SPP Southwest Power Pool

2023 SPP TRANSMISSION EXPANSION PLAN REPORT

By SPP Engineering

Published on January 17, 2023

Version 1.1

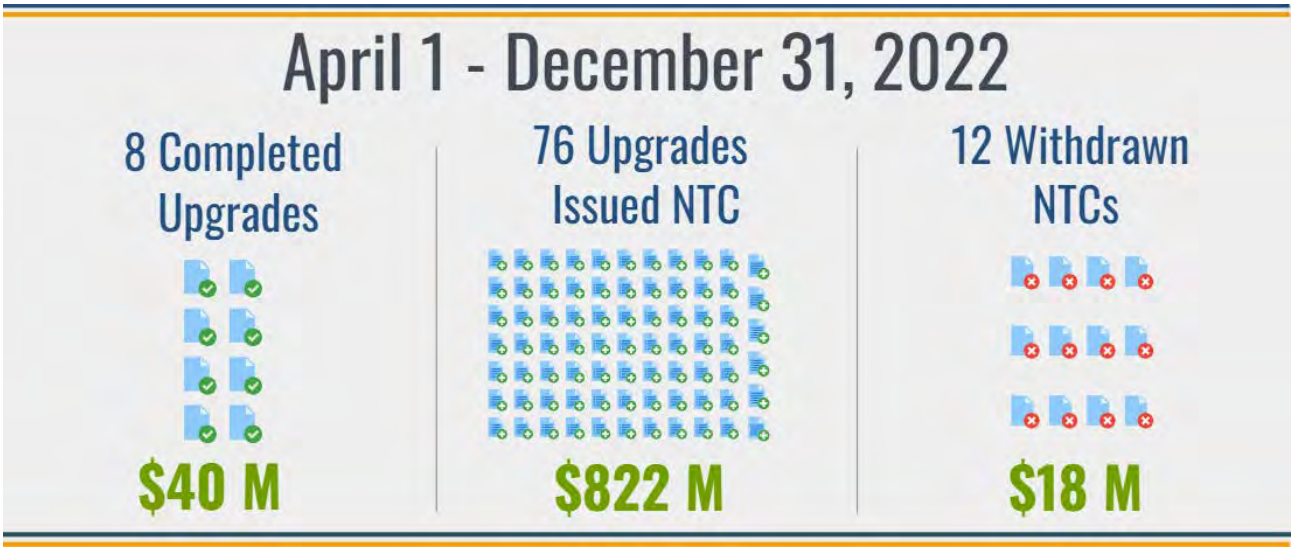
REVISION HISTORY

DATE OR VERSION NUMBER	AUTHOR	CHANGE DESCRIPTION	COMMENTS
1/17/2023	SPP Staff	Submitted to MOPC	Endorsed by MOPC
1/31/2023	SPP Staff	Submitted to Board	Approved

CONTENTS

LIST OF TABLES AND FIGURES

EXECUTIVE SUMMARY



The SPP Transmission Expansion Plan (STEP) is a comprehensive listing of all transmission projects in SPP for the 20-year planning horizon. Projects in the current portfolio include all Network Upgrades for which construction activities are ongoing or those for which construction has completed but not all closeout requirements have been fulfilled in accordance with Section 13 in Business Practice 7060.[1] Projects in the STEP portfolio include:

1. Upgrades required to satisfy requests for transmission service (TS)
2. Upgrades required to satisfy requests for generator interconnection (GI)
3. Requests pursuant to Attachment AQ of this Tariff (AQ)[2]
4. Approved projects from the Integrated Transmission Planning Assessment (ITP)
5. Upgrades within approved Balanced Portfolios (BP)[3]
6. Approved high priority upgrades (HP)
7. Endorsed Sponsored Upgrades (SP)
8. Approved Interregional Projects (IR)[3]
9. Approved projects from the 20-Year Assessment (ITP20)
10. Approved projects from Generator Retirement Process (GR)[3]

[1] SPP OATT Business Practices

[2] Pursuant to RR 467, all Upgrades resulting from under attachment AQ are tracked independently of transmission service upgrades as of 6/1/2022

[3] There are no Generator Retirement, Balanced Portfolio or Interregional projects included in the STEP report.

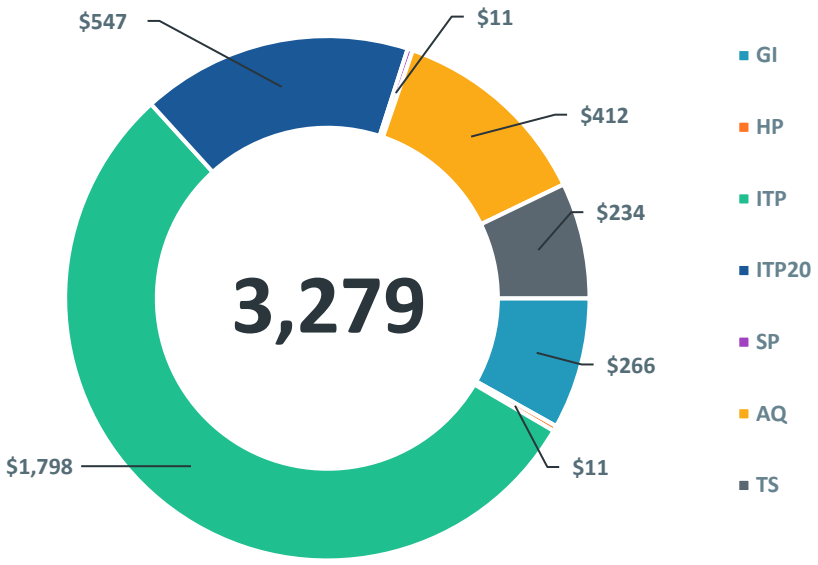


Figure 1: STEP Upgrades by Type ($ Millions)

SPP actively monitors and supports the progress of transmission expansion projects, emphasizing the importance of maintaining accountability for areas such as regional grid reliability standards, firm transmission commitments, and SPP Open Access Transmission Tariff (tariff) cost recovery. SPP staff solicits quarterly feedback from the project owners to determine the progress of each approved transmission project. This report charts the progress of all SPP transmission projects approved by the SPP Board of Directors (Board) or through a Federal Energy Regulatory Commission (FERC)-filed service agreement under the tariff. A summary of the project portfolio is also included.

Stakeholder Action Requested. We invite stakeholders and all interested parties to submit any written comments on the projects included in the STEP via the SPP Request Management System (RMS). SPP solicits feedback on proposed solutions to transmission needs through stakeholder working groups and planning summits, as well as through meetings, teleconferences, web conferences, and via email or secure web-based workspaces. These meetings provide an open forum where all stakeholders have an opportunity to provide advice and recommendations to SPP to aid in the development of the STEP. In addition to these opportunities, we also invite stakeholders to provide SPP with any transmission needs they deem to be beneficial to the transmission planning process through our website or RMS.

