



FEBRUARY 2025 COLD SNAP

TEMPERATURE & LOAD FORECAST
PROGRESSION

*Working together to responsibly and economically
keep the lights on today and in the future.*



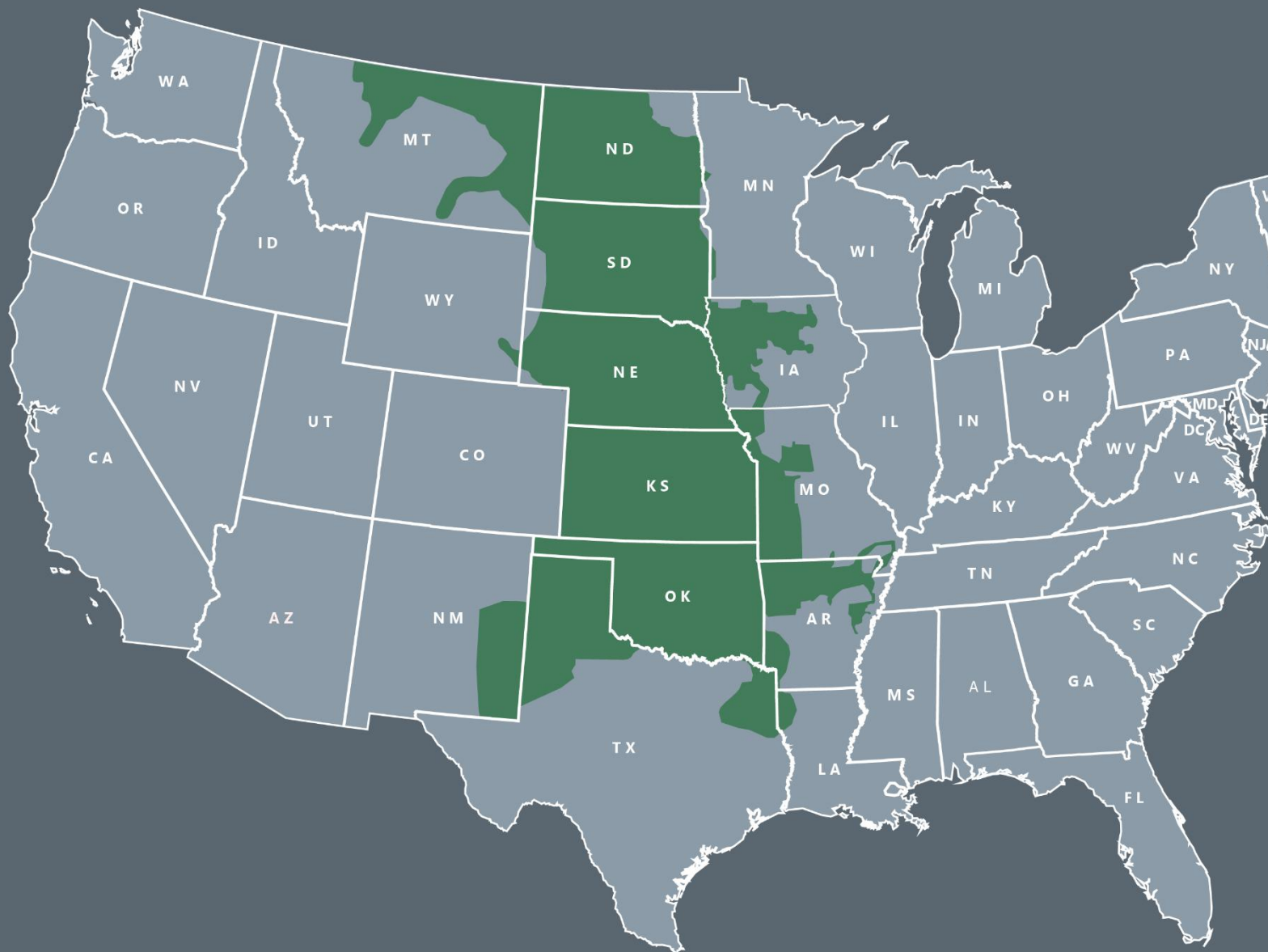
SouthwestPowerPool



SPPorg



southwest-power-pool



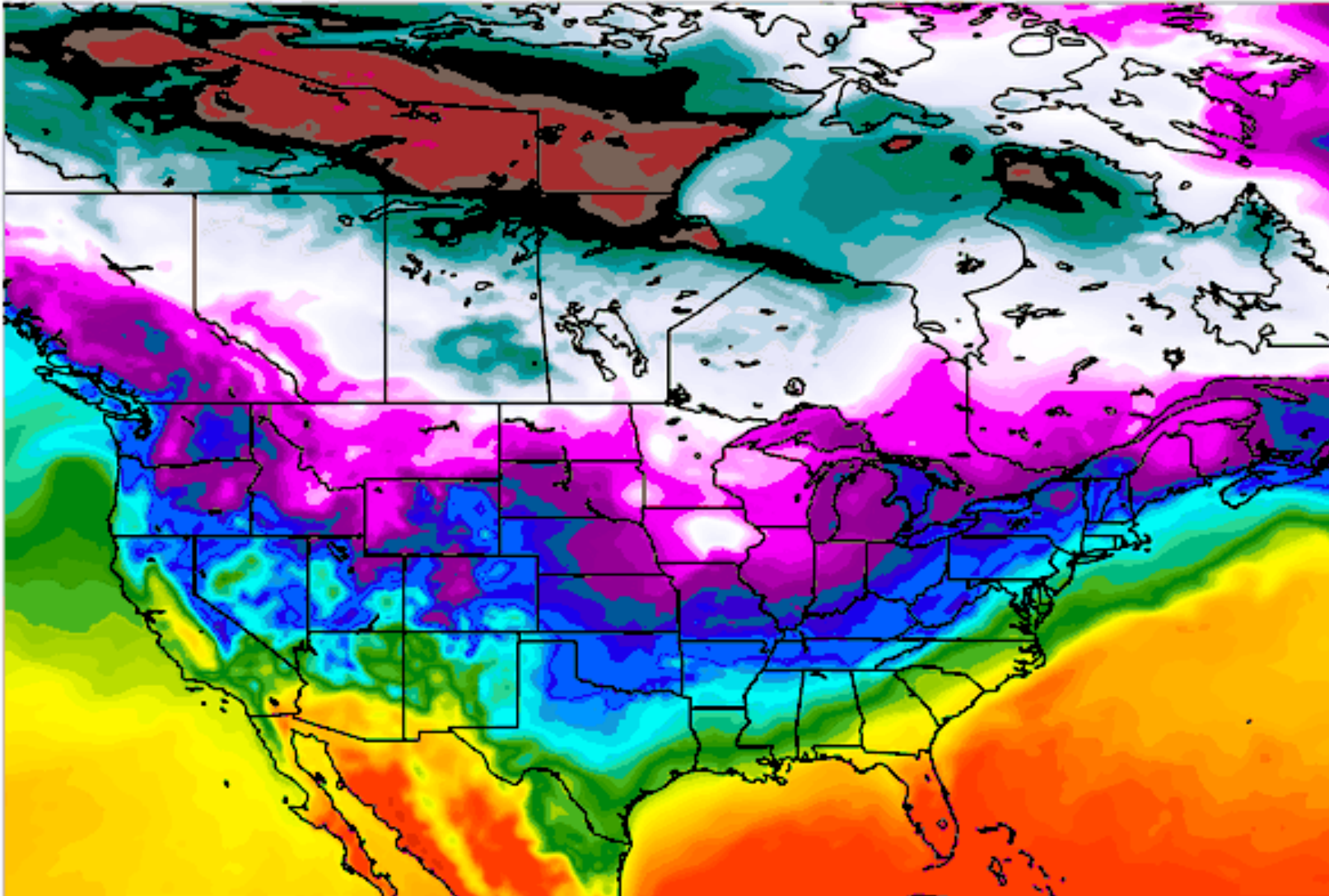
RTO OPERATING REGION

- **552,885** square mile service territory
- **~18 million** population served
- **967*** generating plants
- **5,267*** substations

