Exhibit V

Wildfire Prevention and Risk Mitigation

Yellow Rosebush Energy Center
August 2024

Prepared for
Yellow Rosebush Energy Center, LLC

Prepared by

TETRA TECH

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Acronyms and Abbreviations

°F	degrees Fahrenheit
Applicant	Yellow Rosebush Energy Center, LLC
Facility	Yellow Rosebush Energy Center
FM	Fuel Model
CWPP	Community Wildfire Protection Plan
MW	megawatt
OAR	Oregon Administrative Rules

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1.0 Introduction

Yellow Rosebush Energy Center, LLC (Applicant) seeks to develop the Yellow Rosebush Energy Center (Facility), a solar energy generation facility, battery energy storage system, and related or supporting facilities in Wasco and Sherman counties, Oregon.

Exhibit V was prepared to meet the submittal requirements in Oregon Administrative Rules (OAR) 345-021-0010(v), related to wildfire prevention and risk mitigation. Exhibit V demonstrates that the construction and operation of the Facility, taking into account mitigation, is not likely to result in significant adverse impacts to the provisions listed in OAR 345-022-0115.

> *OAR 345-021-0010(1)(v) Information about wildfire risk within the analysis area, providing evidence to support findings by the Council as required by OAR 345-022-0115, including but not limited to, a draft Wildfire Mitigation Plan that satisfies the requirements of OAR 345-022-0115(1)(b).*

2.0 Wildfire Risk – OAR 345-022-0115(1)(a)

OAR 345-022-0115 (1) To issue a site certificate, the Council must find that:

> *(a) The applicant has adequately characterized wildfire risk within the analysis area using current data from reputable sources, by identifying:*

In compliance with OAR 345-001-0010(35)(c), the wildfire analysis area includes the site boundary (8,075 acres) for the Facility and a 0.5-mile buffer area around the site boundary (wildfire analysis area; 18,382 acres) (Figure V-1). The site boundary is defined in detail in Exhibits B and C.

2.1 Baseline Fire Risk – OAR 345-022-0115(1)(a)(A)

> *OAR 345-022-0115 (1)(a)(A) Baseline wildfire risk, based on factors that are expected to remain fixed for multiple years, including but not limited to topography, vegetation, existing infrastructure, and climate;*

The baseline wildfire risk within the site boundary and wildfire analysis area is moderate, based on the existing vegetation, relatively flat overall topography with steep slopes along the northeast, existing infrastructure, and a semi-arid climate (Misachi 2017). The following subsections describe the risks of wildfire for the proposed site boundary and wildfire analysis area in further detail.

2.1.1 Topography

The site boundary is generally bounded by US-97 6 miles to the east, US-197 8 miles to the west, Bakeoven Road along the edge to the south, and OR-216 4 miles to the north. The site boundary is

located approximately 9 miles east of Maupin, Oregon, and approximately 6 miles west of Kent, in unincorporated portions of Wasco County and Sherman County, Oregon (See Exhibit C).

Elevations within the site boundary are primarily between 600 to 1,400 meters. The site boundary borders and crosses Bronx Canyon. In the canyon, elevations range from -12 meters to 600 meters. The majority (97 percent) of the site boundary has slopes that range from 0 to 25 degrees (Table V-1). In areas where the site boundary crosses the Bronx Canyon, slopes increase in range from 25 to 50 degrees (Figure V-1).

Table V-1. Slope

Slope (degrees)	Percent of Area	
	Wildfire Analysis Area	Site Boundary
0-25	92	97
25-50	8	3
50-75	0	0
Total	**100**	**100**

2.1.2 Vegetation

As discussed in Exhibit P, the Facility is located entirely within the Oregon Department of Fish and Wildlife Designated Mule Deer Winter Range, Category 2 habitat. The area within the Facility micrositing category is primarily composed of eastside grasslands (habitat type Upland Grassland, Shrub-Steppe and Shrubland; subtype Eastside Grasslands), shrub-steppe (habitat type Upland Grassland, Shrub-Steppe and Shrubland; subtype Shrub-Steppe), and planted grasslands (habitat type Agriculture, Pasture, and Mixed Environs; subtype Planted Grasslands) (see Exhibit P, Tables P-2 and P-3 for detailed descriptions of habitat found in the vicinity of the site boundary).

The broad fuel model groups (reflective of vegetation type) are derived from data from the Oregon Community Wildfire Protection Plan (CWPP) Planning Tool (CWPP 2018). Fuel model groups within the wildfire analysis area consist of grass, grass/shrub, non-burnable-other, and timber-understory. As shown on Figure V-2 and described below in Table V-2, the majority of the vegetation within the site boundary is Fuel Model (FM) 122 – moderate load, dry climate grass-shrub (65 percent) and FM 102 – low load, dry climate grasses (33 percent). Within the wildfire analysis area, the most prominent fuel models are also FM 122 (57 percent) and FM 102 (35 percent). A further discussion of Fuel Models is provided in Section 2.2.

Table V-2. Fuel Models

Fuel Model	Percent of Area	
	Wildfire Analysis Area	Site Boundary
91	0	0
93	4	1
99	2	1
101	0	0
102	35	33
121	0	0
122	57	65
142	0	0
161	1	0
162	0	0
165	0	0
182	0	0
183	0	0
185	0	0
Total	**100**	**100**

2.1.3 Existing Infrastructure

Existing infrastructure within the wildfire analysis area includes the Buckley Substation, sub-transmission lines, the 500-kilovolt Bonneville Power Administration John Day to Grizzly Transmission Line, farming operations, and various businesses such as a hunting preserve (Exhibit C, Figure C-2). Three energy facilities are located outside the wildfire analysis area, but within 10 miles of the site boundary: the Bakeoven Solar Project, Daybreak Solar Project, and Sunset Solar Project.

Paved roads within the wildfire analysis area include Bakeoven Road, Wilson Road, and Hinton Road. There are several unnamed graveled roads within the vicinity of the site boundary as well. There is an existing gas transmission pipeline within 10 miles, south of the wildfire analysis area (NPMS 2023).

Residences and businesses are located outside of the site boundary, but within the wildfire analysis area. Most residences and businesses in this area use Bakeoven Road.

2.1.4 Climate

The area has a cooler, semi-arid climate. Due to the lack of precipitation data for Kent, climate data was used for Antelope, Oregon, which is located approximately 15 miles southeast of the site boundary. Based on available monthly normals of climate data between 1991 to 2020 for Antelope, the driest months on average are July, August, and September (NOAA 2023a). These months have average monthly precipitation rates of 0.34 inches (July), 0.34 inches (August), and 0.50 inches (September). Overall, these months are also the hottest months of the year, with average temperatures of 87.3 degrees Fahrenheit (°F) (July), 86.5°F (August), and 78.2°F (September). The total average annual precipitation for Antelope is 14.54 inches per year (NOAA 2023a), which is indicative of a semi-arid climate (Misachi 2017). Additionally, Antelope receives approximately 6.6 inches of snow in the winter months, with the coldest month (December) having approximately 3.6 inches of snowfall, an average daily maximum temperature of 41.6°F, and an average daily minimum temperature of 23.7°F (Table V-3; NOAA 2023a)

Table V-3. Summary of Monthly Normal Temperature and Precipitation at Antelope, OR (1991 – 2020)

Month	Max Temp (°F)	Avg Temp (°F)	Precipitation (inch)
January	42.9	34.2	1.50
February	46.1	36.2	1.29
March	52.8	41.1	1.22
April	58.7	45.6	1.52
May	68.4	53.6	1.99
June	75.7	60.2	1.04
July	87.3	68.9	0.34
August	86.5	68.3	0.34
September	78.2	61.2	0.50
October	63.5	49.8	1.23
November	49.7	39.5	1.73
December	41.6	32.7	1.81
Source: NOAA 2023a.			

2.1.5 Burn Probability

Burn probability is the likelihood of a wildfire greater than 250 acres burning a given location based on wildfire simulation modeling. This is an annual burn probability, adjusted to be consistent with the historical annual area burned. The burn probability classes range from non-burnable (a majority of non-burnable fuel types such as water, agriculture, or urban) to very high burn probability, which indicates greater than a 1-in-50 chance of a wildfire greater than 250 acres in a single year.

As shown in Table V-4, 47 percent of the wildfire analysis area (8,397 acres) has a high (1-in-500 to 1-in-100) and high-very high (1-in-100 to 1-in-50) burn probability. Similarly, 62 percent of the site boundary (5006.5 acres) has a high (1-in-500 to 1-in-100) burn probability. The remaining acres of the site boundary (38 percent) have a very high burn probability (1-in-100 to 1-in-50; 36 percent) or a burn probability of zero (2 percent).

Table V-4. Burn Probability

Burn Probability	Percent of Area	
	Wildfire Analysis Area	Site Boundary
0	7	2
0 - 0.0001 Low (<= 1-in-10,000)	0	0
0.0001 - 0.0002 Low - Moderate (1-in-10,000 to 1-in-5,000)	0	0
0.0002 - 0.001 Moderate (1-in-5,000 to 1-in-1,000)	0	0
0.001 - 0.002 Moderate - High (1-in-1,000 to 1-in-500)	0	0
0.002 - 0.01 High (1-in-500 to 1-in-100)	47	62
0.01 - 0.02 High – Very High (1-in-100 to 1-in-50)	46	36
0.02 - 0.04 Very High (1-in-50 to 1-in-25)	0	0
Total	**100**	**100**

2.2 Seasonal Fire Risk – OAR 345-022-0115(1)(a)(B)

OAR 345-022-0115 (1)(a)(B) Seasonal wildfire risk, based on factors that are expected to remain fixed for multiple months but may be dynamic throughout the year, including but not limited to, cumulative precipitation and fuel moisture content;

Seasonal wildfire risk was assessed based on factors that are anticipated to remain consistent for several months, but may vary throughout the year or over time. These factors include annual and monthly cumulative precipitation levels, weather advisories (including fuel moisture content data), and average flame length (the average length of flames expected during a fire given local fuel and weather conditions). The seasonal wildfire risk within the site boundary and wildfire analysis area is low for most of the year, but moderate in the summer months based on the cooler, semi-arid climate, lower average flame lengths, but also low average rainfall during the summer months.

