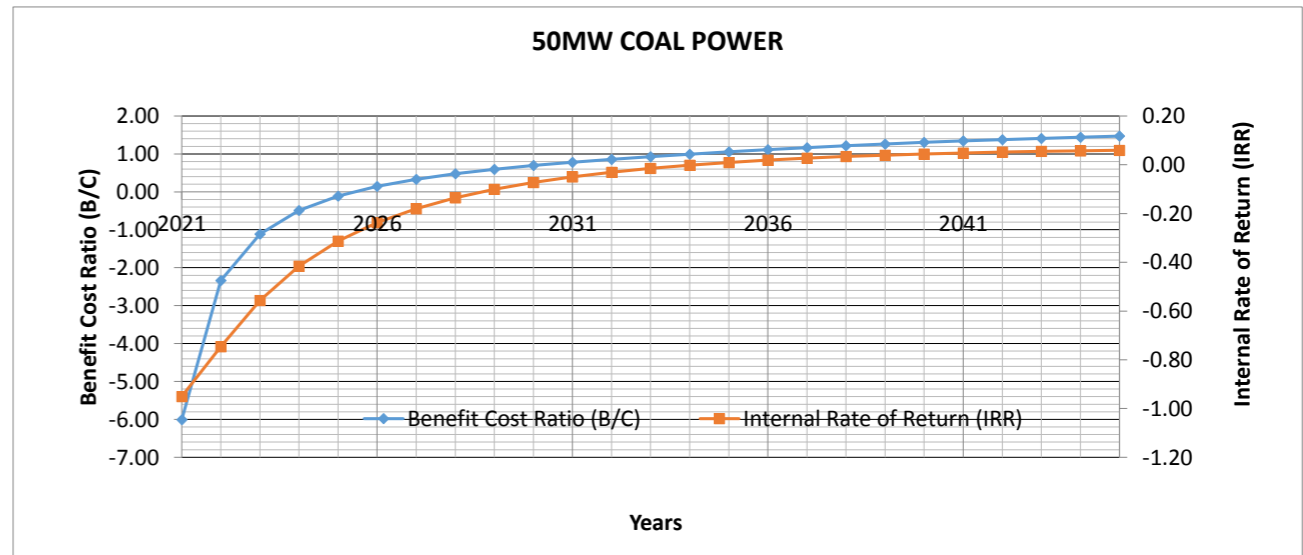


Korea Coal Power Plant (Dual Unit IGCC with Heat Recovery Steam Generator) for 1200MW

