

Battery Energy Storage Systems

VILLAGE OF THORNTON, IL

May 18, 2026



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TurningPoint Energy -Community-Focused Developer

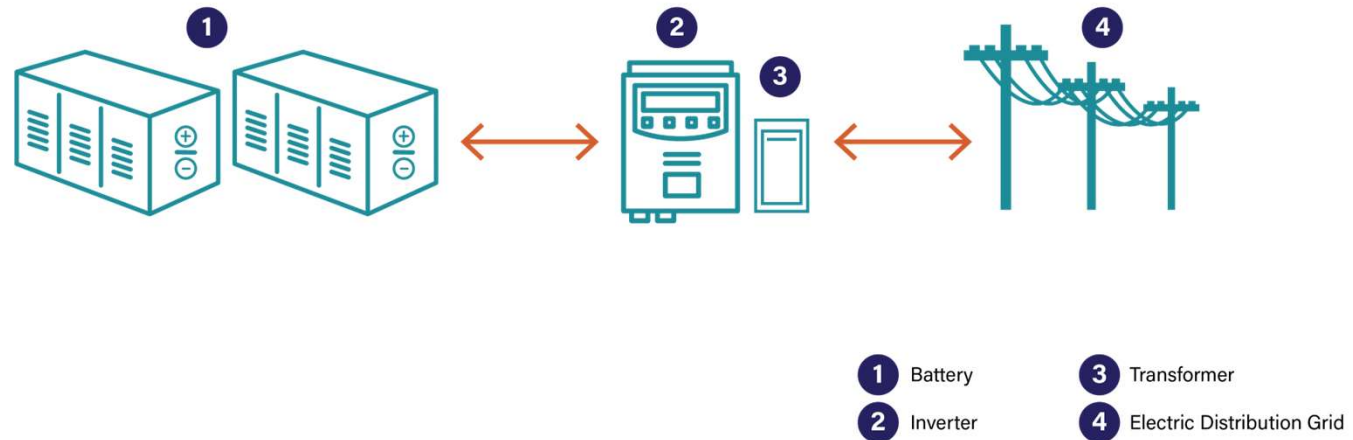
TurningPoint Energy has been developing renewable energy projects and energy infrastructure since 2014 with the following goals:

- **Understanding** what is important to the community, its businesses and its citizens.
- **Listening** to those closest to our project sites.
- **Designing** our projects to integrate within your community.
- **Investing** in local initiatives and charitable organizations. By the end of 2026, TPE will have provided more than \$3,000,000 to non-profits and community initiatives in areas where our projects reside.



What is a Battery Energy Storage System (BESS)?

- **Charging:** Batteries store electricity generated from the grid.
- **Storing:** Energy is held until it's needed – especially during peak demand or when generation is low.
- **Discharging:** Stored energy is released to the grid or facility, ensuring a steady power supply.



The Focus on Stand-Alone Storage in Illinois

- Recently passed Omnibus Energy Bill (SB25), the Clean and Reliable Grid Affordability Act, created programs to facilitate greater battery storage adoption in Illinois.
- Enabled smaller batteries up to 5 MW AC (typically 4 Hour (20 MWh)) to interconnect into the distribution system to reduce system peaks.
- Batteries receive an upfront rebate and *then* charge and discharge on a ComEd retail hourly rate tariff.
- Can co-locate multiple systems.
- Also established framework for local (county) ordinances and standardized the property tax structure.
- Set requirements for batteries to meet the latest rigorous fire code standards and requires developers to offer training to local first responders.



Tesla's Megapack stand-alone storage system.

Benefits of Battery Storage ...

For the Grid:

- Replaces expensive "peaker plants" by supplying power during high-demand periods, avoiding the need to run the grid's most costly and inefficient power sources.
- Defers costly grid upgrades by reducing peak demand, so utilities don't have to build oversized equipment that sits idle most of the time.
- Maximizes existing generation by storing cheap energy so it isn't wasted and can be used when demand is high.



Tesla's new Megapack battery project in Texas. Additional info. [here](#).

