

Portfolio Proposal 3: Year 2032 + 4 GW Area 229 Essential Reliability Solution

General Information

Proposing entity name	Proprietary Information
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Proprietary Information
Company proposal ID	Proprietary Information
PJM Proposal ID	853
Project title	Portfolio Proposal 3: Year 2032 + 4 GW Area 229 Essential Reliability Solution
Project description	Portfolio Proposal 3 (Year 2032 + 4 GW Area 229 Essential Reliability Solution) Combine the following individual proposals 2025-W1-317 2025-W1-422 2025-W1-333 2025-W1-688 2025-W1-16 2025-W1-946 2025-W1-958 2025-W1-647 2025-W1-588 Add one 500 kV 4,000 amp circuit breaker, two 500 kV 4,000 amp MODs, and a Kelayres 890 MVA 500/230 kV T3 transformer.
Email	Proprietary Information
Project in-service date	05/2030
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	Proprietary Information

Project Components

1. Portfolio 3: Year 2032 + 4 GW Area 229 Essential Reliability Solution
2. Kelayres 500 kV yard expansion

Substation Upgrade Component

Component title	Portfolio 3: Year 2032 + 4 GW Area 229 Essential Reliability Solution
Project description	Proprietary Information
Substation name	N/A
Substation zone	N/A
Substation upgrade scope	Portfolio Proposal 3 (Year 2032 + 4 GW Area 229 Essential Reliability Solution) Combine the following individual proposals 2025-W1-317 2025-W1-422 2025-W1-333 2025-W1-688 2025-W1-16 2025-W1-946 2025-W1-958 2025-W1-647 2025-W1-588
Transformer Information	
None	
New equipment description	N/A
Substation assumptions	N/A
Real-estate description	N/A
Construction responsibility	Proprietary Information
Benefits/Comments	Proprietary Information
Component Cost Details - In Current Year \$	
Engineering & design	Proprietary Information
Permitting / routing / siting	Proprietary Information
ROW / land acquisition	Proprietary Information
Materials & equipment	Proprietary Information
Construction & commissioning	Proprietary Information
Construction management	Proprietary Information
Overheads & miscellaneous costs	Proprietary Information
Contingency	Proprietary Information

Total component cost	\$768,924,677.73
Component cost (in-service year)	\$830,680,961.64
Substation Upgrade Component	
Component title	Kelayres 500 kV yard expansion
Project description	Proprietary Information
Substation name	Kelayres 500/230 kV Substation
Substation zone	PPL EU
Substation upgrade scope	Add one 500 kV 4,000 amp circuit breaker, two 500 kV 4,000 amp MODs, and a Kelayres 890 MVA 500/230 kV T3 transformer.
Transformer Information	
None	
New equipment description	One 500 kV 4,000 amp circuit breaker Two 500 kV 4,000 amp MODs One 890 MVA 500/230 kV T3 transformer
Substation assumptions	Site secured under Supplemental Project s3549.2. Space available for expansion on existing site.
Real-estate description	No new real estate is required to accommodate this project.
Construction responsibility	Proprietary Information
Benefits/Comments	Proprietary Information
Component Cost Details - In Current Year \$	
Engineering & design	Proprietary Information
Permitting / routing / siting	Proprietary Information
ROW / land acquisition	Proprietary Information
Materials & equipment	Proprietary Information
Construction & commissioning	Proprietary Information

Construction management	Proprietary Information
Overheads & miscellaneous costs	Proprietary Information
Contingency	Proprietary Information
Total component cost	\$29,020,173.00
Component cost (in-service year)	\$33,976,616.79