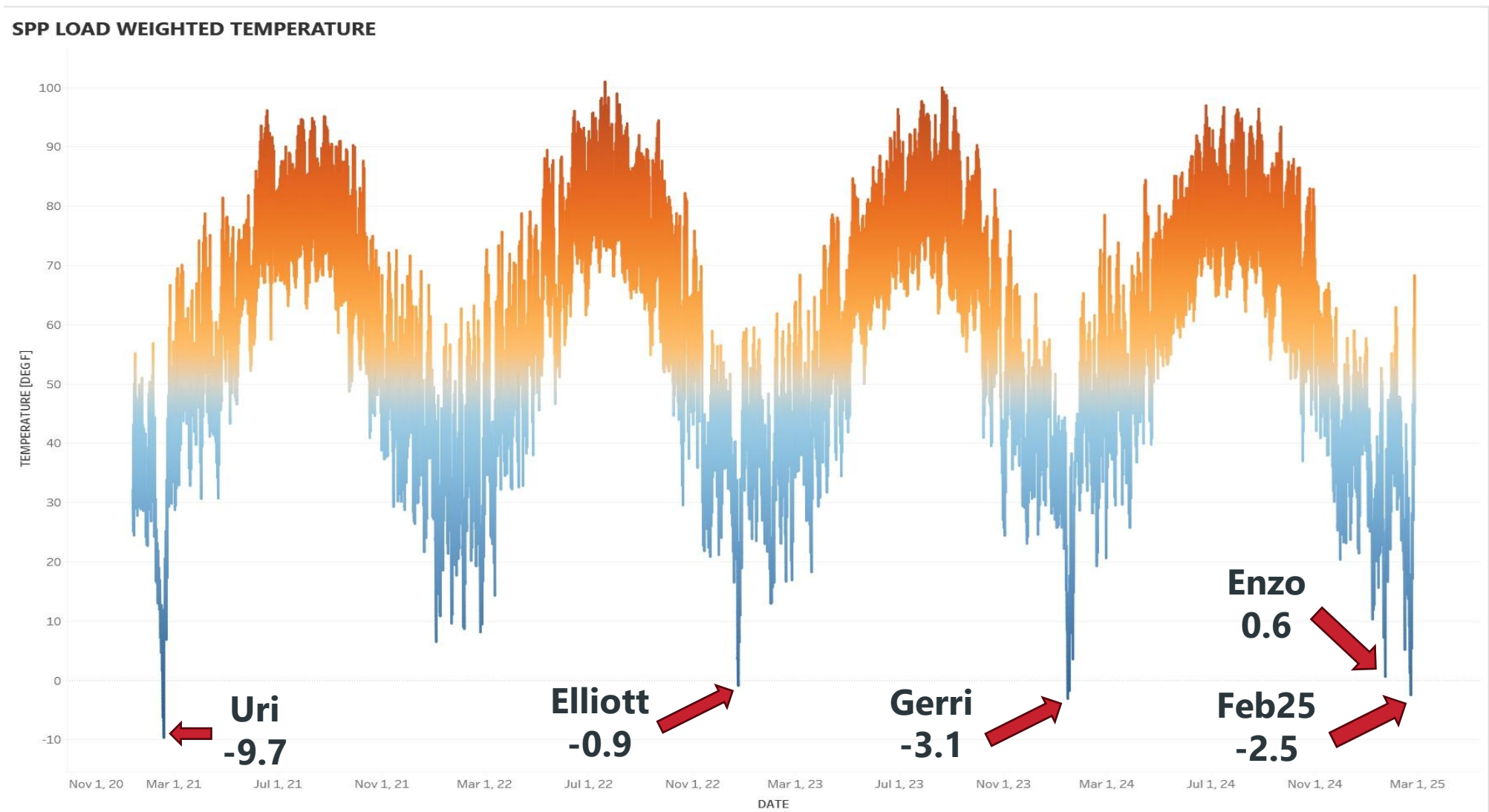
* In SPP's balancing authority area

FEBRUARY 2025 ARCTIC BLAST

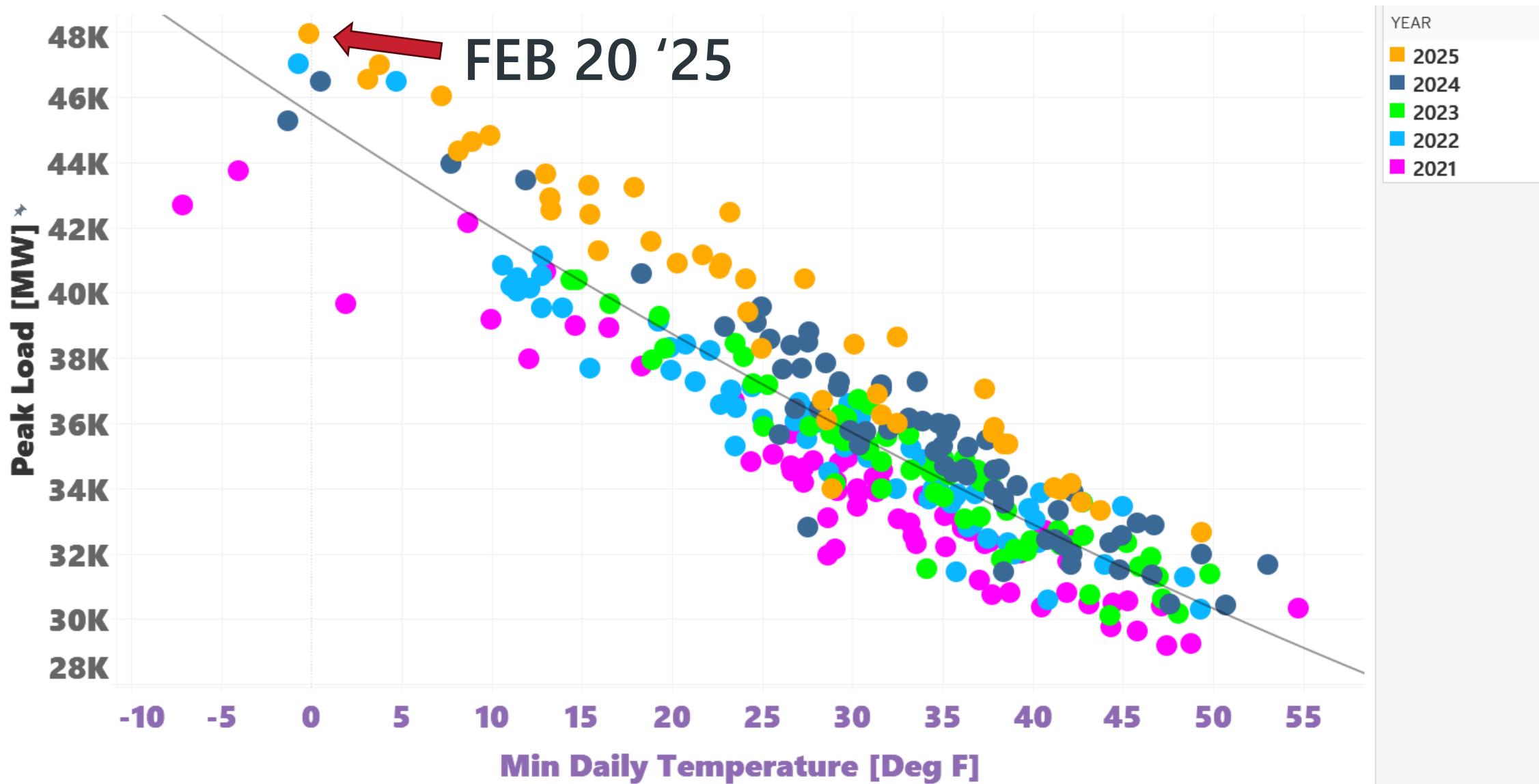
ERA5 T2M 20250214T00Z



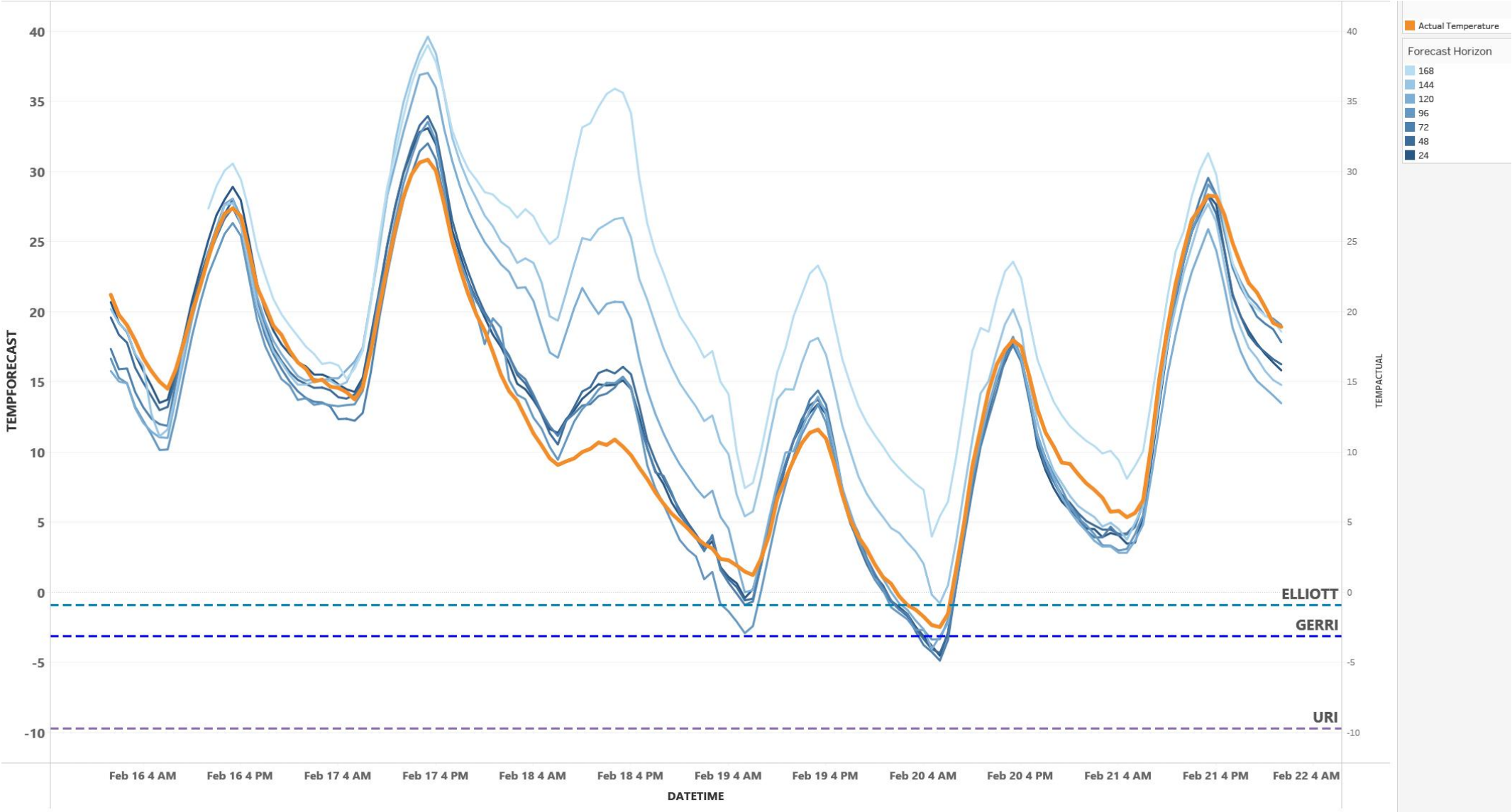
SPP LOAD WEIGHTED TEMPERATURE COMPARISON



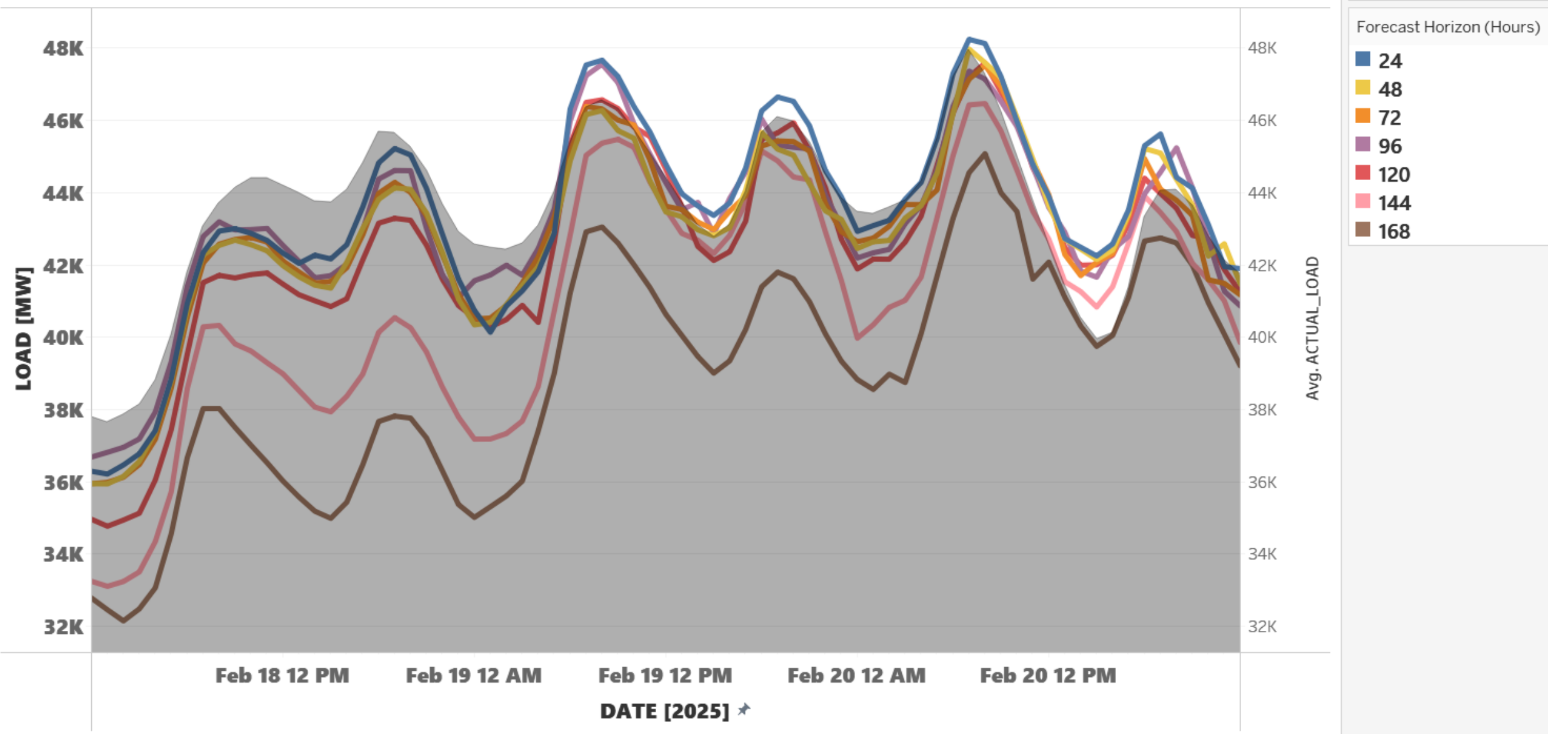
SPP DAILY MIN TEMP VS DAILY PEAK LOAD



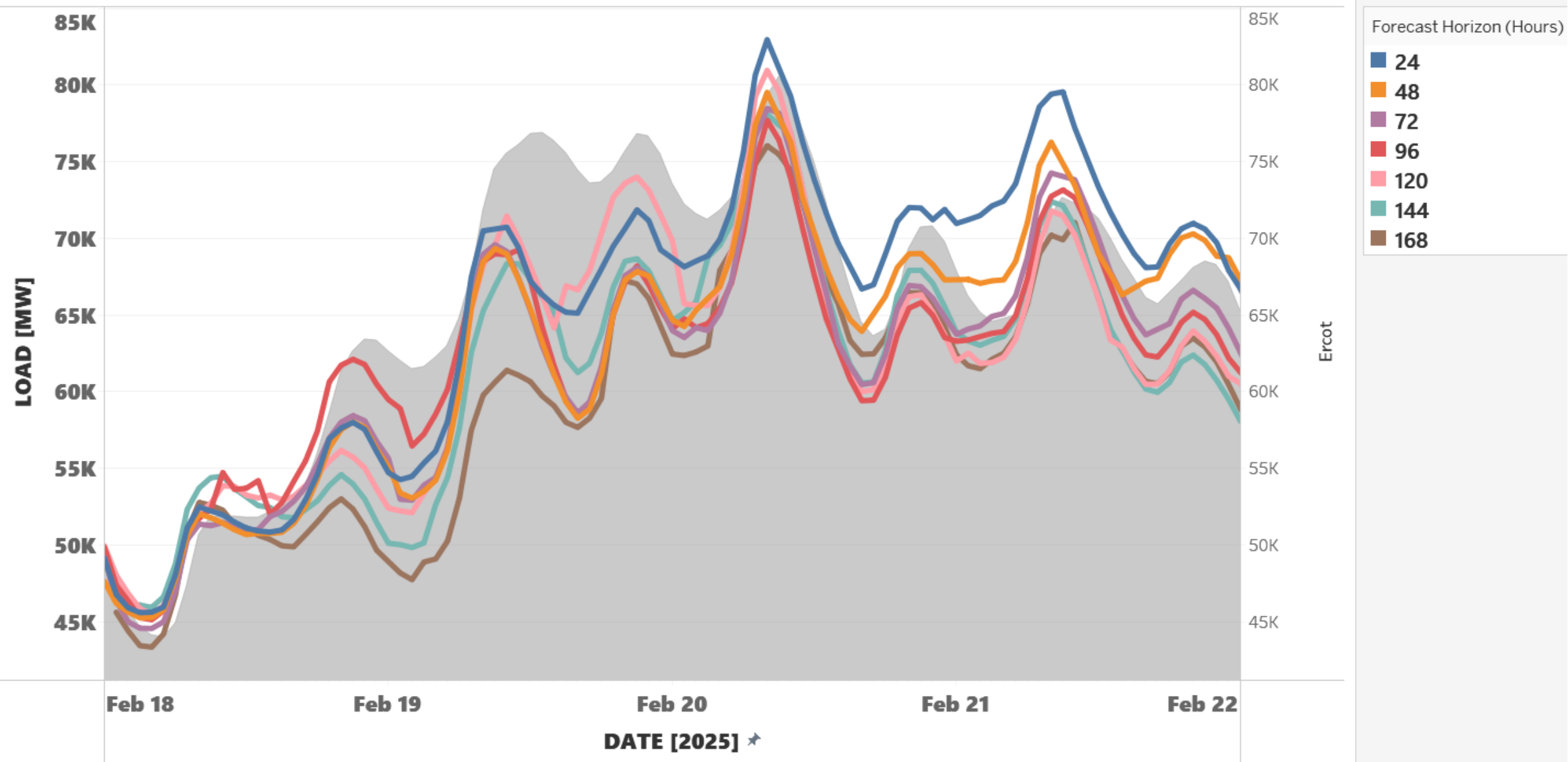
SPP LOAD WEIGHTED TEMPERATURE VS FORECAST



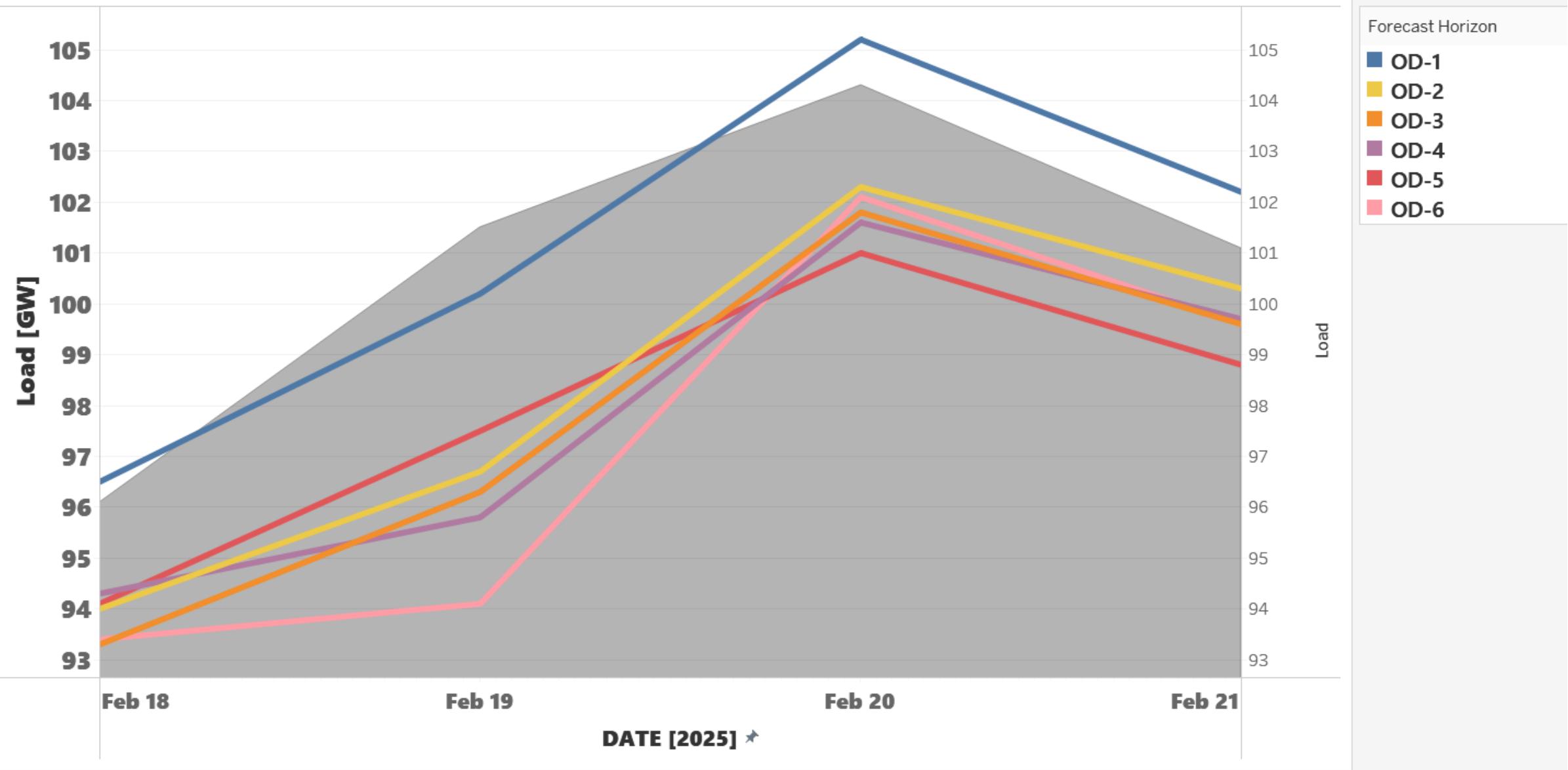
SPP LOAD FORECAST VS ACTUAL (HOURLY)



ERCOT FORECAST LOAD VS ACTUAL (HOURLY)



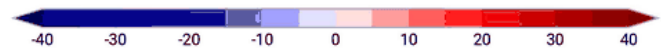
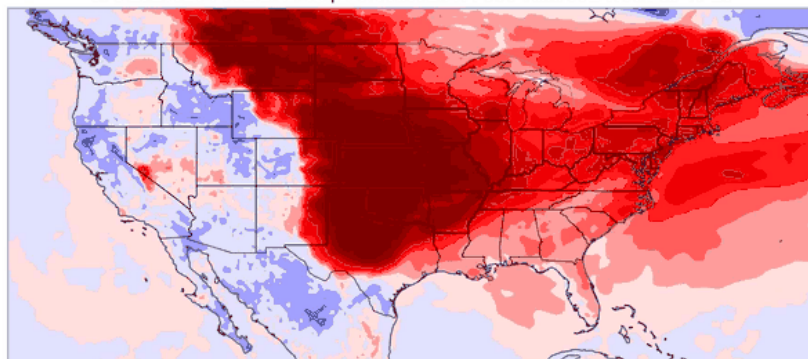
MISO LOAD FORECAST VS ACTUAL (DAILY PEAK)



NWP MODEL ERROR FEB 19 2025 00Z

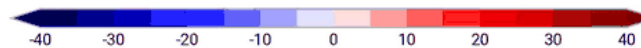
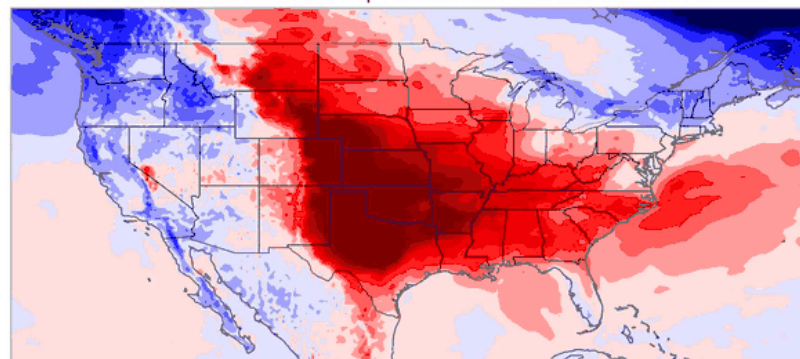
GFS

