Make the most of your energy™
The energy dilemma is here to stay

The facts

× 2

Energy demand
By 2050
Electricity by 2030

Source: IEA 2007

The need

÷ 2

CO₂ emissions to avoid dramatic climate changes by 2050

Source: IPCC 2007, figure (vs. 1990 level)

Frequent power outages
Rising energy prices
Climate change
Conflicts for resource access & control
Our answer:
Helping people make the most of their energy
More than 175 years of history

1836
Creation of Schneider at Le Creusot, France

19th century
Steel Industry

1975
Merlin Gerin joins Groupe Schneider

1988
Telemecanique joins Groupe Schneider

1991
Square D joins Groupe Schneider

1996
Modicon, historic leader in Automation, becomes a Schneider brand

1999
Groupe Schneider becomes Schneider Electric, focused on Power & Control

2000
Acquisition of MGE UPS Systems

2003
Acquisition of T.A.C

2005
Acquisition of Power Measurement Inc.

2003-2008
Targeted acquisitions in wiring devices and home automation (Lexel, Clipsal, Merten, Ova, GET, etc.)

2007
Acquisition of APC corp. and Pelco

2008
Acquisition of Xantrex

2010
Acquisition of Areva’s distribution activity

2011
Acquisition of Telvent

2010
Acquisition of Areva’s distribution activity

Energy Management

19th century
20th century
21st century
Schneider Electric at a glance
The global specialist in energy management

Large company

24 billion € of sales in 2012
41% of sales in new economies
140,000+ employees in 100+ countries
4–5% of sales devoted to R&D

Diversified end markets

<table>
<thead>
<tr>
<th>End Market</th>
<th>FY 2012 Sales (billion €)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities &amp; Infrastructure</td>
<td>25%</td>
</tr>
<tr>
<td>Industrial &amp; machines</td>
<td>22%</td>
</tr>
<tr>
<td>Data centres</td>
<td>15%</td>
</tr>
<tr>
<td>Non-residential buildings</td>
<td>29%</td>
</tr>
<tr>
<td>Residential</td>
<td>9%</td>
</tr>
</tbody>
</table>

Balanced Geographies

<table>
<thead>
<tr>
<th>Region</th>
<th>FY 2012 Sales (Year-end 2012 employees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>25% (28,300)</td>
</tr>
<tr>
<td>Western Europe</td>
<td>30% (44,200)</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>27% (42,600)</td>
</tr>
<tr>
<td>Rest of World</td>
<td>18% (22,000)</td>
</tr>
</tbody>
</table>
Schneider Ranks 33rd for the Global Footprint amongst the Fortune 500 most global companies

<table>
<thead>
<tr>
<th>Company</th>
<th>Global footprint rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nestlé</td>
<td>1</td>
</tr>
<tr>
<td>Shell</td>
<td>3</td>
</tr>
<tr>
<td>British American Tobacco</td>
<td>5</td>
</tr>
<tr>
<td>GlaxoSmithKline</td>
<td>13</td>
</tr>
<tr>
<td>UBS</td>
<td>15</td>
</tr>
<tr>
<td>Rio Tinto</td>
<td>16</td>
</tr>
<tr>
<td>Schneider Electric</td>
<td>33</td>
</tr>
<tr>
<td>IBM</td>
<td>38</td>
</tr>
<tr>
<td>ABB</td>
<td>55</td>
</tr>
<tr>
<td>Siemens</td>
<td>67</td>
</tr>
<tr>
<td>Alstom</td>
<td>75</td>
</tr>
<tr>
<td>Emerson</td>
<td>156</td>
</tr>
<tr>
<td>Cisco</td>
<td>171</td>
</tr>
</tbody>
</table>

Global score criteria

(R) Revenues
Deviation from the industry split of revenues across regions

(E) Employees
Percentage of employees outside the home market

(M) Top Mgmt
Count of nationalities within top management

(S) Shareholding
Percentage of total shares held by investors outside of the home country

The McKinsey Global Footprint Database looks at fundamentals of 429 of the World’s most successful public companies as per Fortune’s 2009 list of the Global 500, and ranks them based on the Global Footprint Score

