Lincoln-Lancaster County
PLANNING AND
DEVELOPMENT

LINCOLN/LANCASTER COUNTY PLANNING COMMISSION STAFF REPORT
FROM THE LINCOLN/LANCASTER COUNTY PLANNING AND DEVELOPMENT SERVICES DEPARTMENT
555 S. 10TH STREET, SUITE 213, LINCOLN, NE 68508

APPLICATION NUMBER
Special Permit #25045

FINAL ACTION?
Yes

DEVELOPER/OWNER
SP Resilient Power 05, LLC/
Andrew and Erica Spaulding

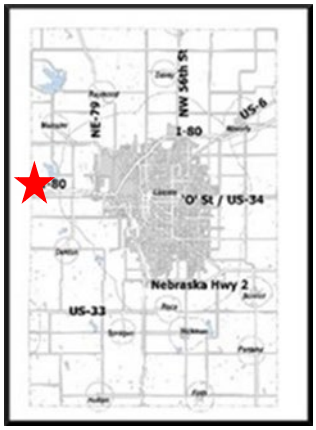
PLANNING COMMISSION HEARING DATE
January 7, 2026

RELATED APPLICATIONS
None

PROPERTY ADDRESS/LOCATION
SW 140th Street and W Holdrege Street

RECOMMENDATION: CONDITIONAL APPROVAL

BRIEF SUMMARY OF REQUEST
This is a request for a Special Permit for a Battery Energy Storage System (BESS) on approximately 20 acres. The project is generally located north of W Holdrege on the east side of SW 140th Street next to an existing Nebraska Public Power District substation.



JUSTIFICATION FOR RECOMMENDATION
The Special Permit request is justified as an appropriate use in the AG zoning district, subject to the conditions of approval, and in alignment with the Comprehensive Plan. Given the conditions, there should not be significant negative impacts to the neighboring properties.

APPLICATION CONTACT
Juan Mayoral, (305) 469-4118 or
jmayoral@sofospower.com

STAFF CONTACT
George Wesselhoft, (402) 441-6366 or
gwesselhoft@lincoln.ne.gov

COMPATIBILITY WITH THE COMPREHENSIVE PLAN
The project is compatible with the Comprehensive Plan as it will increase efficiency with respect to energy supply and demand and help toward energy conservation. The project will provide for greater energy grid reliability and resiliency.

KEY QUOTES FROM THE 2050 COMPREHENSIVE PLAN

Introduction Section: Growth Framework

> Figure GF.b: 2050 - this site is designated for future Agricultural, Agricultural Stream Corridor, and Environmental Resources on the 2050 Lincoln Area Future Land Use Plan. The Agricultural Stream Corridor and Environmental Resources designations pertain to the southwest corner of the property where there is floodplain and a drainageway. The project site excludes the floodplain.
>
> Land Use Plan – Agricultural- Land principally in use for agricultural production and compatible industries like solar and wind energy production. Agricultural land may be in transition to more diversified agribusiness ventures such as growing and marketing of products (e.g., horticulture, silvaculture, aquaculture) on site. Some land in the Agricultural category may be enrolled in voluntary preservation programs such as the USDA Conservation Reserve Program (CRP).

Goals Section:

> G7 – Environmental Stewardship and Sustainability.
>
> Energy use, supply, and conservation are topics of global as well as local concern. PlanForward includes an assessment of energy use, evaluates the utilization of renewable energy sources, and describes efforts to conserve energy in the community. The relationship between land use patterns and energy consumption has been widely researched and is an ongoing topic of national and global conversations. The transportation sector is the nation's leading source of greenhouse gas (GHG) emissions, and total emissions have steadily grown within our region as daily vehicle miles traveled and congestion levels have increased. Decisions within the region will address threats to transportation infrastructure and human health anticipated to result from climate change. As Lincoln and Lancaster County continue to plan for the future, the need to consider the impacts of energy supply and demand will continue to increase in importance.

Policies Section:

> P49 – Conservation of Energy
>
> Because of the limited amount of nonrenewable energy sources on Earth, and the impact that nonrenewable resource consumption has on the Earth, it is important to both reduce consumption of resources and substitute non-renewable resources with renewable ones, so that our natural resources will be available for future generations. When fossil fuels such as oil, coal, and gas, are burned to produce energy, carbon dioxide, nitrous oxides, and methane are emitted into Earth's atmosphere. These "greenhouse gases" trap the Sun's heat around Earth's surface, acting as a transparent blanket that warms the Earth. In the last 100 years, the level of carbon dioxide from human activities have skyrocketed in the Earth's atmosphere causing global temperatures to rise. At the local level, energy conservation saves money and energy which benefits both homeowners and businesses.

ANALYSIS

1. Battery Energy Storage System (BESS) was added to the Lancaster County Zoning Regulations in September of 2025. Battery energy storage systems are a recent land use type that have come about as part of changes in the electrical energy system. They often will take the shape of a shipping container or small storage building in appearance. They are utilized as part of energy transmission, substations and/or solar or wind energy

projects.