PORTFOLIO SUMMARY

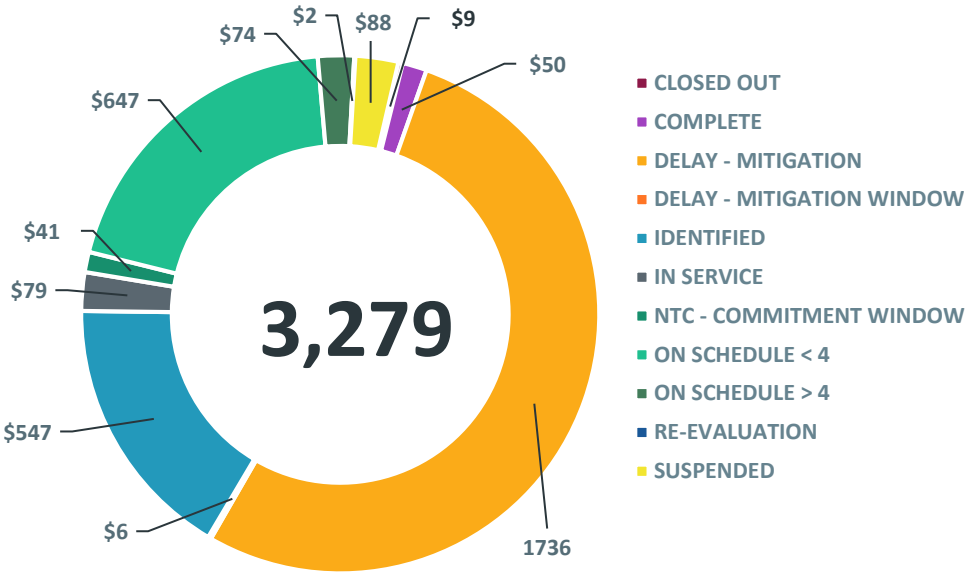


Figure 2: STEP Upgrades by Status ($ Millions)

SPP assigns a project status to all network upgrades based on the projected in-service dates provided by the Designated Transmission Owner (DTO) relative to the Need Date determined for the project. Project status definitions are provided below:

- **Closed Out:** Construction complete and in-service; all close-out requirements fulfilled. Upgrades are reported as Closed Out for one quarter and then removed from the active portfolio
- **Complete:** Construction complete and in-service
- **Delay - Mitigation:** Projected In-Service Date beyond Need Date; interim mitigation provided or project may change but time permits the implementation of project
- **Delay – Mitigation Window:** Behind schedule, interim mitigation pending or project may change but time permits the implementation of project
- **Identified:** Upgrade identified and included in Board-approved study results
- **In Service:** Upgrade is operational, but not all construction activities are complete
- **Notification to Construct with Conditions (NTC-C) Project Estimate Window:** Within the NTC-C Project Estimate (CPE) window
- **Notification to Construct (NTC) Commitment Window:** NTC/NTC-C issued, still within the 90-day written commitment to construct window and no commitment received
- **On Schedule < 4:** On Schedule within four-year horizon
- **On Schedule > 4:** On Schedule beyond four-year horizon
- **Re-evaluation:** Project active; pending re-evaluation
- **RFP Issued:** Responses for competitive upgrades are being submitted and/or reviewed
- **Suspended:** NTC/GIA suspended

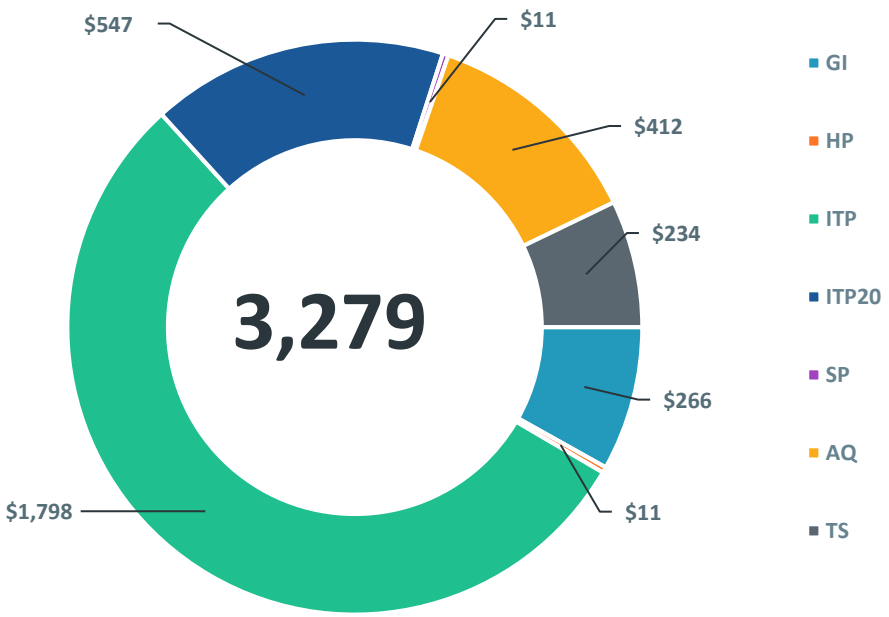


Figure 3: STEP Upgrades by Type ($ Millions)

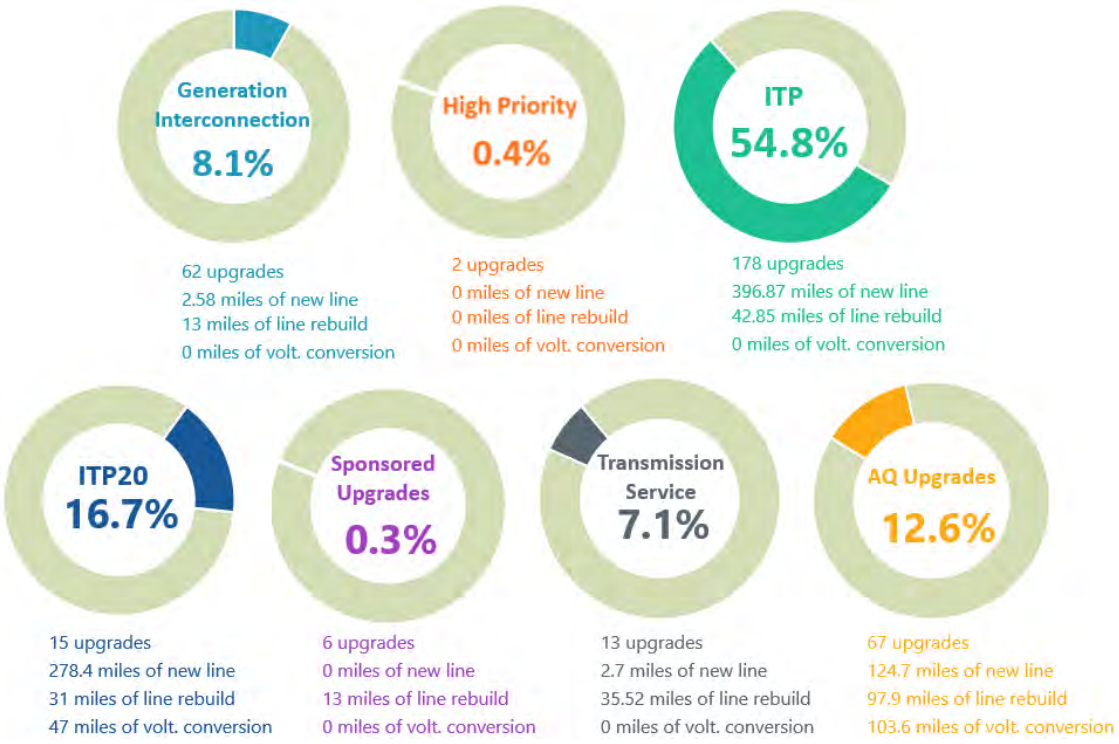


Figure 4: Upgrade Summary by Type[4]

