

## **Renewable Energy and Catastrophic Incidents: Focusing on Potential Litigation Arising Out of Lithium Ion Battery-Storage Facilities**

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Over the past few months, renewable energy has become a political and investment focus.<sup>1</sup> While now part of everyday Americans' investment strategy, questions still loom on renewables' consistency and viability as an energy source in the near and not-so-near future.<sup>2</sup> Indeed, it is no surprise that one of the focuses of its viability is storage.<sup>3</sup> The sun does not shine 24-hours a day, and the wind does not blow each minute of the day. Thus, energy companies will continue to look for peak shaving and active management options to store excess energy when the sun is shining and the wind is blowing. And, for many such energy companies, the first and most likely option is battery-storage facilities.

### **A. Thermal Runaway Primer**

Although battery-storage facilities are an attractive option, they also come with litigation risk. One such issue is the potential for self-propagating thermal runaway of a lithium-ion battery.<sup>4</sup> In layman's terms, thermal runaway is a chain reaction caused by a short (internally) or other external heat source where the temperature in a battery cell rises rapidly. The temperature rise and related release of energy can cause additional cell failure until the fuel source (adjacent battery cells) is fully consumed. As the cells are consumed, however, the base electrolytes emit potentially explosive gasses, which, if not properly managed, can rapidly reach lower explosive limits in an improperly vented application. At this point, both fire and explosion present a very real risk of loss and potential injury.<sup>5</sup>

Some battery-storage facilities are located in rural, uninhabited places. Thus, when incidents do occur, they hopefully may occur without any personal injury. In such cases, the best approach may be to allow the incident to unfold without significant intervention, as time and

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<sup>1</sup> Rachel Koning Beals, *Markets are driving shift to green energy away from oil and gas dependence regardless of election winner—the difference is how fast*, MARKETWATCH (Oct. 24, 2020, 9:18 AM), <https://www.marketwatch.com/story/u-s-is-shifting-to-green-energy-away-from-oil-and-gas-dependence-regardless-of-election-winner-the-difference-is-how-fast-11603414892>.

Jinjo Lee, *Renewable Energy Can Live With Trump or Biden*, THE WALL STREET JOURNAL (Sept. 30, 2020, 9:33 AM), <https://www.wsj.com/articles/renewable-energy-can-live-with-trump-or-biden-11601472791>.

Liz Moyer, *Investor Interest in Renewable Energy is the Highest in Years. The Election Has Something to Do With It*, BARRON'S (Oct. 22, 2020, 3:21 PM), <https://www.barrons.com/articles/investor-interest-in-renewable-energy-is-high-heres-why-51603394467>.

<sup>2</sup> Don Paul, *Is renewable energy too weather-dependent?*, THE BUFFALO NEWS (Nov. 18, 2019), [https://buffalonews.com/opinion/columnists/is-renewable-energy-too-weather-dependent/article\\_9c688c13-dfae-5878-8607-071126d45dea.html](https://buffalonews.com/opinion/columnists/is-renewable-energy-too-weather-dependent/article_9c688c13-dfae-5878-8607-071126d45dea.html).

Anmar Frangoul, *India has some huge renewable energy goals. But can they be achieved?*, CNBC (Mar. 3, 2020, 3:56 AM), <https://www.cnbc.com/2020/03/03/india-has-some-huge-renewable-energy-goals-but-can-they-be-achieved.html>.

<sup>3</sup> Matthew Loveless, *Energy Storage: The Key to a Reliable, Clean Electricity Supply*, DEPARTMENT OF ENERGY (Feb. 22, 201), <https://www.energy.gov/articles/energy-storage-key-reliable-clean-electricity-supply>.

<sup>4</sup> Xuning Feng, Monggao Ouyang, Xiang Liu, Languang Lu, Yong Xia & Xiangming He, *Thermal runaway mechanism of lithium ion battery for electric vehicles: A review*, 10 ENERGY STORAGE MATERIALS 246 (Jan. 2018).

