

# Sustainable buildings with energy efficiency solutions

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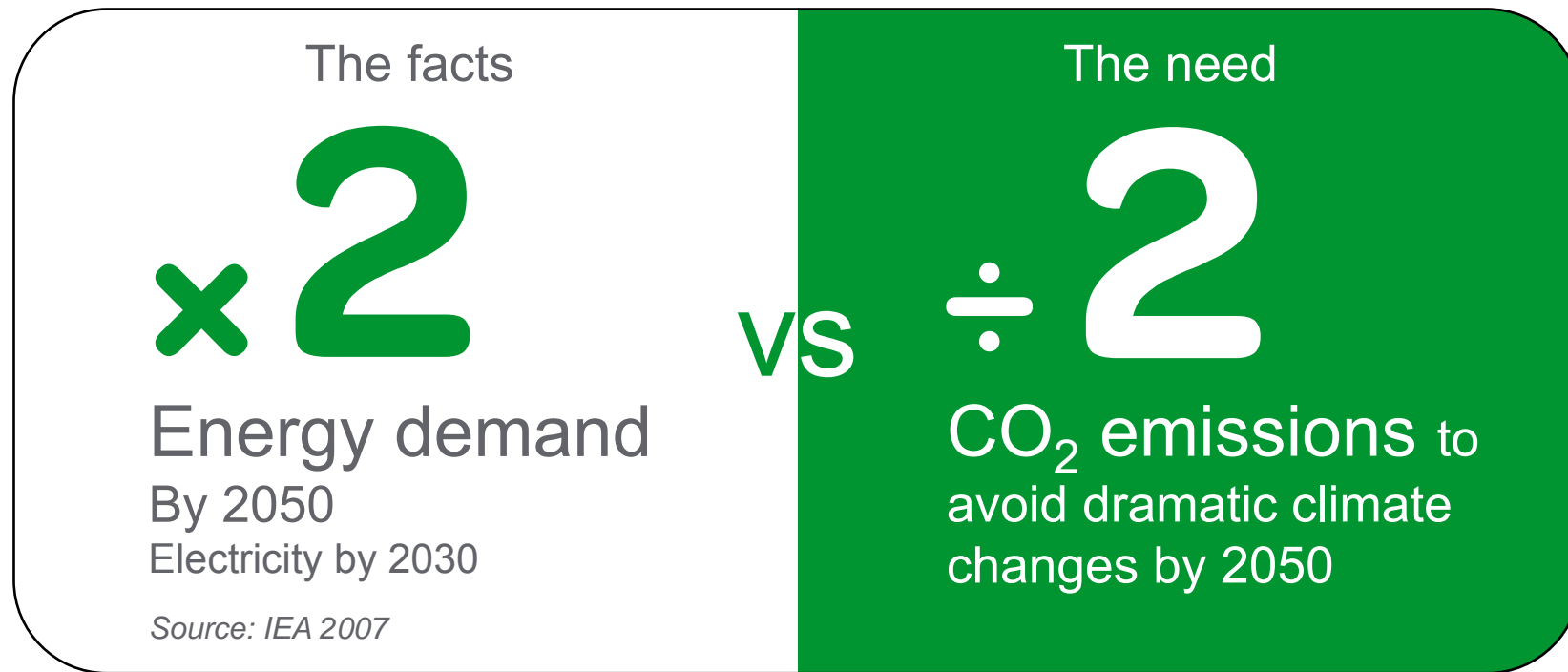
Country President Romania

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Why do we need a  
green building promise?

