

INFORMAL HEARING
Otter Tail Power Company
CASE No. PU-23-306
November 22, 2023



OTTER TAIL PARTICIPANTS

- Amber Stalboerger – Manager, Regulatory Analysis
- Mike Riewer – Manager, System Infrastructure & Reliability
- Dylan Stupca – Manager, Delivery Planning
- Stuart Tommerdahl – Manager, Regulatory Economics

AGENDA

- Summary of request
- Background Information
- Description of project scope change
- Description of project budget changes
- Description of new MVP project(s)
- Revenue Requirement Summary
- Closing Summary

SUMMARY OF REQUEST

OTP Requests approval for the following items:

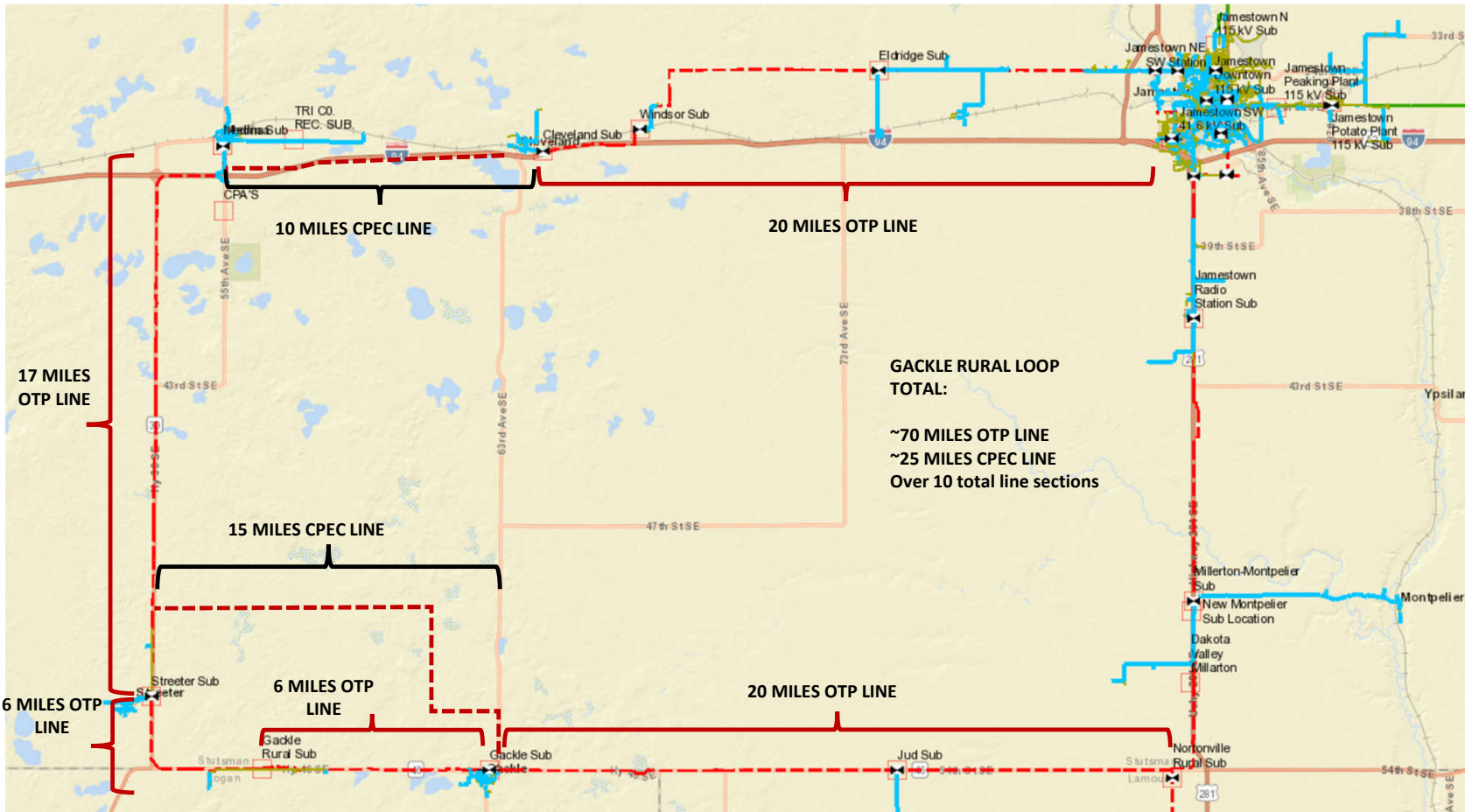
- Revenue requirement of \$4,481,941
- Scope modification and long-term plan for Gackle Rural Loop
- Updated project budget for the Oslo/Lake Ardoch Project
- New Milbank Area Reliability Project
- New MVP Projects
 - Jamestown to Ellendale 345kV (JETx) Project
 - Big Stone South-Alexandria-Big Oakes 345 kV Project

