Profile

2006

Merlin Gerin
Square D
Telemecanique

Schneider Electric

Building a New Electric World

A World Leader in Power & Control

Headquartered in Palatine, Ill., the North American Operating Division of Schneider Electric had sales of $2.8 billion (U.S.) in 2005.

The North American Operating Division is one of four operating divisions of Schneider Electric, headquartered in Paris, France, and markets the Square D, Telemecanique and Merlin Gerin brand products to customers in the United States, Canada and Mexico.

For 100 years, Square D has been a market-leading brand of electrical distribution and industrial control products, systems and services.

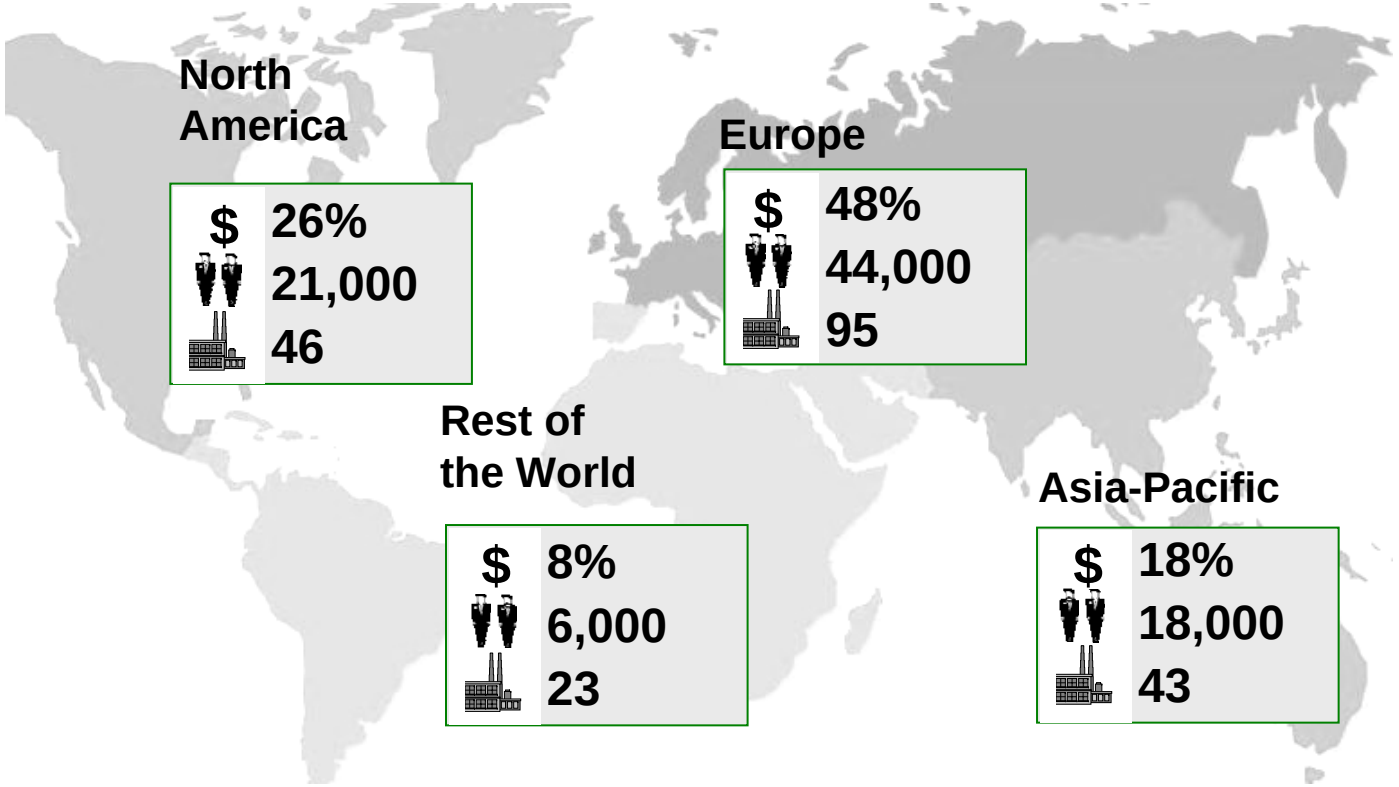
Schneider Electric is a global electrical industry leader with 2005 sales of approximately $14.5 billion (U.S.).

