The table below summarizes some information regarding each of the Turbines and Heat Recovery Steam Generators:

Table 1 - Turbines and Heat Recovery Steam Generators specifications

	TG-4801	TG-4851
General specifications	**40 MW Gas Turbine PG 6581B**	**40 MW Gas Turbine PG 6581B**
Turbine Manufacturer	General Electric	General Electric
Start/ Revamp date	2009	2009
Type	PG 6581B	PG 6581B
Serie number	850162	850167
Turbine speed [rpm]	5.163	5.163
Alternator speed [rpm]	3.000	3.000
Alternator manufacturer	Brush	Brush
Alternator type and series number	Type: BDAX 7 290 ERHN Series number: 340X930 / 340X931	Type: BDAX 7 290 ERHN Series number: 340X930 / 340X931
Alternator characteristics	11000V 3 phased 50Hz 56750kva	11000V 3 phased 50Hz 56750kva
Reduction gear manufacturer	Flender	Flender
Reduction gear series number	10139 / 10140	10139 / 10140
Reduction gear speed (input/ output)	5163 / 3000	5163 / 3000

	SG-4801	SG-4851
General specifications	**Boiler component and piping**	**Boiler component and piping**
Turbine Manufacturer	NEM	NEM
Start/ Revamp date	2011	2011
Design Code	ASME I Ed.2007 ASME B31.1 Ed.2007 ASME VIII Ed. 2007	ASME I Ed.2007 ASME B31.1 Ed.2007 ASME VIII Ed. 2007
Serie number	SG4801	SG4851
Boiler HP Superheater pressure and temperature (max)	80 bar 470 ºC	80 bar 470 ºC
Boiler HP Evaporator pressure and temperature (max)	80 bar 296 ºC	80 bar 296 ºC
Boiler HP Economizer pressure and temperature (max)	105 bar 316 ºC	105 bar 316 ºC
Piping HP steam pressure and temperature (max)	80 bar 470 ºC	80 bar 470 ºC
Piping HP de-superheater line pressure and temperature (max)	80 bar 465 ºC	80 bar 465 ºC
Piping HP SH blow-off pressure and temperature (max)	18,75 bar 450 ºC	18,75 bar 450 ºC

1.1.2. Spare Parts, Tools and Supplies

Some of the spare parts, special tools and supplies available at site are included for sale as optional, so that both the Bidder and Galp reserves the right not to buy or sell this equipment without the need for compensation.

Available spare parts, tools, and supplies will be made available later on and shall be verified on site by the Bidders.

1.2. Assets' Location – area of intervention

The figures below (Figure 3 and 4) represent the location of the COGEN in the Matosinhos Refinery perimeter and the area of intervention within the scope of this sale.

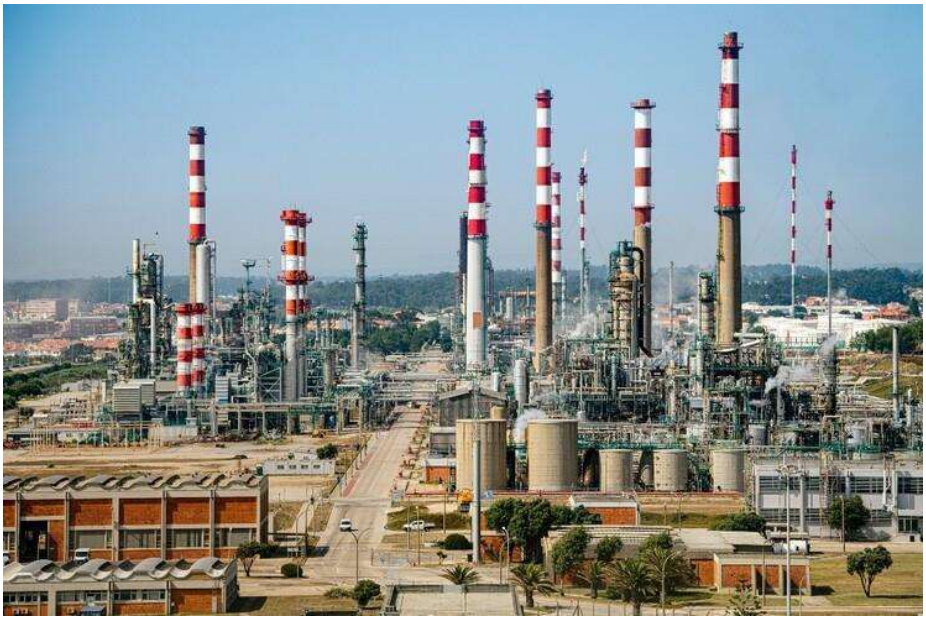

Figure 3 - Refinery view from entrance

Figure 4 – Refinery plant and location of the COGEN unit