

# Frenchs Mill-Junction138 kV Line Terminal Upgrades

## General Information

Proposing entity name	Company Specific
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	
Company proposal ID	Company Specific
PJM Proposal ID	756
Project title	Frenchs Mill-Junction138 kV Line Terminal Upgrades
Project description	Replace terminal equipment on the Frenchs Mill-Junction JST1 138 kV Line to achieve ratings of 221/268 MVA SN/SE and 250/317 MVA WN/WE.
Email	
Project in-service date	04/2022
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	

## Project Components

1. Frenchs Mill Line Terminal Upgrades at Junction Substation
2. Junction Line Terminal Upgrades at Frenchs Mill Substation

## Substation Upgrade Component

Component title	Frenchs Mill Line Terminal Upgrades at Junction Substation
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Project description

Substation name

Junction

Substation zone

201

Substation upgrade scope

Replace (1) 138 kV line trap with a 2000 Amp unit, Replace (1) 138 KV gang operated air switch with a 1200 Amp switch, and replace the limiting substation conductor on the breaker and disconnects with a conductor that exceeds ratings of 221/268/250/317 MVA SN/SE/WN/WE.

## Transformer Information

None

New equipment description

138 kV line trap - 2000 Amp 138 kV airswitch - 1200 Amp Terminal substation conductor to exceed ratings of 221/268/250/317 MVA SN/SE/WN/WE.

Substation assumptions

Upgrade of existing Frenchs Mill line terminal equipment at Junction Substation to ratings above the transmission line conductor rating.

Real-estate description

Construction responsibility

Company Specific

Benefits/Comments

## Component Cost Details - In Current Year \$

Engineering & design

This information is considered confidential and proprietary

Permitting / routing / siting

This information is considered confidential and proprietary

ROW / land acquisition

This information is considered confidential and proprietary

Materials & equipment

This information is considered confidential and proprietary

Construction & commissioning

This information is considered confidential and proprietary

Construction management

This information is considered confidential and proprietary

Overheads & miscellaneous costs

This information is considered confidential and proprietary

Contingency

This information is considered confidential and proprietary

Total component cost \$218,182.27  
Component cost (in-service year) \$244,400.00

### **Substation Upgrade Component**

Component title Junction Line Terminal Upgrades at Frenchs Mill Substation  
Project description  
Substation name Frenchs Mill  
Substation zone 201  
Substation upgrade scope Install (1) set of slip-over CTs on the No. 1 transformer high side bushings Install (1) set of slip-over CTs on the 138 kV breaker Junction breaker bus side bushings Replace existing Junction line relaying and carrier equipment with (1) line relaying panel consisting of (1) SEL-421, (1) SEL411L, (1) SEL-501 BFT, (1) RFL-9785, and (1) PCM-5350. Modify existing SCADA RTU at Frenchs Mill Substation

### **Transformer Information**

None  
New equipment description (1) set of slip-over CTs on No. 1 transformer high side bushings (1) set of slip-over CTs on the 138 kV Junction breaker bus side bushings Replace existing Junction line relaying and carrier Equipment with (1) line relaying panel consisting of (1) SEL-421, (1) SEL411L, (1) SEL-501 BFT, (1) RFL-9785, and (1) PCM-5350.  
Substation assumptions Upgrade of existing terminal equipment at Frenchs Mill Substation to ratings above the transmission line conductor rating.  
Real-estate description  
Construction responsibility Company specific  
Benefits/Comments

### **Component Cost Details - In Current Year \$**

Engineering & design This information is considered confidential and proprietary  
Permitting / routing / siting This information is considered confidential and proprietary

ROW / land acquisition	This information is considered confidential and proprietary
Materials & equipment	This information is considered confidential and proprietary
Construction & commissioning	This information is considered confidential and proprietary
Construction management	This information is considered confidential and proprietary
Overheads & miscellaneous costs	This information is considered confidential and proprietary
Contingency	This information is considered confidential and proprietary
Total component cost	\$472,603.45
Component cost (in-service year)	\$529,300.00

### Congestion Drivers

CD #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
ME-3	235479	01JUNCTN	235467	01FRNCHM	1	138	201	Market Efficiency	Included

### Existing Flowgates

None

### New Flowgates

None

### Financial Information

Capital spend start date	01/2022
Construction start date	03/2022
Project Duration (In Months)	3

## **Additional Comments**

None