

# François Tardy, P.Eng. M.Eng. MBA

<b>Education</b>	<p>2017 – Concordia University Montreal, QC  <b>Ph.D. (Building Engineering)</b>  <i>Centre for Net-Zero Energy Building Studies</i></p> <p>2012 – 2013 HEC Montreal Montreal, QC  <b>MBA (Intensive / English)</b>  <i>HEC 2013 Team Captain at the Ross Energy Case Competition, Michigan</i></p> <p>2003 – 2005 École de Technologie Supérieure Montreal, QC  <b>M. Eng. (Mechanical Engineering)</b>  <i>Masters Thesis: A study of the use of heat pipes in thermal storage for cooling.</i></p> <p>1997 – 2002 Université de Moncton Moncton, NB  <b>B. App. Sc. (Mechanical Engineering)</b></p>
<b>Professional experience</b>	<p>2021 – Lion Electric Saint-Jérôme, QC  <b>Project Engineer</b></p> <ul style="list-style-type: none"> <li>Responsible for the development of the Lion6, Lion8T trucks for high volume production in Canadian and U.S. plants. Design and testing of AC, pneumatic, cooling, and battery thermal management systems.</li> </ul> <p><b>Adjunct Professor</b></p> <p>2021 – Jilin Institute of Chemical Technology Jilin City, China</p> <ul style="list-style-type: none"> <li>Statics</li> </ul> <p>2015 – Concordia University Montreal, QC</p> <ul style="list-style-type: none"> <li>Engineering Management</li> <li>Machine Design and Drawing</li> <li>Engineering Economics</li> <li>Theory of Machines</li> <li>Project Management</li> <li>Project Cost Estimating</li> <li>Thermodynamics</li> <li>Mechanical Engineering Drawings</li> <li>HVAC Design</li> <li>Computer-Aided Mechanical Design</li> </ul> <p>2014 – 2015 École de Technologie Supérieure Montreal, QC</p> <ul style="list-style-type: none"> <li>Virtual Product Development</li> <li>Thermodynamics</li> </ul> <p>2013– 2014 Vanier College Montreal, QC</p> <ul style="list-style-type: none"> <li>Electrical &amp; Lighting Systems</li> <li>Principles of Electric Controls</li> </ul> <p>2013 – 2020 François Tardy Consulting Montreal, QC  <b>Energy Consultant</b></p> <ul style="list-style-type: none"> <li>Authored over 160 extensive energy audits in energy intensive buildings, including supermarkets, office towers, production facilities, and more.</li> <li>Obtained over 3 M\$ in subsidies from commercial programs available from Hydro-Québec, Énergir, NBPöwer, TEQ, and others.</li> </ul>

2008 – 2012 PCO Innovation (Accenture) Montreal, QC / Lyon, France

**Senior Consultant**

- (2012) **IBM / Bombardier Aerospace**. CATIA V5 / ENOVIA coordination for a global data migration project at involving outsourced suppliers.
- (2011) **Volvo Powertrain Finance**. Deployment of customized SAP system for production sites around the world. Global super user status. Based in Lyon, France.
- (2009) **Volvo IT**. Design and CATIA/ENOVIA training for suppliers in Spain.
- (2008) **Volvo 3P**. Managed engine prototype testing activities in Lyon, France.

2010 – 2011 EH2solar Blainville, QC

**Director of Engineering**

- Managed the design, development and submittal for various cogeneration and desalination project proposals for California. Interacted with various government agencies and power plant owners.
- Responsible for efficiency and feasibility studies regarding submitted projects, SR&ED tax credit claims and patent applications.

2008 Carrier / United Technologies Laval, QC

**Refrigeration Engineer**

- Chief engineer of refrigeration for the One World Trade Center (NYC) HVAC submittal project, one of the largest development projects in the company.
- Created one of the most innovative product simulation programs in the company and managed refrigeration activities on a full-scale experimental setup.
- Managed the facility customer service department and provided engineering expertise on many projects throughout the company.

2006 – 2007 École Polytechnique de Montreal Montreal, QC

**Research Assistant**

*Thermohydraulic design of a Ventricular assist device and study of its effects on blood flow. Expertise developed in Meshing, Gas Dynamics, Heat Transfer and Turbulence.*

2005 – 2006 Bombardier Aerospace Montreal, QC

**Aerospace Engineer**

*Completed 1-year New Graduate Training Program, focusing on flight systems, avionics, stress, design, pneumatics, experimental, flight testing, and more, resolved a number of pneumatics and icing problems in CRJ and Challenger aircraft.*

2002 Trans-F-Air Saint-Hubert, QC

**R&D Project Manager**

*Filters, refrigeration devices and design and optimizing of a compact mobile ice-storage cooling system. Hired and managed co-op students and ISO 9001 certification process.*

2000 – 2001 Public Works & Gov. Services Canada Halifax, NS

**Student Mechanical Engineer**

*Design and implementation of HVAC systems for federal buildings, research on alternative refrigerants, cost estimating and system redesign.*