Description	Values	Unit
Work Start Year	2018	Years
Operating Year	2021	Years
Site and Contry for Project	Korea	
Sensitivity of Golobal Financial Crisis	0	Years- Active Crisis Year, Otherwise = 0
Type of Generator	Dual Unit IGCC with ▼	Dual Unit IGCC with Heat Recovery Steam Generat
Efficiency of power generator	54%	
Power Plant Factor	90%	Plant Factor 85% - 90% for net calorific of Coal rang
Power Sales Cost	0.1	USD/kWh =10USc/kwh
Total Sales Required Power	1200	MW (=MWh/h)
Assumed Coal Quantities	4.7096	Mtpa(Million Tonne per annum)
Type of Coal	Soft Coal ▼	Hard Coal or Soft Coal
Boilling Capacity of Coal energy per kg	0.024	mmbtu/kg
Power plant heat rates	10.08	mmbtu/MWh
Theoretical Power Capacity	1,200	MW (=MWh/h)-Set of 2 Turbine and 1 steam gene
Rate of kwh per 1mmbtu	99.21	kwh/mmbtu
Claculated British thermal unit	105,960,960	mmbtu/year
Required Coal Weight per Years	4,415,040,000	kg/Years
Coal Sock Period	31	days
Transportation Vessel Capacity at Every Loading	374,976	tonne
Initial Inflation of Coal Price	0	%
Coal Unit Price for power sector	55.9	USD/tonne(with transportation)
Working hour per day	24	hr
Working day per year	365	day
Total Electricity Power Sales Cost	1,051,200,000	USD/year
Unit CAPEX of Power	3,784	\$/kW
Power Plant Area	3,360,000	m ² without Transmission and Road Area
Unit Space Acquisiton Cost	40	USD/m ² in Korea -Land Area
CAPEX of Area Acquisition Cost	134,400,000	USD
CAPEX for Coal Power Plant	4,540,800,000	USD - 사십오억사천팔십만달러
CAPEX for Break Water Length is	1,000m	100,000,000 USD 100,000USD/m
CAPEX for Trestle Length is	300m	6,000,000 USD 20,000USD/m
CAPEX for Berthing Dolphine 375k DWT	x 1 set	66,176,471 USD 176,471k DWT
CAPEX for Loading/Unloading Crane		10,000,000 USD
CAPEX of Conveyer Length is	300m	600,000 USD 2,000USD/m
CAPEX for Spur Transmission Line Length is	35km	29,493,632 USD -198.3Kv --Double Circ 2 - Circuit
CAPEX for Bulk Transmission Line is	0km	0 USD 198.3Kv --Double Circuit
CAPEX for Grid Connection(Point Of Interconnect	1 Sets	272,400,000 USD, Gas=114\$/kw, Goal,Nuclear=227\$/kw, Solar=
Total CAPEX for Construction and Fabrication	5,159,870,103	USD - 오십일억오천구백팔십칠만일백삼달러
Construction and Fabrication Period	3	Years
Interest FEE during Construction and Fabrication	516,191,335	USD
TOTAL CAPEX AND INTREST FEE DURING CONSTRUCTION	5,676,061,438	USD - 오십육억칠천육백육만일천사백삼십팔달러
Fixed and Various OPEX	137,564,640	USD
Total cost of purchased Coal based on tonne	263,268,331	USD/Year based on tonne(including transportation)
Fund Intrest	6.5	%
Return rate on investment of Net Profit, r	3	%
Operating Periods	25	Years
Project Design Life	50	Years
Benefit Cost Ratio (B/C)	1.47	≥ 1.1 GOOD For 25Years Operating
IRR(Internal Rate of Return)	5.96%	> 0 GOOD For 25Years Operating
NPV(Net Present Value)	4,126,617,501	USD with Asset value of Project for 25Years
Inflation of Coal Purchase Price	0	%, If Inflation = 0, the Coal Unit price shall be quoted Forecast Price, otherwise consider inflation based on 2021Years Sale Cost, If no consider Inflation, the value=10E-11
1. Electric power Sale Price is applicable Based on inflation of Coal Forecast Price	0	<-- 0 : Not Applicable, 1 : Applicable of Coal Forecast Price
2. Electric power Sale Price from 2021Years to 2025 Years	0	% from 1Years to 5 Years



z. electric power sale price Inflation to be considered in years(Increased Previous Inflation)	from 2026Years to 2030 Years	0	%	from 6Years to 10 Years
	from 2031Years to 2035 Years	0	%	from 11Years to 15 Years
	from 2036Years to 2040 Years	0	%	from 16Years to 20 Years
	from 2041Years to 2045 Years	0	%	from 21Years to 25 Years
Income tax rate for government	20	%		
Inflation of Space Acquisition	1	%		
First Project residual value	3,319,532,848	USD after 10 Years		
Second Project residual value	1,442,543,890	USD after 30 Years		
Final residual value on Design Life	723,585,527	USD after 50 Years		
Net Payback Turn Over Periods	14.001	Years		

Actual Payback turn Over Years	15Years	15Years	해 찾기
Initial Value(min 0%, max 6.667%)	3.986%	3.986%	0 Good
Limit of Initial Value	≤ 6.667%	≤ 6.667%	