GFS 20250204 00Z 2m Temp Forecast Error F360 valid 00Z Wed Feb 19 25



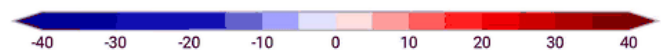
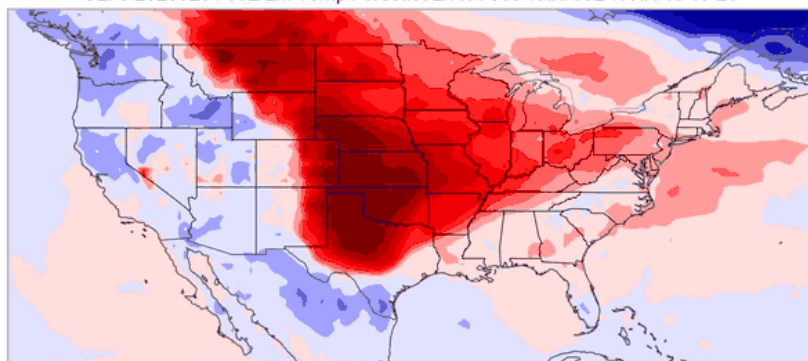
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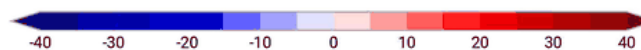
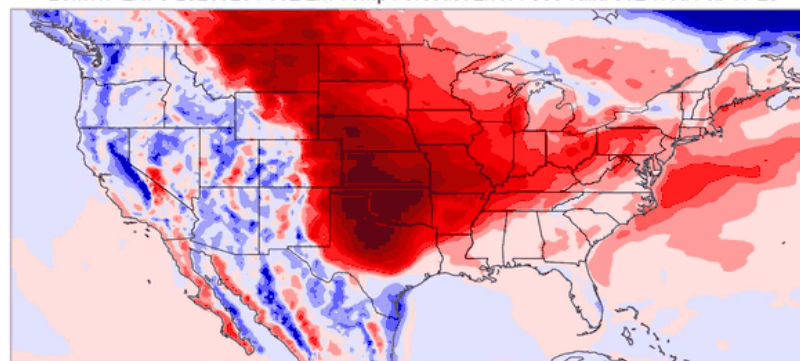
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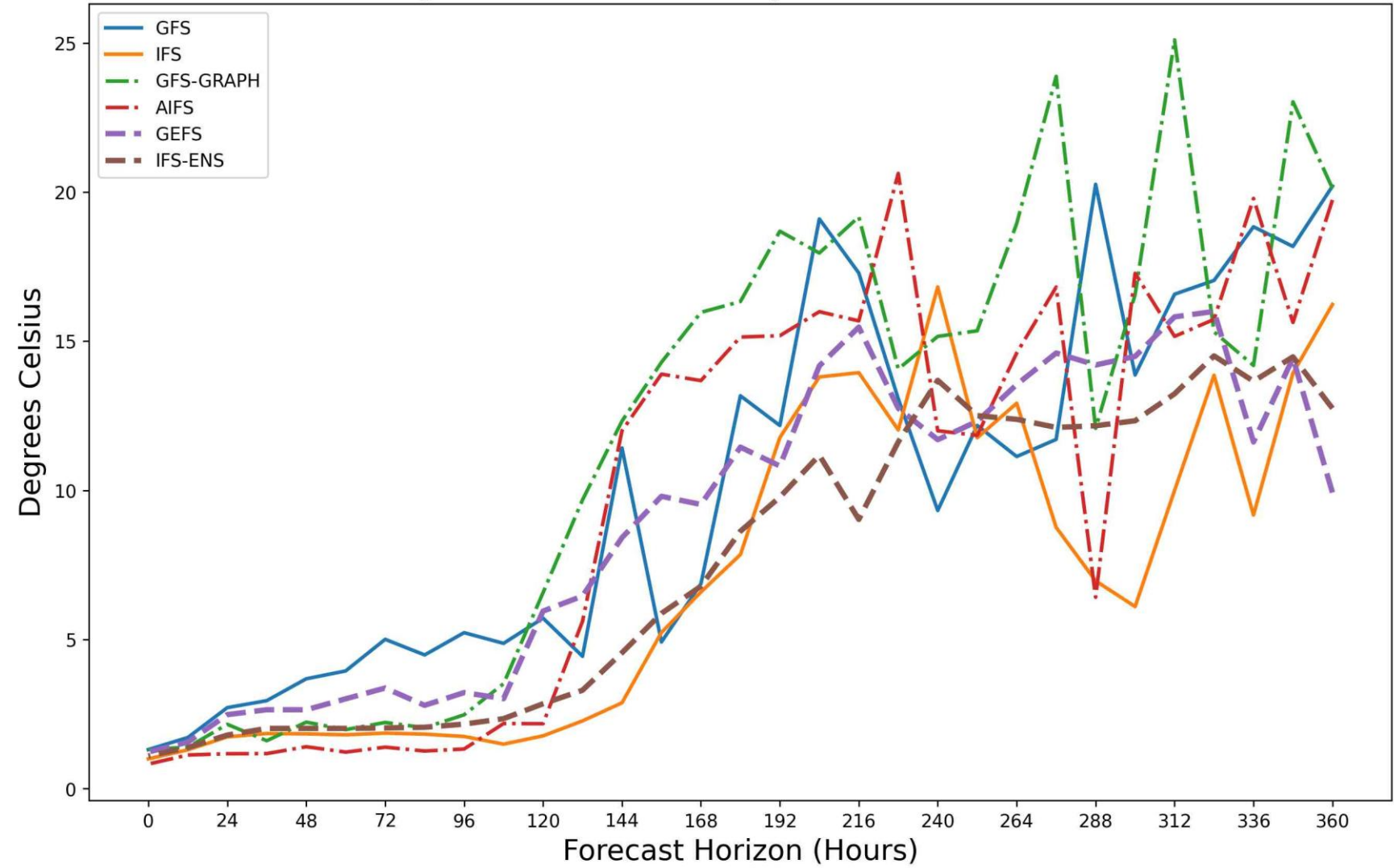
IFS-ENS

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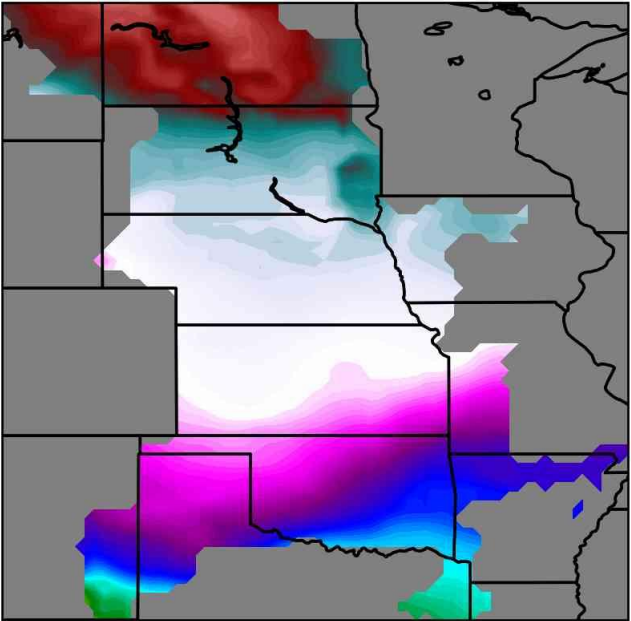


NWP MODEL ERROR – SPP FEB 18 12Z

SPP Region Forecast 2m Temp MAE 12z Tue Feb 18 25

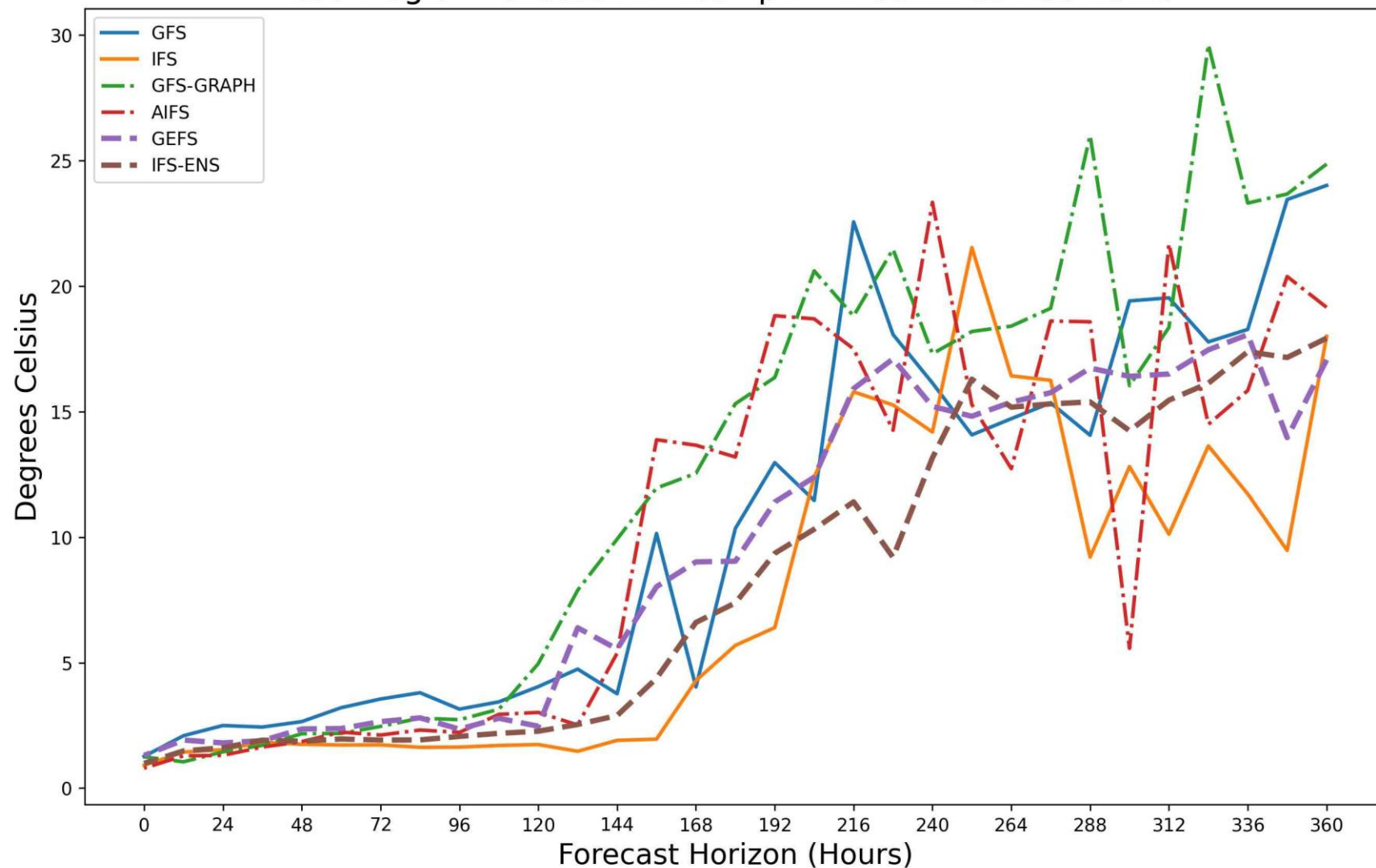


SPP ERA5 ANL 12z Tue Feb 18 25

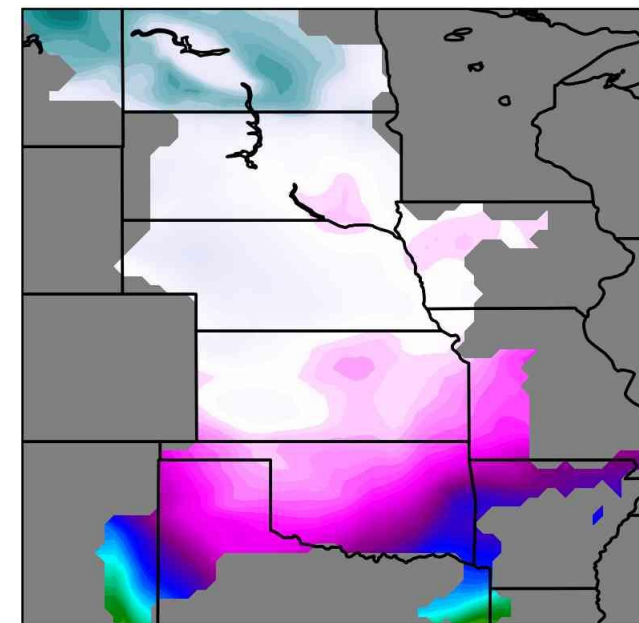


NWP MODEL ERROR – SPP FEB 19 00Z

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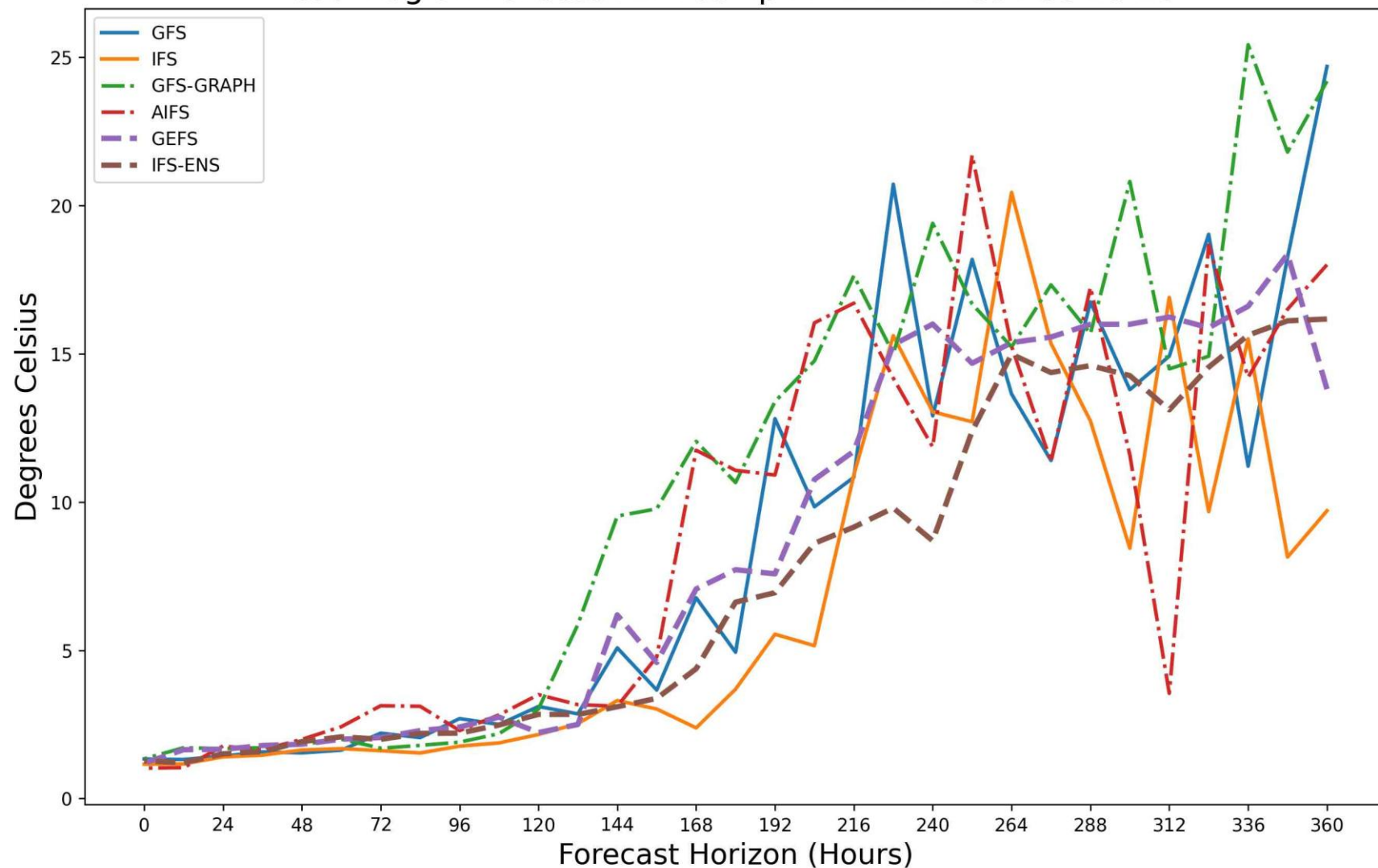


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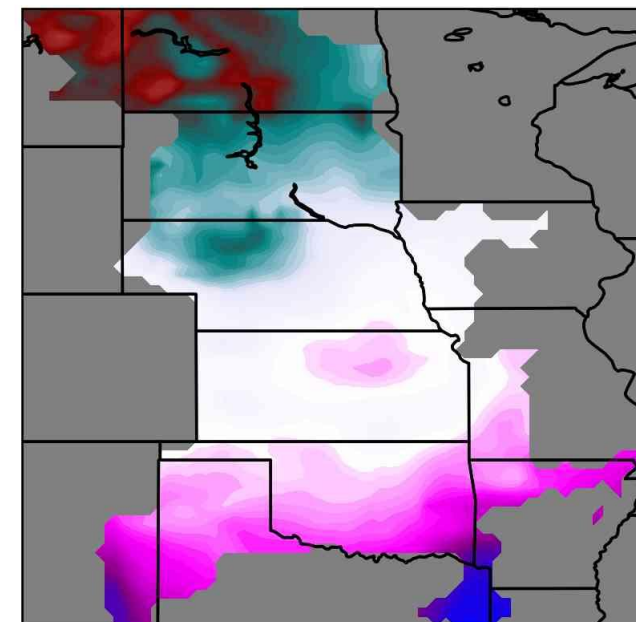


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SPP Region Forecast 2m Temp MAE 12z Wed Feb 19 25

