



Market Trends Digest

2q09

p.2

Summary Findings From
2009 Worldwide Study
of the Protective Relay
Marketplace

p.4

Capital Expenditures
and O&M Spending:
Before and After

p.5

Notes From POWERGRID
Europe 2009

p.6

Newton-Evans Research
Efforts for the First
Half of 2009

Summary Findings From 2009 Worldwide Study of the Protective Relay Marketplace

p.2

The 2009 Worldwide Study Of The Protective Relay Marketplace In Electric Utilities began with early survey efforts starting in March and wrapping up in late June. The Protective Relay Marketplace is a topic that is revisited by Newton-Evans every 2 years, and this is the eighth time global electric utilities have been surveyed on budget and usage plans for relays.

Ninety-nine North American utility protection and control engineers and engineering managers participated in this study. However, several respondents represent multiple operating companies within their holding company, effectively providing the viewpoints from more than 115 operating companies. Earlier study participant totals ranged from a total of 64 utilities in 1999, to 79 utilities in the 2002 study, to 102 utilities in the 2004 study and 112 utilities in the 2006 study. Responses were encouraged by offering a complimentary copy of the summary findings of the survey.

American and Canadian utilities participating in the 2009 survey represent approximately 25% of the estimated total of North American (U.S. and Canada) customers, and about the same percentage of North American electric utility revenues. The sample utilities account for approximately 3,800 transmission substations out of a total of about 16,000 (or about 24%) and for some 10,250 distribution substations out of a total of approximately 48,500 American and Canadian distribution substations (21%) operated by more than 3,000 electric power delivery utilities.

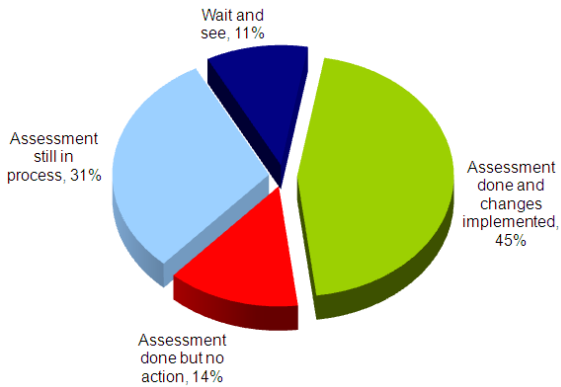
North American utilities that had participated in the earlier 2006 study of protective relay usage and trends accounted for more than 30% of all North American electricity customers and industry revenues, far exceeding the participation levels in earlier studies conducted in 1996, 1999 and 2002. American and Canadian utilities participating in the earlier 2002 survey represented approximately 17% of the estimated total of North American customers, and 15.6% of North American-wide electric utility revenues.

Overall, the number of protective relays planned for purchase between 2009 and 2011 has increased from numbers reported in 2006. In concordance with previous studies, it is clear that investor-owned utilities will dominate purchases of protective relays - at somewhat lower rates (64%-70% of utility industry totals) than one would expect,

(Summary Findings Cont'd.)

p.3

Status of compliance with the January 1, 2009 deadline of IEEE standard NESC-2007 (North America)



given that this group dominates the power supply industry generally (73-77% of total utility customers, revenues, production capacity, transmission lines, etc.)

As in previous surveys, usage and possible plans for use of IEC61850 was investigated. This question was followed by a few more asking about "Advantages and Disadvantages of Using IEC 61850" and "Features of IEC 61850 To Be Used in New Projects," but since IEC61850 is so infrequently used in North America there were very few U.S. or Canadian respondents to these questions.

Some new questions that were added to this year's survey include:

Question 11) Is your utility ready to accept complete/partial removal of auxiliary relays for tripping and other auxiliary functions and accept direct tripping and outputs from digital relays?