[4] Mileage not available for all upgrade categories.

PROJECT SUMMARY

In adherence to the tariff and SPP Business Practice 7060 (BP 7060), SPP issues NTCs to DTOs to begin work on network upgrades that have been approved or endorsed by the SPP Board to meet the construction needs of the STEP, tariff, or RTO.

Figure 5 shows the estimated cost by in-service year for all network upgrades resulting from studies identified in Attachment O of the tariff. Table 1 shows all upgrade costs by upgrade status in each study. Note: Figure 5 and Table 1 provide data for all projects issued an NTC or NTC-C, included in an active Generator Interconnection Agreement (GIA), included in an approved ITP 20-Year Assessment, or identified in the tariff as a base plan upgrade. This chart includes costs for network upgrades no longer included in the active Project Tracking Portfolio.

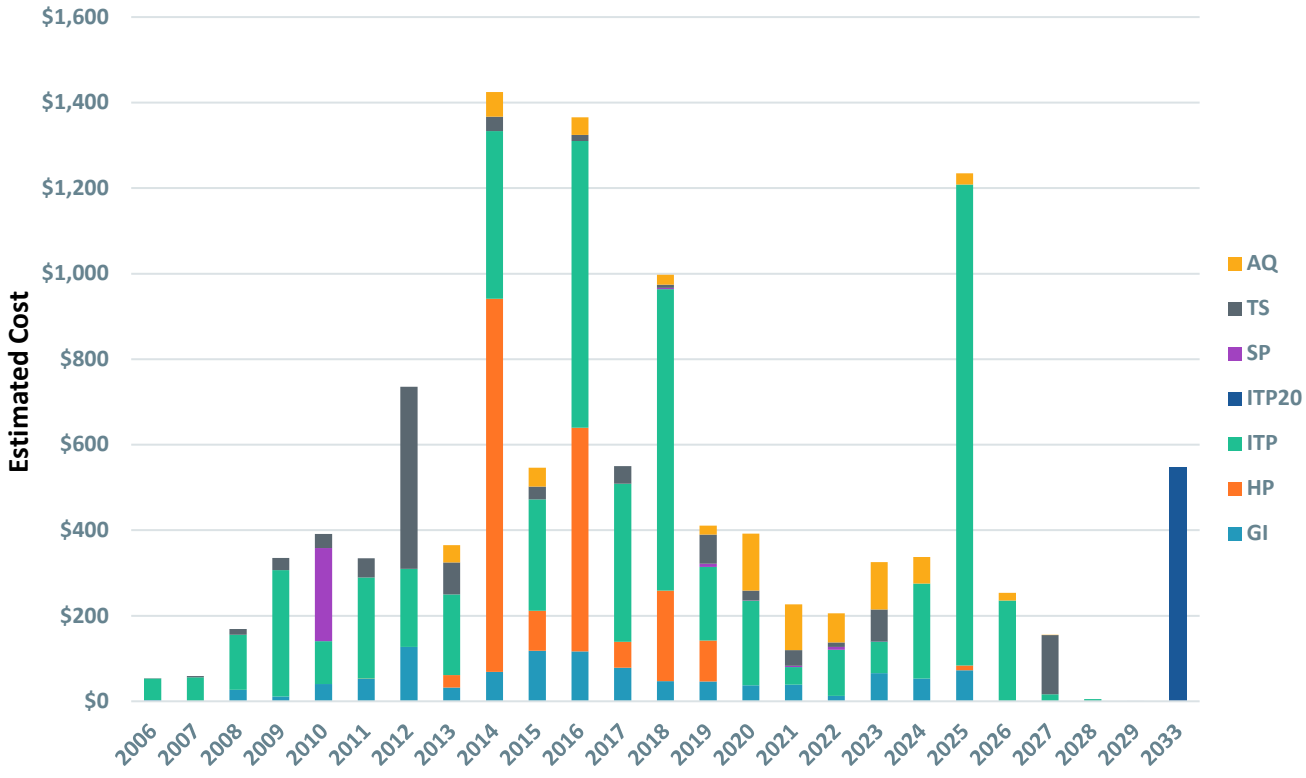


Figure 5: Upgrade Cost by In-Service Year ($ Millions)

Source Study	Complete	Closed Out	Delay	Identified	In Service	On Schedule	Re-evaluation	Suspended	Total
2006 STEP	$0	$189	$0	$0	$0	$0	$0	$0	$189
2007 STEP	$0	$494	$0	$0	$0	$0	$0	$0	$494
2008 STEP	$0	$413	$0	$0	$0	$0	$0	$0	$413
2009 STEP	$0	$548	$0	$0	$0	$0	$0	$0	$548
2010 STEP	$0	$116	$0	$0	$0	$0	$0	$0	$116
2012 ITP10	$0	$365	$451	$0	$0	$0	$0	$0	$816
2012 ITPNT	$0	$184	$0	$0	$0	$0	$0	$0	$184
2013 ITP20	$0	$0	$0	$547	$0	$0	$0	$0	$547
2013 ITPNT	$0	$489	$0	$0	$0	$0	$0	$0	$489
2014 ITPNT	$0	$439	$0	$0	$0	$0	$0	$0	$439
2015 ITP10	$0	$44	$0	$0	$0	$0	$0	$0	$44
2015 ITPNT	$0	$196	$0	$0	$0	$0	$0	$0	$196
2016 ITPNT	$0	$396	$47	$0	$0	$0	$2	$0	$446
2017 ITP10	$0	$10	$0	$0	$0	$0	$0	$0	$11
2017 ITPNT	$0	$52	$1	$0	$0	$0	$0	$0	$53
2018 ITPNT	$0	$30	$22	$0	$0	$0	$0	$0	$53
2019 ITP	$31	$3	$68	$0	$4	$215	$0	$0	$321
2020 ITP	$4	$32	$114	$0	$0	$119	$0	$9	$279
2021 ITP	$0	$0	$558	$0	$2	$39	$0	$79	$678
2022 ITP	$0	$0	$0	$0	$0	$22	$0	$0	$22
AG Studies	$6	$859	$65	$0	$0	$164	$0	$0	$1094
Balanced Portfolio	$0	$823	$0	$0	$0	$0	$0	$0	$823
DPA Studies	$5	$341	$373	$0	$3	$31	$0	$0	$754
GI Studies	$469	$329	$30	$0	$70	$167	$0	$0	$1064
HPILS	$0	$569	$11	$0	$0	$0	$0	$0	$580
IS Integration	$0	$272	$0	$0	$0	$0	$0	$0	$272
Priority Projects	$0	$1,318	$0	$0	$0	$0	$0	$0	$1318
Sponsored Upgrade	$4	$10	$0	$0	$0	$6	$0	$0	$21
Grand Total	**$519**	**$8,522**	**$1,741**	**$547**	**$79**	**$763**	**$2**	**$88**	**$12,260**