1 The metric: Global footprint score = R*35% + E*35% + M*20% + S*10%; (Source: Schneider Electric Annual Report (2009), McKinsey Global Footprint Database (based on annual reports 2009))
Energy Management
• Making energy... Safe, Reliable, Efficient, Productive and Green

...with 30-70% savings everywhere
How do we do it?
Providing integrated solutions

**Efficient & productive:**
- Measure and control energy, automate, provide relevant diagnosis
- Manage processes
- Make all the utilities of any infrastructure more efficient

**Reliable**
Prevent from power outage & quality variance

**Safe**
- Protect people and assets
- Transform and distribute power safely

**Green:** Make the connection of renewable energy sources easy, reliable and cost-effective

Integration

- Make energy visible
- Make systems work together

Integration

- HVAC control
- Lighting control
- Access control
- Video security
- Electrical distribution
- Energy monitoring
- Motor control
- Critical power
- IT data
- Renewable energies

EcoStruxure™
Leading the development of the Smart Grid

- **Smarter Demand**
- **Smarter Supply**
- **Demand Response**

**Flexible Distribution**
(DMS, substations, feeders)

**Efficient homes**
(incl. EV charging infrastructure)

**Efficient Enterprise**
(buildings, industries & datacenters + EV charging infrastructure)

**Smart Generation**
(bulk, distributed & renewable)
...and the Smart Cities!

We deliver urban efficiency. Today.

● **Solutions** to cities' immediate challenges,

● **Integration** for increased efficiency,

● **Innovation** for a holistic sustainable future,

● **Collaboration** to make it all happen.

We understand what it takes. We make Smart Cities a reality. Schneider Electric is one of Top 3 Global Technology Vendors for Smart Cities.*

Within an innovation eco-system
for a simpler and greener future

We start today…

Partnering with 50+
best-in-class public and
private organisations

Leading global projects for Intelligent
buildings, renewables, nanotechnologies

Boosting standardisation
Zigbee, IEC, NEMA

Funding start-ups
Schneider Electric
Venture capital fund

So we can be…

Energy efficient

Environmentally friendly

Open and connected

Available 24/7, on site and remote

11000
R&D
engineers
70 sites in
22 countries
Tackling the stakes of today and tomorrow to support Schneider Electric’s responsible growth

**Green business**
- Energy efficiency
- Renewables
- Electric Vehicles
- Smart cities and smart grids

**Responsible company**
- Access to energy
- Environment protection
- People well being
- Social commitment
- Ethics & responsibility

**Measured commitment**

Objective 2014: 8/10
January 2012 start: 3/10

- Communicate quarterly
- Audited annually
- Revised with each company programme
With people at the heart of our strategy

Individual behaviours driven by…
- Technology that makes things visible
- Regulations
- Incentives

Skills
- Renew competencies
- Build new educational programmes
- Develop maintenance, audits, etc.

Collaboration
- Public-private partnerships
- Cross-business alliances
- Competitiveness projects

Respect and passion for diversity
- Loving difference
- Diversity for innovation
Our greatest reward: the satisfaction of our stakeholders
Schneider Electric Walks the Talk

- Schneider Electric's headquarters was the first building in the world to be awarded ISO 50001 certification
- Headquarters ‘Le HIVE’: Smart Building for Sustainable Resource Management
- 7 floors, Surface area 35000 m²
- 1,850 residents
- 78 kWh/m²/year: energy consumption in 2012 (final energy, RT scope)
- 1st building to be certified BREEAM In-Use “outstanding” (6 stars)
- 1st ISO 50001 certified building in the world
- 1st building in France to be awarded triple certification: ISO 14001, NF EN 160001 and HQE Exploitation
A recognised and awarded commitment

Reference Ethical Stock index and ratings

- Among the 300 selected companies in the DJSI world out of 3500
- Top 52/500 in transparency index
- Top 29 on the performance index
- In the best-in-class companies for Vigeo CSR rating agency
- In the Prime category of the Oekom research ranking
- Top 5 of the best French listed companies in CSR

Prestigious awards

Gigaton award
by carbon war room, UK
for our commitment to smart grid and energy efficiency