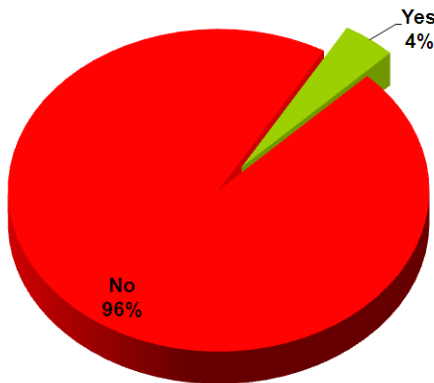
Question 13) Have the self checking functions of newer digital relays improved reliability of protection systems?

Question 20) (If your utility uses fiber optics to connect substations...) do you use dedicated end to end single mode fiber directly connected to relays? Do you use multiplexing signals from different applications into a multi-mode fiber through a digital gateway switch?

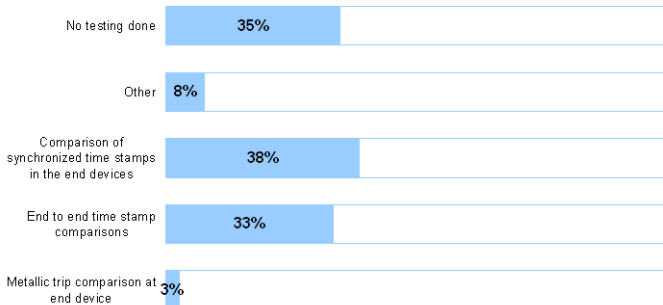
Question 21) What methods of testing does your utility use to ensure timely tripping when using fiber?

Question 24) Has your utility changed its protection scheme at the request of a customer to help them out with their arc flash study?

We have changed a protection scheme at the request of a customer to help them out with their arc flash study. (North America)



Methods of testing used to ensure timely tripping when using fiber (North America)



Capital Expenditures and O&M Spending: Before and After

p.4

Fig. 1

Sample Distribution

IOU = Investor Owned Utility PUB = Public Power
 REC = Rural Electric Coop CAN = Canadian Power Utility
 INT = International (outside US/Canada)

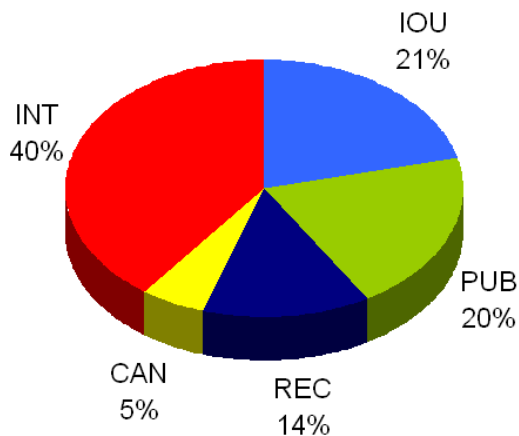
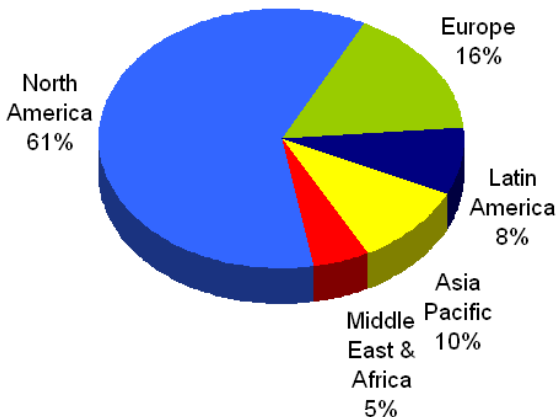


Fig. 2

Sample Distribution By World Region



To measure the effects of the global economic conditions on capital spending and on operations and maintenance budgets of utilities around the world, Newton-Evans Research Company conducted a survey of 118 utilities spanning 36 countries. The survey was undertaken in June 2009. The survey results are the basis for the narrative summaries and the charts and tables of information contained in the report. This report is a follow up to a previous study on CAPEX and O&M budgets published in December 2008, which included survey data collected from 112 utility officials during mid-November 2008 through mid-December 2008. Findings from both of these surveys are compared.

