



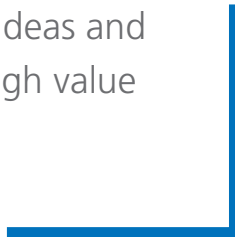
THE LEADER IN OPERATIONS
& MAINTENANCE SERVICES





OUR MISSION

Turning innovative renewable energy ideas and long-term relationships into ethical, high value sustainable business.



OPERATIONS & MAINTENANCE

is our Core Business

The Trusted Leader to Maximize Project Performance

EDF Renewable Services understands that your renewable energy project represents a substantial investment, and once operating, requires strategic management to optimize your return on investment. Operations & Maintenance is our core business.

With **over 10 GW under contract**, EDF Renewable Services has the infrastructure, experience, and expertise to fully optimize, maximize, and analyze your plant performance.

With over 30 years of experience **we are the trusted leader to ensure ongoing profitability** for project owners and investors, whether it's a new or existing facility.

Transparent Service

We've honed our expertise over the last **three decades** and will bring completely transparent service offerings to your asset.

Our full range of services begins prior to commissioning and goes through decommissioning. We provide total project operations & maintenance services including options such as balance-of-plant management, remote monitoring, and OEM oversight.

Our team has extensive experience with a variety of equipment and provides the highest quality maintenance services performed by trained EDF Renewable Services technicians under **stringent safety standards**.



OPTIMIZE YOUR ASSET

full range of services covering the installation life cycle

From construction support to operation through to decommissioning

CONSTRUCTION PHASE

- Wind turbine storage
- Construction support
- Functional tests
- End of construction inspection
- Facility operating plans and budgets including OpEx estimates
- Pre-commissioning support

MANUFACTURER WARRANTY PHASE

- On site maintenance
 - > Total project operations and maintenance
 - > Preventive maintenance
 - > Warranty support
 - > Balance-of-plant services
 - > Scheduled and unscheduled maintenance options
 - > Winergy authorized service provider
 - > Warranty work and force majeure repairs
- Remote
 - > Asset management
 - > NERC compliance support
 - > 24/7/365 remote monitoring
- Transition off warranty
 - > End of warranty inspection
 - > Technical due diligence

Harness our reputation and credibility

For the last 30 years EDF Renewable Services has built a reputation as THE trusted O&M partner. Our name is recognized by banks and lending institutions and our reputation of **reliability, performance, and expertise** enhances your project's bankability, credibility, and financing capability.



POST WARRANTY OPERATION PHASE

DECOMMISSIONING PHASE

■ On site maintenance

- > Total project operations and maintenance
- > Preventive maintenance
- > Warranty support
- > Balance-of-plant services
- > Scheduled and unscheduled maintenance options
- > Warranty work and force majeure repairs
- > Electrical troubleshooting and component replacement
- > Aftermarket product installations

■ Remote

- > Asset management
- > NERC compliance support
- > 24/7/365 remote monitoring
- > Parts recommendations, procurement, receiving, warehousing, and inventory control

■ Wind

- > Winery authorized service provider
- > Generator and gearbox diagnosis, repair, replacement, retrofit and rebuild
- > In-air blade inspection and repairs
- > Blade condition monitoring
- > Hydraulic troubleshooting
- > Rotor removal and turbine retrofits
- > Wind turbine maintenance

■ Solar

- > Maintenance and repair of inverters, trackers, modules, and combiner boxes
- > Functional checks, testing, and maintenance of back-up batteries
- > Collection of oil samples from medium voltage transformers
- > Infrared scans on all collection components

■ Decommissioning process management

- On site compliance, safety, and regulatory support
- Oversight of on site work





INTEGRATED TECHNOLOGY

at the Operations Control Center

ADVANCED TECHNOLOGY TO INCREASE REVENUES

EDF Renewable Services provides critical 24/7/365 remote monitoring, diagnostics, and troubleshooting from its state-of-the-art Operations Control Center (OCC), increasing equipment availability, minimizing downtime, and reducing operational and maintenance costs.

The OCC combines control center, SCADA, and O&M auxiliary services into a technical services hub, with a “One Touch” integrated front-end monitoring system to improve response times and more effectively track key performance indicators.

The OCC is equipped with scalable technical infrastructure with component redundancy capable of disaster recovery, risk mitigation, and compliance management. This enhances the ability to monitor and diagnose plant performance and to provide additional sophisticated O&M services.

The OCC uses advanced technology to optimize equipment availability and profitability, increasing customers’ revenue around the clock.

EDF Renewable Services is listed as Generation Operator in the NERC Compliance Registry with the Western Electricity Coordinating Council and meets the corresponding mandatory compliance standards set forth by NERC Reliability Standards.

Standard and Advanced Service Options for Flexible Solutions

We understand the need for flexible solutions. From our Standard Services or Advanced Services offerings, we have a breadth of experience that guarantees we create an optimized solution for your assets’ needs. Our world-class services organization partners with customers to develop comprehensive service solutions:

■ Standard Services

- 24/7/365 remote monitoring
- Fault notification & remote resets
- Technician/EMS dispatch notification
- Curtailment management

■ Advanced Services

- SCADA support
- Balance-of-plant
- Performance monitoring
- NERC compliance support

Maximized Revenue

The Operations Control Center responds in real-time to site issues and customer needs, decreasing downtime, increasing site availability and thus yield, resulting in maximized revenues and profitability.

