

# Energy Release Component

The Energy Release Component is a number related to the available energy within the flaming front at the head of a fire. Daily variations in ERC are due to changes in the moisture content of the fuels present, both live and dead. As live fuels cure and larger dead fuels dry, ERC values get higher.

The 1000-hr Fuel Moisture is one of the primary inputs into the ERC calculation and as such, 24-hour Max/Min Temperature, Max/Min RH and Precipitation Duration all affect the calculation. Since wind and fine fuel moisture do not affect the ERC calculation, the daily variation is relatively small.

The ERC scale is open-ended or unlimited and is heavily dependent on the fuel model that is being used. Historically on the Prescott NF, the highest ERC values in the G fuel model have been around 110, while the highest ERC values in the B fuel model have been around 150.