Covering the world
with strong local operations

Sales, Employees, Factories by geographical region

Schneider Electric in figures

- **$15 billion** sales in 2005
- **90,000** employees*
- **190** countries
- **207** factories
- **124** logistics centers
- **6,500** R&D people in **25 countries**
- **15,000** sales outlets



**Average workforce including permanent and temporary employees*

Source: 2005 Annual Report

Innovating
for our customers

Innovation in figures

- **5% of consolidated sales** invested in R&D
- **6,500** R&D team members
- **25 R&D centers** on every continent
- **60** Application Centers in **18** countries
- Partnerships with **50 private university** laboratories

- **Sustained investment**
  - ~ 5% of sales in R&D - 6,500 people
  - Acquisition of advanced technologies: PML, BEI Technologies
- **Deployment of resources in emerging markets**
- **Strong presence in high-tech countries**

- **Leverage of technological partnerships**
  - Toshiba, IBM, Fuji, Tata
- **Opening in 2006 of the Electropole R&D centre in Grenoble**

An international leading team

(1) Management board
(2) Executive committee

Chairman of the Management Board & CEO
Jean-Pascal TRICOIRE (1),(2)

Central functions

Chief Financial Officer
Pierre BOUCHUT (1),(2)

Strategy, Customers &Technology
Eric PILAUD (2)

Strategic resources and organization
Jean-François PILLIARD(2)

new² Company program
Alejandro SOLIS

Quality
Serge GOLDENBERG

Globalization & Industry
Hal GRANT (2)

Global Human Resources
Karen FERGUSON (2)

North America
Dave PETRATIS (2)

Business units

Automation
Michel CROCHON (2)

Renewable energies
Claude GRAFF (2)

Europe
Julio RODRIGUEZ (2)

Building Automation
Arne FRANK (2)

Power
Eric RONDOLAT (2)

Asia-Pacific
Russell STOCKER (2)

Critical Power & Cooling services
Laurent VERNEREY (2)

Services & Projects
Eric PILAUD (2)

International
Christian WIEST (2)