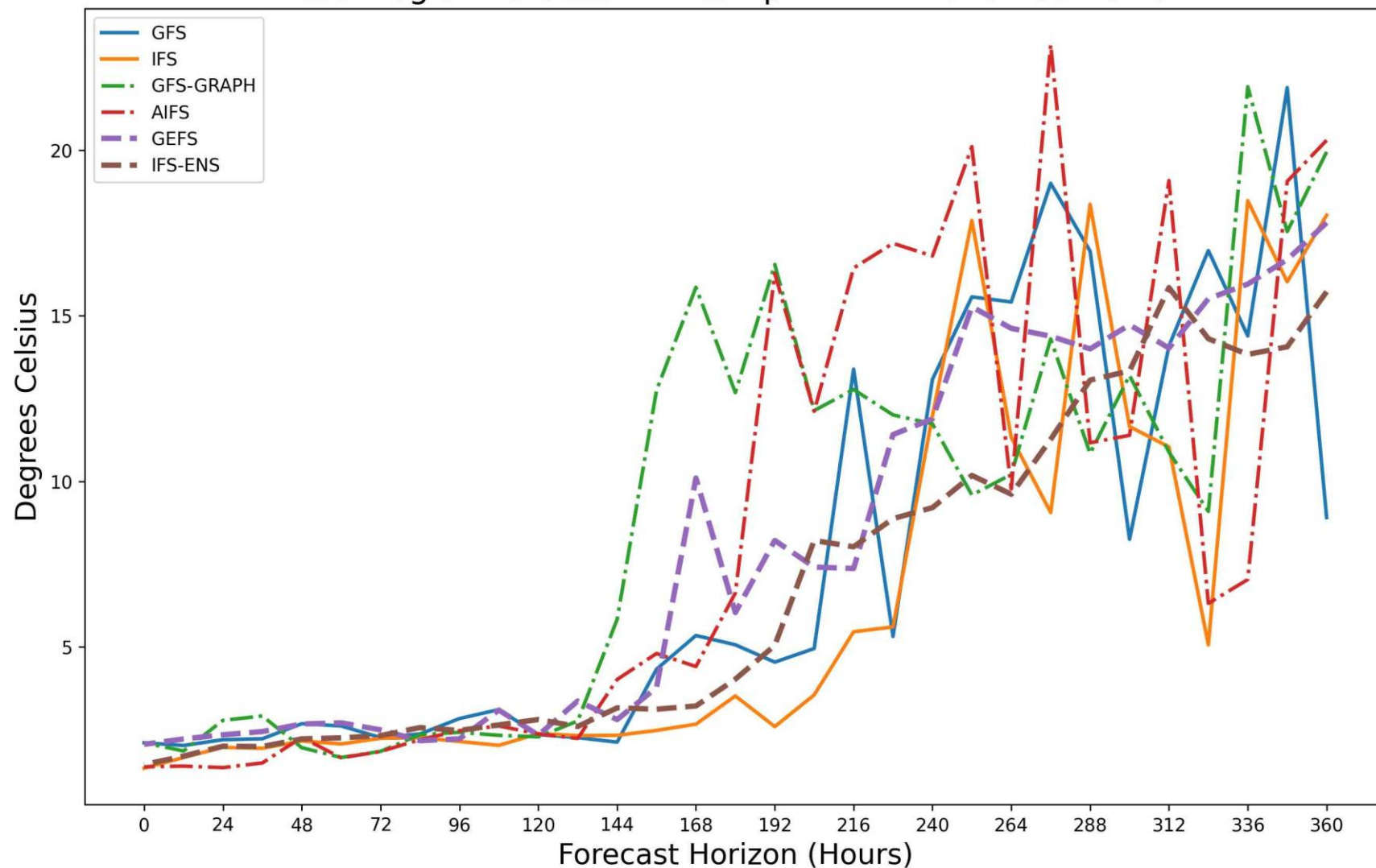


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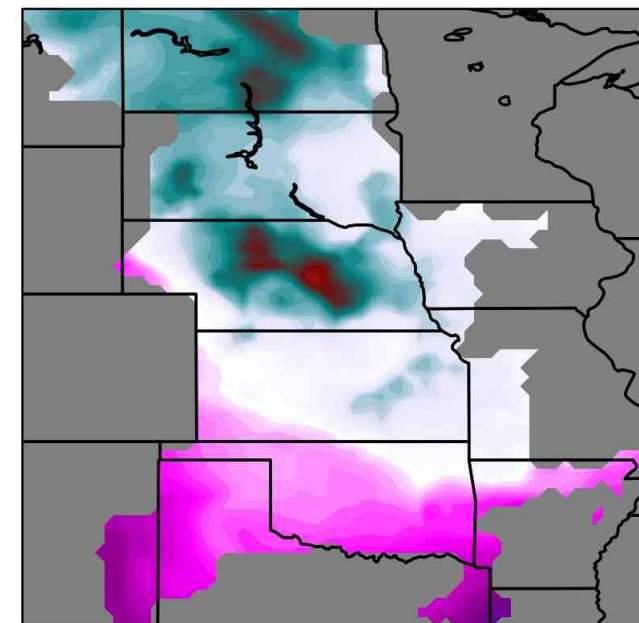


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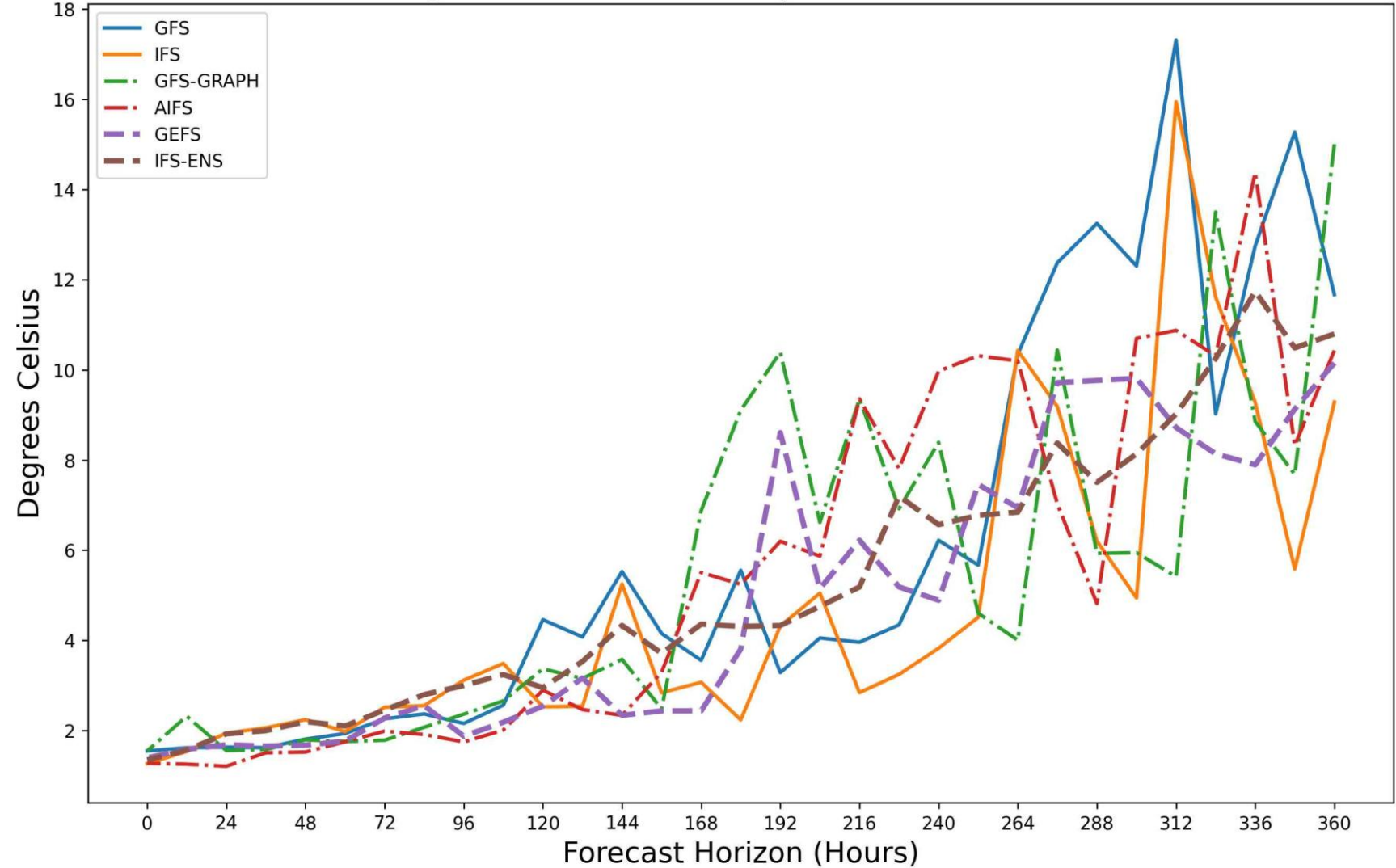


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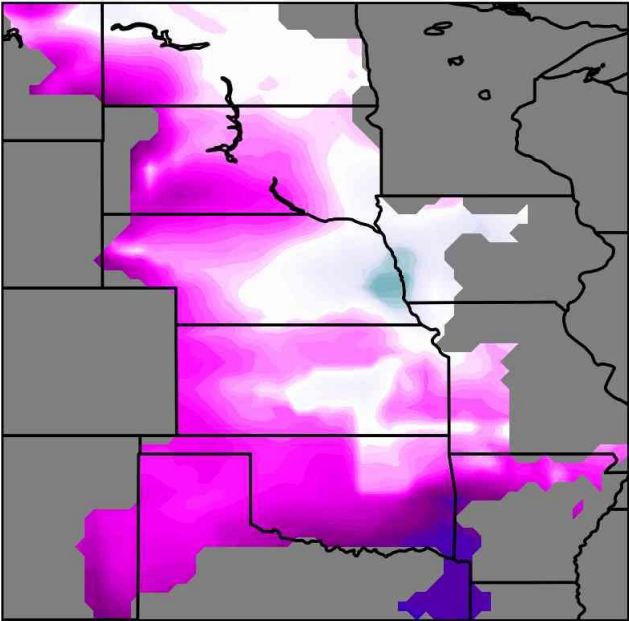


NWP MODEL ERROR – SPP FEB 21 12Z

SPP Region Forecast 2m Temp MAE 12z Fri Feb 21 25

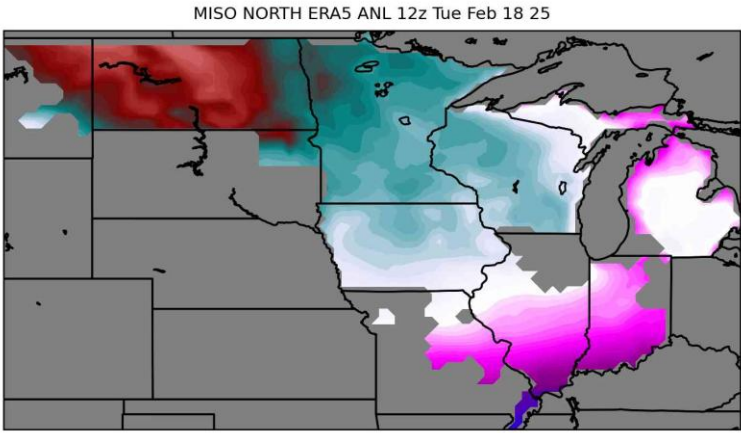
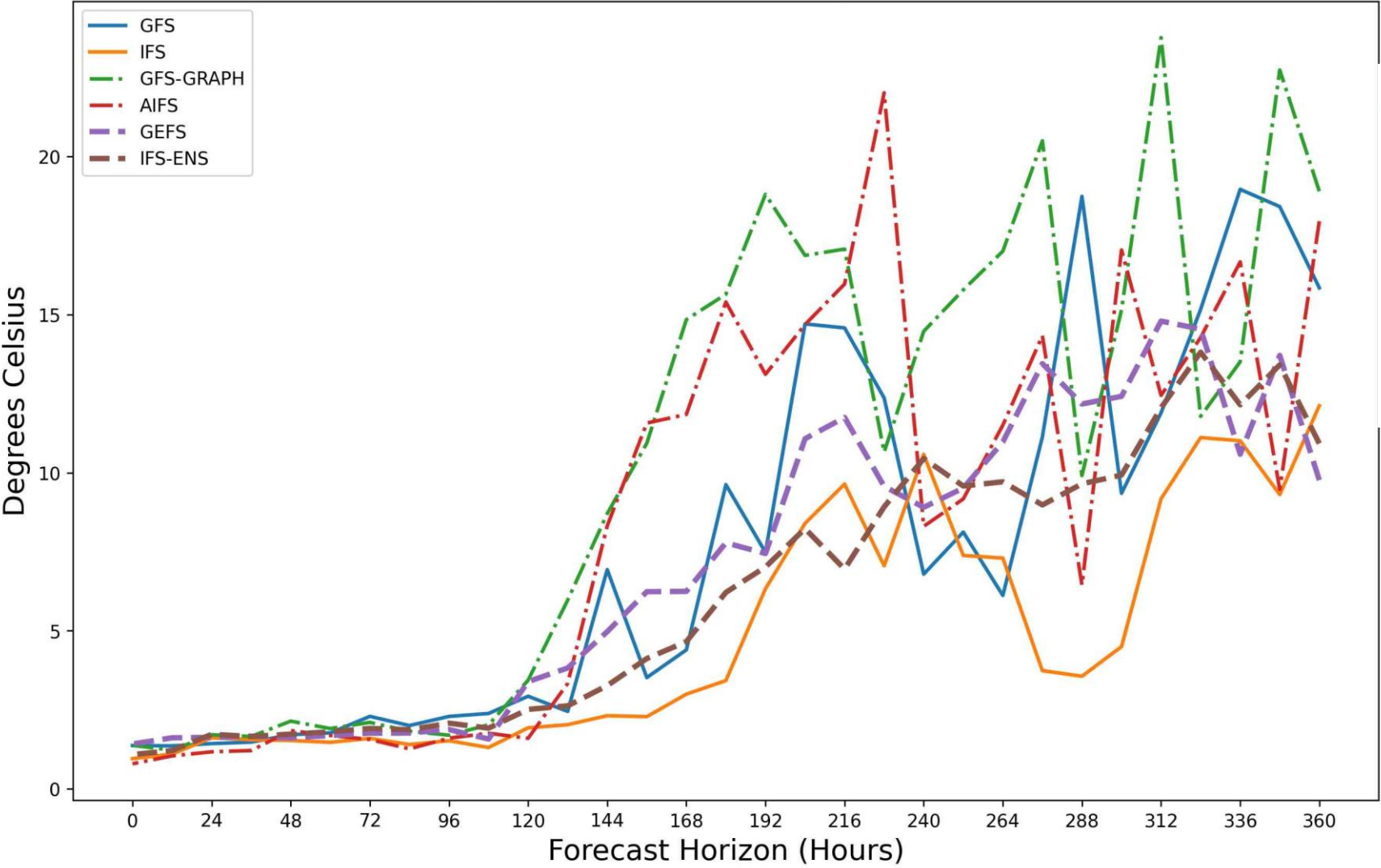


SPP ERA5 ANL 12z Fri Feb 21 25



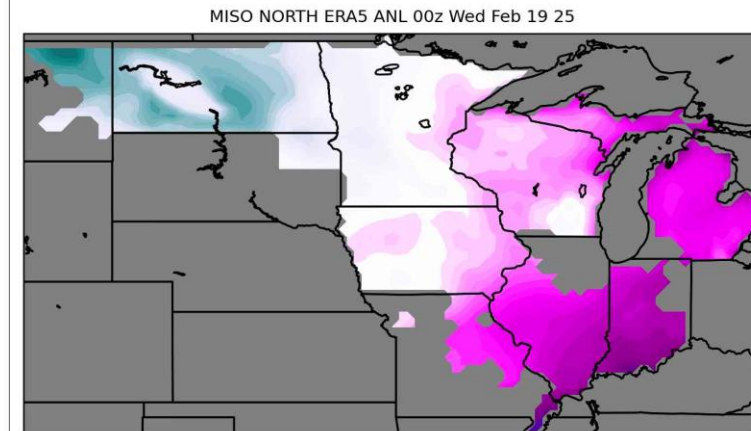
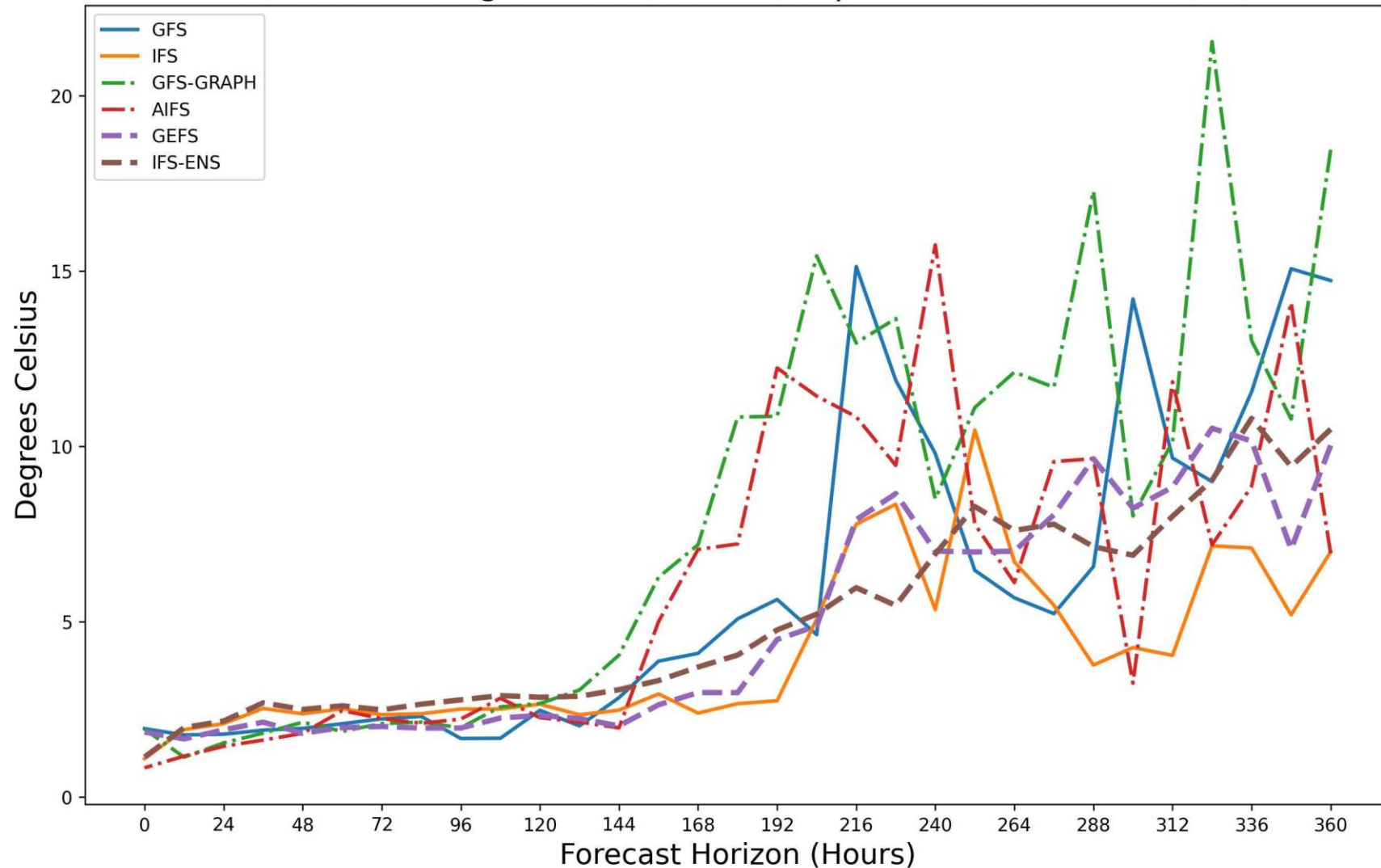
NWP MODEL ERROR – MISO US NORTH FEB 18 12Z

