

GENERATION UNITS					
Net Generated Energy (1yr) / MJ	Energy into SOFC	Energy into Turbine	Total Energy In	Total NH3 tons/yr	
1156300000	1751969696.9697	116836060.92	1868805757.89	83058.03	

Combined Generation efficiency	SOFC efficiency	Turbine efficiency
0.62	0.627	0.433
SOFC duty	Turbine duty	
	0.95	0.05

NH3 HHV ΔHc MJ/ton	NH3 LHV ΔHc MJ/ton	NH3 Precracked LHV ΔHc MJ/ton
22500	18557	19688.24

HABER BOSCH			
Purge Fraction of Inlet	NH3 'into' Haber	H2 into Haber	N2 into Haber
5%	87429.51	15428.74	72000.77

ELECTROLYSER			
Production of H2 (minimum)	Production (Safety Factor) H2	Elec.Energy Used MJ	
15428.74	16971.61	3435538888.19	

Safety Factor	Efficiency	H2 HHV ΔHc MJ/ton	
1.1	0.7	141700	

AIR SEPARATOR			
Production of N2 (minimum)	Production (Safety Factor) N2	Elec.Energy Used MJ	
72000.77	79200.85	31363536.39	
Safety Factor		Energy Used Per Ton in MJ	
		1.1 396	

STORAGE			
Demand/supply max diff MJ	Safety factor	Max ammonia storage tons	
108864000	2	19006.85	

ENERGY BALANCE			
Net Into Plant	Net Used By Components	Energy In Balance	Extra Power Generated (%)
4508500000	3466902424.57647	1041597575.42353	23.10

Process Efficiency	Energy to Grid (Direct from Wind)	EGen per turb per year	Turbine Duty
33.35%	3532620000	123709538.46	65.38%