Zayed Future Energy prize
By Masdar, UAE
For our contribution to renewables and sustainable development

Green cross
By national safety council, US
For our health & safety practices

Human Capital trophy
France
For our management internationalisation policy
Schneider Electric
Korea
Schneider Electric Korea at a glance
The global specialist in energy management

<table>
<thead>
<tr>
<th>Solid Foundation</th>
<th>Strong Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>38</strong> years</td>
<td><strong>110</strong> distributors</td>
</tr>
<tr>
<td><strong>350</strong> employees</td>
<td><strong>50</strong> SI partners</td>
</tr>
<tr>
<td><strong>5</strong> business units</td>
<td></td>
</tr>
<tr>
<td><strong>1</strong> plant</td>
<td></td>
</tr>
<tr>
<td><strong>2</strong> SC centers</td>
<td></td>
</tr>
</tbody>
</table>
38 years history in Korea

1970 ~ 1990

1975
Start business of Merlin Gerin

1983
Launch business of Modicon

1991
Establishes Telco Corp. Joint with Telemecanique

1994
Consolidate brand to Schneider Electric Korea corp. (Merlin Gerin, Telemecanique, Squar D)

1991
Establishes Telco Corp. Joint with Telemecanique

2000
Acquisition of MGE UPS Korea

2002
Acquisition of Samwha EOCR

2004
Announce business of Energy Management Business

2007
Start business of Schneider Academy

2007
Acquisition of APC Korea corp. and Pelco Korea

2009
Start education business of Energy University

2010
MOU with Korea Electric Engineer Association

2011
Start Solution Center

2013
MOU with Korea Electric Engineer Association
Zooming in on Korea’s Energy Dilemma

The national ambition...

- 2009 Copenhagen commitment of 30% reduction in carbon emission by 2020
- Only 2.3% renewable resources and target by 2027 increase to 12.6%

... is facing tough realities

- 67.4% of total electricity generation is fossil-fueled dependent, potential risks related with nuclear power plants
- Energy highly subsidized despite high reliance on import – low energy bill
- Power demand in Korea is expected to rise 3.64% annually from 2011 to 2015
- GDP growth staggering

Source: Korea Power Exchange, IEA
The focus must be on the biggest final energy consumers…

- **38%** Industry & Infrastructure
- **<2%** Data centres & networks
- **18%** Buildings
- **15%** Residential
- **27%** Transportation

% are calculated on final energy

- **Electricity**
  - Industry: 16% (84%)
  - Buildings: 52% (92%)
  - Residential: 33% (67%)

- **Combustibles**
  - Industry: 8%
  - Buildings: 48%
  - Residential: 67%

Source: US DOE-EIA (Energy Outlook 2007) and Green Grid for Data Centers

Industry Buildings are included in building and not in industry.
… all the more that one unit saved at home equals three not generated

Coal → $\Rightarrow$ $\Rightarrow$ $\Rightarrow$ $\Rightarrow$ home

100 units → 35 units → 33 units

1 unit saved at home = 3 units not generated at the power plant
Lifecycle for Energy Efficiency solutions

Energy Audit & Measure
building, industrial process...

Fix the basics
Low consumption devices,
Insulation material
Power factor correction...

Optimize through automation and regulation
HVAC control, lighting control, variable speed drives...

Monitor, maintain, improve
Meters installation
Monitoring services
EE analysis software...

Passive Energy Efficiency
Active Energy Efficiency

Control Improve

up to 30% energy saving
Our Key Businesses in Korea

- Energy & Infrastructure
- Building
- Data Centre & Network
- Professional Service
Industry Solution

**Machine automation**
- Tested. Documented, Validated Architectures
- Application Libraries
- Machine safety

**Production management**
- Monitoring and data log
- Traceability
- Asset management

**Plant automation**
- Collaborative control system
- Dedicated object libraries
- Local network management
- Redundant architectures
- Advance process control

**Services**
- Installed base services
- Energy Management services: Energy Audits, Energy Management systems

**Plant**
- Sensors & RFID
- Optimum temperature control
- Motor Starters & Contactors
- AC servo drives & motors
- AC drives

