Transmission Use Update

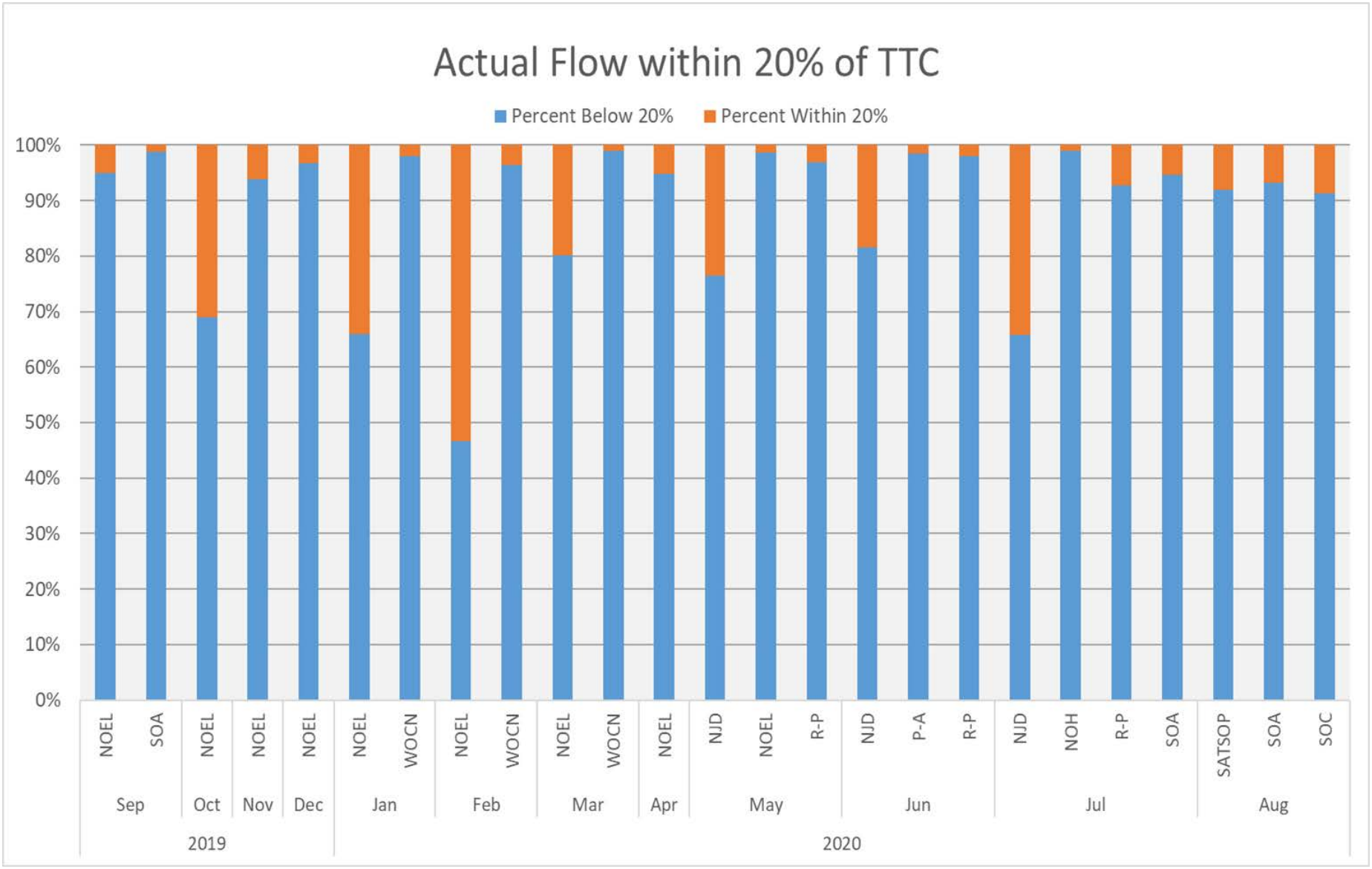
September 23, 2020

