Generation of electrical energy for the production facilities of one of our customers with operations in the north of Peru (lots 8 and 192).

**HOW DO WE ACHIEVE THIS?**

Lots 8 and 92 generate 35% of the country’s petroleum and Stork has been responsible for 70% of the electricity generation required for the whole operation of both lots since 2008. We have specialised equipment at the electricity plants manufactured by Wärtsilä with 18V32 (3x6 MW) and 18V38 (4x10.5 MW) motors with an installed capacity of 60 MW using HFO (Heavy Fuel Oil).

**CLIENT REQUIREMENTS**

The customer had a growing demand for electricity generation and needed to optimise its operational costs. They were using older units which were not producing the energy required and they also posed a high risk to the operation.

**STORK SOLUTION**

Stork was responsible for initiating the operation of the plants and to do so, implemented a long term management model for the Wärtsilä plants based on three main areas: Establish a culture of health and safety (HSE) as a priority, a competent team and the application of strategies and tools appropriate to the operational requirements of the plants. Each one of these elements has been key in the development and implementation of the good practices management system in maintenance engineering and reliability. This is based on an asset management model for the Operations & Maintenance service of the generation plants. Today, we find ourselves faced with established processes in which costs are optimised, risks are controlled and the operational performance exceeds the indicators agreed with the customer.
CHALLENGES

Structuring a management model suitable for the operation and maintenance of the two electrical plants located in the rainforest in the north of Peru was not an easy task. It had to include a practical focus to ensure the correct operation and maintainability of more than 700 maintainable assets (mechanical, electrical and instruments) at the electrical plants in a systematic and orderly manner throughout the first 72 months of the operation.

SUSTAINABLE AND RELIABLE RESULTS

The satisfaction of the customer and the creation of value in the service have been Stork’s main focal point in consolidating tangible results since 2008 to the present, for example:

- Compliance with the operational and management indicators, with accumulated values in excess of the contracted target:
  
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Goal</th>
<th>2008-2015 *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational availability</td>
<td>94%</td>
<td>96%</td>
</tr>
<tr>
<td>Reliability</td>
<td>97%</td>
<td>99%</td>
</tr>
</tbody>
</table>

* Securities July 2015

- Reduction in fuel (HFO) consumption by more than $480,000 in 2014.
- Proactive focus (98%) on the execution of the maintenance plan.
- Overall optimisation in the consumption of spare parts in major maintenance by more than $500,000 in 2014.

Similarly, in March 2014, Stork’s operations at the Wärtsilä plants were recognised through global Stork’s REACH programme for the best performance in HSE and for its good execution of the major maintenance on one of the electrical generation plants.