End of Year	①% of Return of Equity	②% of Return of FUND	③Return of Equity (USD)	④Return of FUND(USD)	⑤Remain Cost(USD)	⑥Fund Interest 6.5%(USD)	⑦OPEX(USD)	⑧Yearly Revenue(USD) W/ Inflation	⑨Yearly Purchase Price of Coal(USD) W/ Inflation	⑩(순이익)Net Profit(USD)	⑪(현재자산가치)Asset value=Residual Value(USD)	⑫(순현재가치)Net Present Value	⑬Benefit Cost Ratio (B/C)	⑭(내부수익률)Internal Rate of Return (IRR)
			20% of Equity	80% of FUND										
2021	1	3.99%	45,249,236	180,996,945	5,676,061,438	368,943,993	137,564,640	1,051,200,000	263,268,331	44,141,483	4,935,928,409	-5,245,471,058	-6.01	-0.95
2022	2	4.37%	49,596,605	198,386,421	5,449,815,256	354,237,992	137,564,640	1,051,200,000	265,152,183	37,009,727	4,720,330,174	-4,976,195,031	-2.34	-0.75
2023	3	4.75%	53,943,974	215,775,897	5,201,832,230	338,119,095	137,564,640	1,051,200,000	267,506,998	30,631,517	4,515,656,914	-4,702,532,786	-1.11	-0.56
2024	4	5.13%	58,291,343	233,165,373	4,932,112,359	320,587,303	137,564,640	1,051,200,000	269,390,850	25,760,392	4,321,048,304	-4,423,343,237	-0.49	-0.42
2025	5	5.52%	62,638,712	250,554,849	4,640,655,643	301,642,617	137,564,640	1,051,200,000	271,745,665	21,642,813	4,136,504,482	-4,138,391,666	-0.11	-0.31
2026	6	5.90%	66,986,081	267,944,325	4,327,462,082	281,285,035	137,564,640	1,051,200,000	273,912,095	18,806,259	3,957,000,116	-3,846,948,584	0.14	-0.24
2027	7	6.28%	71,333,450	285,333,801	3,992,531,676	259,514,559	137,564,640	1,051,200,000	276,078,525	17,100,020	3,787,560,816	-3,548,518,521	0.33	-0.18
2028	8	6.67%	75,680,819	302,723,277	3,635,864,425	236,331,188	137,564,640	1,051,200,000	278,244,955	16,524,097	3,623,161,252	-3,242,672,860	0.48	-0.14
2029	9	7.05%	80,028,188	320,112,753	3,257,460,329	211,734,921	137,564,640	1,051,200,000	280,411,385	17,078,490	3,468,827,038	-2,929,045,420	0.60	-0.10
2030	10	7.43%	84,375,557	337,502,229	2,857,319,388	185,725,760	137,564,640	1,051,200,000	282,577,815	18,763,199	3,319,532,848	-2,607,328,263	0.69	-0.07
2031	11	7.82%	88,722,926	354,891,705	2,435,441,603	158,303,704	137,564,640	1,051,200,000	284,744,245	21,578,224	3,180,304,298	-2,277,267,721	0.78	-0.05
2032	12	8.20%	93,070,295	372,281,180	1,991,826,972	129,468,753	137,564,640	1,051,200,000	286,910,675	25,523,565	3,046,116,063	-1,938,660,628	0.86	-0.03
2033	13	8.58%	97,417,664	389,670,656	1,526,475,496	99,220,907	137,564,640	1,051,200,000	289,077,105	30,599,222	2,916,968,293	-1,591,350,753	0.93	-0.01
2034	14	8.96%	101,765,033	407,060,132	1,039,387,176	67,560,166	137,564,640	1,051,200,000	291,243,535	36,805,195	2,792,861,138	-1,235,225,424	0.99	0.00
2035	15	9.35%	106,112,402	424,449,608	530,562,010	34,486,531	137,564,640	1,051,200,000	293,409,965	44,141,483	2,673,794,749	-870,212,329	1.05	0.01
2036	16	0.00%	0	0	0	0	137,564,640	1,051,200,000	295,576,394	494,447,172	2,564,794,749	-496,276,490	1.11	0.02
2037	17	0.00%	0	0	0	0	137,564,640	1,051,200,000	297,742,824	492,714,028	2,460,835,823	-134,504,536	1.17	0.03
2038	18	0.00%	0	0	0	0	137,564,640	1,051,200,000	299,909,254	490,980,885	2,356,892,656	215,494,886	1.22	0.03
2039	19	0.00%	0	0	0	0	137,564,640	1,051,200,000	302,075,684	489,247,741	2,257,990,876	554,100,651	1.26	0.04
2040	20	0.00%	0	0	0	0	137,564,640	1,051,200,000	304,242,114	487,514,597	2,164,130,642	881,679,549	1.30	0.04
2041	21	0.00%	0	0	0	0	137,564,640	1,051,200,000	306,408,544	485,781,453	2,075,312,116	1,198,586,671	1.34	0.05
2042	22	0.00%	0	0	0	0	137,564,640	1,051,200,000	308,574,974	484,048,309	1,991,535,459	1,505,165,776	1.38	0.05
2043	23	0.00%	0	0	0	0	137,564,640	1,051,200,000	310,741,404	482,315,165	1,912,800,835	1,801,749,652	1.41	0.05
2044	24	0.00%	0	0	0	0	137,564,640	1,051,200,000	312,907,834	480,582,021	1,834,082,941	2,088,660,464	1.44	0.06
2045	25	0.00%	0	0	0	0	137,564,640	1,051,200,000	315,074,264	478,848,877	1,760,407,413	2,366,210,089	1.47	0.06
2046	26	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2047	27	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2048	28	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2049	29	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2050	30	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2051	31	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2052	32	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2053	33	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2054	34	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2055	35	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2056	36	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2057	37	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2058	38	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2059	39	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2060	40	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2061	41	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2062	42	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2063	43	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2064	44	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2065	45	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00

