Climate Risk, Utilities and the Law

Legal Obligations to Advance Climate Resilience Planning in the Electricity Sector

Climate change impacts - from storm surges to prolonged heat waves and wildfires - increasingly affect the electric utility sector. By engaging in climate resilience planning, electric utilities can identify potential impacts in advance, and develop tools and processes to manage them. Such planning is important to ensure safe and adequate electric service over time and minimize risks to persons and property. And, as a new report by Environmental Defense Fund and Columbia Law's School Sabin Center for Climate Change Law finds, it is **legally required under state public utility law and tort law**.

Climate Risk and Resilience Planning

Electricity grids are designed to ensure safe, reliable electric service. To achieve this, historic weather conditions typically inform electric utilities' planning, investment, and operational decisions. However, with climate change accelerating, historic conditions are no longer a reliable predictor of current or future trends.

Numerous government and other bodies have recommended that electric utilities engage in a process of climate resilience planning to identify where and under what conditions their systems are at risk from the impacts of climate change and develop measures to reduce and manage that risk. However, to date, only a small number of electric utilities have engaged in climate resilience planning. Even where it has occurred, the quality of climate resilience planning has varied significantly, with some electric utilities' plans having serious flaws. This has both practical and legal implications.

Obligations to Conduct Climate Resilience Planning

Failure to engage in effective climate resilience planning leaves electric utilities ill-equipped to deal with future climate impacts, increasing the potential for climate-induced service disruptions and associated costs for customers. It also creates broader social risks: climate-induced disruption can threaten public health and safety, or lead to environmental or other accidents.

Electric utilities must engage in climate resilience planning to fulfill their obligations under state public utility law, including to provide reliable service at just and reasonable rates. Failure to do so exposes electric utilities to potential liability under tort law.

Climate Resilience Planning & State Utility Law

State utility law requires electric utilities to provide reliable service at just and reasonable rates.

The 'just and reasonable' standard requires, among other things, that electric utility investments and expenses be prudently incurred. The prudence test asks whether the electric utility made a rational decision based on information that was known or knowable at the time. **Given that many electric utility investments involve long-lived assets, it is impossible to make rational choices without accounting for demonstrated, long-term climate impacts.**

Electric utilities must also engage in climate resilience planning to fulfil their duty to serve. That duty encompasses, among other things, an obligation to provide reliable services and take reasonable steps to minimize outages. The potential for climate-induced outages is now well documented. It is, therefore, no longer reasonable for electric utilities to ignore climate impacts when designing and operating their systems.

Climate Resilience Claims & Tort Law

Tort law establishes a duty of care that obligates electric utilities to avoid foreseeable harm when performing acts that could injure others.

To fulfil their duty of care, electric utilities must plan for climate change impacts.

A climate resilience claim arises under tort law where an electric utility fails to adequately prepare for reasonably foreseeable event- and non-event-based climate impacts to owned assets or operations and that failure results in cognizable harm.

Cognizable harm could include injury to persons or property damage resulting from electricity service outages, for example where a heat wave causes a transmission line to sag, triggering an outage that results in a blackout at the premises of a customer who uses electricity to power a medical device. Climate resilience claims could also arise in situations where the harm is not directly connected to, or the result of, a service outage. One example might be where transmission line sag caused by a heat wave sparks a wildfire which damages property.

Science, Tools, and Data

The process for climate resilience planning in the electric utility sector is well known to utilities and other experts. Reports issued by the U.S. Department of Energy and others provide detailed guidance on the process. Electric utilities can also learn from the experiences of others, including Consolidated Edison Company of New York, Inc., which recently completed a high-quality, comprehensive climate change vulnerability study.

The data required for climate resilience planning is available to electric utilities. Due to regional variation in climate change impacts, effective planning requires the use of downscaled projections, which reflect anticipated future conditions in the planning area. The resolution of downscaled projections has increased significantly in recent years, enabling electric utilities to access more granular data about climate impacts in their area. Projections are available for many areas in online tools and reports developed by government, academic, and other independent bodies.

Employing available modeling tools provides greater certainty. Electric utilities can also make use of advanced probabilistic climate models, which yield probability distributions for each climate parameter, thus enabling utilities to make a more informed assessment of the relatively likelihood of different climate outcomes.

Read the full report
Email the authors at EDF and the Sabin Center