

A new service agreement solution for peaking power plants

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Fig. 1 – Condition monitoring and maintenance planning enable optimisation of lifecycle costs.

A service agreement is more than merely an effective way for ensuring the certainty of operations. It signifies the long-term co-operation of both parties in working towards a shared goal. Wärtsilä works hard to develop service agreements that meet the specific needs of customers.

A service agreement enhances business

With a tailor-made agreement, the customer signs up for not only a long-term partnership with Wärtsilä, but also to achieve improved reliability and availability. It also means maximised lifetime for the installation and reduced operational costs in a safe, reliable, and environmentally sustainable way.

Technical expertise – locally and globally around the clock

Only a company with a global service network has the capability to employ local people to execute the agreement wherever required. In terms of customer relations

it is important that the personnel speak the local language, understand the culture and build trust among customers.

An agreement also minimises the points of contact for maintenance calls. Individual equipment suppliers need not be contacted, since Wärtsilä co-ordinates all maintenance requests and provides easy access to Wärtsilä's local and global knowledge base.

A service agreement ensures certainty of operations for peaking power plants

Owners of peaking power plants expect trouble-free operations from the facility. During the first three years of operation, the new Wärtsilä service agreement solution →



■ Fig. 2 – With a Wärtsilä customer support engineer on site, operational support is immediately available.

provides onsite customer-support personnel, scheduled and unscheduled maintenance, as well as condition monitoring to optimise the performance, availability, and reliability of the asset. In short, the added value means that the operator can focus on his core business. A partnership with Wartsilä provides that peace of mind.

An investment in a peaking power plant is mostly derived from the need to occasionally compensate for a lack of available electricity. A Wartsilä service agreement solution backed up with a prolonged warranty, valid from the first day of commercial operation, provides reduced risk for the customer's investment and operations. Ensuring certainty of operations also provides several other benefits, such as increased efficiency and cost predictability.

An agreement is a sound investment

There are often significant seasonal, weekly and daily variations in power demand. In a multi-unit power plant the units can be started and stopped as per power demand. This means that the annual average unit running hours, depending on the actual load profile, can be considerably lower than the annual plant running hours.

Especially in case the load profile varies significantly, the influence on the maintenance costs is considerable. In a multi-engine plant the units can be dispatched, so that the running hours are unequally spread on each unit. This concept allows for scheduling the maintenance one unit at a time, thereby maximising the available power generation capacity at any given time. Ideally, the maintenance is scheduled at periods of lower power demand. A Wartsilä service agreement is a sound investment since it can directly impact the overall operational efficiency of the plant. Moreover, this type of agreement brings several other considerable benefits. These include optimised and fixed operational costs; improved operational reliability; maximised uptime; dedicated technical expertise and support from a global network of skilled service experts; minimised downtime through proper maintenance and co-ordinated schedules; online condition monitoring; and the availability of OEM parts and consumables.

The right solution for peaking plants

This new solution is designed with the needs of the customer in mind. Not all peaking power plant customers are familiar with Wartsilä technology, nor do they all have

experience of working with the company.

This new service agreement solution is, therefore, aimed at ensuring that the customer's investment is secure and predictable. By building a strong and trusting partnership with the customer, operational costs can be accurately estimated and additional costs avoided. The service agreement extends the warranty period of the equipment and ensures that the customer receives the highest level of support. In short, the availability and reliability of the plant will be maximised. All technical support, maintenance planning, and safety spare parts management planning is customised according to the customer's specific requirements.

On site operational support

A peaking power plant may operate for many hours a day or for only a few hours per year. Whatever the case, it is vital that the plant has the ability to quickly reach full capacity under all conditions. With a Wartsilä customer-support engineer on site, the operator can be assured of a reliable plant start-up **every time**. It also means that fast and efficient communication with Wartsilä's technical expertise is maintained.

The onsite customer-support engineer also serves to minimise the number of contact points for maintenance calls.

Maintenance planning to support the operating profile

Wartsilä specialises in customised maintenance agreements designed specifically to meet the operational requirements of individual power plants. The company's new agreement for peak-load plants features prolonged warranty coverage and a multi-portfolio services mix.

The improved forecasting of maintenance needs, and the overall function of the system, are achieved through the remote monitoring, measuring, and analysis of engine parameters. Wartsilä's technical support and maintenance planning teams offer unrivalled resources and know-how for keeping equipment online and reducing downtime. Data is analysed and trends and changes in operating parameters can be identified well before they might compromise the performance of the installation.

A cost-predictable future

Although savings are always important, it is cost predictability that becomes even more →

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Services Solution Studio,
Condition Monitoring:

[www.wartsila.com/en/
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vital when dealing with long-term business performance. With OPEX predictability over a longer period of time, lifecycle costs can be forecasted accurately, and maintenance expenses for the coming years can be accurately budgeted. Part of this is achieved through the inventory management of the customer-owned onsite safety stock, which is there to support the operating profile.

Preventing the unexpected

This service agreement is available for new gas-fired peaking power plants in, among other places, the USA, Europe, and Australia. The service agreement is valid from the first day of commercial operation.

A Wärtsilä service agreement is a proven way of preventing the unexpected, and keeping the installation productive and profitable – throughout the entire lifecycle. A peak-load maintenance agreement provides optimised performance, and includes a long-term warranty, an onsite

customer-support engineer with OEM expertise; OEM services, inventory management and remote monitoring to improve reliability; OPEX predictability; maintenance planning; and optimised maintenance and logistics.

The basic idea behind a maintenance agreement for peaking power plants with Wärtsilä is long-term cooperation, where both parties work towards a shared goal, namely the company's continued productivity – and profitability.

What are the specific needs?

With more than 17,600 MW under service agreements, and more than 500 installations covering a wide variety of land-based, marine and offshore installations being operated and maintained by Wärtsilä, the company is widely recognized as being the preferred service supplier by customers. These agreements ensure the availability and cost-efficient operations of their installations.

Wärtsilä offers four types of standardised agreements, ranging from supply agreements to technical management, as well as maintenance agreements and complete asset management support. However, all agreements are customised to fulfil each customer's specific needs.

Highlights of a maintenance agreement for peaking power plants

- Long-term warranty coverage.
- Available for new gas-fired peaking power plants
- Dedicated technical support. Customer-support engineer with OEM expertise ensuring fast and efficient communications
- Condition monitoring to enable trending and optimization of equipment performance
- Maintenance management. Maintenance planning to support the operating profile. Management of customer-owned onsite safety stock. ●

■ Fig. 3 – Wärtsilä offers four types of standardised agreements.



EXAMPLE

– A FLEXIBLE POWER PLANT WITH A MAINTENANCE AGREEMENT: THE STEC RED GATE POWER PLANT, SOUTH TEXAS ELECTRIC COOPERATIVE

- Powered by 12 Wärtsilä 50SG engines running on natural gas having a total output of 225 MW
- Flexibility, quick start-up capability, superior load following, and favourable lifecycle costs
- High efficiency engines result in fewer emissions of CO₂ than simple cycle gas turbine solutions
- High simple cycle efficiency achieved with minimal water consumption

Maintenance Agreement

The agreement provides a number of benefits:

- Optimised maintenance for long-term plant availability, reliability, and efficiency
- Technical and operational assistance with maintenance planning, technical advisors, spare parts, and an on-site inventory
- Technical, parts and risk sharing support



Wärtsilä operates and maintains power plants, and marine and offshore installations, ensuring reliable performance from receiving fuel to supplying energy. By guaranteeing full performance and operational accountability, we can free you from many day-to-day operational concerns so that you can focus on your core business.