2. This is a request for a Battery Energy Storage System per Article 13.054 of the Lancaster County Zoning Regulations on approximately 20 acres located in western Lancaster County. Approximately 16 acres will contain project improvements. The zoning is AG Agricultural. The site is generally north of W Holdrege on the east side of NW 140th Street, which is the county line road with Seward County. The site is adjacent to the Nebraska Public Power District (NPPD) Pawnee Lake Substation.
3. The project will interconnect to the NPPD transmission system using existing transmission infrastructure and utility easements. Applicant has discussed the project with the NPPD and will enter into Generator Interconnection Agreements with the Southwest Power Pool (SPP) and NPPD.
4. The project will include BESS enclosures, batteries, safety monitoring equipment, access driveways, stormwater measures, and associated electrical infrastructure for energy storage, conversion, monitoring and interconnection. The project will store energy during periods of low demand and discharge energy during periods of high demand or grid stress, supporting system reliability, resiliency and operational flexibility. The proposed development includes an electric power output of 200 MWac (Megawatt alternating current) with 242 BESS containers. The BESS containers will be 24 feet by 8 feet.
5. A Battery Energy Storage System per Article 13.054 may be allowed in the AG zoning district by special permit under the following conditions:

    i) It is used in association with energy transmission, substations, and/or solar or wind energy conversion systems.

    The project is designed to support the energy grid reliability in association with energy transmission and is located next to a Nebraska Public Power District (NPPD) substation. The project will interconnect to the NPPD transmission system.

    ii) Meets the setback and height requirements of the district unless adjusted by the Planning Commission.

    The project will meet the setback and height requirements of the AG zoning district. The applicant is requesting a waiver to the setback to the south for the placement of a 10-foot-tall fence, if needed, for sound reduction. Fences are allowed in the setback. However, if the fence were 10 feet tall, it would be considered a structure and not allowed in the AG side yard setback.

    iii) The Planning Commission may require additional screening to address site related impacts of the Battery Energy Storage System.

    The site plan includes a note that evergreen trees will be planted along the entire NW 140th Street frontage at the rate of 6 trees per 100 linear feet to limit the visual impact of the project from the public view. Exact location of trees will be subject to Norris Public Power overhead electrical easement. The other adjacent properties to the north, east and south include agricultural land and the adjacent electric substation facility. The nearest home is approximately 500 feet to the south and is visually separated from the project site by existing trees and floodplain drainageway. Therefore, the proposed screening is appropriate, and no additional screening is recommended.

iv) The system has an emergency action plan approved by the Lincoln Bureau of Fire Prevention or Rural Fire District as applicable that includes pertinent information in case of fire or other emergency on site, including but not limited to, 24-hour contact information, access to lock boxes, access points, the location of shut offs and circulation patterns.

The application included an emergency action plan. This was provided to the Malcolm Fire & Rescue for their review. The review by Malcolm indicated concern with having the necessary support staff in the event of an emergency and referenced possible Lincoln Fire & Rescue (LFR) support. LFR has not expressed any interest in specifically entering into an agreement for service outside their area.

The applicant's response to the Malcolm Fire & Rescue comments are attached to this report and include letters from both Sofos Power and ESRG. The latter consultant provides project review, public safety training and emergency response planning and incident testing and investigation. The letter information notes that the projects still have 3-4 years of additional permitting, and this will allow sufficient time to finalize safety planning and training.

It is a condition of approval before building permit that the emergency action plan is approved by the Malcolm Fire & Rescue.

v) Safety data sheet information is provided to the Health Department for the battery chiller systems.

The application included project equipment specifications, including safety data sheet information on the battery chiller systems. The Health Department reviewed and approved the safety data sheet information.

vi) The Battery Energy Storage System complies with the following sound requirements:

A. All battery energy storage systems (BESS) shall be located and constructed in such a manner that noise levels do not exceed the sound level limits established in Table 1 below:

Table 1.
Sound Level Limits by Receiving Land Use

Receiving Land-Use Category	Time of Day Limit Applies	Sound Level Limit, in dBA Maximum Ten L_{eq} Level
Residential (includes all R-zoned areas)	7:00 a.m. to 10:00 p.m.	65
	10:00 p.m. to 7:00 a.m.	55
Noise-sensitive zone, or agricultural residential (AGR)	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	50
Agricultural (AG)	6:00 a.m. to 10:00 p.m.	75
	10:00 p.m. to 6:00 a.m.	50
Commercial (includes all B-zoned areas)	At all times	70
Industrial (includes all I-zoned areas)	At all times	75

The Health Department reviewed the noise study submitted with the application and worked with the applicant on clarification of the noise information to assure that it will meet all sound requirements. As a condition of approval, if required by the Health Department the plan must incorporate a 10-foot-tall vinyl fence along the entire southern border of the project to achieve compliance with the sound requirements. This fence will have to meet the 60' side yard as a fence over 6 feet tall is considered a structure.

vii) The Planning Commission may impose such other conditions as are appropriate and necessary to protect the health, safety, and general welfare of the public

As the applicant's information shows a net decommissioning cost of over $7 million, thus a surety is appropriate as an additional condition. The owner of the BESS will have to provide the decommissioning cost guaranty no later than the end of the fifteenth (15th) year of operation and shall maintain the financial security thereafter for as long as the BESS is in existence or upon discontinuance, decommissioning, or abandonment of the BESS. Such financial security will be updated every five (5) years to cover the costs associated with the updated decommissioning cost estimates.

6. It should be noted that the applicant submitted multiple supplemental documents which were not required for the Special Permit including a decommissioning plan, viewshed analysis and wetlands delineation report.

   -The decommissioning plan shows that the decommissioning cost will be $14,680,100 with a salvage value of $7,207,600 and a net decommissioning cost of $7,472,500. The Lancaster County Zoning Regulations for the BESS Special Permit do not require a decommissioning plan or financial security for decommissioning.

