

A nighttime cityscape with a tall skyscraper and a highway with light trails from cars. Overlaid on the image are four glowing circular icons: a wind turbine, a battery, a solar panel, and a power plug, connected by white lines. A blue semi-transparent box is positioned in the lower right, containing the main title and tagline.

ENERGY INNOVATION FOR THE NEXT GENERATION

Creativity. Ambition. Imagination.

OUR MISSION

Delivering renewable **solutions** to lead the transition to a **sustainable energy** future

For over 35 years, EDF Renewables has been providing clean energy solutions throughout North America.

EDF Renewables North America is a market-leading, independent power producer and service provider, delivering:

- // **grid-scale power:** wind (onshore and offshore), solar photovoltaic and storage projects
- // **distributed solutions:** solar, solar+storage, electrical vehicle charging and energy management
- // **asset optimization:** technical, operational and commercial skills to maximize performance of generating projects

EDF Renewables' North American portfolio consists of 16 gigawatts (GW) of developed projects and 11 GW of operating assets under service contracts. EDF Renewables North America is a subsidiary of EDF Renewables, the dedicated renewable energy affiliate of the EDF Group.



Origination



Development



Transaction



Construction



Optimization





GRID-SCALE POWER

Bigger projects. Bigger impact.

EDF Renewables' Grid-Scale Power team provides origination, development, transaction and construction services for large-scale wind (offshore and onshore), solar power generation, and storage projects across North America.

Our team of leaders can solve energy challenges facing businesses and communities no matter the size or complexity.

35 years

We were on the forefront of the burgeoning wind industry in California as a service provider beginning in 1985.

16 GW

We expanded into project development in 2000 and have developed 16 GW of grid-scale solar and wind projects across North America.

\$14+ billion

Since 2010, we have paid over \$14 billion to vendors, including lease payments made to landowners.

6,400

On site jobs created with 16 GW of projects developed.

*Based on an employment factor of 4 jobs per MW
IRENA Annual Review 2018*





DISTRIBUTED SOLUTIONS

Simple. Reliable. Integrated.

The Distributed Solutions team can create a fully integrated bundle for energy projects with solar, storage, electric vehicle charging, and energy storage management.

We provide end-to-end service from development, engineering, procurement and construction to operations and finance.

Our solutions are customer-focused and customized to utilities and co-ops, landowners and institutions.

20+ years

We started our distributed business in 1998, which consisted of residential and small commercial solar projects. Our first distributed project in 2008 was 1 MW, located in Vacaville, California.

2,000+

installations

We have experience designing, developing, and constructing solar projects on all types of sites, including landfills, brownfields, and wastewater treatment plants.

950+ MW

Distributed Solutions teams have installed over 950 MW of solar photovoltaic projects.

20-100

Temporary construction jobs created per project during construction.

20

States with O&M jobs for the life of projects.





ASSET OPTIMIZATION

Maximize power production, efficiency – and your investment.

The Asset Optimization team offers a full range of services for all phases of renewable energy projects – operations, management, procurement, routine and emergency maintenance, retrofits and upgrades.

Our experienced team of over 450 full-time technicians, supervisors, managers and support staff means EDF Renewables is fully equipped to manage the balance of plant and day-to-day operations of your wind or solar project.

11 GW
operations & maintenance

- On site Preventative and Corrective Maintenance
- Balance of Plant (BOP) Management
- Major Component Repair / Replacement
- Engineering Support

8.6 GW
under OCC monitoring

- 24/7/365 Remote Monitoring
- Performance Reporting
- Fault Reset / Notification Curtailment
- SCADA / NERC Compliance Support

6.7 GW
assets under management

- Manage Cash / Debt Equity
- Ensure Contractual Compliance
- Monitor / Limit Market Risk
- Identify / Remedy Underperforming Assets
- Manage PPAs

WIND

power is a limitless, non-polluting resource that consumes virtually no water, and the power it generates is even more affordable than ever, with a 60%+ reduction in cost over the last five years.

Generating reliable energy, jobs and revenue.

When we operate our wind facilities, we provide long-term, fixed pricing in an environment where pricing is constantly increasing, while also reducing CO₂ emissions, which is the leading greenhouse gas.

Our wind projects support the local communities in which we work through landowner payments and tax revenues, while at the same time creating jobs in manufacturing, construction and wind project operations. EDF Renewables' operating wind plants are among the top performers in the industry.

If you are a utility, municipality, cooperative, government entity, university or corporation, EDF Renewables can formulate a deal structure that meets your specific renewable energy goals.

We offer traditional Purchase Power Agreements (PPAs), Virtual Power Purchase Agreements (VPPAs), Design Build Sell (DBS) and a number of other offtake arrangements including hedges and renewable block products.



ONSHORE

13 GW
developed

87
projects

3
countries

A photograph of an offshore wind farm at sea. The image is dominated by a large white wind turbine in the foreground, with its three blades extending upwards. The turbine is mounted on a yellow cylindrical foundation. In the background, several other similar wind turbines are visible, spaced out across the dark blue ocean. The sky is a deep, clear blue, suggesting a clear day. The overall scene is serene and emphasizes the scale of offshore renewable energy.

OFFSHORE WIND

is a vast energy resource in the U.S., with a technical potential of more than 2,000 GW, or nearly double the nation's current electricity use.

New opportunities, new ventures in wind.

We have proven our technical skills in marine engineering through successfully installing fixed-bottom, monopile, jacket and gravity-based foundations on offshore wind projects.

We are also taking advantage of our many years experience from onshore projects in order to guarantee an optimal level of operation for our offshore facilities.

