

# Timothy M. Weis

*M.Sc. Mechanical Engineering, B.A.Sc. Mechanical Engineering/Environmental Engineering Option*

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## EDUCATION

UNIVERSITÉ DU QUÉBEC À RIMOUSKI, RIMOUSKI, PQ

2002 – PRESENT

PhD Candidate, Department of Environmental Science, Université du Québec à Montréal

- ◆ 2002 NSERC Industrial Graduate Scholarship
- ◆ Thesis Research: Small-Scale Wind Energy in Remote Canadian Communities

UNIVERSITY OF ALBERTA, EDMONTON, AB

1999 – 2002

Masters of Science, Department of Mechanical Engineering

- ◆ 1999 NSERC Graduate Scholarship
- ◆ Leonard E. Gads Teaching Assistant Award, Faculty of Engineering 2000
- ◆ University of Alberta Graduate Student Teaching Award 2000 & 2001
- ◆ Walter Johns Graduate Tuition Scholarship 1999 & 2000
- ◆ Geon Graduate Scholarship Air Pollution Reduction Research
- ◆ Thesis Research: Ice Adhesion to Wind Turbine Blades

UNIVERSITY OF WATERLOO, WATERLOO, ON

1994 – 1999

Bachelor of Applied Science; Mechanical Engineering, Environmental Engineering Option

- ◆ Graduated with 1<sup>st</sup> Class Honours
- ◆ 1998 SAE Supermileage Engine Design, Manufacture and Testing
- ◆ 1997-1998 Student Exchange to University of Leeds, England

## WORK EXPERIENCE

RENEWABLE ENERGY TECHNICAL RESEARCH

JULY 2002 – PRESENT

The Pembina Institute, Edmonton, AB

- ◆ Community Energy Planning
- ◆ Wind Energy, Biomass and Mini-Hydro Feasibility Studies
- ◆ Community Energy Demand Assessments
- ◆ Renewable Energy Resource Assessment

WIND ENERGY CONSULTING

FEB 2003 – PRESENT

- ◆ Yukon Energy Corporation – Wind power production analysis under icing conditions
- ◆ Aurora Research Institute – Pre-feasibility study for wind energy in Inuvialuit communities
- ◆ WindFall Ecology Centre – First Nations national renewable energy systems study

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MTD Products Ltd., Kitchener, ON

- ◆ Conceptual Design and Layout analysis for a New Snow–thrower
- ◆ Design of a new *Steerable Transmission*
- ◆ Fatigue testing for new transmission components
- ◆ Coordinated Cold Weather Snow–thrower Test Program

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R&D TEST LAB

JAN–APR 95, SEPT–DEC 95

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Timberjack Inc., Woodstock ON

- ◆ Operator Noise Reduction Program experimental design and testing
- ◆ Fatigue Testing on Pilot Machines
- ◆ 3D CAD drafting of new parts and assembly drawings for ISO compliance
- ◆ Operator Visibility Test Program Design for ISO 9000 compliance

## RECENT REPORTS AND PRESENTATIONS

- Weis, T.M. and Lambert, T. (2004) “Electricity Supply Optimization in Kyuquot; Wind, Hydro and Grid Options” report submitted to Indian and Northern Affairs Canada, Aboriginal and Northern Climate Change Program, BC Region, Vancouver, BC
- Weis, T.M. and Salkeld, M. (2004) “Little Red River Cree Nation Community Energy Planning: Long–Term Electrical Supply Options”, report submitted to Indian and Northern Affairs Canada, Aboriginal and Northern Climate Change Program, Alberta Region, Edmonton, AB
- Weis, T.M. (2004) “Driftpile First Nation Community Energy Planning: Wind Energy, Biomass Cogeneration and Energy Efficiency Options”, report submitted to Indian and Northern Affairs Canada, Aboriginal and Northern Climate Change Program, Alberta Region, Edmonton, AB
- Weis, T.M. and Carlos, C. (2004) “Kyuquot Community Energy Planning: Long–Term Electrical Supply Options” report submitted to Western Economic Diversification under Community Alternative Energy Development Initiative, Victoria, BC
- Weis, T.M. (2003) “Tsay Keh Dene and Fort Ware Wind Energy Assessment; Options for Wind Power Development in Tsay Keh Dene and Kwadacha First Nations, British Columbia”, report submitted to BC Hydro, Vancouver, BC
- Weis, T.M. (2003) “Wha Ti Wind Energy Assessment Options for Wind Energy Development in Wha Ti, Northwest Territories”, report submitted to Ecology North, Yellowknife, NT
- Weis, T.M. (2003) “The Effects of Black Blades on Surface Temperatures for Wind Turbines”, proceedings of Yukon International Wind Energy Conference, Whitehorse, YK

- Ilinca, A, Chaumel, JL and Weis, T.M. (2003) “Les variations saisonnières du potentiel éolien au Québec”, proceedings of 71<sup>e</sup> congrès Association francophone pour le savoir, Rimouski, PQ
- Weis, T.M. and Pape-Salmon, A. (2003) “Gitga’at First Nation Community Energy Plan”, report submitted to Ministry of Community Development, Cooperatives and Volunteers, Victoria, BC
- Pinard, JP and Weis, T.M. (2003) “Pre-Feasibility Analysis of Wind Energy for Inuvialuit Region in the Northwest Territories”, report submitted to Energy Secretariat GNWT and Northwest Territories Power Corporation, Yellowknife, NT
- Weis, T.M. and Dale, J.D. (2002) “Development of a measurement technique for rime ice adhesion to wind turbine blades”, proceedings of Canadian Wind Energy Association conference, Halifax, NS