2066	46	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2067	47	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2068	48	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2069	49	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
2070	50	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0	0.00	0.00
Summation		100%	100%	1,135,212,288	4,540,849,150	51,494,808,084	3,347,162,525	3,439,116,000	26,280,000,000	7,226,927,619	5,272,585,935	1,760,407,413	4,126,617,501	1.47	0.06

ENVIRONMENTAL EMISSIONS

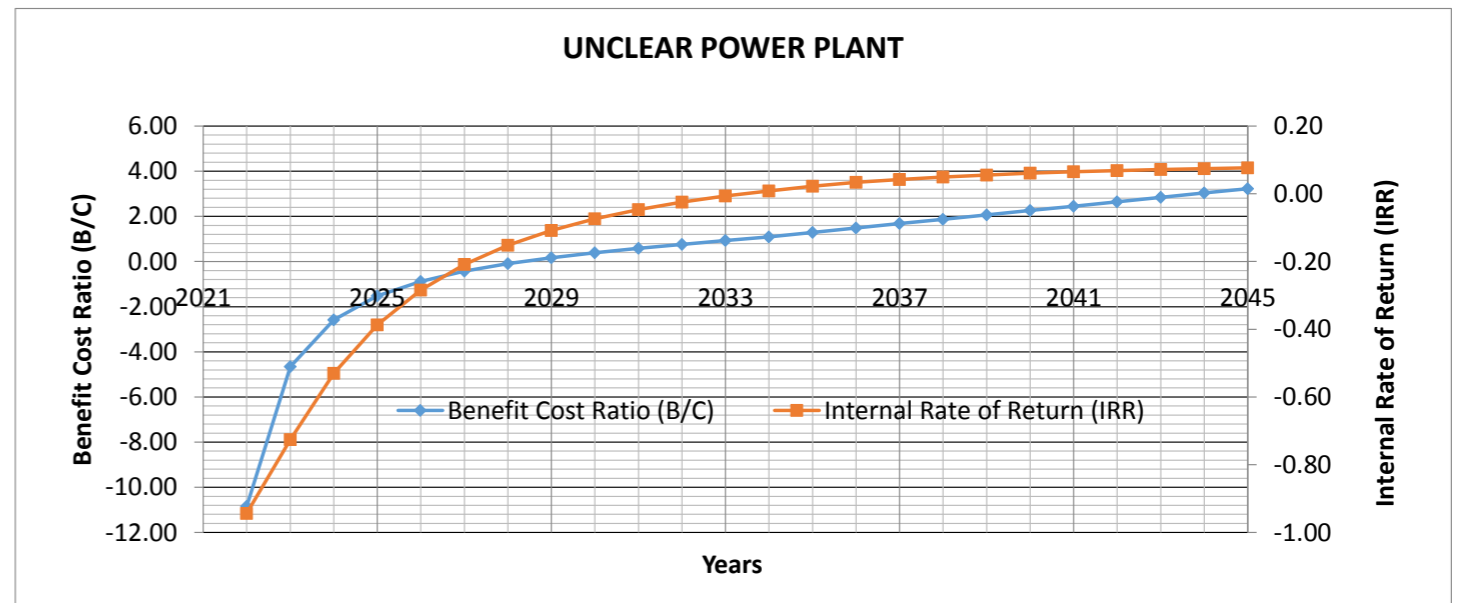
TYPE OF TURBINE = 6 Dual Unit IGCC with Heat Recovery Steam Generator

SO2 (kg/kWh)	Nox (kg/kWh)	CO2 (kg/kWh)	SO2 (kg/day)	Nox (kg/day)	CO2 (kg/day)	SO2 (tonne/year)	Nox (tonne/year)	CO2 (tonne/year)
9.87E-05	2.96E-05	8.13E-01	2.84E+03	8.52E+02	2.34E+07	1,037	311	8,545,495

CAPEX of Power types and Environmental Emissions are referred to U.S. Energy Information Administration, 2013, "Updated Capital Cost Estimates for Utility Scale Electricity Generating Plants", pp.2-10, Table 2-5 Technology Performance Specifications

