



Jupiter Contributes to Con Edison's Industry-Leading Climate Risk Analysis

A Statement from Jupiter CEO, Rich Sorkin

SAN MATEO, January 27, 2020 - Jupiter Intelligence is pleased to have contributed to a [recent report](#) from Con Edison, developed in collaboration with ICF and Columbia University's Lamont-Doherty Earth Observatory, which examined future climate-related vulnerabilities to the utility's infrastructure and operations.

The study evaluated present-day infrastructure, design specifications, and procedures against expected climate change to better understand its future impact on Con Edison's energy delivery systems. Extreme heat in particular can cause degradation of a utility's infrastructure and increasing component failure rates. Maintenance and capital work can also be limited due to workforce restrictions.

Jupiter's analytics leverage high resolution downscaling and machine learning algorithms, which integrate satellite datasets with advanced weather modeling to produce building-scale climate risk analytics. Jupiter's contribution to the Con Edison study highlighted a phenomenon known as the urban heat island effect (UHI). Because of geographic variations like pavement coverage and the distribution of green space, different neighborhoods across Con Edison's service area experience significantly different heat effects. In particular, parts of the city can experience temperatures well above those found in Central Park Station, a central reference point for rating substation transformers.

Using Jupiter's data, the study found that transformer capacity reductions at area substations could be 10% greater relative to expected heat increases at Central Park due to the UHI effect. Similarly, some network centers could experience an increase in peak load nearly 5% greater than Central Park. These spatial differences represent important factors that should guide long-term investment planning in heat-resistant infrastructure and system components.

A forward-looking network reliability analysis also found significant decreases in projected network reliability associated with increases in the frequency and duration of heat waves in the coming decades. In fact, by 2050 17%–43% of Con Edison networks were projected to fail network reliability standards absent any adaptation measures.

Any metropolitan utility should take note of these findings and look at how they can undertake a similar analysis for their own assets and operations. Jupiter is happy to highlight the work it has contributed to Con Edison's long-term resilience planning. Faced with challenges arriving ever more rapidly as a result of climate change, the organizations that begin planning for resilience now are the ones that will succeed in the future.

About Jupiter

Jupiter is the global leader in data and analytics services to help make informed decisions that safeguard critical at-risk infrastructure from extreme weather, sea-level rise, storm intensification and rising temperatures caused by short, medium and long-term climate change. Jupiter's ClimateScore™ Intelligence Platform provides sophisticated, dynamic, hyper-local, current- hour-to-50-plus-year probabilistic risk analysis for weather in a changing climate. The company's FloodScore™, HeatScore™, WindScore™ and FireScore™ services are used or about to be deployed for climate-related risk assessment and management in New York City, South Florida, the Carolinas, Houston, Rotterdam, Singapore, Tokyo, London and other global markets. Jupiter's models are based on the latest science, as developed by the global Earth and Ocean Systems science community.

Jupiter offers commercial services to asset owners in critical infrastructure, financial services including insurance and banking, energy and real estate, and the public sector. These customers use Jupiter services for a broad range of applications, including capital planning, risk management, site selection, design requirements, supply chain management, investment valuations, and shareholder disclosures. For more information, please visit jupiterintel.com.

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