

**Two CHPs on fixed tariffs**

This example illustrates a cogeneration plant selling and buying its electricity on a fixed tariff market  
1 GBP is approx. equal to 1.5 EUR.

**Energy conversion, annual**

Calculated period: 01-2011 - 12-2011

**Heat demands:**

Total sale of heat	12.000,0 MWh
Net work loss	3.000,0 MWh
Total	15.000,0 MWh

Max heat demand	4,2 MW
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**Heat productions:**

Gas engine 1	10.134,5 MWh/year	67,6 %
Gas engine 2	4.304,1 MWh/year	28,7 %
Boilers	561,4 MWh/year	3,7 %
Total	15.000,0 MWh/year	100,0 %

**Electricity produced by energy units:**

Fixed tariffs:

	Day [MWh/year]	Night [MWh/year]	All periods [MWh/year]	Of annual production
Gas engine 1	5.684,0	3.904,0	9.588,0	70,2%
Gas engine 2	3.634,0	438,0	4.072,0	29,8%
Total	9.318,0	4.342,0	13.660,0	100,0%
Of annual production	68,2%	31,8%	100,0%	

**Peak electric production:**

Gas engine 1	2.000,0 kW-elec.
Gas engine 2	2.000,0 kW-elec.

**Hours of operation:**

Fixed tariffs:

	Day [h/Year]	Night [h/Year]	Total [h/Year]	Of annual hours
Gas engine 1	2.842,0	1.952,0	4.794,0	54,7%
Gas engine 2	1.817,0	219,0	2.036,0	23,2%
Boilers	62,0	262,0	324,0	3,7%
Out of total in period	3.120,0	5.640,0	8.760,0	

**Turn ons:**

Gas engine 1	239
Gas engine 2	172
Boilers	13

**Fuels:****By fuel**

Natural gas	Fuel consumption 3.324.049,0 Nm3
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**By energy unit**

Gas engine 1	25.250,0 MWh	=	2.295.454,4 Nm3
Gas engine 2	10.723,6 MWh	=	974.873,8 Nm3
Boilers	590,9 MWh	=	53.720,8 Nm3
Total	36.564,5 MWh		