Annual Summer ATC Assessment

Stakeholder call

February 19, 2025

Housekeeping reminders

- This call is being recorded for informational and convenience purposes only. Any related transcriptions should not be reprinted without ISO's permission.
- The meeting is structured to stimulate dialogue and engage different perspectives.
- Please keep comments professional and respectful.
- Please try and be brief and refrain from repeating what has already been said so that we can manage the time efficiently.

Instructions for raising your hand to ask a question

- Open the Participant and Chat panels from the bottom right.
- If you are connected to audio through your computer or used the “call me” option, select the raise hand icon  located at the bottom of the participant panel.

  -Note: *3 only works if you dialed into the meeting.
- Please remember to state your name and affiliation before making your comment.
- If you need technical assistance during the meeting, please send a chat to the event producer.
- You may also send your question via chat to either Yelena Kopylov-Alford or to all panelists.

Agenda

Time	Topic	Presenter
10:00 – 10:10	Welcome & introductions	Yelena Kopylov-Alford
10:10 – 10:30	Summer 2025 Monthly ATC Numbers	Abdul Mohammed-Ali
10:30 – 11:00	Path 26 Assessment	Licheng Jin
11:00 – 11:30	Reminders and Questions	Abdul Mohammed-Ali

Summer 2025 Monthly ATC Numbers: June 2025 through September 2025

Monthly ATC: June 2025 – September 2025

ATC = TTC – ETComm – TRM

Intertie	June	July	August	September
CFEROA_ITC	376	376	376	376
CFETIJ_ITC	376	376	376	376
CTW230_ITC	1230	1230	1230	1230
IID-SCE_ITC	464	452	304	306
IPPDCADLN_ITC	333	179	150	164
MALIN500_ISL	299	10	0	0
NOB_ITC	317	41	0	0
PALOVRDE_ITC	1204	1621	1608	1040
SYLMAR-AC_ITC	2002	1979	2045	2016
TRACY230_ITC	956	955	956	956
TRACY500_ITC	3043	3006	2957	3038

Calculation of Total Transfer Capability (TTC)

Intertie	June	July	August	September
CFEROA_ITC	400	400	400	400
CFETIJ_ITC	400	400	400	400
CTW230_ITC	1308	1308	1308	1308
IID-SCE_ITC	750	750	750	750
IPPDCADLN_ITC	809	809	809	809
MALIN500_ISL	3400	3400	3400	3400
NOB_ITC	1622	1622	1622	1622
PALOVRDE_ITC	3628	3628	3628	3628
SYLMAR-AC_ITC	2600	2600	2600	2600
TRACY230_ITC	1314	1314	1314	1314
TRACY500_ITC	3862	3862	3862	3862

Existing Transmission Commitments (ETCcomm) are honored

- **ETComm** consists of the following components:
  - **ETC and TOR** commitments (legacy contracts) that are currently recognized in the market
  - **Wheeling Through Priority reservations** (whether in daily or monthly horizon) which have already accessed ATC for a specific period
  - **Native Load** commitments consisting of historical RA imports, contracted non-RA imports and accounting for load growth

Native Load set-aside as part of ETComm

- Native Load transmission capacity set-aside based on historical RA imports, non-RA imports and load growth.

Intertie	June	July	August	September
CFEROA_ITC	0	0	0	0
CFETIJ_ITC	0	0	0	0
CTW230_ITC	0	0	0	0
IID-SCE_ITC	241	253	401	399
IPPDCADLN_ITC	427	581	610	596
MALIN500_ISL	1242	1481	1775	1665
NOB_ITC	958	1159	1296	1415
PALOVRDE_ITC	1475	1058	1071	1639
SYLMAR-AC_ITC	74	97	31	60
TRACY230_ITC	264	265	264	264
TRACY500_ITC	287	324	373	292

