



Engineering & Analysis

Robust data and informed analysis drive equipment performance. Invenergy has the experience, knowledge and tools to help you obtain actionable operational intelligence, increase efficiency and improve reliability.

We know sustainable energy. Make our expertise your advantage.



What Sets Us Apart

Big Data Analytic Tools

Innovative analytics convert more than 500 million turbine data points per hour into actionable operating recommendations.

Subject Matter Expertise

More than 50 operations engineers, performance analysts and control room operators fine tune analytics based on site and equipment data.

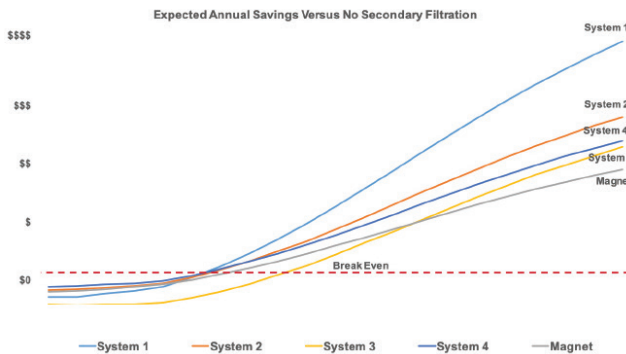
Enhanced Engineering Innovation

Fleet scale enables engineers to prove out new technology and operational improvements that extend asset life.

Providing Value to Operations

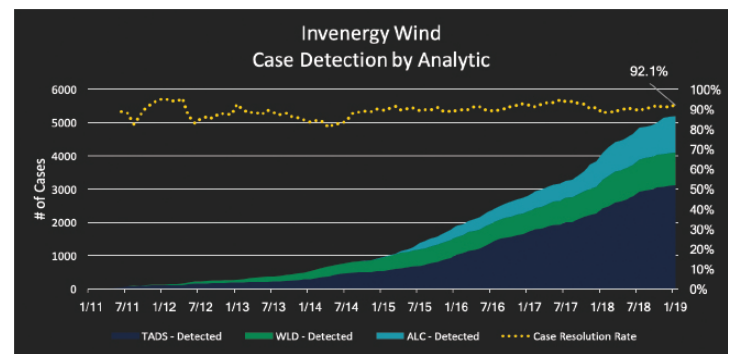
Importance of Oil Health

Through a nine-month pilot, Invenergy engineers were able to validate a low-cost, high-performance secondary oil filtration solution that is projected to save approximately \$3 million over a 20-year period on a 150 megawatt wind farm.



Importance of Performance Analytics

Invenergy's analytics team reviews cases daily to identify turbine issues including drive train performance, power curve performance, ALC health, vibration issues and pitch. With over 5,000 cases since 2011, Invenergy's issue resolution rate is over 92%.



What We Offer

Analytic Services

- Active turbine performance monitoring and alerts
- Operational energy assessment
- Power performance testing
- Performance and upgrade validation
- Engineer review and report on inspection findings
- GADS/NERC Reporting
- Wind variance report

- Weibull curve generation and engineering analysis
- Blade erosion impact assessment
- Lightning detection and inspections
- Foundation health estimation
- Drone inspections
- Solar soiling analysis

Customized Services

- Diagnostic tool development
- SCADA design narratives
- Cost analysis
- Environmental mitigation