In addition to requesting information regarding capital investment and operations and maintenance budgets for 2009 and 2010, the June 2009 survey queried respondents on five possible rationales for budget changes: Regulatory Mandates, Smart Grid Initiatives, Government Stimulus Bills, Regulatory Changes, and Economic Outlook/ Revenue Forecast. General comments on expenditures were solicited at the end of the survey.

The findings support a view marked by a “cautious spending outlook” proceeding into the second half of 2009 with much of the budget plans remaining intact from those approved in January 2008. However there are different viewpoints, especially on multi-month project deferrals, based on the regional breakouts of replies. Among North American utilities there is some substantial difference observable dependent upon the type of electric utility (investor-owned, public, and cooperative).

The Newton-Evans survey was designed to obtain information from a T&D operations and engineering perspective. Budget information requests were made for the following: SCADA, EMS and DMS Outlook, Substation Automation and Integration, Protection and Control, Distribution Automation, Transmission Infrastructure, Distribution Infrastructure and Automated Meter Reading and Advanced Metering Infrastructure.

Figures 1 and 2 provide the reader with information concerning the make-up of the utility respondent base for this survey. The representative sample for the June 2009 study did not vary more than a few percentage points in any category when compared to the December 2008 study.

Notes From POWERGRID Europe 2009

p.5

Newton-Evans Research Company CEO Charles Newton participated in the POWERGRID Europe joint plenary session, “Meeting the Energy Challenge in the Face of the Economic Downturn” on Wednesday, May 27th in Cologne, Germany. Mr. Newton was joined by Colette Lewiner, Vice President and Global Leader of the Energy, Utilities and Chemicals Global Sector Unit at Capgemini; Mr. Steve Bolze, President & CEO, Power & Water, GE Energy and Infrastructure, USA; Dr. Hans Bunting, Chief Financial Officer, RWE Innogy GmbH, Germany; M. Philippe Joubert, Executive Vice-President, Alstom, President, Alstom Power Sector, France; Dr. Uddesh Kohli, Former Chairman & Managing Director, Power Finance Corporation, India; and Dr. Werner Götz, Chief Operating Officer, Renewables EnBW AG, Germany. More than 11,600 visitors attended this year’s conference.



POWERGRID Europe is the primary forum where utility professionals converge to discuss the growing challenges of the European transmission and distribution industry. The event inspires collaboration among consultants, engineers, managers, technicians, regulators, inventors and innovators by giving them a single hot spot to interact and connect. For information about next year’s event, visit www.powergrideurope.com

(Left: Chuck makes a point about smart grid CAPEX remaining fairly strong in 2009.)



Newton-Evans Research Efforts for the First Half of 2009

p.6

In the first six months of 2009, Newton-Evans Research Company has accomplished the following projects

Proprietary Research and Consulting Topics 1) Automatic Circuit Recloser Market, 2) Primary Metering Rack Market, 3) MV Equipment Shipment Outlook, 4) Control Systems Installation History 1990-2006, 5) Ten Year Global Outlook for Smart Grid Investments, 6) Global Estimates of Secondary Substations by Country

Client Briefings and Presentations to Areva T&D, Brooks Meter Devices, General Electric, Schneider Electric, and Siemens Energy

Multi-Client Studies: 1) MV Equipment Market in the US, 2) World Market for Protective Relays - Four Volume Study, 3) Global CAPEX and O&M Outlook for Electric Power T&D Investment

Participation in Industry Events: Transmission Summit (Washington, DC) Panel Session; Distributech 2009 (Three Presentations); POWERGEN Europe 2009 (Plenary Session Panel, Moderator for Infrastructure Panel); Department of Energy - Annual Energy Outlook; USEA - Smart Grid Workshops; Infrastructure 2009 Conference (Washington, DC); Utilities Telecom Council Annual Meeting; and the CIGRE B5.38 Working Group Meeting.