# The energy dilemma is here to stay



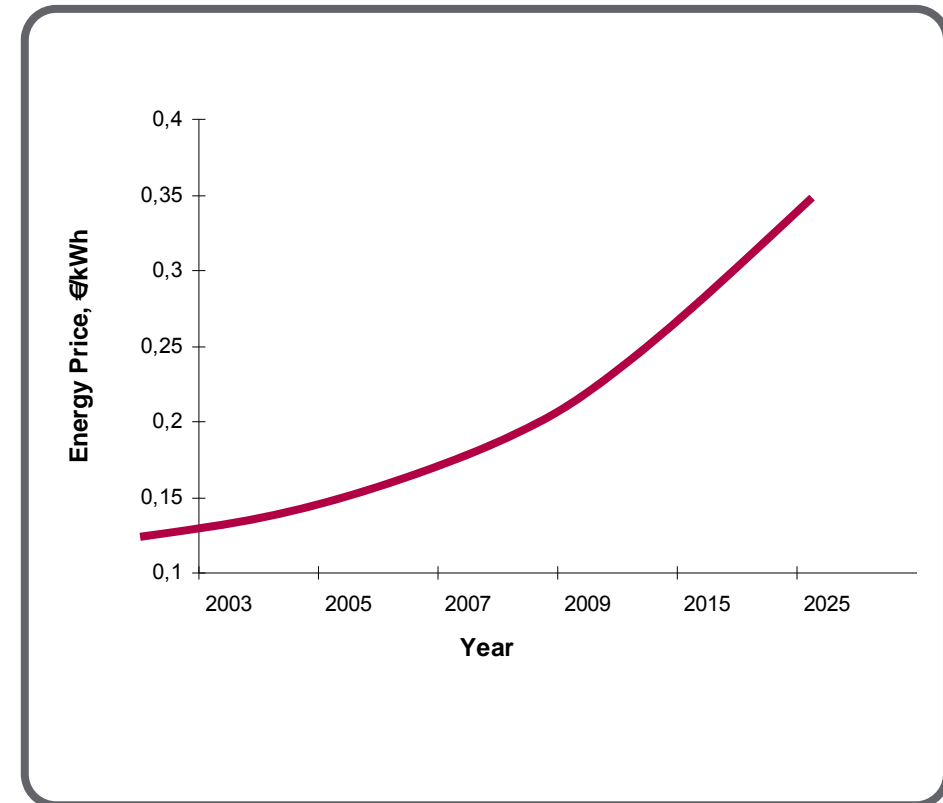
Source: IPCC 2007, figure (vs. 1990 level)

Buildings are responsible for almost half of global CO2 emissions.



# Energy costs are not just rising, they are accelerating

- Energy prices are increasing because of
  - Increased demand
  - Declining energy availability
  - Looming threat of energy legislation
- In the European Union, energy costs have increased **47%**<sup>1</sup> since 2003 and are projected to grow **30%**<sup>2</sup> in the next 5 years



<sup>1</sup> Eurostat, <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>, Includes average of EU 27

<sup>2</sup> 2009 Electric Market Forecasting Conference, Dr Stephan Sharma

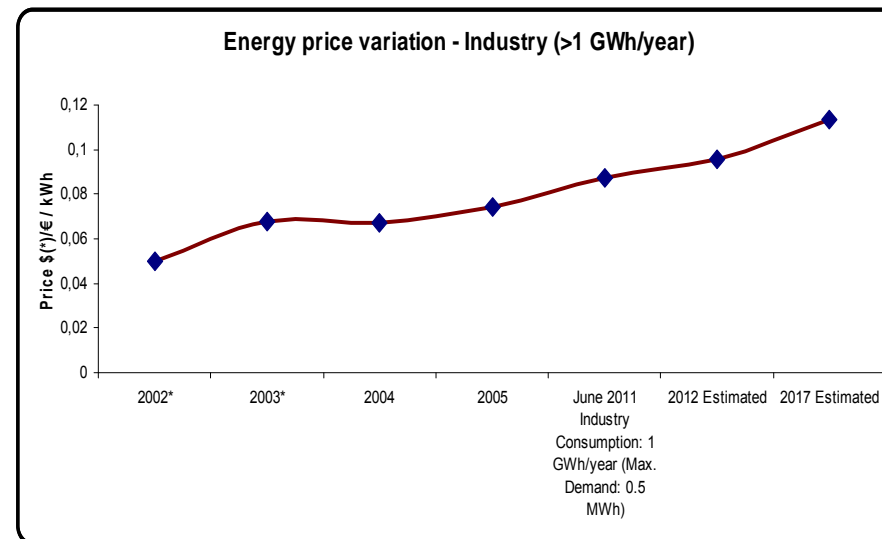
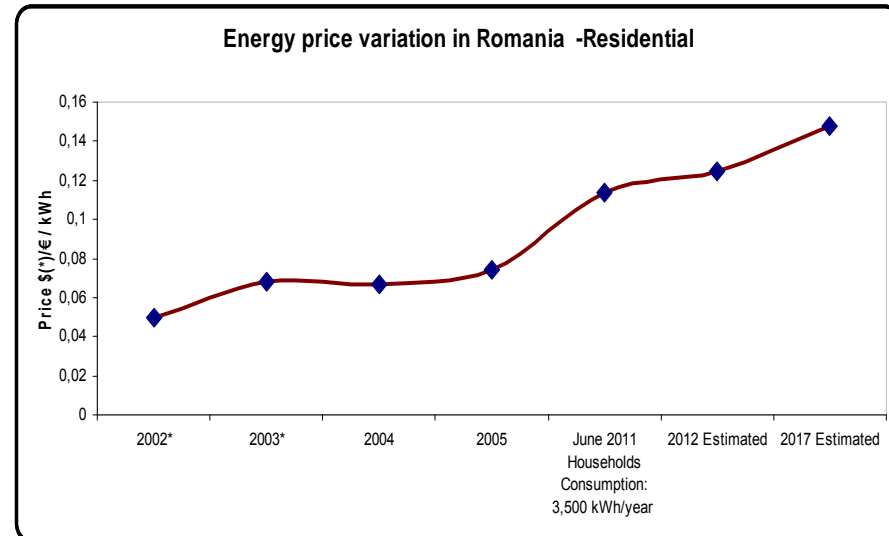
<sup>3</sup> Average cost per kWh in United States from Energy Management Systems for Commercial Buildings, Pike Research, 2009