2.2.1 Precipitation

Based on available climate data for the Antelope 6 SSW station (NOAA 2023a), approximately 15 miles southeast of the wildfire analysis area, the driest months on average (based on the monthly normals of precipitation) are July, August, and September. These average precipitation values range from 0.34 (July), 0.34 (August), and 0.50 (September) (see Table V-3). All other months have between 1.04 to 1.99 inches of precipitation per month. These three summer months are also the hottest months with average daily max temperatures of 87.3°F (July), 86.5°F (August), and 78.2°F (September) (Table V-3). The total average annual precipitation for the area is 14.54 inches per year, which is indicative of a semi-arid climate (Misachi 2017).

2.2.2 Fuel Moisture Content

Fuel moisture content is a primary variable when observing wildfire behavior. Fuel moisture content "is a measure of the amount of water in a fuel (vegetation) available to a fire, and is expressed as a percent of the dry weight of that specific fuel" (NOAA 2023b). Fuel moisture content also changes with weather, both seasonally and during short periods. The higher the fuel moisture content, the more difficult it is for fires to ignite and propagate. Living plants and dead fuels respond differently to weather changes; the drying and wetting processes of dead fuels is such that the moisture content of these fuels is strongly affected by weather changes. These moisture contents are influenced by precipitation, air moisture, air and surface temperatures, wind, cloudiness, as well as by fuel factors such as surface to volume ratio, compactness, and arrangement. Fuel moisture content is dynamic throughout the year and throughout the day (USFS 1970). Therefore, fuel moisture content within the wildfire analysis area and site boundary is dependent on current weather conditions, fuel moisture data, and seasonal weather patterns.

Fuel moisture varies with vegetation type. For instance, annual grasses are highly flammable while broadleaf vegetation is less flammable (USFS 1970). Additionally, live evergreen trees and shrubs can burn despite having a moisture content of over 100 percent. Fuel model groups within the wildfire analysis area consist of grass, grass/shrub, non-burnable-other, and timber-understory. As shown on Figure V-2 and described in Table V-2, 65 percent of the vegetation within the site boundary is FM 122 and 33 percent of the site boundary is FM 102. Within the wildfire analysis area, the most prominent fuel models are also FM 122 (57 percent) and FM 102 (35 percent). The primary carrier of fire in FM 122 is grass and shrubs; they also have a am overall high spread rate. The moisture of extinction for this fuel type is low. The primary carrier of fire in FM 102 is grass and small amounts of dead fuel. If there are shrubs present, they typically do not affect fire behavior (Scott et al. 2005).

2.2.3 Flame Length

Average flame length shows the average length of flames expected, given local fuel and weather conditions (CWPP 2018). Flame lengths have potential to exceed the mapped values shown, even under normal weather conditions. Flame length is commonly used as a direct visual indication of

fire intensity and is a primary factor to consider for firefighter safety and for gauging potential impacts to resources and assets.

As shown in Table V-5 and Figure V-4, 97 percent (7,810 acres) of the proposed site boundary has an average flame length of 4-8 feet. This indicates that the rate of fire spread could potentially be quick within the site boundary. Within the wildfire analysis area, 16,304 acres (89 percent) is anticipated to have 4-8 foot average flame lengths. Areas just outside of Bronx Canyon have average flame lengths of 8-11 feet (425 acres) and greater than 11 feet (92 acres) in some areas. A portion of the wildfire analysis area (7 percent; 1,242 acres) has an average flame length of 0 feet.

Slopes within the site boundary and wildfire analysis area primarily range from 0 to 25 degrees (Section 2.1.1; Figure V-1). This directly correlates to the average flame length pattern.

Table V-5. Average Flame Length

Average Flame Length	Percent of Area	
	Wildfire Analysis Area	Site Boundary
0	7	2
>0-4	2	1
4-8	89	97
8-11	2	1
>11	1	0
Total	**100**	**100**

2.3 Areas of Heightened Risk – OAR 345-022-0115(1)(a)(C)

OAR 345-022-0115 (1)(a)(C) Areas subject to a heightened risk of wildfire, based on the information provided under paragraphs (A) and (B) of this subsection;

Areas of heightened risk are described using the CWPP Planning Tool Hazard to Potential Structures analysis layer (Table V-6, Figure V-5; CWPP 2018). Risk to assets includes the likelihood and consequences of wildfire on mapped highly valued assets including critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, and historic structures (CBI 2020). People and property data take into account housing density based on Where People Live and U.S. Forest Service private inholdings. Infrastructure includes critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, and historic structures (Gilbertson et al. 2018).

As discussed in Section 2.1.3, existing infrastructure within the site boundary includes the Buckley Substation, sub-transmission lines, 500-kilovolt Bonneville Power Administration John Day to Grizzly Transmission Line, farming operations, various businesses, residences, and paved roads. Fifty-three percent of the site boundary has a moderate hazard to potential structures, 32 percent has a high hazard to potential structures, and 1 percent has a very high impact. Outside the site boundary, but within the wildfire analysis area, 47 percent of the area has a moderate potential

impact to structures, while 29 percent have a high potential impact to structures, and 2 percent are considered very high. As shown on Figure V-5, the areas that have a very high potential impact to structures are generally along Bakeoven Road and around the existing Buckley Substation.

Table V-6. Areas of Heightened Risk (Hazards to Potential Structures)

Potential Impact	Percent of Area	
	Wildfire Analysis Area	Site Boundary
Very High	2	1
High	29	32
Moderate	47	53
Low	21	14
Non-Burnable/Very Low	2	0
Total	**100**	**100**

2.4 High-Fire Consequence Areas – OAR 345-022-0115(1)(a)(D)

OAR 345-022-0115 (1)(a)(D) High-fire consequence areas, including but not limited to areas containing residences, critical infrastructure, recreation opportunities, timber and agricultural resources, and fire-sensitive wildlife habitat; and

The CWPP data on overall wildfire risk (Figure V-6) is used to identify high-fire consequence areas (CWPP 2018). The Pacific Northwest Quantitative Wildfire Risk Assessment report's layer Descriptions and Values spreadsheet outlines overall wildfire risk, which is determined by combining the likelihood and impact of the fire on all significant resources and assets that have been mapped (Gilbertson et al. 2018). These resources include critical infrastructure, developed recreation sites, housing unit density, seed orchards, sawmills, historic structures, timber, municipal watersheds, vegetation condition, and habitats for terrestrial and aquatic wildlife (CBI 2020). Risk ratings range from low to very high; low indicates that wildfire risk is low to all mapped resources and assets combined: critical infrastructure, developed recreation, housing unit density, seed orchards, sawmills, historic structures, timber, municipal watersheds, vegetation condition, and terrestrial and aquatic wildlife habitat. Very high indicates that wildfire risk is very high to all mapped resources and assets as well.

The percent of the site boundary and the wildfire analysis area that falls into each Fire Risk Rating is identified in Table V-7 and displayed on Figure V-6, although the majority of the site boundary and wildfire analysis area do not have data available. The site boundary and wildfire analysis area have a 2 percent and 4 percent (respectively) very high overall fire risk rating. As shown on Figure V-6, the areas with very high risk ratings are where there is existing infrastructure, such as roads, buildings, transmission lines, and substations. Bronx Canyon in the wildfire analysis area has an overall fire risk rating that ranges from benefit (0 percent) to low benefit (2 percent).

Table V-7. Overall Fire Risk Rating

Overall Fire Risk Rating	Percent of Area	
	Wildfire Analysis Area	Site Boundary
Very High	4	2
High	1	1
Moderate	1	0
Low	0	0
Low Benefit	2	0
Benefit	0	0
No Data[1]	92	97
Total	**100**	**100**

Note: All quantities may not result in 100 percent due to rounding adjustments.

1. There are no highly valued resources or assets (such as critical infrastructure, developed recreation, or housing unit density) mapped in the area, or simulated wildfires did not burn the area due to low historical occurrence/absence of burnable fuel (G).

3.0 Methods – OAR 345-022-0115(1)(a)(E)

OAR 345-022-0115 (1)(a)(E) All data sources and methods used to model and identify risks and areas under paragraphs (A) through (D) of this subsection.

Data from the CWPP Planning Tool (CWPP 2018) was used for the analyses provided in response to OAR 345-022-0115(1)(a) in Sections 2.1 through 2.4 of this exhibit. The CWPP tool provides a range of data for fire behavior and effects to help communities assess wildfire risk in their area. Additionally, the Wildfire Risk Explorer is another tool that shows the burn probability data, average flame length, fire history, and active fires. This map shows the assigned risk classification (extreme, high, moderate, low and no risk) for every tax lot in the state. Currently, the Senate Bill 762 statewide wildfire risk map and homeowner risk reports are unavailable while the map is being updated. As of right now, data shown on the map is from the 2018 Quantitative Wildfire Risk explorer (Oregon Explorer 2018).

The following 2018 Oregon CWPP datasets were used throughout this analysis (CWPP 2018):

- Burn probability;
- Average flame length;
- Hazard to potential structures;
- Overall wildfire risk;
- Slope; and
- Fuel models.

4.0 Wildfire Mitigation – OAR 345-022-0115(1)(b)

OAR 345-022-0115 (1)(b) That the proposed facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan approved by the Council. The Wildfire Mitigation Plan must, at a minimum:

(A) Identify areas within the site boundary that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis;

(B) Describe the procedures, standards, and time frames that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;

(C) Identify preventative actions and programs that the applicant will carry out to minimize the risk of facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk;

(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source; and

(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.

The Applicant prepared the attached Draft Construction Wildfire Mitigation Plan (Attachment V-1) and Draft Operations Wildfire Mitigation Plan (Attachment V-2) to meet applicable standards under OAR 345-022-0115(1)(b).

OAR 345-022-0115 (2) The Council may issue a site certificate without making the findings under section (1) if it finds that the facility is subject to a Wildfire Protection Plan that has been approved in compliance with OAR chapter 860, division 300.

OAR 345-022-0115 (3) This Standard does not apply to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 on or before the effective date of this rule.

OAR 345-022-0115(2) and (3) do not apply to the Facility.

