WELCOME

TWIN GROVES
ENERGY STORAGE
OPEN HOUSE

edp

TwinGrovesEnergyStorage.com

ABOUT EDP RENEWABLES NORTH AMERICA

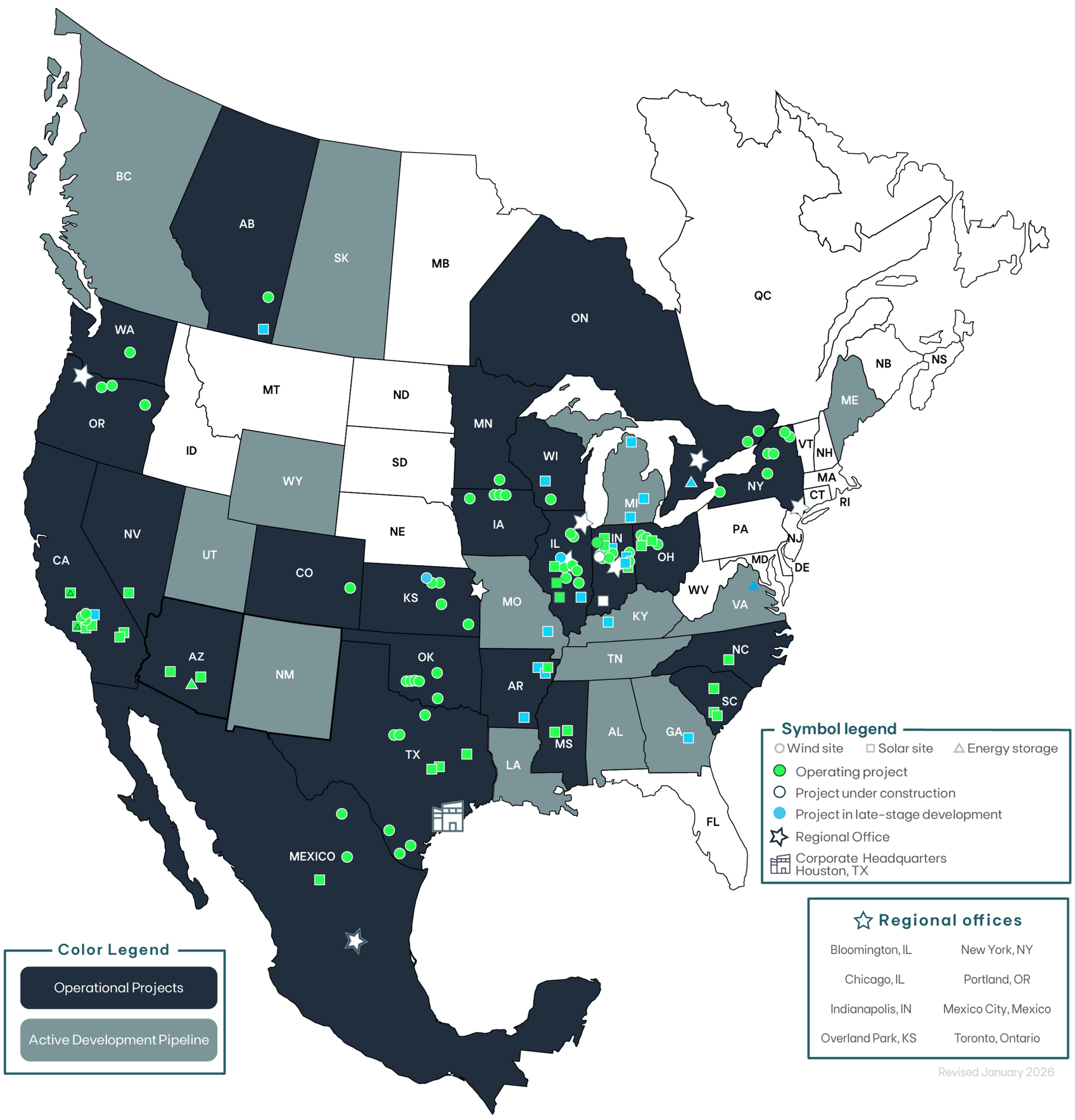
Operational Projects

61
WIND SITES

29
SOLAR SITES

4
STORAGE SITES

12,300+
MEGAWATTS



Revised January 2026

Economic & Environmental Benefits
OF EDPR NA'S OPERATIONAL PROJECTS

CATALYZED
$3 billion
in local economic impact[1]

INVESTED
$17 billion
in capital[5]

