

IRR Calculation Sheets Region Middle East 1

(Assumptions)		
EPC Total (Inflation adjusted)	1,108,485	1,000US\$
ISBL+OSBL (excluding *1 and *	1,050,000	
NH3 export (tank+P/L, etc.)*1	120,000	OSBL
CO2 transport (to CCS sites)*2	20,000	OSBL
Contingency allowance	178,500	for ISBL+OSBL
EPC Cost reduction	-136,850	for EPC Total
Owner's Cost	55,424	1,000US\$
	5%	from 0 to 5 %
NH3 Production Capacity	1,000	1,000t/y
Utilization Rate	100%	
NH3 Shipping Price (FOB)	296.5	\$/t
Interest Rate	3.0%	
Annual % of Price Increase (NH3)	0.0%	
Annual % of Price Increase (NG)	0.0%	
Annual % of Price Increase (other than NH3 and NG)	0.0%	
Equity %	30%	
Corporate Tax Rate	20%	
Debt Service Coverage Ratio	2.00	

NG Price	2.5	\$/10^6btu
EPC cost reduction rate	15%	Reduction Rate
Contingency allowance	15%	of ISBL and OSBL
Location factor (LF)	0.90	
Duration of Project	20	years
Principal Repayment Period	15	years
Depreciation Period	15	years
Capital acquisition cost	10%	10%
WACC	4.7%	
Terminal Value	0	(1=Inc, 0=not)
EIRR	9.0%	

Default Value
ON/OFF
Sensitivity Analysis
Financial Input Value

EPC cost distribution			
2022	2023	2024	2025
15.0%	30.0%	40.0%	15.0%
15.0%	31.5%	34.6%	18.9%

Input Value
Default Value

(thousand USD)	Remaining Depreciation Years																							
	Year -3 2022	Year -2 2023	Year -1 2024	Year 0 2025	Year 1 2026	Year 2 2027	Year 3 2028	Year 4 2029	Year 5 2030	Year 6 2031	Year 7 2032	Year 8 2033	Year 9 2034	Year 10 2035	Year 11 2036	Year 12 2037	Year 13 2038	Year 14 2039	Year 15 2040	Year 16 2041	Year 17 2042	Year 18 2043	Year 19 2044	Year 20 2045
<Cash Flow>																								
Sales Revenue					296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500
Debt Injection	122,210	244,421	325,895	125,847																				
Equity Injection	52,376	104,752	139,669	53,935																				
EPC	-166,273	-332,546	-443,394	-166,273																				
Owner's Cost	-8,314	-16,627	-22,170	-8,314																				
Operator				-1,860	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	
G&A				-3,335	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	
Maintenance				-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	
Tax Insurance				-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	
Natural Gas				-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	
Other Variables				-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	
Repayment				-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	-54,558	
Interest				-24,551	-22,914	-21,278	-19,641	-18,004	-16,367	-14,731	-13,094	-11,457	-9,820	-8,184	-6,547	-4,910	-3,273	-1,637	-0	-0	-0	-0	-0	
Tax (Corporate Tax under Tax Code)				0	0	0	0	4,868	9,471	12,924	15,513	17,455	18,912	20,004	20,824	21,438	21,889	22,245	22,504	22,698	22,698	22,698	22,698	
Net CF	0	0	0	37,298	38,935	40,572	42,208	38,977	36,010	34,195	33,242	32,937	33,117	33,661	34,479	35,501	36,677	37,968	39,304	93,709	93,709	93,709	93,709	
<P/L>																								
Sales Revenue					296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	296,500	
Depreciation				-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	-77,594	
Operator				-1,860	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	-3,720	
G&A				-3,335	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	-6,671	
Maintenance				-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	-18,475	
Insurance				-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	-9,658	
Natural Gas				-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	-89,304	
Other Variables				-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	-52,264	
Interest				0	0	0	0	-24,551	-22,914	-21,278	-19,641	-18,004	-16,367	-14,731	-13,094	-11,457	-9,820	-8,184	-6,547	-4,910	-3,273	-1,637	-0	
EBT				0	0	0	0	5,195	14,262	15,899	17,536	19,173	20,809	22,446	24,083	25,720	27,356	28,993	30,630	32,267	33,903	35,540	37,177	
Tax (Accounting Corporate Tax)				0	0	0	0	-2,852	-3,180	-3,507	-3,835	-4,162	-4,489	-4,817	-5,144	-5,471	-5,799	-6,126	-6,453	-6,781	-7,108	-7,435		
Net Income				0	0	0	0	5,195	11,410	12,719	14,029	15,338	16,648	17,957	19,266	20,576	21,885	23,194	24,504	25,813	27,123	28,432	29,741	
Operating Income to Net Sales				13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	13.1%	
Debt Service Coverage Ratio (DSCR)				147%	150%	153%	157%	154%	151%	149%	149%	150%	151%	154%	156%	159%	163%	168%	173%	178%	183%	188%	193%	
Dividend (Dividend rate is 100%.)				37,298	38,935	40,572	42,208	38,977	36,010	34,195	33,242	32,937	33,117	33,661	34,479	35,501	36,677	37,968	39,304	93,709	93,709	93,709	93,709	
Equity IRR				9.0%																				
(Debt=non recourse P/F basis)				-52,376	-104,752	-139,669	-53,935	37,298	38,935	40,572	42,208	38,977	36,010	34,195	33,242	32,937	33,117	33,661	34,479	35,501	36,677	37,968	39,304	

Accelerated Depreciation	
Depreciation Rate	25%
Depreciation for Tax Purposes	-290,977
Remaining Book Value at Year End	872,932
Taxable Income (under accelerated depreciation)	-174,570
TAX	0