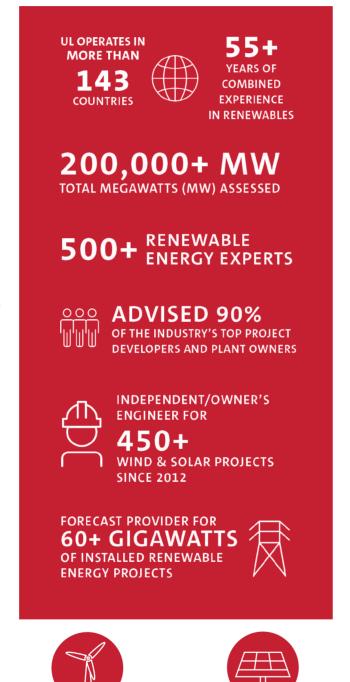


EMPOWERING TRUST IN RENEWABLE ENERGY

UL works to help the energy industry mitigate risk and navigate complexity associated with renewable resources. We have become a trusted advisor by providing access to proven science and expert engineering, and by offering innovative solutions to meet the unique challenges of the renewable energy industry. We pride ourselves on being accessible, flexible, and keenly responsive to the needs of our clients, and helping them to reduce humanity's global carbon footprint and generate healthy financial returns.

UL now delivers an extensive portfolio of renewable energy services, following the acquisition of AWS Truepower (2016) and DEWI (2012). We support wind and solar projects, battery and energy storage systems, and e-mobility, and our services encompass testing, inspection, certification, verification, auditing, training, and expert advice from project inception to decommissioning. Our goal is to empower trust throughout the project lifecycle and across the supply chain.

Additionally, to better serve customers in the Middle East - UL and the GCC Laboratories announced a joint venture to strengthen the Middle East's renewable energy infrastructure (2017). This will offer a variety of services related to the renewable industry, such as precommissioning tests, construction monitoring services and product testing of solar PV modules, including accessories that comply with applicable standards including UL and IEC standards.



WIND ENERGY

BATTERIES & ENERGY

STORAGE

SOLAR ENERGY

E-MOBILITY

WE HELP RENEWABLE ENERGY CUSTOMERS WITH:



PROJECT DEVELOPMENT SUPPORT

Decisions made throughout the project development process can greatly affect outcomes. Our experts rely on decades of experience, proven practices and tools, and sound science to assess sites, measure and model resources, design systems and accurately estimate resource and energy production to support financing.



OPERATIONAL PERFORMANCE

Good performance is not a matter of chance. Through desktop evaluations and onsite inspections we help owners and operators understand plant performance, manage expectations of operational plants, and identify opportunities for performance improvement. Our goal is to help our clients get the best possible return from their operating assets.



GRID SOLUTIONS

As the renewable energy market grows, so does the importance of forecasting variable renewable generation to support grid operations and power trading and of quantifying the impact of centralized and distributed solar and wind projects on the power system. Our sophisticated forecasting models and analytic software are enhanced by our deep understanding of renewable energy technology and the weather. The result is safe, reliable and economical grid operations.



DUE DILIGENCE

If a client is looking to raise capital, buy or sell a project or portfolio, or secure an equity stake in a project, we will help them perform the due diligence, identify all critical risks, and ensure a timely transaction.



TESTING & INSPECTION

Manufacturers looking to verify the safety, reliablility, and performance of renewable technologies, such as energy storage equipment, wind turbines, and solar modules and peripheral equipment that rely on our technical and safety science experts to help navigate the risks. We operate renewable energy testing sites around the globe and perform inspections of operating equipment in the field.



CERTIFICATION

As renewable energy technologies advance, their continued safety, reliability, and performance must be assured. As safety science experts, we help clients navigate these risks through certification for products, projects, and grid code compliance. The UL certification extends compliance and provides assurance and confidence in the reliability of renewable energy technology.



STRUCTURAL INTEGRITY & LIFETIME EXTENSION

As renewable energy projects age it becomes increasingly important to assess their condition for safety, remaining life, and potential for lifetime extension. Our engineers are experts at diagnosing and predicting technology failures, and have pioneered the development of standards and methods for determining the useful life of operating assets. Our goal is to maximize asset value and minimize asset risks for our clients.



SOFTWARE & DATA/ANALYTICS

We empower clients with the same software, data, and tools used by our expert advisory team to support renewable energy project development. Through our software and data tools we enable clients to conduct the highest quality assessments, in an independent manner, and to make informed decisions concerning siting, resource, plant design, and energy production.

