Global CAPEX and O&M Expenditure Outlook for Electric Power Transmission and Distribution Investments: 2009-2010

NEWTON-EVANS
RESEARCH
COMPANY

Outline

I. Introduction and global summary
II. Survey Question 1 – CAPEX and O&M 2009 and 2010
- A. SCADA/EMS/OMS Systems
- B. Substation Automation/Integration
- C. Protection and Control
- D. Distribution Automation
- E. Transmission Infrastructure
- F. Distribution Infrastructure
- G. AMR/AMI

III. Survey Question 2 - Reason for Increase or No Change in any of the above
- A. Regulatory Mandates
    - 1. Global Summary
    - 2. North America
    - 3. International
- B. Smart Grid Initiatives
    - 1. Global Summary
    - 2. North America
    - 3. International
- C. Comments
    - 2. North America
    - 3. International

IV. Survey Question 3 – Reasons for CAPEX decrease
V. Additional Comments
VI. Factors Influencing Decreases in Capital Expenditures and Operations And Maintenance Budgets

Table Of Contents

I. Introduction and global summary 4
II. Survey Question 1 – CAPEX and O&M 2009 and 2010 17
A. SCADA/EMS/OMS Systems 18
B. Substation Automation/Integration 26
C. Protection and Control 34
D. Distribution Automation 42
E. Transmission Infrastructure 50
F. Distribution Infrastructure 58
G. AMR/AMI 66
III. Survey Question 2 - Reason for Increase or No Change in any of the above 74
IV. Survey Question 3 – Reasons for CAPEX decrease 79
V. Additional Comments 83
VI. Factors Influencing Decreases in CAPEX and O&M Budgets 85

SECTION I
Introduction and Global Summary of Findings

Newton-Evans Research Company conducted a survey of utilities to obtain the information in this report which was undertaken from mid-November 2008 through mid-December 2008. The participation of more than 110 utility officials from 36 countries is the basis for the narrative summaries and the charts and tables of information contained in this report.

In addition to requesting information regarding capital investment and operations and maintenance budgets for 2009 and 2010, the survey included questions on the rationale for the budget changes, whether the change in budgets from January 2008 to 2009 was an increase or a decrease. The last question was asked to incorporate insights on any related issues confronting the utilities participating in the study.

In general, the findings support a view of “staying the course” proceeding into 2009 with budget plans intact from those approved in January 2008. However there are different summary viewpoints based on the regional breakouts of replies, and for North America, there is some substantial difference observable dependent upon the *type* of electric utility (investor-owned, public, cooperative).

The survey was directed to upper level managers and senior staff directly involved with transmission and distribution planning, as these officials were most likely to be involved in some or all aspects of formulating the T&D budget.

The Newton-Evans survey was intentionally 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

Respondents were also requested to provide information related to the rationale for any capital investment or O&M budget changes made during 2008 for 2009 and 2010 investments.

Figures 1-1 and 1-2 provide the reader with information concerning the make-up of the utility respondent database for this survey.