BACKGROUND INFORMATION

- On September 15, 2023, Otter Tail submitted its annual filing for the ND Transmission Recovery Rider, followed by the Supplemental filing, submitted on November 2, 2023. (PU-23-306)
- Total Revenue Requirement for recovery period for each filing, respectively, is \$8,693,198, and \$4,481,941.
- Recovery Period is January 1, 2024 – December 31, 2024.
- The bill impact for a residential customer using 1,000 kWh when comparing the 2022 approved rates to the 2023 supplemental filing will be a decrease of \$2.39/month.
- The supplemental revenue requirement reflects the impact of projects rolling into rate base as a result of the current rate case.
- In the table below provides the Rate Comparison between the 2022 filing, 2023 initial filing, and the 2023 supplemental filing.

A		B	C	D
Line No. Class		January 1, 2023- December 31, 2023 Approved Rates (PU-22-335) ¢ / kWh	January 1, 2024- December 31, 2024 Proposed Rates (PU-23-306) ¢ / kWh	January 1, 2024- December 31, 2024 Supplemental Rates (PU-23-306) ¢ / kWh
1	Large General Service Class	\$1.841 /kW	\$2.124 /kW	\$1.095 /kW
2	Controlled Service	0.086¢	0.099¢	0.051¢
3	Lighting	0.496¢	0.641¢	0.331¢
4	All Other Service	0.575¢	0.651¢	0.336¢

BACKGROUND—GACKLE 41.6KV RURAL LOOP



- Almost 100 miles of exposure
- Delta Framing (no shield wire)
- OTP worst performer
- 1960's construction

SCOPE MODIFICATION TO GACKLE RURAL LOOP

Background

- Initial improvements of \$1.3M that were approved in the 2022 annual filing for the ND TCR were to mitigate the worst areas of the loop.
- Initial review highlighted the need for a thorough review of the entire ~70 miles of OTP line and the development of a long-term plan.
- After thorough review of the total loop, we added additional mitigation work as part of this areas long term plan which increased the overall budget by \$7.2M (OTP)/\$2.8M (ND).
 - Total project cost \$8.5M (OTP)/\$3.3M (ND)
 - Targeting a 5–7-year project

