

TCM Upgrade

Controlling operational costs



Regulation compliance



Revenue



Operating reliability



Trusted partner

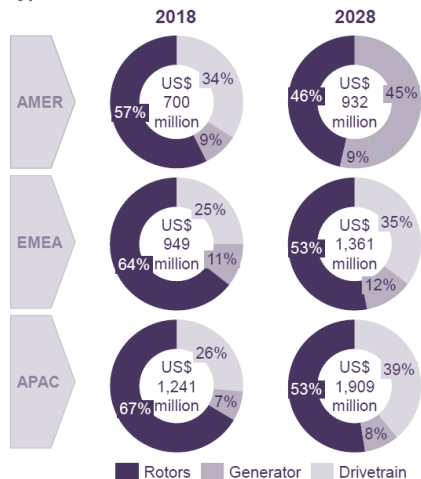


Safety

Challenge

Maintaining sustainable and profitable energy production requires keeping operational expenditures under control. Reports indicate that wind turbine owners across regions will face an increase in major repairs due to drivetrain component failures, resulting in higher operational costs.

Breakdown of major repairs by component type



Solution

To help our customers achieve unmatched predictive maintenance capabilities for developing drivetrain component failures, Siemens Gamesa offers the option to upgrade Gamesa turbines equipped with the SMP condition monitoring system. When upgrading the SMP, we retrofit a more advanced system called TCM, which allows our customers to benefit from our high-performance Vibration Diagnostics service. From the TCM system, we leverage Pythia™, our advanced artificial intelligence and machine learning capabilities, to provide early predictions of developing component failures.

Benefits

- Protect your assets from unexpected downtime by being one step ahead.
- Knowing in advance which tools and parts to bring for a service will improve your first time fix rates.
- The vast knowledge and ability to pinpoint damages in due time before it results in the WTG downtime is how we help reduce costs and increase annual energy production.
- Maintaining your condition monitoring system making sure it is up to date with the latest updates and running smoothly.
- An optional detection guarantee can be combined with the service.

Applicability

G80-2.0 MW, G83-2.0 MW, G87-2.0 MW, G90-2.0 MW, G97-2.0 MW, SWT-1.3-62, SWT-2.0-76, SWT-2.3-82, SWT-3.6-107, SWT-2.3-82 VS, SWT-2.3-93, SWT-3.6-120, SWT-2.3-101, SWT-3.0-101, SWT-3.0-113, SWT-2.3-113, SWT-2.3-108, SWT-4.0-120, SWT-3.0-108, SWT-3.2-113, SWT-3.2-101, SWT-3.2-108, SWT-3.6-130, SWT-2.625-120, SWT-3.15-142, SWT-3.3-130, SWT-3.4-108, SWT-3.4-101, SG 2.1-114, SG 2.6-114, SG 2.6-126, SG 2.1-122, SG 3.4-132, SG 5.0-145 (2.0), SG 2.2-122, SG 2.9-129, SG 5.0-132, SG 6.6-155, SG 6.2-170, SG 2.7-129, SG 4.5-145, SG 3.4-145, SG 6.6-170, SG 3.2-129, SG 4.3-120, SG 4.3-130, SG 4.3-140, SG 7.0-170, SG 5.2-165, SG 5.0-145.

Flexible service

- CMS Analysis – active and passive mode:
- Health trend reports.
 - Email notifications.
 - Actionable advice.
- CMS Maintenance – active mode:
- Software updates.
 - CMS config, maintenance and reports.
 - System troubleshooting support.

Fleet experience

20 years of experience with data management of more than 31,000 turbines in over 50 countries.

Detection Lead times

Predicts component failures up to 3 years in advance enabling optimal planning of serving the wind turbines.

Detection Hit rates

Achieve a 99% detection hit rate across all key drivetrain components, with the option to include a performance guarantee as part of our service.