

APPENDIX- 1:- TILN FARM LOSSES ESTIMATION UNDER DIFFERENT SCENARIOS										
Conditions	Entity		Export/Import power	Transformer Losses	Cable Losses	Aux Consumption	Total Load/ Losses	%age Losses of 400A Rated System (at DMP)	%age Losses of 1200A Rated System (at AMP PV)	%age Losses of 600A Rated System (at AMP BESS)
	Lightsource SPV 154 Ltd	Lightsource SPV 216 Ltd	(MW)	(kW)	(kW)	(kW)	(kW)	%	%	%
Condition 1	Rated export power	0% of Rated export power	50.0	242.00	1.36	80.00	323.36	0.35	0.47	n/a
Condition 2	50% of Rated export power	50% Rated export power	37.5	109.16	0.60	80.00	189.76	0.21	0.28	n/a
Condition 3	zero export power	100% Rated export power	25.0	61.85	0.15	80.00	142.00	0.16	0.21	0.41
Condition 4	zero export power	50% of Rated export power	12.5	33.46	0.15	80.00	113.61	0.12	0.17	0.33
Condition 5	zero export power	100% Rated import power	25.0	61.85	0.60	80.00	142.45	0.16	0.21	0.42
Condition 6	zero export power	zero export power	0.0	24.00	0.00	80.00	104.00	0.11	0.15	0.30

TRANSFORMER PARAMETERS	
Transformer rating (MVA)	40/60MVA
Core Loss (kW)	24
Copper Loss (kW)	218

CABLE PARAMETERS	
	33kV Transformer Tails
AC resistance @ 90C (Ω/m)	0.000042
Conductor material	Cu
Cable cross section (Sq.mm)	1cx630
No of parallel runs	2
Cable Length (m)	50