5.0 Conclusion

Per the data reviewed and presented here, wildfire risk and consequences of fire in the proposed site boundary are typical for the vegetation type and fire regime encountered in Wasco County and Sherman County. Within the site boundary and wildfire analysis area, assets that could currently be impacted include residential structures, agricultural areas and farming operations, roads, existing substation, and existing transmission lines. If a wildfire did ignite near those assets, they could be at risk. After construction of the Facility, the number of assets at risk such as the solar arrays and

associated infrastructure within the site boundary and wildfire analysis area would increase. It is anticipated that due to hazards to potential structures, high to very high burn probability, moderate expected intensity as measured by average flame length, fuels, weather, and topography, that post construction overall fire risk would be moderate. Therefore, the Energy Facility Siting Council may conclude that the Facility will comply with OAR 345-022-0115.

6.0 Submittal Requirements

6.1 Submittal Requirements

Table V-8. Submittal Requirements Matrix

Requirement	Location
OAR 345-021-0010(1)(v) Information about wildfire risk within the analysis area, providing evidence to support findings by the Council as required by OAR 345-022-0115, including but not limited to, a draft Wildfire Mitigation Plan that satisfies the requirements of OAR 345-022-0115(1)(b).	Section 1.0 and Attachments V-1 and V-2

6.2 Approval Standards

Table V-9. Approval Standards

Requirement	Location
OAR 345-022-0115 Wildfire Prevention and Risk Mitigation	–
(1) To issue a site certificate, the Council must find that:	-
(a) The applicant has adequately characterized wildfire risk within the analysis area using current data from reputable sources, by identifying:	Section 2.0
(A) Baseline wildfire risk, based on factors that are expected to remain fixed for multiple years, including but not limited to topography, vegetation, existing infrastructure, and climate;	Section 2.1
(B) Seasonal wildfire risk, based on factors that are expected to remain fixed for multiple months but may be dynamic throughout the year, including but not limited to, cumulative precipitation and fuel moisture content;	Section 2.2
(C) Areas subject to a heightened risk of wildfire, based on the information provided under paragraphs (A) and (B) of this subsection;	Section 2.3
(D) High-fire consequence areas, including but not limited to areas containing residences, critical infrastructure, recreation opportunities, timber and agricultural resources, and fire-sensitive wildlife habitat; and	Section 2.4
(E) All data sources and methods used to model and identify risks and areas under paragraphs (A) through (D) of this subsection.	Section 3.0
(b) That the proposed facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan approved by the Council. The Wildfire Mitigation Plan must, at a minimum:	Section 4.0, and Attachments V-1 and V-2

Requirement	Location
(A) Identify areas within the site boundary that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis;	Section 4.0, and Attachments V-1 and V-2
(B) Describe the procedures, standards, and time frames that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;	Section 4.0, and Attachments V-1 and V-2
(C) Identify preventative actions and programs that the applicant will carry out to minimize the risk of facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk;	Section 4.0, and Attachments V-1 and V-2
(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source; and	Section 4.0, and Attachments V-1 and V-2
(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.	Section 4.0, and Attachments V-1 and V-2
(2) The Council may issue a site certificate without making the findings under section (1) if it finds that the facility is subject to a Wildfire Protection Plan that has been approved in compliance with OAR chapter 860, division 300.	Section 1.0
(3) This Standard does not apply to the review of any Application for Site Certificate or Request for Amendment that was determined to be complete under OAR 345-015-0190 or 345-027-0363 on or before the effective date of this rule.	Section 1.0

7.0 References

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Figures

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Yellow Rosebush Energy Center

Figure V-1
Slope

SHERMAN AND WASCO COUNTIES, OR

Sherman County

Wasco County

97

- Facility Site Boundary
- Analysis Area (0.5-mile Buffer)
- County Boundary
- US Highway
- Local Roads

Slope
- 0 - 25
- 25-50
- >50

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SAVION
A RENEWABLE ENERGY COMPANY

Reference Map

1:69,000

WGS 1984 UTM Zone 10N

0 0.5 1 2 Miles

NOT FOR CONSTRUCTION

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Yellow Rosebush Energy Center

Figure V-2
Fuel Models

SHERMAN AND WASCO COUNTIES, OR

Sherman County

Wasco County

97

- Facility Site Boundary
- Analysis Area (0.5-mile Buffer)
- County Boundary
- US Highway
- Local Roads

Fuel Models
- 91
- 93
- 98
- 99
- 101
- 102
- 103
- 121
- 122
- Fm141, SH1
- Fm142, SH2
- Fm143, SH3
- 161
- 162
- 165
- 182
- 183
- Fm184, TL4
- 185
- 186
- 188

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SAVION
A RENEWABLE ENERGY COMPANY

Reference Map

1:69,000

WGS 1984 UTM Zone 10N

0 0.5 1 2 Miles

NOT FOR CONSTRUCTION

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Yellow Rosebush Energy Center

Figure V-3
Burn Probability

SHERMAN AND WASCO COUNTIES, OR

Sherman County

Wasco County

97

- Facility Site Boundary
- Analysis Area (0.5-mile Buffer)
- County Boundary
- US Highway
- Local Roads

Burn Probability

- 0
- 0 - 0.0001 Low (<= 1-in-10,000)
- 0.0001 - 0.0002 Low (1-in-10,000 to 1-in-5,000)
- 0.0002 - 0.001 Moderate (1-in-5,000 to 1-in-1,000)
- 0.001 - 0.002 Moderate (1-in-1,000 to 1-in-500)
- 0.002 - 0.01 High (1-in-500 to 1-in-100)
- 0.01 - 0.02 High (1-in-100 to 1-in-50)

TETRA TECH

SAVION
A RENEWABLE ENERGY COMPANY

Reference Map

1:69,000

WGS 1984 UTM Zone 10N

0 0.5 1 2 Miles

NOT FOR CONSTRUCTION

\\cess706gisfs11\CES\Projects\PDX\Savion\YellowRosebush\Maps__pASC\Exhibit_V\Savion_YRB_Exhibit_V_20231211.aprx

Yellow Rosebush Energy Center

Figure V-4
Average Flame Length

SHERMAN AND WASCO COUNTIES, OR

Sherman County

Wasco County

97

- Facility Site Boundary
- Analysis Area (0.5-mile Buffer)
- County Boundary
- US Highway
- Local Roads

Average Flame Length (ft)

- 0
- >0 - 4
- 4 - 8
- 8 - 11
- > 11

TETRA TECH

SAVION
A RENEWABLE ENERGY COMPANY

Reference Map

1:69,000

WGS 1984 UTM Zone 10N

0 0.5 1 2 Miles

NOT FOR CONSTRUCTION

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Yellow Rosebush Energy Center

Figure V-5
Hazard to Potential Structures

SHERMAN AND WASCO COUNTIES, OR

Sherman County

Wasco County

97

- Facility Site Boundary
- Analysis Area (0.5-mile Buffer)
- County Boundary
- US Highway
- Local Roads

Potential Impact to Structures

- Very High
- High
- Moderate
- Low
- Non-burnable/Very Low

TETRA TECH

SAVION
A RENEWABLE ENERGY COMPANY

Reference Map

1:69,000

WGS 1984 UTM Zone 10N

0 0.5 1 2 Miles

NOT FOR CONSTRUCTION

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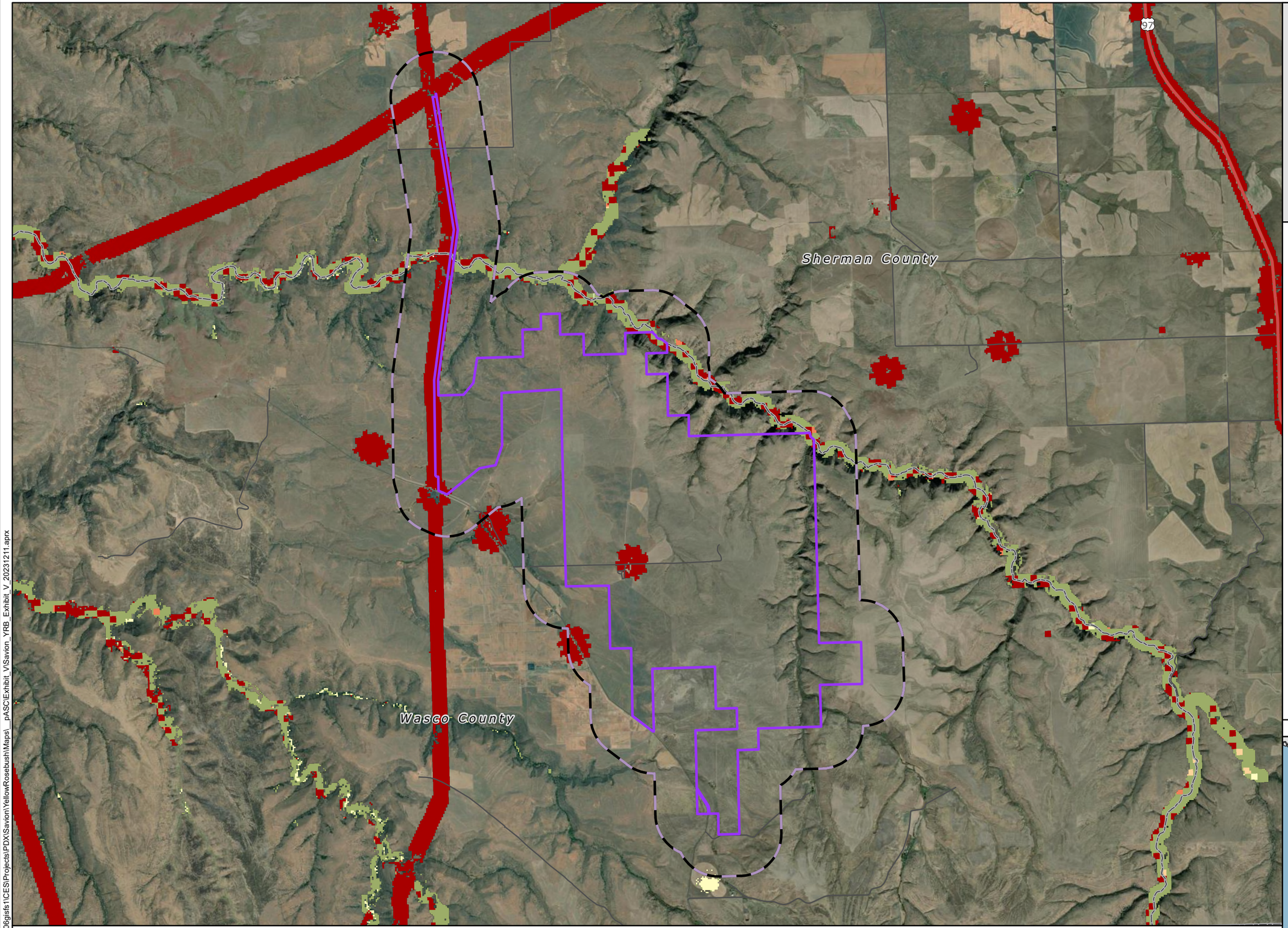
Yellow Rosebush Energy Center

