

Integrated Mitigation Program for Assessment of Climate, Topography, and Soils



For developers, operators, and construction partners of utility-scale solar sites, various environmental factors, including erosion and accelerated stormwater runoff, pose significant financial threats and hindrance to operations.

To combat these concerns, Profile Products offers **PV-IMPACTS**, a comprehensive analysis of risks and opportunities associated with soil erosion and environmental factors at utility-scale solar sites. Utilizing multiple geospatial factors, PV-IMPACTS remotely assesses **erosion, soil health, regulatory, and interrelated environmental inputs** for existing and planned projects.

Early Action for Sustainable Development:

PV-IMPACTS empowers stakeholders such as utilities, developers, EPCs, and consultants to proactively identify potential concerns and address them through proper erosion control, stormwater management, and vegetation establishment best practices.

The geospatial resource identifies additional project-specific risks and opportunities to facilitate community acceptance and regulatory compliance.





Key Capabilities:

- **Erosion Risk Index:** This custom-built index combines four key industry-validated drivers of erosion and stormwater runoff: *rainfall erosivity, soil erodibility, slope gradient, and changes in rainfall erosivity due to climate change*. Each factor is weighted and normalized on a 0-100 scale, providing a clear risk assessment value for each site.
- **Soil Health Risk Index:** This index assesses the site's overall soil health by analyzing *soil pH, soil organic matter (SOM) content, and sodium adsorption ratio (SAR)*. These factors influence nutrient uptake, soil moisture absorption, vegetation management, and runoff rates.
- **Additional Risk & Opportunity Assessments:** PV-IMPACTS offers insights to factors like *flood potential, proximity to protected areas, and regulatory considerations*. It also identifies *opportunities for establishing native plant and pollinator habitats, quantifying potential cost savings and ecological benefits*.

Utilize PV-IMPACTS to:

- **Create** an accurate assessment of the climactic, topographic and agronomic challenges facing the site.
- **Mitigate** erosion risk to operations, equipment and transmission infrastructure.
- **Improve** soil health to support sustainable vegetation establishment and reduce surface temperature for optimal photovoltaic performance.
- **Revitalize** and reclaim Brownfield Sites that face unique challenges and enhance public acceptance.
- **Empower** economic opportunities by utilizing pollinator-friendly native vegetation to potentially reduce maintenance costs and benefit surrounding agricultural communities.

Partnering for Success:

Profile Products works with stakeholders across the solar industry by utilizing PV-IMPACTS for project-specific risk identification, comprehensive siting assessments, and vegetation management plans to empower informed decision-making for sustainable and cost-effective solar development.

Contact Profile at 800-508-8681 or www.profilesolarsolutions.com to consult with our experts to request a PV-IMPACTS assessment of your solar development site.