Wheeling Through Priority Reservations

- Summer Monthly Wheel Through Awards as of February 2025

Intertie	June	July	August	September
CFEROA_ITC	0	0	0	0
CFETIJ_ITC	0	0	0	0
CTW230_ITC	0	0	0	0
IID-SCE_ITC	0	0	0	0
IPPDCADLN_ITC	0	0	0	0
MALIN500_ISL	0	50	50	50
NOB_ITC	250	325	229	250
PALOVRDE_ITC	0	0	0	0
SYLMAR-AC_ITC	0	0	0	0
TRACY230_ITC	0	0	0	0
TRACY500_ITC	0	0	0	0

Transmission Reliability Margin (TRM)

- The TRM sets aside transmission capacity for different types of uncertainty that may materialize on the system, consistent with NERC MOD-008-1.

- For purposes of calculating reservation-based ATC in advance of market operations, the ISO sets the starting TRM at 6% of TTC.
  - 3% for *forecast uncertainty in transmission system topology*
    - Accounting for risk of forced outage on intertie
    - Ability to account for known limitations on Path 26
  - 3% for *variations in generation dispatch*
    - Accounting for unavailability of supply during peak load periods

TRM values across identified paths

Intertie	June	July	August	September
CFEROA_ITC	24	24	24	24
CFETIJ_ITC	24	24	24	24
CTW230_ITC	78	78	78	78
IID-SCE_ITC	45	45	45	45
IPPDCADLN_ITC	49	49	49	49
MALIN500_ISL	204	204	204	204
NOB_ITC	97	97	97	97
PALOVRDE_ITC	218	218	218	218
SYLMAR-AC_ITC	156	156	156	156
TRACY230_ITC	79	79	79	79
TRACY500_ITC	232	232	232	232

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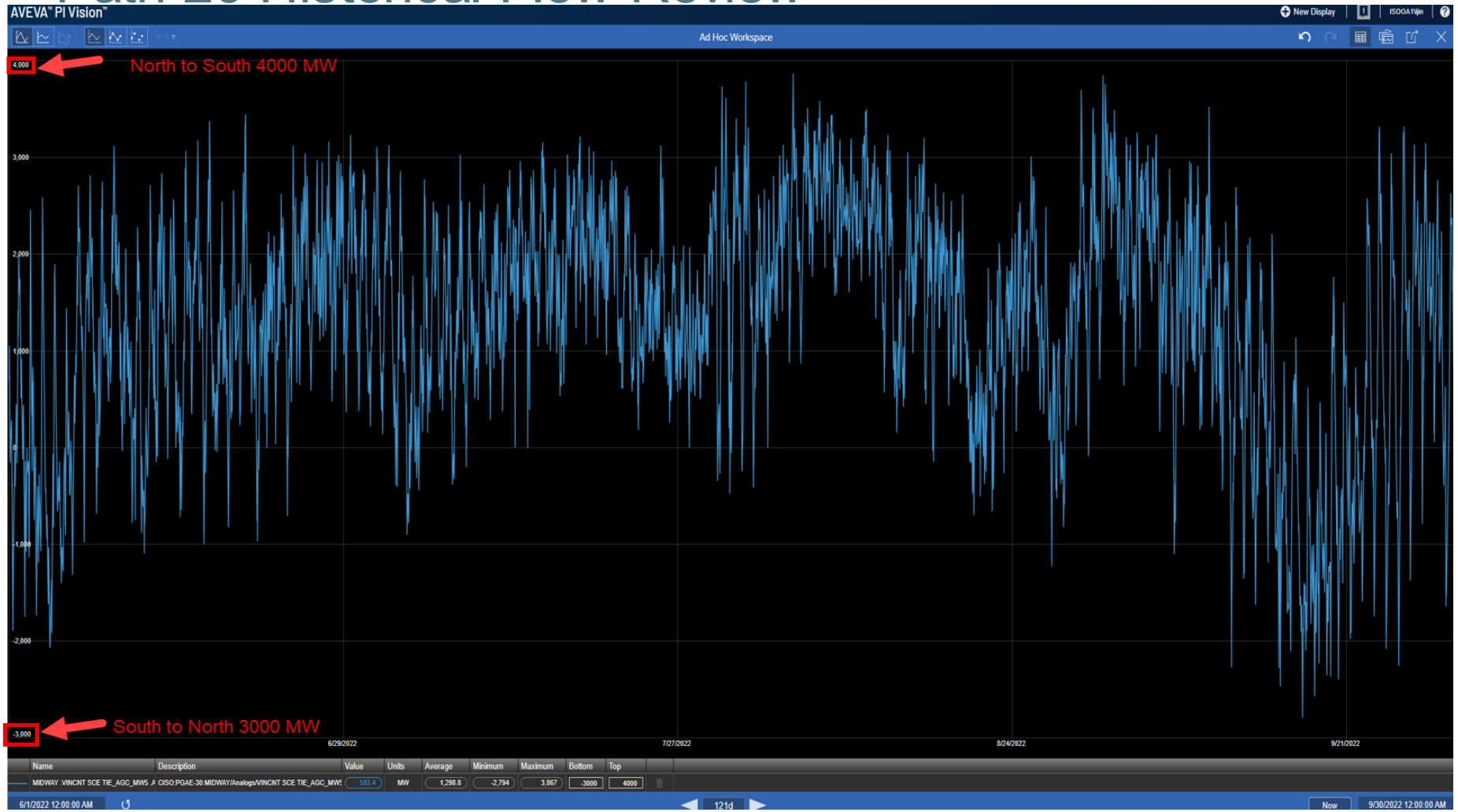
Path 26 Assessment: Sensitivity Power-flow Analysis

