INTRODUCTION

In LNG Plant, Hot Air Recirculation (HAR) flows back into the intake of Air-cooled HEX (ACHV) and Gas Turbine. This phenomenon heats up the gas turbines and sets the gas turbine's LIMITS to the available power for liquefaction duty. Therefore, restricting the plant from realizing maximum utilization of available power for maximum LNG production.

CONCLUSIONS

This comprehensive study was conducted by the means of Data Analytics combined with Rigorous Process Simulation and Computational Fluid Dynamics (CFD) to supplement the Big Data from first principles perspective. The use of this predictive tool allows operators to predict the HAR occurring atmospheric condition, leading to an increased LNG production to potential maximum.

OBJECTIVES

To resolve the refrigeration demand and power margin limitation, PETRONAS and JGC collaborated to innovate a process control driven technology of HAR PREDICTIVE ANALYTICS (HAR DIGITAL 1.0) at LNG plant in Malaysia.

INNOVATION: HAR DIGITAL 1.0

REFERENCES


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