Figure V-6
Overall Wildfire Risk

SHERMAN AND WASCO COUNTIES, OR



- Facility Site Boundary
- Analysis Area (0.5-mile Buffer)
- County Boundary
- US Highway
- Local Roads

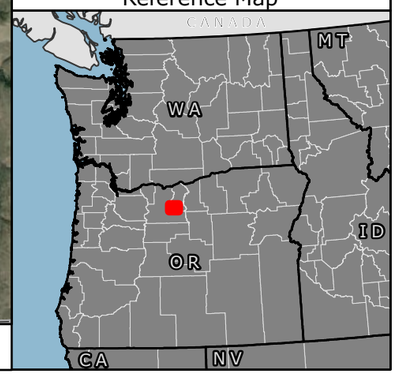
Overall Wildfire Risk

- Very high
- High
- Moderate
- Low
- Low benefit
- Benefit

TETRA TECH

SAVION
A RENEWABLE ENERGY COMPANY

Reference Map



1:69,000

WGS 1984 UTM Zone 10N

0 0.5 1 2 Miles

NOT FOR CONSTRUCTION

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Attachment V-1. Draft Construction Wildfire Mitigation Plan

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Draft Construction Wildfire Mitigation Plan

Yellow Rosebush Energy Center
August 2024

Prepared for
Yellow Rosebush Energy Center, LLC

Prepared by

Tetra Tech, Inc.

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Table of Contents

List of Tables

Acronyms and Abbreviations

Applicant	Yellow Rosebush Energy Center, LLC
BESS	battery energy storage system
CFR	Code of Federal Regulations
EFSC	Oregon Energy Facility Siting Council
ERP	Emergency Response Plan
Facility	Yellow Rosebush Energy Center
HSSE	Health, Safety, Security and Environment
IEEE	Institute of Electrical and Electronics Engineers
MW	megawatt
NERC	North American Electric Reliability Corporation
O&M	operations and maintenance
OAR	Oregon Administrative Rules
RFPA	Rangeland Fire Protection Association

1.0 Introduction

Yellow Rosebush Energy Center, LLC (Applicant) proposes to construct and operate the Yellow Rosebush Energy Center (Facility), a solar energy generation facility and battery energy storage system and related or supporting facilities, within the 8,075-acre Facility site boundary in Wasco and Sherman counties, Oregon. The Facility would generate up to 800 megawatts (MW) of solar photovoltaic power and provide 800 MW of battery energy storage.

This draft Construction Wildfire Mitigation Plan (WMP or Plan) is attached to Exhibit V – Wildfire Prevention and Risk Mitigation, which was prepared to meet the submittal requirements in Oregon Administrative Rules (OAR) 345-021-0010(1)(v), including providing evidence that the Facility complies with the approval standard in OAR 345-022-0115. The Applicant provides a draft Operations Wildfire Mitigation Plan as an attachment to Exhibit V under separate cover.

2.0 Wildfire Risk Minimization Procedures- OAR 345-022-0115(1)(b)(D)

OAR 345-022-0115(1) To issue a site certificate, the Council must find that:

> *(b) That the proposed facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan approved by the Council. The Wildfire Mitigation Plan must, at a minimum:*
>
> > *(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source; and*

The risk of a wildfire affecting public safety, first responders, or Oregon Energy Facility Siting Council (EFSC)–protected resources would be minimized by the measures described in this Construction WMP and by the procedures listed in Table 1.

Applicant will consult with the Bakeoven-Shaniko Rangeland Fire Protection Association (RFPA) and the South Sherman Fire District, as well as local emergency management agencies, to receive and incorporate input into the final Plan, as appropriate, about the location and types of temporary fire breaks needed in the event of a fire on- or off-site. The final Construction WMP will designate:

- Estimated response times for on-site staff and local emergency service providers,
- Protocols for staff or emergency providers to erect or create fire breaks in the event of a fire.
- Identify and provide maps of priority areas where fire breaks would be prioritized to protect fires spreading off site or impacting the facility site.

During construction of the Facility, the Applicant or its contractor will work directly with local emergency responders to compile and maintain a current list of adjacent landowners/property

owners with contact information. The final Construction WMP will identify the best notification procedures of adjacent landowners to provide local and regional emergency services for emergency notifications, in the event of an ignition or fire at the Facility.

Table 1. Procedures to Minimize Wildfire Risk

Topic	Procedures
Public Health and Safety	The public will be excluded from the solar array, collector substation, operations and maintenance building, and battery energy storage system components by fencing. Ground-mounted inverters and junction boxes will be surrounded by bollards to minimize inadvertent vehicle/or other equipment collisions with electrical equipment.
First Responders	The Applicant will offer annual training to local first responders. Training will cover the firefighting responses to electrical fires. Response to fires in the Facility should focus on controlling spread to adjacent lands. Operations staff will be trained in the use of fire extinguishers for responding to early-stage fires on site.
Resource Protection	Resources covered by EFSC standards near the Facility site boundary include agricultural land, shrub-steppe habitat, and cultural resources. The existing county roads and the location and types of temporary fire breaks described in this Plan will form a fire break that will discourage the spread of wildfire between fields or into wildlife habitat.

3.0 Wildfire Risk Assessment - OAR 345-022-0115(1)(b)(A)

This Plan has been prepared to meet the approval standard under OAR 345-022-0115(1)(b), which requires:

OAR 345-022-0115(1) To issue a site certificate, the Council must find that:

> *(b) That the proposed facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan approved by the Council. The Wildfire Mitigation Plan must, at a minimum:*
>
> > *(A) Identify areas within the site boundary that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis;*

Prior to construction of the Facility, the Applicant will provide a summary update of wildfire risk at the site as designated under OAR 345-022-0115, if significantly different from the Final Order on the ASC.

4.0 Inspection and Management OAR 345-022-0115(1)(b)(B)

(B) Describe the procedures, standards, and time frames that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;

The Applicant or the Applicant's contractor will maintain vegetation within the Facility site boundary and will also maintain a defensible space clearance along Facility features. Defensible space will be free of combustible vegetation or other materials. Roads and parking areas will be maintained to be free of vegetation tall enough to contact the undercarriage of the vehicle.

The following best management practices to minimize fire risk from vehicle travel and fueling activities would be implemented at the site during construction:

- The movement of vehicles will be planned and managed to minimize fire risk.
- The contractor(s) will be responsible for identifying and marking paths for off-road vehicle travel. Off-road vehicle travel will be required to stay on the identified paths. No off-road vehicle travel will be permitted while working alone. Travel off road or parking in vegetated areas will be restricted during fire season.
- Areas with grass that are as tall or taller than the exhaust system of a vehicle must be wetted before vehicles travel through it.
- Workers will be instructed to shut off the engine of any vehicle that gets stuck, and periodically inspect the area adjacent to the exhaust system for evidence of ignition of vegetation. Stuck vehicles will be pulled out rather than "rocked" free and the area will be inspected again after the vehicle has been moved.
- Combustion engines (including but not limited to off-road vehicles, chainsaws, and generators) will be equipped with a spark arrester that meets U.S. Forest Service Standard 5100-1.
- The contractor(s) will designate a location for field fueling operations at the temporary construction yards. Fueling of generators, pumps, etc. will take place at this location only.
- Fuel containers, if used, will remain in a vehicle or equipment trailer, parked at a designated location alongside a county right-of-way. No fuel containers will be in the vehicles that exit the right-of-way except the 5-gallon container that is required for the water truck pump.
- Smoking will only be allowed in designated smoking areas at the Facility.

5.0 Preventative Actions and Programs - OAR 345-022-0115(1)(b)(C)

(C) Identify preventative actions and programs that the applicant will carry out to minimize the risk of facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk;

5.1 Preventative Actions

The Applicant will implement the following design considerations and best practices to minimize electrical fire risk from Facility components during construction:

- Smoking will not be allowed while operating equipment, while walking, or working in areas with vegetation.
- In areas where smoking is allowed, completely extinguish burning tobacco and matches and discard them in ashtrays, not on the ground.
- Clear gas and oil storage areas of flammable material within a distance of 100 feet and post "NO SMOKING" signs throughout the area. Dispose of used and discarded oil filters, oily rags, or other waste in the approved manner. Use only Occupational Safety and Health Administration (OSHA)-approved containers for gasoline or other flammable materials.
- Open flames only in cleared areas.
- Fires or barbecues within the Facility site boundary, at material yards, access roads, or other construction areas, other than the designated lunch areas, are not allowed.
- Instruct field personnel about emergency response to fire events.
- Clear away flammable material a minimum of 10 feet from areas of operation where a spark, fire, or flame could be generated.
- If a fire does start by accident, take immediate steps to extinguish it (if it is safe to do so) using available fire suppression equipment.
- Perform approved welding or cutting activities only in areas cleared of vegetation for a minimum of 10 feet around the area. Fire response personnel must remain in the construction area for 30 minutes after conclusion of welding or cutting activities to reduce the possibility of welding activities smoldering and starting a fire. Equip welder vehicles with fire suppression equipment.
- Inspect and approve equipment assigned to the Facility. Equip internal combustion engines (stationary or mobile) with spark arresters that meet agency standards, and for which the following guidelines apply:
    - Use light trucks and cars with factory-installed (type) mufflers (in good condition) only on roads where the roadway is cleared of vegetation.