Agenda

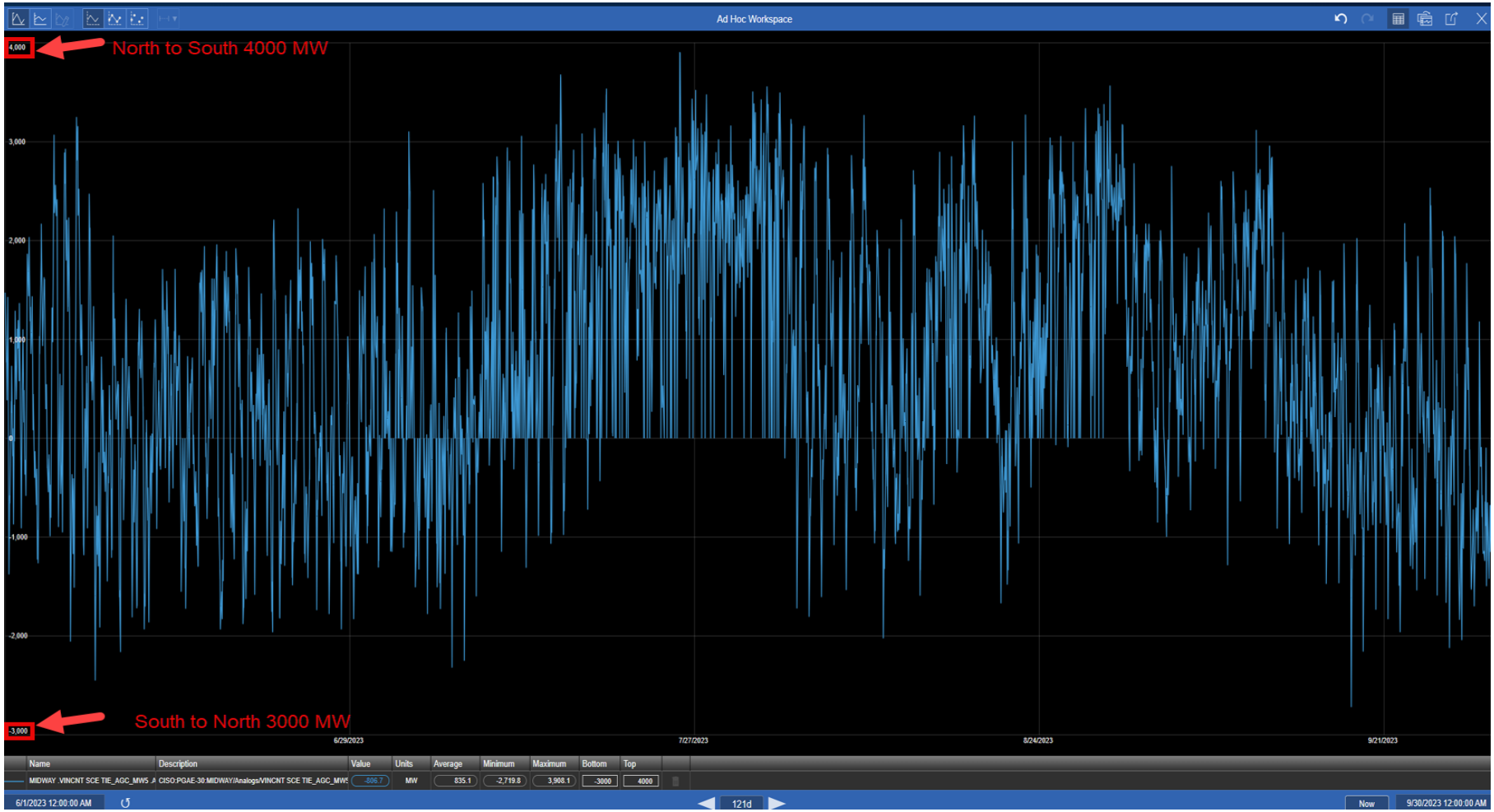
- Path 26 Historical Flow Review
- Malin Maximum PWT ATC for summer 2025
- Path 26 PWT Impact Assessment Assumptions
- Path 26 PWT Impact Assessment Results Review
- Conclusions