ACCESSIBILITY-POLES IN WATER



Numerous loose guys and heavily leaning poles

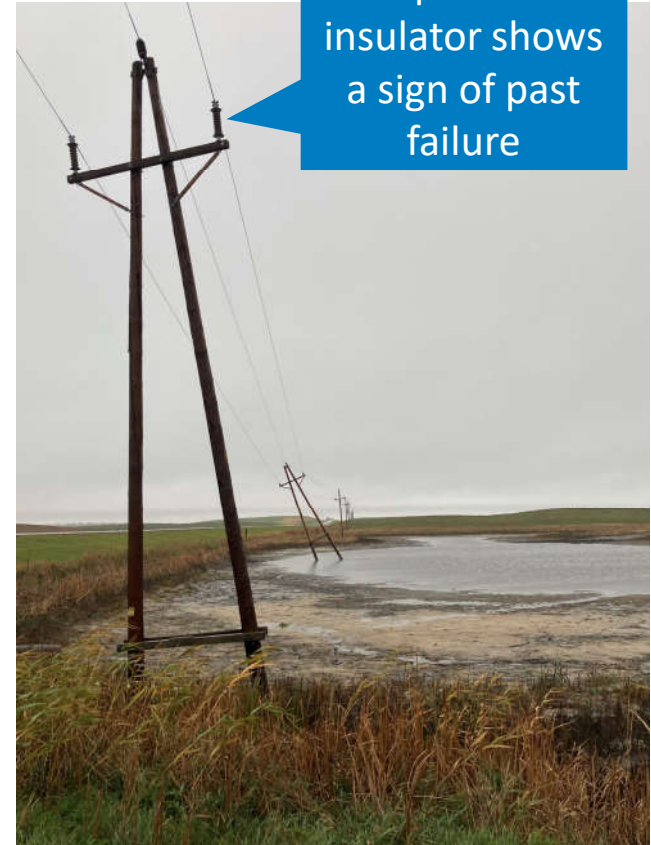
POLE CONDITION



1960's pole
vintages



Broken Cross
arm support



Updated
insulator shows
a sign of past
failure

ICE DAMS & FROST

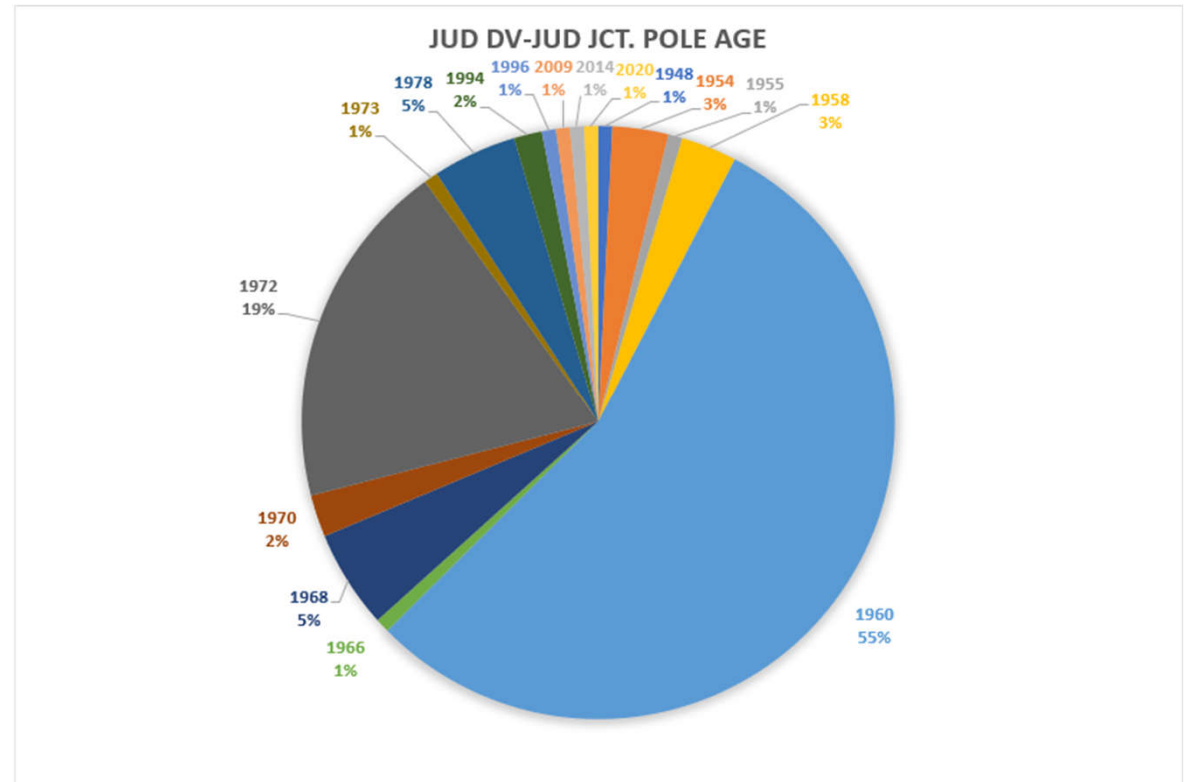
2021 frost event
created 25+
interruptions



