

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**Climate Change, Extreme Weather,
and Electric System Reliability**

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Docket No. AD 21-13-000

POST-TECHNICAL CONFERENCE COMMENTS OF JUPITER INTELLIGENCE

I. Introduction

Jupiter Intelligence (Jupiter) commends the Federal Energy Regulatory Commission (FERC or the Commission) for examining this critical issue of “Climate Change, Extreme Weather, and Electric System Reliability”¹ and welcomes the opportunity to provide these comments.

Jupiter’s data analytics and services help public and private sector entities assess and manage the physical risks of extreme weather events, or perils, such as floods, wildfires, and hurricanes. Jupiter’s world-class ClimateScore™ risk platform provides extremely accurate predictions – at exceptionally high resolutions – of extreme weather events from the street to the portfolio levels, and on time horizons ranging from a few hours to decades. Jupiter’s products combine weather prediction and climate models, with Artificial Intelligences (AI), cloud computing, satellite data, and more, providing services that surpass what is available from the public sector or universities. Jupiter’s tools already are being used by several federal, state, and city agencies, as well as by a range of private sector entities across critical infrastructure sectors, such as the electric, financial,

¹ *Climate Change, Extreme Weather, and Electric System Reliability*, Notice Inviting Post-Technical Conference Comments, Docket No. AD21-13-000 (Aug. 11, 2021) (Notice).

insurance, and housing sectors.² Jupiter is not the only company or entity with this type of tool. Such tools enable customers to assess the vulnerability of systems and critical infrastructure. When decision makers have access to such weather and climate risk prediction capabilities, they are better able to make informed planning and operational decisions that drive superior risk management, risk disclosure, and resilient infrastructure planning over short- and long-term time horizons that will help improve the resilience of infrastructure assets.

In fact, *WIRED Magazine* wrote: “If you run a business, or maintain a city, or plan power plants or highways or bridges, you’d like to know how bad things are, and how bad they’re going to get”³ then this type of tool that incorporates climate change into its catastrophic risk modeling, both proprietary and public, and then disseminates easily-digestible data to public decision makers and those in the critical infrastructure sectors is essential. Customers and citizens rely on such data to better understand, manage, disclose, and reduce risks related to climate change. This type of tool facilitates transparency to ensure that its analytics are credible to both customers and the broader scientific and policy communities.

To date, weather-related physical risks have not been well understood or acted upon. We also know that the impacts of extreme weather events were, and are, increasing in frequency and severity over time, due to climate change, and that they are having effects on the reliability of our electric system and, on our national security more broadly, as a result. We need look no further back than the very recent Hurricane Ida and its impact on Louisiana’s grid infrastructure or the extreme cold that caused

² Jupiter supports the risk assessments and resiliency investments of some of our country’s largest corporations in energy, asset management, banking, insurance, and a host of other sectors, as well as the U.S. Air Force, the Federal Emergency Management Agency (FEMA), the U.S. Department of Housing and Urban Development (HUD), and public sector customers in Florida and New York.

³ Rogers, Adam, “[Companies Can Predict Climate Catastrophes for You – as a Service](#),” *WIRED*, Apr. 29, 2019.

long power outages in Texas in February 2021, as just two recent examples with wide-ranging impacts to human health and life, as well as substantial recovery costs.

Thus, the topic and questions posed herein merit serious consideration. Jupiter is responding to some, but not all, of the questions posed in this Notice.

II. Comments

Jupiter concurs with the Technical Conference’s “multiple panelists” who “suggested that utilities and other industry participants should engage in an assessment of climate change risks to their systems,” as reflected in **Question 1** of the Notice.

In this same vein – and to the issues raised in **Question 6** of the Notice – Jupiter strongly supports the Energy Infrastructure Resilience Framework contained in **Section 40103** of the Congressional Bipartisan *Infrastructure Investment and Jobs Act*, or Bipartisan Infrastructure Framework (BIF).⁴ As you likely are aware, this legislation would direct the Secretary of Energy – in collaboration with FERC, the North American Electric Reliability Corporation (NERC), and the Department of Homeland Security (DHS) – to develop a framework to assess the resilience of energy infrastructure with the aim of enhancing overall resilience, reliability, and security.

To the extent such assessments are deployed, Jupiter urges the Federal Energy Regulatory Commission (FERC) to consider ensuring that **such risk assessments** be informed by industry by the **current and expected state of data availability** and by actual best practices by leading

⁴ Bipartisan *Infrastructure Investment and Jobs Act*, or Bipartisan Infrastructure Framework (BIF), H.R. 3684, as amended, Section 40103, as passed the Senate, Aug. 10, 2021.

utilities. This includes using **current and future-looking weather and extreme event forecasts and scenarios to the greatest extent practicable**, rather than relying solely on historic or current forecasts.

Comments on Question #6:

Stemming from the previous statements, current requirements for system performance likely do need to evolve, given the anticipated increase in the severity and frequency of extreme weather events, due to climate change. More specifically, despite the fact that FERC recently approved the “Cold Weather Reliability Standards,”⁵ further changes to the NERC Reliability Standards to address the risk of extreme weather events could still be warranted, again, by ensuring that current and future-looking forecasts are incorporated, where relevant. Having such data certainly would enable NERC, FERC, and other federal and state agencies, as well as electric utilities and other private sector entities to better assess the ability of energy infrastructure to withstand anticipated extreme weather events and to (better) inform such a determination(s) about whether to make changes to the NERC Reliability Standards and, if so, in what ways.

III. Conclusion

In conclusion, Jupiter appreciates FERC’s consideration of the vital topic in this docket of “Climate Change, Extreme Weather Events, and Electric System Reliability.” Jupiter stands ready to be a resource to the Commission and looks forward to continuing to work to help

⁵*North American Electric Reliability Corp.*, 176 FERC ¶ 61,119 (2021).

provide technology that can help enhance the future resilience of critical electric system infrastructure. If you have any questions, please contact me at the information below or Ladeene Freimuth, a Washington, DC consultant for Jupiter, at: ladeene@freimuthgroup.com or (202) 550-2306.

Respectfully Submitted,

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September 23, 2021