Path 26 Historical Flow Review



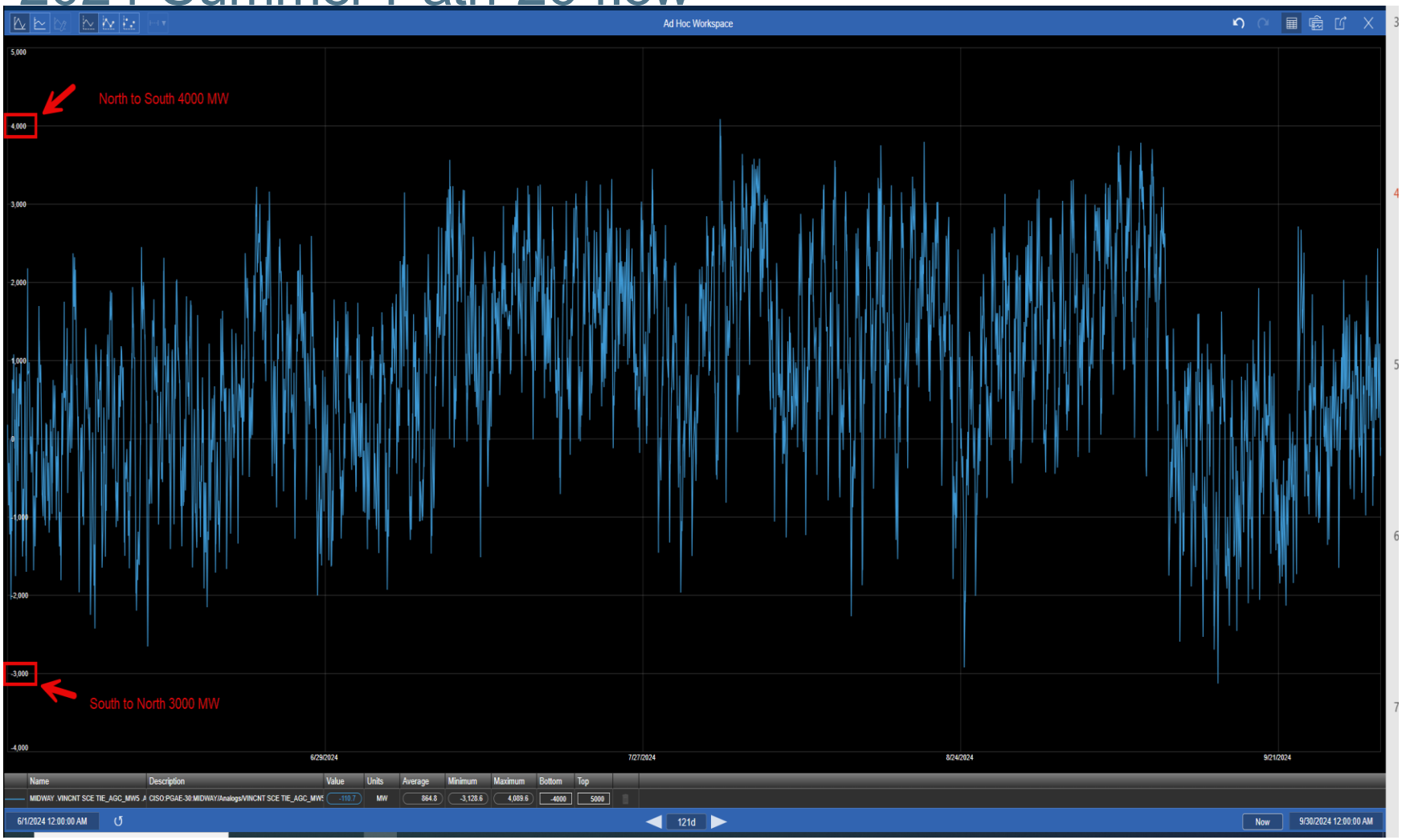
2022 Summer Path 26 flow

2023 Summer Path 26 flow



2023 Summer Path 26 flow

2024 Summer Path 26 flow



2024 Summer Path 26 flow

Malin Maximum PWT ATC for summer 2024

Intertie	PWT ATC Awards	Month/Year
MALIN500	72	Jun-24
MALIN500	77	July-24
MALIN500	97	Aug-24
MALIN500	0	Sep-24

- Maximum PWT ATC Awards is minimal

Path 26 PWT Impact Assessment Assumptions

- Wheel Through Source: Malin500 (BPA)
- Wheel Through Sink: PV West (APS)
- Wheel Through Increases Path 26 North to South Flow

- There were totally **8** days Path 26 North to South daily peak flow more than 3500 MW from 6/1/2024 till 9/30/2024
- There were **79** days Path 26 North to South daily peak flow less than 3000 MW from 6/1/2024 till 9/30/2024
