



DTN Storm Nowcast



See the Storm Before It Strikes. Act Before It Costs You.

Turning short-term weather into actionable certainty.

For renewable energy operators, every storm carries major risk — from hail damage to solar panels to lightning striking wind turbines. **DTN Storm Nowcast** transforms the next 60 minutes of atmospheric uncertainty into operational foresight, giving you the confidence to protect assets, plan production, and keep crews safe.

DTN Storm Nowcast is a global, short-range forecast of critical storm attributes that identifies and projects severe storm behavior up to **one hour in advance**. Using global synthetic radar technology

developed at DTN, satellite imagery, lightning detection, and advanced modeling, this critical dataset maps where storms are forming, how they'll move, and what threats they carry — hail, damaging winds, heavy rain, and lightning.

The system updates continuously — every five minutes for radar inputs and fifteen minutes for satellite — providing the most current, high-resolution view of fast-evolving storms anywhere on Earth.



Built for renewable resilience

- **Wind farms:** Anticipate turbine exposure to lightning, extreme wind gusts, or hail and adjust operations before the impact window.
- **Solar installations:** Protect panels, plan maintenance, and manage inverter loads around hail, heavy rainfall, and high winds.
- **Grid operations and traders:** Translate short-term weather dynamics into smarter dispatch and market decisions.
- **Field safety:** Issue site-specific alerts for technicians based on storm perils, track, and intensity.

Key capabilities

- **Minute-level awareness:** Forecast storm evolution in 15-minute intervals, up to one hour ahead, with fresh updates every five minutes.
- **Granular peril intelligence:** Quantifies wind gust potential, hail size likelihood, and rainfall intensity by storm cell in an intelligent risk index.
- **Near-zero latency:** Real-time data delivery ensures decisions align with actual storm movement.
- **Flexible access:** Delivered through DTN ArcGIS Data Services, new weather intelligence platform Weather Hub, and via GeoJSON feeds for easy system integration.
- **Consistent visualization:** Color-coded polygons display storm intensity and motion paths, built for quick, intuitive interpretation.

Why DTN Storm Nowcast?

- **Scientific precision:** Derived from DTN synthetic radar nowcast technology and decades of meteorological innovation.
- **Proactive protection:** Moves you from reactive shutdowns to proactive planning and mitigation.
- **Global reach:** Uniform, high-frequency coverage across all major renewable regions.
- **Integration-ready:** Visual, data, or API delivery to fit existing workflows.
- **Trusted foundation:** Backed by DTN proven expertise — the same decision-grade weather data and intelligence trusted by utilities, transportation, and agriculture worldwide.

Stay ahead. Stay operational.

Every storm is an opportunity — to prove resilience, efficiency, and control. With DTN Storm Nowcast, your renewable operations gain the power to anticipate, act, and maintain uptime with unmatched precision.

[Learn more](#)