Table 1: Upgrade Cost by Study and Status ($ Millions)

NTC AND UPGRADE ACTIVITY

In adherence with the tariff and BP 7060, SPP issues NTCs to DTOs to begin work on network upgrades that have been approved or endorsed by the Board to meet the construction needs of the tariff or RTO. Figure 6 and Table 2 show completed upgrades. Figure 7 and Table 3 show upgrades issued NTCs. Figure 8 and Table 4 show upgrades where the NTC was withdrawn during the reporting period.

COMPLETED UPGRADES

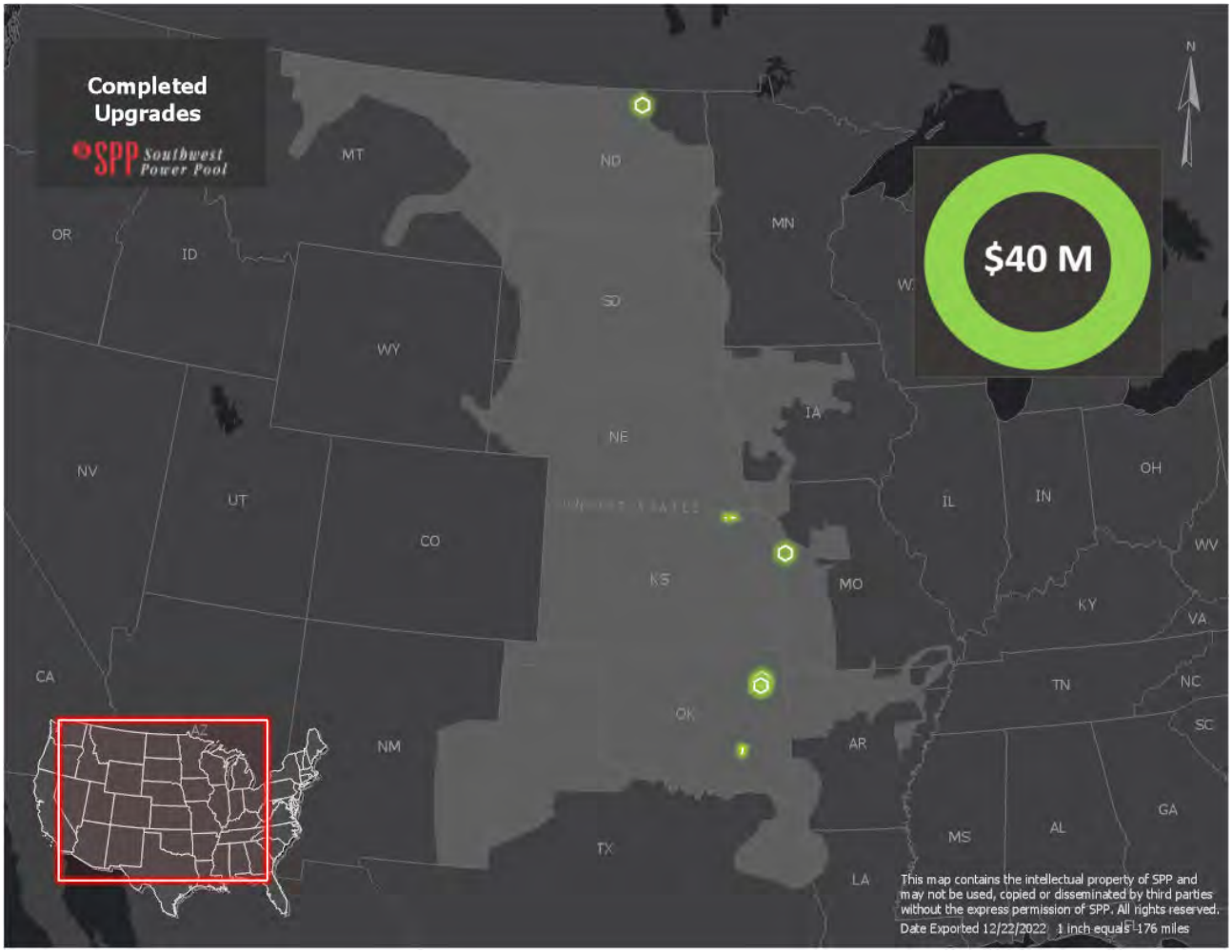


Figure 6: Completed Upgrades

NTC ID	IN SERVICE DATE	UID	OWNER	UPGRADE NAME	SOURCE STUDY	COST ESTIMATE
200386	11/20/2022	51559	AEP	Army Ammo - Savanna - Pittsburg 69 kV Ckt 1 Rebuild	2016 ITPNT	$9,226,024
210542	6/1/2022	112381	EKC	Baileyville - South Seneca 115kV Ckt 1	2019 ITP	$4,086,989
210544	6/1/2022	112488	AEP	Pryor Junction 138/115 kV Transformer	2019 ITP	$9,155,167
210605	6/1/2022	112383	EKC	Multi-Marshall County - Baileyville - South Seneca 115 kV	2019 ITP	$14,299,391
210578	6/30/2022	122801	GRDA	GRDA1 345 kV Terminal Upgrades Transformer Ckt 2	2020 ITP	$312,000
210578	6/30/2022	122802	GRDA	GRDA1 161 kV Terminal Upgrades Transformer Ckt 2	2020 ITP	$453,000
210583	6/1/2022	122806	EM	Leeds 161 kV Breaker	2020 ITP	$300,000
210591	9/26/2022	143162	CPEC	Agate 115 kV Reactor	2020 ITP	$2,000,000
8 Upgrade(s) Completed						**$39,832,571**