SAVED
19.4 billion gallons
of water[4]

POWERED
3.4 million
Amercian homes [2]

CREATED
12,700 jobs
permanent & construction[6]

AVOIDED
18 billion pounds
of CO_2 emissions[7]

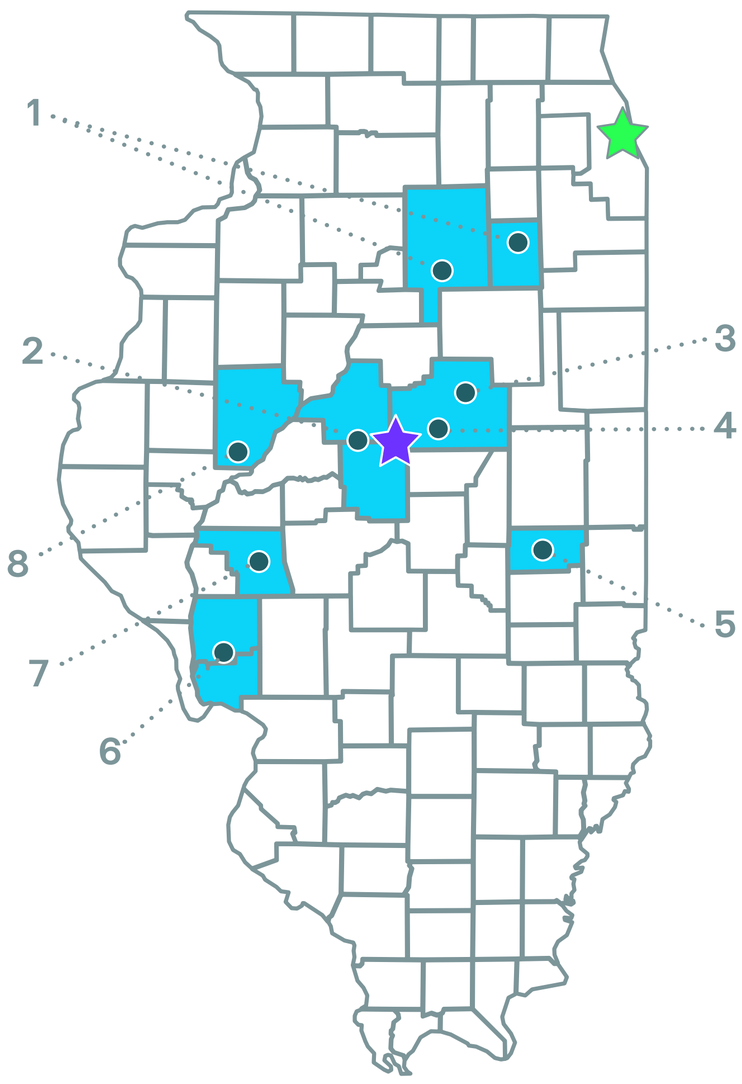
GENERATED
$567 million
to local governments[3]

PAID
$608 million
to landowners[3]

[1] Includes local vendor spending, property taxes, and landowner payments of all EDP Renewables North America's operational projects through 2024.
[2] Equivalent wind power generation calculated using a 35% capacity factor for wind based on 2019 AWEA Wind Powers America Annual Report. Equivalent solar power generation is based on power generation calculated using a 25% capacity factor. Household consumption based on the 2024 EIA Household Data monthly average consumption by state.
[3] Cumulative landowner payments and local government payments through 2024.
[4] Assumes 0.58 gallons of water consumed per kWh of conventional electricity from Lee, Han, & Elgowainy, 2016.
[5] Assumes the average cost of an installed wind farm is $1.7 million/MW for projects built between 2012 and 2016 and $1.4 million/MW for projects built after 2018. Based on U.S. DOE 2015 and 2019 Wind Technologies Market Report. Utility fixed-tilt solar projects are $1.02/Wdc and single-axis tracking projects are at $1.11/Wdc, based on Q4 2023 SEIA U.S. Solar Market Insight.
[6] Full-time equivalent jobs calculated by dividing number of contractor hours worked during construction by 2080.
[7] Based on the U.S. Environmental Protection Agency (EPA) Greenhouse Gas Equivalencies Calculator, January 2026.

ILLINOIS

EDP Renewables is a renewable energy leader in Illinois. The company's footprint in the state includes Harvest Ridge Wind, Bright Stalk Wind, Rail Splitter Wind, two phases of the Top Crop Wind, two phases of Twin Groves Wind, Hickory Solar, Wolf Run Solar, and Pleasantville Solar.