   -The viewshed analysis include viewshed perspectives from nine vantage points including locations along NW 140th, W Holdrege Street and from the south, southeast, southwest, and northeast.

   -The wetlands delineation report included a letter from the U.S. Army Corps of Engineers indicating that aquatic resources present on the property do not meet the definition of Waters of the United States and a Department of Army permit is not required.

7. The County Engineer as part of their review noted that a Road Maintenance Agreement with Lancaster County will be needed which this is a condition of approval before building permit. NW 140th Street is a county line road with Seward County on the west side of the road, but the maintenance responsibility per the County Engineer is Lancaster County for this location. NW 140th Street is a gravel road.

8. The site plan and application letter documents are attached to this report. The various additional application documents submitted with this application can be found at PATS (Planning Application Tracking Service) at https://app.lincoln.ne.gov/aspx/city/pats/. Type in SP25045 for the application number and look at Related Documents for the information.

9. An informational community open house meeting was held on November 19, 2025, at the Malcolm Fire & Rescue station on the battery energy storage project. Approximately a dozen people attended the meeting including nearby property owners and members of the Malcolm Fire & Rescue.

10. The proposal is consistent with the Comprehensive Plan and meets the requirements of the Special Permit for Battery Energy Storage System.

CONDITIONS OF APPROVAL: See attached.

EXISTING LAND USE & ZONING: Agriculture, AG Agricultural District

SURROUNDING LAND USE & ZONING

North:	Agriculture, Acreages, Substation	AG Agricultural District
South:	Agricultural, Acreages	AG Agricultural District
East:	Agriculture	AG Agricultural District
West:	Agriculture	TA-1 (Seward County)

APPROXIMATE LAND AREA: 20 acres

LEGAL DESCRIPTION: Lot 40 I.T. located in the SW ¼ of Section 18, Township 10 North, Range 5 East, Lancaster County, Nebraska

Prepared by George Wesselhoft, Planner
(402) 441-6366 or gwesselhoft@lincoln.ne.gov

Date: December 23, 2025

Applicant: SP Resilient Power 05, LLC

Contact: Juan Mayoral

Owner: Andrew and Erica Spaulding

https://linclanc.sharepoint.com/sites/PlanningDept-DevReview/Shared Documents/DevReview/SP/25000/SP25045 Pawnee Lake Resilient Power Project.gjw.docx

CONDITIONS OF APPROVAL – SPECIAL PERMIT #25045

Per Article 13.054, this approval permits a Battery Energy Storage System with the reduction in the side yard setback to allow a 10-foot-tall fence.

Site Specific Conditions:

1. Before receiving building permits the permittee shall cause to be prepared and submitted to the Planning and Development Services Department a revised and reproducible final plot plan including **3** copies with all required revisions and documents as listed below:

    1.1 Revise legal description on the site plan to Lot 40 I.T. located in the SW ¼ of Section 18, Township 10 North, Range 5 East, Lancaster County, Nebraska.

    1.2 Label and dimension setback lines and add dimensions for all property lines.

    1.3 Add an existing and proposed drainage plan and add a statement in the General notes stating the datum used.

2. Before receiving building permits the following shall be completed:

    2.1 Applicant shall enter into a "Road Maintenance Agreement" with Lancaster County.

    2.2 Receive approval of the Emergency Action Plan by the Malcolm Fire & Rescue district as required by 13.054 (iv).

    2.3 Owner/applicant shall construct a 10-foot tall vinyl fence along the entire southern border of the project area, consistent with information provided in the applicant's Noise Impact Study for the proposed facility dated December 23, 2025. As an alternative to the 10-foot tall vinyl fence, the owner/applicant shall install, construct, or employ other noise mitigation measures, to be reviewed and approved by the Lincoln-Lancaster County Health Department, that will ensure compliance with the applicable noise limits established in Lancaster County Zoning Regulation 13.054 Table 1.

    2.4 Applicant shall provide a surety for the review by the County Attorney in the amount which shall include estimated decommissioning cost, less any resale and salvage value, shall be guaranteed in one of the following forms: (i) surety bond, (ii) cash to be held in escrow by the County at a Bank, or (iii) a letter of credit from a financial institution reasonably acceptable to the County which shall be irrevocable unless replaced with cash or other form of security reasonably acceptable to County. The owner of the BESS shall provide the decommissioning cost guaranty no later than the end of the fifteenth (15th) year of operation and shall maintain the financial security thereafter for as long as the BESS is in existence or upon discontinuance, decommissioning, or abandonment of the BESS. Such financial security shall be updated every five (5) years to cover the costs associated with the updated decommissioning cost estimates.

Standard Conditions:

3. The following conditions are applicable to all requests:

    3.1 Before occupying the buildings or starting the operation all development and construction shall substantially comply with the approved plans.

    3.2 All privately-owned improvements, including landscaping, shall be permanently maintained by the Permittee.

    3.3 The physical location of all setbacks and yards, buildings, parking and circulation elements, and similar matters be in substantial compliance with the location of said items as shown on the approved site plan.

    3.4 The terms, conditions, and requirements of this resolution shall run with the land and be binding upon the Permittee, its successors and assigns.

    3.5 Permittee should obtain a certified copy of this resolution from the County Clerk's Office and file it with the Register of Deeds Office.

