

Case Study

Industrial Energy Efficiency



Sector:	<input checked="" type="checkbox"/> Industry	<input type="checkbox"/> Large Buildings	<input type="checkbox"/> Infraestruturas	<input type="checkbox"/> Small buildings / residential
Subsector:	Data Center			
Client:	Portugal Telecom	Ano:	2010	
Location:	Lisbon	Implementação (meses):	N/A	
Type of Contract:	Portugal Telecom (in bid stage, in partnership with main contractor MotaEngil...bid was not successful).			

Preliminary design of a high-efficiency cooling system, for a 5MW IT Power) new Data Center for Portugal Telecom (in bid stage, in partnership with main contractor MotaEngil...bid was not successful).

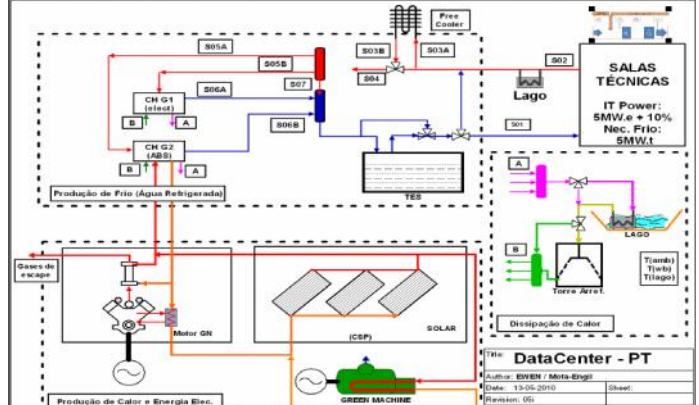
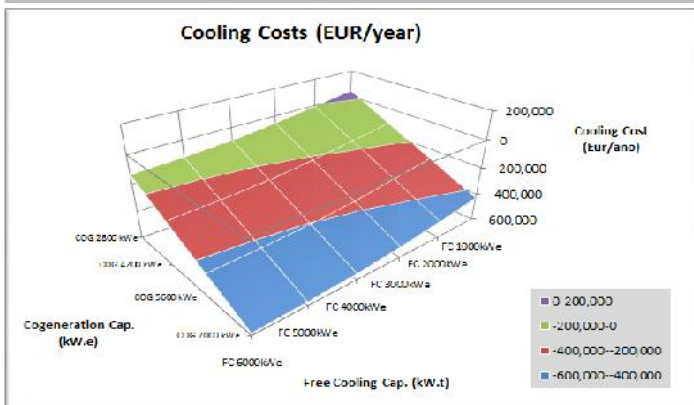
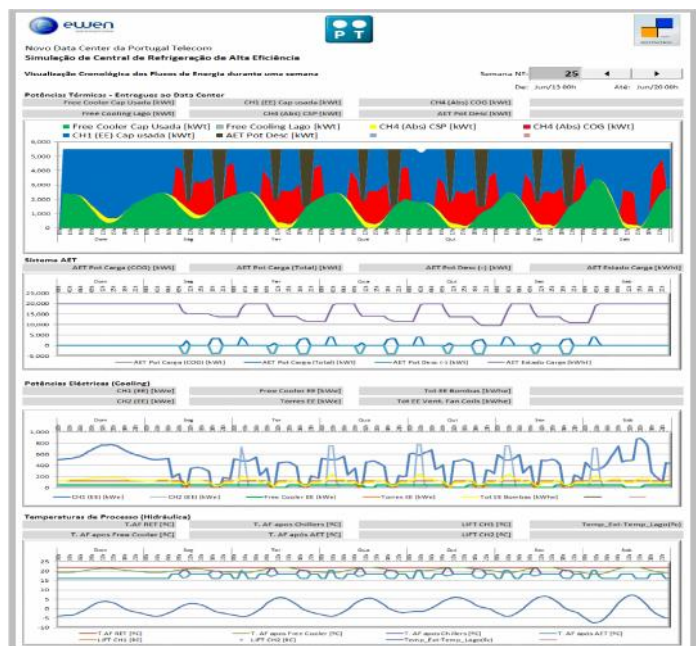
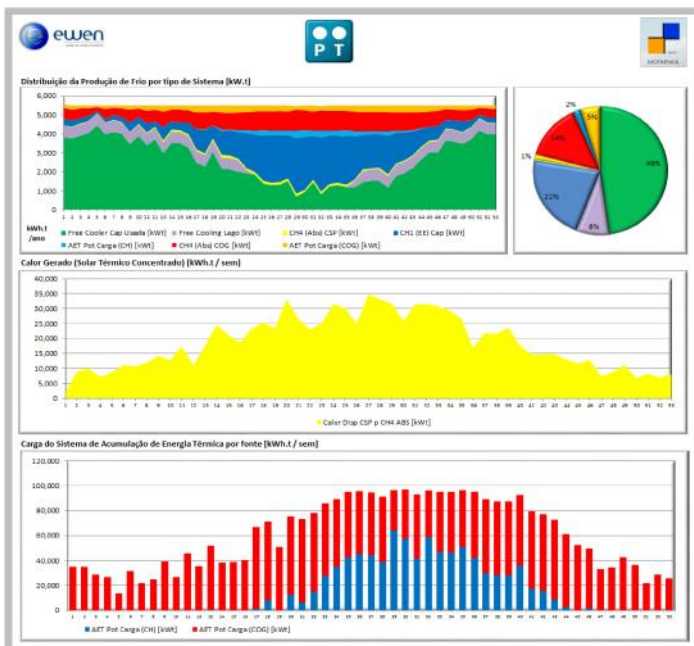
Project description:

EWEN was invited by Mota Engil, the largest Portuguese contractor, to integrate the JV, bidding for a new High-Efficiency Data Center, required by Portugal Telecom.

The JV offered a an innovative DataCenter design, not only in terms of architecture, but with one of the highest energy efficiency levels in the world, with a PUE of 1.227.

For this project, EWEN developed a sophisticated model, to simulate the performance of the cooling system, including the performance of the main equipment, taking into account the climatic conditions, for each of the 8760 hours in the year. The model can be used with climatic conditions for any location, allowing the designer to quantify the energy benefits of one location, versus another.

EWEN studied various technical solutions, integrating TES (Thermal Energy Storage) and renewable energy, enabling us to propose the best solution, taking into consideration not only the PUE indicator, but also the corresponding investment.



Modelo: MP071_v03_CS010