

ERLPhase Power Technologies: June 2012 Update

Welcome to our latest newsletter. Be sure to check out our new app note below, explaining our recent experience with GIC monitoring...

ERLPhase Successfully Passed ISO 9001:2008 Recertification Audit

We are honored to announce that in May 2012, ERLPhase successfully passed an ISO 9001:2008 Recertification Audit, valid for another 3 year term. An independent certification body confirmed that ERLPhase meets all quality system management requirements under ISO 9001:2008. The audit included a review of processes throughout the business from management responsibility, to purchasing/subcontractor control, to inspection and testing.

The management system was found to be fully effective (no nonconformities issued). Auditors were especially impressed with implementation of the Balanced Score Card system for evaluation and self-evaluation of individual job performance. They also were pleased to see that QMS documents actively reviewed and revised as processes evolved. Auditors mentioned some opportunities for improvement, which will be followed up on actively, in keeping the culture of continuous improvement at ERLPhase.

"ERLPhase is an organization with very competent people and highly skilled staff," commented Bien Lalo, Quality Assurance Specialist at ERLPhase. "I am proud of the way our team came together to demonstrate the quality processes that we uphold every day. The fact that this re-certification audit resulted in no findings is a solid testament to everyone's commitment. Let us continually support and improve our QMS as we grow and be a leader in the industry."



ERLPhase Quality System Strengths: (as identified by auditors)

- Customer focus
- Commitment to compliance to the documented QMS
- Commitment to continual improvement of the effectiveness of the QMS
- Implementation of the second party audits of contract manufacturers
- Effective implementation of the ESD control program



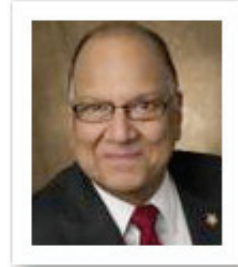
Manitoba's Energy Services Expertise: ESAM Celebrates 10 Years

ERLPhase has longstanding and proud roots in Manitoba, Canada. For many years, we have been part of The Energy Services Alliance of Manitoba (ESAM), an association of companies and organizations collaborating to increase the collective knowledge and success in providing power and energy expertise for projects internationally.

In May, ESAM celebrated 10 years of success in supporting its members to pursue international energy projects. That success includes export to more than 70 countries around the world, including products and services dedicated to development and use of sustainable sources of energy.

Over the past decade, ESAM has created a forum for Manitoba companies to pool their expertise for pursuing larger and more complex international projects. In turn, the province benefits with increased employment of high level engineering and project management positions, and broadening of Manitoba's international reputation as a center of excellence in the energy sector.

The Hon. Bidhu Jha (Special Envoy for International Trade for the Government of Manitoba, and an engineer by profession), spoke on behalf of the provincial government about ESAM's achievements and Manitoba's international reputation for energy excellence.



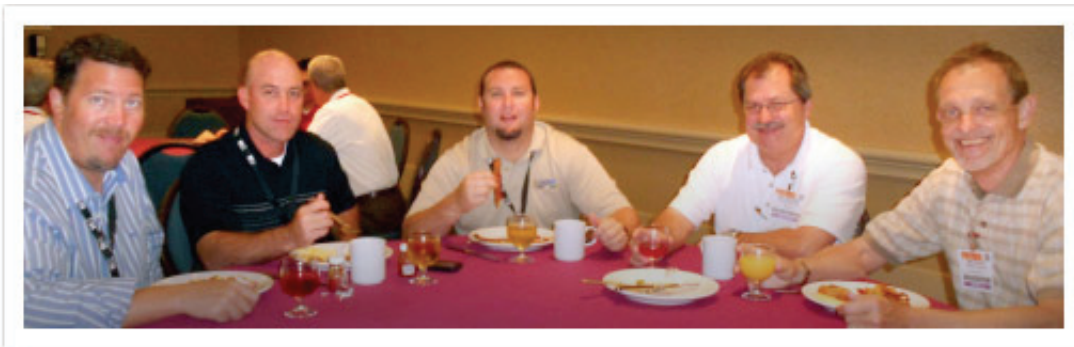
Headquartered in Winnipeg, ERLPhase is extremely proud of its ever-advancing facility, which is home to experienced design and manufacturing teams that produce our protection, monitoring and control products. That facility is equipped with state-of-art test equipment, enabling extremely reliable test and calibration of PCB assemblies and completed systems.

