

## 781 – Replacement of ST and GT by Electrical High Speed systems for CO2 Reduction

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Abstract: Regulations on CO2 emission reductions as well as potential taxation on CO2 production are coming in place worldwide. There are many possible ways to reduce CO2 emissions Chemical and Petrochemical plants as well as off shore platforms.

One is to replace ST or GT with direct electrical drivers such as High Speed Electrical drives. This can be done for new plants as well as for existing plants. The requirements will be different.

This paper will cover

- Turbine replacement models for Green field (OEMs) and Brown field (EPC, End User) for offshore and onshore plants
- Technology necessary and available for turbine replacement with electrical drives such as High Speed Motors, VFDs, E Houses and auxiliaries
- Check sheet for evaluation turbine replacements with electrical drives
- Field examples as “case studies”

It is planned to have an end user joining the paper