Table 2: Completed Upgrades

UPGRADES APPROVED FOR CONSTRUCTION

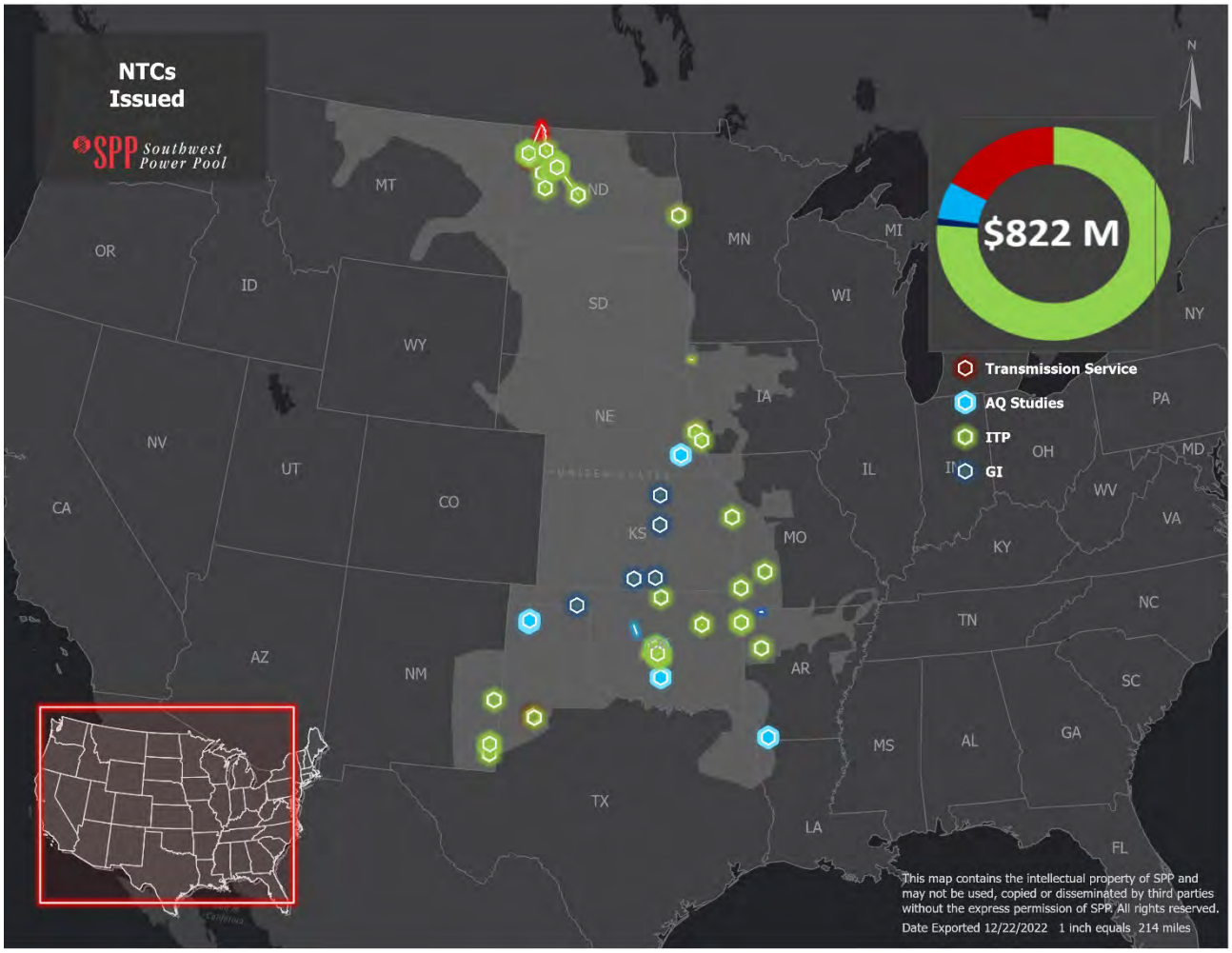


Figure 7: NTCs Issued

NTC ID	NTC ISSUE DATE	UID	OWNER	UPGRADE NAME	SOURCE STUDY	COST ESTIMATE OF NEW UPGRADES	COST ESTIMATE OF PREVIOUSLY APPROVED UPGRADES
210670	4/28/2022	133085	NEET	Minco - Pleasant Valley 345 kV Ckt 1	2020 ITP	$38,537,430	$0
210670	4/28/2022	133106	NEET	Draper - Pleasant Valley 345 kV Ckt 2	2020 ITP	$16,516,041	$0
210663	7/12/2022	144148	MWE	E Newtown 115 kV New Statcom	2021 ITP	$22,213,115	$0

NTC ID	NTC ISSUE DATE	UID	OWNER	UPGRADE NAME	SOURCE STUDY	COST ESTIMATE OF NEW UPGRADES	COST ESTIMATE OF PREVIOUSLY APPROVED UPGRADES
210663	7/12/2022	144163	MWE	Folvag 115 kV Terminal Equipment	2021 ITP	$613,746	$0
210663	7/12/2022	144177	MWE	NE Williston - Folvag 115 kV New Line	2021 ITP	$6,490,000	$0
210663	7/12/2022	144178	MWE	NE Williston 115 kV Terminal Equipment	2021 ITP	$596,597	$0
210663	7/12/2022	144199	MWE	East Fork 115 kV Terminal Equipment	2021 ITP	$2,511,246	$0
210663	7/12/2022	144202	MWE	E Newtown 115 kV Substation	2021 ITP	$1,087,789	$0
210663	7/12/2022	144226	MWE	Finstad - Vanhook 115 kV New Line	2021 ITP	$4,702,500	$0
210663	7/12/2022	144239	MWE	Vanhook 115 kV Terminal Equipment	2021 ITP	$3,811,190	$0
210675	7/12/2022	143588	BEPC	Kummer Ridge - Round Up 345 kV	2021 ITP	$78,293,357	$0
210675	7/12/2022	143589	BEPC	Kummer Ridge 345 kV Terminal Upgrades	2021 ITP	$342,000	$0
210675	7/12/2022	143590	BEPC	Round Up 345 kV Terminal Upgrades	2021 ITP	$342,000	$0
210675	7/12/2022	143714	BEPC	Finstad - Tande 345 kV New Line	2021 ITP	$67,411,405	$0
210675	7/12/2022	144171	BEPC	East Fork 345/115 kV Substation	2021 ITP	$17,766,381	$0
210675	7/12/2022	144198	BEPC	East Fork 345/115 kV Transformer	2021 ITP	$5,904,650	$0
210675	7/12/2022	144227	BEPC	Finstad 115 kV Substation	2021 ITP	$4,675,697	$0

