



Shahid Rajaei Power Plant



Iranian Privatization Organization (IPO)
Marketing & SOEs Divesting Office

Shahid Rajaei Power Plant



Base Value for 100% Assets: US\$ 1,279,944,525

(Exchange Rate: 29,563 IRR)

Assessment Date: December 2013

Part I: General Information

Parent Company: Iran Power Generation, Transmission & Distribution Management Co. (TAVANIR)

Location: 25 km south of Qazvin, Qazvin – Tehran Highway

Field of Activity: Generation and selling of electricity

Nominal Capacity: 2,042 MW

Steam Power Plant: 1,000 MW (4 units)

Combined Cycle Power Plant: 1,042 MW (6 gas units and 3 steam units)

Consumable Fuel:

Steam Power Plant:

Primary fuel: Gas

Secondary fuel: Mazot

Combined Cycle Power Plant:

Primary fuel: Gas

Secondary fuel: Gas Oil

Employment status: The plant is run by Shahid Rajaei Management Company. The number of staff in Shahid Rajaei Management Company is 493 Personnel on September 2013.

Percentage of Divestible Assets: 100%

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Part II: Assets

Information of Land & Buildings

Shahid Rajae Power Plant	Land's Area (m²)	Land's Value (US\$)	Buildings' Area (m²)	Buildings' Value (US\$)	Total Value (US\$)
Combined Cycle Power Plant	593,882	15,066,502	47,879	53,292,968	68,359,470
Steam Power Plant	2,546,388	51,669,316	30,500	71,958,191	123,627,507
Total	3,140,270	66,735,818	78,379	125,251,159	191,986,977

Market Value of Shahid Rajae Steam Power Plant

Title	Value (US\$)
Land of power plant	51,669,316
Buildings and premises of the power plant	71,958,191
Site construction, fencing and construction of other buildings	21,486,317
Machinery and installations (four 250-MW units)	592,455,299
Vehicles	33,488
Intangible fixed assets	11,500,863
Total	749,103,474

Market Value of Shahid Rajae Combined Cycle Power Plant

Title	Value (US\$)
Land of power plant	15,066,502
Buildings and premises of the power plant	53,292,968
Site construction, fencing and construction of other buildings	11,974,427
Machinery and installations (six gas units and 3 steam units, totally producing 1042.2 MW electricity)	445,117,850
Intangible fixed assets	5,412,171
Total	530,863,918

Total Market Value of Shahid Rajae Power Plant

Title	Value (US\$)
Thermal power plant	749,103,474
Combined cycle power plant	530,863,918
Total value of power plant	1,279,967,392

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Part III: Details

Steam Power Plant

Steam power plant includes 4 steam units manufactured by MITSUBISHI Company, 4 turbines manufactured by Japanese MHI Company and also 4 generators manufactured by Japanese MELCO Company with the production capacity of each 250 MW (Totally 1,000 MW).

Launch of Operation:

The first unit of the power plant was launched in October 1992, the second one in February 1993, the third unit in August 1993 and the fourth one in April 1994.

Net Production:

Since launch up to the end of March 2012, the total net production of steam units stood at 108,870,000 MW/H.

Efficiency:

The steam units' output of the power plant, at the end of the year (March 2012) was 37.5%.

Maintenance:

In addition to the 6 month periodical inspections, the mentioned units were semi-repaired and maintained once every two years.

Development Project of Steam Power Plant:

The development project of the power plant (1,000MW) has not yet been launched. The studies made in this regard shows that all the buildings of the power plant (technical and nontechnical) have been designed and constructed to meet requirements of the development plan well.

All the auxiliary systems of the power plant (mechanical and electrical systems) and also central control chamber have enough capacity, and about 80% of necessary parts and equipments of the project have been purchased and installed in this unit for expansion project.

Combined Cycle Power Plant

This unit includes 3 combined cycle modules (each module is comprised of 2 gas units and one steam unit). The gas units of the power plant have the electricity generation capacity of 740.4 MW and the steam units have the capacity of 301.8MW. Totally, the electricity generation capacity of gas and steam units of the power plant is 1042.2MW.

Launch of Operation:

The construction operation of gas units (including 6 units) started at 1991 which 5 units were put into operation in 1994 and sixth unit of the power plant became operational in 1995.

The construction operation of steam unit started at 1999 and was put into operation in 2001.

Net Production:

Since launch up to the end of October 2012, total net production of combined cycle units stood at 62,608,000 MW/H.

Efficiency:

The working output and efficiency of the gas units stood at approx. 29.5% in 2011.

The output of one stage (module of combined cycle power plant) stood at approx. 44.5% in 2011.

Maintenance:

The maintenance of gas units of the power plant have been conducted according to the instruction of manufacturing company. In addition to annual and periodical inspections, combined cycle steam units were semi-repaired after 50,000 hours operating. After 100,000 hours operating, the units will be repaired completely. The units of the power plant work annually about 8,000 hours.