  - On roads where vegetation exists, use spark arresters and maintain them in good working order.
  - Park vehicles equipped with catalytic converters on areas cleared of vegetation, as they may represent potential fire hazards.
- Prohibit the use of torches, fuses, highway flares, or other warning devices with open flames. Use only electric or battery-operated warning devices within the Facility area.
- Clear equipment parking areas and small stationary engine sites of flammable materials.
- The fenced areas around the collector substation, operations and maintenance (O&M) building, and battery energy storage system will be graveled, with no vegetation present.
- Road design and maintenance:
  - Unless already paved, access roads will be graveled.
  - Newly constructed roads will be graded and graveled to meet load requirements for equipment.
  - Service roads, up to 20 feet wide, will be constructed within the solar array fence line, to facilitate access for construction and maintenance purposes.
  - Approximately 20-foot-wide service roads will be constructed outside the solar array fence line to reach the separately fenced substations.
  - Vegetation will be cleared and maintained along service roads to provide a vegetation clearance area for fire safety.
  - Service roads will be all-weather, compacted soil or gravel, with an internal turning radius of up to 48 feet.
  - Vegetation maintenance along service roads will include mowing as needed for fire safety requirements.
- Facility access roads will be sufficiently sized for emergency vehicle access.
- Keep fire prevention and suppression equipment on-site and readily available. Equipment will include:
  - Long-handled round-point shovel;
  - Ax or Pulaski fire tool;
  - 5-pound ABC dry chemical fire extinguisher;
  - 5-gallon water backpack (or other approved container) full of water or another extinguishing solution; and
  - Hard hat, work gloves, and eye protection.
- Worksites will comply with the following guidelines:

  - Power saws, if required for construction or decommissioning, would be equipped with an approved spark arrester and accompanied by a 5-pound ABC dry chemical fire extinguisher and a long-handled, round-point shovel when used away from a vehicle.
  - Fuel service trucks would contain a 35-pound-capacity fire extinguisher charged with the necessary chemicals to control electrical and fuel fires.
  - Wood cutting, welding, or other construction worksites that have a higher risk of starting fires would have at least two long-handled round-point shovels and two 5-pound ABC dry chemical fire extinguishers available onsite.
  - Every worksite would have at least one radio and/or cellular/satellite telephone to contact the fire protection districts, the sheriff, and the Applicant.
- Perform preventative maintenance replacement of inverter parts (e.g., cooling system and power supplies that are operating effectively but scheduled for replacement per manufacturer's recommendation).

5.2 Preventative Programs

The Applicant will implement the following programs to minimize fire risk during construction of the Facility, as applicable.

5.2.1 OSHA-Compliant Fire Prevention Plan

Workers, contracting employees, and other personnel performing official duties at the Facility will conduct work under a Fire Prevention Plan that meets applicable portions of 29 Code of Federal Regulations (CFR) 1910.39, 29 CFR 1910.155, 29 CFR 1910, subpart L. The plan will address the following:

- Workers are trained in fire prevention, good housekeeping, and use of a fire extinguisher.
- Necessary equipment is available to fight early-stage fires. Fire beyond early stages will be managed by local fire response organizations (Bakeoven-Shaniko RFPA and the South Sherman Fire District) who may call on reinforcements from other fire response agencies as needed.
- Provide necessary safety equipment for handling and storing combustible and flammable material.
- Equipment is maintained to prevent and control sources of ignition.
- Do not allow smoking or open flames in an area where combustible materials are located.
- Implement a Hot Work Procedure and Permit program.

5.2.2 Fire Weather Monitoring and Hot Work

Burn probability, expected flame length, and overall risk may increase during periods of the fire season. Personnel on site will monitor Fire Weather Watches and Red Flag Warnings. A Fire Weather Watch indicates the potential for weather conducive to large fore spread in the next 12 to 72 hours. A Red Flag Warning is issued when current weather conditions are conducive to large fire growth in the next 24 hours. Personnel monitoring these conditions may halt work in certain high-risk locations or employ additional mitigation measures.

Mitigation measures during a Red Flag Warning include, but are not limited to, communicating to on-site staff of the Red Flag Warning, communicating with local fire protection agency personnel of ongoing conditions, driving or parking on roads to avoid sparking a fire in grass or brush, and halting construction activities that may increase fire risk such as hot work.

Hot work (such as cutting, welding, or other activity that creates spark or open flame) must be conducted on roads or on non-combustible surfaces, and fire suppression equipment will be immediately available during hot work activities. Following the completion of hot work, the Applicant or contractor(s) must maintain a fire watch for 60 minutes to monitor for potential ignition.

5.2.3 Emergency Response Plan

The Applicant will prepare an Emergency Response Plan (ERP) prior to construction of the Facility. The ERP will contain policies and procedures including emergency response for serious injuries, personal protection equipment requirements, available welfare facilities onsite, on-site Health, Safety, Security and Environment (HSSE) induction or site orientation, site and activity HSSE inspections (including management site visits) and audits (including copies of proposed checklists and agendas). The audits will measure compliance to contractor procedures, HSSE standards, and HSSE Plan, management of environmental effects including management of waste during execution of work, and arrangement for storage of fuel and oil on site, including refueling procedures and provision of product Safety Data Sheets.

In addition to the emergency responses to be stipulated in the ERP, personnel will be trained on the "RACE" procedure to implement in the event of a fire start. RACE procedure includes:

- **Rescue** anyone in danger (if safe to do so);
- **Alarm** – call the control room, who will then determine if 911 should be alerted;
- **Contain** the fire (if safe to do so); and
- **Extinguish** the incipient fire stage (if safe to do so).

Personnel on site will carry fire suppression equipment during the fire season in their vehicles. This equipment shall include, at a minimum:

- Fire Extinguisher: Dry chemical. 2.5 or 2.8 pound. 1A-10B: C U/L rating, properly mounted

or secured;

- Pulaski Hand Shovel: Round point. 26 to 28-inch "D" Handle, blade - 12 inches long and 10 inches wide;
- Collapsible Pail or Backpack Pump: 5-gallon capacity; and
- Drip Can: 5-gallon capacity.

This plan will be provided to the Bakeoven-Shaniko RFPA and the South Sherman Fire District, and Facility employees to use in the event of an emergency.

5.2.4 Health, Safety, Security and Environment (HSSE) Plan

An HSSE Plan will be prepared which will describe activities for the life cycle of the contract. This plan will outline a HSSE Management System (HSSE MS), which is a documented system describing the structure, practices, procedures, processes, resources and responsibilities that a business implements to manage and meet its HSSE objectives. The contractors' HSSE Plan will detail the particulars of how HSSE risks associated with the Facility will be addressed and how the Applicant or the Applicant's contractors and subcontractors will incorporate regulatory requirements at worksites and in scoped activities.

6.0 Plan Updates and Modifications- OAR 345-022-0115(1)(b)(E)

(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.

The Applicant may consider revisions to this Plan at its sole discretion to incorporate future best practices or emerging technology depending on whether the new technology is cost effective and suitable for the site conditions. The Applicant will track the industry groups and applicable design standards outlined in Table 4 to identify future technologies or best practices that could be implemented at the Facility for construction.

Table 2. Resources for Future Best Practices

Reference	Description	Method
American Clean Power (ACP)	Industry ground that establishes best practices for renewable energy projects	The Applicant is a member of ACP and participates in best practice development[1].
NERC	National Energy Reliability Corporation develops electrical standards for large energy facilities.	The Applicant will follow NERC Standard FAC-003-0 for its vegetation management program of transmission lines[2], or updates to this standard as approved by NERC.
Oregon Specialty Building Codes	Building codes applicable to inhabitable spaces, including the operations and maintenance (O&M) building and the substation enclosure.	Remodeling to the O&M and collector substation enclosure structure that requires permits will follow updates to the codes at that time.
1. ACP Standards & Practices: https://cleanpower.org/resources/types/standards-and-practices/. 2. NERC 2010; FAC-003-0: https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-0.pdf.		

7.0 References

NERC (North American Electric Reliability Corporation). 2010. Transmission Vegetation Management NERC Standard FAC-003-2 Technical Reference. Prepared by the North American Electric Reliability Corporation Vegetation Management Standard Drafting Team. Available online at: https://www.nerc.com/pa/Stand/Project%20200707%20Transmission%20Vegetation%20Management/FAC-003-2_TR_December_17_2010.pdf.

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Attachment V-2. Draft Operations Wildfire Mitigation Plan

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Draft Operations
Wildfire Mitigation Plan

Yellow Rosebush Energy Center
August 2024

Prepared for
Yellow Rosebush Energy Center, LLC

Prepared by

Tetra Tech, Inc.

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List of Tables

Acronyms and Abbreviations

AC	alternating current
Applicant	Yellow Rosebush Energy Center, LLC
BESS	battery energy storage system
CFR	Code of Federal Regulations
DC	direct current
EFSC	Oregon Energy Facility Siting Council
ERP	Emergency Response Plan
Facility	Yellow Rosebush Energy Center
HSSE	Health, Safety, Security and Environment
IEEE	Institute of Electrical and Electronics Engineers
MV	medium voltage
MW	megawatt
NEC	National Electrical Code
NERC	North American Electric Reliability Corporation
NFPA	National Fire Protection Association
O&M	operations and maintenance
OAR	Oregon Administrative Rules
SCADA	supervisory, control, and data acquisition
SPCC	Spill Prevention, Control, and Countermeasures

1.0 Introduction

Yellow Rosebush Energy Center, LLC (Applicant) proposes to construct and operate the Yellow Rosebush Energy Center (Facility), a solar energy generation facility and battery energy storage system related or supporting facilities, within the 8,075-acre proposed site boundary in Wasco and Sherman counties, Oregon. The Facility would generate up to 800 megawatts (MW) of solar photovoltaic power and provide 800 MW of battery energy storage.

This draft Operations Wildfire Mitigation Plan (WMP or Plan) is attached to Exhibit V – Wildfire Prevention and Risk Mitigation, which was prepared to meet the submittal requirements in Oregon Administrative Rules (OAR) 345-021-0010(1)(v), including providing evidence that the Facility complies with the approval standard in OAR 345-022-0115. The Applicant provides a draft Construction Wildfire Mitigation Plan as an attachment to Exhibit V under separate cover.