**Site**
- HMI advanced panels
- MV/LV electrical distribution

**Supervisory, engineering & Programming software**

**PAC, PLC & Controllers**

**Push buttons & signaling**
Energy Solution

Substation automation:
- Feeder automation
- Remote control
- Digital protection relays

Flexible distribution

MV Primary cubicles

MV ring main units MV Pole Mounted Reclosers

Prefabricated MV/LV cubicles for secondary substation
Building Solution

Building Management System (vista, continuum)

- Cameras
- Pelco
- Security

HVAC Controllers

HVAC Sensors

HVAC valves and actuators

Energy meters

Installed base services & Energy management services

Energy management System
Power Solution

- Wiring devices
- Voice Data Image
- Life Space Controls
- Cable Management Systems

Busways

Floor/zone switchboards

Power factor correction

Power monitoring devices
Datacenter Solution

- Top shared products (旧 APC 世界1위) 国内外最大の Reference site 보유
When energy supply and use become a global challenge, who can help your business grow?

Our experts specialize in improving your energy management.

We see effective energy management as a life cycle that begins and ends with strategy.

We are the only partner who can support you at every stage of the energy management life cycle and answers the questions that bring you maximum return on energy investment.
Success Stories
improving productivity and reducing the energy per unit produced

**Real responses, today**

**POSCO, South Korea MMM**
- Posco FeSi plant
- Main Hoist x 2, ATV71+IMC Card Anti-Sway Solution applied
- Economical and efficient Open-Loop Anti-Sway
- Optimized for the process with high reliability and safety

**Baotou Steel, China Steel Mill / MMM**
- The world biggest steel process line
- Unity Quantum PLC+ Vijeo Citect SCADA+ATV61+Network
- 7 times bigger capacity and 25% energy saving

**Neuros Co., LTD, South Korea Turbo blower**
- Proface HMI+Remote HMI Application
- Remote monitoring system between US and Korea
- Cost effective and simple remote system for differentiated customer benefit
CLOV – FPSO Project
DSME / Total E&P, Angola
Solution (Level 3) / Offshore

Supplying total package (MV + LV + TR + ECS + LV DB) for CLOV offshore project (FPSO) as a solution provider, which maximizes availability of field operation and minimizes deferred productions.

Hanwha Orange Project
Hanwha Chem, South Korea
Solution (Level 3) / Onshore

Supplying electrical package (MV + LV + VSD + Automation) for Hanwha chemical plant (10,000 ton / year, poly-silicon) in Yeocheun chemical complex, which is a representative chemical industry area in Korea.

Dang-Jin Power Plant Project
EWP, South Korea
Protection & ECMS / Utility

Supplying protection relay (MiCOM) to Dangjin power plant (1,000MW x2) which is most biggest one in South Korea. State-of-the-art communication protocol, IEC 61850 is applied to this project with our protection relay in term of Smart Grid.
increasing security, comfort, reliability and efficiency

Real responses, today

**COEX, Seoul**
- Commercial complex including Exhibition, Retail mall, Office, Hotel, Restaurant, Aquarium with over 100,000 visitors a day
- 5% energy cost reduction per annum
- 4,131 ton CO2 reduction over 3 years from 2009 ~ 2011

**Gangnam Finance Center**
- Delivering a LEED Platinum building that is 30% more efficient than before.
- Integrated building for HVAC control, Access control, Lighting control, Power monitoring and etc.

**Times Square, Seoul**
- Commercial complex including Department store, Retail, Hotel, Restaurant, Office, Convention and etc. with 370,000m2
- Vista Lonworks for BMS and Merten for Lighting control.
Providing the human touch, making people’s lives better at home and at work.

**Real responses, today**

**Lotte Hotel**
- World-class European wiring devices.
- Energy efficiency with dimmers.
- Multi-hub for customer convenience.

**Samsung Engineering Global Engineering Center**
- Energy efficiency through individual lighting control and in-room sensors.
- Integrated control with building automation system.

**Galleria Foret**
- Completed a modern design with European wiring devices.
- Home automation protocol and lighting control.