MISO NORTH Region Forecast 2m Temp MAE 12z Tue Feb 18 25



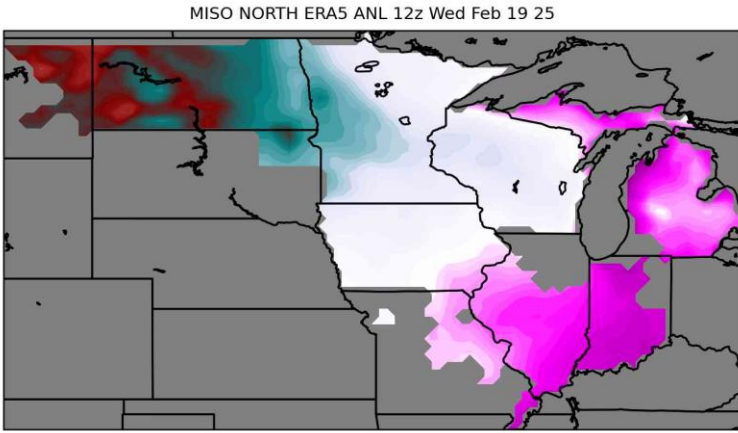
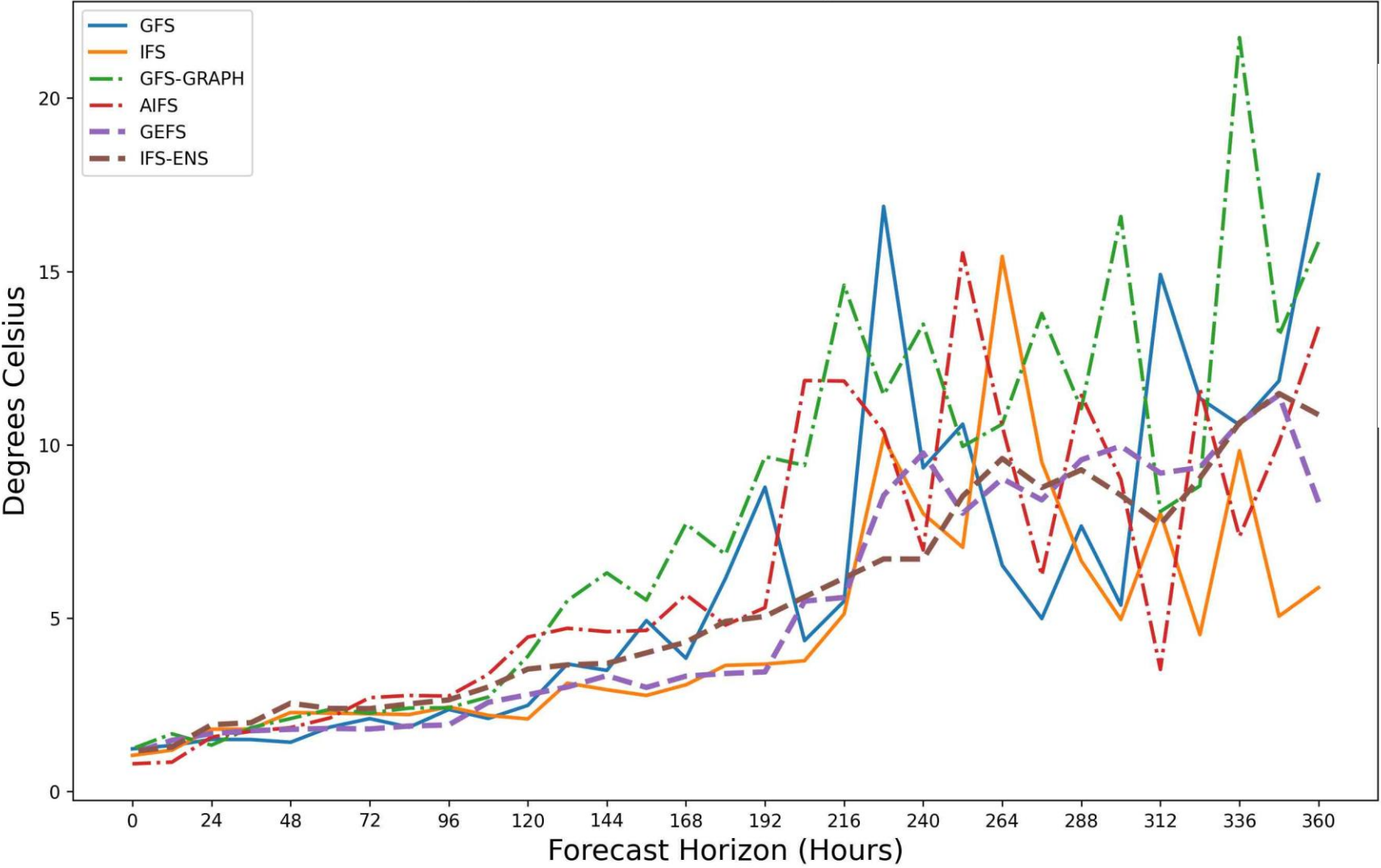
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MISO NORTH Region Forecast 2m Temp MAE 00z Wed Feb 19 25



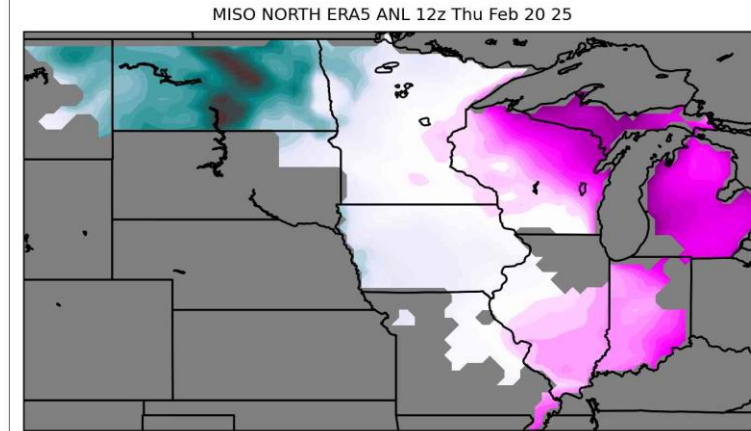
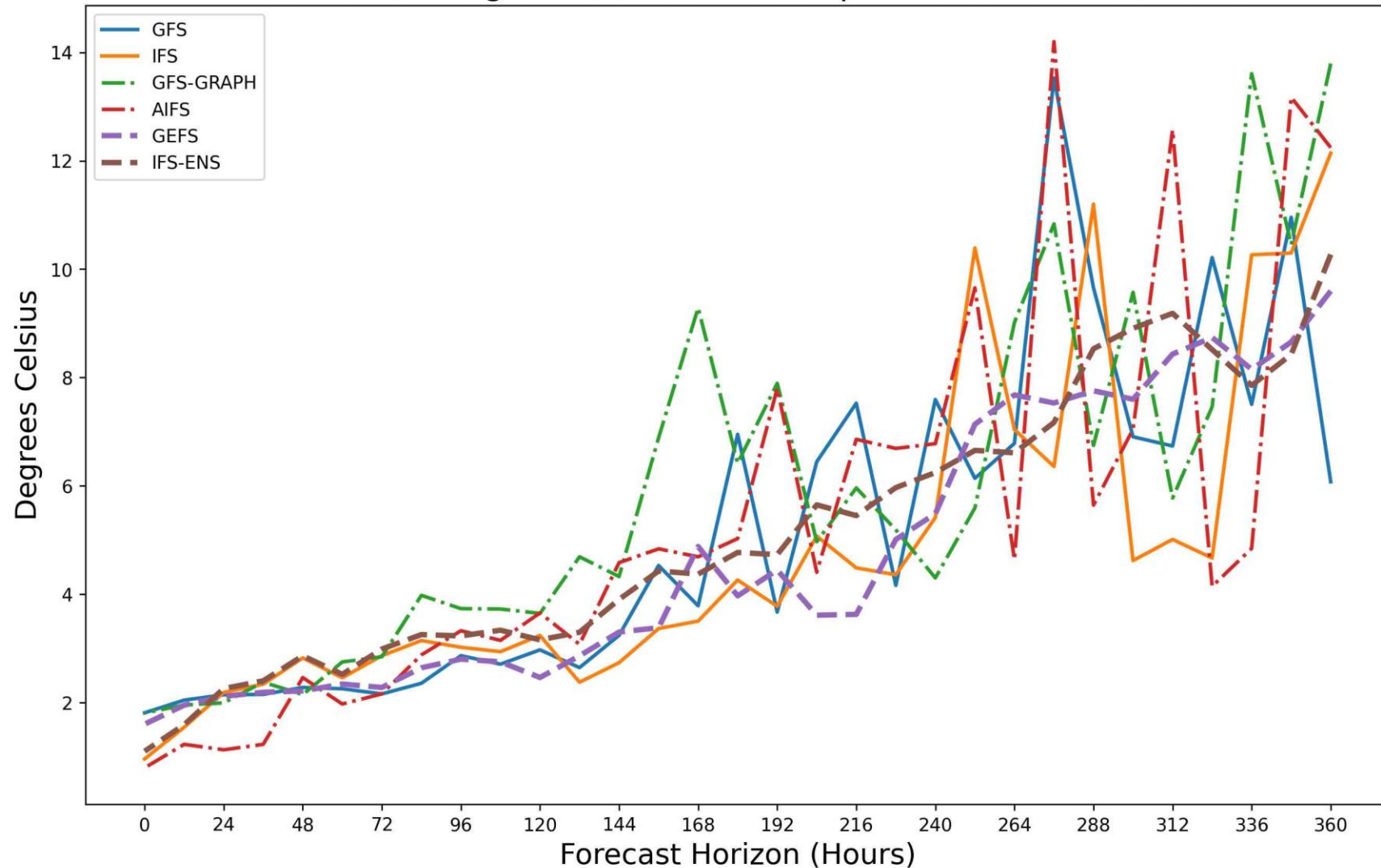
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MISO NORTH Region Forecast 2m Temp MAE 12z Wed Feb 19 25



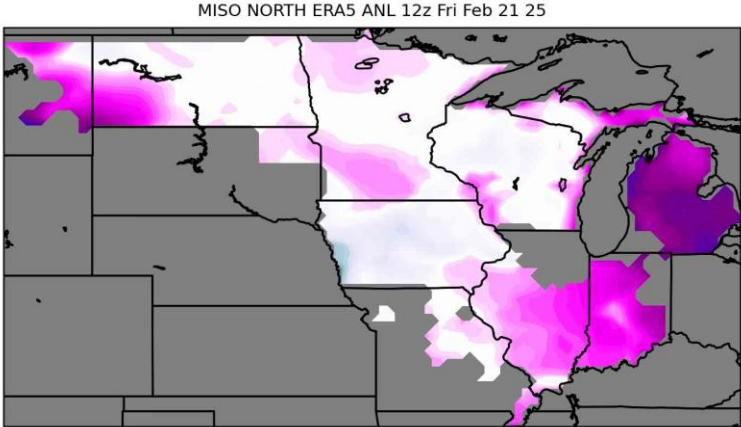
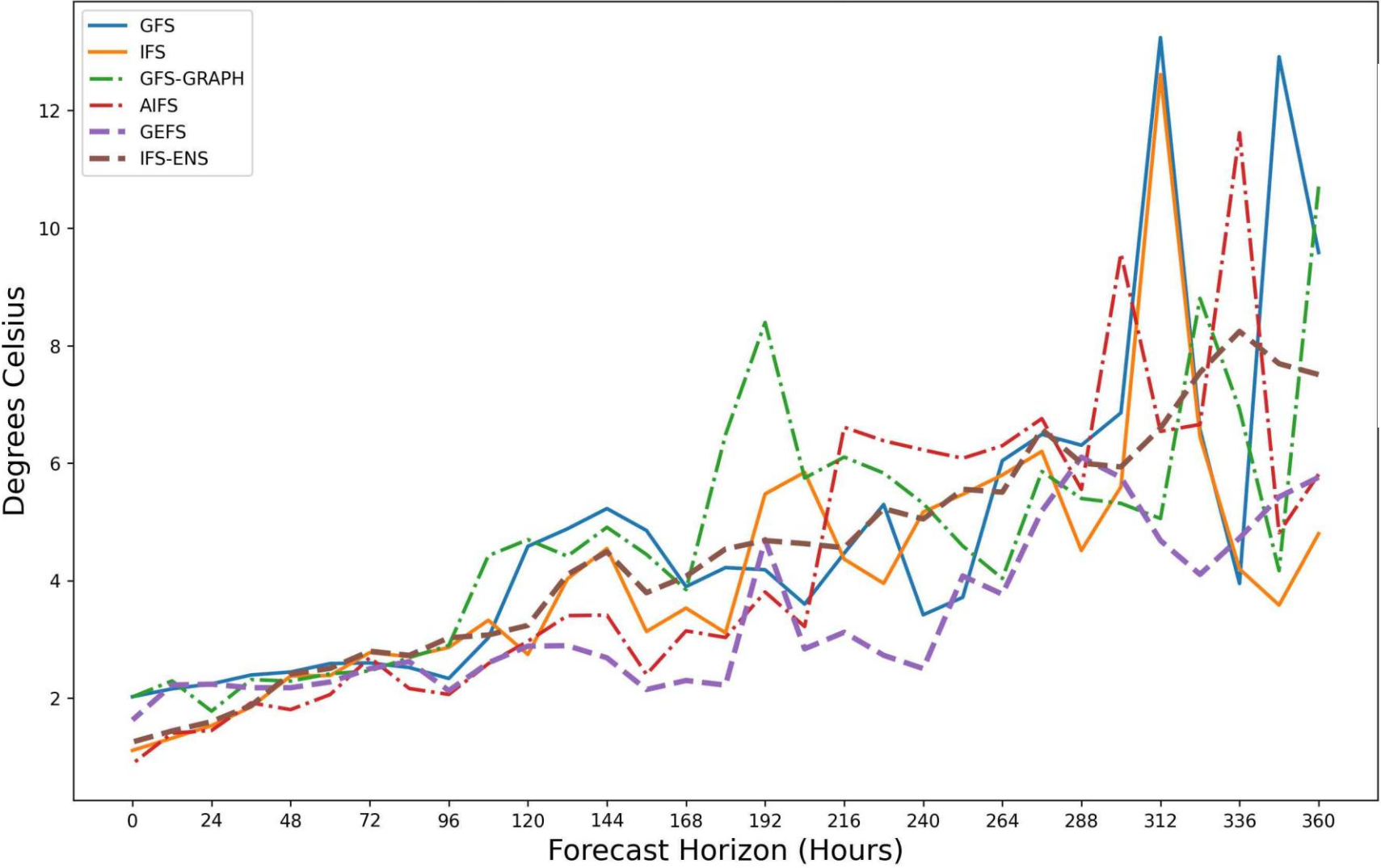
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MISO NORTH Region Forecast 2m Temp MAE 12z Thu Feb 20 25