2.0 Wildfire Risk Minimization Procedures- OAR 345-022-0115(1)(b)(D)

OAR 345-022-0115(1) To issue a site certificate, the Council must find that:

> *(b) That the proposed facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan approved by the Council. The Wildfire Mitigation Plan must, at a minimum:*
>
> > *(D) Identify procedures to minimize risks to public health and safety, the health and safety of responders, and damages to resources protected by Council standards in the event that a wildfire occurs at the facility site, regardless of ignition source; and*

The risk of a wildfire affecting public safety, first responders, or Oregon Energy Facility Siting Council (EFSC)–protected resources would be minimized by the measures described in this Operations WMP and by the procedures listed in Table 1.

The Applicant will consult with the Bakeoven-Shaniko Rangeland Fire Protection Association (RFPA) and the South Sherman Fire District, as well as local emergency management agencies to receive and incorporate input into the final Operations WMP, as appropriate, about the location and types of temporary fire breaks needed in the event of a fire on- or off-site. The final Operations WMP will designate:

- Estimated response times for on-site staff and local emergency service providers,
- Protocols for staff or emergency providers to erect or create fire breaks in the event of a fire,
- Identify and provide maps of priority areas where fire breaks would be prioritized to protect fires spreading off site or impacting the Facility site.

During operation, the Applicant or its contractor will work directly with local emergency responders to compile and maintain a current contact information for adjacent landowners. The final Operations WMP will identify notification procedures of adjacent landowners to provide to local and regional emergency services for emergency notifications, in the event of an ignition or fire at the Facility.

Table 1. Procedures to Minimize Wildfire Risk

Topic	Procedures
Public Health and Safety	The public will be excluded from the solar array, collector substation, operations and maintenance building, and battery energy storage system components by fencing. Ground-mounted inverters and junction boxes will be surrounded by bollards to minimize inadvertent vehicle/or other equipment collisions with electrical equipment.
First Responders	The Applicant will offer annual training to local first responders. Training will cover the firefighting responses to electrical fires. Response to fires in the Facility should focus on controlling spread to adjacent lands. Operations staff will be trained in the use of fire extinguishers for responding to early-stage fires on site.
Resource Protection	Resources covered by EFSC standards near the Facility site boundary include agricultural land, shrub-steppe habitat, and cultural resources. The existing county roads and the location and types of temporary fire breaks described in this Plan will form a fire break that will discourage the spread of wildfire between fields or into wildlife habitat.

3.0 Wildfire Risk Assessment Update - OAR 345-022-0115(1)(b)(A)

OAR 345-022-0115 (1) To issue a site certificate, the Council must find that:

(b) That the proposed facility will be designed, constructed, and operated in compliance with a Wildfire Mitigation Plan approved by the Council. The Wildfire Mitigation Plan must, at a minimum:

(A) Identify areas within the site boundary that are subject to a heightened risk of wildfire, using current data from reputable sources, and discuss data and methods used in the analysis;

Prior to operation of the Facility, the Applicant will provide a summary update of wildfire risk at the Facility site as designated under OAR 345-022-0115, if significantly different from the data and methods evaluated in the Final Order on the Application for Site Certificate (ASC).

4.0 Facility Inspections and Vegetation Management OAR 345-022-0115(1)(b)(B)

(B) Describe the procedures, standards, and time frames that the applicant will use to inspect facility components and manage vegetation in the areas identified under subsection (a) of this section;

4.1 Facility Inspections

The Facility components that could cause electrical fires are the solar inverters, collector substation, battery energy storage system (BESS), and overhead electrical lines associated with the alternate gen-tie line. The Applicant will monitor Facility components using the supervisory, control, and data acquisition (SCADA) system to allow for remote monitoring 24 hours a day, 7 days a week. Smoke and fire detectors will be placed throughout the Facility, will be tied to the SCADA system, and will contact local firefighting services if needed. The BESS will also have integrated fire safety and monitoring systems to detect and alarm if a fire condition is detected. The Facility has remote shutdown capabilities.

The Applicant will also conduct routine inspections of Facility components to assess and identify potential fire hazards and address the safety of personnel, equipment, and the surrounding Facility. Table 2 below provides draft operations inspections for electrical facility components from similar types of facilities. As part of finalizing the Operations WMP, the Applicant may update this table as applicable to Facility equipment, standards, and inspections.

Table 2. Draft Operations Inspections for Electrical Components

Facility Components	Procedure	Standard[1]	Time frame[2]
System Protection	Protection Relays • Verify calibration and check functionality. Breaker Trip Testing • Verify the ability to trip breakers via coil.	Manufacturer's maintenance recommendations	Repair or replace once every 5 years
System Protection	System Protection Potential Transducers ("PTs") and Current Transducers ("CTs") • Verify calibration and check functionality.	Manufacturer's maintenance recommendations	Repair or replace once every 11 years
Solar Inverter	• Visual inspection of inverter and surrounding area. • Verify torque specifications.	Spill Prevention, Control, and	• Monthly SPCC Plan • Bi-annual Preventative Maintenance

Facility Components	Procedure	Standard[1]	Time frame[2]
	• For alternating current (AC)/direct current (DC), perform inspection of communication and control power terminations. • Cycle AC/DC disconnects, inspect AC/DC contactors and cooling fans. • Perform infrared scan. Inverter Testing and Preventative Parts Replacement • Preventative maintenance replacement of inverter parts (e.g.: cooling system and power supplies that are operating effectively but scheduled for replacement per manufacturer's recommendations).	Countermeasures (SPCC) Plan[3] Manufacturer's maintenance recommendations	• Per manufacturer's recommendations
Tracker System	• Perform visual inspection of tracking components; sync data with the Applicant's Operations Center. • Perform visual inspection of module clamps and rail fasteners for integrity. • Perform visual inspection of gear drives and shaft assemblies for alignment. • Grease gear boxes and/or drive shaft. • Verify wind stow functionality and lubricate slew ring.	Manufacturer's maintenance recommendations	Per manufacturer's recommendations
Solar Array Structures	• Perform visual inspection of mounting structures, grounding, and cabling.	Manufacturer's maintenance recommendations	Repair or replace annually
Solar Array Panels, Harnesses, and Combiner Boxes	At Applicant's sole discretion, to perform one of the following options:	Applicant's discretion	Repair or replace annually

Facility Components	Procedure	Standard[1]	Time frame[2]
	1. Infra-red ("IR") Flyover a. IR scan of Site providing DC health of the Facility down to string level reporting; or 2. Physical DC Health Inspection a. Perform visual inspection of whips and wires connectors for damage or exposed conductors in gutters of harness combiner boxes. b. Measure and record current of each whip using clamp-on meter and identify low performing whips.	Manufacturer's maintenance recommendations	
Collector Substation	• Perform visual inspection of the grounding system. • Perform thermographic and visual inspection. • Perform uninterrupted power supply (UPS) inspection and maintenance.	Manufacturer's maintenance recommendations North American Electric Reliability Corporation (NERC)	Repair or replace annually
BESS	• Set battery maintenance (system check, cell balancing). • Battery cable, appearance, grounding, dust removal. • Inspect battery management system alarms. • Visual inspection of electrical terminations using thermal imager.	Manufacturer's maintenance recommendations	Repair or replace annually
Unit Control Enclosure Battery	• Check for correct operations of battery monitoring system and battery charging system.	Manufacturer's maintenance recommendations	Repair or replace monthly

Facility Components	Procedure	Standard[1]	Time frame[2]
	• Perform visual inspection of the battery room, mounting rack, batteries, and connections.		
Unit Control Enclosure Battery	• Perform individual cell float charge and specific gravity checks.	Manufacturer's maintenance recommendations	Repair or replace quarterly
Unit Control Enclosure Battery	• Measure float cell voltage, pilot cell voltage, and electrolyte temperature of pilot cell.	Manufacturer's maintenance recommendations	Repair or replace annually
Supervisory, Control and Data Acquisition (SCADA) & Network Equipment	• Plant equipment will be evaluated every 5 years to determine state of health and provide recommendations to Savion.	Manufacturer's maintenance recommendations	Upgrade, repair, or replace every 5 years
BESS Junction Box/ Auxiliary System/ Miscellaneous	• Auxiliary equipment maintenance and inspection. • Enclosure dust removal. • Inspect cable entry, grounding, sealing, dust removal. • Critical sensor calibration check. • Maintenance report.	Manufacturer's maintenance recommendations	Repair or replace annually
BESS Fire Safety System	• Fire alarm and detection system inspection. • Fire alarm and detection system maintenance. • Fire suppression System Inspection.	Manufacturer's maintenance recommendations	Repair or replace annually
BESS Thermal Management System	• Thermal management system inspection. • Thermal management system maintenance. • Motor Lubrication. • Clean Filters by rinsing with water.	Manufacturer's maintenance recommendations	Repair or replace semi-annually

Facility Components	Procedure	Standard[1]	Time frame[2]
	• Electric Heater - Dust accumulation on the coil, signs of overheating on the heater frame, traces of water or rust on the electric heater control box.		
BESS Thermal Management System	• Coolant tester visual inspection.	Manufacturer's maintenance recommendations	Repair or replace annually
BESS General	• System configuration check.	Manufacturer's maintenance recommendations	Repair or replace annually
Medium Voltage (MV) and High Voltage (HV) Breaker	• Clean out dirt and debris. • Perform a manual operation test. • Perform an electrical test. • Perform a gas leakage test.	Manufacturer's maintenance recommendations NERC	Repair or replace per manufacturer's recommendations
Generator Step-Up (GSU) Transformer	• Perform a visual inspection and check for proper operation of fan motor, oil pump motor, and breather. • Inspect and maintain substation transformer bushings and control panel. • Perform visual inspection of bushings for indications of local heating, oil leaks, proper oil level and indication of contaminants.	SPCC Plan[3] Manufacturer's maintenance recommendations	Repair, overhaul, refurbish, or replace per manufacturer's recommendations
Inverter Step-up Transformer	• Perform infrared scans on low side of transformer when power is >80%. • Verify temperature and pressure sync with the contractor's Operations Center. • Perform visual inspection of the physical integrity of the enclosure and check for oil leakage.	SPCC Plan[3] Manufacturer's maintenance recommendations	Replace or repair per manufacturer's recommendation

Facility Components	Procedure	Standard[1]	Time frame[2]
	• Perform visual inspection for damage or discoloration of bushings. • Perform oil sample analysis on MV transformer(s). • Collect MV transformer oil sample(s) for 3rd party analysis. • Perform electrical test of transformer. • Verify integrity of surge arresters and check for proper tap position.		

