

Forensic Engineering for the Energy Industry

Independent investigation and expert analysis across generation, delivery, and renewable infrastructure.





Forensic Insight for Complex Energy Losses

Trusted Technical Insight for Insurance and Legal Professionals

Large energy losses demand more than surface-level analysis. They require deep technical expertise, disciplined forensic methods, and the ability to clearly explain complex engineering failures.

Envista Forensics provides independent, defensible investigations to identify root causes, quantify damages, and support clear, persuasive conclusions.

Power Generation Consulting

Envista brings decades of direct experience across the full energy lifecycle — from fuel production to power generation, storage, and delivery. This practical background allows us to quickly understand site conditions, operating constraints, and real-world equipment limitations.

We investigate losses involving both conventional and renewable power generation assets.



Renewable Energy

- Utility-scale solar farms, including PV modules, racking systems, inverters, combiner boxes, transformers, and balance-of-plant equipment
- Performance degradation, installation defects, wind and hail damage, fire events, and grounding failures
- Wind energy systems, including turbines, blades, gearboxes, generators, yaw and pitch systems, towers, and foundations

Fossil Generation

- Gas turbines, steam turbines, boilers, heat recovery steam generators (HRSGs), and auxiliary systems

Nuclear & Hydroelectric

- Turbines, generators, and supporting electrical, mechanical, and structural infrastructure

Power Delivery

Failures in power delivery systems can result in widespread outages and significant financial losses. Our team investigates:

- **Transmission systems**, including high-voltage lines, towers, foundations, insulators, and conductors
- **Distribution systems**, substations, feeders, transformers, protection systems, and controls
- **Switchyards and substations**, including breakers, relays, grounding systems, and protection schemes



Fuel Production & Processing

Energy losses often originate upstream, where harsh operating environments and complex systems increase failure risk. Envista investigates losses involving:

- **Onshore and offshore** drilling rigs, wellheads, and production equipment
- **Refining and processing systems**, including pressure vessels, piping networks, compressors, and rotating equipment
- **Mining operations and material handling** systems



Why Choose Envista for Energy Losses

Demonstrated Energy-Sector Depth

Proven experience supporting high-value, complex energy losses across conventional and renewable assets.

Renewables Expertise

Deep understanding of solar and wind technologies, construction practices, and failure modes.

Field-Ready Engineers

Climb-certified wind turbine investigators and experienced remote and hazardous environment teams.

Independent and Defensible Opinions

Objective analysis grounded in data, engineering standards, and sound methodology.

Clear Communication

Technical findings translated into concise, understandable conclusions.

Responsive Support

Efficient investigations aligned with claim and litigation timelines.

Battery Energy Storage Systems (BESS)

As energy storage deployments grow, so do the risks associated with thermal events, electrical failures, and system integration challenges. Envista supports forensic investigations involving:

- Lithium-ion and alternative battery chemistries
- Thermal runaway events, fires, and explosions
- Battery management systems (BMS) and control failures
- Inverters, transformers, and grid interconnection issues
- System design, installation, commissioning, and operational practices



Where You Need Us, When You Need Us

For over 40 years, Envista Forensics has been at the forefront of servicing the insurance industry, legal professionals and corporations, successfully helping clients understand the cause of loss and determining responsibility following all types of equipment failures.

With extensive operations across North America, Singapore, and Australia, Envista Forensics is uniquely positioned to deliver technical expertise and courtroom presentation experience to their clients, no matter where in the world these services are required.

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