- The North to South flow at 2024 highest: 4080 MW

- Two scenarios studied based on 2025 OSS summer assessment base case:
  1) Path 26 North to South flow at most common Daily Peak level: 3000 MW
  2) Path 26 North to South flow at 2024 highest: 4080 MW

Path 26 PWT Impact Assessment Results Review

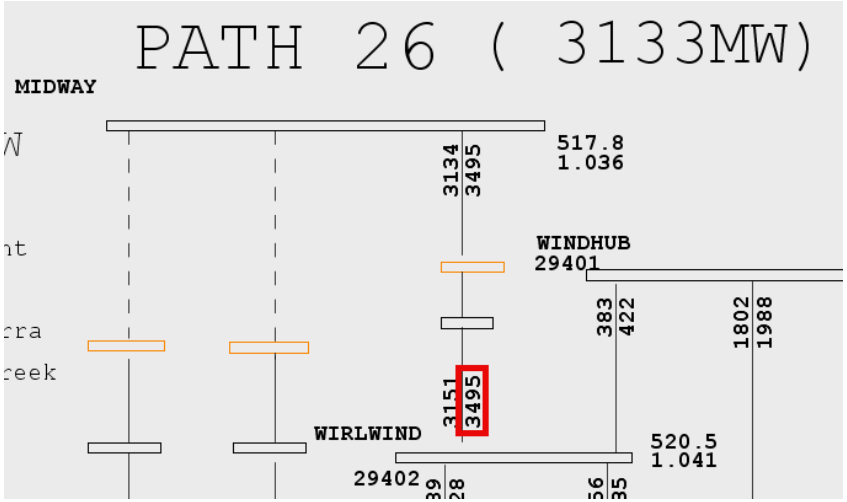
- Scenario 1: Path 26 North to South flow at most common Daily Peak level: 3000 MW
- After applying 2000 MW wheel from BPA to APS, Path 26 North to South flow becomes 4423 MW

- By simulating the next worst credible multiple contingency of Midway-Vincent #1 and #2 500kV lines the results are as follows:

Post-contingency flow on Midway-Whirlwind 500kV line is 3495Amps.