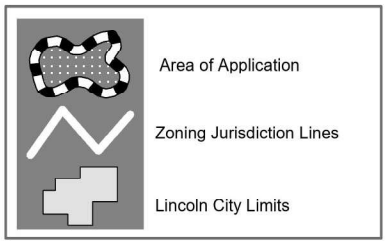
2024 aerial

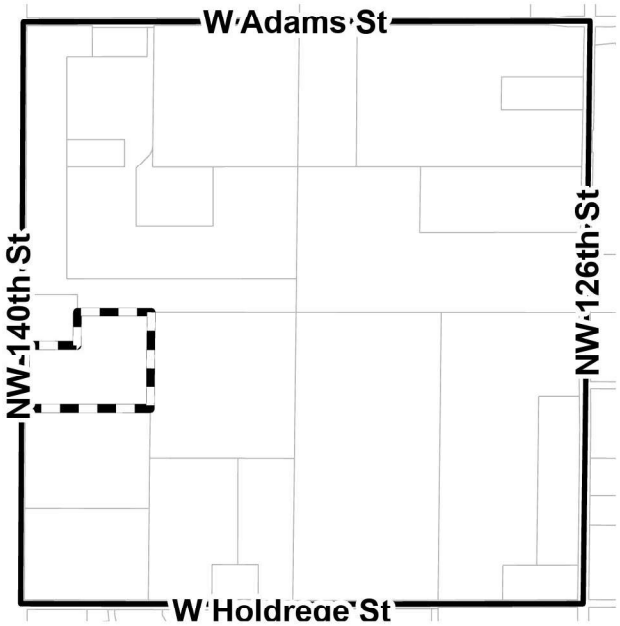
Special Permit #: SP25045
NW 140th St & W Holdrege St

Zoning:

R-1 to R-8	Residential District
AG	Agricultural District
AGR	Agricultural Residential District
O-1	Office District
O-2	Suburban Office District
O-3	Office Park District
R-T	Residential Transition District
B-1	Local Business District
B-2	Planned Neighborhood Business District
B-3	Commercial District
B-4	Lincoln Center Business District
B-5	Planned Regional Business District
H-1	Interstate Commercial District
H-2	Highway Business District
H-3	Highway Commercial District
H-4	General Commercial District
I-1	Industrial District
I-2	Industrial Park District
I-3	Employment Center District
P	Public Use District

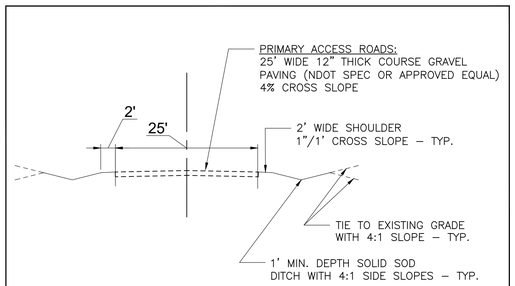
One Square Mile:
Sec.18 T10N R05E



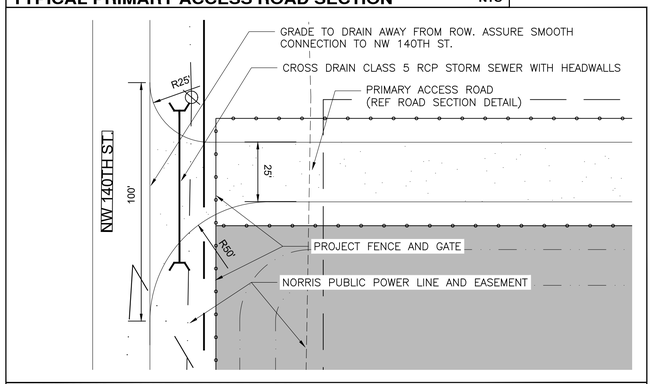


PDF: F:\Boards\PC\Internet\out\ (SP25045)
File: D:_GIS\Projects\DevReview\AgendaDrawings\AgendaDrawings\AgendaDrawings_SDE.aprx (SP25045)

