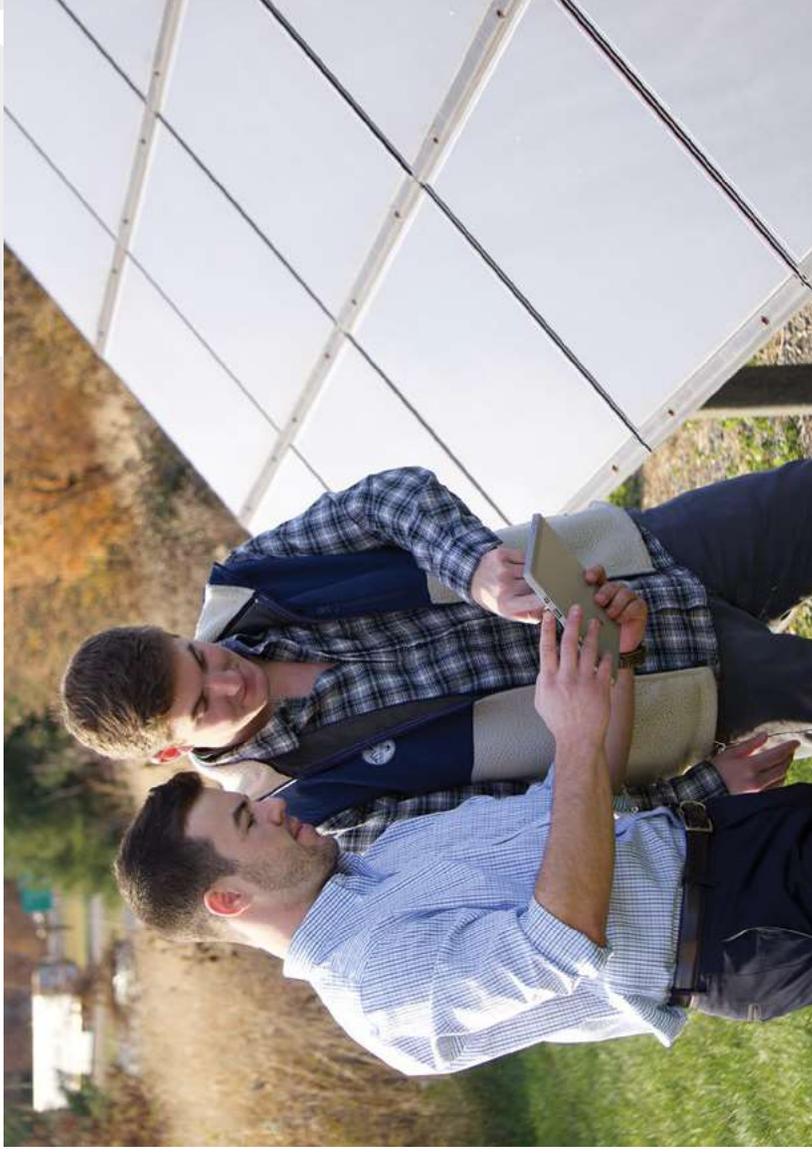


# THE IMPACTS OF SOILING ON SOLAR PHOTOVOLTAIC PANEL EFFICIENCY



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*The team analyzes the effects of soiling on solar PV efficiency and whether cleaning the solar panels increases their performance.*

Soiling is the collection of dust and other debris on PV modules that plays a significant role in reducing the efficiency of photovoltaic (PV) systems. Its effects vary by location, yet left unattended it can be detrimental to a system's overall power production.

Currently, system analysis has not matured to a point where the optimal time to clean PV modules is easily identified based on cost-benefit analysis. The objective of this study is to develop a better understanding of the effects of soiling in various

U.S. climate regions and to develop a method to easily identify the optimal time to clean PV modules based on cost-benefit analysis. Data collected on WGL Energy's solar facilities will be used to assist with this study.