Congestion Drivers

None

Existing Flowgates

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N11-WVM210407	210407	APPE	210407	APPE	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM210432	210432	BART TP1	210432	BART TP1	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM210433	210433	BART 1	210433	BART 1	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM207967	207967	LOFT	207967	LOFT	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM207969	207969	TRES	207969	TRES	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM208072	208072	SIEG	208072	SIEG	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM210406	210406	APPE TP	210406	APPE TP	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM207960	207960	EPAL TR2	207960	EPAL TR2	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-GD-W377	208113	SUSQ	207972	TOMH	2	230	229	Generation Deliverability	Included
2025W1-N11-WVM207963	207963	SLYK	207963	SLYK	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-GD-W378	208113	SUSQ	207972	TOMH	1	230	229	Generation Deliverability	Included
2025W1-N11-WVM207966	207966	BWAY	207966	BWAY	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-ST81	207972	TOMH	208113	SUSQ	2	230	229	N-1-1 Thermal	Included
2025W1-GD-LL195	208113	SUSQ	207972	TOMH	2	230	229	Generation Deliverability	Included
2025W1-N11-WVM210748	210748	JKSN	210748	JKSN	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-ST82	207972	TOMH	208113	SUSQ	2	230	229	N-1-1 Thermal	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N11-WVM210890	210896	MCMI 2	210896	MCMI 2	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N1-WT7	208113	SUSQ	207972	TOMH	2	230/230	229/229	Baseline Thermal	Included
2025W1-N11-WVM210599	210599	EFMO TP2	210599	EFMO TP2	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM210600	210600	EFMO DC	210600	EFMO DC	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-GD-LL192	208113	SUSQ	207972	TOMH	2	230	229	Generation Deliverability	Included
2025W1-N1-WT9	208113	SUSQ	207972	TOMH	1	230/230	229/229	Baseline Thermal	Included
2025W1-N11-WVM210693	210693	GILB 1CB	210693	GILB 1CB	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-GD-LL194	208113	SUSQ	207972	TOMH	1	230	229	Generation Deliverability	Included
2025W1-N11-WVM210694	210694	GILB 2CB	210694	GILB 2CB	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM210434	210434	BART TP2	210434	BART TP2	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM210436	210436	BART 2	210436	BART 2	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM210596	210596	EFMO TP1	210596	EFMO TP1	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM210597	210597	EFMO	210597	EFMO	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-SVM208072	208072	SIEG	208072	SIEG	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N1-WVD63	210570	DRAG 2	210570	DRAG 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N11-ST49	207972	TOMH	207977	HARW	2	230	229	N-1-1 Thermal	Included
2025W1-N1-WVD64	210569	DRAG 1	210569	DRAG 1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N11-ST50	207972	TOMH	207977	HARW	2	230	229	N-1-1 Thermal	Included
2025W1-N1-WVD65	210568	DRAG	210568	DRAG	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N11-ST51	207972	TOMH	207977	HARW	1	230	229	N-1-1 Thermal	Included
2025W1-N1-WVD66	210405	EPHA TI2	210405	EPHA TI2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N11-SVM207963	207963	SLYK	207963	SLYK	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N1-WVD59	210829	LIGA 1	210829	LIGA 1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N11-WT42	210437	BLMO	211161	SIEG	1	138	229	N-1-1 Thermal	Included
2025W1-N11-SVM207966	207966	BWAY	207966	BWAY	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N1-WVD60	210828	LIGA 2	210828	LIGA 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N11-SVM207967	207967	LOFT	207967	LOFT	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N1-WVD61	210827	LIGA TAP	210827	LIGA TAP	N/A	69	229	Baseline Voltage Drop	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N11-WT44	210437	BLMO	211161	SIEG	1	138	229	N-1-1 Thermal	Included
2025W1-N11-SVM20796	207969	TRES	207969	TRES	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N1-WVD62	210601	EPAL	210601	EPAL	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N11-SVM20795	207959	EPAL TR1	207959	EPAL TR1	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-SVM20796	207960	EPAL TR2	207960	EPAL TR2	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-ST52	207972	TOMH	207977	HARW	1	230	229	N-1-1 Thermal	Included
2025W1-N11-WT59	210437	BLMO	210696	GILB 1	1	138	229	N-1-1 Thermal	Included
2025W1-N11-WVM20795	207959	EPAL TR1	207959	EPAL TR1	N/A	230	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WT58	210437	BLMO	210696	GILB 1	1	138	229	N-1-1 Thermal	Included
2025W1-N1-WVD41	211062	PSPA TP2	211062	PSPA TP2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD42	211057	PONO 1	211057	PONO 1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD43	211056	PNWG TP2	211056	PNWG TP2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD44	211055	PNWG TP1	211055	PNWG TP1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD39	211193	SSLA 2	211193	SSLA 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD40	211160	SIEG	211160	SIEG	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD45	211054	PONO 2	211054	PONO 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD46	211052	APRF TP	211052	APRF TP	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD47	211051	APRF	211051	APRF	N/A	69	229	Baseline Voltage Drop	Included
2025W1-32GD-W1	208113	SUSQ	207972	TOMH	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-WVD48	211031	PAZI	211031	PAZI	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD52	211021	PALM 1	211021	PALM 1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-32GD-W4	208120	SU10	208113	SUSQ	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-WVD53	210972	NBET 2	210972	NBET 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N11-WT36	210695	GILB 2	211161	SIEG	2	138	229	N-1-1 Thermal	Included
2025W1-32GD-W3	208120	SU10	208113	SUSQ	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-WVD54	210971	NBET 1	210971	NBET 1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD55	210914	MICK TP2	210914	MICK TP2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-32GD-W2	208113	SUSQ	207972	TOMH	1	230	229	2032 Generation Deliverability	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N1-WVD49	211030	PAZI 2	211030	PAZI 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD50	211029	PAZI 1	211029	PAZI 1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N11-WT33	210695	GILB 2	211161	SIEG	2	138	229	N-1-1 Thermal	Included
2025W1-32GD-W6	208113	SUSQ	207972	TOMH	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-WVD51	211022	PALM 2	211022	PALM 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-32GD-W5	208113	SUSQ	207972	TOMH	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-WVD56	210913	MICK 2	210913	MICK 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD57	210912	MICK 1	210912	MICK 1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD58	210911	MICK TP1	210911	MICK TP1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-PPL-EOL1	N/A	N/A	N/A	N/A	N/A	500	229	End of Life	Included
2025W1-N11-WVD207959	207959	EPAL TR1	207959	EPAL TR1	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N11-WVD207960	207960	EPAL TR2	207960	EPAL TR2	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N11-WVD207963	207963	SLYK	207963	SLYK	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-WVD30	211347	WHCE	211347	WHCE	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD31	211346	WHCE 2	211346	WHCE 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD32	211345	WHCE 1	211345	WHCE 1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD33	211337	WGAT 2	211337	WGAT 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD29	211366	ASHF TP2	211366	ASHF TP2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD38	211268	TREI TP1	211268	TREI TP1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD34	211336	WGAT 1	211336	WGAT 1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD35	211273	TREI DC	211273	TREI DC	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD36	211272	TREI TP2	211272	TREI TP2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD37	211270	TREI	211270	TREI	N/A	69	229	Baseline Voltage Drop	Included