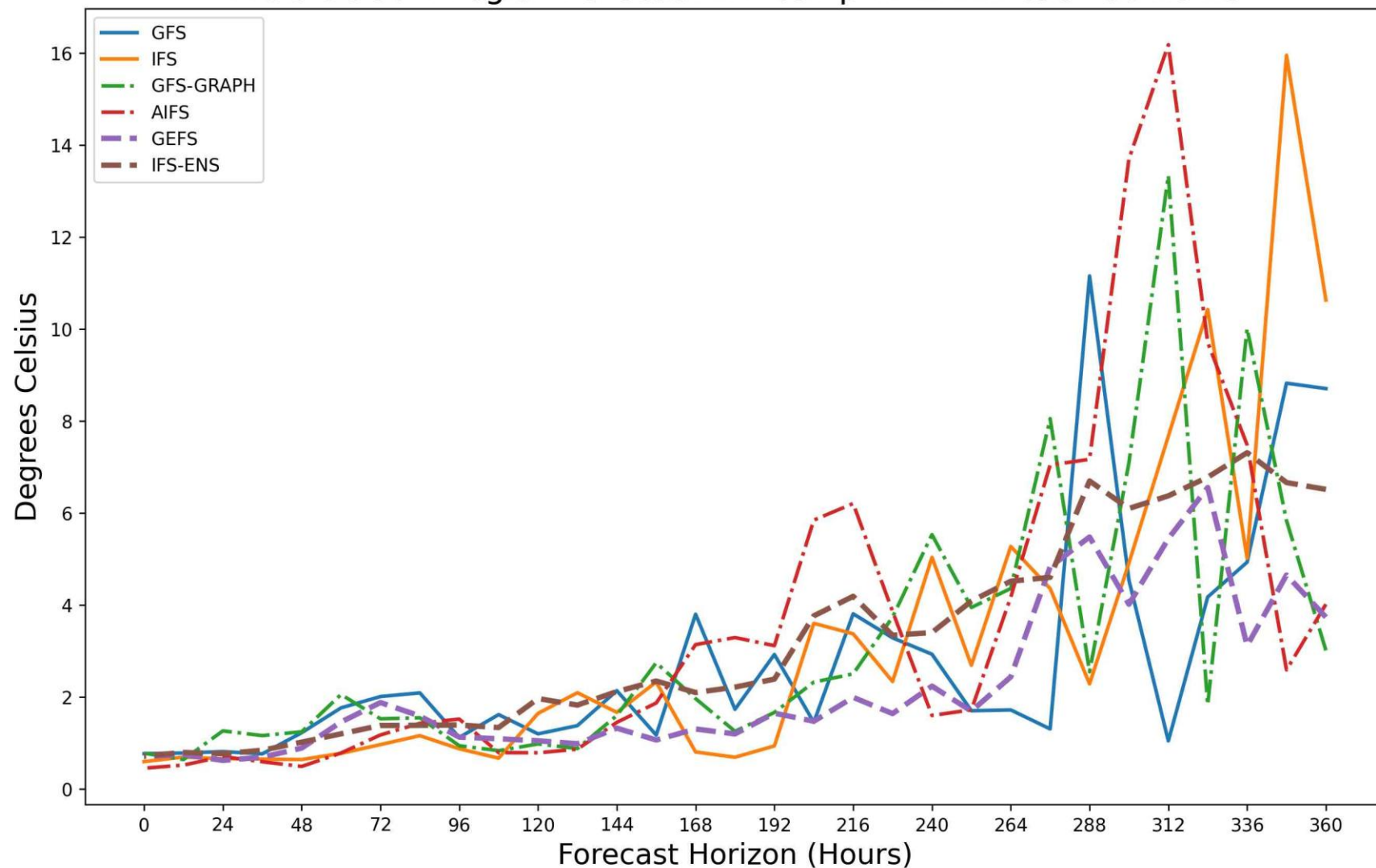
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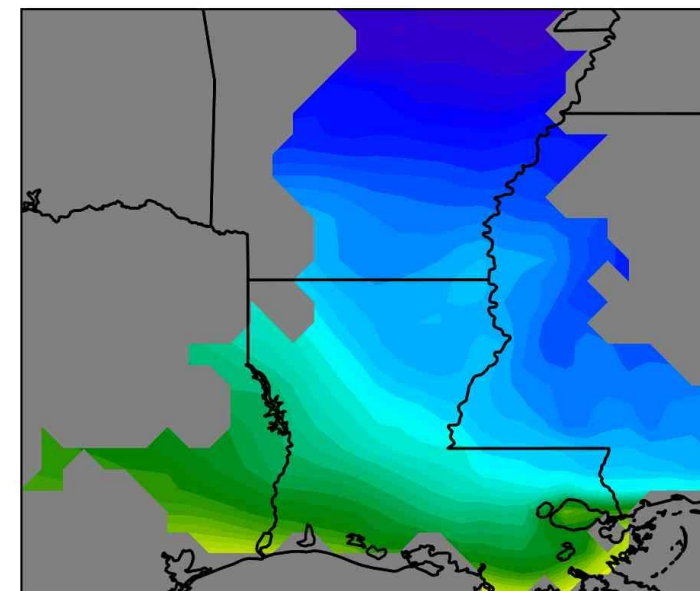


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MISO SOUTH Region Forecast 2m Temp MAE 12z Tue Feb 18 25

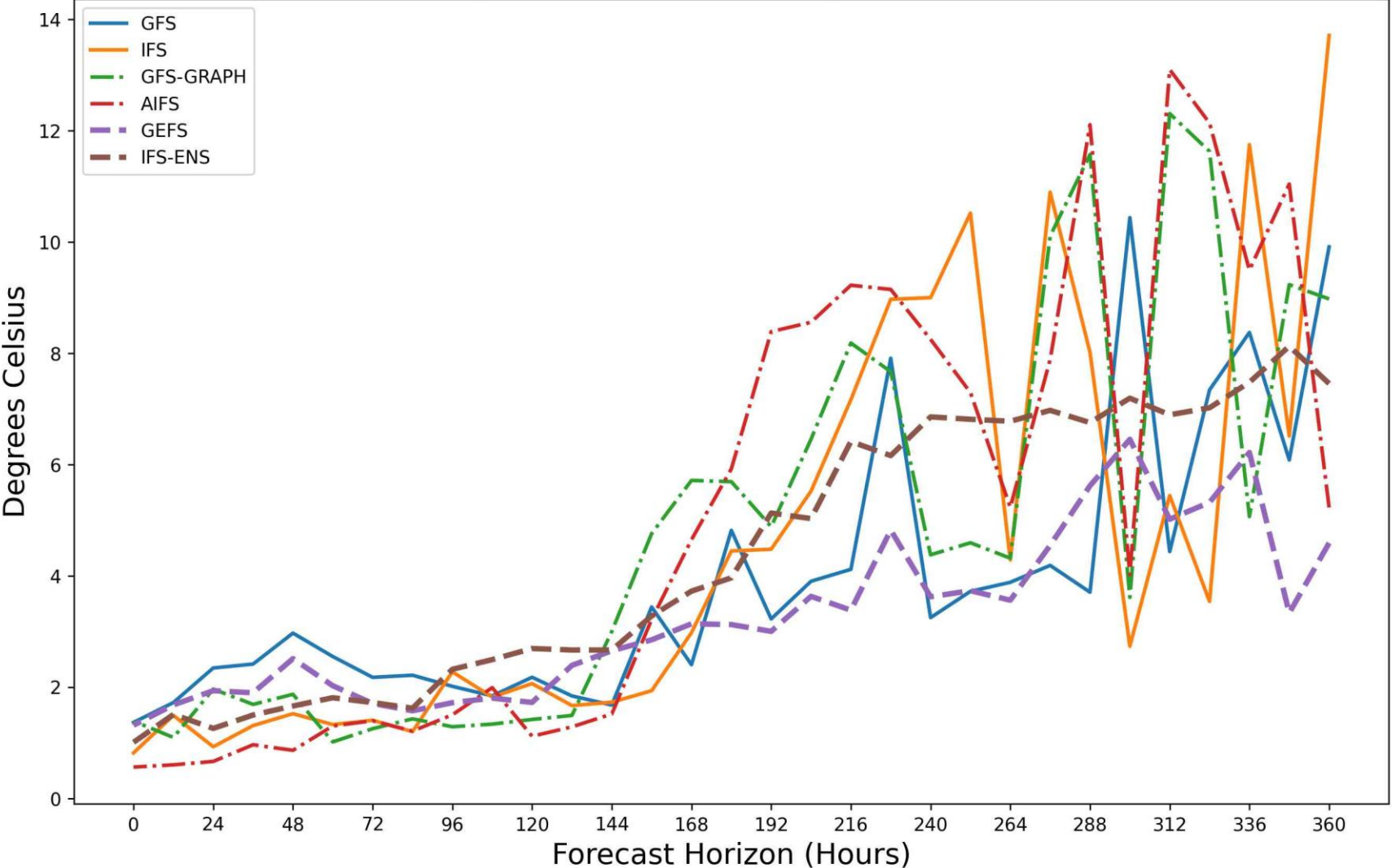


MISO SOUTH ERA5 ANL 12z Tue Feb 18 25

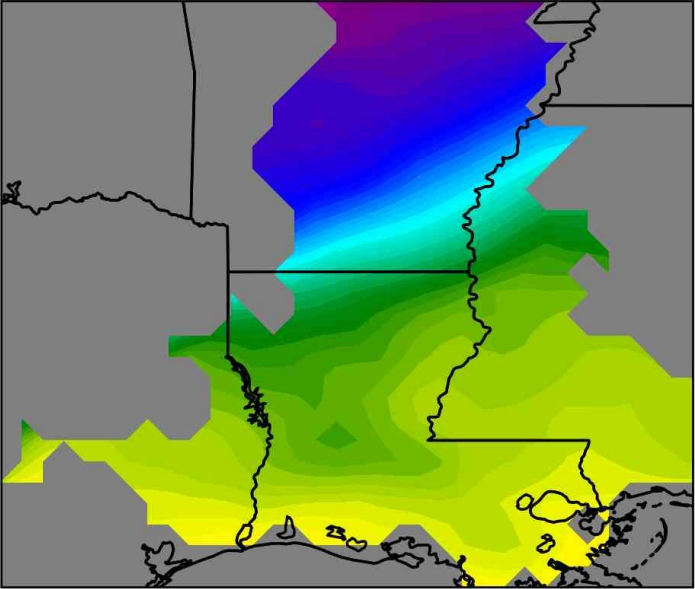


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MISO SOUTH Region Forecast 2m Temp MAE 00z Wed Feb 19 25

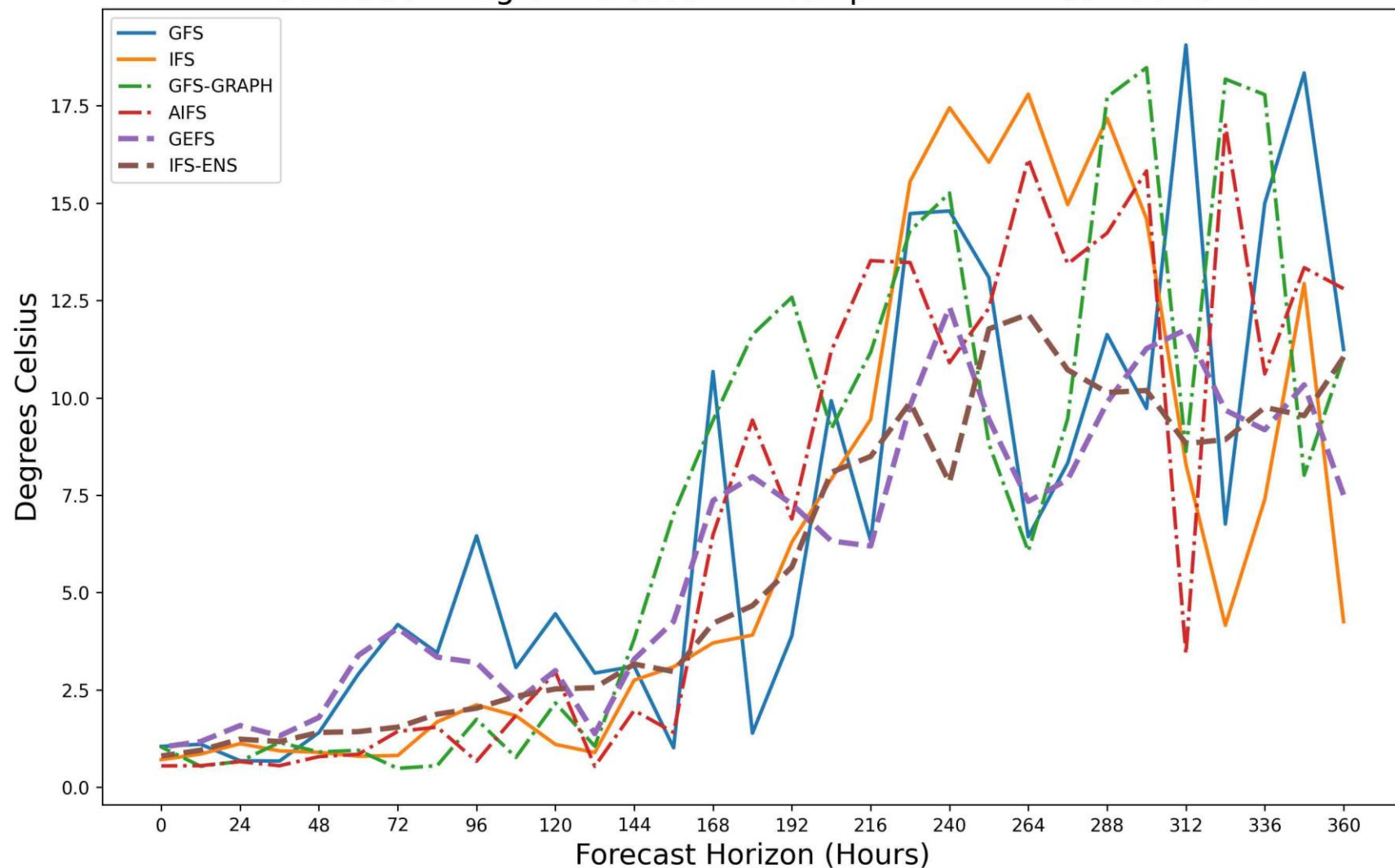


MISO SOUTH ERA5 ANL 00z Wed Feb 19 25

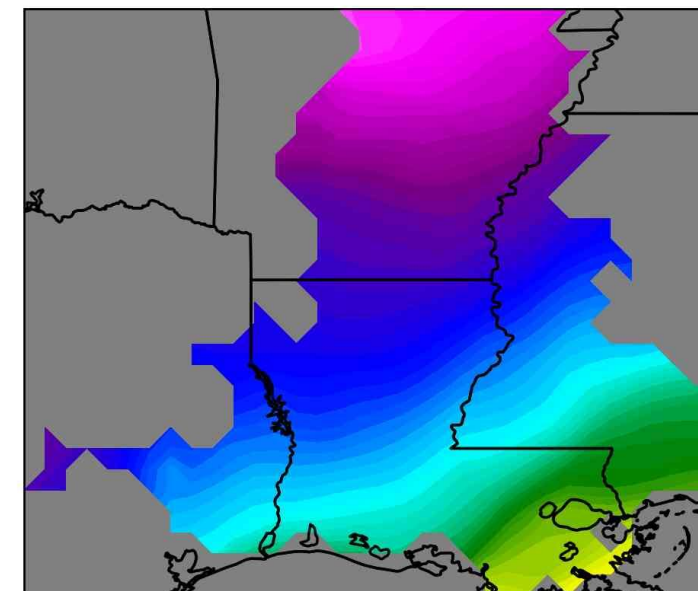


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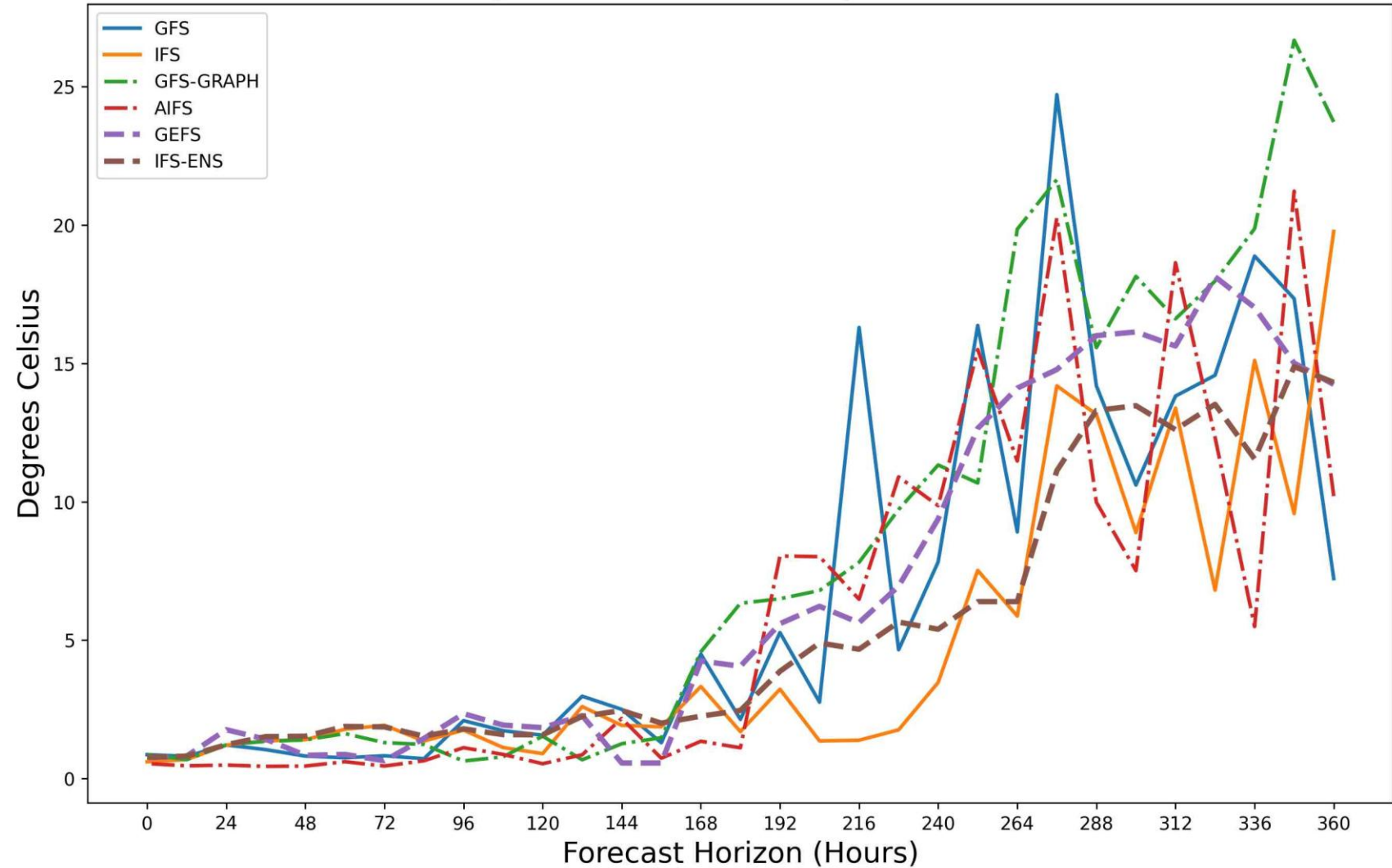