NTC ID	NTC ISSUE DATE	UID	OWNER	UPGRADE NAME	SOURCE STUDY	COST ESTIMATE OF NEW UPGRADES	COST ESTIMATE OF PREVIOUSLY APPROVED UPGRADES
210675	7/12/2022	144230	BEPC	Finstad 345 kV New Substation	2021 ITP	$18,822,018	$0
210675	7/12/2022	144231	BEPC	Finstad Switched Shunt	2021 ITP	$385,021	$0
210675	7/12/2022	144233	BEPC	Finstad 345/115 kV Ckt 1 Transformer	2021 ITP	$5,315,254	$0
210675	7/12/2022	144235	BEPC	Finstad 345/115 kV Ckt 2 Transformer	2021 ITP	$5,315,254	$0
210675	7/12/2022	144236	BEPC	Leland Olds - Finstad - 345 kV New Line	2021 ITP	$200,761,539	$0
210675	7/12/2022	144237	BEPC	Leland Olds 345 kV Substation	2021 ITP	$9,277,339	$0
210675	7/12/2022	144238	BEPC	Tande 345 kV Terminal Equipment	2021 ITP	$5,085,047	$0
210680	7/19/2022	143660	OPPD	S3454 - S3740 345 kV New Line	2021 ITP	$64,071,687	$0
210680	7/19/2022	143661	OPPD	S3454 345 kV Terminal Upgrades	2021 ITP	$2,070,042	$0
210680	7/19/2022	143662	OPPD	S3740 345 kV Terminal Upgrades	2021 ITP	$1,786,830	$0
210681	9/12/2022	156407	SPS	Crossroads 345 kV ckts 1 & 2 Terminal Equipment	2021 ITP	$4,665,965	$0
210681	9/12/2022	156408	SPS	Hobbs 345 kV ckts 1 & 2 Terminal Equipment #1	2021 ITP	$4,665,964	$0
210681	9/12/2022	156409	SPS	Hobbs 345 kV ckts 1 & 2 Terminal Equipment #2	2021 ITP	$4,665,965	$0

NTC ID	NTC ISSUE DATE	UID	OWNER	UPGRADE NAME	SOURCE STUDY	COST ESTIMATE OF NEW UPGRADES	COST ESTIMATE OF PREVIOUSLY APPROVED UPGRADES
210681	9/12/2022	156410	SPS	Roadrunner 345 kV ckts 1 & 2 Terminal Equipment	2021 ITP	$4,665,964	$0
210708	12/9/2022	156293	AEP	Siloam Springs 161 kV Terminal Upgrade	2022 ITP	$698,030	$0
210708	12/9/2022	156299	AEP	36th & Lewis - 52nd & Delaware Tap 138 kV Ckt 1 Rebuild	2022 ITP	$4,951,250	$0
210708	12/9/2022	156300	AEP	36th & Lewis 138 kV Ckt 1 Terminal Upgrade	2022 ITP	$540,691	$0
210709	12/9/2022	156359	EDE	Dadeville 161 kV Breaker	2022 ITP	$714,104	$0
210709	12/9/2022	156360	EDE	Joplin 69 kV Breaker	2022 ITP	$1,719,120	$0
210709	12/9/2022	156361	EDE	Ozark Dam 161 kV Breaker	2022 ITP	$714,104	$0
210710	12/9/2022	156289	EM	Craig 345 kV Relay	2022 ITP	$200,000	$0
210711	12/9/2022	156294	GRDA	Siloam Springs City 161 kV Terminal Upgrade	2022 ITP	$324,000	$0
210712	12/9/2022	156320	NIPCO	Eagle - J1 Center 69 kV Ckt 1 rebuild	2022 ITP	$1,644,058	$0
210713	12/9/2022	156369	OGE	Westmoore - Westmoore Tap 138 kV Ckt 1 Rebuild	2022 ITP	$1,000,000	$0
210713	12/9/2022	156370	OGE	Westmoore 138 kV Terminal Upgrade	2022 ITP	$750,000	$0

NTC ID	NTC ISSUE DATE	UID	OWNER	UPGRADE NAME	SOURCE STUDY	COST ESTIMATE OF NEW UPGRADES	COST ESTIMATE OF PREVIOUSLY APPROVED UPGRADES
210713	12/9/2022	156371	OGE	Westmoore Tap 138 kV Terminal Upgrade	2022 ITP	$650,000	$0
210713	12/9/2022	156372	OGE	West Oak 138 kV Breaker #1	2022 ITP	$462,388	$0
210713	12/9/2022	156373	OGE	West Oak 138 kV Breaker #2	2022 ITP	$462,388	$0
210713	12/9/2022	156375	OGE	Cherry Creek 138 kV Breaker	2022 ITP	$462,388	$0
210713	12/9/2022	156376	OGE	Indian Hill 138 kV Breaker	2022 ITP	$462,388	$0
210713	12/9/2022	156377	OGE	Turner 138 kV Breaker	2022 ITP	$462,388	$0
210714	12/9/2022	156288	SPS	Lea Road 115 kV Capacitor Bank	2022 ITP	$5,009,320	$0
210714	12/9/2022	156374	SPS	Lubbock South 115 kV Breaker	2022 ITP	$467,987	$0
210715	12/9/2022	156282	WAPA	Fargo 230 kV Terminal Upgrade	2022 ITP	$2,406,249	$0
210677	6/22/2022	143117	OGE	Degrasse345 kV Substation	DISIS-2017-001	$30,000	$0
210678	6/29/2022	143265	AEP	Eureka Springs 161 kV	DISIS-2017-001	$50,000	$0
210697	9/23/2022	144326	OGE	Badger 345 kV Substation Reconfiguration	DISIS-2017-001	$8,500,000	$0
210704	10/16/2022	143125	OGE	Viola 345 kV Substation	DISIS-2017-001	$20,000	$0
210717	12/13/2022	143151	EKC	Summit 345 kV GEN-2017-004 Interconnection (Non-Shared Network Upgrade (NU)) (EKC)	DISIS-2017-001	$24,937	$0

NTC ID	NTC ISSUE DATE	UID	OWNER	UPGRADE NAME	SOURCE STUDY	COST ESTIMATE OF NEW UPGRADES	COST ESTIMATE OF PREVIOUSLY APPROVED UPGRADES
210682	8/12/2022	71966	NPPD	Monolith 115 kV Substation Upgrades	DPA-2016-December-703	$0	$13,329,402
210682	8/12/2022	71967	NPPD	Sheldon - Monolith 115 kV Ckt 1 New Line	DPA-2016-December-703	$0	$1,605,462
210669	4/28/2022	72016	WFEC	Okeene - Watonga SW 138 kV Ckt 1 Voltage Conversion	DPA-2017-August-767-774-776	$0	$8,600,000
210718	12/20/2022	156387	SPS	3 Bear Libby – Pearl 115 kV	DPA-2021-December-1478	$1,139,526	$0
210706	10/26/2022	144206	SPS	Wilco 115 kV Substation	DPA-2021-Feb-1279-1280	$0	$9,044,750
210706	10/26/2022	144207	SPS	RB-Exum - Twist 115 kV Ckt 1 New Line	DPA-2021-Feb-1279-1280	$0	$3,622,274
210706	10/26/2022	144208	SPS	T47 - Twist 115 kV Ckt 1 New Line	DPA-2021-Feb-1279-1280	$0	$3,315,173
210665	4/18/2022	144276	WFEC	Elmore 69 kV Terminal Upgrades	DPA-2021-June-1332	$228,000	$0
210665	4/18/2022	144277	WFEC	Bradly Tap 69 kV Cap Bank	DPA-2021-June-1332	$803,000	$0
210664	4/14/2022	144278	OGE	West Oaks Terminal Upgrades	DPA-2021-March-1296	$400,000	$0
210664	4/14/2022	144279	OGE	Classen 138 kV Terminal Upgrades	DPA-2021-March-1296	$600,000	$0
210664	4/14/2022	144280	OGE	Council - Mustang 138 kV Ckt 1 Reconductor	DPA-2021-March-1296	$1,390,000	$0

