%									
Hydro Power Plant	9291	5.53%									
Nuclear Diesel Wind & RES	7823	4.66%									
Total Generation	168045	100.00%									
Net generation excluding Hydro, Nuclear, CPP & RE plants	150932										
% of generation by coal out of total gen excl. Hydro, Nuclear, CPP & RE plants	85.71%										
% of generation by gas out of total gen excl. Hydro, Nuclear, CPP & RE plants	14.29%										
BASELINE EMISSION (kgCO_2/Kwh)											
Operating Margin											
Emission factor for Coal	1.053										
Emission factor for Gas	0.418										
Net Emission factor for thermal (Coal)		0.903									
Net Emission factor for thermal (Gas)		0.060									
Net Operating Margin		**0.963**									

Built Margin Factor											
Considering 20% of Gross Generation											
Sector											
Thermal Coal Based	24365.00	65.95%									
Gas Based	7372.00	19.95%									
Hydro	3950.00	10.69%									
Nuclear Diesel Wind & RES	1257.00	3.40%									
Total generation	36944.00	100%									
% of generation by coal out of total generation.		65.95%									
% of generation by gas out of total generation.		19.95%									
Built Margin											
Emission factor for Coal	1.053										
Emission factor for Gas	0.418										
Net Emission factor for thermal (Coal)		0.695									
Net Emission factor for thermal (Gas)		0.083									
Net Built Margin factor		0.778									
Combined Margin factor (Avg of OM & BM)		0.870									
Combined Margin factor (Avg of OM & BM)		0.870									
Weighted Average Margin factor		0.865		**0.000**							
Baseline Emission Factor (kgCO_2/kWh)		**0.865**									

			2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
On Site Project Emission Reductions											
Installed Capacity					8.00	8.00	8.00	8.00	8.00	8.00	8.00
Auxiliary consumption @10%					0.96	0.96	0.96	0.96	0.96	0.96	0.96
Exportable Capacity					7.04	7.04	7.04	7.04	7.04	7.04	7.04
No of Operating days per Annum					330	330	330	330	330	330	330
No of operating Hours per Day					24	24	24	24	24	24	24
Average Plant Load Factor					80%	90%	90%	90%	90%	90%	90%
Gross Power Generated per Annum	(MU)				50.688	57.024	57.024	57.024	57.024	57.024	57.024
Net Power Exported to the Grid per Annum	(MU)				44.605	50.181	50.181	50.181	50.181	50.181	50.181
No of Units qualified for Emission Reduction	(MU)				44.605	50.181	50.181	50.181	50.181	50.181	50.181
Emission Factor Considered					0.865	0.865	0.865	0.865	0.865	0.865	0.865
Carbon Emission Reduction in a year					38565	43386	43386	43386	43386	43386	43386
Project Emissions					11239	12644	12644	12644	12644	12644	12644
Leakage					0	0	0	0	0	0	0
Net Carbon Emission Reduction in a year					27326	30742	30742	30742	30742	30742	30742
Commitment period	**7 years**										
No. of years of delivery of CERs	**7 years**										
Total Number of CERS	**211779**										
	30254										
Project Emissions											
Maximum Permissible Coal Usage					15%	15%	15%	15%	15%	15%	15%
Qty of Coal to be consumed (MT)					7983.36	8981.28	8981.28	8981.28	8981.28	8981.28	8981.28
Heat Value of Coal (F Grade) (Kcal/Kg)					3500.00	3500.00	3500.00	3500.00	3500.00	3500.00	3500.00
CO_2 Emission Factor for Coal (Kg/Kcal)					0.4022	0.4022	0.4022	0.4022	0.4022	0.4022	0.4022
Project Emission in tonnes of CO_2					11239	12644	12644	12644	12644	12644	12644

Table - B3: Certified Emission Reductions with Scenario II

Operating years	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Net Baseline Emission Factor (kgCO_2/kWh)	0.865	0.865	0.865	0.865	0.865	0.865	0.865	
Baseline Emissions (tonnes of CO_2)	38565	43386	43386	43386	43386	43386	43386	298881
Project Emissions (tonnes of CO_2)	11239	12644	12644	12644	12644	12644	12644	87103
Leakage Emissions (tonnes of CO_2)	0	0	0	0	0	0	0	0
(Tonnes of CO_2)(Transportation)								
Certified Emission Reductions (tonnes of CO_2)	27326	30742	30742	30742	30742	30742	30742	211779