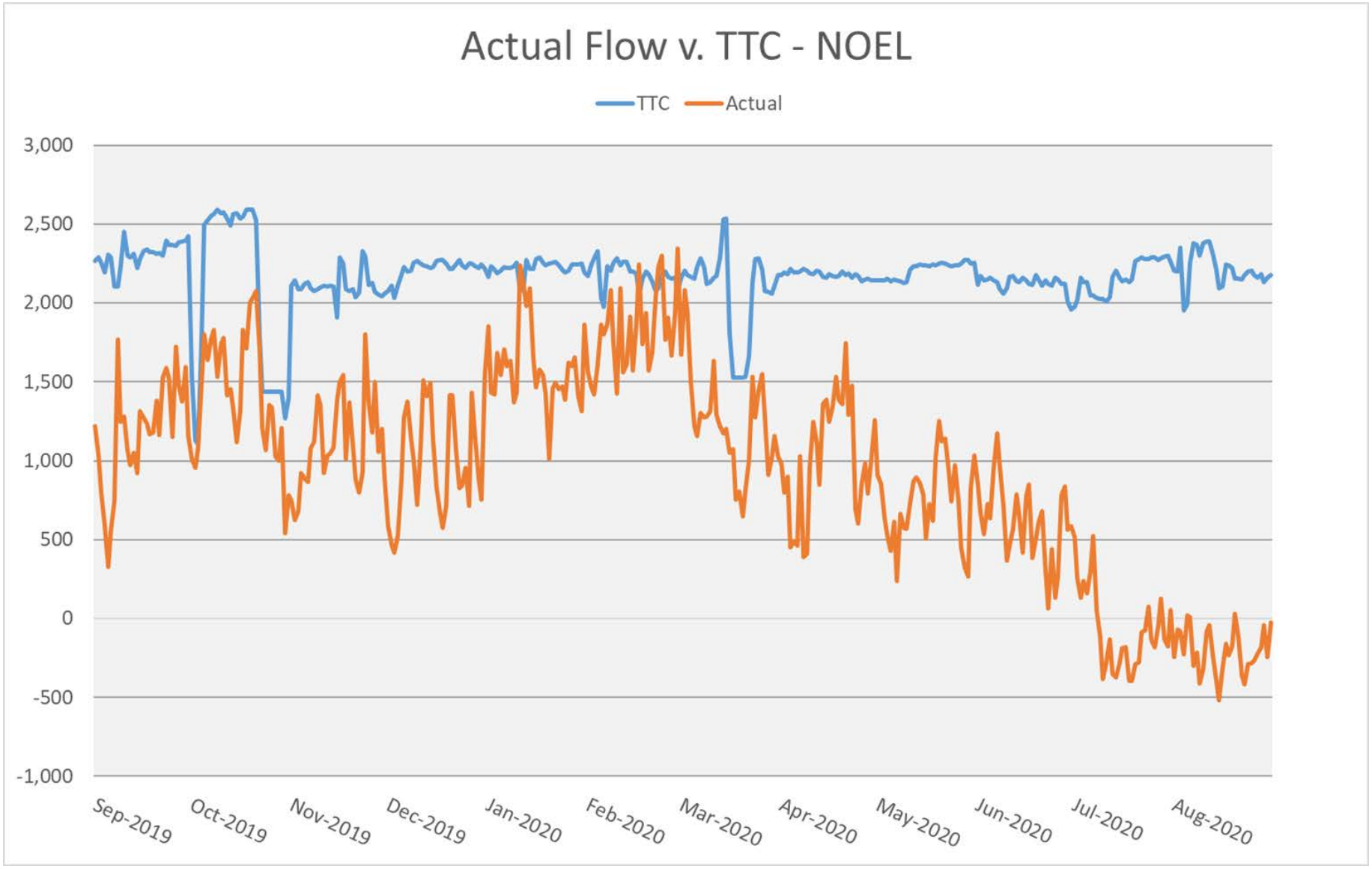
For Discussion Purposes Only.