NTC ID	NTC ISSUE DATE	UID	OWNER	UPGRADE NAME	SOURCE STUDY	COST ESTIMATE OF NEW UPGRADES	COST ESTIMATE OF PREVIOUSLY APPROVED UPGRADES
210664	4/14/2022	144281	OGE	Classen - Douglas Tap 138 kV Reconductor	DPA-2021-March-1296	$790,000	$0
210664	4/14/2022	156835	OGE	Council – West Oaks 138 kV Ckt 1 Reconductor	DPA-2021-March-1296	$1,390,000	$0
210674	5/18/2022	156240	BEPC	Boundary Dam - Tande 230 kV Ckt 1	SPP-2021-AG2	$62,383,000	$0
210674	5/18/2022	156241	BEPC	Tande 230 kV Terminal Equipment	SPP-2021-AG2	$2,476,563	$0
210674	5/18/2022	156248	BEPC	Boundary Dam - Wheelock 230 kV Ckt 1	SPP-2021-AG2	$70,998,000	$0
210674	5/18/2022	156249	BEPC	Wheelock 230 kV Terminal Upgrade	SPP-2021-AG2	$2,476,563	$0
210679	6/30/2022	156334	MWE	Twelve Mile 115 kV Capacitor Bank	SPP-2021-AG2	$571,195	$0
210716	11/29/2022	156844	OPPD	S1254 - S1281 161 kV Ckt 1 Reconductor	SPP-2022-AG1-AFS-2	$1,171,441	$0
76 Upgrade(s) Issued						**$782,912,111**	**$39,517,061**

Table 3: NTCs Issued

NTCS WITHDRAWN

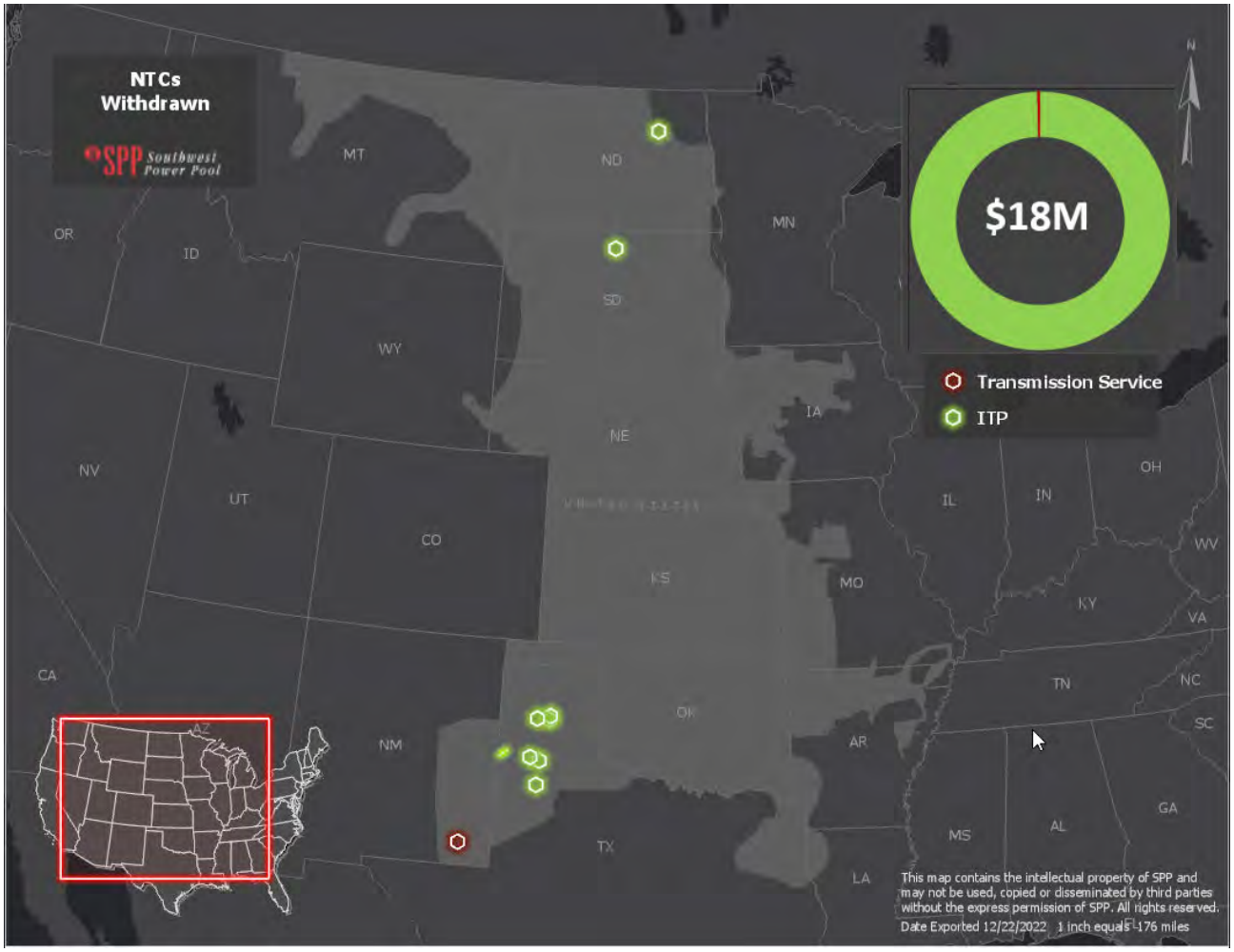


Figure 8: NTCs Withdrawn

NTC ID	NTC WITHDRAWN DATE	UID	OWNER	UPGRADE NAME	SOURCE STUDY	COST ESTIMATE OF WITHDRAWN UPGRADES
210671	5/3/2022	51170	SPS	Amarillo South 230 kV Terminal Upgrades	2015 ITPNT	$31,198
210668	4/27/2022	51623	SPS	Tuco - Stanton 115 kV Terminal Upgrades	2017 ITP10	$283,963
210668	4/27/2022	61836	SPS	Martin - Pantex North 115 kV Terminal Upgrades	2017 ITP10	$324,392
210668	4/27/2022	61837	SPS	Pantex South - Highland Tap 115 kV Terminal Upgrades	2017 ITP10	$324,392