<sup>4</sup> Energy Information Administration

# And, in Romania, is not different

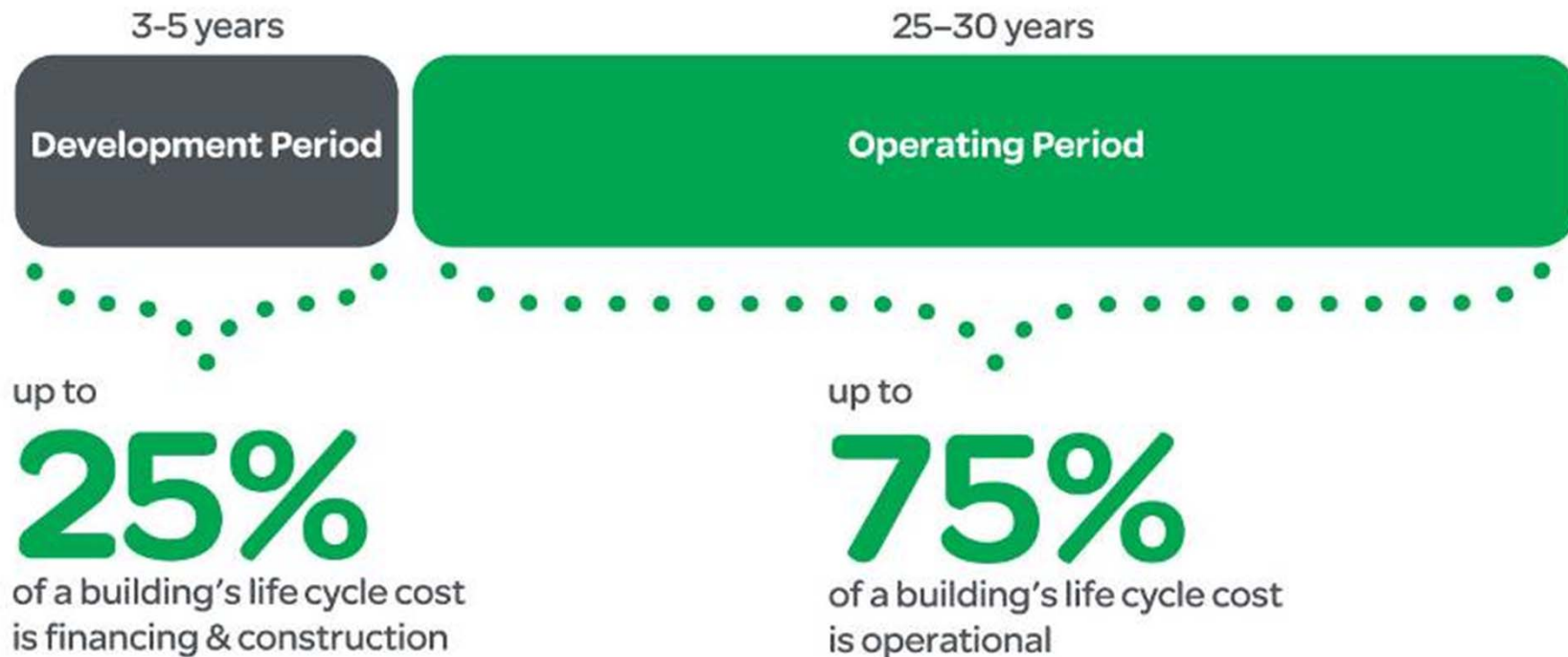
In Romania, energy costs have increased:

