

Wind Plant Optimization: WindLAYOUTSM Services

fact sheet

Introduction

An important step in the development of any wind power plant is the siting of wind turbines to maximize energy capture while considering project costs and constraints. GE's new WindLAYOUTSM service, as part of a suite of Wind Plant Optimization products and services, utilizes GE's core power generation expertise to maximize energy capture without exceeding turbine design limits.

Applicable Platforms

- Sites utilizing GE's 1.5sle, 1.5xle, and/or 2.5xl wind turbines

Technical Description

GE has developed a powerful set of technically advanced optimization tools that directly integrate wind plant performance, turbine mechanical loads, site conditions, and project constraints for maximizing energy production. These optimization tools can also be tailored to include customers' cost and financial metrics that drive wind power plant development.

GE's WindLAYOUTSM service considers a number of project-specific factors, including:

- Site orography and surface roughness
- Site boundaries and exclusion zones
- Site wind resource
- Turbine suitability
- Project costs
- Noise constraints, where applicable

GE's WindLAYOUTSM service addresses the significant challenge of optimizing energy production while considering the project factors listed above. Utilizing GE's advanced optimization tools and knowledge of the detailed design load analysis, the WindLAYOUTSM service improves project economics while meeting the required constraints.

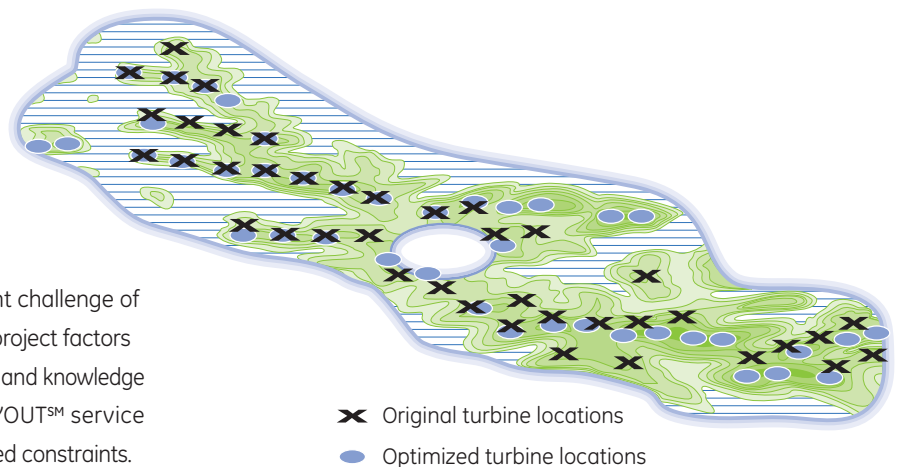
Features and Benefits

With GE's WindLAYOUTSM service, customers can make the best cost-benefit decisions regarding site development. GE's WindLAYOUTSM services also provide features such as:

- Wind turbine layout report, detailing locations that maximize energy production
- Annual energy production estimates
- Full report on turbine suitability
- Wind resource assessment
- Utilization and due diligence of customer's wind resource assessment
- Ability to incorporate site-specific environment, turbine and project constraints, as well as cost and financial metrics

Restrictions

Wind resource assessments provided by customers that do not adequately characterize site terrain complexities can lead to a limited or non-application of this service. GE will evaluate the limitations and offer assistance as needed.



Example of WindLAYOUTSM – Wind Plant Optimization Service

For more information contact your GE Energy sales representative at 800-821-2222 or visit us on the web at ge-energy.com/wind.

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GEA-17211 (02/09)