2025W1-GD-S481	208113	SUSQ	207972	TOMH	2	230	229	Generation Deliverability	Included
2025W1-GD-S483	208113	SUSQ	207972	TOMH	1	230	229	Generation Deliverability	Included
2025W1-N1-WVD26	211379	BELT	211379	BELT	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD27	211377	BELT 2	211377	BELT 2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD28	211376	BELT 1	211376	BELT 1	N/A	69	229	Baseline Voltage Drop	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N1-WVD22	211696	LEHI	211696	LEHI	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD23	211611	HIRU	211611	HIRU	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD24	211446	CHRI TP	211446	CHRI TP	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD25	211427	CARB	211427	CARB	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD19	211950	WEIS TP2	211950	WEIS TP2	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD20	211949	WEIS	211949	WEIS	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD21	211697	LEHI TP	211697	LEHI TP	N/A	69	229	Baseline Voltage Drop	Included
2025W1-GD-S478	207973	FRAC	208072	SIEG	1	230	229	Generation Deliverability	Included
2025W1-N1-WVD3	207967	LOFT	207967	LOFT	N/A	230	229	Baseline Voltage Drop	Included
2025W1-N1-WVD1	208072	SIEG	208072	SIEG	N/A	230	229	Baseline Voltage Drop	Included
2025W1-N1-WVD2	207969	TRES	207969	TRES	N/A	230	229	Baseline Voltage Drop	Included
2025W1-N1-WVD18	211951	WEIS TP1	211951	WEIS TP1	N/A	69	229	Baseline Voltage Drop	Included
2025W1-N1-WVD6	207960	EPAL TR2	207960	EPAL TR2	N/A	230	229	Baseline Voltage Drop	Included
2025W1-N1-WVD7	207959	EPAL TR1	207959	EPAL TR1	N/A	230	229	Baseline Voltage Drop	Included
2025W1-N1-WVD4	207966	BWAY	207966	BWAY	N/A	230	229	Baseline Voltage Drop	Included
2025W1-N1-WVD5	207963	SLYK	207963	SLYK	N/A	230	229	Baseline Voltage Drop	Included
2025W1-N11-WVM21124	211249	TANN 2	211249	TANN 2	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM21099	210992	NSTR CB2	210992	NSTR CB2	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM21123	211231	STRO 2	211231	STRO 2	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-ST90	207972	TOMH	208113	SUSQ	1	230	229	N-1-1 Thermal	Included
2025W1-N11-WVM21123	211232	STRO 1	211232	STRO 1	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-ST91	207972	TOMH	208113	SUSQ	1	230	229	N-1-1 Thermal	Included
2025W1-N11-WVM21124	211248	TANN 1	211248	TANN 1	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM21093	210937	MONR	210937	MONR	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM21093	210989	NSTR 1	210989	NSTR 1	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM21090	210990	NSTR 2	210990	NSTR 2	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM21090	210991	NSTR CB1	210991	NSTR CB1	N/A	138	229	N-1-1 Voltage Magnitude	Included
2025W1-N11-WVM21089	210897	MCMI 1	210897	MCMI 1	N/A	138	229	N-1-1 Voltage Magnitude	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N1-WVM4	207966	BWAY	207966	BWAY	N/A	230	229	Baseline Voltage Magnitude	Included
2025W1-N1-WVM5	207963	SLYK	207963	SLYK	N/A	230	229	Baseline Voltage Magnitude	Included
2025W1-N1-WVM6	207960	EPAL TR2	207960	EPAL TR2	N/A	230	229	Baseline Voltage Magnitude	Included
2025W1-N1-WVM7	207959	EPAL TR1	207959	EPAL TR1	N/A	230	229	Baseline Voltage Magnitude	Included
2025W1-N1-WVM1	208072	SIEG	208072	SIEG	N/A	230	229	Baseline Voltage Magnitude	Included
2025W1-N1-WVM2	207969	TRES	207969	TRES	N/A	230	229	Baseline Voltage Magnitude	Included
2025W1-N1-WVM3	207967	LOFT	207967	LOFT	N/A	230	229	Baseline Voltage Magnitude	Included
2025W1-N1-LLVD3	207967	LOFT	207967	LOFT	N/A	230	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD4	207966	BWAY	207966	BWAY	N/A	230	229	N-1 Voltage Drop	Included
2025W1-32GD-LL34	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N1-SVD67	211381	BECE NUG	211381	BECE NUG	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD66	211382	BECE TP1	211382	BECE TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD65	211392	BECE TP2	211392	BECE TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210748	210748	JKSN	210748	JKSN	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N11-WVD210896	210896	MCMI 2	210896	MCMI 2	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD71	211376	BELT 1	211376	BELT 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-LL39	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N11-WVD210693	210693	GILB 1CB	210693	GILB 1CB	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD70	211377	BELT 2	211377	BELT 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S180	208120	SU10	208113	SUSQ	2	230	229	Generation Deliverability	Included
2025W1-32GD-LL40	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N11-WVD210694	210694	GILB 2CB	210694	GILB 2CB	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD69	211379	BELT	211379	BELT	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S464	208120	SU10	208113	SUSQ	1	230	229	Generation Deliverability	Included
2025W1-32GD-LL41	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N11-WVD210695	210695	GILB 2	210695	GILB 2	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD68	211380	BCRK	211380	BCRK	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210696	210696	GILB 1	210696	GILB 1	N/A	138	229	N-1-1 Voltage Drop	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N1-LLVD5	207963	SLYK	207963	SLYK	N/A	230	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210596	210596	EFMO TP1	210596	EFMO TP1	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD74	211347	WHCE	211347	WHCE	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD6	207960	EPAL TR2	207960	EPAL TR2	N/A	230	229	N-1 Voltage Drop	Included
2025W1-32GD-LL36	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N11-WVD210597	210597	EFMO	210597	EFMO	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD73	211366	ASHF TP2	211366	ASHF TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD7	207959	EPAL TR1	207959	EPAL TR1	N/A	230	229	N-1 Voltage Drop	Included
2025W1-32GD-LL37	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N11-WVD210599	210599	EFMO TP2	210599	EFMO TP2	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD72	211373	AVOC TI2	211373	AVOC TI2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-LL38	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N11-WVD210600	210600	EFMO DC	210600	EFMO DC	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-LLVD13	211161	SIEG	211161	SIEG	N/A	138	229	N-1 Voltage Drop	Included
2025W1-32GD-LL43	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD14	211007	NOEN TP2	211007	NOEN TP2	N/A	138	229	N-1 Voltage Drop	Included
2025W1-32GD-LL44	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD15	211006	NOEN TP1	211006	NOEN TP1	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210897	210897	MCMI 1	210897	MCMI 1	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD78	211336	WGAT 1	211336	WGAT 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD77	211337	WGAT 2	211337	WGAT 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD76	211345	WHCE 1	211345	WHCE 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD75	211346	WHCE 2	211346	WHCE 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-WVD211249	211249	TANN 2	211249	TANN 2	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD82	211268	TREI TP1	211268	TREI TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-SVD207963	207963	SLYK	207963	SLYK	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-LLVD20	210996	NHAM TP1	210996	NHAM TP1	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210992	210992	NSTR CB2	210992	NSTR CB2	N/A	138	229	N-1-1 Voltage Drop	Included

