Calculation NPV of alternatives

Discount rate: 10.00%

Scenario 2: Receiving power from KEPCO

	Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
A. Cost	KRWyear	-	-	-	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442
a) Cost of operation	KRWyear	-	-	-	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442	46,328,076,442
- Cost of receiving power per year from KEPCO [1]	KRW/kWh	-	-	-	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25	50.25
- Power received from KEPCO [2]	MWh/year	-	-	-	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018	922,018
Gross generation capacity of the FINEX power plant	MW				145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9	145.9
Capacity for internal consumption	MW				4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Annual plant load factor [3]	%				74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%	74.5%
B. Sum of cost	KRWyear	0	0	0	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442	-46,328,076,442

NPV	-315,944,255,321

1) The cost of receiving power per year from KEPCO is derived from data of POSCO, 2000-2004.
2) According to ACM0004, It is assumed that power generation of FINEX power plant is equivalent with power received from KEPCO.
3) Plant load factor means total operating hours divided by 8760 hours (365 days ×24 hours).

Scenario 3: Construction of 150MW LNG power plant

	Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
A. Cost	KRWyear	19,200,000,000	76,800,000,000	96,000,000,000	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684
a) Capital Expenditure	KRWyear	19,200,000,000	76,800,000,000	96,000,000,000																									
b) Cost of operation	KRWyear				71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684	71,343,482,684
- Cost of fuel	KRWyear				64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684	64,488,482,684
LNG consumption	Nm3/Year				235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426	235,359,426
Price of LNG	KRW/Nm3				274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274
c) Maintenance cost	KRWyear				4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000	4,200,000,000
d) Others	KRWyear				2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000	2,655,000,000
B. Sum of cost	KRWyear	-19,200,000,000	-76,800,000,000	-96,000,000,000	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684	-71,343,482,684

NPV	-639,594,025,066

Scenario 4: Scenario 2(20%) + Scenario 3(80%)

NPV[1]	-574,864,071,117

1) Derived from weighted average of scenario 2's NPV(20%) + scenario 3's NPV(80%).

Scenario 1: Construction of FINEX power plant

	Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
A. Cost	KRWyear	34,800,000,000	139,200,000,000	174,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000
a) Capital Expenditure [1]	KRWyear	34,800,000,000	139,200,000,000	174,000,000,000																									
- Equipment	KRWyear																												
FINEX combined cycle power plant	KRWyear																												
Installation of Substation	KRWyear																												
- Cost of construction	KRWyear																												
FINEX combined cycle power plant	KRWyear																												
Others(Pile extension, waste treatment etc)	KRWyear																												
Gas Holder	KRWyear																												
General Frame(Base)	KRWyear																												
- Overhead	KRWyear																												
b) Cost of operation [2]	KRWyear				12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000	12,000,000,000
- Material Cost	KRWyear				1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000	1,800,000,000
- Labor Cost	KRWyear				780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000	780,000,000
- Maintenance Cost	KRWyear				6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000	6,400,000,000
- General Cost	KRWyear				320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000	320,000,000
- Common Cost(Utilities)	KRWyear				2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000	2,700,000,000
B. Sum of cost	KRWyear	-34,800,000,000	-139,200,000,000	-174,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000	-12,000,000,000

NPV	-359,243,035,476

1) This data is derived from the document submitted to the Board meeting of POSCO(22.07.2004)
2) Estimated by power generation sec of POSCO