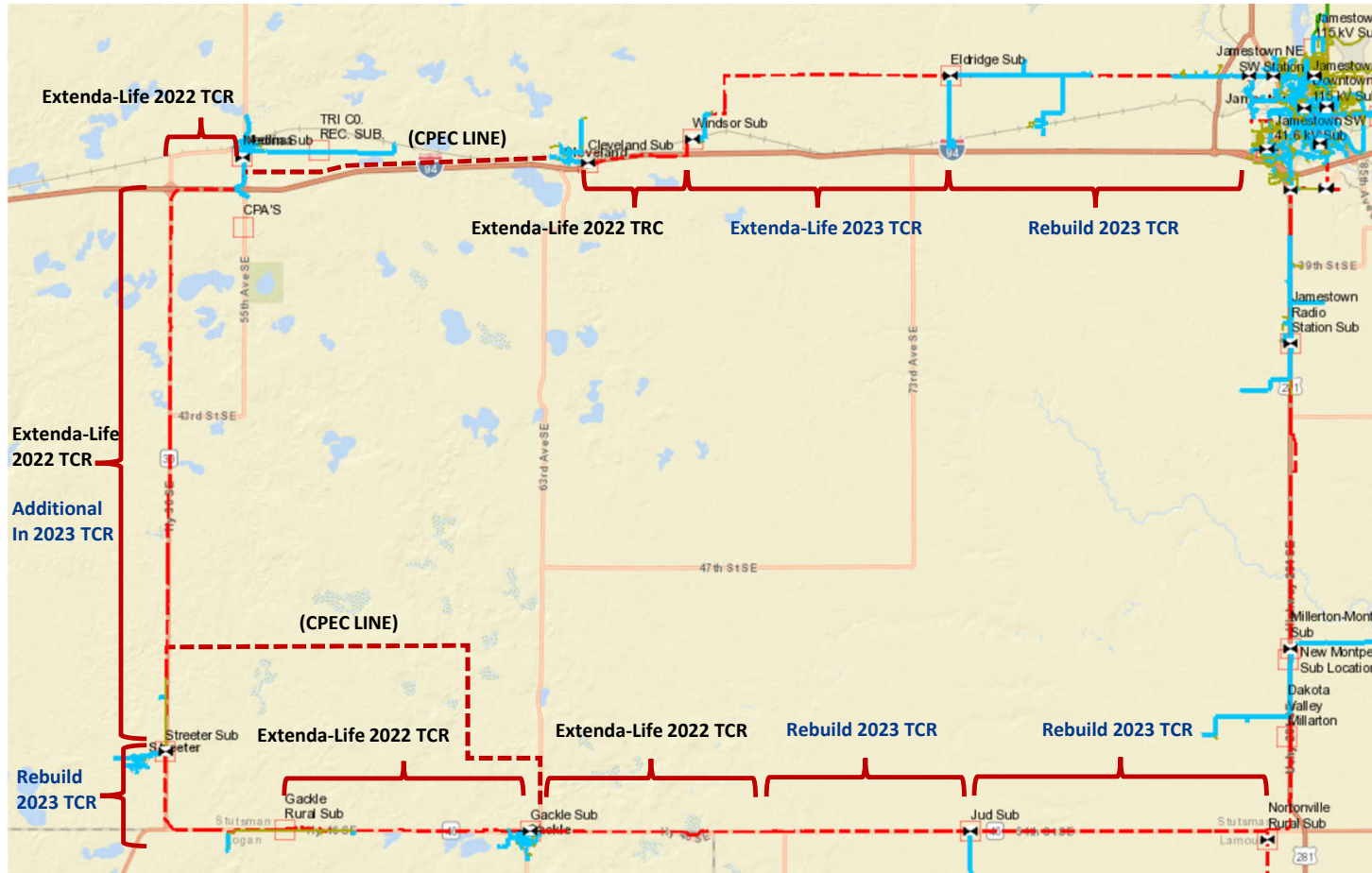
SCOPE MODIFICATION TO GACKLE RURAL LOOP

Description of Scope change

- Long term plan for this area identified the following needs:
 - 5 additional miles distribution under-build conversion to under ground (not in the TCR)
 - 16 additional miles of Extenda-Life
 - 30 additional miles complete rebuild
- We can reuse some assets to prevent rebuilding the entire loop. (~\$18M)



GACKLE RURAL LOOP SCOPE SUMMARY



- \$1.3M in 2022 TCR
 - Largely Extenda-Life type work and long spans over water
- \$7.2M in 2023 TCR
 - Largely longer-term rebuilds with some additional Extenda-Life

OSLO/LAKE ARDOCH PROJECT BUDGET UPDATE

Project Description:

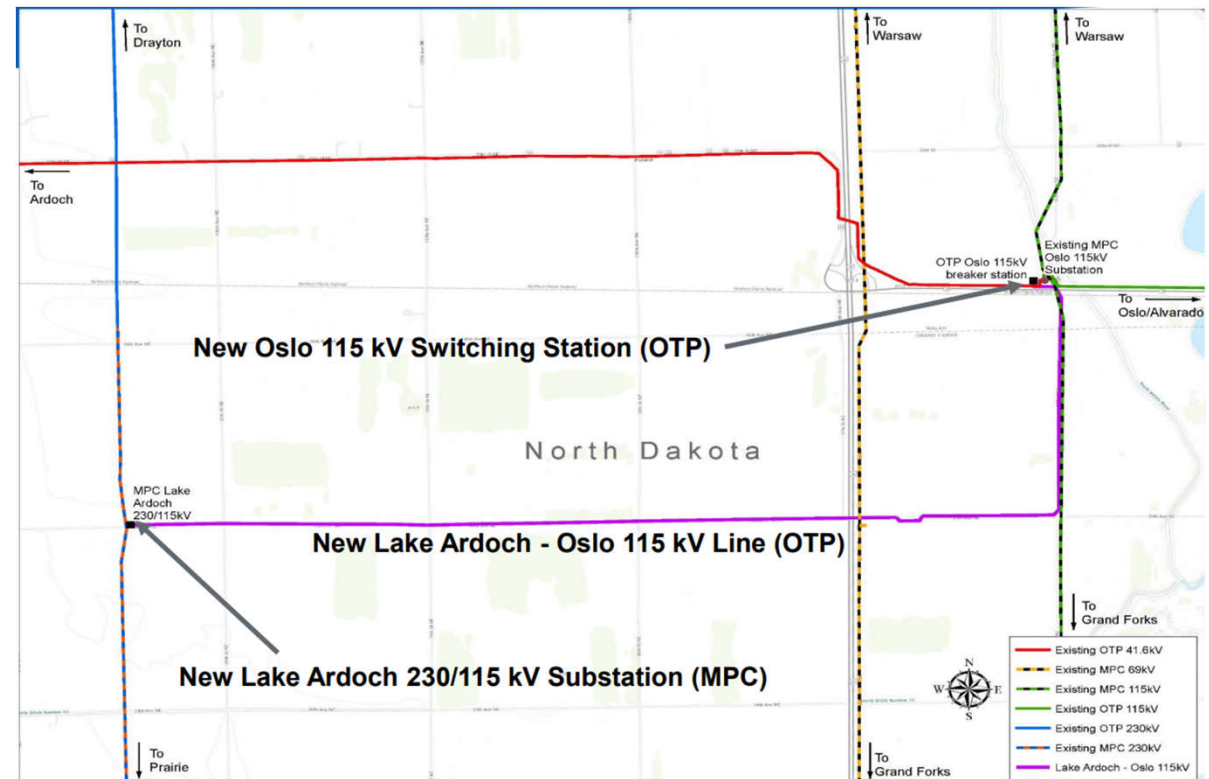
- MPC: New Lake Ardoch 230/115 kV substation along Drayton – Prairie 230 kV line
- OTP: New 115 kV breaker station near Oslo 115/41.6 kV substation
- OTP: New ~7-mile 115 kV line from Lake Ardoch to Oslo

Project Need:

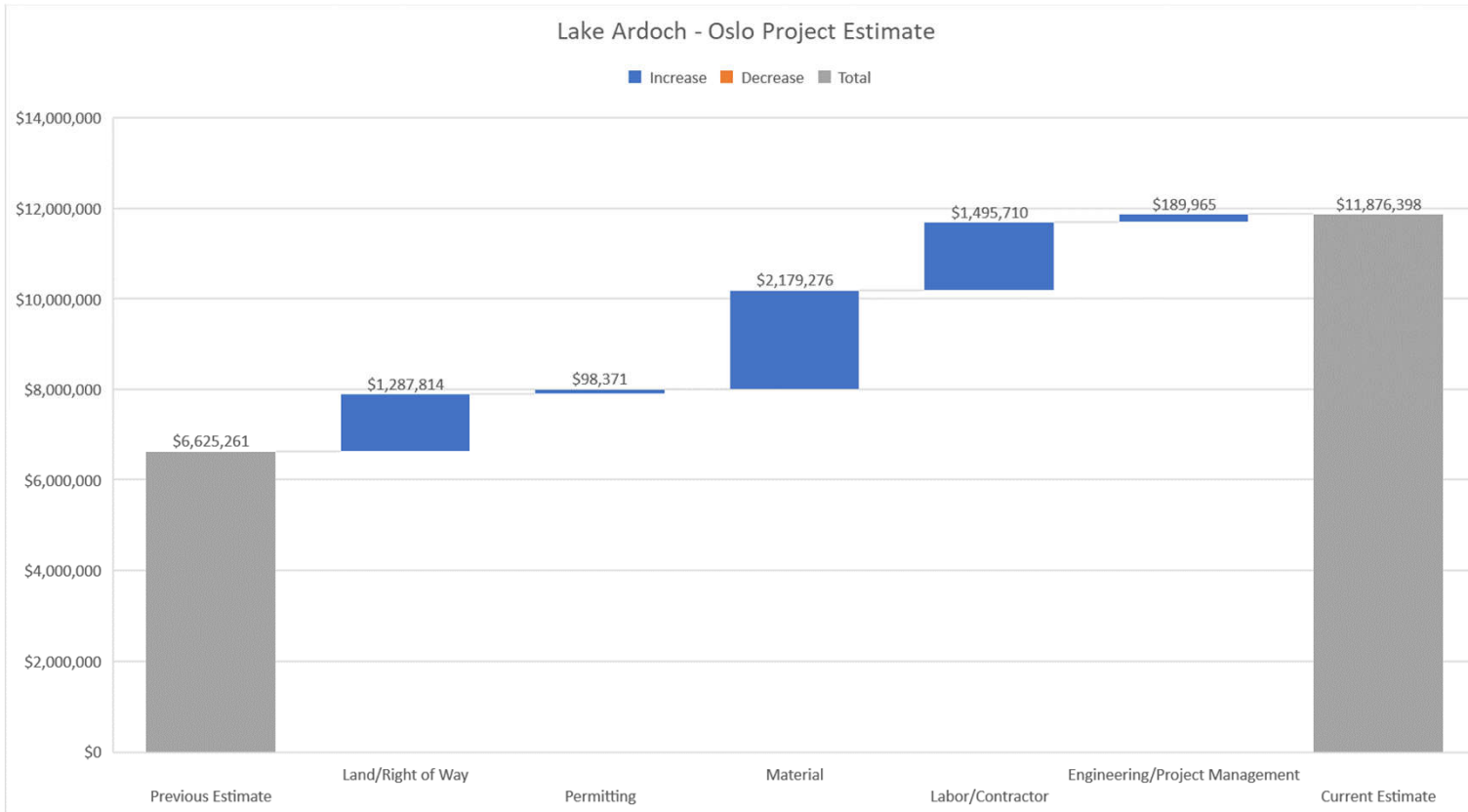
- Part of a phased transmission plan to maintain reliability in the Northwest Minnesota area
- Addresses thermal and voltage concerns in the Northwest Minnesota area for the outage of the Winger 230 kV source