- Chicago Regional Office
- Bloomington Regional Office
  Bloomington Training Facility
- Counties with Operational Projects

1. Top Crop I Wind (102 MW)
   Top Crop II Wind (198 MW)
2. Rail Splitter Wind (100 MW)
3. Bright Stalk Wind (205 MW)
4. Twin Groves I Wind (198 MW)
   Twin Groves II Wind (198 MW)
5. Harvest Ridge Wind (200 MW)
6. Hickory Solar (110 MW)
7. Wolf Run Solar (140 MW)
8. Pleasantville Solar (150 MW)

1,602 MW
OPERATING IN ILLINOIS

EDPR'S ILLINOIS ENERGY PROJECTS:

Generate electricity equivalent to the consumption of more than **548,000 Illinois homes.**[1]

Save more than **2.7 billion gallons of water each year** and prevent the air pollution that causes smog and acid rain.[2]

Are compatible with other land uses.

Strengthen domestic energy security and help diversify supply.

Economic benefits
OF EDPR'S ILLINOIS PROJECTS

$1.3 billion
TOTAL ECONOMIC IMPACT[3]

$116.4 million
PAID TO LANDOWNERS[4]

PERMANENT JOBS[7]
79 jobs created

$111.3 million
PAID TO LOCAL GOVERNMENTS[5]

$1.1 billion
SPENT WITHIN ILLINOIS[6]

CONSTRUCTION JOBS[7]
880 jobs created

All economic benefit figures shown are through 2024.

[1] Power generation calculated using a 35% capacity factor for wind based on 2022 AWEA Wind Powers America Annual Report. Solar power generation is based on power generation calculated using a 25% capacity factor. Household consumption based on the 2023 EIA Household Data monthly average consumption by state

[2] Assumes 0.58 gallons of water consumed per kWh of conventional electricity from Lee, Han, & Elgowainy, 2016.

[3] Includes vendor spending, property taxes, and landowner payments of all operational projects through 2024.

[4] Cumulative landowner payments through 2024.

[5] Cumulative local government payments through 2024.

[6] Cumulative local vendor spending including payments to contractors, suppliers, and service companies, as well as donations through 2024.

Twin Groves Energy Storage I & II

McLean County, IL

Twin Groves Energy Storage I & II represent an expansion of EDPR NA's energy infrastructure in McLean County, Illinois. The energy storage sites will be located near the communities of Arrowsmith and Ellsworth, alongside EDPR's existing Twin Groves Wind I & II. Once online, these projects will share some of the existing electrical infrastructure from Twin Groves Wind I & II. The low-impact batteries will provide additional storage capacity for the utility and system operators by storing electricity from any energy source and delivering it to surrounding communities when needed.

TWIN GROVES
ENERGY STORAGE®

100 MW/400 MWh (4hr duration)[1]

ANTICIPATED COMMERCIAL OPERATION DATE
2028

Twin Groves Energy Storage's installed capacity would be equivalent to the average consumption of more than **70,300 Illinois homes**.[1]

Twin Groves Energy Storage would save more than **339 million gallons** of water each year and would prevent the air pollution that causes smog, acid rain, and climate change.[2]

Economic benefits

All economic data reflects the estimated amount throughout the life of the project.

CAPITAL INVESTMENT
$170 million

$11+ million
WOULD BE PAID TO LOCAL GOVERNMENTS

Millions of dollars
WOULD BE SPENT LOCALLY ON GOODS AND SERVICES INCLUDING CONSTRUCTION MATERIALS

PERMANENT JOBS
2-3 jobs will be created[3]

CONSTRUCTION JOBS
About 50 jobs would be created[3]

[1] The cost and performance of the battery systems are based on an assumption of approximately one cycle per day. Therefore, a 4-hour device has an expected capacity factor of 16.7% (4/24 = 0.167). Household consumption based on 2024 EIA Household Data monthly average consumption by state. This assumes that all energy is stored from a renewable source and discharged at the grid average.

[2] Assumes 0.58 gallons of water consumed per kWh of conventional electricity from Lee, Han, & Elgowainy, 2016. This assumes that all energy is stored from a renewable source and discharged at the grid average.

[3] Full-time equivalent jobs calculated by dividing number of contractor hours worked during construction by 2080.

Power stored at Twin Groves would support Illinois' electric grid and contribute to the national energy security for the United States, helping add on-demand power.