NTC ID	NTC WITHDRAWN DATE	UID	OWNER	UPGRADE NAME	SOURCE STUDY	COST ESTIMATE OF WITHDRAWN UPGRADES
210672	5/5/2022	143161	WAPA	Devil's Lake 115 kV Reactor	2020 ITP	$3,171,019
210705	12/8/2022	122870	SPS	Newhart - Potter 230 kV Terminal Upgrades	2020 ITP	$1,280,285
210705	12/8/2022	143168	SPS	Cargill - Deaf Smith #24 115 kV Ckt 1 Rebuild	2020 ITP	$5,378,526
210705	12/8/2022	143169	SPS	Parmer - Deaf Smith #24 115 kV Ckt 1 Rebuild	2020 ITP	$999,423
210705	12/8/2022	143170	SPS	Parmer - Deaf Smith #20 115 kV Ckt 1 Rebuild	2020 ITP	$5,293,163
210707	12/8/2022	122733	BEPC	Whitlock 230 kV Terminal Upgrades	2021 ITP	$614,000
210666	4/27/2022	11027	SPS	East Plant 115 kV Terminal Upgrade	SPP-2014-AG1-AFS-6	$5,000
210667	4/27/2022	51409	SPS	Potash Junction 230 kV Terminal Upgrade	SPP-2014-AG1-AFS-6	$63,251
12 Upgrade(s) Withdrawn						**$17,768,612**

Table 4: NTCs Withdrawn

STUDY OVERVIEWS

TRANSMISSION SERVICE STUDIES

The Transmission Services department evaluates long-term requests for network integration and point-to-point transmission service through various processes, including the Aggregate Transmission Service Study (ATSS) process under Attachment Z1 of the tariff, performs screening studies through the Delivery Point Transfer (DPT) and Long-Term Service Request (LTSR) processes under Attachment AR of the tariff and Delivery Point Addition (DPA) studies under Attachment AQ of the tariff. Links to studies posted during the reporting period are below.

COMPLETED AGGREGATE FACILITY STUDIES

2022-AG1-AFS-2	Report Tables	Facility Log
2021-AG1-AFS-1	Report Tables	Facility Log

ATTACHMENT AR STUDIES

2022 Delivery Point Transfer Request
SPP-DPT-2022-001
SPP-DPT-2022-002

2022 Long Term Service Request
LTSR-2022-001
LTSR-2022-002
LTSR-2022-003
LTSR-2022-004
LTSR-2022-005

ATTACHMENT AQ REQUESTS

2020 Delivery Point Addition Studies
2021 Delivery Point Addition Studies
2022 Delivery Point Addition Studies

GENERATOR INTERCONNECTION STUDIES

SPP's Generator Interconnection team creates stakeholder value by evaluating impacts of connecting new power sources to the existing transmission system. We facilitate agreements between generation producers and transmission owners while ensuring positive outcomes for the regional power grid. Links to studies posted during the reporting period are below.

Generator Interconnection Studies

TRANSMISSION PLANNING (ITP)

SPP Board approved the 2021 Intergated Transmission Plan (ITP) Futher Evaluation and 2022 ITP Assessment reports and portfolios on July 26, 2022 and October 25, 2022, respectively.

2021 ITP Report & Addendum v2.0
2022 ITP Report v1.0

BALANCED PORTFOLIO

SPP did not perform a Balanced Portfolio study during the reporting period.

HIGH PRIORITY STUDIES

SPP did not perform a High Priority study during the reporting period.

SPONSORED UPGRADE STUDIES

Study Name	ILTCRs Studied	Study Report Final	Board Approval
SUS-024 Oktaha Sub	No	2/15/2022	4/26/2022
SUS-025 Warrensburg to WAFB West to Sedalia	Yes[5]	4/26/2022	7/26/2022
SUS-026 Antelope to Holt 345 kV	Yes[5]	6/12/2022	7/26/2022
SUS-027 Fort Thompson XFMR Upgrade	Yes[5]	6/12/2022	7/26/2022
SUS-030 Beeline Nation Jamesville	No	6/6/2022	7/26/2022
SUS-035 Cimarron XFMR	Yes[5]	12/6/2022	Pending Board Approval

[5] Documents contains ILTCR information

INTERREGIONAL STUDIES

SPP coordinates interregional transmission planning activities with neighboring Planning Regions as approved by the FERC for purposes of Order 1000. Furthermore, SPP coordinates interregional planning and operations activities across all applicable areas of the organization in accordance with SPP's Joint Operating Agreements (JOAs) and other similar coordination arrangements that may not be required by FERC Order 1000.

Throughout 2022, SPP continued collaboration with Midcontinent Independent System Operator (MISO) through refining the Joint Targeted Interconnection Queue (JTIQ) project portfolio and completing a limited Coordinated System Plan (CSP) study for the purposes of developing a Targeted Market Efficiency Project (TMEP) process. Furthermore, SPP and Associated Electric Cooperative, Inc. (AECI) completed the bulk of analysis required for a Joint and Coordinated System Plan (JCSP) study in accordance with the AECI-SPP JOA.

The JTIQ portfolio was revised from seven projects to five projects, reducing the planning level estimated cost of the portfolio to $1.06 billion. The recommended JTIQ portfolio is expected to fully address the set of transmission constraints evaluated in the JTIQ Study as being significant barriers to the development of new generation along the MISO-SPP seam. A link to the JTIQ study report and updated whitepaper is available on the Interregional Relations page on spp.org[6].

SPP and MISO utilized the 2022 CSP study to develop a new process in an effort to identify mutually beneficial transmission improvements within MISO and SPP's transmission systems that address historical market-to-market (M2M) congestion. As part of the CSP scope, MISO and SPP focused efforts on utilizing the FERC-approved MISO-PJM TMEP process as a template for developing a similar process to apply to the MISO-SPP seam. SPP and MISO utilized actual historical market congestion costs that are reasonably expected to persist on MISO and SPP M2M flowgates to evaluate the potential to recommend quickly implementable, cost-effective, low risk upgrades to the transmission system to address the historical congestion. MISO and SPP staff will continue to coordinate the necessary governing document revisions (JOA and respective RTO tariffs) required to implement the newly developed MISO-SPP TMEP process with a goal of filing revisions with FERC in the first half of 2023. The initial TMEP assessment did not identify any projects that met the criteria for approval recommendation to the respective RTO boards.

The bulk of analysis required for the 2022 AECI-SPP JCSP has been completed and AECI and SPP are continuing to discuss the results and the potential for mutually beneficial projects resulting from the completed analysis. SPP will continue to discuss with the appropriate stakeholder groups the potential for projects to be recommended out of the 2022 AECI-SPP JCSP study.

[6] https://www.spp.org/spp-documents-filings/?id=20050

In addition to work with MISO and AECI, SPP also participated in planning coordination the Southeastern Regional Transmission Planning (SERTP) group in accordance with Addendum 4 to Attachment O of the SPP Tariff.

20-YEAR ASSESSMENT

SPP did not perform a 20-Year Assessment during the reporting period.

APPENDIX 1

(See accompanying list of STEP Projects)