Collaborative Troubleshooting

Specialists at the OCC work in collaboration with the customer, looking at operation and performance issues to ensure the plant equipment is operating at capacity.

Reporting

Daily and monthly operational assessment reports provide a record of key operating parameters and significant operational events, trends, and anomalies. This data is summarized to assist with the identification of performance shortfalls and the planning of maintenance activities.

Reliability

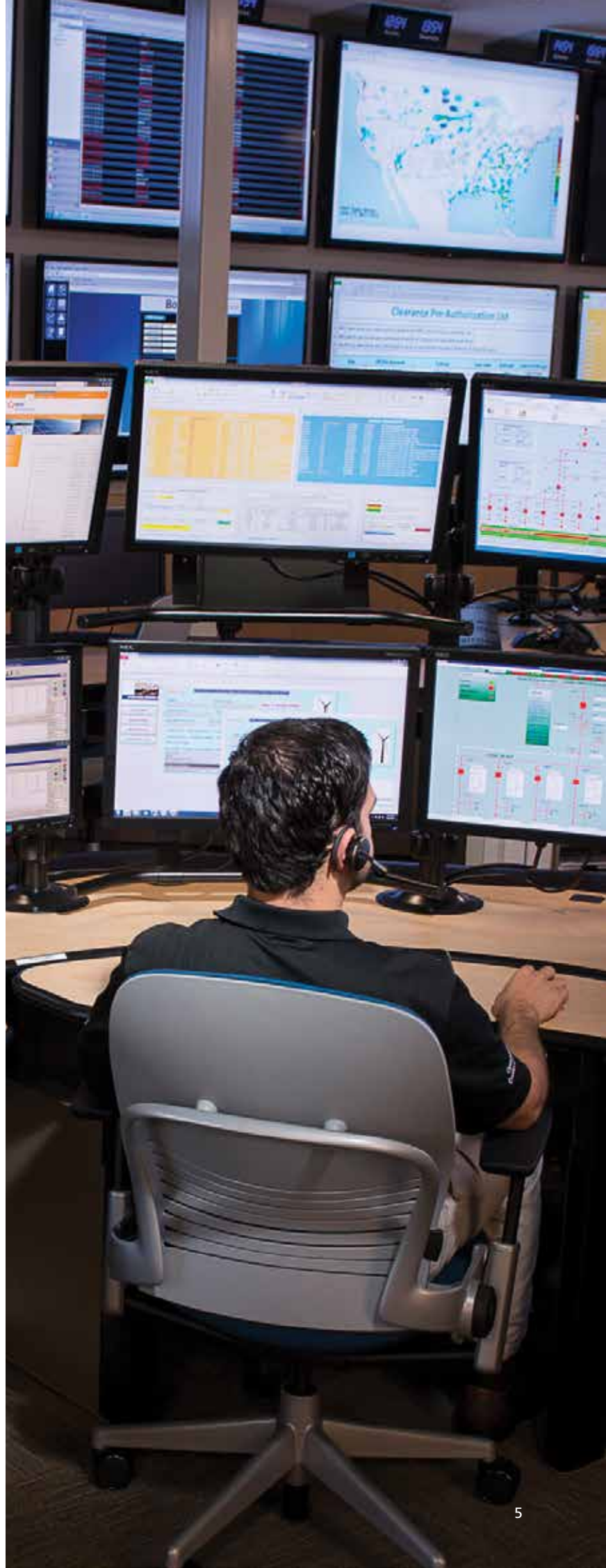
EDF Renewable Services' OCC monitoring and reporting provides confidence that the project is operating at maximum efficiency and fully compliant with reliability standards.

Safety

The robust clearance management system ensures the safety of technicians and avoids damage to project site assets.

Expertise

EDF Renewable Services has been an O&M provider for 30 years, bringing decades of expertise to plant operations. As an owner/operator, we understand the opportunities and challenges faced every day in the renewable energy business.



ASSET MANAGEMENT EXPERTISE

optimized performance and returns

Management of physical assets is essential to long-term operational performance and our Asset Management Group delivers the expertise that owners need to make value-driven decisions that optimize performance and profitability throughout the project lifecycle.

