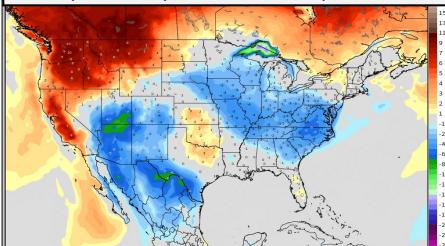
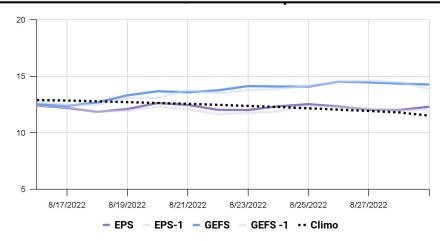
August 16th, 2022 Energy Weather Report

Day 1-7 Temperature Anomaly Forecast

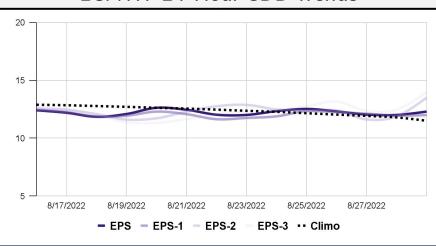


EPS/GEFS CDD Comparison



CDD Forecast		24 Hr. Trend
Week 1	S. Below Normal	Neutral
Week 2	Near Normal	Cooler
Week 3	S. Above Normal	Neutral

ECMWF 24-Hour CDD Trends

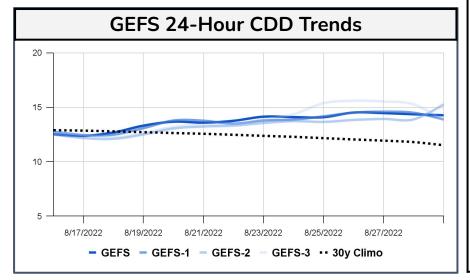


Forecast Reasoning and Discussion

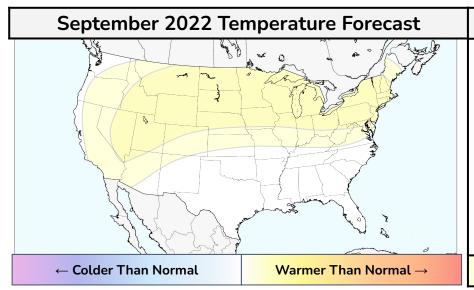
Troughing is forecast to continue to expand southward from the Great Lakes into New England this week, leading to the development of a cooler and more active pattern from the Ohio Valley into the Appalachians and Northeast states. This will lead to cooling demand trending downward closer to normal and even slightly below normal for a period of time over the next several days.

Most model guidance agrees that ridging over Alaska will begin to retrograde westward towards the Aleutian Islands, allowing troughing to retrograde further in the United States while shunting the majority of warmth into the Pacific Northwest and British Columbia. This will allow for a continually near or slightly below normal cooling demand pattern through about the 25th of the month.

Eventually, ridging is forecast to collapse eastward, leading to the re-expansion of warmth and cooling demand numbers. However, the evolution of this change remains highly uncertain at this time. The GEFS is much warmer than the ECMWF EPS in the extended range and a blend between the two models is suggested at this time until the forecast evolution becomes more clear



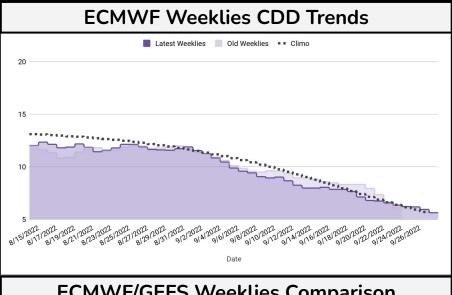
Energy Weather Report | Extended Forecast and Weeklies



Monthly Forecast Discussion

Current expectations are that temperatures will trend warmer in September as ridging over Western North America collapses eastward. This will lead to a gradually warmer pattern across the Northern ½ of the country. Cooler risks could linger underneath this ridging with some tropical activity also possible in the Gulf and Southeast US. Cooling demand should average slightly above normal nationally.

September CDD Departure: Slightly Above Normal



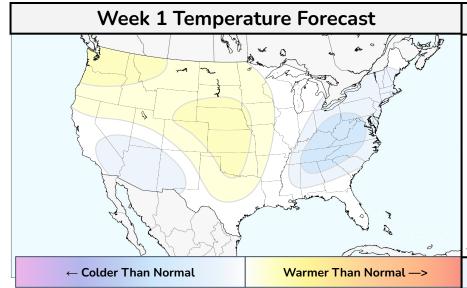
Weeklies Forecast Discussion

The most recent ECMWF Weeklies data remains generally in line with its prior run from last Thursday. A period of slightly below normal cooling demand is anticipated over the next several days. As we move into the extended range, cooling demand is forecast to trend back above normal during the month of September as ridging on the Western US shores collapses eastwards.