1. Standards of Practice apply to the whole table. This includes Solar International Electrotechnical Commission (IEC) standards, electrical design standards (American National Standards Institute, Institute of Electrical and Electronics Engineers [IEEE], NFPA70-NE) where applicable and the standards, methods, skill, care, techniques, principles, and practices that are recognized and generally accepted in the solar industry for projects of similar size, location, and scope.
2. Procedures and maintenance schedules are typically manufacturer driven and they work in conjunction with the warranty and performance guarantee.
3. The Operations Spill Prevention, Control, and Countermeasure Plan for the facility will require these components to be inspected monthly for spills. During these inspections, Operations Staff will also visually inspect the component and surrounding area.

4.2 Vegetation Management

A physical vegetation survey assessment of the fenced area will be completed at least twice a year to monitor for vegetation clearances, maintenance of fire breaks, and monitor for wildfire hazards. Additionally, the Applicant will incorporate guidance regarding the fuel breaks for defensible space along the fenced perimeter of the Facility per the Wasco County Land Use Development Code, Zoning, Subdivision, Partitioning, and Land Development Ordinance and OAR 629-044-1085, as applicable. Defensible space will be free of combustible vegetation or other materials.

The vegetation survey will document:

- Location;
- Species;
- Estimated growth rate;
- Abundance;
- Clearance/setbacks; and
- Risk of fire hazard.

One of the vegetation survey assessments will occur in May or June, prior to the start of the dry season, a time when wildfire risk is heightened. The survey will be conducted by the Applicant or its

contractor and will be used to assess the frequency of upcoming vegetation maintenance and identify areas that may need additional attention. The Applicant or its contractor will visually assess and document vegetation height, abundance, and areas where vegetation should not be present such as crushed rock bed around collector substations. The vegetation survey assessment will determine that clearances and fire breaks (vegetative clearance areas and areas determined to remain clear to act as permanent fire breaks or areas where temporary fire breaks may be deployed in the event of a fire) are satisfactory, and if not, the mitigation procedures will be implemented (e.g., vegetation management) to provide that clearances and fire breaks are satisfactory.

Additional vegetation surveys may be required throughout the season based on seasonally heightened fire risk. Vegetation control will employ best management practices and techniques that are most appropriate for the local environment. These may include physical vegetation control such as mowing or introduction of a non-invasive species that is low growing. In rare circumstances where it is necessary to use herbicides, an effort will be made to minimize use and only apply bio-degradable, U.S. Environmental Protection Agency-registered, organic solutions that are non-toxic to wildlife. Herbicides used for vegetation management will be selected and used in a manner that complies with applicable laws and regulations.

Roads and parking areas will be maintained to be free of vegetation tall enough to contact the undercarriage of the vehicle. The Applicant will install a non-flammable gravel base around solar inverters/step-up transformers, collector substation, and BESS, and implement ongoing vegetation management. Vegetation management procedures for Facility components are outlined in Table 3.

Table 3. Vegetation Management Procedures by Facility Component

Vegetation Management	Procedure	Standard	Time frame
Solar Inverter/Step-up Transformer	Herbicide application on gravel pad around inverter to prevent vegetation growth.	Institute of Electrical and Electronics Engineers (IEEE) 801 National Electrical Code (NEC) 70[2]	Yearly, depending on vegetation condition.
Collector Substation	Herbicide application on substation gravel pad. Highly compacted gravel foundations of substation are not suitable for vegetation ground.	IEEE 80[1] NEC 70[2]	Yearly, depending on vegetation condition.
BESS	Herbicide application on gravel pad surrounding BESS. Highly compacted gravel foundations of BESS are not suitable for vegetation.	IEEE 80[1] NEC 70[2]	Yearly, depending on vegetation condition.

Overhead electrical lines associated with the alternate gen-tie line	Mow vegetation to achieve clearance requirements between conductor and ground.	North American Electric Reliability Corporation (NERC)[3]	Yearly, depending on vegetation condition.
1. IEEE (2015) 2. NFPA (2023) 3. NERC (2010)			

5.0 Preventative Actions and Programs - OAR 345-022-0115(1)(b)(C)

(C) Identify preventative actions and programs that the applicant will carry out to minimize the risk of facility components causing wildfire, including procedures that will be used to adjust operations during periods of heightened wildfire risk;

5.1 Preventative Actions

The Applicant will implement the following design considerations and best practices to minimize electrical fire risk from Facility components during operations:

- Smoking will not be allowed while operating equipment, while walking, or working in areas with vegetation.
- In areas where smoking is allowed, completely extinguish burning tobacco and matches and discard them in ashtrays, not on the ground.
- Fires or barbecues within the Facility site boundary, at material yards, access roads, or other construction areas are not allowed.
- Instruct field personnel about emergency response to fire events.
- Clear away flammable material a minimum of 10 feet from areas of operation where a spark, fire, or flame could be generated.
- If a fire does start by accident, take immediate steps to extinguish it (if it is safe to do so) using available fire suppression equipment.
- Perform approved welding or cutting activities only in areas cleared of vegetation for a minimum of 10 feet around the area. Fire response personnel must remain in the construction area for 30 minutes after conclusion of welding or cutting activities to reduce the possibility of welding activities smoldering and starting a fire. Equip welder vehicles with fire suppression equipment.
- Inspect and approve equipment assigned to the Facility. Equip internal combustion engines (stationary or mobile) with spark arresters that meet agency standards, and for which the following guidelines apply:

  - Use light trucks and cars with factory-installed (type) mufflers (in good condition) only on roads where the roadway is cleared of vegetation.
  - On roads where vegetation exists, use spark arresters and maintain them in good working order.
  - Park vehicles equipped with catalytic converters on areas cleared of vegetation, as they may represent potential fire hazards.
- Prohibit the use of torches, fuses, highway flares, or other warning devices with open flames. Use only electric or battery-operated warning devices within the Facility site.
- Clear equipment parking areas and small stationary engine sites of flammable materials.
- Clear gas and oil storage areas of flammable material within a distance of 100 feet and post "NO SMOKING" signs throughout the area. Dispose of used and discarded oil filters, oily rags, or other waste in the approved manner. Use only Occupational Safety and Health Administration (OSHA)-approved containers for gasoline or other flammable materials.
- Keep fire prevention and suppression equipment onsite and readily available. Equipment will include:
  - Long-handled round-point shovel;
  - Ax or Pulaski fire tool;
  - 5-pound ABC dry chemical fire extinguisher;
  - 5-gallon water backpack (or other approved container) full of water or another extinguishing solution; and
  - Hard hat, work gloves, and eye protection.
- Worksites will comply with the following guidelines:
  - Power saws, if required for construction or decommissioning, would be equipped with an approved spark arrester and accompanied by a 5-pound ABC dry chemical fire extinguisher and a long-handled, round-point shovel when used away from a vehicle.
  - Fuel service trucks would contain a 35-pound-capacity fire extinguisher charged with the necessary chemicals to control electrical and fuel fires.
  - Wood cutting, welding, or other construction worksites that have a higher risk of starting fires would have at least two long-handled round-point shovels and two 5-pound ABC dry chemical fire extinguishers available onsite.
  - Every worksite would have at least one radio and/or cellular/satellite telephone to contact the fire protection districts, the sheriff, and the Applicant.

Perform preventative maintenance replacement of inverter parts (e.g., cooling system and power supplies that are operating effectively but scheduled for replacement per manufacturer's recommendation). The Applicant will minimize risk of Facility operations causing wildfire by implementing a number of systems and procedures outlined above. These will include requirements to conduct welding or metal cutting only in areas cleared of vegetation and maintaining emergency firefighting equipment on-site. Employees will keep vehicles on roads and off dry grassland when feasible during the dry months of the year, unless such activities are required for emergency purposes, in which case fire precautions will be observed. Fire extinguishers and shovels will be kept in vehicles. On-site employees will also receive training in fire prevention and response and have on-site fire extinguishers to respond to small fires. In the event of a large fire, emergency responders will be dispatched.

The Applicant will minimize risk of Facility components causing wildfire through preventative actions. In the design of the Facility, the Applicant will implement the design considerations and best practices outlined in Table 4 to minimize electrical fire risk from facility components.

Table 4. Design Considerations for Fire Safety by Facility Component

Consideration	Inverter / Step-up Transformer	Collector Substation	Battery Energy Storage System	Overhead Lines
Electrical connections by qualified electricians	X	X	X	X
Inspections for mechanical integrity prior to energizations	X	X	X	X
Lighting protection	X	X	X	X
Corrosion protection	X	X	X	X
Strain relief of connecting cabling	X	X	X	X
Protection against moisture	X	X	X	X
Grounding systems	X	X	X	X
Safety setback from structures	X[1]	X[1]	X[1]	X[2]
Technology specific design standards	X[3]	X[4]	X[5]	X[3]

1. Graveled inside structure's perimeter fence with fuel breaks for defensible/survivable space along the fenced perimeter of the Facility per the Wasco County Land Use Development Code, Zoning, Subdivision, Partitioning, and Land Development Ordinance and OAR 629-044-1085, as applicable. Defensible space will be free of combustible vegetation or other materials.

2. Vertical and horizontal clearances from structures depends on voltage of conductor.

3. NFPA 70 (NFPA 2023).

4. IEEE 979 (IEEE 2021).

5. NFPA 1, Chapter 52 (NFPA 2024).

5.1.1 Facility Design Features

During Facility operations, the solar array areas will have low-growing vegetation maintained below the solar arrays during the operations period of the Facility. Measures for reducing the risk of fire ignition and reducing the risk of equipment damage were a wildfire to occur are discussed further in Section 4.0, including the Facility's vegetation management program (see Section 4.2), and through the emergency response procedures that will be described in the Emergency Response Plan (ERP). The ERP will be developed for the Facility and is outlined below in Section 5.2.5. The inverter/step-up transformer pads, collector substation area, BESS area, O&M building and associated fenced parking and storage area will have reduced risk for fire due to the fact that these areas will have a gravel base with no vegetation to reduce fire risk.