- by **70%**<sup>2</sup> in June 2011 for Households Consumption: 3,500 kWh/year compared to total 2004
- by **30%**<sup>2</sup> in June 2011 for Industry Consumption: 1 GWh/year (Max. Demand: 0.5 MWh) compared to total 2004 =
- Energy prices are projected to grow by **10%** in 2012 and **30%** in the next 5 years<sup>4</sup>



How are we doing?

# We must consider building life cycles



Our integrated systems and comprehensive services reduce both capital and operational expenses.



# Cost benefits of green buildings

- **Operating costs** decrease **13.6%** for new construction and **8.5%** for existing building projects.
- **Building value** increases **10.9%** new construction and **6.8%** existing building projects.
- **Occupancy** increases **6.4%** new construction and **2.5%** existing building projects.

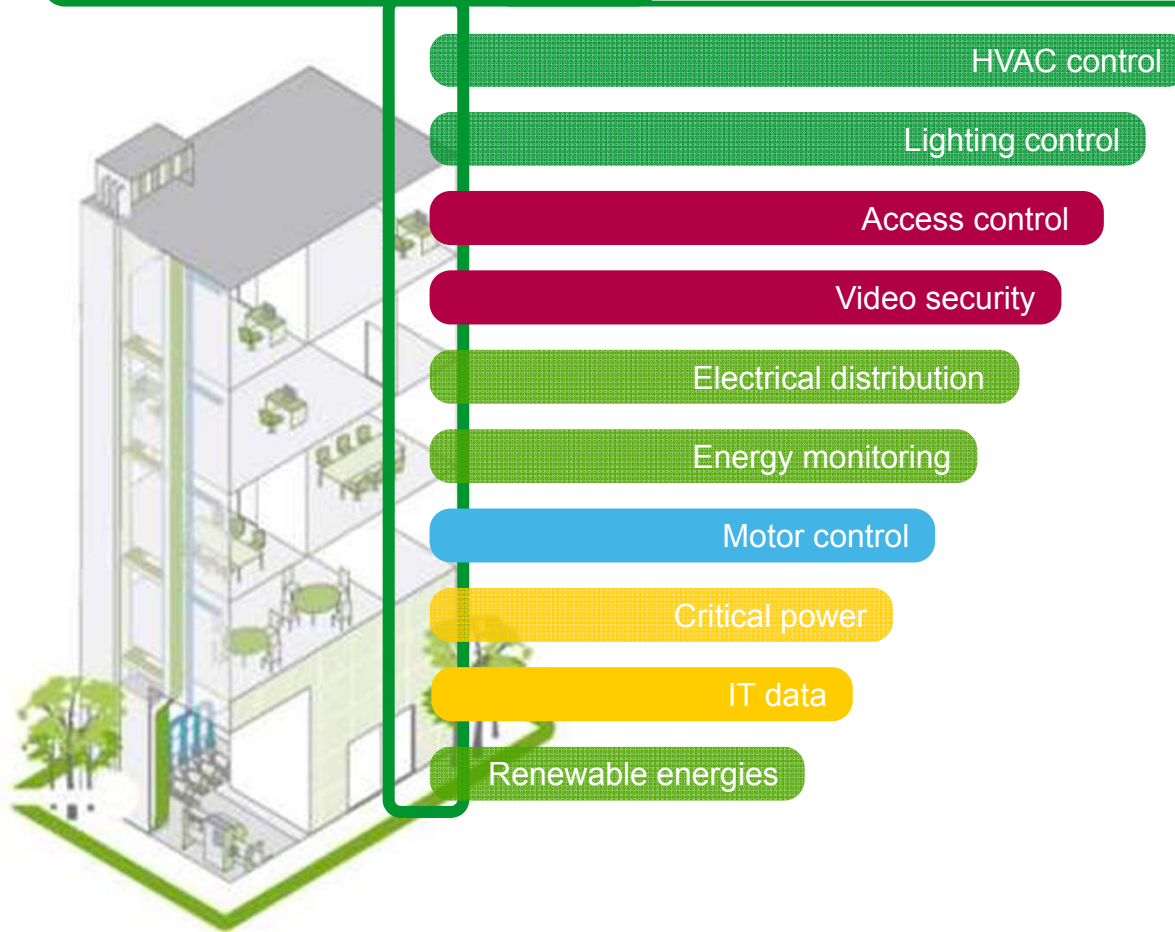
Source: McGraw Hill Construction, *Green Outlook 2011: Green Trends Driving Growth*, 2010

