



Operational flexibility and increased cycling duty are key requirements for combined-cycle power plants today and into the future. As part of our commitment to improving plant lifetimes and flexibility while reducing environmental footprints, Ansaldo Energia continuously improves products by leveraging our extensive fleet experience and state-of-the-art technology.

One of these improvements helps optimize a plant outage by removing the five (5) minute idle operation during shutdown.

How You Benefit

This improvement is applicable to all GT26 units and is fully retrofittable. The improvement consists of a software modification which can be implemented during a shutdown (plant in standstill).

CUSTOMER BENEFITS

- Reduction of gas consumption during shutdown
- Reduction of CO² emissions
- Reduction of HRSG lifetime consumption

TECHNICAL FEATURES

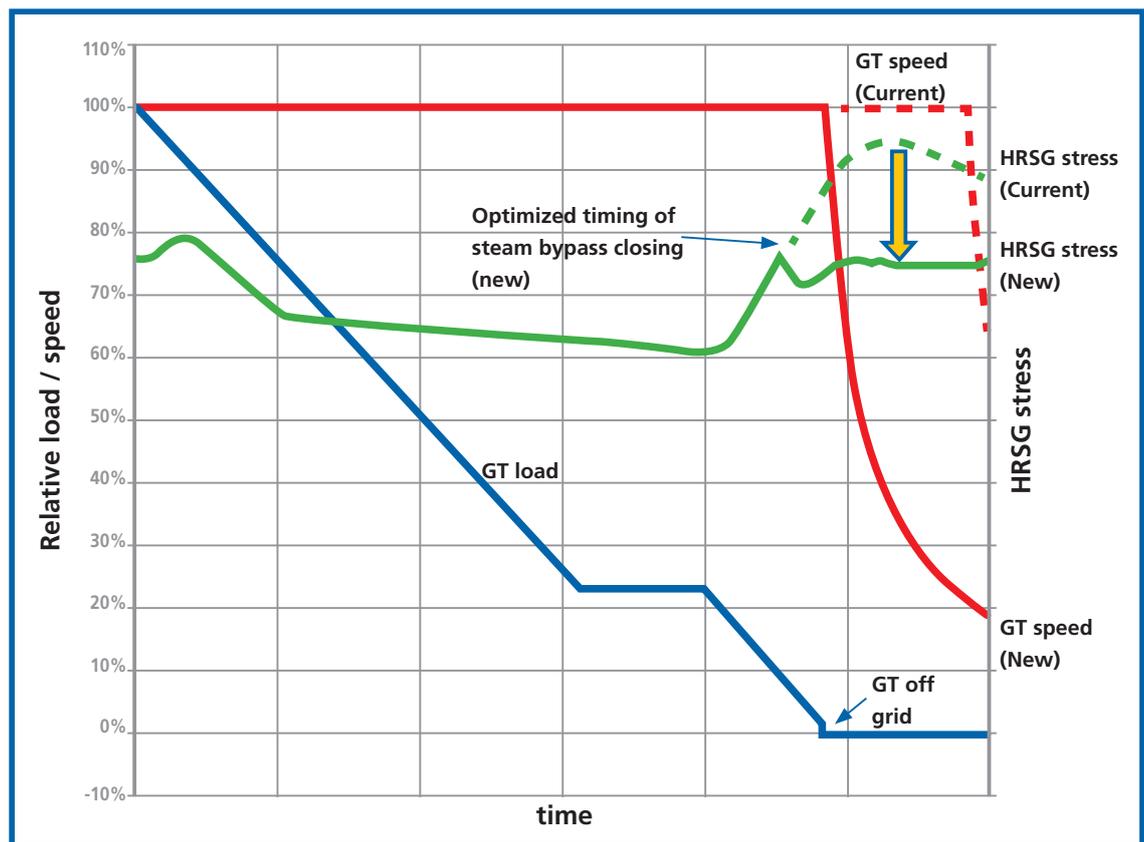
- Software modification



Technical Description

During normal shutdown of the GT, the operator initiates the shutdown sequencer to take the GT out of service. The target load set point is automatically set to minimum and the GT is deloaded with normal loading gradient. The load is then further reduced by lowering the speed set point. The reverse power relay is used to open the breaker and de-synchronise the machine. After the breaker is opened, the unit remains at nominal (idle) speed for a cooling time of 5 minutes. During the cooldown time, the HRSG is purged with a constant flow of air, subjecting it to additional thermal stress.

After detailed mechanical integrity assessments and extensive fleet experience, we identified that the five (5) minute idle holding time of the GT at the end of the normal shutdown procedure could be eliminated without negative impact to any component. The picture below shows a comparison of relative speed of the GT and stress on the HRSG during current vs. the new optimised shutdown. Through implementation of this change, the rate of cooling of the HRSG is reduced, thereby reducing the stress to critical components. Current market conditions are resulting in more cyclic operation of thermal assets, and thus the benefits of eliminating this additional stress are amplified. In addition, five (5) minutes of non-productive operation time are removed from each machine cycle, providing the power plant with reduced fuel costs and environmental benefits.



For more information and to reach our sales Team, please go to www.AnsaldoEnergia.com

Ansaldo Energia, all rights reserved. Trademarks mentioned in this document are the property of Ansaldo Energia, its affiliates, or their respective owners in the scope of registration. The information contained in this document is merely indicative. No representation or warranty is provided, nor should be relied on, that such information is complete or correct or will apply to any particular project. This will depend on the technical and commercial circumstances. Said information is provided without liability and is subject to change without notice. Reproduction, use or disclosure to third parties, without express written authority, is strictly prohibited.