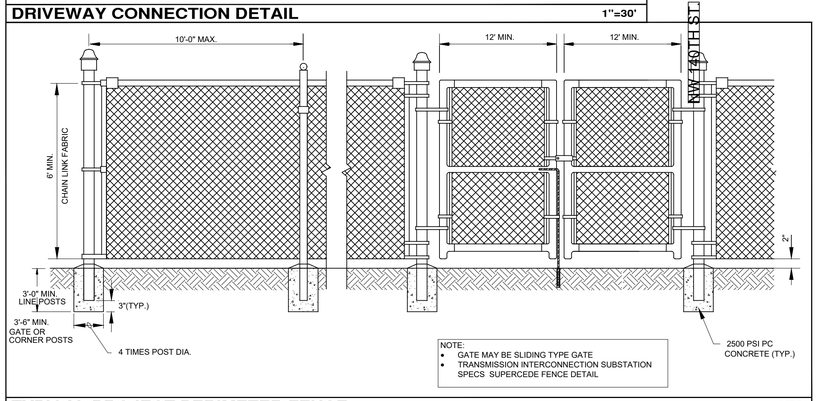
VICINITY MAP



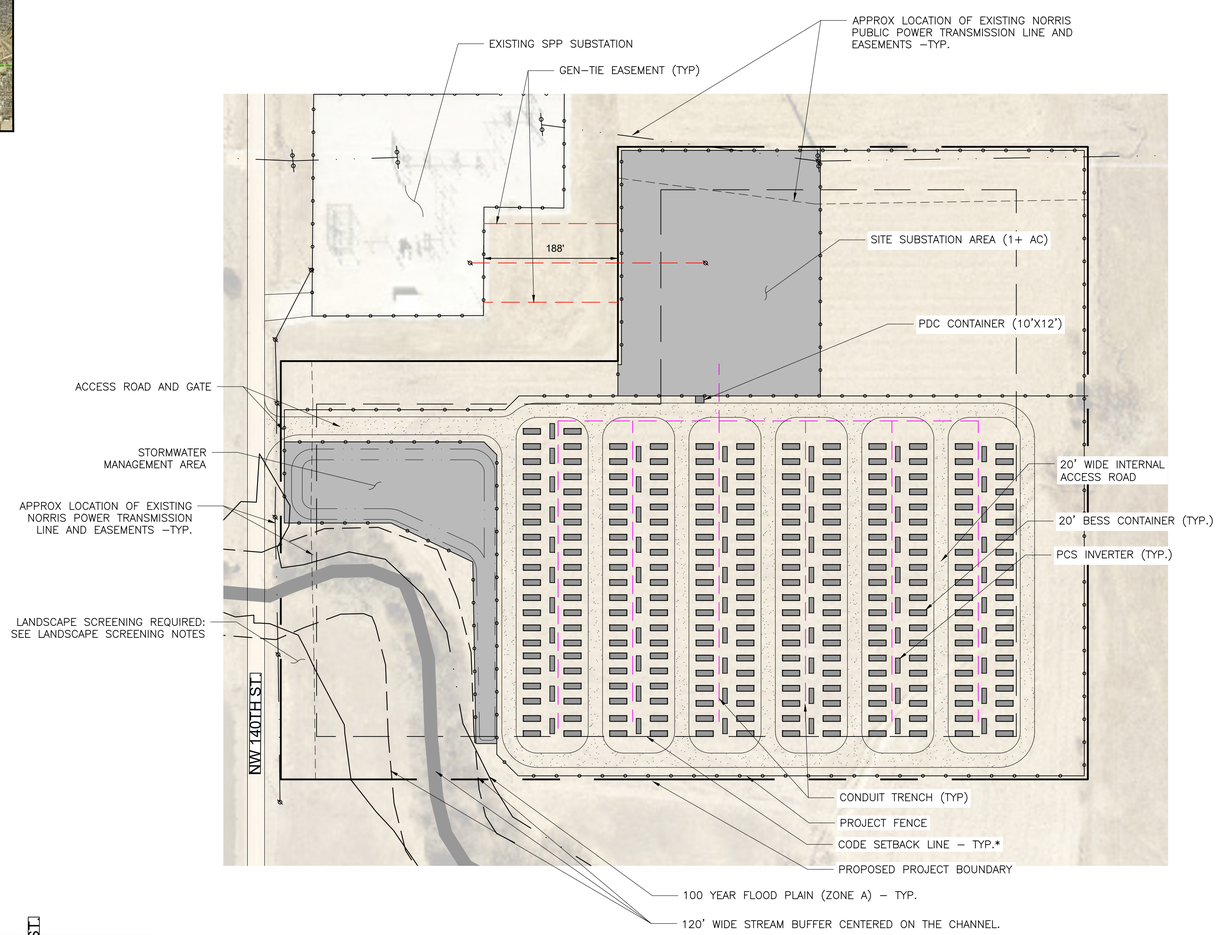
TYPICAL PRIMARY ACCESS ROAD SECTION NTS



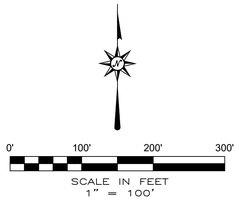
DRIVEWAY CONNECTION DETAIL 1"=30'



TYPICAL PROJECT PERIMETER FENCE NTS



CONDUIT TRENCH LENGTH = 3,206 L.F
GEN-TIE EASEMENT LENGTH = 188'



BESS LAYOUT GUIDELINES:

21.3' X 6.5' PCS UNITS
24' X 8' BESS CONTAINERS
20' INTERNAL ROAD WIDTH
13.12' (4M) BETWEEN BESS CONTAINERS
13.12' (4M) BETWEEN CONTAINERS AND INVERTERS
10' MIN. BETWEEN EQUIPMENT AND INTERNAL ROADS
30' MIN. INTERNAL ROAD TURN RADIUS
25' MIN. SETBACK FROM PROPERTY LINES, OR PER CODE

SITE DATA TABLE:

PARCEL ID: 0418300024000

LEGAL DESCRIPTION: S18, T10, R5, ACRES 6TH PRINCIPAL MERIDIAN, LOT 40 SW

OWNER: ANDREW & ERICA SPAULDING

LANCASTER COUNTY, NE

ZONING REVIEW:

PROPERTY IS ZONED AG, AGRICULTURAL. SURROUNDING PROPERTY IS ZONED AG. COUNTY BOUNDARY IS NW 140TH ST TO THE WEST

BESS is an allowed use in the Lancaster Co. Zoning Regulations within the AG district by Special Permit. Refer to the Lancaster Co. Zoning Regulations Section 13.054

*BUILDING SETBACKS AND DIMENSION REQUIREMENTS (additional setbacks and buffers may be required to obtain the Special Permit):

Min lot size = 20 ac, ave lot width 550', min, frontage 550'

FRONT 50'

REAR 100'

SIDE 60'

EXISTING PROPERTY AREA = 19.65 AC.

PROPOSED PROJECT AREA = 19.65 AC.