MISO SOUTH ERA5 ANL 12z Wed Feb 19 25

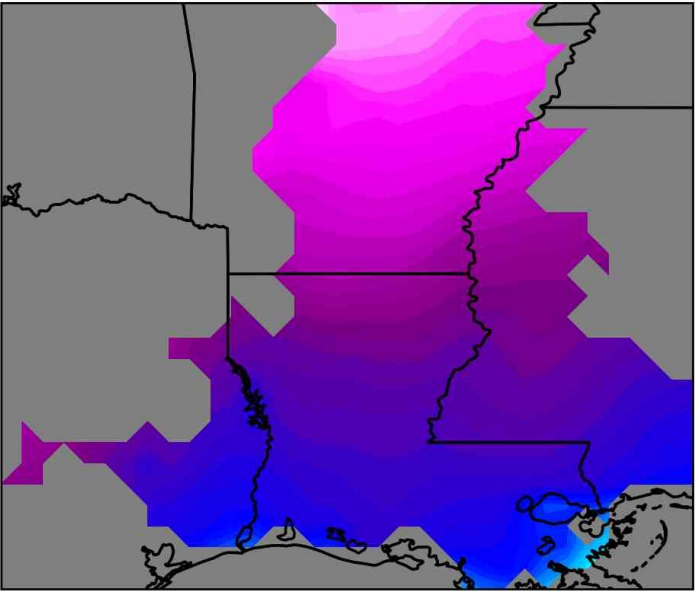


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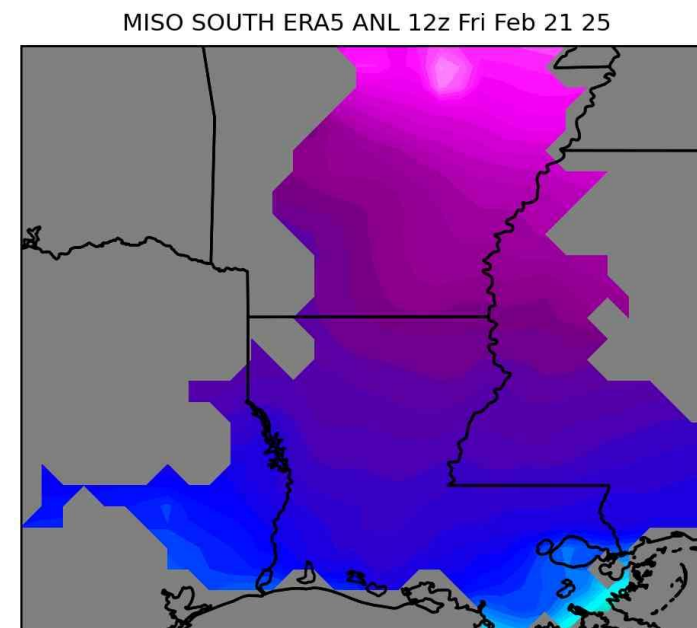
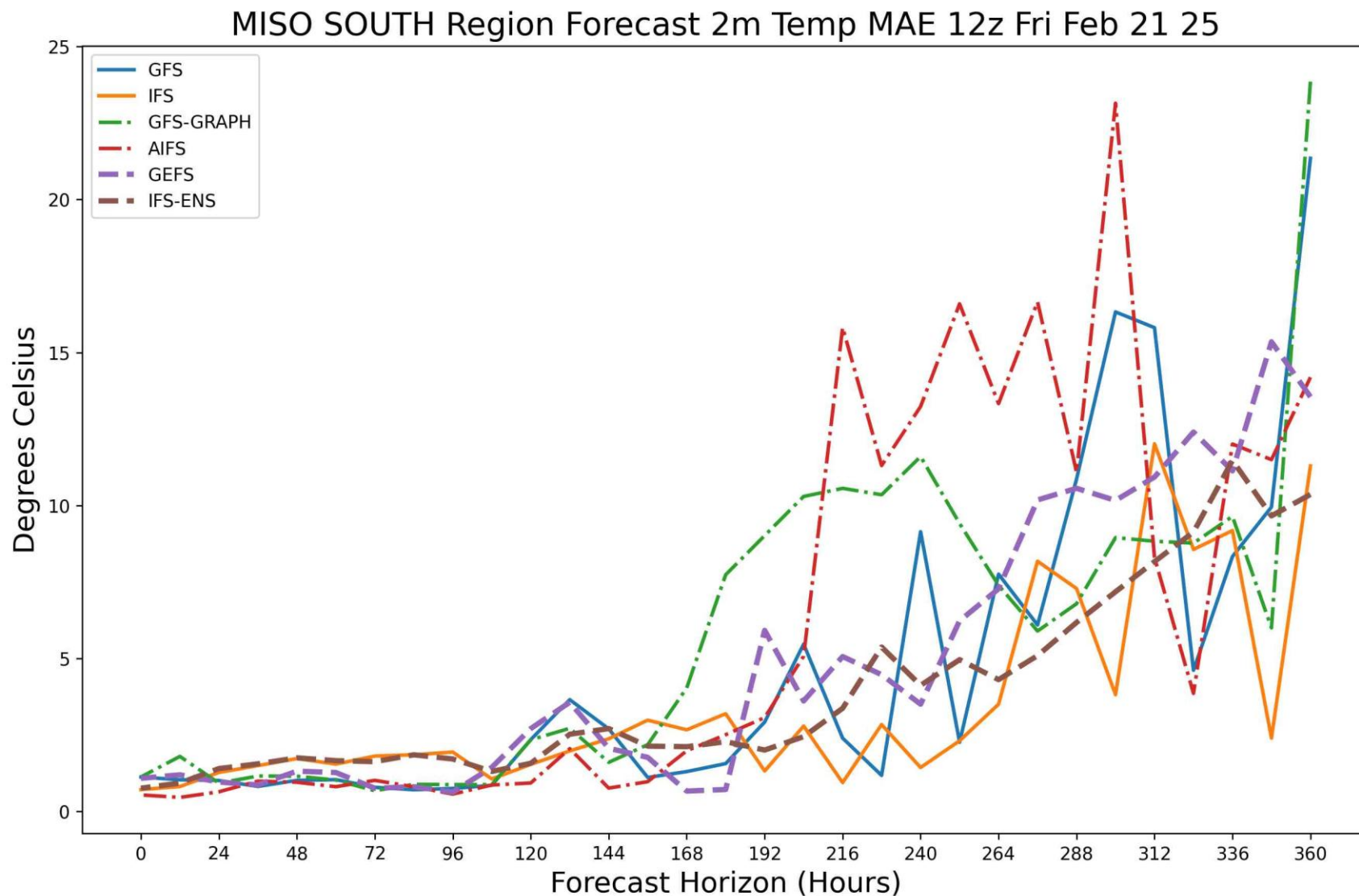
MISO SOUTH Region Forecast 2m Temp MAE 12z Thu Feb 20 25



MISO SOUTH ERA5 ANL 12z Thu Feb 20 25

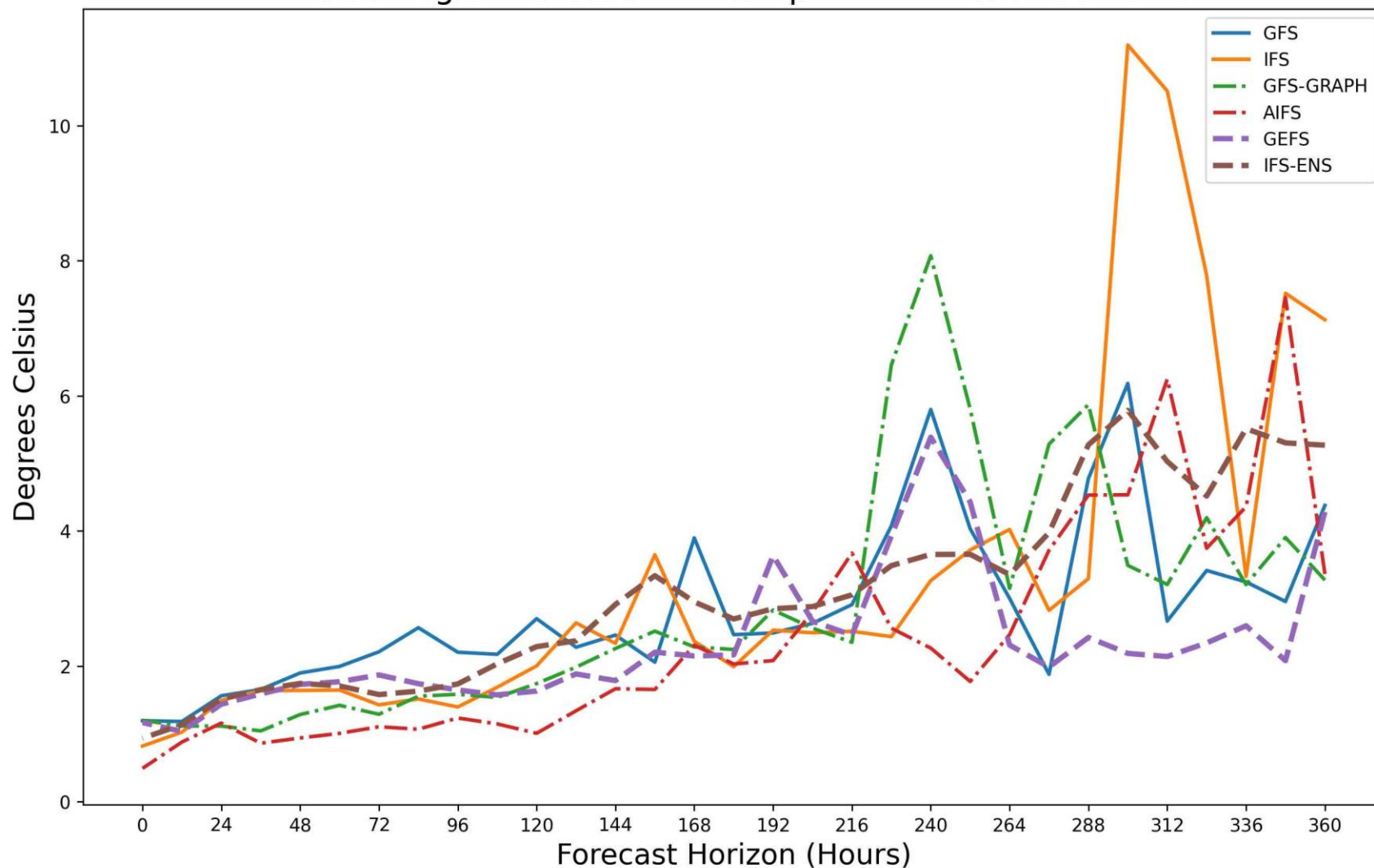


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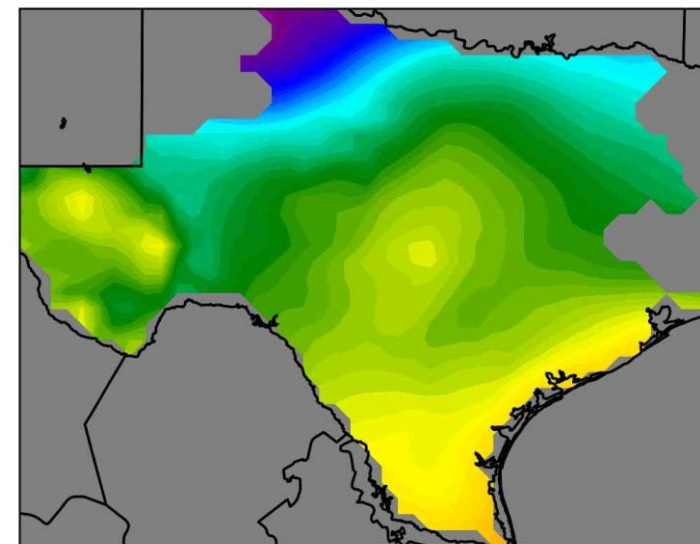


