



# National Grid Enables Wind and Solar with Dynamic Line Ratings

Dynamic Line Ratings project reduces wind and solar curtailment by 350 MW while further expanding overall grid capacity



## nationalgrid

### THE CHALLENGE

National Grid is a utility serving more than 20 Million people through its networks in New York and Massachusetts. New York has set a [target](#) to secure enough renewable energy to serve at least 70% of load in 2030, which means investing significantly in renewable energy and infrastructure. National Grid regularly experienced curtailments of more than 350 MW due to capacity constraints on its transmission lines including the curtailment of a 125 MW wind-power plant which powers 37,000 homes. National Grid needed to expand its transmission capacity to ensure that clean energy could be delivered.

### LINEVISION SOLUTION

LineVision's [LineRate](#)® Dynamic Line Rating (DLR) software and non-contact sensor platform were deployed on congested 115 kV transmission lines in upstate New York. As a result, LineVision's DLR reliably and safely increased transmission capacity, helping the 125 MW wind project and others integrate clean energy onto the grid. National Grid is utilizing LineVision's best-in-class methodologies including computational fluid dynamics and field sensor validation. This robust technique of DLR calculates wind speeds for each span of the monitored line.

## SUMMARY OF BENEFITS\*



**190 MW**  
Renewables Added



**\$46 Million**  
Cost Savings for Consumers



**350 MW**  
Curtailments Avoided



**1.1M Tons**  
CO<sub>2</sub> Avoided Annually

\*Projections



LineVision's sensor installed in upstate New York

## APPLICATIONS USED



LineRate



LineAware



LineHealth

## BENEFITS

By operationalizing LineVision LineRate for DLR, National Grid is reducing existing curtailments by a projected 350 MW and connecting 190 MW of additional clean energy to the grid, avoiding 1.1 million tons of CO<sub>2</sub> per year. By increasing capacity and allowing more renewable power to flow, this project also allowed National Grid to defer the rebuilding of the line, saving consumers an estimated \$46M in avoided construction costs. Building on the initial project's success, LineVision's technology has now been specified in additional New York Rate Cases.



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Contact us with any questions or  
to learn more.

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