



One Source Solution in Wind Energy Engineering



WIND ENERGY

GENIVAR IS A ONE-SOURCE SOLUTION IN WIND ENERGY ENGINEERING WITH OVER 20 YEARS OF EXPERIENCE. WE PROVIDE WIND RESOURCE ASSESSMENT AND PROJECT DUE DILIGENCE EXPERTISE AS WELL AS FACILITIES ENGINEERING AND DEVELOPMENT. GENIVAR OFFERS WORLD CLASS INTEGRATED SOLUTIONS TO THE INTERNATIONAL WIND ENERGY COMMUNITY.





## WIND RESOURCE ASSESSMENT ANALYSIS

- Meteorological tower deployment planning
- Installation of wind measurement towers
- Wind regime variability analysis
- Advanced long-term yield forecasting
- Turbine suitability analysis and selection
- Wind mapping
- Turbine layout optimization including resource, construction costs, environmental and social constraints
- Calculation of net energy production
- Project due diligence and third-party review
- Turbine power performance testing

## WINDSERVER™ APPLICATION

- Automated meteorological data collection
- Automated quality control and data validation
- Complete data analysis and reporting
- Flexible data retrieval
- Comprehensive data storage
- Management and reporting of detailed site information
- On-line and secure
- Life cycle equipment tracking
- Yield potential calculations based on selectable power curves
- Inter-site comparisons
- Statistical analysis
- Export function for use in wind models such as WAsP and WindPRO

## FACILITY ENGINEERING AND DEVELOPMENT

- Electrical engineering for grid interconnections, including submissions to electric utilities
- Grid impact assessment and regulatory applications
- SCADA and controls system design
- Civil design (access roads, foundations, etc.)
- Preparation of capital cost estimates
- Preparation of tender documents
- Project management
- Retrofits, major repairs management and quality control
- Financial analysis and economic modeling
- Project due diligence and third-party review
- Professional services during construction
- Commissioning and operational support

## ENVIRONMENT

### Specific studies

- Perception studies
- Visual simulation
- Noise studies
- Avifauna surveys
- Habitat compensation
- Environmental monitoring
- Hazardous materials management plans

### Approvals and Authorisations

- Federal environmental assessments (Canadian Environmental Assessment Act)
- Provincial environmental assessments
- Municipal approvals – official plans, zoning, site plan
- Project notifications
- Permits and approvals

# THE CLIENT IS AT THE CENTRE OF OUR ACTIONS AND ORGANISATION

At GENIVAR, we know that our success is based on our clients' success. That's why we build long-term business relationships that enable us to support our clients in their growth.



## EXPERTISE

When clients choose us for a project, they are able to access the experience of the entire firm. Our work environment is flexible, and that means communication and discussion between employees is easy. As a result, our clients can count on superior services in every field because the entire team is behind every job.

## CONSTRUCTIVE APPROACH

GENIVAR offers even more. Besides their technical expertise, innovative spirit and access to state-of-the-art tools, our team members adopt a constructive approach, and that makes all the difference. Our employees are observant. They listen closely to clients, proactively anticipate their needs and, meet their requirements.

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GENIVAR is a public Canadian leader delivering global solutions based on an integrated approach. GENIVAR offers a full range of studies, engineering and environmental services. GENIVAR professionals work closely with their clients through every stage of their projects.

[www.genivar.com](http://www.genivar.com)  
[www.windserver.ca](http://www.windserver.ca)

 **GENIVAR**  
*constructive people*



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