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## **An Emerging Corporate Risk – Climate Impacts to Critical Energy Infrastructure**

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**Research Commented On:** “Corporate Risk and Climate Impacts to Critical Energy Infrastructure in Canada” (Dalhousie Law Journal)

### **Introduction**

This post, based on my [recent article](#), examines climate impacts to critical energy infrastructure assets from a corporate risk perspective. It focuses on the importance of undertaking climate adaptation to critical energy infrastructure as a corporate risk-mitigation strategy. Emerging climate risk was most recently identified as one of the top five challenges facing the global economy at the World Economic Forum 2020 in Davos, Switzerland (see [World Economic Forum Global Risks Report 2020](#)).

By way of background, Canada’s 2009 [National Strategy for Critical Infrastructure](#) considers infrastructure as critical where the asset is essential to the “health, safety, security or economic well-being of Canadians.” Examples in the energy sector include electricity generation and transmission infrastructure, oil and gas industry infrastructure, maritime ports, and rail infrastructure related to energy transportation. All of these classes of assets are vulnerable to the anticipated and unanticipated effects of climate change impacts from extreme weather and climate events, which are predicted to intensify. These impacts may affect both the physical infrastructure of the asset and their operations, as well as the business continuity of the owners and operators of the asset. Within this context, adaptation to the effects of climate change can be considered a process of adjustments in natural and human systems to actual or expected climate impacts and their effects (see, for example, [Article 7 of the Paris Agreement](#), 12 December 2015, FCCC/CP/2015/L.9/Rev.1).

### **Climate Impacts as a Corporate Risk**

Consider the role of infrastructure in the following climate [impact scenario](#). Sustained strong winds have fueled a series of wildfires in the vicinity of the city of Fort McMurray. Over the course of several days, the fire has grown and spread through the city, severely damaging the electricity transmission infrastructure. On a narrow view of the critical infrastructure, the impact

may appear to be localized and relatively containable both from an economic and operational perspective. The owner of the asset will suffer an economic impact. But what about the communities, and industrial or agricultural operations who depend on the transmission infrastructure for their supply of electricity? In the highly networked and integrated energy infrastructure sector, particularly in a large country such as Canada, interconnected and integrated operations mean that a localized climate event can quickly result in broader service interruptions. A climate impact may therefore cause widespread economic, social, and environmental effects beyond the impact on the critical energy infrastructure asset itself. This has the potential to significantly expand the corporate risk landscape with respect to the critical energy infrastructure asset.

Climate impacts on critical infrastructure thus raise serious challenges for a corporation. Failure to adequately take climate adaptation risks into consideration at a corporate level, or to undertake appropriate adaptation to the infrastructure asset, could significantly expose the corporation and its officers to liability. Failure to adequately disclose climate related risks, e.g. as a “material risk”, or the withholding of information of these risks from regulators, may also raise legal issues by way of corporate disclosure obligations and securities regulation. The US\$1.6 billion investor fraud litigation against [ExxonMobil Corporation in New York State](#) in regard to the disclosure of carbon asset risks, although ultimately unsuccessful, is a case in point.

Corporations and their officers should therefore be mindful of the linkages between energy infrastructure assets and the wider climate change liability debate. To date, climate change litigation against corporations has predominantly focused on arguments of climate change mitigation and tort liabilities arising from a failure to undertake adequate mitigation efforts (i.e. reduction of greenhouse gas emissions). Corporate focus has also been on the risk of the energy infrastructure becoming a so-called “[stranded asset](#)” (an asset that has lost its usefulness prior to the end of its expected economic life; see [FortisAlberta Inc v Alberta \(Utilities Commission\), 2015 ABCA 295](#) (CanLII)) as a result of global climate mitigation efforts. Liability arising from a failure to adequately adapt critical infrastructure assets against the actual and anticipated effects of climate change has not yet been the targeted focus of litigation against corporations. It can be anticipated that this may soon change.

In my recently-published article, I argue that the potential damage to critical energy infrastructure assets as a result of climate impacts requires an expanded risk awareness by corporations. This would place adaptation of the critical asset as the central objective in any corporate risk management response to climate change. Currently, the management of climate impacts on an asset is predominantly viewed from a narrow corporate risk perspective, which focuses on narrow economic risks associated with climate impacts on the asset alone. In contrast, by applying an expanded understanding of the asset’s relevant context, the critical infrastructure asset would be viewed as existing within a broader economic, social and environmental

geography. This approach would broaden the scope of corporate risk arising from possible climate impacts on the corporate asset.

## **Resilience and Adaptation of Critical Infrastructure**

Canada's National Strategy for Critical Infrastructure recognizes that the objective of climate adaptation is to achieve "resilience" of the infrastructure in both an economic and ecological context. In the event that the asset suffers a climate impact, the geographical context within which it is located may be affected. But how can "resilience" of the critical infrastructure asset be achieved? For this, the [United States Federal Energy Regulatory Commission](#) may provide helpful guidance, defining resilience as "[t]he ability to withstand and reduce the magnitude and/or duration or disruptive events...". On this understanding of resilience, physical resilience would be achieved by decreasing the vulnerability of the asset to climate impacts. The critical question, from the perspective of corporate risk management, is therefore what type of resilience should adaptation achieve? Should resilience be limited to direct physical climate impacts on the asset, in other words only economic resilience (focusing solely on the objectives of the corporation)? Or, should the asset be considered within its broader social and environmental geography, thereby requiring an understanding of resilience that goes beyond direct impacts on the asset? For purposes of developing an adaptation strategy and managing corporate risk arising from climate impacts, this is a key point of decision for the corporation.

If the adaptation strategy adheres to a narrow focus on economic corporate risk management, it will be correspondingly limited and the broader geographical context will not be adequately weighted. When the objective of achieving resilience is broadened, however, the focus of the adaptation strategy will be wider in scope. The strategy will inevitably start with the narrow consideration of the economic effects resulting from a climate impact on the asset. It will then move beyond the asset itself to consider the broader economic, social and environmental consequences resulting from the climate impact on the asset.

Ultimately, it may be in the corporation's interest, from a risk management perspective, to take such a broader view of resilience. This may shield the corporation from potential future liabilities arising from a climate impact on its critical energy infrastructure. It may also be required to respond to increasing public influence (including governmental regulation) on what resilience and adaptation of the critical infrastructure asset should entail.

## **Responding to the Emerging Corporate Risk**

As I explore further in my article, viewing the infrastructure asset in its broader geographical context may widen the risk analysis and potentially create a new corporate risk. Taking a more expansive approach to achieving resilience by way of adaptation will necessarily lead to

increased public involvement in the adaptation discussion. Governmental presence is also likely to increase, and the question of responsibility for climate adaptation may arise. Governments and the public are likely to expand their influence over what adaptive measures are required of a corporation to ensure resilience of its assets. Questions related to the allocation of responsibilities (including who should pay) for undertaking adaptation of critical energy infrastructure may inevitably complicate the corporate risk landscape.

The key starting point for corporations seeking to develop an adequate adaptation strategy to manage corporate risk from climate impacts is to assess the infrastructure asset within its broader geography. I recognise that doing so may widen the risk analysis, including managing emerging risks from increased public involvement, and expand the adaptation responses required by a corporation. Nonetheless, this would allow corporations to better plan for and manage a broader array of risks arising from anticipated and unanticipated climate impacts on their assets.

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