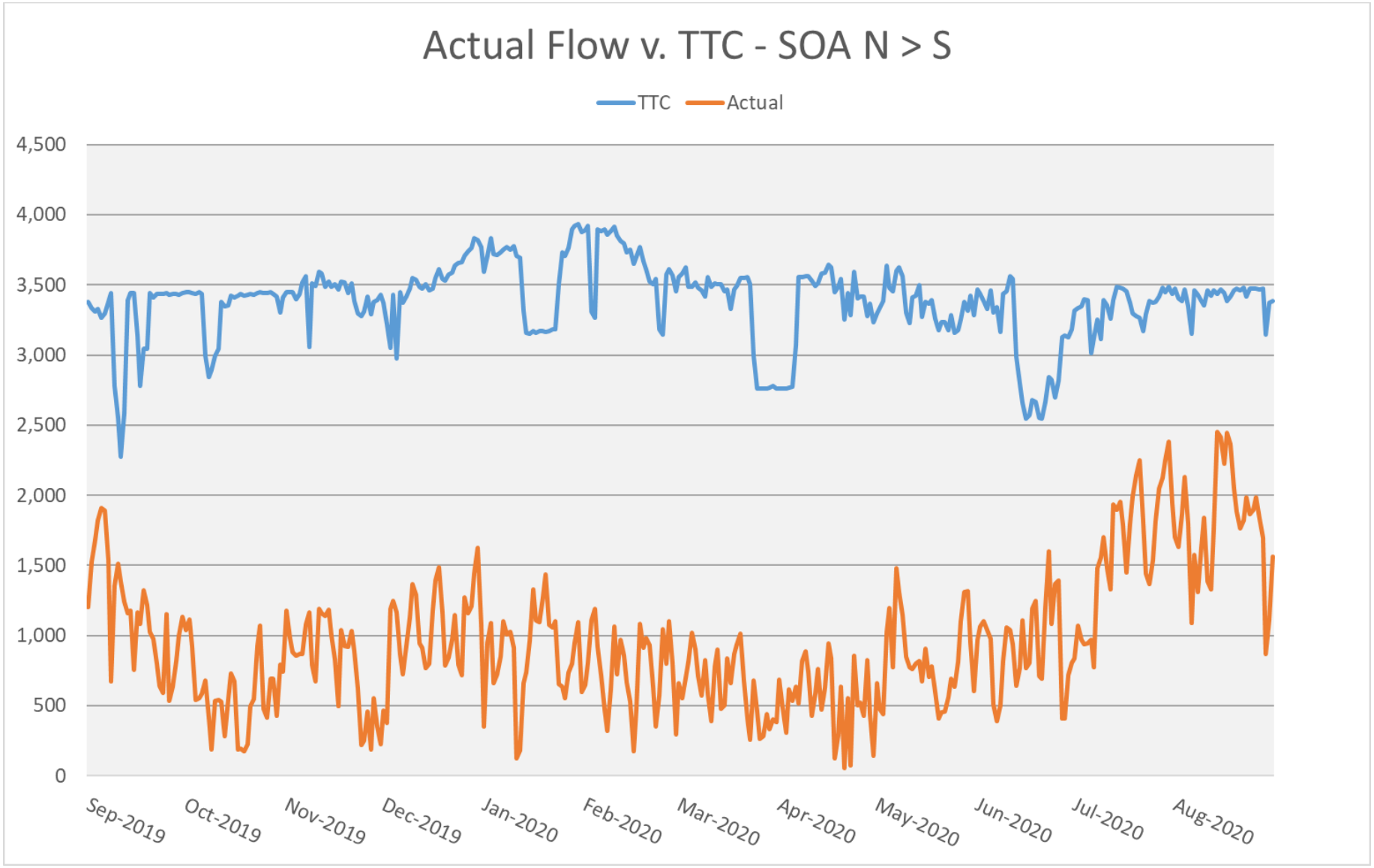
Objective

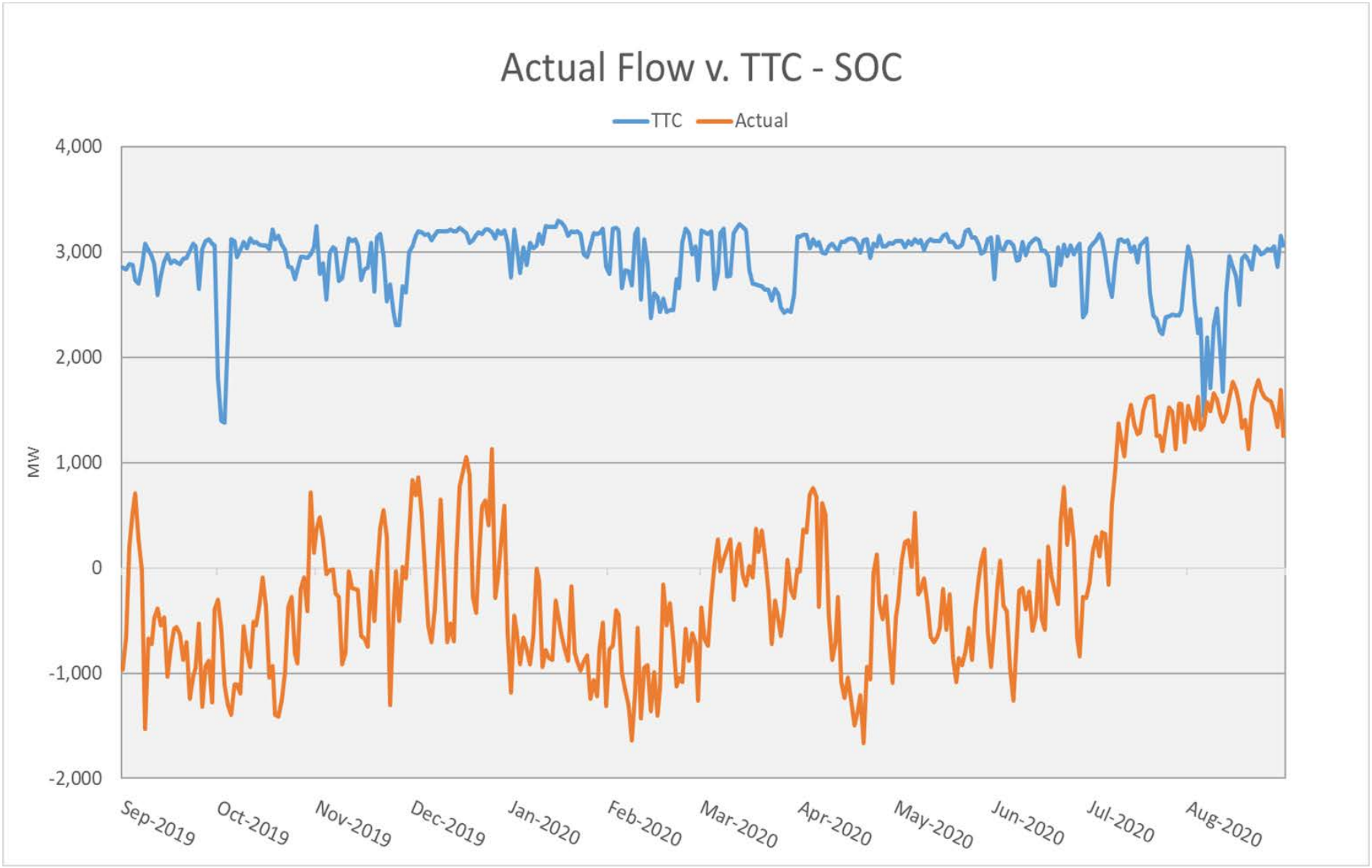
BPA is providing the following data per the Hourly Firm commitment:

- Congestion data from the previous 3 months (June-August)
- Flows on North of Echo Lake (NOEL) and South of Custer (SOC)
- Summary of flow-based congestion events
- Information from SOC curtailments