Korea Green Field Dual Unit Nuclear Power Plant for 1,200 MW

Description	Values	Unit
Work Start Year	2018	Years
Operating Year	2022	Years
Location of Unclear Power Plant	Green Field	<--Green Field, Brown Field
Site and Contry for Project	Korea	
Requirement of Unclear Electric Power	1,200	MW
Generator Power Efficiency	90	%
Sale for Average Eletric Unit Price	0.11	USD/kWh =11USc/kwh
Total Electricity Power Sales Cost	1,041,400,800	USD/year
CAPEX of Unclear Power Plant	6,636,000,000	USD - 육십육억삼천육백만달러
CAPEX for Transmission Line Length is	15km	USD -198.3Kv --Double C 2 - Circuit
Acquisition Land Area	2,967,697	m ²
Unit Space Acquisition Cost	40	USD/m ² in Korea
CAPEX of Area Acquisition Cost	118,707,888	USD
Total CAPEX for Fabrication and Installation	6,767,348,016	USD - 육십칠억육천칠백삼십사만팔천일
Construction and Fabrication Period	4	Years
Interest FEE during Construction and Fabrication	879,755,242	USD
TOTAL CAPEX AND INTREST FEE DURING CONSTRUCTION	7,647,103,258	USD - 칠십육억사천칠백일십삼천이백
OPEX of Unclear Power Plant	111,938,568	USD/Year
Fund Intrest	6.5	%
Return rate on investment of Net Profit, r	0	%
Operating Periods	30	Years
Project Design Life	50	Years
Benefit Cost Ratio (B/C)	4.39	≥ 1.1 GOOD For 30Years Operating
IRR(Internal Rate of Return)	8.56%	> 0 GOOD For 30Years Operating
NPV(Net Present Value)	128,060,708,441	USD with Asset value of Project for 30Years
Electric Productr	from 2022Years to 2024 Years	0 % from 1Years to 3 Years
Sale Price Inflation	from 2025Years to 2028 Years	0 % from 4Years to 7 Years
to be considered in	from 2029Years to 2031 Years	0 % from 8Years to 10 Years
years(Increased	from 2032Years to 2036 Years	0 % from 11Years to 15 Years
Previous Inflation)	from 2037Years to 2051 Years	0 % from 16Years to 30 Years
Income tax rate for government	20	%
Inflation of Space Acquisition	1	%
First Project residual value	4,325,120,990	USD after 10 Years
Second Project residual value	1,827,224,809	USD after 30 Years
Final residual value on Design Life	858,161,805	USD after 50 Years
Net Payback Turn Over Periods	12.005	Years



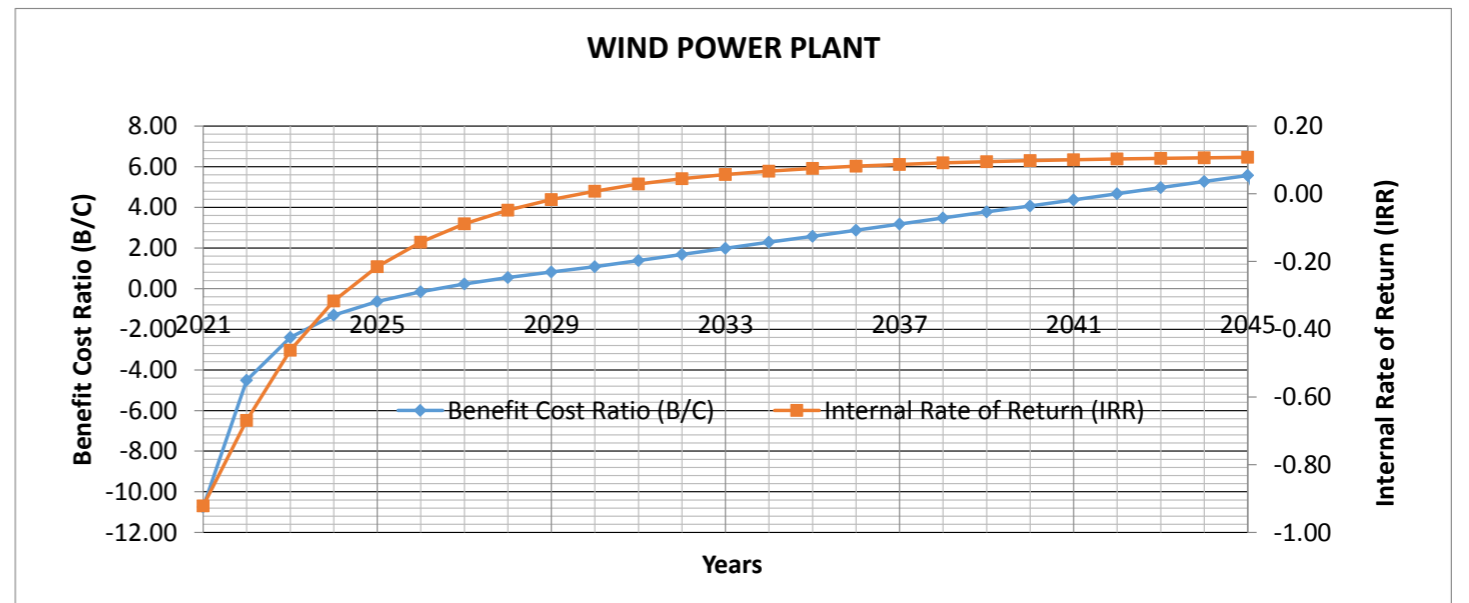
Actual Payback turn Over Years	13Years	13Years	해 찾기
Initial Value(min 0%, max 7.692%)	4.787%	4.787%	0 Good
Limit of Initial Value	≤ 7.692%	≤ 7.692%	