The anticipated lifespan of Twin Groves I & II is 20 years. At the end of its life, the project can be decommissioned and removed, or repowered.

Energy storage facilities are designed to not release pollutants into the air, soil, or waterways. Like batteries used in handheld devices, lithium-ion batteries do not emit harmful electromagnetic fields or contain radioactive materials.

Between cell phones, laptops, and power tools, many people have a lithium-ion battery in their pockets or hands at all times. Additionally, **energy storage fires are very rare and their rate of frequency is decreasing.** Energy storage sites are also highly regulated to ensure safety for neighbors, communities, and technicians.

www.TwinGrovesEnergyStorage.com

STRENGTHENING LOCAL SCHOOLS & SERVICES

ESTIMATED TAX PAYMENTS TO COMMUNITY FROM TWIN GROVES ENERGY STORAGE I & II*

Taxing District	Twin Groves Storage I Year 1 Contributions	Twin Groves Storage II Year 1 Contributions	Twin Groves I & II Total 20-year Contributions
CUSD 3 Tri-Valley	$252,418	NA	$3,995,678
CUSD 19 Ridgeview	NA	$195,280	$3,091,213
McLean County	$40,634	$40,634	$1,286,440
Sayworth-Arrowsmith Fire District	NA	$27,949	$442,417
Heartland Community College 540	$26,789	NA	$424,068
Parkland Junior College 505	NA	$24,683	$390,717
Ellsworth Fire Protection District	$20,743	NA	$328,346
Arrowsmith Township	NA	$19,344	$306,212
Arrowsmith Township Roads	NA	$17,409	$275,584
Golden Prairie Library	$6,533	$6,533	206,844
Dawson Township	$9,842	NA	$155,792
Dawson Township Roads	$8,213	NA	$130,004
SE McLean County Water Authority	$458	$458	$14,514
Arrowsmith-Dawson MTAD	$395	$395	$12,520
TOTAL CONTRIBUTIONS	**$366,026**	**$332,686**	**$11,529,004**

*Actual amounts are based on current tax levy rates and subject to change

COMMITTED TO **BEING A GOOD NEIGHBOR**

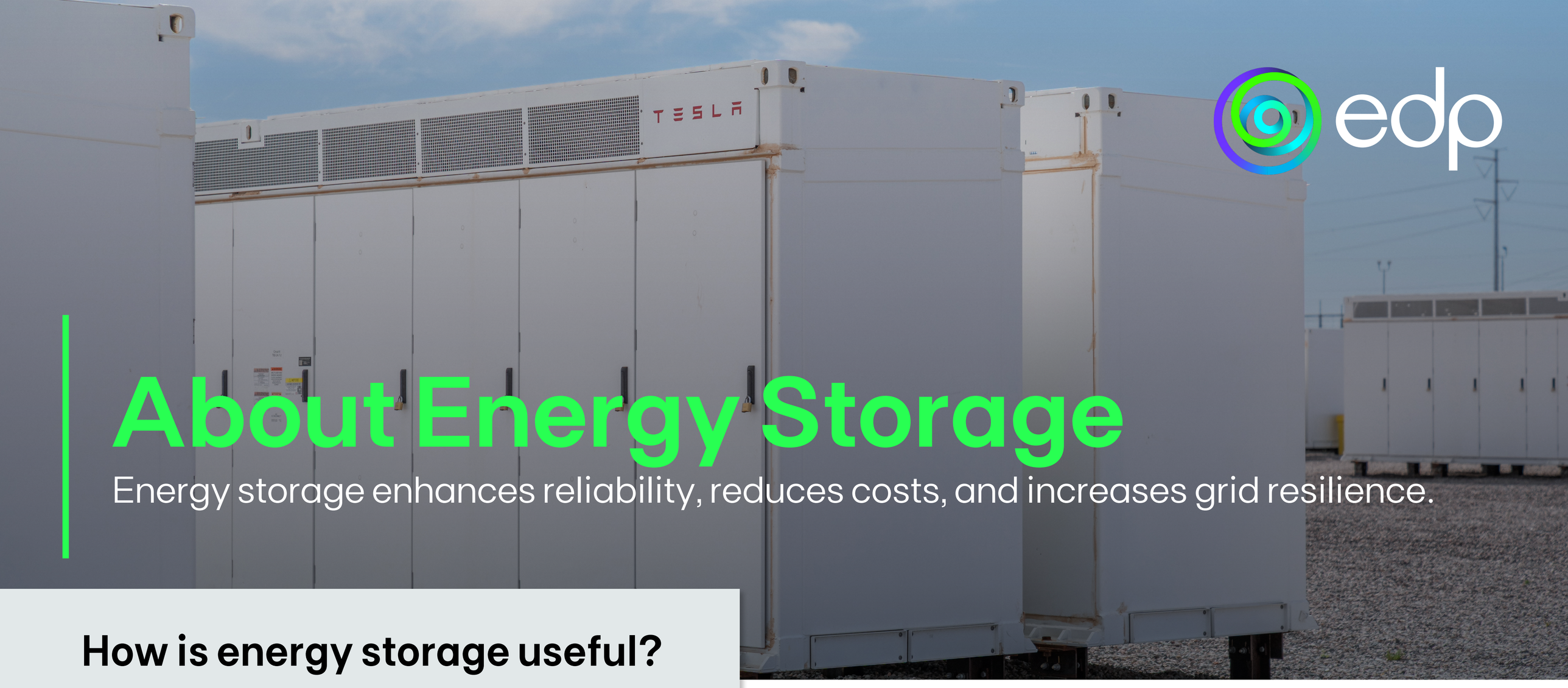
EDP Renewables has been a part of McLean County for nearly two decades—a commitment that extends beyond generating renewable energy. Our development and operations teams aim to build strong, supportive relationships in the community through thoughtful donations and educational outreach.

