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City of Coppell  
265 E Parkway Boulevard  
Coppell, TX 75019

Planning and Zoning,

RavenVolt, as the engineer and contractor, and Prologis, as property and battery owner, are proposing the installation of a new 9.9 MW Battery Energy Storage System (BESS) at 360 N Freeport Pkwy Coppell, TX 75019. The BESS will tie into the utility grid according to terms in the Interconnect Agreement with ONCOR Utility and will be subject to all ERCOT design standards and requirements.

The following Project Description seeks to answer questions about BESS in general, as well as provide detail about the proposed project. We believe that the benefits to having BESS in Coppell are self-evident and that any concerns can be mitigated and addressed. We look forward to this opportunity to partner with the City of Coppell in bringing this project to fruition.

Sincerely,

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## **Introduction**

RavenVolt and Prologis want to ensure that the City of Coppell Planning and Zoning and citizens of Coppell's goals are met. We believe our proposed 9.9 MW Battery Energy Storage Project aligns with and promotes the goals of the City of Coppell. We appreciate city asking good questions and ensuring good plans, and know that it enables the City to manage future growth and development actively as opposed to reacting to (re)development or infrastructure improvement proposals on a case-by-case basis without adequate and necessary consideration of community-wide issues.

Our proposed 9.9 MW Battery Energy Storage Project also brings to light the city's foresight in understanding that planning is a dynamic process that must be continuously monitored and renewed as changes occur. Battery Energy Storage is a newer technology that requires thoughtful consideration of all the potential benefits for the Texas electrical grid regarding resiliency and cost savings through peak shifting.

## **Location**

The location at 360 N Freeport Pkwy was chosen for several reasons. ERCOT and electric utility providers in Texas have elected to prioritize and fast track <10MW BESS. They see the value of peak shifting, and fast frequency response that batteries can provide better than traditional resources. Prologis owns building throughout the United States and is #2 in U.S. on-site solar<sup>1</sup>. Their commitment to Energy & Sustainability in ways that benefit all stakeholders is now evident in their move into Battery Energy Storage in the Texas Market. For site location selection from Prologis's portfolio in Texas we had to consider proximity to substation, minimal infrastructure upgrades, population density of the proposed area, and tenants equally committed to seeing these projects succeed. 360 N Freeport Pkwy meets all these requirements and made the shortlist out of an initial list of hundreds of properties in Texas.

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<sup>1</sup> [Energy + Sustainability Essentials | Prologis](#)

## Safety

We know the City of Coppell takes seriously the responsibility to make regulations according to Chapter 211 of the Local Government Code<sup>2</sup> to ensure the city is designed to “secure safety from fire, panic, and other dangers” for its citizens. RavenVolt and Prologis unequivocally agree with this mandate. While Battery Energy Storage is an exciting new technology, the potential hazards are known and can be mitigated, and worst-case scenarios can be planned for.

The BESS system is built with safety features at the forefront of the design process. Each battery cabinet has its own fire suppression system integral to its construction. This system is powered from a remote uninterruptable power supply as well as a redundant battery backup local to each cabinet. They are also equipped with a port on the top side to enable the fire department to fill any container needed with water without having to open the door. The batteries are required to go through UL9540A testing per NFPA 855 at the cell, module, and unit level. This means that not only are the batteries tested at an individual level (i.e. cell level), they are additionally tested at the unit level with all its components as they will be installed in a real-world installation.

In addition to these safety features RavenVolt has contracted with Fisher Engineering, Inc. for Fire Protection Engineering (FPE) consultation. The primary contact for this FPE is Mr. Andrew Blum. Mr. Blum has a Bachelor of Science and a Master of Science degree in Fire Protection Engineering from the University of Maryland. He is also a principal member on the technical committee on NFPA 855, *Standard for the Installation of Stationary Energy Storage Systems* and is an active member of the NFPA, ICC, ASTM and Society of Fire Protection Engineers. He has specific expertise in fire-testing lithium-ion batteries used in consumer electronics/products, battery energy storage systems, electric drive vehicles, and in-storage configurations. In addition, Mr. Blum has special expertise in evaluating and performing third-party reviews of BESS products for manufacturers and evaluating proposed BESS installations for energy companies.

RavenVolt, as an EPC (Engineer, Procure, Construct), has an unblemished track record installing

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<sup>2</sup> [LOCAL GOVERNMENT CODE CHAPTER 211. MUNICIPAL ZONING AUTHORITY \(texas.gov\)](https://www.texas.gov/legislation/local-government-code-chapter-211)



large scale energy projects. We are trusted by nationwide customers such as Wal-Mart, Home Depot, and Publix Supermarkets, as well as utilities such as Florida Power & Light, Duke Energy, and Georgia Power to design and install energy systems. Our unique ability to Engineer our projects so that we can Procure the best equipment and then Construct them safely enables us to be leader in energy storage and generation.

### **Values**

No new public utilities will be needed for this project. The units are powered through the interconnection point with the utility and require no water or sewer as it is a stand-alone unmanned system. In addition to not burdening the utilities, the BESS system specifically adds to the quality and resiliency of the existing utility grid.