2022 ND TCR:

- Approved in 2022 ND TCR Annual filing with an estimated cost of \$6.6 million (OTP)/\$2.6 million (ND) – estimate developed on a cost per mile basis, similar to projects in the past

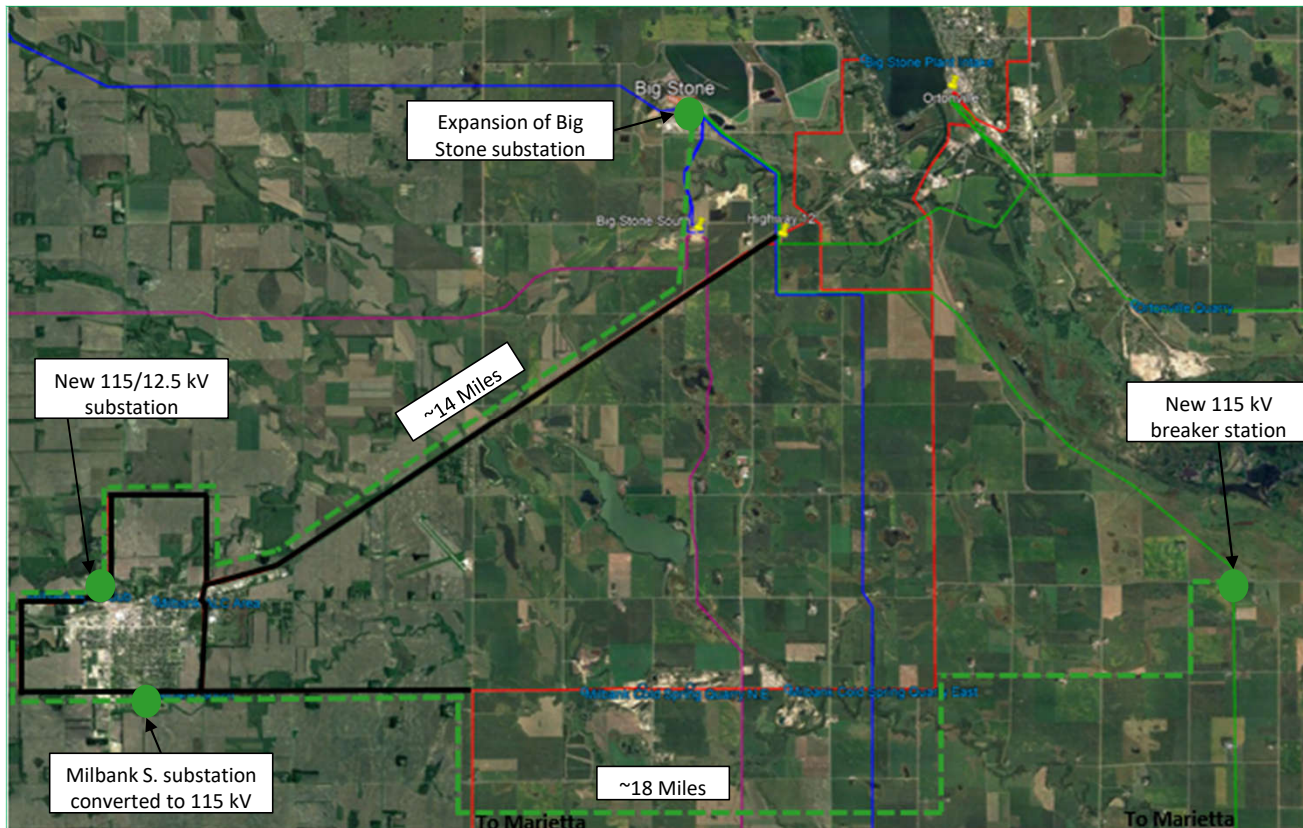


OSLO/LAKE ARDOCH PROJECT BUDGET UPDATE (CONT.)



- Construction of the project is underway and expected to be completed in late 2024.
- Estimates have been refined with updated information on the project and have increased to \$11.9M (OTP)/\$4.7M (ND).

MILBANK AREA RELIABILITY PROJECT



Project Description:

- Expansion of Big Stone substation, new 115/12.5 kV substation (near Milbank), new 115 kV breaker station (on Big Stone – Marietta 115 kV line), conversion of Milbank South substation to 115 kV