End of Year	①% of Return of Equity	②% of Return of FUND	③Return of Equity (USD)	④Return of FUND(USD)	⑤Remain Cost(USD)	⑥Fund Interest 6.5%(USD)	⑦OPEX(USD)	⑧Yearly Revenue(USD) W/ Inflation	⑨(순이익)Net Profit(USD)	⑩(현재자산가치)Asset value=Residual Value(USD)	⑪(순현재가치)Net Present Value	⑫Benefit Cost Ratio (B/C)	⑬(내부수익률)Internal Rate of Return (IRR)
			20% of Equity	80% of FUND									
2022	1	4.79%	73,209,370	292,837,480	7,647,103,258	497,061,712	111,938,568	1,041,400,800	53,082,936	6,470,484,670	-7,214,702,738	-10.85	-0.94
2023	2	5.27%	80,615,765	322,463,062	7,281,056,408	473,268,667	111,938,568	1,041,400,800	42,491,791	6,184,653,713	-6,758,509,172	-4.66	-0.73
2024	3	5.76%	88,022,161	352,088,643	6,877,977,581	447,068,543	111,938,568	1,041,400,800	33,826,308	5,913,270,407	-6,276,115,483	-2.58	-0.53
2025	4	6.24%	95,428,556	381,714,225	6,437,866,777	418,461,341	111,938,568	1,041,400,800	27,086,488	5,655,196,491	-5,765,114,592	-1.52	-0.39
2026	5	6.72%	102,834,952	411,339,806	5,960,723,996	387,447,060	111,938,568	1,041,400,800	22,272,331	5,410,432,085	-5,223,099,419	-0.88	-0.28
2027	6	7.21%	110,241,347	440,965,388	5,446,549,238	354,025,700	111,938,568	1,041,400,800	19,383,837	5,172,328,672	-4,647,662,888	-0.43	-0.21
2028	7	7.69%	117,647,742	470,590,970	4,895,342,503	318,197,263	111,938,568	1,041,400,800	18,421,006	4,947,535,016	-4,036,397,919	-0.10	-0.15
2029	8	8.18%	125,054,138	500,216,551	4,307,103,791	279,961,746	111,938,568	1,041,400,800	19,383,837	4,729,402,601	-3,386,897,433	0.17	-0.11
2030	9	8.66%	132,460,533	529,842,133	3,681,833,102	239,319,152	111,938,568	1,041,400,800	22,272,331	4,524,580,193	-2,696,754,353	0.39	-0.07
2031	10	9.15%	139,866,929	559,467,715	3,019,530,435	196,269,478	111,938,568	1,041,400,800	27,086,488	4,326,419,280	-1,963,561,599	0.58	-0.05
2032	11	9.63%	147,273,324	589,093,296	2,320,195,792	150,812,726	111,938,568	1,041,400,800	33,826,308	4,141,568,630	-1,184,912,093	0.76	-0.02
2033	12	10.11%	154,679,719	618,718,878	1,583,829,172	102,948,896	111,938,568	1,041,400,800	42,491,791	3,963,379,733	-358,398,758	0.93	-0.01