For the Community:



Enhances energy resilience and independence



Reduces carbon emissions by maximizing current generation



Lowers energy costs through peak shaving and demand charge reduction

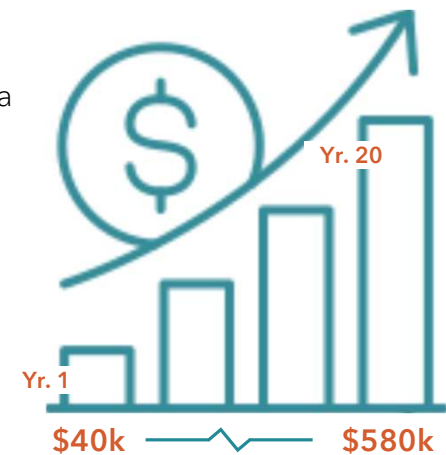


Increased tax revenue for local communities

Local Impacts to Property Tax

Increased, predictable property tax revenue without added burden.

- Based on SB25, BESS value will be assessed based on the kW capacity of the battery following a fixed formula and depreciation schedule that adjusts for inflation over time.
 - This structure creates lucrative, predictable property tax revenues for the life of the battery.
- A five (5) MW distributed energy storage system could generate approx. **\$40,000** more in tax revenue **in year 1** from as little as **1 acre** of land (**\$580,000** more over 20 years) – a **substantially higher amount compared to most land uses**.
- Top beneficiaries of the tax increase would include Cook County, the Village of Thornton and the local school districts and community college that serve Village of Thornton families.
- This increases funding with no increase in student population or service costs.
- NOTE: Cook County and its AHJs do not have to follow this exact taxing structure. We will work with the Village of Thornton to prepare a site-specific tax impact analysis.



*Estimated property tax revenue
for a 5 MW BESS.*

Proposed Project Area

Portion of Parcels:

29-33-301-043-0000

29-33-400-051-0000

29-33-400-052-0000

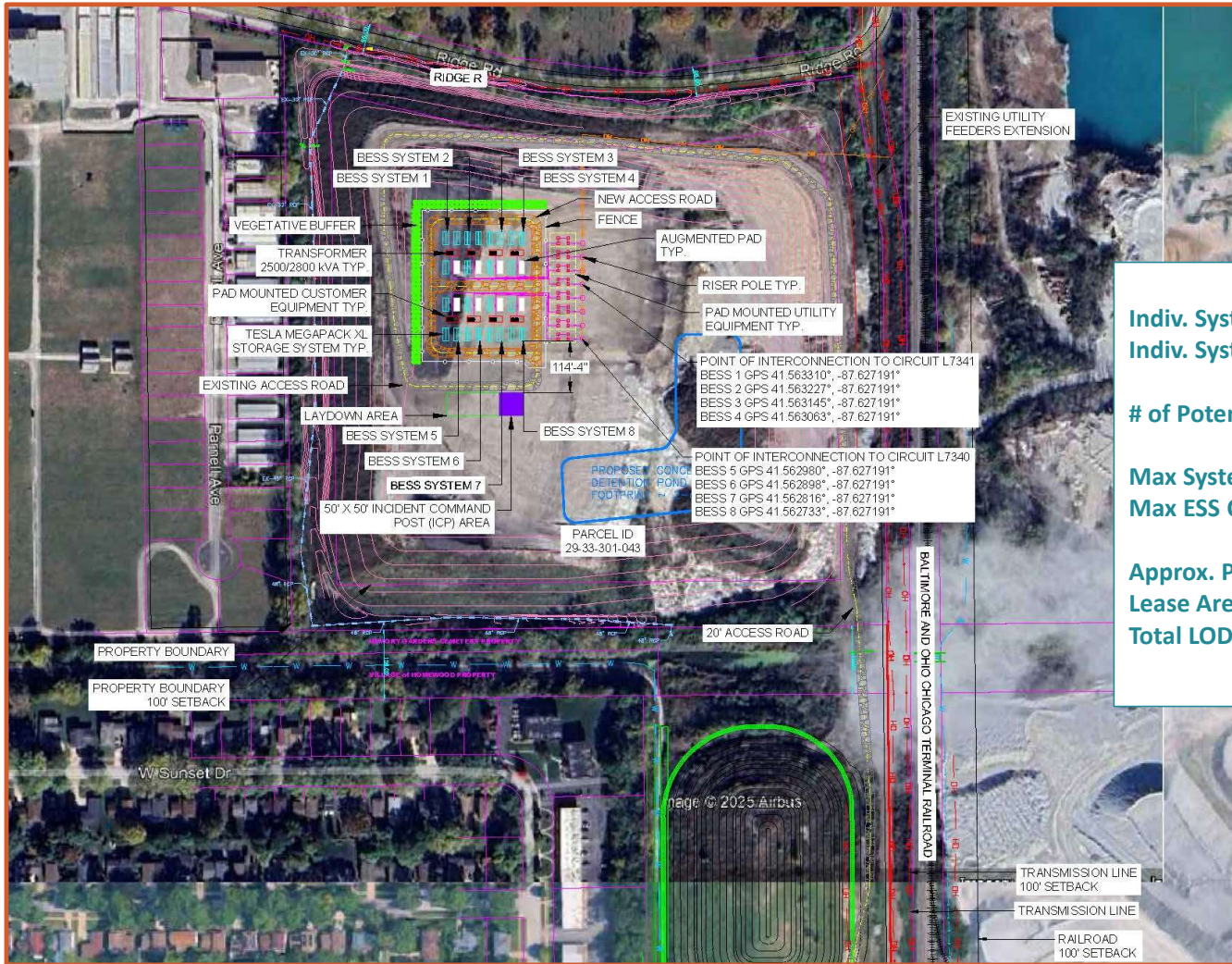
Village of Thornton
Cook County, IL

Industrial Zoning
Reclaimed Quarry Site

Site Control to be secured
by an Option to Lease



Preliminary Site Plan



Indiv. System Size:	4.99 MW AC
Indiv. System Capacity:	20.00 MWhr
# of Potential Systems:	Eight (8)
Max System Size:	39.93 MW AC
Max ESS Capacity:	160.00 MWhr
Approx. Parcel Area:	35.57 Acres
Lease Area: Approx.	3.25 Acres
Total LOD: Approx.	5.08 Acres

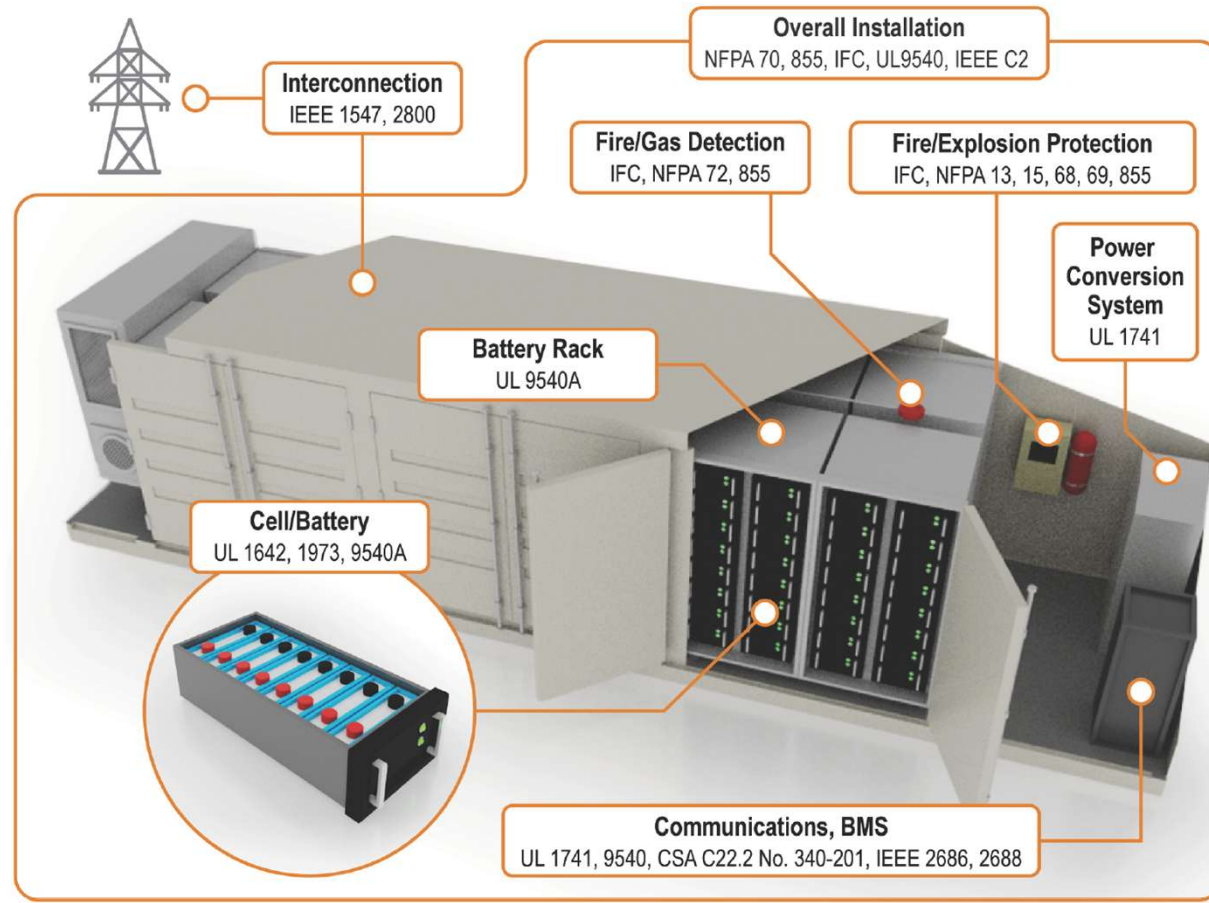
Site Specific Studies & Permitting Documentation

