Evaluation of PM and SR Motor Technologies

EMSA New Motor Technologies Meeting 2010
Zurich, Switzerland

Presenter: Pierre Angers, P. Eng.
Energy Technology Laboratory

Date: October 28, 2010
Project Context

> New Motor Technologies Available Today in Range of Several kW
> Claimed Efficiency Higher than Premium IM
> Variable Speed Capability
> Lower Rotor Inertia
> Other Improvements over IM to be Evaluated
> Few Independent Lab Evaluation
Evaluation Project

> Focus on Efficiency and others
> 10, 50, 100 hp (7.5, 37, 75 kW)
> 2 Motor Manufacturers
> Efficiency Test
> Specific Tests
  > Voltage Unbalance
  > Voltage Level
  > Harmonics, THD
  > Rotor inertia
  > Others
CEATI program

> Distribution & Utilization
  > CESIG Group
Project Sponsors

- Hydro Québec
- Manitoba Hydro
- Natural Resources Canada
- Ressources naturelles Canada
- SaskPower
- BC Hydro
Participating Manufacturers

- Manufacturer A
- Manufacturer B
Test Set-up
# Test Points

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<tr>
<td>Torque (%)</td>
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<td>50</td>
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<td>Torque (%)</td>
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Project Schedule

- Start Beginning 2011
- Results Mid-2011
Thank You!