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2025W1-N1-SVD81	211270	TREI	211270	TREI	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-SVD207960	207960	EPAL TR2	207960	EPAL TR2	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-LLVD21	210616	EGYP 2	210616	EGYP 2	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N11-WVD211231	211231	STRO 2	211231	STRO 2	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD80	211272	TREI TP2	211272	TREI TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-SVD207959	207959	EPAL TR1	207959	EPAL TR1	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-LLVD22	210615	EGYP 1	210615	EGYP 1	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N11-WVD211232	211232	STRO 1	211232	STRO 1	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD79	211273	TREI DC	211273	TREI DC	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-WVD211248	211248	TANN 1	211248	TANN 1	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N11-SVD208072	208072	SIEG	208072	SIEG	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-LLVD16	211005	NOEN	211005	NOEN	N/A	138	229	N-1 Voltage Drop	Included
2025W1-32GD-LL46	208013	SUMT2_B4	208090	SUMT	2	230	229	2032 Generation Deliverability	Included
2025W1-N11-WVD210937	210937	MONR	210937	MONR	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N11-SVD207969	207969	TRES	207969	TRES	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-LLVD17	210999	NHAM 2	210999	NHAM 2	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210989	210989	NSTR 1	210989	NSTR 1	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD84	211160	SIEG	211160	SIEG	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-SVD207967	207967	LOFT	207967	LOFT	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-LLVD18	210998	NHAM 1	210998	NHAM 1	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210990	210990	NSTR 2	210990	NSTR 2	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD83	211193	SSLA 2	211193	SSLA 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-SVD207966	207966	BWAY	207966	BWAY	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-LLVD19	210997	NHAM TP2	210997	NHAM TP2	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210991	210991	NSTR CB1	210991	NSTR CB1	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD45	211718	MINO 1	211718	MINO 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD54	211483	EMOU TP2	211483	EMOU TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVM6	207960	EPAL TR2	207960	EPAL TR2	N/A	230	229	N-1 Voltage Magnitude	Included