Global CAPEX and O&M Expenditure Outlook for Electric Power Transmission and Distribution Investments: 2009-2010 - Funding Outlook for Smart Grid Development (Based on June 2009 survey results) In spite of the weakened economic conditions in countries around the world, electric power utilities continue to make significant financial commitments in “smart grid” building blocks and related automation programs. The majority of the large public and private utilities participating in the June 2009 Newton-Evans study are poised to continue many of their long-term capital investment programs as had been originally planned back in January of 2008. However, in several instances, the projects have been deferred from their initial planned start-up dates.

Capital spending for control systems, substation automation, smart grid-related programs, and advanced metering rollouts are largely on track with some pushback in timing. However, several planned investments for transmission and distribution grid infrastructure components have been deferred for this year, but are expected to rebound perhaps as early as the fourth quarter of 2010.

(Newton-Evans 2009 cont'd)



On the upside were planned increases for most smart grid building blocks, based on the responses from the surveyed officials. Projects related to advanced metering infrastructure (AMI) initiatives and for substation automation and new or upgraded grid control and monitoring systems and protection and control equipment appear to be “pre-approved” at this time for 2010.

This 122 page report, priced at \$495, includes feedback on investment plans for seven key smart grid component areas and is further detailed by world region and by utility ownership type. Operations and maintenance budget plans are also reviewed.



The Worldwide Study Of The Protective Relay Marketplace In Electric Utilities: 2009-2011: Newton-Evans Research Company has completed a four-month research study and survey of protective relay usage patterns in the global electric power business. Findings from over 130 utilities in more than 40 countries point to a number of changes in buying patterns and usage trends since the company’s last relay study was completed in late 2006.

The percentage of digital relays in the mix of all protective relays used by utilities continues to increase. More than 40% of all generator and transmission line relays installed in the surveyed North American utilities are now digital units. The vast majority of new and retrofit units being purchased are also digital relays, but in some of the protection applications studied, such as motor protection and large generator applications, electromechanical and solid state relays continue to have a niche market position.



U.S. Market for Overhead Primary Metering Racks/Bracket Mounts in Electric Utilities 2009: This is a proprietary, client-based study undertaken by Newton-Evans during the months of April and May. U.S. electric utilities were surveyed on their preferences, purchasing trends, and usage of overhead meter racks and bracket mounts - the fabricated metal that holds metering equipment in place on the pole. For this client, Newton-Evans looked at the approximate number of metering racks purchased annually, the comparison of percentages of overhead and underground primary metering services supplied to customers, criteria used by utilities when selecting a supplier of primary metering racks, utility satisfaction with equipment suppliers, potential reasons for changing suppliers, and several other topics.

(Newton-Evans 2009 cont'd)

p.8

Since 1978, Newton-Evans has been conducting business-to-business survey research for both multi-client and proprietary studies focused on energy industry automation, information technology, and infrastructure topics such as Smart Grid. The firm also provides business consulting services for clients in the computer, communications, control systems and engineered products areas.

The Newton-Evans Research Company is recognized worldwide for its 30 year track record of client studies on topics that are now referred to as “smart grid initiatives.” Our core research competencies include market studies and in-depth business and market analyses concerning usage patterns and trends for a range of technical information systems, including utility operations control systems, substation automation and integration, distribution automation, automated metering, and protection and control.

Additional information about all of our multi-client reports is available from the Newton-Evans Research Company’s web site (www.newton-evans.com), or by e-mail (eleivo@newton-evans.com or eforrest@newton-evans.com), or by telephone at +1 800 222 2856 (+1 410 465 7316 outside the U.S.) Newton-Evans Research Company is located at Suite 204, 10176 Baltimore National Pike, Ellicott City, Maryland 21042.