2034	13	10.60%	10.60%	162,086,115	648,344,460	810,430,574	52,677,987	111,938,568	1,041,400,800	53,082,936	3,791,852,720	518,385,487	1.10	0.01	
2035	14	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	3,626,987,723	1,559,786,287	1.29	0.02	
2036	15	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	3,468,784,877	2,601,187,087	1.48	0.03	
2037	16	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	3,323,892,956	3,642,587,887	1.68	0.04	
2038	17	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	3,185,663,456	4,683,988,687	1.87	0.05	
2039	18	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	3,047,447,877	5,725,389,487	2.07	0.06	
2040	19	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,915,894,995	6,766,790,287	2.26	0.06	
2041	20	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,791,004,954	7,808,191,087	2.45	0.06	
2042	21	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,672,777,893	8,849,591,887	2.65	0.07	
2043	22	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,561,213,957	9,890,992,687	2.84	0.07	
2044	23	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,456,313,291	10,932,393,487	3.03	0.07	
2045	24	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,351,427,401	11,973,794,287	3.23	0.08	
2046	25	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,253,205,074	13,015,195,087	3.42	0.08	
2047	26	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,161,646,460	14,056,595,887	3.62	0.08	
2048	27	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,070,103,070	15,097,996,687	3.81	0.08	
2049	28	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	1,985,223,695	16,139,397,487	4.00	0.08	
2050	29	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	1,907,008,490	17,180,798,287	4.20	0.08	
2051	30	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	1,828,808,970	18,222,199,087	4.39	0.09	
2052	31	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2053	32	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2054	33	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2055	34	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2056	35	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2057	36	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2058	37	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2059	38	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2060	39	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2061	40	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2062	41	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2063	42	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2064	43	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2065	44	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2066	45	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2067	46	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2068	47	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2069	48	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2070	49	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2071	50	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
	Summation	100%	100%	1,529,420,652	6,117,682,606	60,269,542,627	3,917,520,271	1,455,201,384	31,242,024,000	14,577,759,270	109,838,509,353	128,060,708,441	4.39	0.09	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14

Korea Offshore Wind Power Plant for 1,200 MW

Description	Values	Unit
Work Start Year	2018	Years
Operating Year	2021	Years
Location of Wind Power Plant	Offshore Wind	<-Onshore or Offshore
Site and Contry for Project	Korea	
Requirement of Wind Electric Power	1,200	MW
Generator Power Efficiency	90	%
Sale for Average Eletric Unit Price	0.11	USD/kWh =11USc/kwh
Total Electricity Power Sales Cost	1,041,400,800	USD/year
CAPEX of Unclear Power Plant	5,201,856,000	USD - 오십이억일백팔십오만육천달러
CAPEX for Transmission Line Length is 100km	842,675,200	USD -198.3Kv --Double C 2 - Circuit
Acquisition Land Area	8,741,217,600	m ²
Unit Space Acquisition Cost	0	USD/m ² in Korea
CAPEX of Area Acquisition Cost	0	USD
Total CAPEX for Fabrication and Installation	6,044,531,200	USD - 육십억사천사백오십삼만일천이백
Construction and Fabrication Period	3	Years
Interest FEE during Construction and Fabrication	589,341,792	USD
TOTAL CAPEX AND INTREST FEE DURING CONSTRUCTION	6,633,872,992	USD - 육십육억삼천삼백팔십칠만이천구
OPEX of Wind Power Plant	88,888,800.00	USD/Year
Fund Intrest	6.5	%
Return rate on investment of Net Profit, r	0	%
Operating Periods	25	Years
Project Design Life	50	Years
Benefit Cost Ratio (B/C)	5.57	≥ 1.1 GOOD For 25Years Operating
IRR(Internal Rate of Return)	10.79%	> 0 GOOD For 25Years Operating
NPV(Net Present Value)	103,648,056,747	USD with Asset value of Project for 25Years
Electric Productr	from 2021Years to 2023 Years	0 % from 1Years to 3 Years
Sale Price Inflation	from 2024Years to 2027 Years	0 % from 4Years to 7 Years
to be considered in	from 2028Years to 2030 Years	0 % from 8Years to 10 Years
years(Increased	from 2031Years to 2035 Years	0 % from 11Years to 15 Years
Previous Inflation)	from 2036Years to 2045 Years	0 % from 16Years to 25 Years
Income tax rate for government	20	%
Inflation of Space Acquisition	1	%
First Project residual value	3,814,099,187	USD after 10 Years
Second Project residual value	1,517,177,331	USD after 30 Years
Final residual value on Design Life	604,453,120	USD after 50 Years
Net Payback Turn Over Periods	9.012	Years



Actual Payback turn Over Years	10Years	10Years	해 찾기
Initial Value(min 0%, max 10%)	7.167%	7.167%	0 Good
Limit of Initial Value	≤ 10%	≤ 10%	