NWP MODEL ERROR – ERCOT FEB 18 12Z

ERCOT Region Forecast 2m Temp MAE 12z Tue Feb 18 25

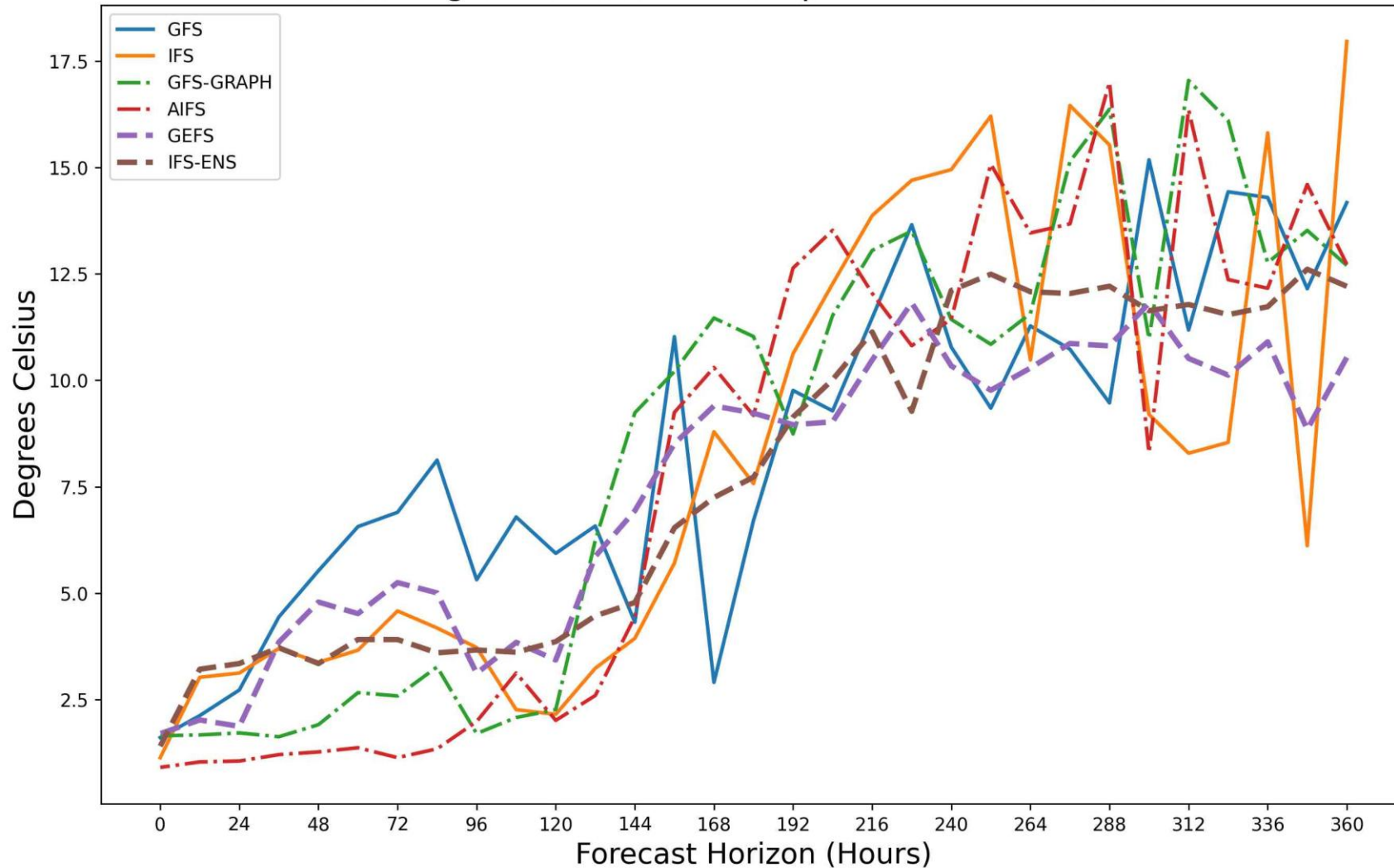


ERCOT ERA5 ANL 12z Tue Feb 18 25

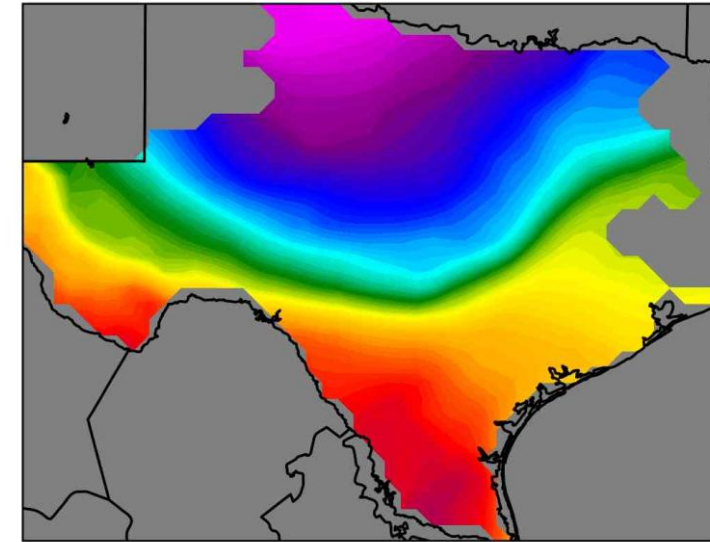


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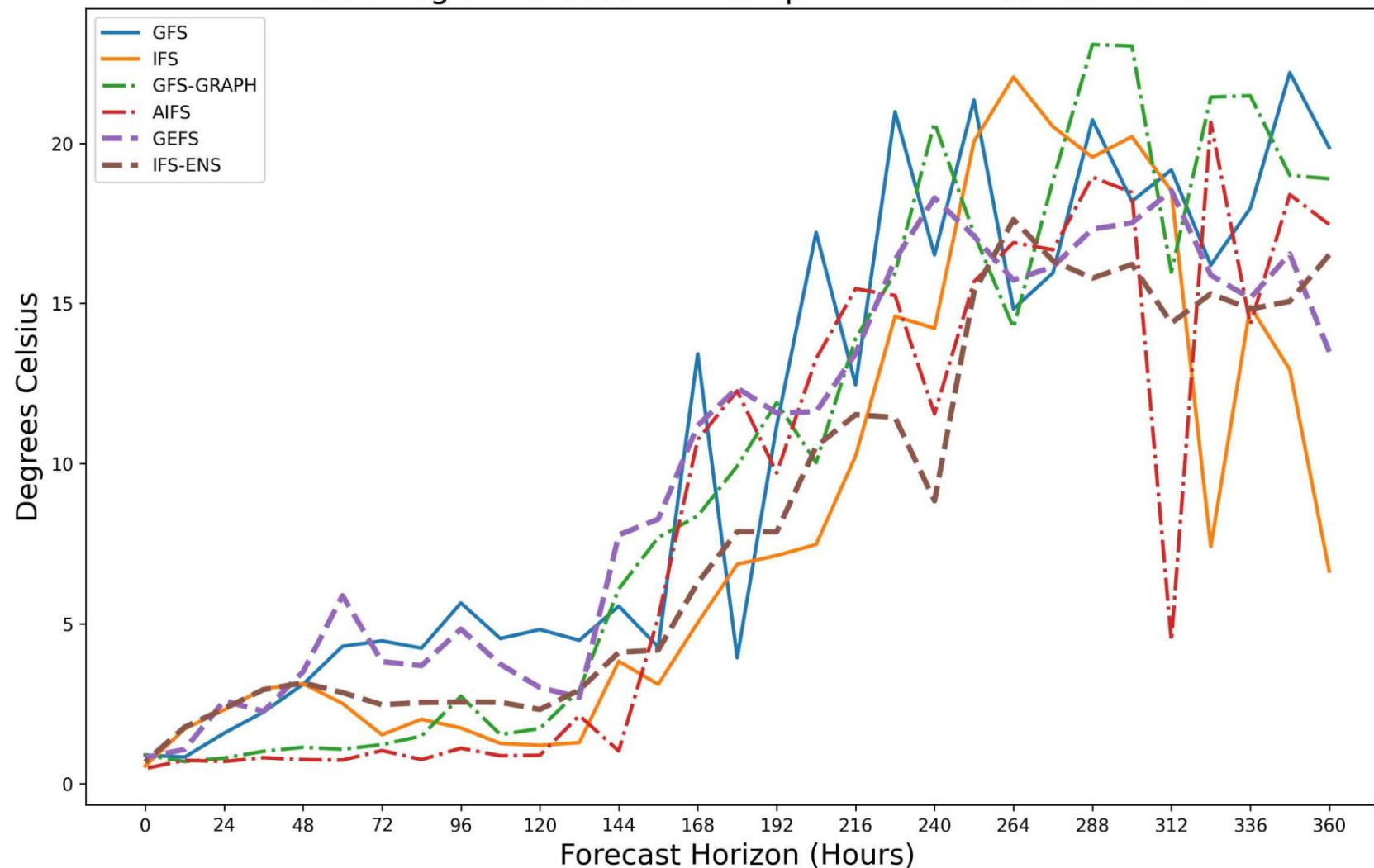


ERCOT ERA5 ANL 00z Wed Feb 19 25

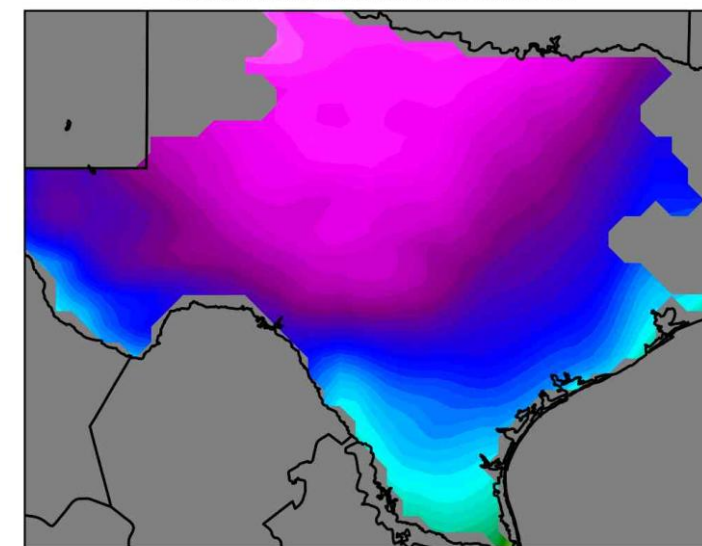


NWP MODEL ERROR – ERCOT FEB 19 12Z

ERCOT Region Forecast 2m Temp MAE 12z Wed Feb 19 25

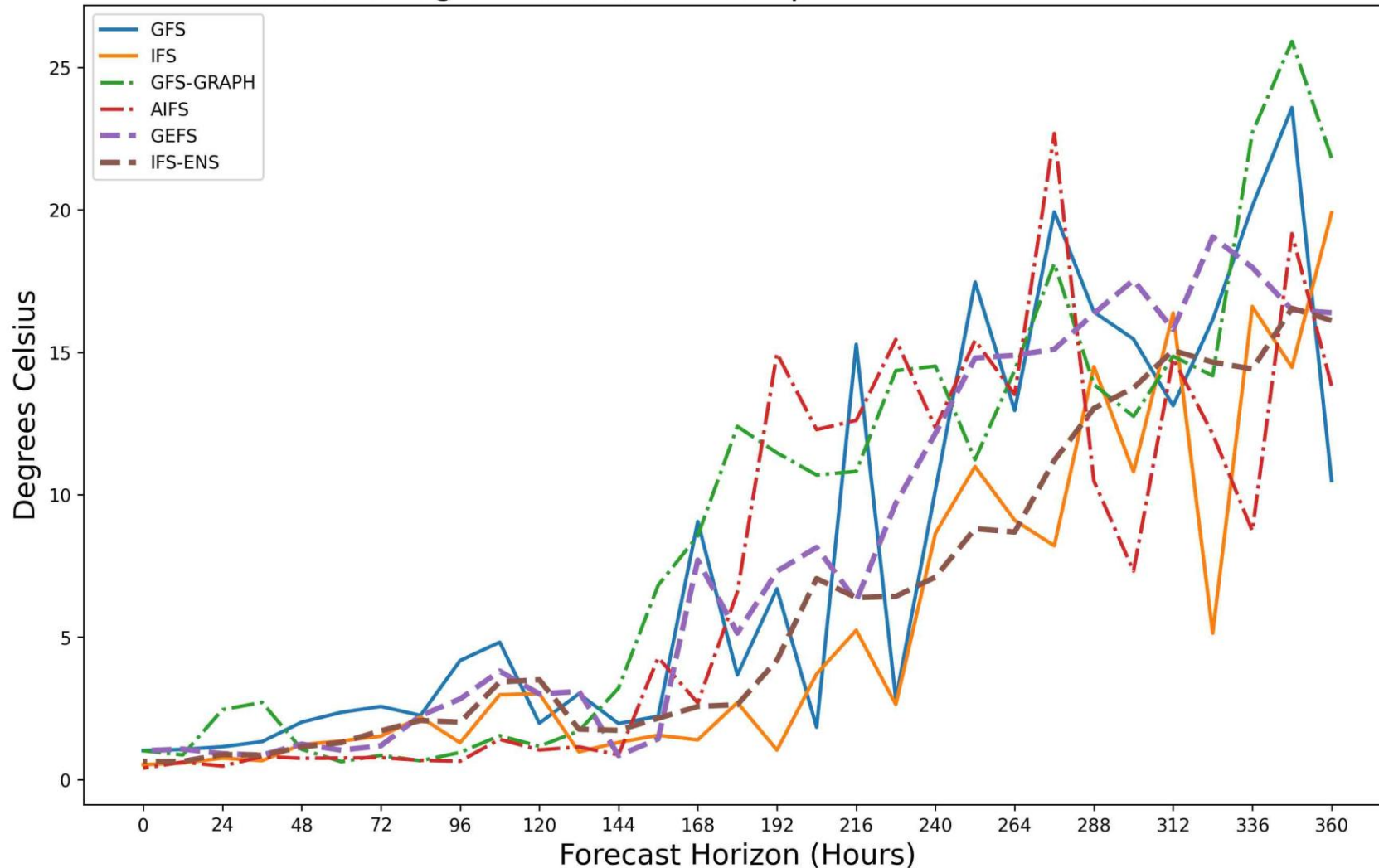


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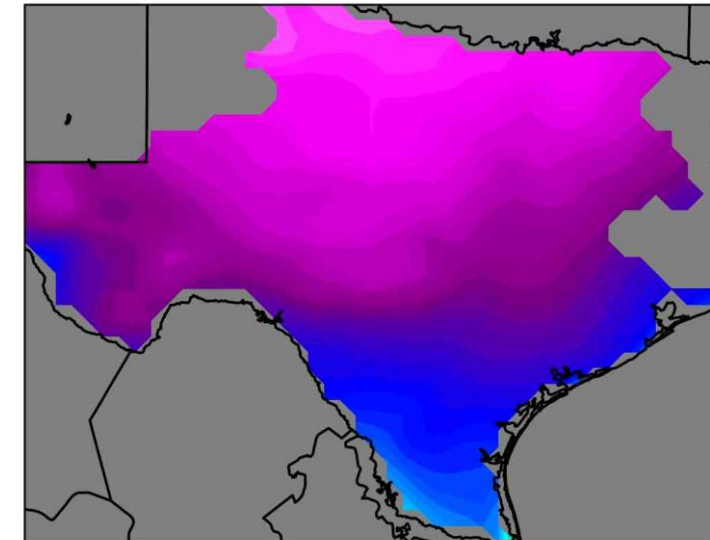


NWP MODEL ERROR – ERCOT FEB 20 12Z

ERCOT Region Forecast 2m Temp MAE 12z Thu Feb 20 25

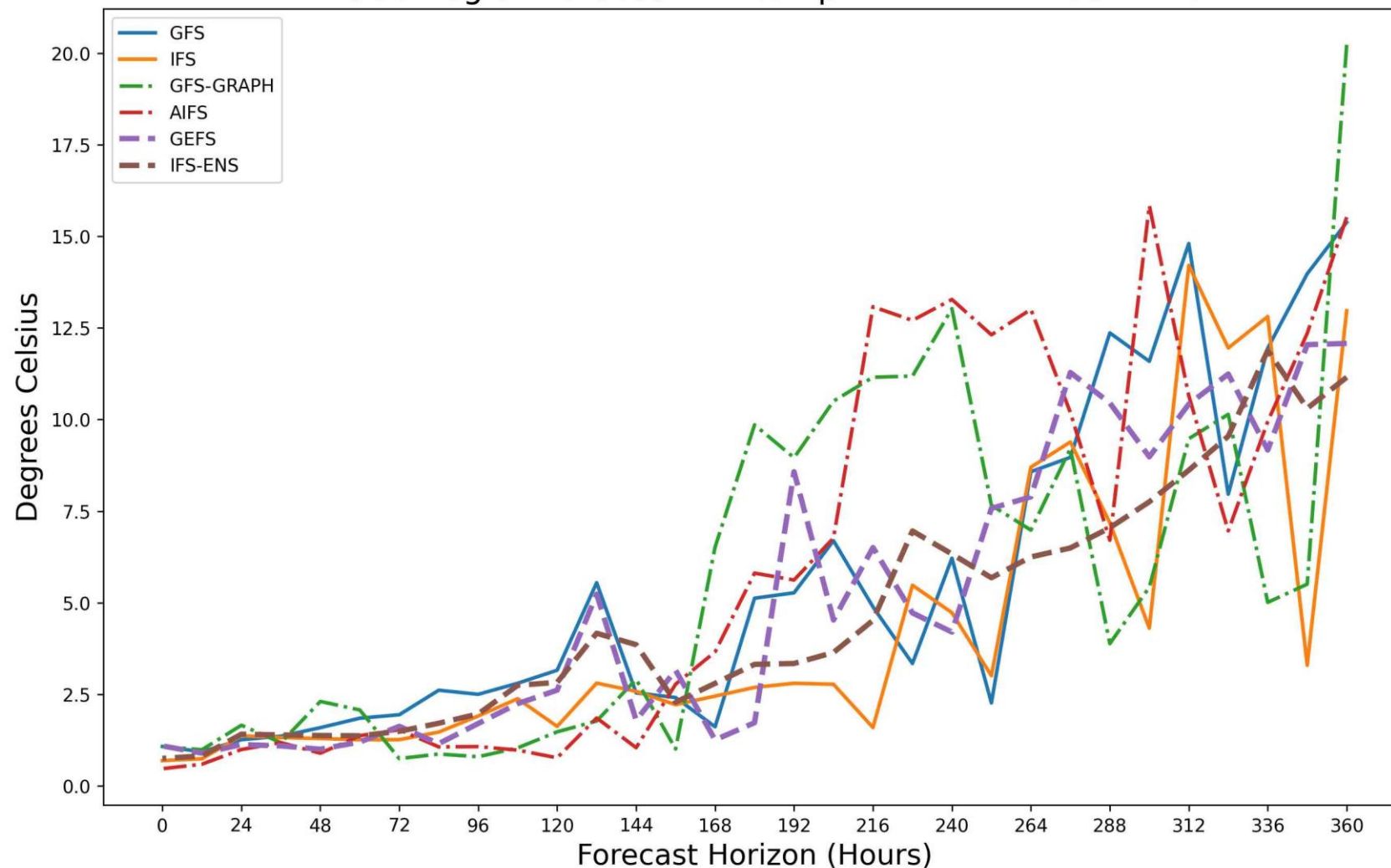


ERCOT ERA5 ANL 12z Thu Feb 20 25

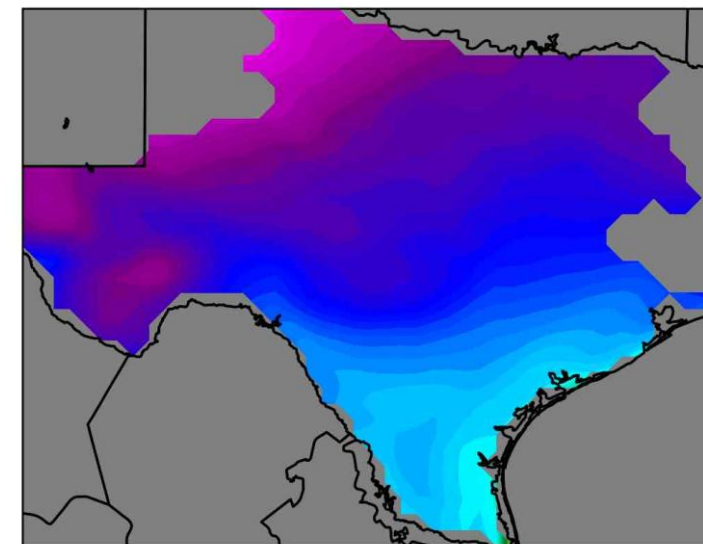


NWP MODEL ERROR – ERCOT FEB 21 12Z

ERCOT Region Forecast 2m Temp MAE 12z Fri Feb 21 25



ERCOT ERA5 ANL 12z Fri Feb 21 25





JEFF BASKIN

Uncertainty Response Team - Operations
Southwest Power Pool

Please feel free to contact me at jbaskin@spp.org