Source: The US Green Building Council, *The Business Case for Green Building*

# Providing integrated solutions

## Integration

Make energy visible  
Make systems work together



# References



## City Gate Bucharest

- 45,000 sqm Office complex
- Solution: a centralized energy management solution - flexible, operational and cost reducing oriented, while ensuring safety, comfort, real time climate control and efficient management lighting control to end user.



## Lakeview Bucharest

- 26,000 sqm gross built above ground and 19,000 sqm gross built underground Office Building
- Solutions: All building systems as heating, ventilation, air conditioning (HVAC) and lights are managed by an advanced Building Management System (BMS); medium and low voltage equipment for electrical distribution
- Value of the project: 1 MEur investment in Energy Management solution

# References

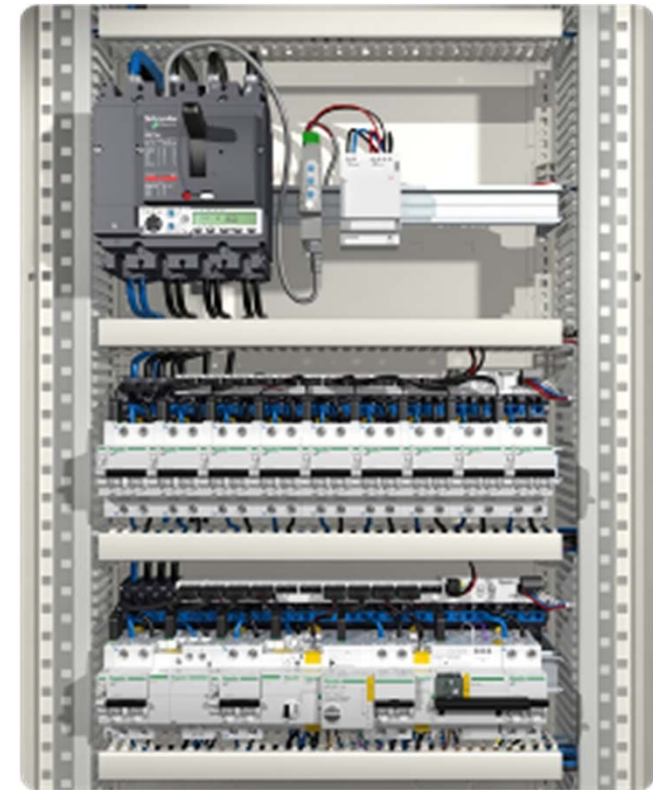


- Over 210,000 sqm Shopping Center
- Solutions: integrated security and energy management system; safety electricity power; consumption monitoring
- Value of the project: 1.7 MEur

# Acti 9 communication system: a complete solution for communicant distribution panels

A system dedicated to **energy  
management & energy  
efficiency**

- Monitor & control the loads
- Metering
- Open to Building Management System facility



**Mastering energy efficiency** in electrical distribution

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experience  
and attentiveness  
to our customers

+

21

new  
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systems

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# Make the most of your energy™



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