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2025W1-N1-LLVM7	207959	EPAL TR1	207959	EPAL TR1	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-SVD49	211611	HIRU	211611	HIRU	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVM2	207969	TRES	207969	TRES	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-32GD-LL17	208113	SUSQ	207972	TOMH	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-SVD48	211654	JENK	211654	JENK	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVM3	207967	LOFT	207967	LOFT	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-32GD-LL18	208113	SUSQ	207972	TOMH	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST106	208120	SU10	208113	SUSQ	1	230/230	229/229	N-1 Thermal	Included
2025W1-N1-SVD47	211696	LEHI	211696	LEHI	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVM4	207966	BWAY	207966	BWAY	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-ST105	208120	SU10	208113	SUSQ	2	230/230	229/229	N-1 Thermal	Included
2025W1-N1-SVD46	211697	LEHI TP	211697	LEHI TP	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVM5	207963	SLYK	207963	SLYK	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-ST112	208113	SUSQ	207972	TOMH	2	230/230	229/229	N-1 Thermal	Included
2025W1-N1-SVD53	211537	GEOR 2	211537	GEOR 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD52	211538	GEOR 1	211538	GEOR 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD51	211541	GEOR TP2	211541	GEOR TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S81	208120	SU10	208113	SUSQ	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLT43	208113	SUSQ	207972	TOMH	2	230/230	229/229	N-1 Thermal	Included
2025W1-N1-SVD50	211542	GEOR TP1	211542	GEOR TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S168	207915	GLBR	208120	SU10	1	230	229	Generation Deliverability	Included
2025W1-N1-LLVM1	208072	SIEG	208072	SIEG	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-SVD56	211481	EMOU 1	211481	EMOU 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD55	211482	EMOU 2	211482	EMOU 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD2	207969	TRES	207969	TRES	N/A	230	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210433	210433	BART 1	210433	BART 1	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N11-WVD210434	210434	BART TP2	210434	BART TP2	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N11-WVD210436	210436	BART 2	210436	BART 2	N/A	138	229	N-1-1 Voltage Drop	Included

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2025W1-N1-SVM4	207966	BWAY	207966	BWAY	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-SVD60	211452	DUPO DC	211452	DUPO DC	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-WVD208072	208072	SIEG	208072	SIEG	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVM3	207967	LOFT	207967	LOFT	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-SVD59	211455	DUPO 1	211455	DUPO 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210406	210406	APPE TP	210406	APPE TP	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVM2	207969	TRES	207969	TRES	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-SVD58	211456	DUPO 2	211456	DUPO 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S14	207915	GLBR	208120	SU10	2	230	229	Generation Deliverability	Included
2025W1-N11-WVD210407	210407	APPE	210407	APPE	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVM1	208072	SIEG	208072	SIEG	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-SVD57	211480	EMOU TP1	211480	EMOU TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S13	207915	GLBR	208120	SU10	1	230	229	Generation Deliverability	Included
2025W1-N1-LLVD1	208072	SIEG	208072	SIEG	N/A	230	229	N-1 Voltage Drop	Included
2025W1-N11-WVD210432	210432	BART TP1	210432	BART TP1	N/A	138	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD64	211427	CARB	211427	CARB	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVM7	207959	EPAL TR1	207959	EPAL TR1	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-SVD63	211431	CEAV 2	211431	CEAV 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-WVD207966	207966	BWAY	207966	BWAY	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVM6	207960	EPAL TR2	207960	EPAL TR2	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-SVD62	211432	CEAV 1	211432	CEAV 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-WVD207967	207967	LOFT	207967	LOFT	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVM5	207963	SLYK	207963	SLYK	N/A	230	229	N-1 Voltage Magnitude	Included
2025W1-N1-SVD61	211446	CHRI TP	211446	CHRI TP	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-WVD207969	207969	TRES	207969	TRES	N/A	230	229	N-1-1 Voltage Drop	Included
2025W1-N1-SVD34	211788	PIRI 2	211788	PIRI 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD33	211789	PIRI 1	211789	PIRI 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD32	211837	SCRA 1	211837	SCRA 1	N/A	69	229	N-1 Voltage Drop	Included

