The demand for electric power continues to grow faster than the ability of the transmission grid to reliably and safely deliver that power by the utility industry. The result: the transmission grid, as currently managed, is overburdened. System bottlenecks and congestion, blackouts, as well as equipment and system disturbances are occurring with alarming frequency. In fact, power-related issues cost U.S. businesses over $100 billion per year.

Promethean’s real-time transmission line monitoring system improves transmission reliability, relieves power line congestion, and can safely permit 15 to 40% more power to be moved over existing circuits. And unlike other systems, transmission outages are not required for installation or calibration, which equals faster installation and lower total cost of ownership.

• Reduce grid congestion costs by using your “real-time” rating vs. your assumed static rating
• Non-contact monitoring – nothing touches the transmission line
• No need to schedule outages ever
• Move 15-40% more power over existing lines safely and reliably
• Reduce generation re-dispatch and save greenhouse gas emission
• Measure actual line clearance; does not use average values derived from tension between dead ends
• Secure and encrypted data and actionable information can be sent to any IP address via cellular modem
• Data-driven Graphical User Interface (GUI) configurable for two years
• Totally portable – can be redeployed to a new line location within two weeks
Promethean Devices™ Real-Time Monitoring Solution for Transmission Lines

Real-Time Transmission Line Monitor
Local Time 12/30/10 12:27:40 (UTC-05:00)

<table>
<thead>
<tr>
<th>Static Rating at 93° Celsius:</th>
<th>3739 MVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real-time Dynamic Ampacity:</td>
<td>4225 MVA</td>
</tr>
<tr>
<td>Power Available compared to</td>
<td>486 MVA</td>
</tr>
<tr>
<td>Static Rating (PAvSR):</td>
<td></td>
</tr>
<tr>
<td>Last 30 min PAvSR Average:</td>
<td>510 MVA</td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td>74° F</td>
</tr>
</tbody>
</table>

Encrypted line data and actionable information is wirelessly linked to secure servers. The data is displayed on a password protected, real-time, web-based Graphical User Interface (GUI). All data is written to a secure database that is accessible only to authorized users/applications.

Once installed in the Transmission ROW, the Promethean solution is calibrated to report accurate phase currents, conductor clearance, actual conductor temperature, and ampacity (maximum conductor current carrying capability). System operation and accuracy is not affected by rain, ice, snow, dust, smoke, hail, sleet or fog.

Installation Options: Aboveground or Belowground

Aboveground

- System Power Controller and Monitor
- Analog Electronics
- Single Board Computer

Belowground

- Solar Charge Controller
- Cell Modem & Router
- Digital Electronics Package

Promethean Devices™
Real-Time Monitoring Solution for Transmission Lines

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For more information on Alcan Cable, go to www.cable.alcan.com or call 800-347-0571.

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