



# Year 20 Extreme Cold Weather Event—Update

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# Overview

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- Purpose
  - Identify vulnerabilities and reliability risks during a Year 20 cold weather event
    - Represent extended extreme cold weather conditions such as, wind/solar/resource performance, wind turbine icing, gas delays, forced outages, high loads, etc.
- Key reliability questions
- Tools and data
- Time frame—Year 20 (2042)
- Reporting metrics

# Approach

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- Build with Year 20 foundational PCM with general assumptions for a Year 20 future
  - Use the 2032 ADS PCM as the Year 10 seed case
- Build the assumptions for the Year 20 extreme cold sensitivity onto the Year 20 foundational case
- Long-duration energy storage
- Transmission needs

# Timeline

Task	Time Frame
Complete assessment scope	January 2023
Build Year 20 foundational case	February 2023 – April 2023
Research and gather data for the assessment assumptions; e.g., generation/load projections	February 2023 – April 2023
Create and input adjusted profiles/parameters/assumptions	May 2023 – June 2023
Run PCM and review results	June 2023 – July 2023
Identify major findings and conclusions	July 2023 – August 2023
Draft report	September 2023
Review and comment on draft report	October 2023
Complete final review	November 2023
Publish final report	November 30, 2023

# Status

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- Scope—Complete
- Build Year 20 foundational case—Research phase
  - Researching data for base transmission, loads, and resources assumptions (NREL, PNNL, DOE)
- Year 20 cold—Research phase
  - Cold snap overview—Done
  - ADS overview—Done
  - Researching historic cold snaps
  - Researching EIA and GADS data for loads, renewable shapes, and FOR, for a cold snap



## Contact:

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