Thanks for Visiting Us In Orlando!

This year's IEEE PES T&D Conference was a great chance for our customers and partners from throughout North America to come together to talk about the future of our power systems.



Thanks to those who attended our Info Session "Tools to Uncover Sub-Harmonics on Your Power System" while at the show. If you missed that presentation, [contact us](#) and we'll be happy to set up a presentation for you, either in person or via webex.



Seminar Available

As new and exciting sources of generation are brought online, the interconnected power system becomes ever more complex. Utilities are taking up the challenge, not only to monitor and protect against possible harmful frequencies, but to record and report that information as well, especially during system disturbances.



Protecting wind farms and series compensation transmission systems.

A deep knowledge of system interconnections is necessary to protect against possible transients that can result. A detailed view of system frequencies is extremely helpful to identify underlying patterns and predict potential for misoperation of the system, especially at points of interconnection with the grid. It is also important to capture records that prove adherence to standards, and identify the sources of abnormalities after the fact.

➤ [Learn more about this seminar](#)

Careers... Join Us!

Are you a protection engineer with good communication skills? We're always on the lookout for experienced professionals to join our team...

- [Field Application Engineer](#)
Location: flexible (within USA or Canada)

New App Note

Using the TELS A 4000 DFR to Detect Transformer Saturation Due to Geomagnetic Induced Currents (GIC)

The operation of a transformer subjected to GIC can be unpredictable. A simple warning detection can be done using a TESLA recorder measuring THD of the transformer voltages and currents. These warnings can be provided to control center personnel who may be able to reduce risk of tripping by lowering loads to reduce the heating effect. Presence of THD in the currents may also block differential protection. Gas relay protections will still be in service if a fault takes place within the transformer.

➤ [Download app note \(PDF - 512KB\)](#)



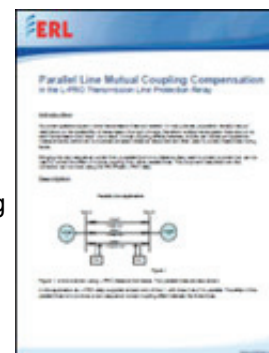
Parallel Line Mutual Coupling Compensation in the L-PRO Transmission Line Protection Relay

As power systems expand, extra transmission lines are needed. In many places, population density has put restrictions on the availability of transmission line right of ways, therefore multiple transmission lines

are put on each transmission line tower. As a result, mutual coupling effects between circuits can influence impedance measurements performed by impedance-based distance relays that are often used to protect these lines during faults.

Bringing the zero sequence current from a parallel line into a distance relay used to protect a power line, can be used to correct the effect of mutual coupling from other parallel lines. This document describes how this correction can be done using the ERLPhase L-PRO relay.

➤ [Download app note \(PDF - 248KB\)](#)



Upcoming Events

Looking forward to seeing you at an event in your area...

IEEE RVP-AI 2012

Jul 8-14, 2012
Acapulco, Mexico

➤ [Learn more about IEEE RVP-AI 2012](#)

IA/NE Substation & System Protection Conference

Sep 11-13, 2012
Omaha, NE

Visit our booth!

Hear Rene Midence present on Wed Sept 12th *"Secure Differential Protection Using Unique Algorithms"*, *"Applications for a Sub-Harmonic Relay"*, *"Calculating Loadability Limits of a Distance Relays"* and *"Fundamental Principles of Transformer Thermal Concepts and Protection"*.

➤ [Learn more about IA/NE Substation & System Protection Conference](#)

WPRC 2012

Oct 16-18, 2012
Spokane, WA

Visit our booth!

➤ [Learn more about WPRC 2012](#)

CEPSI 2012

Oct 22-26, 2012
Bali, Indonesia!

➤ [Learn more about CEPSI 2012](#)

MIPSYCON 2012

Nov 6-8, 2012
Minneapolis, MN

Visit our booth!

Hear Rene Midence present *"Calculating the Loadability of Distance Relays"* on Wed Nov 7th from 8:30-9:15am.

➤ [Learn more about MIPSYCON 2012](#)

- North American centre of excellence within a strong and dynamic global organization
- Driven by innovation and best-in-class technology to provide smart solutions to customers needs
- Singular focus on power system protection and recording



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**ISO 9001:2008 QMS
Certified Organization**

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