ECMWF/GEFS Weeklies Comparison - Latest Weeklies Old Weeklies - Latest EPS Old EPS GEFS Climo 20 15 8/21/2022 8/28/2022 9/4/2022 9/11/2022 9/18/2022 9/25/2022 Date

The GEFS is much warmer than the ECMWF guidance during this entire time frame and has been for some time - and a blend leaning towards the ECMWF guidance is recommended. However, volatility is forecast to increase as we move into the early part of September with model guidance likely beginning to pick up on the return of warm risks and above normal cooling demand. The ECMWF may be too cold in the mid-Sept period.

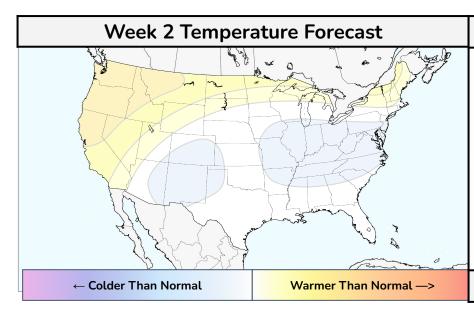
Energy Weather Report | Weekly Temperature Forecasts



Valid: 8/11/2022 - 8/17/2022

Ridging will begin its retrograde to the west during this time frame, with the majority of warmth beginning to shift towards the Western United States and Canada. However, at least a few days of warmth are expected to linger across the Southern and Central Plains. Meanwhile, cooler temperatures will expand from the Ohio Valley and Great Lakes into the Eastern US. The cooling demand profile is expected to average just slightly above normal nationally.

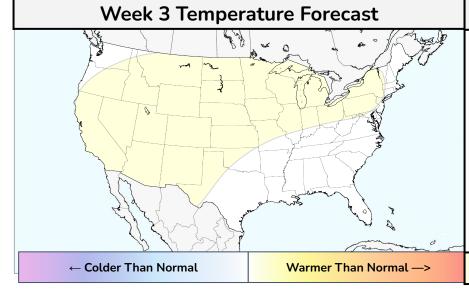
CDD Departure: Slightly Below Normal



Valid: 8/18/2022 - 8/24/2022

The vast majority of warmth is expected to be shunted well northwestward during this time frame, into the Pacific Northwest and Western Canada. The pattern across the United States will remain more transient with northwest flow and troughing precluding the development of more expansive heat. Cooling demand is likely to dip to near-normal values for the majority of this period on a national scale - with some slightly above normal oscillations anticipated.

CDD Departure: Near Normal



Valid: 8/25/2022 - 8/31/2022

The forecast remains more uncertain during this time frame. Ridging over the Western ½ of North America may begin to collapse eastward, with troughing which had been centered over the Ohio Valley beginning to erode. The result of this overall evolution would be a gradually warmer pattern. However, the timing and details of this change remain unclear. The forecast will continue to carry slightly above normal cooling demand for this time frame.

CDD Departure: Slightly Above Normal

Energy Weather Report | Model Trends & Discussion

Valid: 8/11/2022 - 8/17/2022

Model guidance has largely settled into their overall forecast expectations during this time frame. Very little volatility is anticipated over the next couple of days. Cooler temperatures will expand in the Eastern US while warmer temperatures persist in the Plains and begin moving into the Pacific Northwest.

CDD Departure: Slightly Below Normal

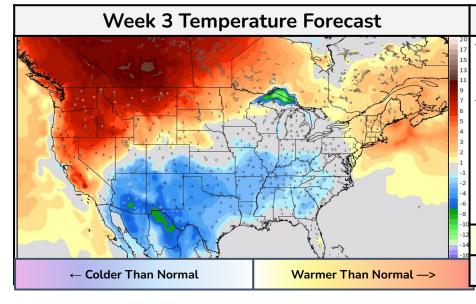
24-Hour Model Trend: Neutral

Valid: 8/18/2022 - 8/24/2022

Much cooler weather is anticipated across the Eastern United States and across the Midwest, Plains and Great Lakes while warmth will expand into the Pacific Northwest. Model trends were slightly cooler during this time frame over the past 24-48 hr but volatility is largely expected to persist in regards to timing.

