

Fortis Alberta Wildfire Mitigation Strategies

Conservative

Critical



Recloser Blockage - EPSS (Enhanced Powerline Safety Settings)

Protective safety settings preventing automatic re-energization after a fault has been experienced.



Fast Trip - EPSS (Enhanced Powerline Safety Settings)

Advanced protection coordination enabling nearly instantaneous system fault isolation.



(Public Safety Power Shutoff)

A last measure resort involving proactive system de-energization during periods of severe fire risk.

Recloser Blockage – EPSS	Protection Device Criteria	Devices with blockage functionality protecting FortisAlberta overhead assets.		
Baseline wildfire ignition protective measure with the lowest impact to	Monitoring Area	Grasslands	Forested	
	Wind Speed	N/A	N/A	
system reliability.	Fire Risk Metrics:			
Used throughout the	1)	FWI >30	FWI >30	
service area in high-risk fire areas.	2)	Grass curing 75%	N/A	
III C al Cas.	Other Considerations	Alberta Wildfire Red Flag Watch/Warning		

Fast Trip - EPSS

- · Rapidly detects and deenergizes powerline faults within 100 milliseconds.
- Patrols are required before restoration resulting in increased outage duration.
- · Increased sensitivity (in fault detection) which may result in more power outages.

Protection **Device Criteria**

Devices identified through an engineering analysis across all fast trip capable devices within designated PSPS Areas.

Monitoring Area	Grasslands	Foothills/ Mountains	Crowsnest Pass	Edson/ Whitecourt	Hinton	Clearwater County/ Nordegg
Wind Speed	>40 km/h	>40 km/h	>40 km/h	>30 km/h	>40 km/h	>30 km/h
Fire Risk Metrics:						
1)	ISI >15	FWI >30	FWI >40	FWI >30	FWI >35	FWI >35
2)	Grass curing 75%	Temperature/ relative humidity crossover	Temperature/ relative humidity crossover	Temperature/ relative humidity crossover	Temperature/ relative humidity crossover	Temperature/ relative humidity crossover
3)	FFMC >92	N/A	N/A	N/A	N/A	N/A

Other Considerations

- Alberta Wildfire Red Flag Watch/Warning
- Fire bans
- · Wind gusts
- · Hot-dry-windy index (HDWI)
- · Upper air soundings
- Seasonality/burning period

PSPS	Protection Device Criteria	Feeders identified in the high-risk areas PSPS analysis.		
 Power is proactively turned off when critical wildfire conditions are present. Highly effective in eliminating ignition risk. 	Monitoring Area	Edson, Whitecourt, Yellowhead County, Woodlands County, Clearwater County, Nordegg	Bow Valley Corridor, Stoney Nakoda Nations, Crowsnest Pass, Hinton	
Considered a last resort.	Wind Speed	>40 km/h	>60 km/h	
 Requires careful impact planning and proactive stakeholder communication. 	Fire Risk Metrics:	FWI >40	FWI >60	
Continuous monitoring of real-time weather and threshold criteria.	Other Considerations	Alberta Wildfire Red Flag Watch/Warning Fire bans and forest closures		
 Activation of customer communication and warning of potential power shut off. Preplanned and coordinated implementation 	Considerations	Wind gusts Structural wind loads Temperature/relative humidity crossover		

- and approach with municipalities and emergency operations centres.
- Patrol prior to turning power back on.

- Temperature/relative humidity crossover
- Hot-dry-windy index
- Upper air soundings
- · Seasonality/burning period