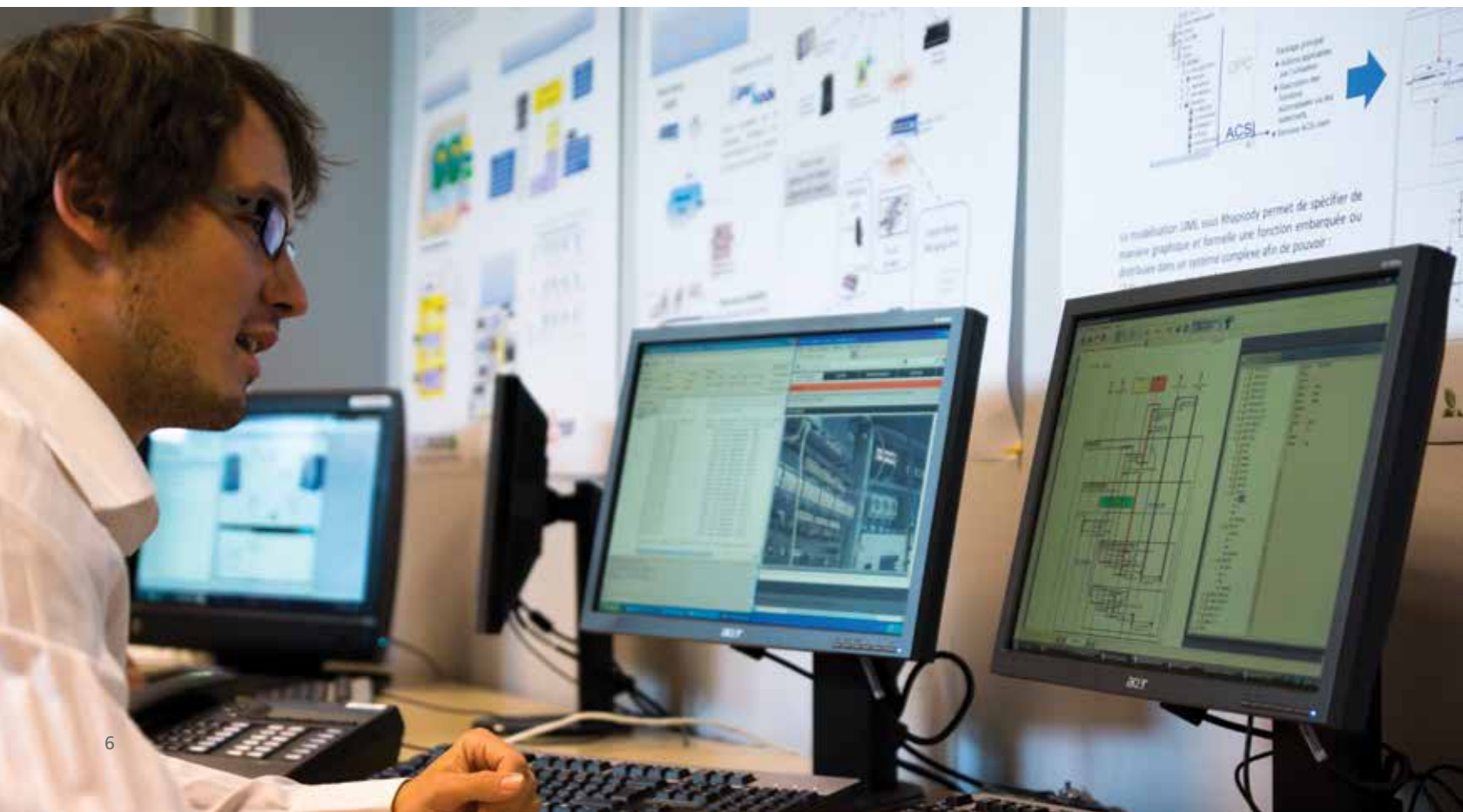
As an owner's representative, we understand that our job is to optimize returns on your investment. Our commercial management expertise is the key to successfully reaching your goals.

We manage all aspects of your project leaving you free to concentrate on more critical matters. Our Asset Management Group optimizes returns and minimizes downtime with access to the full resources of the global EDF team.

Our areas of expertise include:

- Commercial Management
- Financial Management
- Contractual Management
- Risk Management
- Relationship Management
- Performance Management
- Environmental Management
- Warranty Management

**Strategic management
to optimize your return
on investment**





BLADE INSPECTION / BLADE REPAIR

minimize down time, maximize power production

EDF Renewable Services has over 20 years of experience in wind turbine blade inspections and offers three service levels to meet customer needs.



With seven Sky Climber Blade Repair Platforms located throughout the country for rapid deployment, we have successfully completed over 600 utility-scale wind turbine blade repairs.

	GOLD LEVEL	SILVER LEVEL	BRONZE LEVEL
Pictures	Optimized Mosaic Image Map	Individual High Resolution Photos	None
Camera	High-power Telephoto Lens	High-power Telephoto Lens	Visual Inspection
Tripod	Robotic Arm	Fluid Mount	None
Reporting	Written Report + Website	Written Report	Blade Repair Plan
Cornis Inspection	Yes	No	No

WH
MA



Numbers represent MW of projects in various stages of development, construction and ownership as of 1/31/16.



THE BREADTH AND RESOURCES

of a global services group

■ Global Expertise

Through our parent company, EDF Energies Nouvelles, EDF Renewable Services is part of a global operations and maintenance group. The group encourages close cooperation between North America and Europe. We partner with our parent company and global affiliates to **maximize our international synergies** and to employ the expertise of dedicated engineers and service professionals to optimize the availability and profitability of your renewable energy plant.

With our European affiliate, EDF EN Services, we have over 13 GW under contract world-wide, ranking among the leading players in the market of operations & maintenance.

EDF Energies Nouvelles is a subsidiary of the EDF group, one of the largest energy companies in the world.



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