HYDROGEN ENGINE CHP DESIGN WITH COGMCI

LET COGMCI ACCELERATE THE ENERGY TRANSITION

100% renewable electricity puts some challenges to the grid operator, mainly due to the intermittent characteristics of solar and wind generation. Batteries, hydropower, biogas, hydrogen, central thermal plants, etc are technologies to support grid stability. There is no unique or best solution, the challenge is to develop good projects taking the most of each technology and application opportunity. Sites with coincident thermal and electrical demands for long periods are good candidates for hydrogen engine CHP systems. Hydrogen engine CHP can save up to 40% hydrogen compared with central thermal plants and site thermal equipment.

COGMCI has 20 years of development software to design and simulate engine CHP systems. It joins the known science of building and factory energy analysis and thermal equipment design and simulation methodologies to predict engine CHP performance on an annual basis.

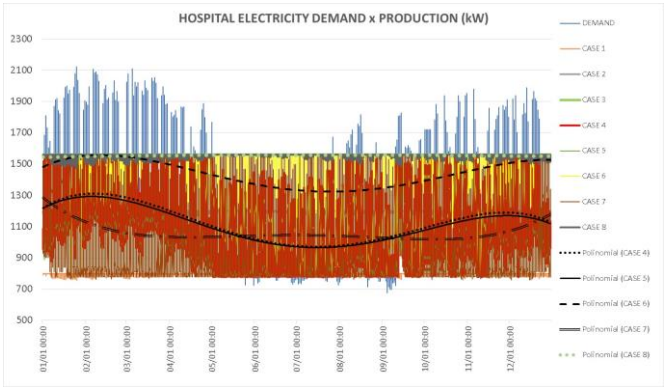
Several case studies were developed. Most of the cases reveal that engine CHP has a bigger potential than today's projects explore.

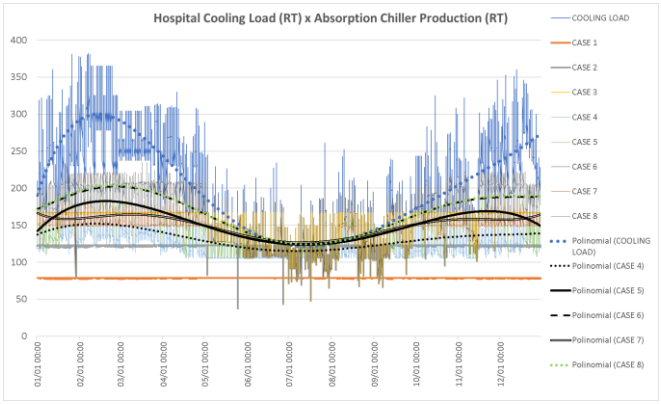
COGMCI designs your engine CHP systems:

- Engine performance curves
- Absorption chillers performance.
- HRSG – heat recovery steam generator
- Heat exchangers simulation.
- Pumps, cooling towers, dry coolers, etc

Part load performance allows the hydrogen engine CHP analysis at (i) full load, (ii) electrical dispatch, and (iii) thermal dispatch.

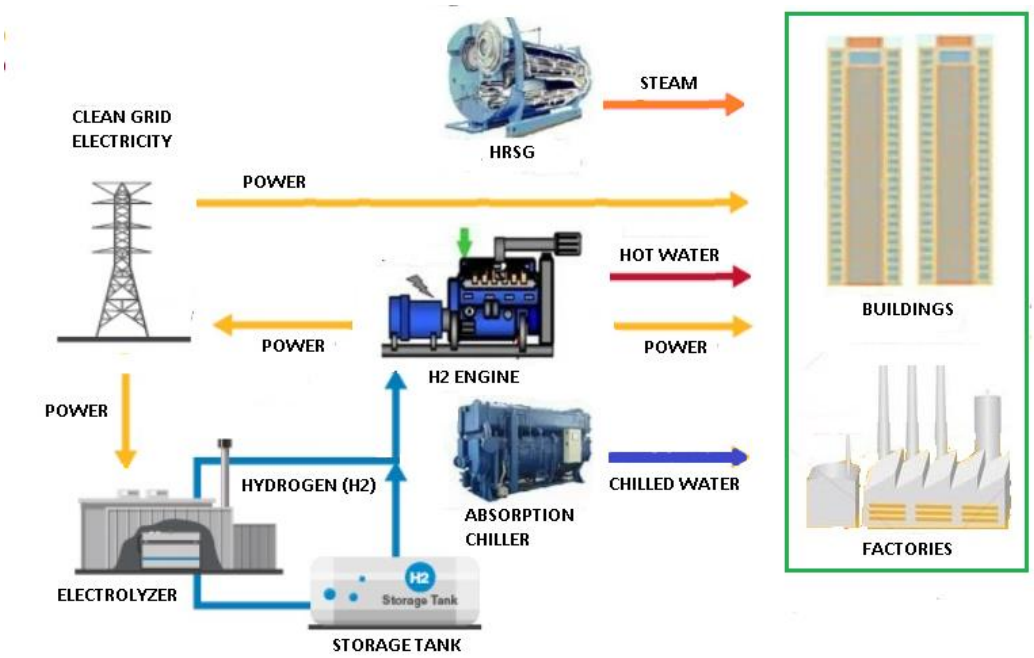
COGMCI develops an annual performance analysis looking for better solutions for a one-year scenario.





COGMCI develops engine CHP solutions making the better use of hydrogen.

Visit the COGMCI site for more information.
https://www.sisterm.com.br/en/cogeneration.



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