INCLUDES A 3.0 AC SITE SUBSTATION AREAS AND A 1 AC SITE SUBSTATION AREA

WETLANDS AND STREAMS SHOWN ARE APPROXIMATE AND ARE SCALED FROM THE NATIONAL WETLAND INVENTORY MAP. A JURISDICTIONAL DETERMINATION IS NEEDED TO DETERMINE THE ACTUAL WETLAND BOUNDARY

TRANSMISSION LINE INFORMATION IS SCALED FROM AERIAL PHOTOGRAPHY

A PORTION OF THE SITE (SCALED AS SHOWN) IS WITHIN A ZONE A FLOOD PLAIN PER FEMA PANEL 31109C0260G EFF 4/16/2013. IT IS ANTICIPATED THAT THE PROJECT IMPROVEMENTS WILL AVOID IMPACTS TO FLOOD ZONE A

PROPOSED DEVELOPMENT:

200 MWac
242 BESS CONTAINERS
61 PCS

LANCASTER COUNTY NOTES:

1. ALL CULVERTS SHALL HAVE A FLARED-END SECTION OR CONCRETE HEADWALL ON THE INLET END.
2. ACCESS ONTO NW 140TH STREET SHALL BE LIMITED TO ONE LOCATION ONLY.
3. LOADING OR UNLOADING OF MATERIAL SHALL NOT TAKE PLACE ON LANCASTER COUNTY ROADWAYS.
4. NO GRADING ACTIVITIES SHALL TAKE PLACE WITHIN THE FEMA EFFECTIVE FLOODPLAIN OR AREAS IDENTIFIED AS POTENTIAL WETLANDS.
5. PROPER EROSION CONTROL AND DRAINAGE SHALL BE MAINTAINED AT ALL TIMES TO PREVENT DAMAGE TO LANCASTER COUNTY ROADWAYS.
6. ANY WORK DONE WITH LANCASTER COUNTY RIGHT-OF-WAY WILL BE COMPLETED IN ACCORDANCE WITH LANCASTER COUNTY DESIGN STANDARDS.
7. THE CONSTRUCTION OR LOCATION OF ANY FENCE OR OTHER IMPROVEMENT WHICH OBSTRUCTS DRAINAGE SHALL BE PROHIBITED OVER, UPON, OR UNDER ANY DRAINAGE EASEMENT SHOWN THEREON.

LANDSCAPE SCREENING NOTES:

1. SCREENING REQUIRED: AS AN ADDITIONAL CONDITION PER LCZR 13.054 (III) FOR NW 140TH STREET FRONTAGE; EVERGREEN TREES SHALL BE PLANTED ALONG THE ENTIRE NW 140TH STREET FRONTAGE AT A RATE OF 6 TREES PER 100 LINEAR FEET. EXACT LOCATION OF LARGE TREES SHALL BE SUBJECT TO NORRIS PUBLIC POWER OVERHEAD UTILITY LINES APPROVAL.

sofos power

REVISION:	DATE:
ISSUED FOR REVIEW	9-17-24
ADDED CONDUIT TRENCH AND GEN-TIE LENGTH	10-11-24
DATA TABLE EDITS	10-21-24
SWM/SUBSTATION SHADING	11-2-25
ADDRESS STAFF COMMENTS	12-10-25

AML ENGINEERING & DEVELOPMENT SERVICES
P.O. BOX 43881 VESTAVIA, AL 35243
205-320-3934, AMLENG.COM

CONCEPT SITE PLAN

PAWNEE LAKE RESILIENT POWER
SPECIAL PERMIT SP25045
PARCEL ID 04-18-300-024-000
LANCASTER COUNTY, NE

SOFOS POWER

CONCEPTUAL NOT FOR CONSTRUCTION

PROJECT NO:
SOFO-SPP01

DATE:
9-17-24

DWG. NO. - REV.

C1-R4

VIA HAND DELIVERY

Lincoln-Lancaster County Planning Department
555 South 10th Street, Suite 213
Lincoln, Nebraska 68508
plan@lincoln.ne.gov

11/5/2025

Dear Lincoln-Lancaster Planning Department,

SP Resilient Power 05, LLC ("Applicant") respectfully submits this application for a Special Permit for the Pawnee Lake Resilient Power Project ("Project"). The Project is a proposed battery energy storage system ("BESS") in Lancaster County, Nebraska. Applicant is held under partnership with Sofos and our financial sponsors.

Founded in 2004, Sofos began as a residential and industrial solar developer. In over 20 years, we've expanded to over 10 countries, growing our expertise and global presence. We have had presence in the United States market since 2017. We now continue with the development of utility-scale BESS in the ERCOT and SPP markets. Backed by a $250,000,000 investment fund, our team includes professionals in transmission, siting, real estate, permitting, finance, and engineering who collectively have led the development of thousands of megawatts of renewable energy generation and storage capacity. This depth of experience enables Sofos to ensure responsible project siting, strong stakeholder engagement, and compliance with applicable regulations.

Sofos has a successful track record of selecting reputable technology partners who provide reliable equipment ensuring the Project uses proven, safe, and reliable technologies that are compatible with site conditions, while supporting schedule certainty and long-term, performance.

A complete Project narrative and accompanying exhibits, prepared in accordance with Zoning Resolution of Lancaster County ("Regulations"), are included with this application.

The Project is designed to support local and regional grid reliability, improve energy efficiency, and enhance system resiliency. As a dispatchable resource, the BESS will store energy during periods of low demand and release it when demand is higher, helping to balance the grid and reduce stress on existing infrastructure. The Project will have minimal environmental impact and is expected to generate meaningful long-term tax revenue for the community.