The Facility components will meet National Electrical Code and IEEE standards and will not pose a significant fire risk. The solar array will have shielded electrical cabling, as required by applicable code, to prevent electrical fires. In addition, the collector system and collector substation will have redundant surge arrestors to deactivate the Facility during unusual operations events that could start fires.

New service roads will be graveled. The fenced areas around the collector substation, O&M building, and BESS will be graveled, with no vegetation present. Newly constructed roads will be graded and graveled to meet load requirements for equipment. Service roads, up to 20 feet wide, will be constructed within the solar array fence line, to facilitate access for construction and maintenance purposes. Approximately 20-foot-wide service roads will be constructed outside the solar array fence line to reach the separately fenced Facility components. Vegetation will be cleared and maintained along service roads to provide a vegetation clearance area for fire safety. Service roads will be all-weather, compacted soil or gravel, with an internal turning radius of up to 48 feet. Vegetation maintenance along service roads will include mowing as needed for fire safety requirements. Facility access roads will be sufficiently sized for emergency vehicle access. Vegetation free areas such as gravel pads or base and facility perimeter and interior roads function as a permanent fire break which could minimize the spread of fires on site or impacts from an external wildfire.

Smoke/fire detectors will be placed around the site that will be tied to the SCADA system and will contact local firefighting services. The SCADA system collects operating and performance data from the solar array and from the facility as a whole and allows remote operation from the O&M building. The limited vegetation present within the Facility during operations will also help to minimize spread of fire. Potential fires inside the Facility will be controlled by trained staff who will be able to access the Facility around the clock. These measures will help keep external fires out or internal fires in.

The Applicant will implement the following fire prevention and control methods to minimize fire and safety risks for the Lithium-ion batteries proposed for the BESS:

- The batteries will be stored in completely contained, leak-proof modules.

- Ample working space will be provided around the BESS for maintenance and safety purposes.
- Off-site, 24-hour monitoring of the BESS will be implemented and will include shutdown capabilities.
- Transportation of Lithium-ion batteries is subject to 49 Code of Federal Regulations (CFR) 173.185 – Department of Transportation Pipeline and Hazardous Material Administration. This regulation contains requirements for prevention of a dangerous evolution of heat; prevention of short circuits; prevention of damage to the terminals; and prevention of batteries coming into contact with other batteries or conductive materials. Adherence to the requirements and regulations, personnel training, safe interim storage, and segregation from other potential waste streams will minimize public hazards related to transport, use, or disposal of batteries.
- Design of the BESS will be in accordance with applicable Underwriters Laboratories (UL; specifically, 1642, 1741, 1973, 9540A), National Electric Code, and National Fire Protection Association (specifically 855) standards, which require rigorous industry testing and certification related to fire safety and/or other regulatory requirements applicable to battery storage at the time of construction.
- Additionally, the Applicant will employ the following design practices, as applicable to the available technology and design at time of construction:
    - Use of Lithium-ion phosphate battery chemistry that does not release oxygen when it decomposes due to temperature;
    - Employment of an advanced and proven battery management system;
    - Qualification testing of battery systems in accordance with UL 9540A (UL Solutions 2023);
    - Employment of fire control panels with 24-hour battery backup at every battery container;
    - Installation of fire sensors, smoke and hydrogen detectors, alarms, emergency ventilation systems, cooling systems, and aerosol fire suppression/extinguishing systems in every battery container;
    - Installation of doors that are equipped with a contact that will shut down the battery container if opened;
    - Installation of fire extinguishing and thermal insulation sheets between each individual battery cell;
    - Implementation of locks and fencing to prevent entry of unauthorized personnel;
    - Installation of remote power disconnect switches; and

- Clear and visible signs to identify remote power disconnect switches.

5.2 Preventative Programs

The Applicant will implement the programs in this section to minimize fire risk during operation of the Facility, as applicable.

5.2.1 OSHA-Compliant Fire Prevention Plan

Workers, contracting employees, and other personnel performing official duties at the Facility will conduct work under a Fire Prevention Plan that meets applicable portions of 29 CFR 1910.39, 29 CFR 1910.155, 29 CFR 1910, subpart L. The plan will address the following:

- Workers are trained in fire prevention, good housekeeping, and use of a fire extinguisher.
- Necessary equipment is available to fight early-stage fires. Fire beyond early stages will be managed using local fire response organizations (Bakeoven-Shaniko RFPA and the South Sherman Fire District) who may call on reinforcements from other fire response agencies as needed.
- Provide necessary safety equipment for handling and storing combustible and flammable material.
- Equipment is maintained to prevent and control sources of ignition.
- Do not allow smoking or open flames in an area where combustible materials are located.
- Implement a Hot Work Procedure and Permit program.

5.2.2 Electrical Safety Program

Operations workers will be trained in electrical safety and the specific hazards of the facility. This training will address:

- Minimum experience requirements to work on different types of electrical components;
- Electrical equipment testing and troubleshooting;
- Switching system;
- Provisions for entering high voltage areas (e.g., collector substation);
- Minimum approach distances; and
- Required personal protective equipment.

5.2.3 Lock Out/Tag Out Program

During maintenance activities on electrical equipment, the equipment is de-energized and physically locked or tagged in the de-energized position to prevent inadvertent events that could result in an arc flash.

5.2.4 Fire Weather Monitoring and Hot Work

Burn probability, expected flame length, and overall risk may increase during periods of the fire season. Personnel on site will monitor Fire Weather Watches and Red Flag Warnings. A Fire Weather Watch indicates that weather conditions conducive to extensive wildland fire occurrence or extreme fire behavior may occur in the next 12 to 72 hours. A Red Flag Warning is issued when current weather conditions are conducive to large fire growth in the next 24 hours. Personnel monitoring these conditions will halt work in high-risk locations or employ additional mitigation measures.

Mitigation measures during a Red Flag Warning include, but are not limited to, communicating to on-site staff of the Red Flag Warning, communicating with local fire protection agency personnel of on-going conditions, driving or parking on roads to avoid sparking a fire in grass or brush, and halting construction activities that may increase fire risk such as hot work.

Hot work (cutting, welding, or other activity that creates spark or open flame) must be conducted on roads or on non-combustible surfaces, and fire suppression equipment will be immediately available during hot work activities. Following the completion of hot work, the Applicant or its contractor must maintain a fire watch for 60 minutes to monitor for potential ignition.

5.2.5 Emergency Response Plan

The Applicant will prepare an ERP prior to construction of the Facility. The ERP will contain policies and procedures including emergency response for serious injuries, personal protection equipment requirements, available welfare facilities onsite, site Health, Safety, Security and Environment (HSSE) induction or site orientation, site and activity HSSE inspections (including management site visits) and audits (including copies of proposed checklists and agendas) to measure compliance to contractor procedures, HSSE standards, and HSSE Plan, management of environmental effects including management of waste during execution of work, and arrangement for storage of fuel and oil on SITE, including refueling procedures and provision of product Safety Data Sheets.

In addition to the emergency responses to be stipulated in the ERP, personnel will be trained on the "RACE" procedure to implement in the event of a fire start. RACE procedure includes:

- **Rescue** anyone in danger (if safe to do so);
- **Alarm** – call the control room, who will then determine if 911 should be alerted;
- **Contain** the fire (if safe to do so); and

- **Extinguish** the incipient fire stage (if safe to do so).

Personnel on site will carry fire suppression equipment during the fire season in their vehicles. This equipment will include, at a minimum:

- Fire Extinguisher: Dry chemical. 2.5 or 2.8 pound. 1A-10B: C U/L rating, properly mounted or secured;
- Pulaski Hand Shovel: Round point. 26 to 28-inch "D" Handle, blade - 12 inches long and 10 inches wide;
- Collapsible Pail or Backpack Pump: 5-gallon capacity; and
- Drip Can: 5-gallon capacity.

This plan will be provided to the Bakeoven-Shaniko RFPA and the South Sherman Fire District, and Facility employees to use in the event of an emergency.

5.2.6 Health, Safety, Security and Environment (HSSE) Plan

An HSSE Plan will be prepared which will describe activities for the life cycle of the contract. This plan will outline a HSSE Management System (HSSE MS), which is a documented system describing the structure, practices, procedures, processes, resources and responsibilities that a business implements to manage and meet its HSSE objectives. The contractors' HSSE Plan will detail the particulars of how HSSE risks associated with the Facility will be addressed and how the Applicant or the Applicant's contractors and subcontractors will incorporate regulatory requirements at worksites and in scoped activities.

6.0 Plan Updates and Modifications - OAR 345-022-0115(1)(b)(E)

> *(E) Describe methods the applicant will use to ensure that updates of the plan incorporate best practices and emerging technologies to minimize and mitigate wildfire risk.*

The Applicant may consider revisions to this Plan at its discretion to incorporate future best practices or emerging technology depending on whether the new technology is cost effective and suitable for the site conditions. The Applicant will track the industry groups and applicable design standards outlined in Table 5 to identify future technologies or best practices that could be implemented at the Facility for operations.

Table 5. Resources for Future Best Practices

Reference	Description	Method
American Clean Power (ACP)	Industry ground that establishes best practices for renewable energy projects.	The Applicant is a member of ACP and participates in best practice development.[1]
NERC	National Energy Reliability Corporation develops electrical standards for large energy facilities.	The Applicant will follow NERC Standard FAC-003-0 for its vegetation management program of transmission lines[2], or updates to this standard as approved by NERC.
Oregon Specialty Building Codes	Building codes applicable to inhabitable spaces, including the O&M building and the collector substation enclosure.	Remodeling to the O&M building and collector substation enclosure that requires permits will follow updates to the codes at that time.
1. ACP Standards & Practices: https://cleanpower.org/resources/types/standards-and-practices/. 2. NERC 2010; FAC-003-0: https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-0.pdf.		

7.0 References

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