

# National Guard of Virginia Monitors Their Photovoltaics Using Lufft Sensors

## Challenge

80% of the energy needs of the Virginia National Guard premises in Fort Pickett are covered by an own solar system. To ensure the highest possible performance, a professional monitoring system is required.

## Solution

A Lufft WS500 weather sensor provides wind, temperature, humidity and air pressure. A pyranometer from Kipp & Zonen issues radiation. It is integrated into a Schneider Electric BAS.

## Benefits

The Lufft WS500 combines 5 sensors in one housing with one cable connection. It can easily be connected to Kipp & Zonen pyranometers and thus cover all data required for the successful operation of PV systems.



# Technologies used



LUFFT WS500

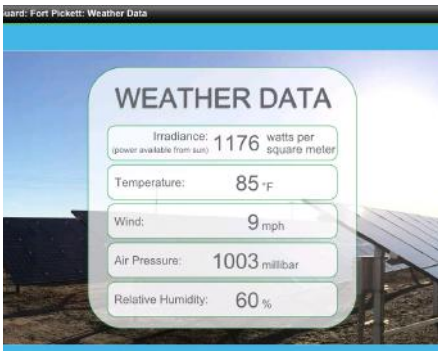


## Smart Weather Sensor

Multi-parameter weather sensor measuring temperature, rel. humidity, air pressure, wind direction/speed.

# Case Study

The Virginia National Guard 183rd Regiment decided to complete a solar installation at their Regional Training Institute (RTI) at Fort Pickett, VA.



## Growing demand for renewable energy in the U.S.

Reduced barriers to entry and an advantageous political climate are helping to grow solar power around the country. Companies as well as state run organizations are recognizing the benefits to installed solar capacity on their rooftops. Rooftop solar provides substantial benefits not only for the installer but for every surrounding utility customer. It helps power the homes and shops that adopt it, to be sure, but it has far-reaching benefits for other customers as well.



Solar installations in US now exceed 2 million and could double by 2023.

## Virginia's National Guard relies on solar monitoring by Lufft sensors

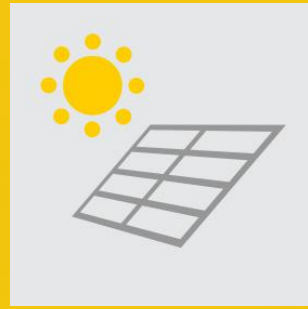
The Virginia National Guard 183rd Regiment decided to complete a solar installation at their Regional Training Institute (RTI) at Fort Pickett, VA. The project, a \$2.2 million, 488 kilowatt solar array that measures 10,000 square yards and consists of nearly 2,000 individual solar panels, provides the RTI with nearly 80 percent of its daytime energy needs. This field is estimated to produce 712,000 kilowatt hours per year and was installed adjacent to the RTI campus.

The Lufft weather sensor provides wind speed, wind direction, temperature, humidity and air pressure. The weather station and pyranometer together provide weather and solar radiation data from the field that is then integrated into a Schneider Electric BAS (Building Automation System) and display on the customer's energy management dashboard. Evergreen Solar was the installer on the job with oversight from Schneider Electric. Lufft provided the weather sensor that provides data for the array.



Lufft WS500 weather sensor in the foreground with the installation array behind





# 488kW

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**To the official website of Virginia National Guard**