

# ENERGY

anytime...

Complete solutions for power generation



**Owner:**

 Petrobras Energia S.A. & Ecuador TLC S.A.

**EPC Contractor:**

Energy International Corp.

**Main Equipment:**

2 water tube boilers superheated system.  
2 steam turbine generators condensing type.  
2 surface condensers.  
1 mechanical draft cooling tower.  
1 Cat® 12CM32 generator set.

**Location:**

Palo Azul, Block 18, Ecuador

**Application:**

Hybrid Plant (burning associated gas & crude oil) for Electric Power Generation required by the CPF.

**Technical Data:**

2 x 6 MW + 1 x 5.6 MW = 17.6 MW @ 13.8 kV / 60 Hz

Energy International offers integrated energy solutions with the highest quality engineering, procurement, project management and construction services in the industry.



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## Petrobras Ecuador

### Fuel:

This plant is able to burn in steam generating boilers associated gas of low calorific value and crude oil of high viscosity as supplementary fuel.

### Generators:

2 x 6.0 MW Shin Nippon Machinery steam turbine generators and 1 x 5.6 MW Cat® reciprocating generator set, all generating at 60 Hz, 13.8 kV.

### Distribution & Control:

Switchgear and Control system providing plant protection, SCADA control and monitoring.

### Turnkey Responsibility:

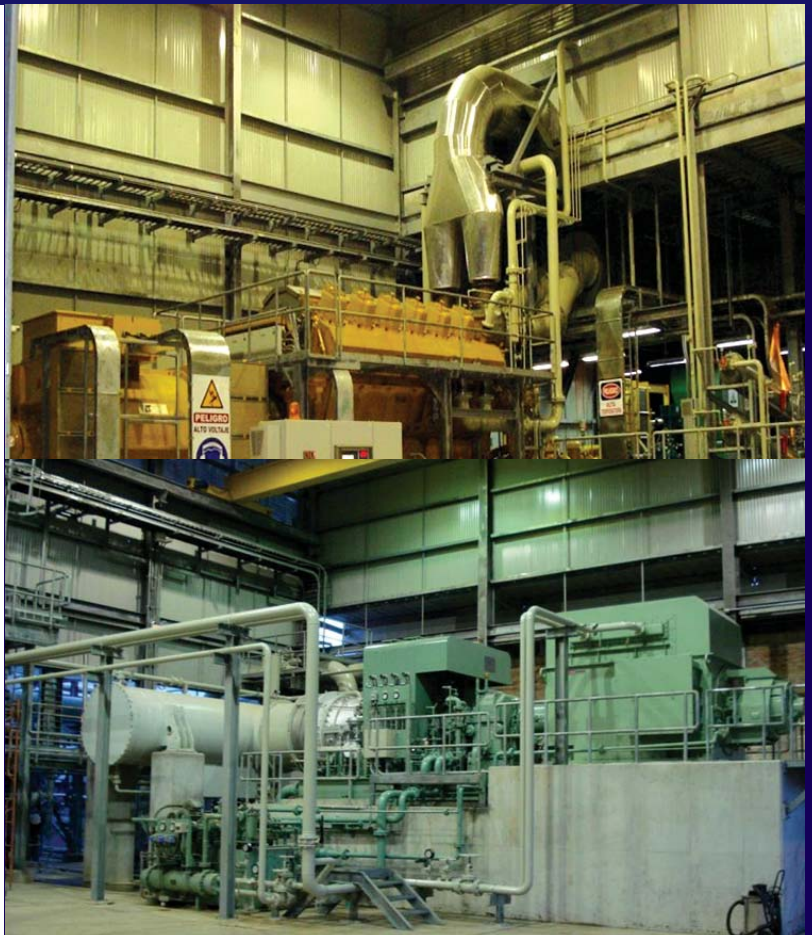
Energy International

### O&M Contractor/Term:

Energy International /5 Year Term

### Commercial Operation:

February 2008



## Customer Benefits

### Power generation in a remote and non-interconnected area

The customer needed a primary power source in this remote region to support the Central Processing Facility CPF for their oil production. Energy International built a hybrid dual fuel power plant which consists of 2 x Steam Boilers, 2 x Steam Turbine Generator Sets and 1x generator set burning associated gas of low calorific value, crude oil and diesel for electric power generation.

## Scope

Energy international's scope of supply includes the complete power plant with all required systems and auxiliaries; basic, system and detailed engineering; project management, other engineering services; civil works; mechanical and electrical installation; commissioning; and start up.

**This project was presented at the 1st International Energy Forum of Petrobras and won an award for energy efficiency.**