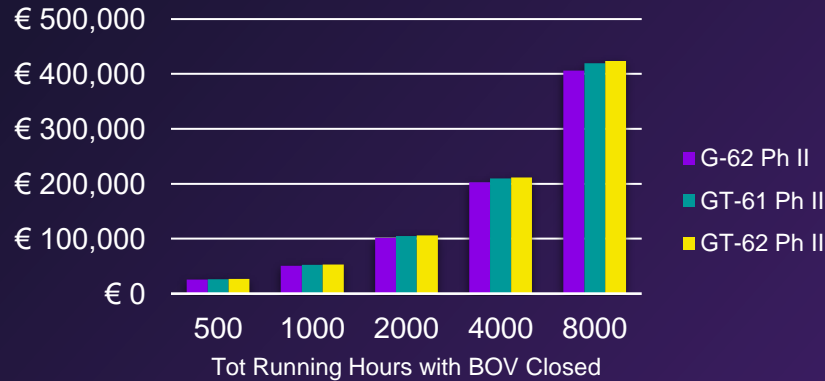


# Bleed Valve Optimization

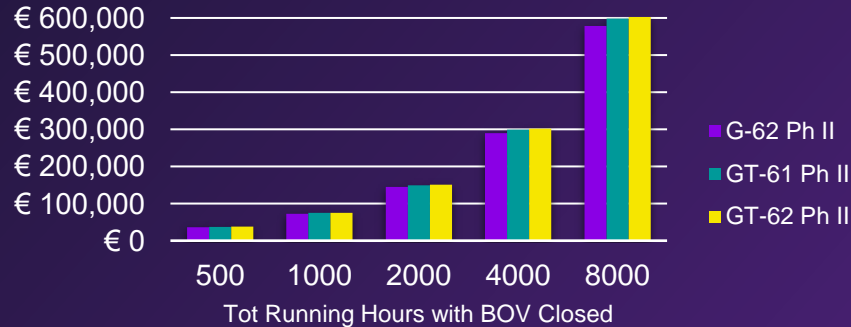
Applicable fleet: SGT-A35



### A35 Ph II Estimated Average Fuel Cost Savings



### A35 Ph II Estimated Average Fuel and CO2 Tax Cost Savings



Note: Estimated Fuel Cost / CO2 tax Savings above are provided for indicative purposes only and are based on a fuel gas price of €7/MMBtu and CO2 tax of €50/ton.

Reliability

Availability

Efficiency

CO<sub>2</sub>-savings



Equivalent to ~18% H2 blend

CO<sub>2</sub> Up to 7% CO<sub>2</sub> reduction

## Product Overview

Thanks to many years of experience and operational data, Siemens Energy has enabled the lowering of the SGT-A35 Bleed Off Valves (BOV) closure setpoints.

- Running with closed BOVs increases the Gas Turbine's operating efficiency, reduces NO<sub>x</sub> and CO<sub>2</sub> Emissions and increases the unit's reliability and availability.



## Improved Features

- Engine Control system (ECS) that allows a reduction in the steady state switching points for closing and opening the BOVs.
- Significant reduction in the power level at which BOV closing at steady-state conditions occur.
- BOV closure power is reduced from around 13/14 MW to 2/3 MW depending on site-specific conditions.



## Benefits

- Up to 7% reduction in Fuel Consumption and CO<sub>2</sub> Emissions.
- Up to 10% reduction in NO<sub>x</sub> Emissions.
- Increased unit's reliability and availability.



## Scope of work & Implementation

- Implementation and full testing of the BOV Closure Setpoint software change is performed at a Siemens Energy facility and sent to **site** ready for installation by Field Service.
- Additional Hardware or Software modification may be required as a mandatory pre-requisite for the BOV Setpoint modification.