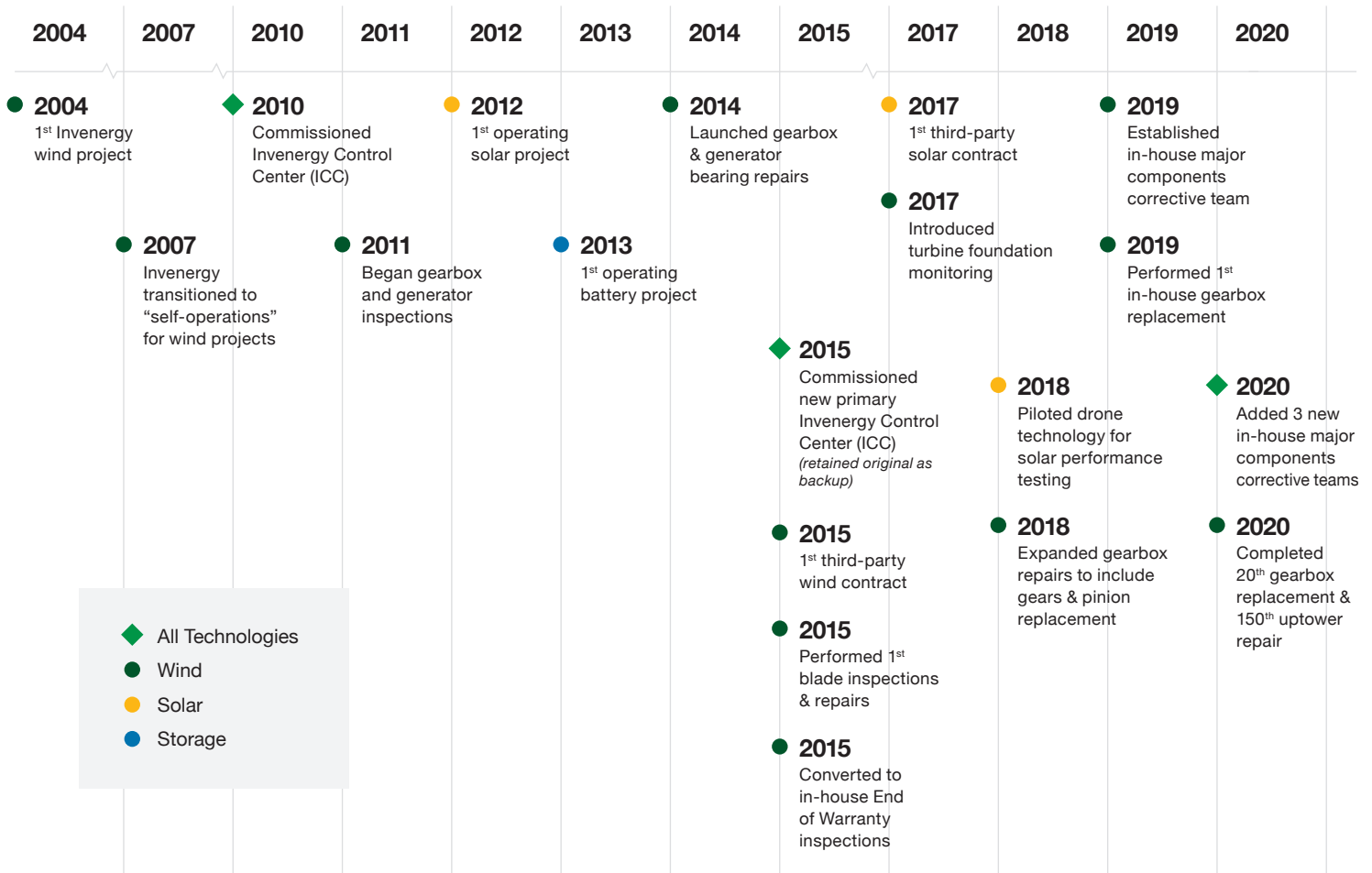


Invenergy Services

Operate with excellence.

Invenergy Services provides sustainable energy asset owners end-to-end solutions for every aspect of asset management, operations and performance analysis. Invenergy Services currently manages more than 10,000 megawatts of wind, solar, natural gas and battery storage facilities, including 1,500 megawatts owned by third-parties. With on-site technicians, a state-of-the-art 24/7 Invenergy Control Center, and a progressive safety culture, Invenergy Services helps customers operate with excellence.

Invenergy Services Timeline



- ◆ All Technologies
- Wind
- Solar
- Storage



About Invenergy

We move projects from the drawing board to reality.

Invenergy is a leading privately held global developer and operator of sustainable energy solutions. Powered by decades of entrepreneurial experience and unparalleled execution, we solve the energy challenges facing our customers and our communities. We are innovators building a sustainable world.