

## EUR21\_06 – HYBRID TECHNIQUE LOAD FORECAST AND ESTIMATION FOR UPSTREAM OIL & GAS INDUSTRY

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**Abstract** - Investment in the infrastructure of the power generation is one of the key portions of Oil & gas production projects. This infrastructure shall cover all power demand of production facilities as sales agreement and long-term field development plan. The load forecast and estimation shall be developed at the early phase to identify the power demand which significantly impacts project CAPEX.

As the normal practice, the total load demand is calculated based on equipment rating. This works well for midstream and downstream. However, this method might not result as well as others for upstream due to uncertainty from process variation and production profile.

The “Hybrid Technique” was thus implemented in two (2) Oil fields in 2014 and 2017 which results in \$30 million saving and six (6) months early production gain.

This paper is to describe the new methodology to estimate better load forecast by using process operation data into account. This method has been proved with good results in those two projects.