End of Year	①% of Return of Equity	②% of Return of FUND	③Return of Equity (USD) 20% of Equity	④Return of FUND(USD) 80% of FUND	⑤Remain Cost(USD)	⑥Fund Interest 6.5%(USD)	⑦OPEX(USD)	⑧Yearly Revenue(USD) W/ Inflation	⑨(순이익)Net Profit(USD)	⑩(현재자산가치)Asset value=Residual Value(USD)	⑪(순현재가치)Net Present Value	⑫Benefit Cost Ratio (B/C)	⑬(내부수익률)Internal Rate of Return (IRR)
2021	7.17%	7.17%	95,090,867	380,363,468	6,633,872,992	431,201,744	88,888,800	1,041,400,800	36,684,736	5,773,562,241	-6,112,562,736	-10.75	-0.92
2022	7.80%	7.80%	103,443,443	413,773,773	6,158,418,656	400,297,213	88,888,800	1,041,400,800	27,998,057	5,512,612,454	-5,560,347,949	-4.51	-0.67
2023	8.43%	8.43%	111,796,019	447,184,078	5,641,201,440	366,678,094	88,888,800	1,041,400,800	21,483,047	5,264,786,675	-4,974,514,043	-2.40	-0.46
2024	9.06%	9.06%	120,148,596	480,594,382	5,082,221,343	330,344,387	88,888,800	1,041,400,800	17,139,708	5,029,049,958	-4,352,346,430	-1.31	-0.32
2025	9.69%	9.69%	128,501,172	514,004,687	4,481,478,365	291,296,094	88,888,800	1,041,400,800	14,968,038	4,805,402,304	-3,691,130,524	-0.63	-0.22
2026	10.31%	10.31%	136,853,748	547,414,992	3,838,972,506	249,533,213	88,888,800	1,041,400,800	14,968,038	4,587,799,181	-2,988,151,737	-0.15	-0.14
2027	10.94%	10.94%	145,206,324	580,825,296	3,154,703,767	205,055,745	88,888,800	1,041,400,800	17,139,708	4,382,285,120	-2,240,695,482	0.23	-0.09
2028	11.57%	11.57%	153,558,900	614,235,601	2,428,672,146	157,863,690	88,888,800	1,041,400,800	21,483,047	4,182,815,590	-1,446,047,171	0.54	-0.05
2029	12.20%	12.20%	161,911,476	647,645,906	1,660,877,645	107,957,047	88,888,800	1,041,400,800	27,998,057	3,995,435,123	-601,492,218	0.82	-0.02
2030	12.83%	12.83%	170,264,053	681,056,210	851,320,263	55,335,817	88,888,800	1,041,400,800	36,684,736	3,814,099,187	295,683,965	1.08	0.01
2031	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	3,644,852,314	1,337,084,765	1.38	0.03
2032	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	3,481,649,971	2,378,485,565	1.68	0.04

2033	13	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	3,324,492,160	3,419,886,365	1.98	0.06	
2034	14	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	3,173,378,880	4,461,287,165	2.28	0.07	
2035	15	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	3,028,310,131	5,502,687,965	2.58	0.07	
2036	16	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,895,330,445	6,544,088,765	2.88	0.08	
2037	17	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,768,395,290	7,585,489,565	3.18	0.09	
2038	18	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,641,460,134	8,626,890,365	3.48	0.09	
2039	19	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,520,569,510	9,668,291,165	3.77	0.09	
2040	20	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,405,723,418	10,709,691,965	4.07	0.10	
2041	21	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,296,921,856	11,751,092,765	4.37	0.10	
2042	22	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,194,164,826	12,792,493,565	4.67	0.10	
2043	23	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,097,452,326	13,833,894,365	4.97	0.10	
2044	24	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	2,000,739,827	14,875,295,165	5.27	0.11	
2045	25	0.00%	0.00%	0	0	0	0	0	1,041,400,800	833,120,640	1,910,071,859	15,916,695,965	5.57	0.11	
2046	26	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2047	27	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2048	28	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2049	29	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2050	30	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2051	31	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2052	32	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2053	33	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2054	34	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2055	35	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2056	36	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2057	37	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2058	38	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2059	39	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2060	40	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2061	41	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2062	42	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2063	43	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2064	44	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2065	45	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2066	46	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2067	47	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2068	48	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2069	49	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
2070	50	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0.00	0.00	
	Summation	100%	100%	1,326,774,598	5,307,098,394	39,931,739,124	2,595,563,043	888,888,000	26,035,020,000	12,733,356,772	87,731,360,782	103,648,056,747	5.57	0.11	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14