CDD Departure: Near Normal

24-Hour Model Trend: Cooler

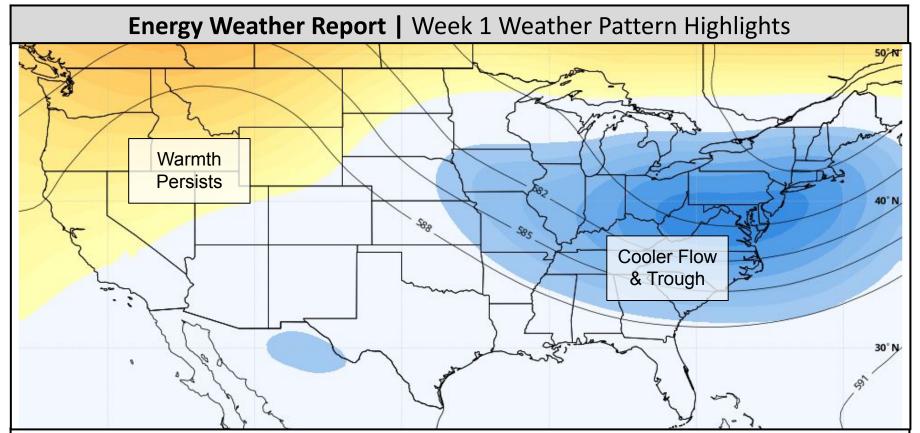


Valid: 8/25/2022 - 8/31/2022

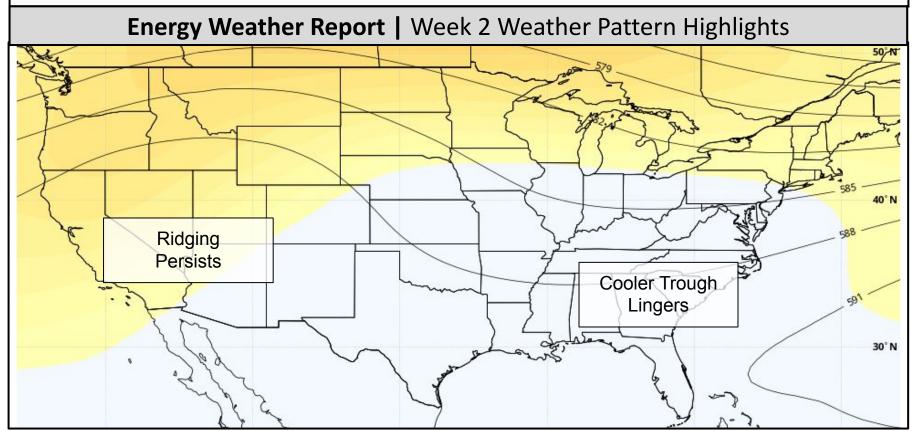
Temperatures will average at least a few degrees below normal in the monsoon regions as well as in the MS Valley and Eastern US. Widespread warmth will persist in the Pacific NW and Western Canada. Late in the period, some warming trends appear possible as ridging from the Pacific NW begins to collapse eastward.