System Event Details

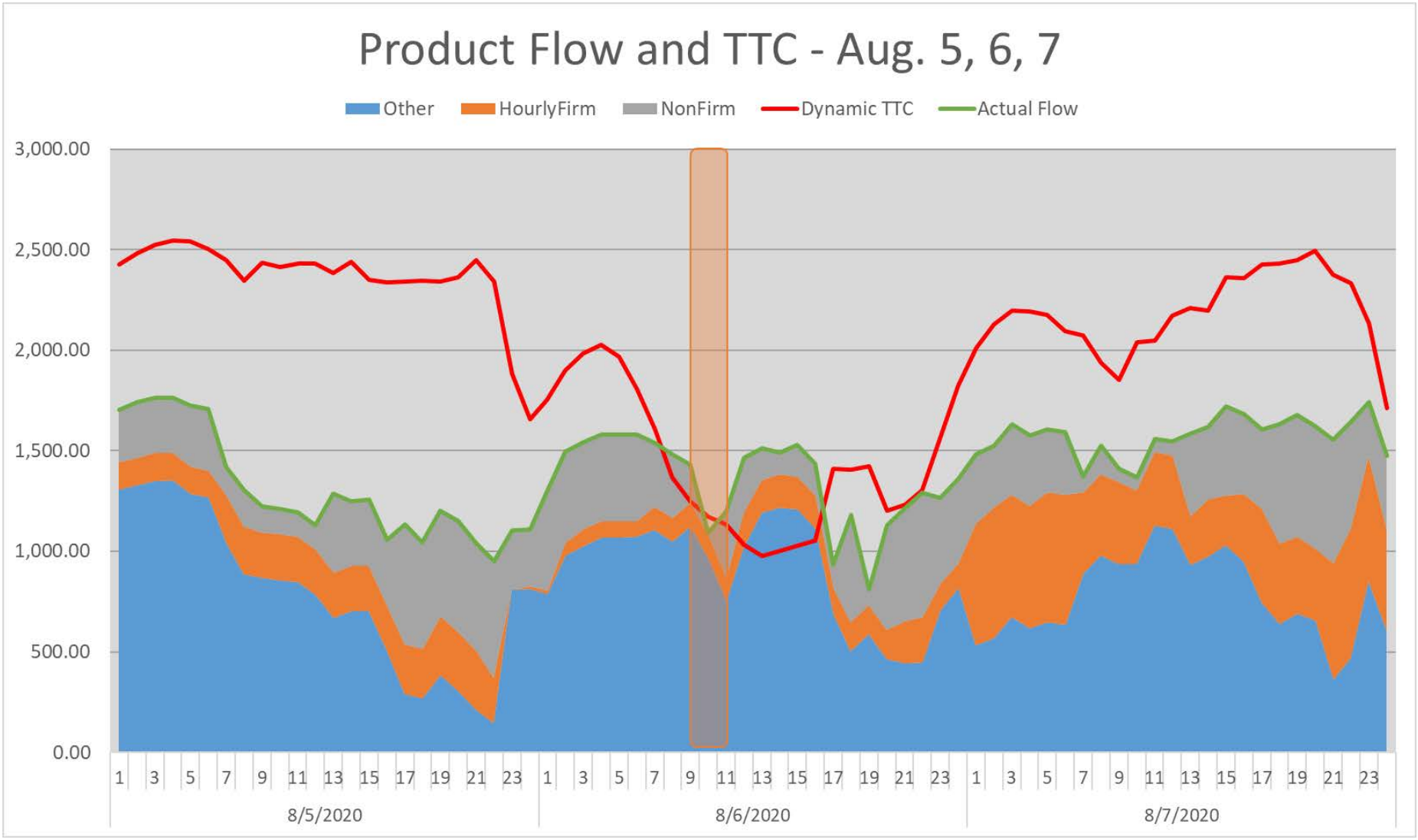
Curtailments:	**2** (on SOC Flowgate [0 on NOEL])
TLR Avoidance Events (15 min segments):	**0** (TLR Avoidance Events)
Refused TSRs due to TLR Avoidance:	**0** (Refused TSRs due to TLR Avoidance)
Planned Outages:	**1** (Detailed on following slide)
Percentage of hours where actual flows were within 20% of TTC:	**1.64% - System-wide** (13.18% across NOEL Flowgate) (0.74% across SOC Flowgate)

