

# Wärtsilä Power plant lifecycle upgrade



Extend the lifetime of your asset and maximise your power plant performance with a lifecycle upgrade or rehabilitation from Wärtsilä. We analyse the condition of your power plant and recommend actions to correct decreased output in order to generate electricity at the lowest possible cost. The upgrade is always customised, with options for added business value.

All complex systems benefit from maintenance throughout their lifecycle, ensuring the continual high-level performance that is the hallmark of Wärtsilä engines and power plants. Any reduction in plant performance, whether it is decreased output capacity, efficiency, reliability or availability, can lead to loss of revenue. Maintenance neglect may even lead to penalties caused by loss of production and increased fuel consumption.

Rehabilitation of the power plant is an efficient way to restore the plant to its original state of performance. Combining a rehabilitation project with a power plant upgrade or gas conversion might even gain you access to new power generation markets.

An upgrade is the perfect solution if you are facing challenges meeting power production obligations due to a decline in plant output, or if the power plant is not competitive enough due to high production costs.

If the cause for reduced performance is unknown, it could be, for example, a case of de-rating. De-rating on- and off-engine can be triggered by:

- the cooling system
- the fuel system, fuel type or quality
- the lubrication oil system, oil type or quality
- the charge air system
- the electrical and automation systems.

## KEY BENEFITS

- Maximised output and efficiency
- Extended lifespan
- Increased reliability and availability
- Reduced operating costs
- Having just one EPC solutions provider minimises project management risks and complexity.



## EXPERT ADVICE FOR IMPROVED PLANT PERFORMANCE

A Wärtsilä Power plant lifecycle upgrade or rehabilitation starts with a detailed technical audit. A desktop study is performed to identify potential areas of improvement. Once the study is completed, an expert site survey team will determine the condition of the power plant, including its engine, electrical and mechanical equipment as well as its operation and performance.

Operating routines will also be investigated and reviewed. After an expert analysis, improvements are recommended to bring the plant back to its original state of performance or beyond.

Power plant rehabilitation is a customised project based on the audit analysis and identified measures for restoring the plant's capacity. When a power plant is rehabilitated, the key components of the plant and its automation systems are upgraded or replaced to comply with the latest standards. The modernised equipment is more efficient and consume less energy. One of the biggest benefits is that the availability of spare parts is secured, minimising the risk of unplanned downtime and ensuring plant availability at all times.

Wärtsilä Lifecycle Solutions for power plants is another efficient way to optimise operations and prevent the unexpected.

## ARE YOU MAKING THE MOST OF YOUR POWER PLANT?

- **Do you know** the true condition of your engine and power plant equipment?
- **Has your power plant** been surveyed by a team of experts?
- **Are your maintenance** routines based on the actual condition of your equipment?
- **Have your electrical** and automation systems been checked for obsolescence?
- **Could your operating** routines be improved upon?
- **Do you have a partner** that fully understands your systems and can make recommendations on how to improve power plant performance, thus increasing the reliability and availability of your power plant?
- **Do you have the opportunity** to enter into new power generation markets or agreements, but feel the original plant configuration is limited?

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