It is about 99% of the 30min emergency rating of the most limiting line section (3500Amps)

There is no thermal overload concern in this scenario.



Path 26 PWT Impact Assessment Results Review

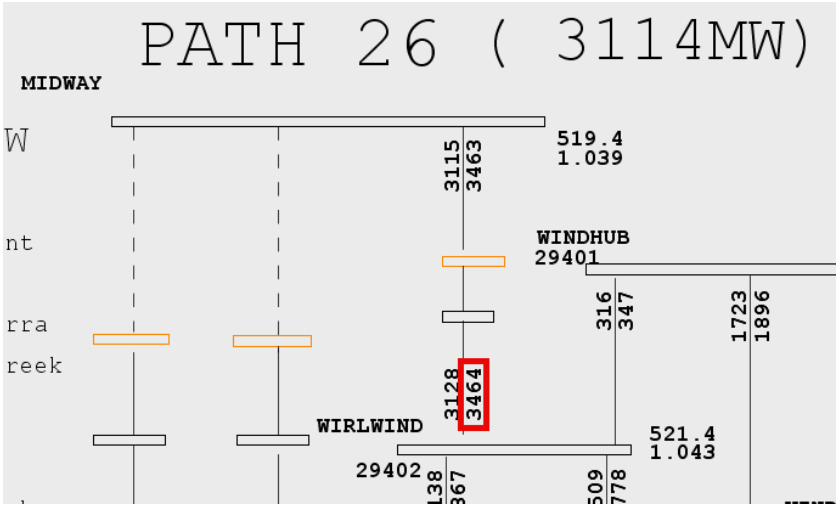
- Scenario 2: Path 26 North to South flow at 2023 highest: 4080 MW
- After applying 500 MW wheel from BPA to APS, Path 26 North to South flow becomes 4414 MW
- Increase the Path 26 North to South flow further will lead to post-contingency instability

- By simulating the next worst credible multiple contingency of Midway-Vincent #1 and #2 500kV lines the results are as follows:

Post-contingency flow on Midway-Whirlwind 500kV line is 3464 Amps.

It is about 99% of the 30min emergency rating of the most limiting line section (3500Amps).

There is no thermal overload concern in this scenario.



Conclusions

- In most instances during summer season when Path 26 North to South flow is below 3000MW there is no reliability concern even after applying 2000 MW of wheel from BPA to APS
- With PGAE added the 30 minutes rating of Midway-Whirlwind 500kV line back in 2024, Path 26 North to South transfer capability could reach above 4400 MW
- Notice that this potential thermal overload is protected by Procedure 6410 CP#1. In this scenario market mitigation could be utilized to lower the North to South flow on Path 26.

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Reminders and Q&A

Available documents and information

- Market Operations BPM – Section 2.5.5.
- ATC ID and TRM ID documents
  - Describe the components of ATC and TRM calculation.
- The Monthly Wheeling Through Priority Request Due Dates are posted on the CAISO website under the Resource Adequacy page.
- Previous training recordings are available on the CAISO website under the Training Center section.

Reminder for CAISO Load Serving Entities (LSEs)

- CAISO LSEs that contracted import supply to serve their load which was not shown on RA plans can submit that information to the CAISO, to support the calculation of the Native Load needs, through the Customer Interface for Resource Adequacy (CIRA) interface.

- Submission is in CIRA under the Plans tab then the NLN Submission window.

- This submission window aligns with the Wheeling Through Priority submission window

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