

Two CHPs on fixed tariffs, NPV of 15 years planning period

This example illustrates a net present value calculation of a cogeneration plant selling and buying its electricity on a fixed tariff market

Cash Flow, summary

(All amounts in GBP)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Revenues															
Sale of heat	300.000	307.831	312.650	318.077	325.672	333.022	337.901	344.925	352.095	361.005	365.890	373.012	380.531	391.003	395.489
Sale of electricity															
Day	465.900	475.830	484.930	497.070	506.903	517.041	522.539	535.862	546.110	562.530	570.733	579.288	588.464	606.055	618.044
Night	151.900	158.579	163.499	164.392	169.347	167.555	174.060	178.184	184.126	187.307	182.605	188.869	196.019	202.475	204.400
Sale of electricity Total	617.800	634.409	648.429	661.462	676.249	684.596	696.599	714.046	730.237	749.837	753.339	768.157	784.484	808.530	822.444
Total Revenues	917.800	942.240	961.079	979.539	1.001.922	1.017.618	1.034.500	1.058.971	1.082.332	1.110.842	1.119.229	1.141.169	1.165.015	1.199.533	1.217.933
Operating Expenditures															
Fuel costs															
Natural gas	664.756	682.846	696.451	709.236	725.601	736.838	749.875	767.163	784.317	804.261	810.020	826.541	844.481	868.958	881.820
Climate change levy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel costs Total	664.756	682.846	696.451	709.236	725.601	736.838	749.875	767.163	784.317	804.261	810.020	826.541	844.481	868.958	881.820
Operation&Maint.															
Engine 1	47.940	49.358	50.459	51.373	52.585	53.073	54.213	55.550	56.825	58.189	58.292	59.607	61.053	62.934	63.876
Engine 2	20.350	20.879	21.391	21.818	22.298	22.567	22.906	23.491	24.089	24.822	24.867	25.303	25.796	26.597	27.128
Boilers	282	267	219	218	222	326	297	267	247	243	357	350	334	303	270
Operation&Maint. Total	68.572	70.504	72.069	73.409	75.105	75.967	77.416	79.309	81.162	83.255	83.516	85.260	87.183	89.833	91.274
Electricity purchase															
Day	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Night	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity purchase Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Operating Expenditures	733.328	753.350	768.520	782.645	800.706	812.804	827.291	846.472	865.479	887.515	893.536	911.801	931.664	958.791	973.095
Net Cash from Operation	184.472	188.890	192.559	196.894	201.216	204.814	207.209	212.499	216.853	223.327	225.693	229.368	233.351	240.742	244.839
Investments															
Investment	1.000.000	1.000.000	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Investments	1.000.000	1.000.000	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Interest on Cash Account	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash Surplus	-815.528	-811.110	192.559	196.894	201.216	204.814	207.209	212.499	216.853	223.327	225.693	229.368	233.351	240.742	244.839
Cash Account	-815.528	-1.626.638	-1.434.079	-1.237.185	-1.035.969	-831.155	-623.946	-411.447	-194.594	28.733	254.426	483.794	717.144	957.887	1.202.726