EDPR's Twin Groves Wind and Storage have donated money to local and regional organizations such as St. Jude, the Ridgeview School District, local FFA chapters, LeRoy EMS, Saybrook-Arrowsmith Fire Department, Ellsworth Fire Department, MyAg Livestock Auction, Crumbaugh Library, and more.

In addition to donations, our development and operations team members have participated in career days, hands-on STEM workshops, and hosted wind site tours. EDPR is also an active member of the McLean Chamber of Commerce.

Do you know of an organization, event, or fundraising effort that could use EDPR support? Let us know!

Twin Groves Energy Storage Developer, Jeff Jacobs, at the 2025 MyAg event.



About Energy Storage

Energy storage enhances reliability, reduces costs, and increases grid resilience.

How is energy storage useful?

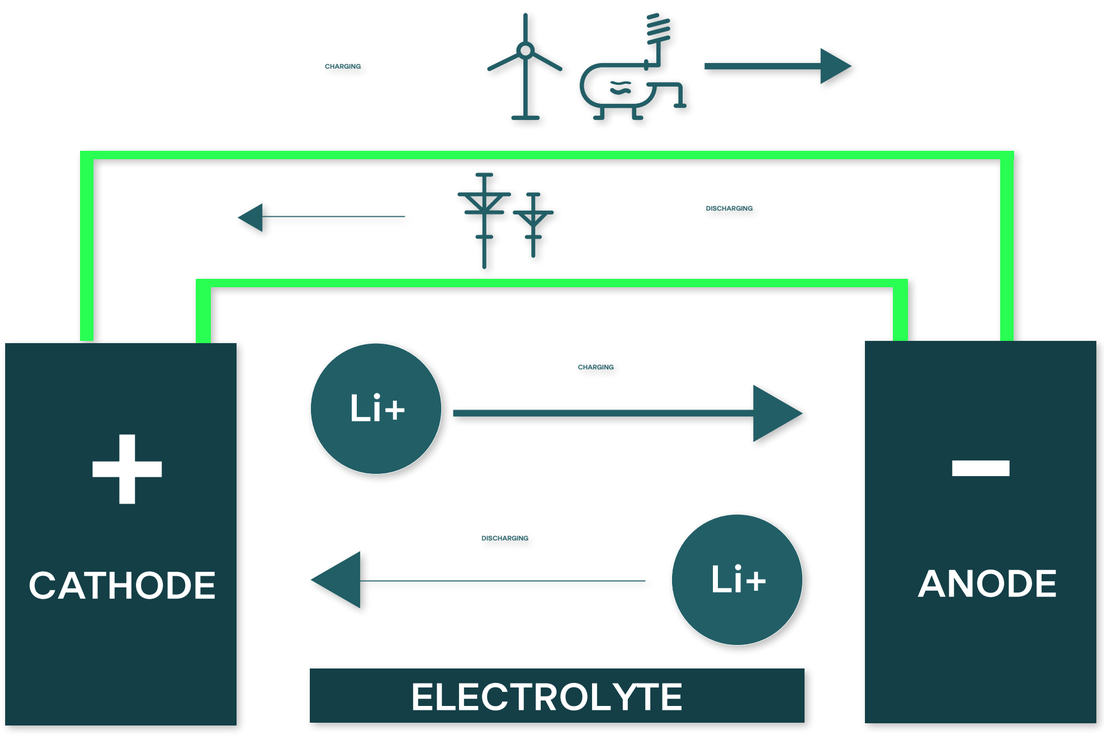
- Reduces outages and enhances resilience
- Decreases costs and saves money
- Bolsters a sustainable electrical grid
- Supports local economies

What is a lithium-ion cell?