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2025W1-N1-LLVD90	210405	EPHA TI2	210405	EPHA TI2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD91	210404	EPHA TI1	210404	EPHA TI1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD27	211986	WYVA 2	211986	WYVA 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD86	210601	EPAL	210601	EPAL	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD26	211987	WYVA TP2	211987	WYVA TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLT23	208113	SUSQ	207972	TOMH	2	230/230	229/229	N-1 Thermal	Included
2025W1-N1-LLVD87	210570	DRAG 2	210570	DRAG 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD25	211988	WYVA TP1	211988	WYVA TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD88	210569	DRAG 1	210569	DRAG 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLT25	208113	SUSQ	207972	TOMH	1	230/230	229/229	N-1 Thermal	Included
2025W1-N1-LLVD89	210568	DRAG	210568	DRAG	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD31	211949	WEIS	211949	WEIS	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD30	211950	WEIS TP2	211950	WEIS TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD83	210757	KECE2TP1	210757	KECE2TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD29	211951	WEIS TP1	211951	WEIS TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S452	208113	SUSQ	207972	TOMH	2	230	229	Generation Deliverability	Included
2025W1-N1-LLVD84	210756	KECE1TP2	210756	KECE1TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD28	211985	WYVA 1	211985	WYVA 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD85	210755	KECE1TP1	210755	KECE1TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD44	211719	MINO 2	211719	MINO 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD43	211727	MTGE 2	211727	MTGE 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD38	211759	OWIL 2	211759	OWIL 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD37	211760	OWIL 1	211760	OWIL 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S454	208113	SUSQ	207972	TOMH	1	230	229	Generation Deliverability	Included
2025W1-32GD-LL7	208113	SUSQ	207972	TOMH	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-SVD36	211780	MUND 1	211780	MUND 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-LL8	208113	SUSQ	207972	TOMH	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-SVD35	211781	MUND 2	211781	MUND 2	N/A	69	229	N-1 Voltage Drop	Included