Applicant is committed to meeting or exceeding all applicable standards and permitting requirements. We appreciate the Planning Commission's consideration of this application and look forward to working collaboratively to advance a safe, compliant and beneficial energy project for the community.

Thank you for your consideration.

Sincerely,

Juan Mayoral
CEO, Sofos Power

Lincoln-Lancaster County Planning Department
555 South 10th Street, Suite 213
Lincoln, Nebraska 68508
plan@lincoln.ne.gov

12/10/2025

Dear Lincoln-Lancaster Planning Department,

Thank you for the staff comments received on SP25045 and SP25046. The Applicant has carefully reviewed these comments and remains committed to meeting or exceeding all applicable standards and permitting requirements. The Applicant would like to respond to the initial Volunteer Fire & Rescue Departments' reviews and feedback with the intent of providing clarification and written information. To this same end, please also find the enclosed letter by Energy Safety Response Group ("ESRG"), the selected project safety consultant for each project.

ESRG, founded in 2013 as a group of "firefighters working for firefighters" who specialize in project review, public safety training and emergency response planning, and incident testing and investigation. The Applicant hired ESRG to enable the Applicant to provide Fire & Rescue Services all planning and training required to work with Fire & Rescue to complete the drafting and approval of an Emergency Action Plan.

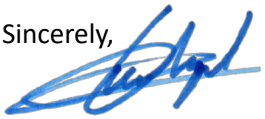
It's important to remark that the projects have 3-4 years of additional state, federal, and local permitting and interconnection study prior to being placed in operation. That will allow sufficient time to Volunteer Fire & Rescue Departments, and other relevant emergency response entities, for proper safety planning and training, as well as procurement of any required equipment.

As stated by ESRG, the chances of a BESS related incident are less than from commercial buildings. When the exceptional incident occurs, modern BESS systems, including that proposed by the Applicant, provide "inherent fire protection design to keep all possible worst-case fires relatively small and contained to a single unit without propagating." Notably, ESRG spells out material differences in modern BESS systems and older, early BESS systems without containment structures and less stable technology. Incidents, which would usually encompass one single unit, rarely require local evacuation, rather, they primarily require incident monitoring to ensure that they do not expand to neighboring units.

To reiterate, the Applicant is committed to ensuring that a full Emergency Action Plan is developed and approved by local Fire & Rescue Departments and looks forward to the opportunity to do so. Any training – prior to service and ongoing annually - will be paid for and provided by the projects. In addition, the Applicant is open to collaborating with the Fire & Rescue Departments to identify any required equipment and to participate in its funding.

We appreciate the Planning Commission's consideration of this application and look forward to working collaboratively to advance a safe, compliant and beneficial energy project for the community.

Sincerely,



Juan Mayoral
CEO, Sofos Power

ESRG
ENERGY SAFETY
RESPONSE GROUP

Energy Safety Response Group, LLC
P.O. Box 12639
Columbus, OH 43212

www.energyresponsegroup.com
1-833-SAFE-ESS

To whom this may concern,

On behalf of ESRG, thank you for your vested interest in the project proposed by SOFOS for Lancaster County. As of December 9, 2025, SOFOS has proposed using Hithium as the selected technology. It is imperative to highlight the safety features of current technologies, and how they differ from earlier legacy sites (i.e., Moss Landing 300, a.k.a., Moss Landing).

Modern BESS facilities like the ones proposed by SOFOS are significantly different and inherently safer than earlier legacy facilities like Moss Landing, with important advances in fire protection design, installation, operation, and regulatory oversight. Moss Landing is a unique site, and no other site in the world is its equivalent. Moss Landing was a large occupiable structure (the old power plant building) that was retrofitted to house lithium-ion batteries in specific racking systems throughout its footprint in 2020. The initial integration of those lithium-ion batteries within the structure were nickel-manganese cobalt (NMC), as this was the chemistry of lithium-ion batteries that were widely used at that time. January 16, 2025, Moss Landing experienced a thermal event, causing a fire that consumed the entirety of the building. Some takeaways from the incident:

- Moss Landing was one of the largest power plants on the West Coast with initial operations in the 1950's, prior to its inception as a battery energy storage system in 2018 where PG&E gained approval from the California Public Utilities Commission to purchase the building.
- Regulatory codes and standards for BESS were evolving at the time Moss Landing was designed and constructed, i.e., NFPA 855 (Standard for the Installation of Stationary Energy Storage Systems) and the International Fire Code were just starting to address BESS and not enforceable during the initial set-up for Moss Landing (Moss Landing was approved in 2019 by the planning commission in Monterrey County and came online in December 2020).
- Moss Landing was a fully occupiable, non-compartmentalized structure. The open floor plan inside the building allowed for all exposed battery units to be consumed by fire.

In contrast, the Hithium enclosures are designed as non-occupiable, exterior, independent electrical cabinets, installed outside and not within any structure, which is the inherent fire protection design to keep all possible worst-case fires relatively small and contained to a single unit without propagating. This is a fundamental and critical design difference.

Battery Energy Storage Systems (BESS) must meet stringent testing requirements such as UL 9540 and UL 9540A. UL 9540 is a testing requirement that focuses on all safety features integrated for that technology. UL9540A is a testing data collection standard used by the regulatory codes to assure all fires will not propagate. Propagation means cell to cell, module to module, rack to rack, or enclosure to enclosure. UL9540A is used to determine the offset of enclosures through third-party testing performed at a Nationally Recognized Testing Lab (NRTL). Notably, BESS fire protection is required to have large-scale fire tests like UL 9540A, and this is not typical in today's fire protection infrastructure which normally requires only small and mid-scale fire testing of equipment and materials. Further, Hithium utilizes LFP battery chemistry

rather than the NMC batteries like had been installed at Moss Landing, and the UL 9540A test show that LFP batteries are much more difficult to achieve fire spread and thus are safer.