The battery is comprised of a positive cathode, a negative anode, a separator, an electrolyte, and positive and negative current collectors. When the battery is being charged by a power source, such as wind or solar power, lithium-ions move from the cathode, through the electrolyte and to the negative anode, storing energy for future use. When discharging power, lithium-ions are released by the anode and received by the cathode.

How does energy storage work?

The most common electrochemical storage method is the **lithium-ion battery**. These are similar to the batteries that power your cell phones, laptops, or electric vehicles.



Energy storage systems are fuel-neutral.
This means that they can capture and dispense electricity from oil, gas, coal, nuclear, geothermal, and wind and solar energy projects, like the Twin Groves Wind Farms.

U.S. Energy Storage STATS

84%
decrease in cost
Lithium-ion battery pack prices have fallen from more than $715/kWh in 2014 to $115/kWh in 2024.[1]

3.6 million +
tons of harmful carbon dioxide
avoided – equivalent to removing 856,807 cars from the roads – by successful integration of energy storage by 2025.[1,2]

60 million+
U.S. Americans
Already save on electric bills because of energy storage systems operating within their region.[1]

93,497 jobs
Have been created in energy storage. In the years between 2019 and 2024, the clean storage sector marked 17% growth.[3]

1. American Clean Power, Energy Storage Facts, April 2026
2. IRENA Renewable Electricity Capacity and Generation Statistics, 2021.
3. Interstate Renewable Energy Council, Jobs in Energy Storage and Other Clean Energy Industries

ENERGY STORAGE SAFETY

Between cell phones, laptops, power tools, and even toys, many people have a lithium-ion battery in their pockets or hands at all times.

No battery technology is completely risk-free, but the technologies we use for energy storage projects are safe for the public when designed and operated correctly.

Safe, Well-Tested Technology

Energy storage systems of varying types have been a part of our electricity grid for decades and enjoy a safety record that is similar or better than other electricity generation, distribution, or management methods.

24/7 Monitoring

Energy storage systems are equipped with Battery Management Systems (BMS) that monitor the operational and fault status of the system for all parameters required to ensure safe operation of the energy storage system, including State of Charge (SOC), voltage, current, power limits, and temperatures. Parameters are monitored at the appropriate level of the battery cell, module and rack as applicable. The BMS functions to prevent potential hazards by shutting down battery modules/racks if monitored conditions are outside of those permissible for safe operation, similar to how a phone pauses functions whenever it overheats. In addition to these built-in systems, EDP Renewables (EDPR) also monitors all of its projects from a 24/7 Remote Operations Control Center (ROCC) located at EDPR's Houston headquarters.

Scarlet Solar Energy Park | Fresno County, CA

Managing Fire Risk

Energy storage battery fires are very rare, and their rate of frequency is decreasing while the deployment of energy storage increases. In recent years, U.S. energy storage deployment has continued to grow rapidly—reaching more than 37,000 MWh added in 2024 alone—while safety performance has improved significantly, with studies showing a ~97% reduction in global failure incident rates between 2018 and 2023.[1,2,3]

Energy storage systems are highly regulated and subject to stringent certification and testing requirements.
All of EDPR's batteries are UL 9540 & UL 9540 A compliant. This regulation is much more strict than that which many other lithium-ion battery powered electronics, such as e-mobility devices, undergo. Having more regulations around the quality and safety of utility-scale energy storage projects greatly reduces the risk of fire or other dangers.[3]

Chemical Considerations

Energy storage facilities are designed to safely manage chemicals on site. In the unlikely event of a leak, containment measures such as spill trays and chemical absorbents are in place to capture materials on site for their safe removal.

Though the electrical components associated with energy storage components release very low levels of non-ionizing electromagnetic fields (EMFs), **lithium-ion batteries do not emit EMFs or contain radioactive materials.** Even if an extremely rare emergency situation were to occur, there is no significant risk of radiation as the system would be powered down, and the sensitive materials inside the batteries are thoroughly insulated and highly resilient to high heat and force impacts.