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2025W1-N1-SVD42	211728	MTGE 1	211728	MTGE 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S164	207915	GLBR	208120	SU10	2	230	229	Generation Deliverability	Included
2025W1-N1-SVD41	211752	AVOC TI1	211752	AVOC TI1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S162	207915	GLBR	208120	SU10	2	230	229	Generation Deliverability	Included
2025W1-N1-ST99	207915	GLBR	208120	SU10	1	230/230	229/229	N-1 Thermal	Included
2025W1-N1-SVD40	211757	OWIL TP2	211757	OWIL TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S163	207915	GLBR	208120	SU10	2	230	229	Generation Deliverability	Included
2025W1-N1-SVD39	211758	OWIL TP1	211758	OWIL TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-GD-S161	207915	GLBR	208120	SU10	1	230	229	Generation Deliverability	Included
2025W1-N1-LLVD72	210913	MICK 2	210913	MICK 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD68	211021	PALM 1	211021	PALM 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD69	210972	NBET 2	210972	NBET 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD70	210971	NBET 1	210971	NBET 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD71	210914	MICK TP2	210914	MICK TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD64	211031	PAZI	211031	PAZI	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD65	211030	PAZI 2	211030	PAZI 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD66	211029	PAZI 1	211029	PAZI 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD67	211022	PALM 2	211022	PALM 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD63	211051	APRF	211051	APRF	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD24	211994	YATE 2	211994	YATE 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD23	211995	YATE 1	211995	YATE 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD79	210761	KECE 1-1	210761	KECE 1-1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD80	210760	KECE 2-2	210760	KECE 2-2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD81	210759	KECE 2-1	210759	KECE 2-1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD82	210758	KECE2TP2	210758	KECE2TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD75	210829	LIGA 1	210829	LIGA 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD76	210828	LIGA 2	210828	LIGA 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD77	210827	LIGA TAP	210827	LIGA TAP	N/A	69	229	N-1 Voltage Drop	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N1-LLVD78	210762	KECE 1-2	210762	KECE 1-2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD73	210912	MICK 1	210912	MICK 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD74	210911	MICK TP1	210911	MICK TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N11-ST111	207972	TOMH	208113	SUSQ	2	230	229	N-1-1 Thermal	Included
2025W1-N11-ST112	207972	TOMH	208113	SUSQ	2	230	229	N-1-1 Thermal	Included
2025W1-N11-ST115	207972	TOMH	208113	SUSQ	1	230	229	N-1-1 Thermal	Included
2025W1-N11-ST117	207972	TOMH	208113	SUSQ	1	230	229	N-1-1 Thermal	Included
2025W1-N1-SVD8	207963	SLYK	207963	SLYK	N/A	230	229	N-1 Voltage Drop	Included
2025W1-N1-SVD7	207966	BWAY	207966	BWAY	N/A	230	229	N-1 Voltage Drop	Included
2025W1-N1-SVD6	207967	LOFT	207967	LOFT	N/A	230	229	N-1 Voltage Drop	Included
2025W1-N1-SVD5	207969	TRES	207969	TRES	N/A	230	229	N-1 Voltage Drop	Included
2025W1-32GD-S160	208040	MONT	207915	GLBR	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-SVD10	207959	EPAL TR1	207959	EPAL TR1	N/A	230	229	N-1 Voltage Drop	Included
2025W1-32GD-S40	207915	GLBR	208120	SU10	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-SVD9	207960	EPAL TR2	207960	EPAL TR2	N/A	230	229	N-1 Voltage Drop	Included
2025W1-32GD-S41	207915	GLBR	208120	SU10	2	230	229	2032 Generation Deliverability	Included
2025W1-32GD-S47	207915	GLBR	208120	SU10	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST78	207915	GLBR	208120	SU10	1	230/230	229/229	N-1 Thermal	Included
2025W1-32GD-S53	207915	GLBR	208120	SU10	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST77	207915	GLBR	208120	SU10	1	230/230	229/229	N-1 Thermal	Included
2025W1-32GD-S54	208120	SU10	208113	SUSQ	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST76	207915	GLBR	208120	SU10	1	230/230	229/229	N-1 Thermal	Included
2025W1-32GD-S55	208120	SU10	208113	SUSQ	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST82	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	Included
2025W1-N1-ST81	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	Included
2025W1-N1-ST80	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	Included
2025W1-32GD-S52	207915	GLBR	208120	SU10	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST84	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N1-ST83	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	Included
2025W1-N1-SVD107	210601	EPAL	210601	EPAL	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S141	208040	MONT	207915	GLBR	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD45	211337	WGAT 2	211337	WGAT 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD106	210827	LIGA TAP	210827	LIGA TAP	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD46	211336	WGAT 1	211336	WGAT 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD105	210828	LIGA 2	210828	LIGA 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD47	211273	TREI DC	211273	TREI DC	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD48	211272	TREI TP2	211272	TREI TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD111	210405	EPHA TI2	210405	EPHA TI2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD110	210568	DRAG	210568	DRAG	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD109	210569	DRAG 1	210569	DRAG 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD43	211346	WHCE 2	211346	WHCE 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD108	210570	DRAG 2	210570	DRAG 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S140	208040	MONT	207915	GLBR	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD44	211345	WHCE 1	211345	WHCE 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD49	211270	TREI	211270	TREI	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S146	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD50	211268	TREI TP1	211268	TREI TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S147	200022	SUSQ	208116	SUSQTR21	21	500/230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD51	211193	SSLA 2	211193	SSLA 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S148	208109	SUNB	207970	NESC230	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD52	211190	SSLA 1	211190	SSLA 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD56	211062	PSPA TP2	211062	PSPA TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD57	211061	PSPA TP1	211061	PSPA TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S154	208113	SUSQ	207972	TOMH	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD58	211057	PONO 1	211057	PONO 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S34	208113	SUSQ	207972	TOMH	2	230	229	2032 Generation Deliverability	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N1-LLVD59	211056	PNWG TP2	211056	PNWG TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD53	211160	SIEG	211160	SIEG	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S150	208113	SUSQ	207972	TOMH	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD54	211064	PSPA COL	211064	PSPA COL	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S151	208013	SUMT2_B4	208090	SUMT	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD55	211063	PSPA	211063	PSPA	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S39	207915	GLBR	208120	SU10	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-SVD4	208072	SIEG	208072	SIEG	N/A	230	229	N-1 Voltage Drop	Included