- New 115 kV line from Big Stone to new 115/12.5 kV substation to new 115 kV breaker station (~32 miles total)
- Removal of existing 41.6 kV line

Project Need:

- New load addition within Milbank, SD
- Existing 41.6 kV transmission system no longer capable of serving customers while maintaining adequate system performance

Estimate:

- \$36.2M (OTP)/\$14.3M (OTP ND)

Eliminated Project:

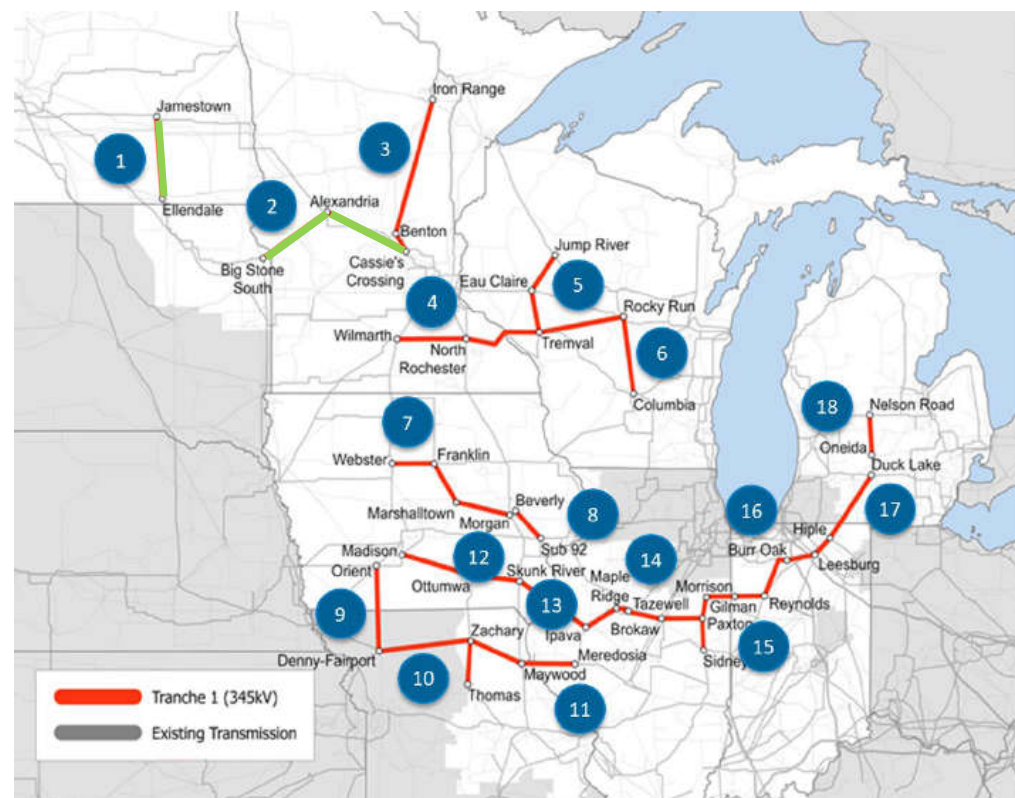
- 41.6 kV reconductor filed in 2022 TCR no longer required due to this project - \$430,000 (OTP Total)/\$172,000 (OTP ND)

MISO Approval:

- October 11, 2023 - Expedited Project Review for inclusion in MTEP23

MISO LONG RANGE TRANSMISSION PLAN TRANCHE 1 PORTFOLIO

- Consists of 18 projects approved in MTEP21 at an estimated \$10.3B
- Enables reliable and economic delivery of energy across the region
- Multi-Value Projects: Cost assigned to all electric loads within the Midwest Subregion of the MISO footprint
- OTP will have partial ownership in two projects:
 - (1) Jamestown – Ellendale 345 kV
 - (2) Big Stone South – Alexandria – Big Oaks 345 kV



JAMESTOWN TO ELLENDALE 345KV (JETX) PROJECT

Project Description:

- New ~ 95-mile 345 kV line from Jamestown to Ellendale (OTP & MDU owned)
- Expansion at OTP's Jamestown and MDU's Ellendale 345 kV substations
- Reactor addition at Twin Brooks 345 kV
- Replacement of two 345/230 kV transformers at Maple River

Constraints Alleviated*:

- Thermal and voltage constraints in the Eastern Dakotas and Western Minnesota
- Excessive loading on 40 transmission elements under N-1 and 70 transmission elements under N-1-1 system conditions
- 97 voltage violations under N-1 and 91 voltage violations under N-1-1 system conditions

Expected In-Service Date:

- Late 2028



*Constraints alleviated in conjunction with Big Stone South – Alexandria – Big Oaks 345 kV project

JAMESTOWN TO ELLENDALE 345KV (JETX) PROJECT (CONT.)

Project Estimated Cost:

- Total Estimated Project Cost at MISO Approval = \$438.7M
- OTP's portion of the project = \$187.8M

OTP Retail Share of Total Project to Rate Payers:

- OTP = \$5.2M
- OTP ND = \$2.1M

	2022-2023	2024	2025	2026	2027	2028	2029	Total
OTP Investment	\$5.3M	\$9.5M	\$30.4M	\$49.3M	\$51.2M	\$41.2M	\$0.9M	\$187.8M
OTP Retail Share	\$0.1M	\$0.3M	\$0.7M	\$1.4M	\$1.5M	\$1.2M	\$0.03M	\$5.2M
OTP ND Retail Share	\$0.04M	\$0.1M	\$0.3M	\$0.5M	\$0.6M	\$0.5M	\$0.01M	\$2.1M

BIG STONE SOUTH – ALEXANDRIA – BIG OAKS 345KV (BSSABO) PROJECT

Project Description:

- New ~ 128-mile 345 kV line from Big Stone South to Alexandria (OTP & MRES owned)
- 2nd circuit addition of ~106 miles on the existing Alexandria – Monticello 345 kV line and new (OTP, Xcel, GRE, MP, MRES)
- New ~1.5-mile 345 kV line from near Monticello to Big Oaks
- Expansion at OTP's Big Stone South and MRES's Alexandria 345 kV substations
- New Big Oaks 345 kV substation

Constraints Alleviated*:

- Thermal and voltage constraints in the Eastern Dakotas and Western Minnesota
- Excessive loading on 40 transmission elements under N-1 and 70 transmission elements under N-1-1 system conditions
- 97 voltage violations under N-1 and 91 voltage violations under N-1-1 system conditions

Expected In-Service Date:

- Big Stone South – Alexandria = 2030-2031
- Alexandria – Big Oaks = 2027



*Constraints alleviated in conjunction with Jamestown – Ellendale 345 kV project

BSSABO 345KV PROJECT (CONT.)

Project Estimated Cost:

- Total Estimated Project Cost at MISO Approval = \$573.5M
- OTP's portion of the project = \$223.3M

OTP Retail Share to Rate Payers:

- OTP = \$10M
- OTP ND = \$4M

	2022-2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
OTP Investment	\$1.1M	\$3.6M	\$21.7M	\$23.5M	\$19.6M	\$42.7M	\$48.7M	\$45.6M	\$15.2M	\$1.6M	\$223.3M
OTP Retail Share	\$.07M	\$.2M	\$1.7M	\$1.5M	\$.8M	\$1.6M	\$1.8M	\$1.7M	\$.5M	\$.06M	\$10M
OTP ND Retail Share	\$.03M	\$.09M	\$.7M	\$.6M	\$.3M	\$.6M	\$.7M	\$.7M	\$.2M	\$.02M	\$4M

RATE IMPACT REVIEW

- Total Revenue Requirement for January through December 2024 recovery period is \$4,481,941.
- The proposed updated bill impact for a residential customer using 1,000 kWh will be a decrease of \$2.39/month.
- The table below provides the Rate Comparison between the 2022 approved rates, 2023 initial filing, and the 2023 supplemental filing.

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REVIEW OF REQUEST

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