Past energy storage incidents (not at EDPR facilities) and their subsequent lab testing demonstrate that when fires occur, air quality in neighboring areas remains at safe levels.[4]

1. A failure 'incident' according to the Federal Emergency Management Agency (FEMA) is an occurrence, natural or man-made, that requires an emergency response to protect life or property, while an 'event' is a planned, non-emergency activity.
2. American Clean Power, *REPORT: Energy Storage's Meteoric Rise Breaks Another Record*, 2025
3. Electric Power Research Institute, *Insights from EPRI's Battery Energy Storage Systems (BESS) Failure Incident Database*, 2024
4. American Clean Power, *Energy Storage Leading on Safety*. 2023

Emergency Preparedness

EMERGENCY PREVENTION MEASURES

Energy storage systems must have a variety of emergency prevention measures in place to ensure safe operation in a variety of conditions.

Utility-scale energy storage systems are located within secure facilities that are explicitly designed to maximize the safety for people both operating and neighboring the facilities.

Each energy storage system features thermal monitoring sensors. These are monitored 24/7 and are rigorously tested prior to operation.

Energy storage batteries are airtight, unable to leak or emit gas during normal operation.

Energy storage containers are built of non-combustible materials with exterior steel walls and interior insulation for better cooling and fire containment.

In the rare case of a fire, the storage units feature pressure relief systems that automatically vent the system in a controlled manner to prevent a potentially dangerous buildup of gases inside the units.

The energy storage site is designed to have adequate setbacks from neighboring properties to avoid potential nuisance or safety concerns.

If an unforeseen event were to cause damage to one the storage units, a rapid shutdown of the system would occur, causing it to go offline until the operations team has repaired the damage and retested it for functionality and safety.

Emergency Response Plan

EDPR prepares an Emergency Response Plan for every project. The Emergency Response Plan ensures that project site employees and local first responders are up to date on the best methods for responding to potential emergencies such as fire, severe weather, or injury.
The Emergency Response Plan also establishes protocols with local services for communicating increased risk and the required response with project neighbors to ensure the community's safety during rare emergency events.

WHAT ABOUT SPECIAL EQUIPMENT & TRAINING?

No special equipment other than regular firefighting equipment is required during an emergency. Extra safety features are already installed inside and around the energy storage containers.

EDPR's Health & Safety Department works with local emergency services to facilitate written and on-site emergency drills during the construction and operation of the project.

Caretaking the Land, Wildlife, & Environment

PRE-PROJECT: SITE DESIGN & ENVIRONMENTAL DUE DILIGENCE

- **Twin Groves Energy Storage will be developed to meet local, state, and federal permitting standards and industry best practices.** Numerous surveys and studies will be or have been conducted to minimize or avoid impacts to native vegetation, wetlands, cultural resources, wildlife, and their habitats.

FIELD SURVEYS COMPLETED:

- Wildlife Habitat Assessment
- Wetland Delineation
- Cultural Resources Pedestrian Survey

AGENCIES WORKED WITH:

- Illinois Department of Natural Resources
- Illinois Historic Preservation Agency
- McLean County

- **Energy storage projects are designed to be very quiet neighbors.** The batteries in storage systems are silent, while the fans, HVAC units, and transformers in energy storage systems can produce very low-level sounds. Depending on how far one is from the project fence, these hums can be compared to the sound of a standard refrigerator, and should not be audible from neighboring properties. Twin Groves Energy Storage is designed to be in compliance with the rigorous sound limits required by the Illinois Pollution Control Board.

OPERATIONS: MAINTAINING POSITIVE IMPACTS

- **The project is monitored 24/7 and is maintained by a local operations team**. These teams take care of the equipment to ensure efficient operation and safe and healthy conditions for Twin Grove Energy Storage's employees, the community, and the surrounding landscape.
- **The energy storage system is designed to withstand extreme weather conditions.** In the rare instance that equipment is disabled from a major storm, the site teams are prepared to clean up any damage and repair equipment as quickly as possible and return the project to full operation.
- **When renewable energy from the grid is stored at Twin Groves for use during high demand, people and wildlife benefit from reduced emissions and the positive outcomes created by minimizing air pollution.**

DECOMMISSIONING: REMOVING & RESTORING

- **EDPR is unusual in the industry in that we are a Developer-Owner-Operator.** This means EDPR is fully committed to the success of Twin Groves Energy Storage for the long haul. EDPR is developing a decommissioning plan that will be based on an independent third-party engineering study to determine the cost for decommissioning the storage project. EDPR will guarantee the funding of these decommissioning costs so when the project reaches the end of its operational life, EDPR will be able to remove the energy storage infrastructure and return the land to its pre-storage use.