2025W1-32GD-S156	208113	SUSQ	207972	TOMH	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD60	211055	PNWG TP1	211055	PNWG TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S36	208113	SUSQ	207972	TOMH	1	230	229	2032 Generation Deliverability	Included
2025W1-32GD-S157	208113	SUSQ	207972	TOMH	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD61	211054	PONO 2	211054	PONO 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S158	208109	SUNB	207970	NESC230	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD62	211052	APRF TP	211052	APRF TP	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S38	207915	GLBR	208120	SU10	1	230	229	2032 Generation Deliverability	Included
2025W1-32GD-S159	208113	SUSQ	207972	TOMH	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-SVD85	211062	PSPA TP2	211062	PSPA TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD23	210504	WIBR 2	210504	WIBR 2	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD24	210503	WIBR 1	210503	WIBR 1	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD25	210502	WIBR TP2	210502	WIBR TP2	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD26	210501	WIBR TP1	210501	WIBR TP1	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N1-SVD89	211054	PONO 2	211054	PONO 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD88	211055	PNWG TP1	211055	PNWG TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD87	211056	PNWG TP2	211056	PNWG TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD86	211057	PONO 1	211057	PONO 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD93	211030	PAZI 2	211030	PAZI 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD31	211698	LNFD	211698	LNFD	N/A	69	229	N-1 Voltage Drop	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N1-SVD92	211031	PAZI	211031	PAZI	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S128	207973	FRAC	208072	SIEG	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD32	211697	LEHI TP	211697	LEHI TP	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-ST28	208113	SUSQ	207972	TOMH	2	230/230	229/229	N-1 Thermal	Included
2025W1-N1-SVD91	211051	APRF	211051	APRF	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD90	211052	APRF TP	211052	APRF TP	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S2	208113	SUSQ	207972	TOMH	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD27	210437	BLMO	210437	BLMO	N/A	138	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD28	211951	WEIS TP1	211951	WEIS TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S4	208113	SUSQ	207972	TOMH	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD29	211950	WEIS TP2	211950	WEIS TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-ST31	208113	SUSQ	207972	TOMH	1	230/230	229/229	N-1 Thermal	Included
2025W1-N1-SVD94	211029	PAZI 1	211029	PAZI 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD30	211949	WEIS	211949	WEIS	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD96	211021	PALM 1	211021	PALM 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD34	211611	HIRU	211611	HIRU	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD95	211022	PALM 2	211022	PALM 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD35	211446	CHRI TP	211446	CHRI TP	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD36	211427	CARB	211427	CARB	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD37	211379	BELT	211379	BELT	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD100	210914	MICK TP2	210914	MICK TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD99	210921	BECD DC	210921	BECD DC	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD98	210971	NBET 1	210971	NBET 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD97	210972	NBET 2	210972	NBET 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD33	211696	LEHI	211696	LEHI	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD104	210829	LIGA 1	210829	LIGA 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD42	211347	WHCE	211347	WHCE	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD103	210911	MICK TP1	210911	MICK TP1	N/A	69	229	N-1 Voltage Drop	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-32GD-S139	208040	MONT	207915	GLBR	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-SVD102	210912	MICK 1	210912	MICK 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD101	210913	MICK 2	210913	MICK 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD38	211377	BELT 2	211377	BELT 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-LLVD39	211376	BELT 1	211376	BELT 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S136	208040	MONT	207915	GLBR	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD40	211366	ASHF TP2	211366	ASHF TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-32GD-S137	208040	MONT	207915	GLBR	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-LLVD41	211365	ASHF TP1	211365	ASHF TP1	N/A	69	229	N-1 Voltage Drop	Included

New Flowgates

Proprietary Information

Financial Information

Capital spend start date 02/2026

Construction start date 03/2028

Project Duration (In Months) 51

Cost Containment Commitment

Cost cap (in current year) Proprietary Information

Cost cap (in-service year) Proprietary Information

Components covered by cost containment

1. Portfolio 3: Year 2032 + 4 GW Area 229 Essential Reliability Solution - PPL
2. Kelayres 500 kV yard expansion - PPL

Cost elements covered by cost containment

Engineering & design	Yes
Permitting / routing / siting	Yes
ROW / land acquisition	Yes
Materials & equipment	Yes
Construction & commissioning	Yes
Construction management	Yes
Overheads & miscellaneous costs	Yes
Taxes	No
AFUDC	No
Escalation	Yes
Additional Information	Proprietary Information
Is the proposer offering a binding cap on ROE?	No
Is the proposer offering a Debt to Equity Ratio cap?	Proprietary Information

Additional Comments

None