<sup>5</sup> See *id.*

distance may be the best management tools. This, however, is not absolute because it is likely that fire departments and police departments will be on site, and, thus, personal injury may still be an issue.

Assuming the United States continues to expand renewable energy options, storage applications may begin to be located in more populous areas to provide sufficient energy management options, such as energy for large cities and smaller, home-based units. Thus, companies should make reasonable efforts to prevent, plan, and prepare for worst-case scenarios.

## **B. Pre- and Post- Incident Considerations**

To frame the proper considerations, the easiest way to divide such planning is pre- and post- incident. While the discussion below is not exhaustive, it provides an initial framework for consideration.

**Pre-incident:** The first and likely most important pre-incident consideration is to ensure compliance with all applicable regulations. While compliance with regulations is not a complete shield to litigation or liability in many instances,<sup>6</sup> it often provides a viable argument that the company acted reasonably. Though regulatory compliance is a seemingly simple directive, it is often complicated by the rapidly evolving regulatory field for the renewables industry. Special attention to the cutting edge is important.

In addition to ensuring compliance with regulations, companies should also consider developing proper safety training for employees and first responders. The novelty of the technology often leaves local first-responders behind the learning curve in terms of incident management.

Another pre-incident consideration is the review of contractual provisions in procurement and maintenance contracts for ways to reduce potential, future exposure. Virtually all battery-storage facilities arise out of contracts governing the rights and obligations of numerous parties. By inserting proper indemnification and other liability shifting provisions, unforeseen litigation risks can be reduced or avoided entirely. For risks that cannot be allocated elsewhere, appropriate insurance coverage must be considered. With all of these tasks, a company should always remember to keep an eye towards potential litigation and available privilege and work-product protections.

**Post-incident:** Even when all the proper precautions are taken, the potential for thermal runaway of lithium-ion batteries and the attendant risks are a reality in this industry. When the worst-case scenario manifests, proper procedures post-incident can be crucial. At the outset, an experienced team should be deployed rapidly in order to perform an investigation and root-cause analysis. This will require a combination of legal and scientific experts that can perform witness interviews, data review, and document collection. It should also be done with the appropriate

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<sup>6</sup> See, e.g., *In re Bard IVC Filters Prod. Liab. Litig.*, 289 F. Supp. 3d 1045, 1047 (D. Ariz. 2018).

legal protections so that a broad understanding of the event can be developed without the risk of the work being held against the company in the future.

As the investigation progresses, the legal team can start developing the appropriate legal strategy to manage the company's risk of exposure. As with any incident, the legal strategy will be fact driven and based on the laws of the relevant jurisdiction. For example, a legal team may decide that limiting exposure through providing appropriate notices to insurance and other third-parties is appropriate or focus its efforts in gathering evidence to support specific legal theories such as the "firefighters rule."<sup>7</sup> Lastly, the legal team should immediately focus on the varying exposures (commercial loss, regulatory investigation, criminal investigation, and third-party liability) and guide the company's efforts on these frequently parallel (and often competing) paths.

### **C. Conclusion**

Currently, lithium-ion thermal events should be expected in the battery storage industry until the battery and storage container designs further evolve. But even when they do, battery and storage container designs will likely still pose potential risks. While industry leaders will continue to capitalize on the great economic potential of the battery storage industry during this evolution, it is important that they do so with a well-developed plan to limit legal exposure along the way, including the pre- and post- incident plans and management discussed above, which are crucial to managing potential exposure.

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<sup>7</sup> See *Apodaca v. Willmore*, 306 Kan. 103, 122, 392 P.3d 529, 543 (2017) (“[L]aw enforcement officers, like firefighters, who suffer injuries as a result of discharging their duties at the scene of negligently caused hazards or conditions their jobs require them to mitigate and eliminate cannot recover from the person or persons responsible for the existence of the hazards or conditions” unless certain exceptions exist.).