Sustainability is essential. Our proposed installation takes up less than .33 acres of green space on an already developed lot. Sustainability is also a key feature of BESS enabling peak shifting that more effectively uses the pre-existing power available on the grid, bringing electrical resiliency and lower cost energy to the citizens of Texas.

The Battery Energy Storage project aligns with the city's strengths by reinforcing the strong industry base and taking advantage of the proximity of power consumption needs by being located within the DFW area.

The Battery Energy Storage project does add the opportunity to be on the forefront of safe green technology for the betterment of current and future community members. This system will also support electric grid resiliency and lower energy costs for the community, which will greatly support both local businesses and residents alike.

The physical appearance of our installation is unobtrusive; the system is not located on a throughfare and utilizes already developed land for a more beneficial purpose.

## Summary

The City of Coppel, RavenVolt, and Prologis all share a common goal. We are groups of diverse individuals working together toward aspirational goals for the betterment of ourselves, our families, and our communities. We believe the use should be allowed as we are making every effort to add a safe and valuable energy resource on to the Texas electrical grid while having no negative impact on the City of Coppel and its citizens.

<b>Values: &lt;10MW BESS Strengths</b>	
Resiliency	Adds resiliency to Texas Grid, less utility outages for Coppel Businesses and Residents
Low Noise from Industry	40db – 60db <sup>3</sup> (Quiet library – Electric Toothbrush) <sup>4</sup> to support temperature maintenance on batteries
Low truck traffic	Typical low volume construction traffic for 3 - 4 months, after which the system is self-sustaining with periodic maintenance only.
Air Quality	No emissions
Aesthetics	Not viewable from major thoroughfare. Screened. Batteries contained within aesthetically pleasing weatherproof enclosures.
Safety	The BESS has a built-in fire suppression system, is UL9540A tested per NFPA 855.
Use Infrastructure wisely	Minimal electrical infrastructure impact. No expected impact to water, sewer, and drainage.
Property Values	Adds property value with small footprint and little to no impact on current buildings

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<sup>3</sup> [Energy Storage Versus Generators: the Case for Battery Storage in Ontario \(convergentep.com\)](https://www.convergentep.com/energy-storage-versus-generators-the-case-for-battery-storage-in-ontario/)

<sup>4</sup> [Noise levels of everyday sounds | Audicus](#)

## Battery Energy Storage Common Questions and Answers

### I. What is Battery Energy Storage?

Battery Energy Storage Systems are devices that enable unused energy supplied to the grid in times of low demand, to be stored and then released when customers need power most. BESS has a key part to play in ensuring homes and businesses can be powered by green energy, even when the sun isn't shining, or the wind has stopped blowing.<sup>5</sup>

### II. Does the BESS generate energy?

The BESS does not generate energy. The BESS ties into the existing electrical grid and stores energy as needed. The Energy Reliability Council of Texas (ERCOT) has proposed a designation between a Generation Resource and an Energy Storage Resource<sup>6</sup> due to the significant differences in emissions, response times, and capabilities.

### III. Does this facility have emissions?

No, there will be no emissions (including CO<sub>2</sub>, CO, water vapor, etc.) of any kind from the operation of the facility.

### IV. What are the noise impacts of the project?

There are negligible noise impacts of the project. There are small air conditioners on the battery units and electronic noises (vibration, fans) on the transformers and inverters. This expected to be between 40db – 60db<sup>7</sup> (Quiet library – Electric Toothbrush)<sup>8</sup>, significantly lower than the truck traffic around the BESS System.

### V. What are the lighting impacts of the project?

There will be lighting for maintenance and security installed on the project.

### VI. What are the aesthetic impacts of the project?

Prologis as one of the largest real estate companies in the United States is very concerned and aware of property values. The location has been chosen to be unobtrusive and will be fenced and screened for a clean and out of the way look. Batteries are stored in aesthetically pleasing weatherproof enclosures that do not exceed 8' in height.

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<sup>5</sup> <https://www.nationalgrid.com/stories/energy-explained/what-is-battery-storage>

<sup>6</sup> [BESTF KTC 01 ESR Registration TAC Approved 01292020.docx \(live.com\)](#)

<sup>7</sup> [Energy Storage Versus Generators: the Case for Battery Storage in Ontario \(convergentep.com\)](#)

<sup>8</sup> [Noise levels of everyday sounds | Audicus](#)

VII. Will there be a new transmission line built to the substation?

ERCOT and CenterPoint Utility require a dedicated feeder for BESS projects to ensure that the installation does not take up existing capacity on distribution lines. This requires a new distribution feeder from the substation. This location was chosen due to its proximity to the substation and the ability to use existing easements to the point of interconnection.

VIII. Is there danger of fire?

The risk of fire is extremely low with the system having the ability to automatically identify and isolate any issues prior to a fire starting. We are using reputable suppliers for the energy storage devices and hardware. The installation will be reviewed by a fire protection engineer and with input from the local Fire Marshall. The project will also comply with all NFPA 855 standards.

IX. Is the site monitored and/or manned?

The site is monitored remotely in various capacities 24/7/365 by Prologis, ERCOT, and the utility company. To respond effectively to the ever-changing state of the electrical grid the BESS must communicate back and forth in real time with multiple entities. The BESS is unmanned and requires periodic checks and maintenance.