**Professional Accreditations**

- Member: **Ordre des ingénieurs du Québec** (128700)
- Member: **ASHRAE**

<b>Languages</b>	<b>Canadian</b> citizen. Trilingual; strong abilities in French and English, both written and oral. Advanced level in Spanish. Experience in translation for large organizations.		
<b>CAD Tools</b>	<ul style="list-style-type: none"> <li>• <a href="#">ArcGIS ArcMAP</a></li> <li>• <a href="#">CATIA V5 / Enovia LCA</a></li> <li>• <a href="#">eQuest / eQRefrig</a></li> <li>• <a href="#">Femlab 3.0 / Comsol Multiphysics</a></li> <li>• <a href="#">Autodesk REVIT / CFD</a></li> </ul>		
<b>Published Papers</b>	<p>Tardy, F. (2023) <a href="#">A review of the use of infrared thermography in building envelope thermal property characterization studies</a>, Journal of Building Engineering 75.</p> <p>Tardy, F., Lee, B. (2019) <a href="#">Building related energy poverty in developed countries – Past, present, and future from a Canadian perspective</a>. Energy and Buildings. 194, pp. 46-61.</p> <p>Hosseini, M., Tardy, F., Lee, B. (2018) <a href="#">Cooling and heating energy performance of a building with a variety of roof designs; the effects of future weather data in a cold climate</a>. Journal of Building Engineering 17, pp. 107-114.</p> <p>Sami, S., Tardy, F. (2015) <a href="#">Numerical Prediction of Thermal Storage Using Phase Change Material</a>. Journal of Technology Innovations in Renewable Energy. 4. 80-90.</p> <p>Tardy, F., Sami, S. (2009) <a href="#">Thermal analysis of heat pipes during thermal storage</a>. Applied Thermal Engineering. 29. 329–333.</p> <p>Tardy, F., Sami, S. (2008) <a href="#">An experimental study determining behaviour of heat pipes in thermal storage</a>. International Journal of Ambient Energy. 29. 162-168.</p> <p>Tardy, F., Sami, S. (2005) <a href="#">A Study of the Use of Heat Pipes in Thermal Storage for Cooling</a>. Proceedings of the ASME Process Industries Division, PID, 2006, pp. 89-93.</p>		
<b>Conferences</b>	<p>Comprendre l'énergie dans le contexte économique d'aujourd'hui</p> <ul style="list-style-type: none"> <li>• Club ÉnergieÉTS, Montreal (Canada), May 12<sup>th</sup>, 2016.</li> <li>• Conférence Internationale des Formations d'Ingénieurs et de Techniciens d'Expression Française, Montreal (Canada), August 24<sup>th</sup>, 2016.</li> </ul> <p>Filling the Industry Leadership Gap in Sustainability</p> <ul style="list-style-type: none"> <li>• Business Beyond Tomorrow, Montreal (Canada), March 18<sup>th</sup>, 2017.</li> </ul> <p>Les réalités économiques des énergies renouvelables</p> <ul style="list-style-type: none"> <li>• École Nationale d'Agriculture, Meknès, Morocco, May 11<sup>th</sup>, 2017.</li> <li>• Université Cadi Ayyad, Marrakesh, Morocco, May 22<sup>nd</sup>, 2017.</li> </ul>		
<b>Media</b>	<p><a href="#">C'est quoi la pauvreté énergétique et comment on devrait s'y attaquer?</a> <i>Moteur de recherche</i>, Radio-Canada Première, October 22<sup>nd</sup>, 2019.</p> <p><a href="#">Thermal imaging of housing stock can tell us where energy costs will hurt</a>, Concordia researchers show. Concordia University News, October 1<sup>st</sup>, 2019.</p>		
<b>Reviewer</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <b>Article Reviewer:</b> <ul style="list-style-type: none"> <li>• <i>Energy Policy</i></li> <li>• <i>Energy and Buildings</i></li> <li>• <i>Journal of Building Engineering</i></li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <b>Research Grant Proposal Reviewer</b> <ul style="list-style-type: none"> <li>• <i>Mitacs Accelerate</i></li> <li>• <i>Killam Laureates</i></li> </ul> </td> </tr> </table>	<b>Article Reviewer:</b> <ul style="list-style-type: none"> <li>• <i>Energy Policy</i></li> <li>• <i>Energy and Buildings</i></li> <li>• <i>Journal of Building Engineering</i></li> </ul>	<b>Research Grant Proposal Reviewer</b> <ul style="list-style-type: none"> <li>• <i>Mitacs Accelerate</i></li> <li>• <i>Killam Laureates</i></li> </ul>
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<b>Other</b>	<p><b>Member:</b> Golden Key International Honour Society, Concordia University Chapter.</p> <p><b>Cardholder:</b> ASP Construction Safety (Quebec).</p>		