Under UL9540, there are specific systems that are tested as it pertains to each technology. ESRG refers to these systems as either life-safety systems, or non-life safety systems. Life-safety systems include, for example, traditional fire protection systems such as smoke detectors, heat detectors, gas detectors and infrared detection, all of which must be listed for the intended purpose and must be compliant with NFPA 72 (National Fire Alarm and Signaling Code). NFPA 72 compliance means meeting robust detection and alarm requirements, such as supervised circuits, central station monitoring, on-site annunciation, proper signaling (e.g., horn, strobe and/or remote panel), and appropriate backup power.

Other life-safety systems are focused on exhaust and deflagration control. These systems must meet either NFPA 68 (Standard on Explosion Protection by Deflagration Venting) or NFPA 69 (Standard on Explosion Prevention Systems). NFPA 68 addresses passive, built-in venting to control possible deflagrations, where NFPA 69 addresses active deflagration control systems. The Hithium system proposed by SOFOS utilizes the NFPA 68 system. Furthermore, each Hithium enclosure is equipped with smoke and gas detectors which are directly linked to the NFPA 72 compliant fire alarm control panel.

In addition to life-safety systems, the BESS non-life safety systems (such as the battery management system or other systems controllers) are focused on battery and facility performance. Despite not being specifically listed for fire protection purposes, these systems are in use at all times and provide valuable supporting data for emergency response. Grid-scale BESS facilities like the one proposed by SOFOS are monitored 24/7 closely by the site operator's Network Operation Center (NOC) but also by another off-site center for safety redundancy. Their focus is on equipment performance and to keep the facility fully operational at peak capacities, and this has the additional benefit of providing additional early warning of all possible problems and anomalies, including a fire. As a specific example, the battery management system continuously monitors every cell characteristic such as voltage, temperature, moisture, state-of-charge, and other details. The NOCs are able to see BESS performance well in advance of traditional fire protection detection.

Today's fire protection for modern BESS facilities like the one proposed by SOFOS is significant, far beyond what was provided for the legacy facilities like Moss Landing and includes multiple layers of passive and active fire protection features that provide a robust defense-in-depth fire protection. The requirements used today for the one proposed by SOFOS (e.g., NFPA 855 and related fire codes) are rigorous, relevant, and appropriate, and have been generated through nationally recognized consensus update processes involving a wide range of applicable fire protection professionals.

To re-emphasize the key fire protection and safety points between today's BESS facilities like the one proposed by SOFOS and earlier legacy facilities like Moss Landing:

- Today's fire protection approach for grid-scale BESS focuses on non-occupiable, exterior, independent electrical cabinets, installed outside and not within any structure, providing

an inherent fire protection design to keep all possible worst-case fires relatively small and contained to a single unit without propagating.

- NFPA 855 and other Fire Codes (e.g., IFC) have significantly evolved to allow better fire protection enforcement (More robust codes and standards).
- UL9540 and UL9540A equipment testing requirements are mandatory (Large-scale fire testing and the validation of fire spread & propagation characteristics).
- Battery chemistries have shifted from NMC batteries to LFP batteries (shown in UL 9540A testing to have superior resistance to fire spread between cells)
- Remote Operation Center (ROC) or Network Operation Center (NOC) provide 24/7 monitoring with early notification to first responders, in addition to other traditional fire alarm requirements.
- An outdoor containerized BESS fire would likely have no environmental impact, distinct from a residential or commercial building fire. Further, given that the vast majority of BESS are in small, modular containers designed to prevent propagation, any emissions generated by a fire would naturally be less than those produced by a large commercial or industrial fire.
- BESS fires are exceptionally rare, and a modern BESS properly installed and maintained should present no additional workload for first responders. There is a far greater risk of fire from commercial buildings' electrical systems than a BESS system. For context, in 2022, 12,600 fires were caused by electrical failures in U.S. commercial buildings, while there were only six (6) BESS fire incidents in the U.S. Should an event occur, proper training and planning will help make the response more efficient, and, if necessary, fire departments may utilize mutual aid as needed to support operations until the incident can be turned over to a third-party organization that can manage it.
- ESRG does not typically recommend automatic evacuations during BESS fires. As emissions are comparable to other fires, and as fire services' best practices include monitoring fire events, ESRG recommends BESS incidents be managed in the same manner, with monitoring air quality and weather patterns so incident commanders can make informed decisions as needed to protect communities, life and property. In numerous containerized battery fire events where air quality data was available, no offsite emissions were detected, though ESRG will always recommend the fire service monitor these events and make decisions as they would with any other comparable event.
    - Field experience to date has not found air quality impacts beyond the property on which a BESS container is located, and onsite smoke emissions dissipate quickly.
    - Along with these considerations, it is important to note that many of the battery fires or failures in the U.S. have been limited in scale and are unlikely to even be noticeable offsite due to the regulatory codes and standards implemented.

In conclusion, ESRG has found that technologies continue to evolve, risks may change, but the current slate of systems installed in the field today if implemented responsibly should not pose risks beyond what ESRG has identified at their own test site.

Respectfully,

Eric Wood