Harnessing America's offshore wind resources presents an enormous opportunity to:



Create tens of thousands of highly skilled jobs



Revitalize coastal communities



Deliver large amounts of clean, reliable energy to the country's biggest population centers



OFFSHORE

2.5^{GW}
in development

ATLANTIC SHORES offshore wind

In 2018, EDF Renewables North America and Shell New Energies formed a 50/50 joint venture, Atlantic Shores Offshore Wind, LLC, to co-develop a lease area with the potential of approximately 2,500 MW of offshore wind energy – enough to power close to one million homes. The lease comprises 183,353 acres approximately eight miles off the coast of Atlantic City on the U.S. Outer Continental Shelf (OCS).

SOLAR

energy is a sustainable, indefinitely renewable resource for energy consumption, experiencing continued growth as the cost to install solar has dropped 70% since 2010.

Producing sustainable energy to meet demands.

We design and build solar projects both on the distributed and grid-scale level. We develop assets contracted as long-term offtake agreements or via turnkey solutions for customers that desire to own the facilities.

EDF Renewables is also a leading developer of environmentally sensitive sites, revitalizing former landfills, brownfields and wastewater treatment plants into solar facilities.

Our tailor-made solutions meet the growing energy needs and demands of utilities, municipalities, cooperatives, government entities, universities and corporations.



3+ GW
constructed or contracted

157
distributed or utility projects constructed and operating in North America

3
countries



EDF Renewables North America made a 50% investment in EnterSolar in September 2018 to facilitate the continued growth within the C&I solar marketplace. The partnership leverages EDF Renewables' unparalleled experience in renewable energy and storage, along with EnterSolar's strong track record in developing behind-the-meter solar photovoltaic projects for a broad range of corporate clients. Together, we provide a full-service, single resource for companies looking for a seamless and profitable transition to renewable energy.

197
projects across the United States

162 MW
installed



STORAGE

systems help energy and facility managers manage, forecast and reduce operational energy costs and hedge against rising costs as much as 5-10% annually.

Adding value, cost control and energy security.

Reducing operational cost is in higher demand than ever before. EDF Renewables strives to bring our business customers solutions that fit their specific requirements.

Storage may be the right solution for your business as a stand-alone system or bundled with a solar system. In addition to lowering operational energy costs, storage can help control and forecast long-term energy budgets and increase energy reliability.

There are several options when it comes to adding storage – direct purchase, power purchase agreement, shared savings or power purchase agreement with shared savings. Each solution comes with a different set of factors.



330_{MW}
in operation

	Purchase 	Power Purchase Agreement (PPA) 	Shared Savings 
Ownership	Host	EDFR	EDFR
Upfront Cost	Host Incurs 100%	None; EDFR pays 100%	None; EDFR Pays 100%
Structure	Buy Asset + O&M	Pay for Energy Output	Pay for Savings
O&M	Annual Fee	Included	Included
Performance Risk	Host	EDFR	EDFR
Comments	Max Reward with 100% Ownership	No Capex; Pay for Performance	No Capex; Only Pay for Savings

EDFR offers a combined PPA and Shared Savings Solution

EDF Renewables can help you navigate these options and find the best solution for your business and bottom line.

EV CHARGING

is rapidly accelerating with the United States reaching one million electric vehicles sold by 2020 and more than half of new cars sold by 2040 will be EVs.



Electric Vehicle Smart-charging Systems – large scale, cost effective, load managed.

Charging solutions must be implemented in the right places and quantities to sustain the growth of Electric Vehicle (EV) adoption.

To meet the scale required of the current adoption trends, businesses are confronted with substantial upgrades to their electrical systems, making EV charging installations financially burdensome and lengthy in time, if not completely infeasible.

PowerFlex Systems created Adaptive Load Management (ALM), a software algorithm that optimizes power consumption across a large network of charging stations. ALM optimizes each station's output to meet user demand while only using a fraction of the aggregate power traditionally required.

This allows businesses to shave as much as 60% off the cost of electrical system upgrades and peak demand charges, paving the way to larger and more affordable charging networks that ultimately meet or exceed the adoption pace of electric vehicles.



EV CHARGING

Workplaces
Campuses
Municipalities
Fleets

5,000
contracted

500
in construction

1,800+
deployed



Design



Hardware



Software



Installation



Maintenance



Distributed Solutions
Grid-Scale Power
Asset Optimization



Wholesale Trading
Energy Optimization



Energy Management Systems
Research and Development



Building Energy Services



Public Lighting Management



Electric Vehicle Charging



Solar for Corporates



OUR OFFERINGS

Partners in energy innovation.

EDF Renewables and EDF affiliates' coordinated offerings allow our corporate and institutional clients to meet their sustainability goals while saving them money.

Developing a clean energy roadmap with a full range of services to solve any energy challenge, no matter the complexity, is what we do best. The collaboration across our teams gives our customers access to an entire suite of options under one roof.



Solar Carport



Solar Rooftop



Solar Ground-mount



Electric Vehicles



Operations & Maintenance



Energy Efficiency



Energy Management Systems



Retail Energy Supply



Thermal Generation



Research & Development



LED



Storage



The EDF Group is a global leader in low-carbon energy, with activities ranging from power generation to transmission and distribution, to trading and retail.

EDF Renewables is the global renewable energy affiliate of the EDF Group. Present in 20+ countries, the company develops, builds and operates renewable power plants.

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EDF Renewables North America
15445 Innovation Drive
San Diego, CA 92128
www.edf-re.com

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