



ORTECH
Power

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DEWI – Quality by Know-how

**ORTECH, in collaboration with DEWI (the German Wind Energy Institute),
is pleased to offer a technical course on:**

Wind Farm Operations

October 22, 2006, Winnipeg, Manitoba

In this technical course, you will learn the key aspects of wind farm operations.

Part 1: Wind Farm Operations and Maintenance

We will examine warranty maintenance service contracts, post-warranty service requirements, and associated costs of repairs and insurance. Additional topics include regulatory compliance and contract implementation for leases, warranties, power sales and transmission. We will also discuss the administrative aspects of wind farm operations: legal issues, risk management and financial reporting.

Part 2: Turbine Certification

The process of certification of wind turbines has been established by the wind power industry in order to improve the overall safety and quality of wind farm projects. Investors have learned from past experience that by selecting a certified wind turbine design they greatly improve the chances that the production and the safety of operation will meet their expectations. We will examine the procedure of certification, underlying the important issues which wind farm developers and investors should consider before choosing a wind turbine.

Part 3: Condition Monitoring

Condition monitoring of wind turbines is essential to predicting gearbox failures and managing other component failures. We will examine essential requirements of a successful monitoring program: vibration analysis, measurements of temperature and other machinery parameters indicative of wind turbine

mechanical health, identifying critical diagnostic data needed for quick root cause analysis, and providing operators with real time intelligent advisories if a problem is detected. An early warning system offers a solution for avoiding unforeseen downtimes resulting from component wear, thus supporting a high level of turbine availability.

Part 4: Power Performance Measurements

Since the power curve of a wind turbine is of prime importance for the performance of a wind power plant, it must be warranted by the manufacturer. If the power production does not meet expectations, a verification of the power curve may be necessary. We will present the applicable international standards, the requirements on the measuring system and on the measuring conditions.

Part 5: Forecasting

We will discuss wind power forecasting as a tool for system operators to manage the fluctuations of wind energy on their systems. This presentation will also examine various forecasting methods for short-term and long-term predictions and the emerging requirements by grid operators.

Who should attend?

- Wind farm developers
- Energy company staff involved in wind farm operations
- Potential wind farm investors



DEWI, the German Wind Energy Institute, has 15 years of European and international experience with hundreds of projects and over 8,000 MW of reviewed projects world-wide. DEWI operates two of the few official turbine test sites in the world and is a global leader in technology advancement and standards setting for the wind industry.

Since 1991, DEWI has conducted over 140 wind energy courses and seminars lasting from one day to up to four months. More than 2,300 participants from over 30 countries have attended these courses either at DEWI or in other locations around the world.

DEWI-OCC is a subsidiary of DEWI which focuses on wind turbine certification.

ORTECH is a leading Canadian technical consulting and financial advisory firm in the wind energy sector. ORTECH, through its former development affiliate, Canadian Renewable Energy Corporation (CREC) has been responsible for over 200 MW of wind capacity currently under construction. ORTECH has carried out research, financial analysis and due diligence review on over 1000 MW of projects under development.

For more information about us, please visit www.ortech.ca and www.dewi.de

<p>Register on-line at www.ortech.ca or by phone, fax or mail:</p> <p>ORTECH Power 2395 Speakman Drive Mississauga, ON L5K 1B3 Attn: Pat Evans – Event Organizer</p> <p>Phone: 1-877-774-6560 x223 Fax: (905) 855-0406 E-mail: pevans@ortech.ca</p> <p>Name</p> <p>Title</p> <p>Company Name</p> <p>Street</p> <p>City, Province</p> <p>Postal Code</p> <p>Telephone</p> <p>Fax</p> <p>E-mail</p> <p>Registration Fee \$100.00 + \$6.00 GST (\$106.00) GST number 869879932RT0001</p> <p>Payment by: <input type="checkbox"/> cheque enclosed (Please make cheque payable to ORTECH Power) <input type="checkbox"/> Credit Card:</p> <p style="padding-left: 40px;"><input type="checkbox"/> VISA <input type="checkbox"/> MC <input type="checkbox"/> AMEX</p> <p>Name:</p> <p>Card No.:</p> <p>Expiry Date:</p> <p>Amount Authorized:..... (\$100+\$6.00GST = \$106.00)</p> <p>_____ _____ Date Cardholder's Signature</p>	<p>Conference Agenda:</p> <p>Place: Winnipeg Convention Centre Room 2F 375 York Avenue Winnipeg, Manitoba R2C 0A1</p> <p>Date: October 22, 2006</p> <p>Instructors: Mr. Pierre Dutilleux, DEWI (Parts 2 & 4) Mr. Uwe Roeper, ORTECH (Parts 1, 3 & 5)</p> <p>Course fee: \$100 + \$6.00 GST= \$106.00 includes coffee/tea break</p> <p>Schedule: 1:30 - 3:00 1st Part of Course 3:00 - 3:15 Break 3:15 - 4:45 2nd Part of Course 4:45 - 5:00 Discussion/Q & A</p> <p>Course documents: All diagrams, tables and figures presented during the course with room for own notes will be handed out to the participants at the beginning of the course.</p>
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Conditions and liabilities

Registration will be confirmed by ORTECH upon receipt of payment. Please note that your registration is only valid after receipt of payment. If the course is over-subscribed, the order of incoming payments will be decisive. ORTECH reserves the right to cancel the course if the minimum number is not reached. In that case the course fee already paid will be fully refunded. If you cancel your registration not less than 10 days before the course starts, we will charge a handling fee of \$20, thereafter and in case of non-appearance, the full fee (100%) will be kept. A substitute person will of course be accepted. Please understand that we can only accept registrations made in writing.