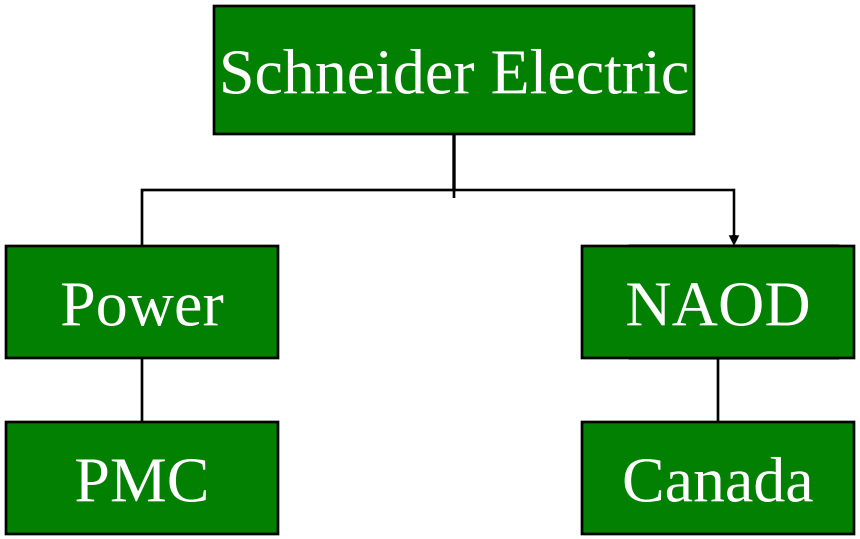
Operating divisions

Customized Sensors
Chuck TREADWAY

Installation Systems and Control
Jean-Pierre CHARDON

Power Monitoring and Control

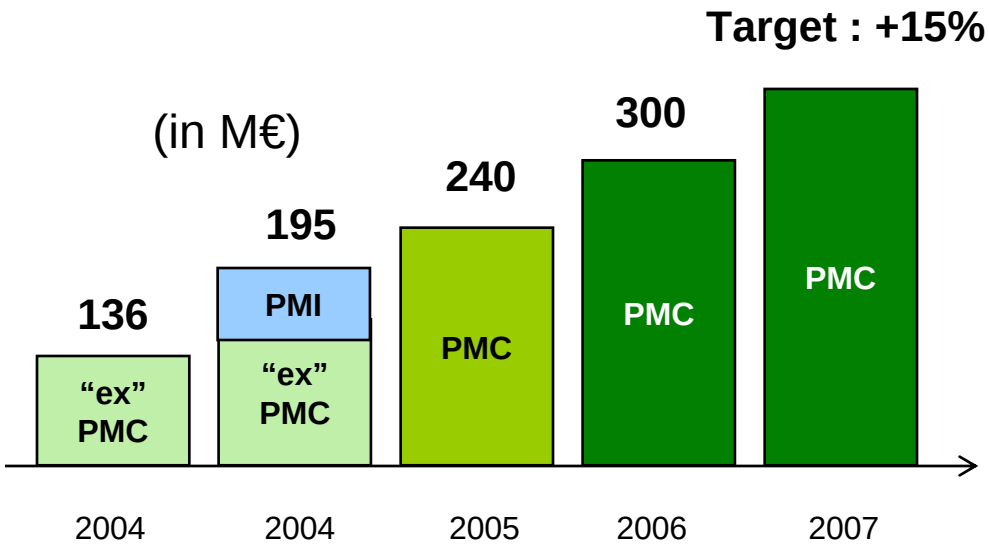
- **PMC Globally**
  - ~600 employees
  - R&D centers in Nashville, TN; Grenoble, France; and Victoria, Canada
  - Produce monitors, relays and software under the SquareD, Merlin Gerin and Sepam brands
- **PMC Victoria**
  - Received $2.5M in funding from Sustainable Development Technology Canada for R&D to reduce greenhouse gases
  - Spends 10% or revenue on R&D
  - Is the 145th largest R&D spend in Canada