**Conrad Seoul Hotel**
- A whole new experience for customers with the superior quality devices dedicated to hotels.
reducing lifecycle cost & increasing availability

Real responses, today

**Shinhan Group Data Center**
- High technology world class data center
- 44,700 m², six story building
- Earthquake proof up to seismic intensity 7
- Emergency power generation up to 30 hours
- Real time energy monitoring

**Kyobo Life IDC in Songdo**
- Kyobo Life and IBM partnered data center
- 36,200 m², four story building
- Earthquake proof up to seismic intensity 7
- Dual power supply system and emergency power supply system

**Samsung SDS ICT**
- Tier III certified world class data center
- 49,600 m², seven story building
- Dual electricity and facility system benchmarking nuclear power plants
- Earthquake proof structure
Water

improving water management & supply

Real responses, today

**Geomdan Sewage Treatment Plant**
- Full electrical distribution system and control system for waste water treatment facilities.
- Q=120,000 m³/day, sewage water pipe extension: 30,477m

**Polonnaruwa Water Supply Project**
- River intake and pumping station with capacity of 60,000 m³/day, supplying and laying of 5,5358m length raw water main
- New water treatment plant with capacity of 13,500m³/day and transmission main from new plant with 28,212m from DN 200 to 400 respectively.

**Songdon Sewage Treatment Plant**
- Integrated system with a capacity of 270,000m³/day
- Energy Operation Online implemented

**Algeria AIN SEFRA**
- Fully integrated, proven system not only Electrical Distribution but also SCADA system.
optimising resources and improving user experience

A leading Resort Company
- Proactive energy demand response, Demand forecast through usage modeling, energy cost monitoring by site
- Short break even point
- Effective and flexible to react to the government energy policy

Bundang Seoul University Hospital
EPSS Test Solution
- Reliable emergency power supply
- Automated management, avoiding human errors from manual work
- Cost reduction by reducing generator and CTTS replacement frequency

Korea University
Green Campus
- Energy management through a clouding based Energy Operation Online system to monitor 61 buildings
- Contribute to the Green Campus initiative
Schneider Electric Korea in Media

메일경제

Maeil Business Daily, June 2013

힌.thumb.업그레이드

한국의 최신 전기 자동화 기술

Schneider Electric의

Chosun Daily, 2012

서배소소비

슈퍼마켓 수리

JoongAng Daily, 2012

JoongAng Daily, 2013

SBS-CNBC, 2013

황제조합체 GE, 럼주전력체 "심사용 SW책임감"

Chosun Daily, 2013

100년 역사 BMW도 소프트파워 융합 몸부럼

JoongAng Daily, 2013
Contributing to Korea Society...

Luli program

Luli is an international campaign to encourage Schneider Electric employees to give back to the community, especially supporting disadvantaged youth.

Bip Bop program

We embrace our responsibility to promote access to energy for all, without endangering the climate. By investing in communities and stakeholders at the Base of the Pyramid, Schneider Electric addresses three key issues in providing sustainable access to electricity.

Main activities in Korea

• Hanbit Social Welfare:
  - Support technical high school students to get a technical certificate of electric/electronic related
  - Giving scholarships for Electrical Engineering College students who achieve a good academic record

• Iri Children House / Angels’ Heaven
  - Supporting basic learning (reading, writing, calculation) for preschooler and elementary students
  - Supporting chorus singing for group therapy

• In-diya Donation:
  - Visiting senior citizen in Ik-san area and installing In-Diya LED lamp to save lighting electricity fee
Energy University

www.MyEnergyUniversity.co.kr

- Free, on-line eLearning for convenience and flexibility

- Energy Efficiency agenda using vendor and produce neutral

- Educates C-Level, home users, Univ. students in Energy Efficiency topics

- Courses can be taken anytime, anywhere there is an internet connection

Korea

- Closed to 10,000 Univ. Students, Customers, Partner, etc.

Courses…

- 200+ Energy Efficiency and Data Center courses available

- 5 courses are translated in Korean
How we support you

Customer Care Center
1588-2630

Our dedicated Customer Care team respond to questions on:

> Commercial products, solutions, post-sales queries
> Logistics delivery enquiry, order processing, price and availability
> Technical catalogues, product selection, or more complex questions
> Service intervention requests

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Make the most of your energy™

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