**Title**

Projections of Hourly Meteorology by County Based on the IM3/HyperFACETS Thermodynamic Global Warming (TGW) Simulations

**Years**

The dataset contains 40 years (1980-2019) of historical meteorology and 80 years (2020-2099) of projected meteorology across four different climate scenarios.

**Scenarios**

The four IM3 future climate scenarios span a wide but plausible range of climate scenario uncertainty (i.e., RCP4.5 vs RCP8.5) and climate model uncertainty (i.e., using models that are hotter or colder than the multi-model mean climate sensitivity).

Diagram

Description automatically generated

**Variables**

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Name | Description | Units |
| County ID | FIPS | FIPS code for the county | - |
| Temperature | T2 | 2-m temperature | K |
| Specific Humidity | Q2 | 2-m water vapor mixing ratio | kg kg-1 |
| Wind Speed | U10 | 10-m east-west wind speed | m s-1 |
| Wind Speed | V10 | 10-m north-south wind speed | m s-1 |
| Shortwave Radiation | SWDOWN | Downwelling shortwave radiative flux at the surface | W m-2 |
| Longwave Radiation | GLW | Downwelling longwave radiative flux at the surface | W m-2 |