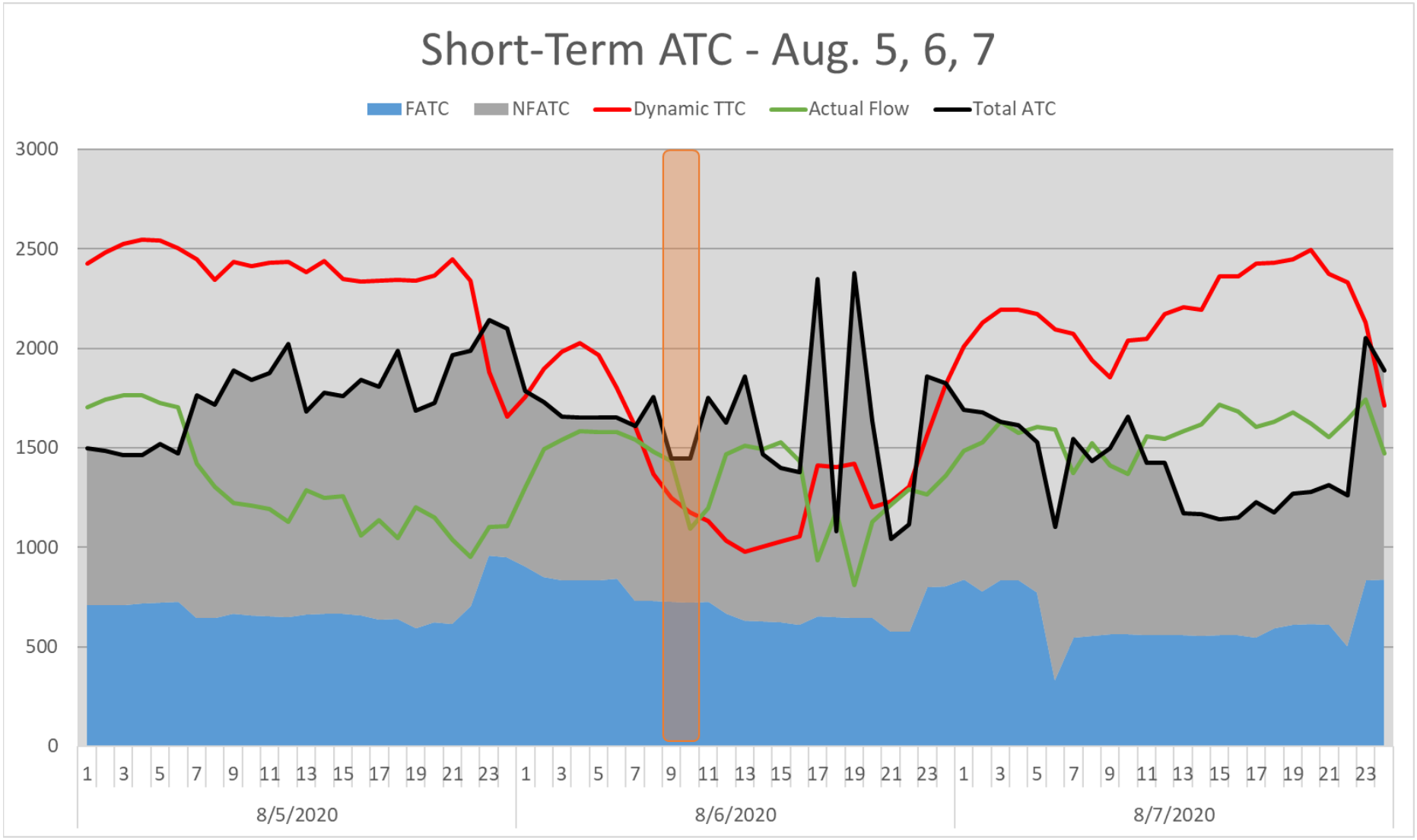
South of Custer Outage Summary

TTC (MW)	TTC Variance (MW)	Annotation	Start	Stop
1480	-	Short-Term Seasonal Default	2020-06-01 00:00 PD	2020-11-01 00:00 PD
2595 (Outage)	+1115	Murray – Custer #1 230 kV (expected generation)	2020-08-03 07:00 PD	2020-08-13 13:00 PD
895 (Dynamic)	-1700/-585	Murray – Custer #1 230 kV (reduced local generation)	2020-08-06	2020-08-06

Dispatcher Actions

- 7:05 AM: South of Custer (SOC) TTC dropped below actual flows. Analysis showed that action was needed to address potential overloads. Dispatch worked with BC Hydro to adjust the Nelway phase shifter to move 100 MW of flow away from the area.
- 8:20 AM: SOC flows increased again, requiring action. Dispatch again worked with BC Hydro to adjust the Nelway phase shifter to move 100 MW of flow away from the area. Analysis still showed that more action was required.
- 8:30 AM: Dispatch initiated a curtailment on SOC of 248 MW of non-firm schedules for the remainder of the hour.
- 8:45 AM: Analysis still showed action required to address potential overloads. Dispatch initiated a curtailment on SOC of 371 MW of non-firm schedules for the following hour (HE10).
- 8:50 AM: Analysis showed no potential overloads.
- 10:00 AM: BPA study engineer talked to the Puget Sound Energy study engineer and we updated the Portal Way transformer limits to match those being used by Puget.





Wrap Up

- See additional transmission data at the TC-20 Hourly Firm page:

  https://www.bpa.gov/transmission/CustomerInvolvement/TC20Implementation/HourlyFirm/Pages/default.aspx

- Please send Questions/Comments to techforum@bpa.gov, with a copy to your Account Executive