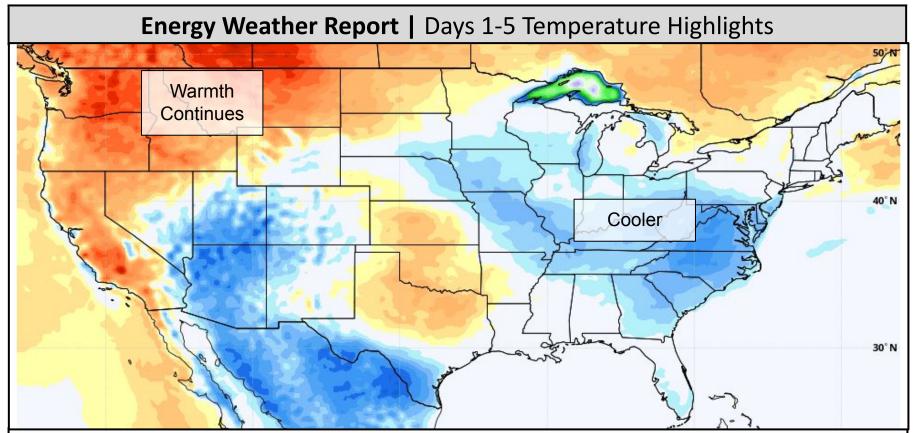
CDD Departure: Slightly Above Normal

24-Hour Model Trend: Neutral

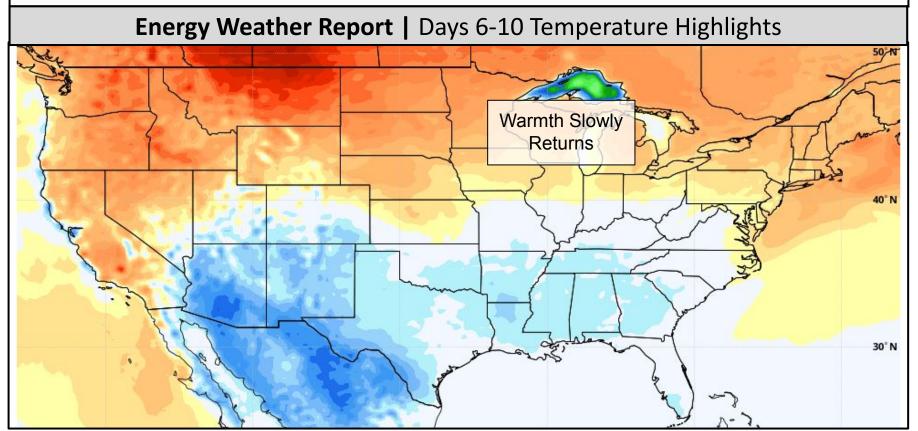


Troughing is forecast to persist during the next several days across the Eastern United States, leading to a northwest flow and cooler than normal temperatures from the Central US through the Great Lakes and Eastern US as well. This pattern is largely forecast to continue into Week 2, although models suggest troughing will gradually weaken and temperatures may slowly warm.

