MEADEN & MOORE

CLIENT SUCCESS STORY:

Solar Farm Copper Theft: Business Interruption Loss Analysis and Operational Impact

Client: Insurance Carrier
Industry: Renewable Energy – Solar Power Generation

AT A GLANCE

Challenges:

- Theft disabled electrical infrastructure rather than destroying structures
- Power generation capacity varied across the solar array
- Financial impact tied to lost production, not just repair costs
- Multiple stakeholders requiring objective conclusions

Benefits:

- Independent and defensible loss measurement
- Clear linkage between operational downtime and financial loss
- Improved claim transparency and efficiency
- Support for claims adjusters and other stakeholders

BACKGROUND:

A large solar energy facility experienced a theft incident in which copper wiring and electrical components were stolen from the site. While the physical damage was visible, the greater issue was operational — the theft disabled portions of the solar array and prevented the facility from operating at full generating capacity.

Unlike traditional property losses, the primary financial exposure was not the replacement cost of materials. The key concern was the facility's inability to produce electricity and generate revenue during the downtime.

The matter required analysis beyond standard property damage valuation. Stakeholders — including claims adjusters and other involved parties — needed to understand how the theft impacted power generation and what the true financial loss was.

OBJECTIVE

Meaden & Moore was retained to independently evaluate the operational and financial impact of the copper theft. The engagement required determining how the incident affected the facility's generation capacity and translating that operational disruption into a clear, supportable financial measurement. The analysis was intended to provide stakeholders with a defensible understanding of the loss and support an informed claim resolution.

THE CHALLENGE:

Although copper materials were stolen, the primary issue was not the value of the missing components — it was the facility's reduced ability to generate electricity.

The team needed to determine which portions of the solar field were inoperable and estimate what electricity production would have been had the theft not occurred. Solar generation varies based on seasonal conditions and system performance, making it necessary to analyze historical operating data and production patterns. The analysis also required translating technical energy production information into financial terms understandable to non-technical stakeholders.

Simply valuing the stolen materials would have understated the true exposure. The central question was how much revenue the facility lost because it could not produce power during the outage period.

OUR APPROACH:

1. Operational Review

- Evaluated system configuration and affected arrays
- Reviewed capacity and operating performance
- Analyzed pre-loss and post-loss production data

2. Generation and Revenue Analysis

- Modeled expected electricity production during downtime
- Compared actual production to expected output
- Calculated financial impact tied to reduced generating capacity

3. Independent Financial Assessment

- Applied forensic accounting methodologies to operational energy data
- Developed a defensible measurement of business interruption
- Ensured calculations were clear and supportable

4. Stakeholder Communication

- Presented findings in a clear and accessible format
- Helped stakeholders understand operational impacts
- Supported productive claim discussions

THE OUTCOME:

Meaden & Moore's independent analysis demonstrated that the primary loss extended beyond the stolen copper components. The theft materially reduced the facility's ability to generate electricity and earn revenue. By quantifying both the operational and financial impact, the team provided stakeholders with clarity regarding the true exposure and supported resolution of the claim.

RESULTS:

- Quantified lost generation caused by the theft
- Measured revenue impact from operational downtime
- Provided a defensible, objective financial assessment
- Helped stakeholders distinguish between property damage and operational loss
- Supported efficient claim resolution

KEY TAKEAWAYS

This engagement illustrates how energy losses often extend far beyond visible physical damage. For renewable energy facilities, damage to infrastructure can significantly affect production capacity and revenue generation. By analyzing operating data and translating it into clear financial conclusions, Meaden & Moore helped stakeholders understand the true impact of the event and move forward with confidence.

EXPERT PERSPECTIVE: CHRISTIAN HAYES ON ENERGY LOSS ANALYSIS

In energy losses, the visible damage is often only part of the story. Our role is to evaluate how an event affects a facility's ability to operate and generate power, then translate those operational impacts into a clear financial measurement stakeholders can rely on. By analyzing production data, operating performance, and expected output, we help clarify what would have occurred absent the loss. Combining that operational understanding with objective financial analysis — and communicating it in a straightforward way — helps stakeholders understand the exposure and move the claim toward resolution more efficiently.

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"Client service in investigative accounting isn't just about delivering a number. It's about making sure every stakeholder understands what happened, how we measured it, and why the conclusions are reliable. When people can clearly follow the analysis, it builds confidence and helps the claim move forward."

— Christian Hayes, Manager