Once we have feedback from Village officials and have refined our initial siting we would then obtain site-specific studies to provide as part of any local permit process.

- Detailed Site Plan with proposed setbacks, site access and equipment locations
- Ongoing Fire Mitigation and Management Plan created in conjunction with our expert consultants
- Predictive Noise Study in compliance with the Illinois Pollution Control Board (IPCB) requirements
- Phase 1 Environmental Site Assessment
- Wetlands Delineation and Floodplain mapping (if needed)
- Federal & State Level Wildlife and Biological Resources Impacts
- State Historical Preservation Office Consultation
- Landscape Screening and Maintenance Plan
- Renderings of Project Site with Screening from neighbors and roadways
- Decommissioning Plan and Calculations for Decommissioning Surety
- Site Specific Tax Impact Analysis

These items are in addition to any other permitting documentation that the Village may require as part of a special use application on industrial-zoned land.

BESS Technology - Codes & Standards



Pacific Northwest National Laboratory ("PNNL") Energy Storage Systems (ESS) Codes and Standards. Sourced from the "Study of Codes and Standards for Stationary Energy Storage Systems." Full report [here](#).

Proven Technology

- Battery technology is not new. Proposed batteries use the same technology as your phone, laptop, power tools, etc.
- 700+ utility-scale batteries are installed and operating in the United States.
- Industry standards and certifications ensure safe deployment and operation.
- To ensure safe operation systems include:
 - Thermal management systems (cooling)
 - Real-time monitoring and automated shutdowns



Fire Safety

- TPE works with best-in-class national BESS fire safety consultants in every project phase, from design, siting, development, permitting and beyond
- Fire safety begins with product and project design - TPE commits to meet or exceed current code requirements regardless of AHJ's current level of code adoption
- TPE commits to only using products that have been third-party tested and rated for fire safety (UL9540, UL9540A, UL1973)
- Fire safety consultants help TPE and the AHJ develop site-specific Emergency Response Plan, Hazard Mitigation Analysis, Failure Mode and Effects Analysis tailored to local fire authority's capabilities
- TPE supports fire authorities to ensure they have needed training and capabilities



National Fire Protection Association (NFPA) Standards

- **NFPA 855** - Standard for the Installation of Stationary Energy Storage Systems
 - Operative fire code for BESS in most jurisdictions
 - Covers product and project design, testing and permitting requirements
 - Revised in 2026 in consultation with experts engaged by TPE
- **NFPA 72** - National Fire Alarm and Signaling Code
 - Covers fire alarm system design and related procedures
- **NFPA 22** - Standard for Water Tanks for Private Fire Protection
 - Covers water access requirements for remote facilities
- **NFPA 69** - Standard on Fire Event Prevention Systems
 - Covers prevention and control of explosions in enclosures that contain concentrations of flammable gases, vapors, mists, dusts, or hybrid mixtures



Power meets protection: fire safety in ESS design.

Project Commitment to Local Authorities: Design, Emergency Response and Training



Designed to applicable safety codes and standards and operating procedures



Emergency Response Plan developed prior to construction



Sites monitored 24/7 thru a Remote Operation Center



Provide training to staff and Fire Departments. Commissioning, Operation and annual review/updates by trained personnel



Provide access to subject matter experts and code consultants



NFPA 72 compliant system with First Responders for ERP communication

Questions & Additional Information

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