Energy Storage Construction

Building an energy storage system is a construction project that takes about one year to complete and employs around 50 people. Here are some of the goods and services we can source regionally:

TECHNICAL & CONSTRUCTION EMPLOYMENT

- Civil contractors
- Concrete supply and delivery
- General laborers
- Safety staff
- Excavation and restoration
- Gravel supply and delivery
- Heavy equipment operators

SERVICES

- Accommodations and catering
- Vehicle and equipment maintenance
- Vehicle and equipment rentals
- Security
- Fuel supply

Throughout the construction process, we work closely with local stakeholders and officials to ensure everyone is informed and construction activities are minimally disruptive.

1 SITE PREPARATION

The site is cleared of plants and large debris to create a stable foundation for the energy storage equipment. The ground may be levelled, and drainage systems are added to control water flow.

2 SECURITY FENCE & ROADS

To protect the public during construction activities, as well as to prevent trespassing and vandalism, a fence is erected around the perimeter of the project location. Additionally, roads are constructed to allow for transportation of vehicles, supplies, and equipment.

3 SUBSTATION

Following site preparation, any required modifications to the existing substations will be built.

4 WIRING INFRASTRUCTURE

High-voltage cables are installed to connect the battery modules, inverters, and transformers. These cables are usually buried underground for safety and to protect them from the weather. Control and communication systems are also installed to monitor and control the charging, discharging and overall operation of the energy storage system.

5 FOUNDATIONS

Foundations are installed to support heavy equipment like battery containers, transformers, and inverters. These foundations are strong enough to hold the weight of the equipment.

6 ENCLOSURES

The enclosures that house the batteries, often the size of shipping containers, are lifted with a crane and placed on the foundations. Other equipment, such as inverters and transformers, is installed the same way. Everything is anchored and connected to the wiring.

7 TESTING

All energy storage components go through rigorous equipment and commissioning testing to ensure they respond correctly to grid signals for charging and discharging.

8 OPERATIONS

After all connections are in place, the energy storage system is linked to the grid through the substation, which adjusts the voltage and meets utility requirements. Systems are adjusted, safety checks are completed, and the site is then ready to operate.

Energy Storage FAQs

IS THIS PROJECT CONNECTED TO RENEWABLES?

Twin Groves Energy Storage would be connected to the grid and is considered a fuel-neutral storage system. It will be connected directly to the grid rather than to a single power plant, such as a wind or solar facility. Fuel-neutral storage systems are able to hold excess energy from whatever generation sources are supplying the grid with power and store it for times of peak demand.

WHERE DOES THE POWER GO?

Though the power from Twin Groves Energy Storage would be purchased through a Power Purchase Agreement, the electrons from Twin Groves Energy Storage are likely to stay nearby, strengthening the local power grid surrounding the project. If the power isn't needed locally, then it will flow to the next area on the grid that needs power. No matter where the power goes, the tax revenue stays local.

ARE THE STORAGE SYSTEMS RECYCLABLE?

Yes, energy storage systems are recyclable, though the extent of recyclability depends on the materials used in each type of system. Ongoing research is focused on developing more efficient and sustainable materials for energy storage and creating innovative methods to recycle battery components. For example, lithium-ion batteries contain recyclable metals like lithium, cobalt, and nickel, which are considered critical materials that can support supply chain resilience to meet future demand.

Protecting our planet and contributing to its regeneration is one of EDPR's environmental, social, and corporate governance commitments. In order to achieve this ambition, EDPR is collaborating across the solar, wind, and storage sectors with over 19 recycling partners throughout North America to ensure equipment is managed responsibly both during and at the end of their useful life. **Through sustainability efforts like these, EDP has met a goal of 85% waste recovery along the project value chain (including construction, operations, and dismantling of solar, wind, and storage) and is committed to upholding that rate through 2028.**

WHAT IS THE LIFE EXPECTANCY OF THIS PROJECT?

Currently, the life expectancy for lithium-ion energy storage is 20 years, though this may vary depending on how frequently the battery is used. At the end of this lifetime, we can either decommission the project, or repower it. Repowering involves replacing old batteries with new ones to ensure the continued reliability and efficiency of the storage system, much like replacing the engine in a car.