Very Strong Growth Over Last 3 Years

> Both product lines have shown
very strong growth
over the past 3 years

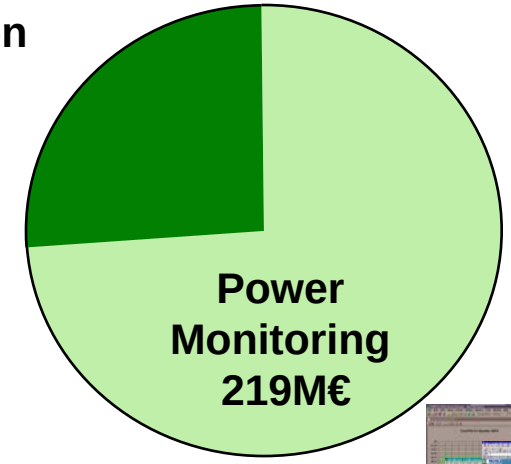
High profitability



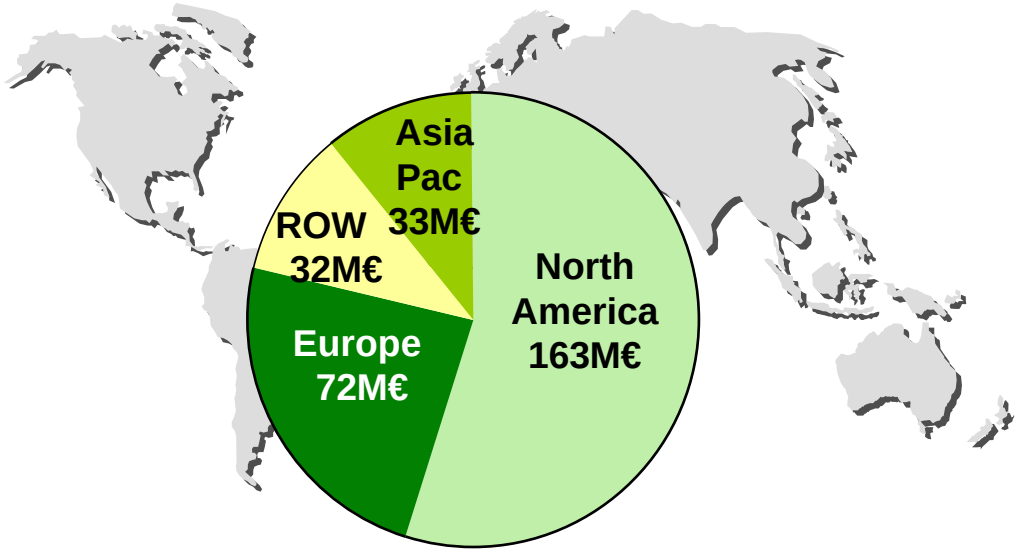
> Protection relays:
25/30% EBIT

> Power monitoring:
20% EBIT

2006 Sales Breakdown



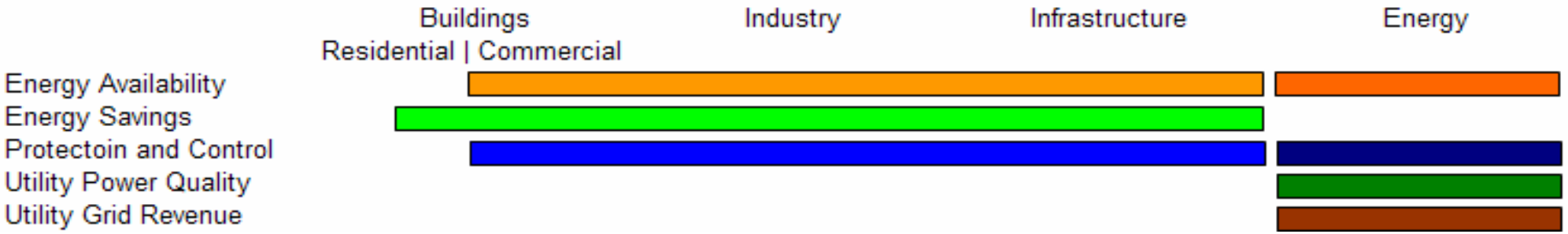
Revenue Split by Business (Y06)



Revenue Split by Geography (Y06)

Metering Portfolio

Markets and Applications



Solutions

Protect	Measure	Monitor	Analyse	Control
SEPAM	PM, CM, ION Metering	Transparent Ready	ION Enterprise	ION Enterprise
	EGX Gateway	ION Setup	Energy Profiler Online	
	High Voltage Sensor	PowerView	EEM	
		ION Enterprise		

Market Trends – Energy Consumers

- **Buildings – Residential**
  - Mandated “Smart Metering” initiatives
  - LEED for Homes – Pilot programs in Canada and US
- **Buildings – Commercial**
  - Demand Response programs maturing
  - Continued pressure from tenants for accurate energy Sub-billing
  - Energy Star and LEED for existing buildings
  - Carbon Emissions reporting and compliance
- **Industry**
  - Interest in IEC61850 in large Oil and Gas markets
  - Carbon Emissions reporting and compliance
- **Infrastructure**
  - Power densities in large Data Centers exceeding 20 kW / Cabinet
  - Significant government pressures to “Green” Data Centers