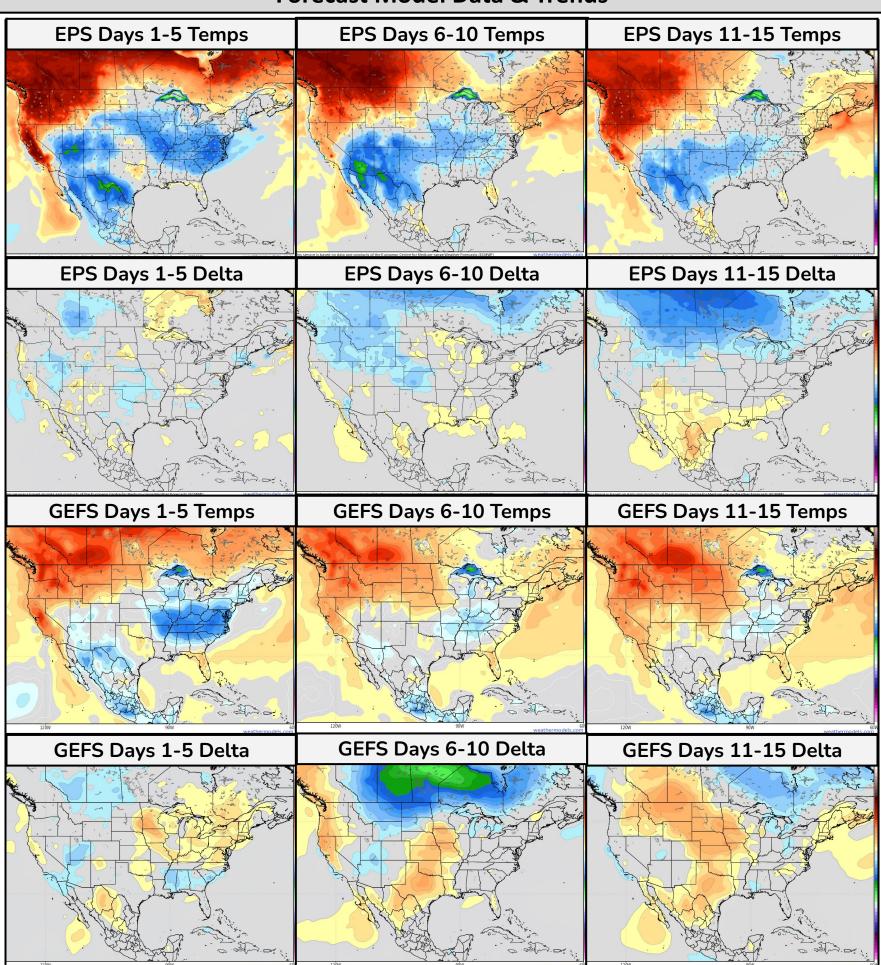




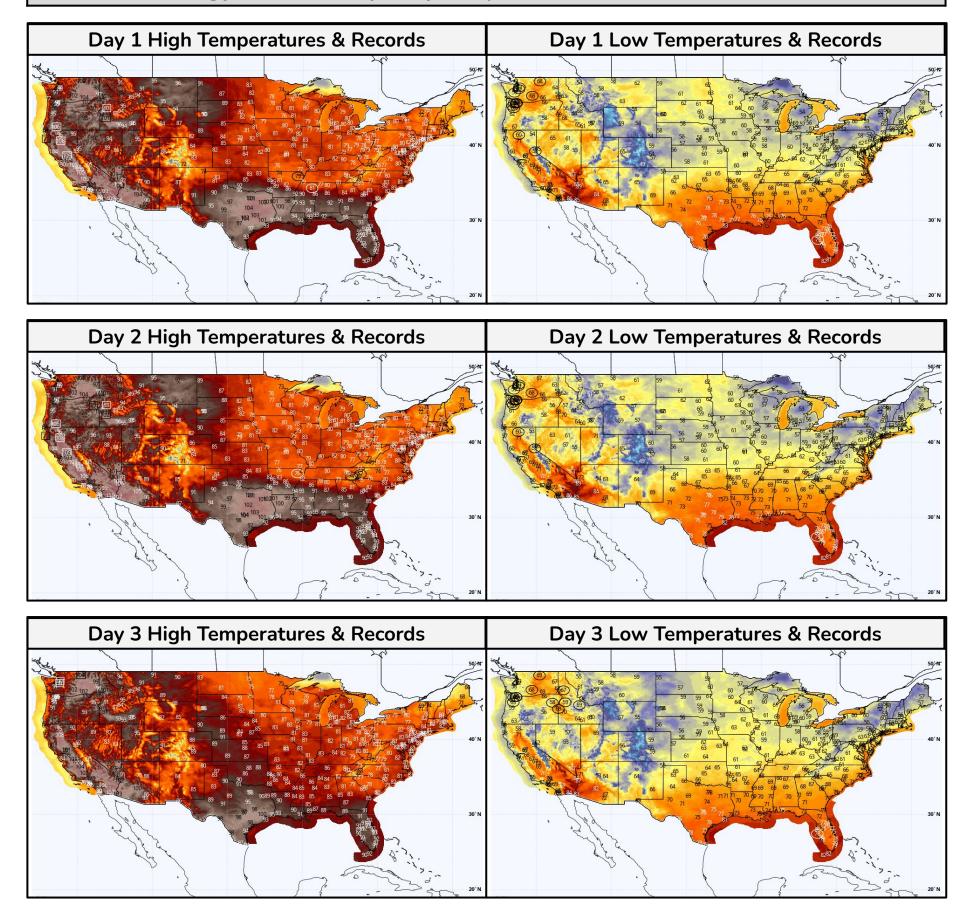
Cooler than normal temperatures are expected over the next several days from the Midwest through the Great Lakes, Ohio Valley and Mid-Atlantic States. As we move through this period and into Week 2, warmth will gradually begin to collapse eastward and expand again across these regions. Temperatures could average above normal again by Week 2.



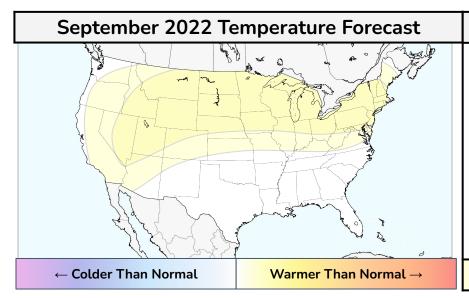
Forecast Model Data & Trends



Energy Weather Report | Temperature Anomalies & Records



Monthly Forecast Discussion | September 2022 Forecast



Monthly Forecast Discussion

Current expectations are that temperatures will trend warmer in September as ridging over Western North America collapses eastward. This will lead to a gradually warmer pattern across the Northern ½ of the country. Cooler risks could linger underneath this ridging with some tropical activity also possible in the Gulf and Southeast US. Cooling demand should average slightly above normal nationally.

September CDD Departure: Slightly Above Normal

September 2022 Precipitation Forecast ← Drier Than Normal Wetter Than Normal →

Precipitation Discussion

Precipitation signals are mixed during the month of September on most model guidance. The continuation of La Nina conditions and the collapse of ridging across the Northern ¼ of the country should encourage low pressure formation in the S Plains and Southeast states which could lead to above normal precipitation anomalies there. This could be exacerbated by any tropical development.

Confidence: Near Normal



Area of Concern Discussion

Trends have largely been neutral over the past several days - owing to the extended nature of the forecast at this range and also model uncertainty and disagreement. Warmer and somewhat wetter trends are anticipated across Southern US as we move into the next couple of weeks.

Confidence: Near Normal