PowerLogic Initiatives – Energy Consumers

- **Energy Availability**
  - Focus on *information*, not data
    - E.G. - ION7650 Trending and Forecasting, Disturbance Direction, Setpoint Learning
  - Focus on *integration*
    - E.G - ION7650 SNMP protocol
    - E.G.- ION Enterprise OPC Server and Client
- **Energy Savings**
  - Focus on *cost management*
    - E.G. - Energy Profiler Online (EPO) hosted Energy and Energy cost analysis tools, including Demand Response
    - E.G. - EEM Cost Allocation and Reporting
  - Focus on "***Green***" business opportunities
    - E.G. - EEM and EPO Carbon Emissions Reporting
    - E.G. - EEM Modeling, Measurement and Verification

PowerLogic Initiatives – Energy Consumers

- **Protection and Control**
  - Focus on *coordination*
    - E.G. SEPAM and ION Meter IEC 61850 protocol support
    - E.G. PowerLogic SCADA software

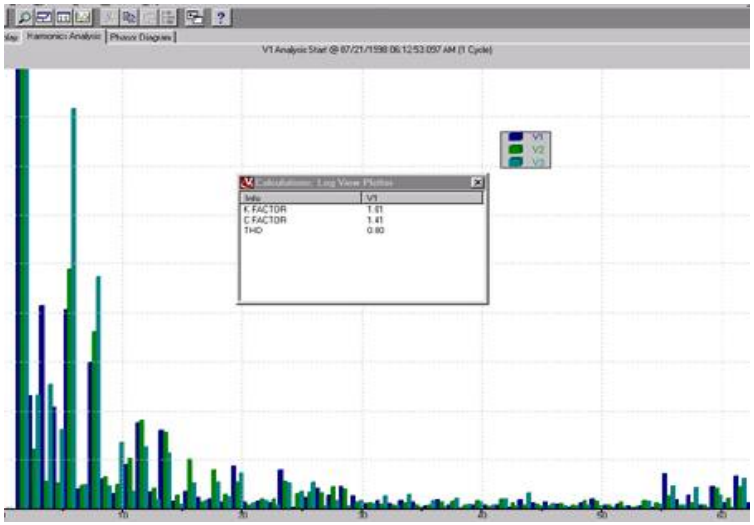
Revenue Metering Offer:

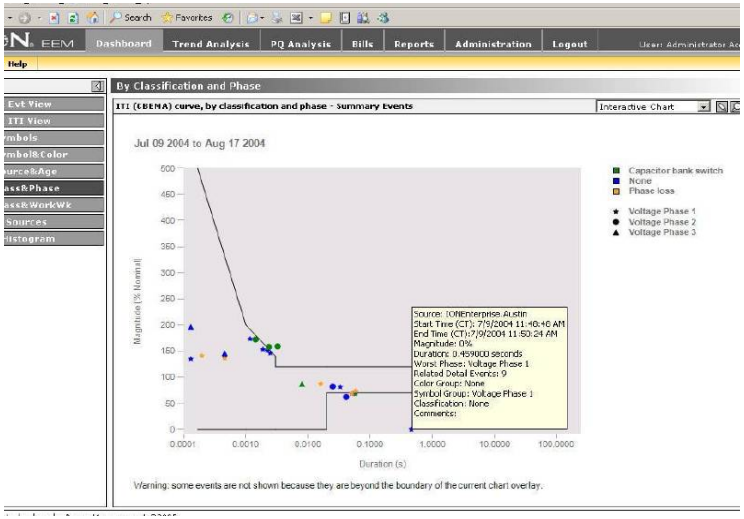
- ANSI C12.20 0.2 compliant
- ANSI C12.16 accuracy compliant
- IEC 62053-22 0,2S compliant
- IEC 60687 0,2S compliant
- IEC 60687 0,5S compliant
- MV-90 support
- Multi-year scheduling: hourly activity profiles
- Transformer/line loss compensation
- Instrument Transformer Correction
- PrimeRead – Multi Vendor Data Collection Software

Revenue Metering Trends:

- Increased sharing of data (to utilities, ISOs and end users) raises need for advanced communication and security features
- Overall system accuracy improvements required as cost of energy rises
- Losses, Unaccounted For Energy, theft of service become more important as demand rises and capacity is stretched

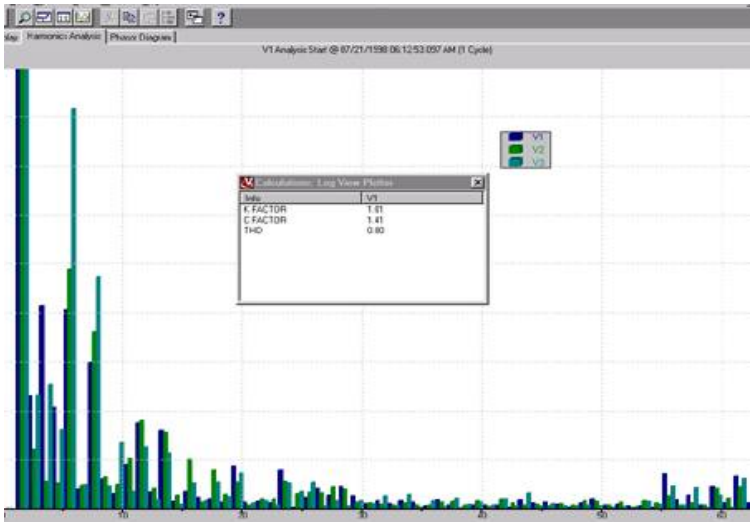
Power Quality Offer:

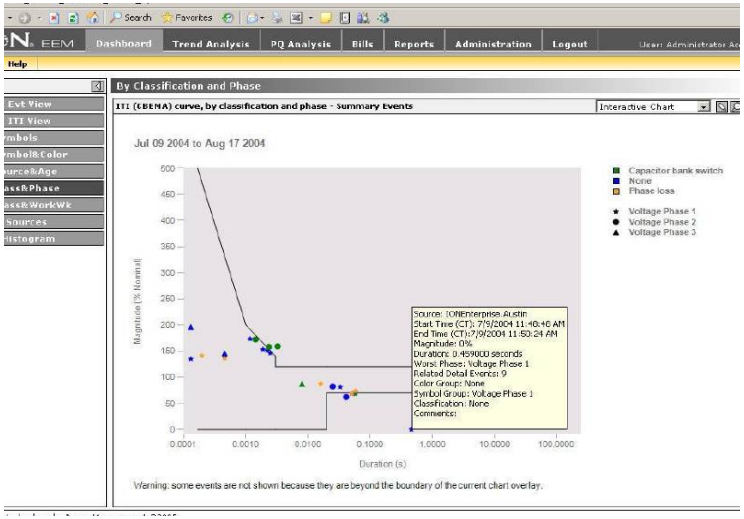




- **Harmonics to the 63rd**
- **Symmetrical Components, Flicker**
- **1024 samples/cycle**
- **Dip/swell monitoring**
- **IEC 61000-4-30 Class A measurement**
- **Compliance reporting**
  - EN50160, IEEE 519, SEMI, SARFI
- **Reporting through substation-level and system-level software packages**
- **Direct access to PQ parameters using Webmeter**

Power Quality Trends:

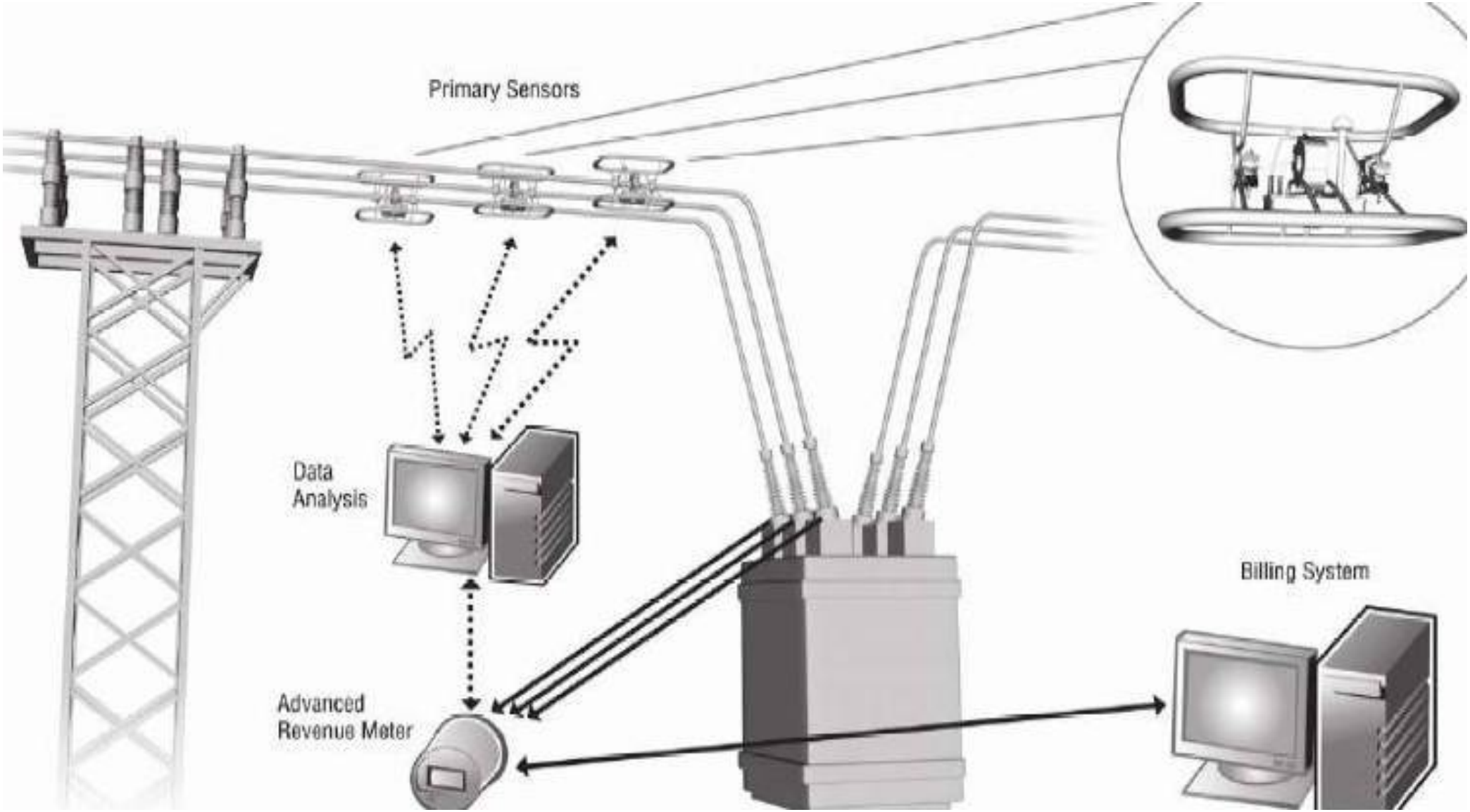




- **IEC 61000-4-30 Class A (or IEEE 1159 when rewritten) becomes a requirement for PQ reporting**
- **NERC continues to define and begins to enforce reliability monitoring and reporting**
- **Direction and distance to fault algorithms improve, increasing reliability numbers and reducing outage management time**

CT Reclassification

- A service to dynamically characterize existing relay-class CTs.
- Produces accurate error curves for both magnitude and phase across total load range.
- Requires: Active CTs, GPS time signals, Intelligent meter with Transformer Correction
- Once characterized, the relay-class CT can be ‘reclassified’ to metering-CT accuracy


Primary Sensors
Data
Analysis
Billing System
Advanced
Revenue Meter

Building
a New Electric World

Schneider Electric