

# STRATEGIC SOURCING IN A LIBERALIZED MARKET

13 – 14 October 2011, ESS-Lund, Sweden



*Leading companies to  
**Cost-Effective**  
& Sustainable Energy*



**€15 Billion**  
*managed spend*

**350+**  
*dedicated employees*

**76 Countries**  
*active management*

**28,000+**  
*client sites*

**Global Leader**  
*in the industry*

**Independent**  
*& unbiased*



**Quick Facts**



the global specialist  
in energy management

## Energy Management and Procurement Services (“EMPS”)

- Strategic sourcing
- Utility rates analysis/budgeting
- Risk management services
- Market intelligence reporting
- Data management services

## Sustainability Services

- Environmental strategic development
- Energy efficiency workshops
- Environmental reporting
- Clean-tech services
- Metering/monitoring services

Different phases:

➤ **UK and Norway: beginning 1990 – mature markets**

➤ **EU Directives**

**96/92/EC on electricity – date of effect 19/02/1997**

**98/30/EC on natural gas – date of effect 10/08/1998**

Main obstacles :

- access of the network
- different degrees of market opening between Member States

➤ **Full market opening for all consumers: July 1st, 2007**

- All markets are becoming more mature with spot markets and future markets
- Still markets in transition, mainly in Central and Eastern Europe

# Calendar deregulation European electricity market

	1999	2000	2001	2002	2003	2004	≥ 2007
<b>Austria</b>	> 40 GWh	> 20 GWh	October- All				
<b>Belgium</b> Federal law	> 100 GWh	> 40 GWh	> 20 GWh	1 GWh	> 10 GWh		All consumers
Flanders region			> 20 GWh (11/08)		> 56 kVA (01/01)		
Walloon region			> 20 GWh (25/10)		all (01/07)		
Brussels region			> 10 GWh		10 GWh	all HV clients (31/12/2004)	all
<b>Denmark</b>		> 10 GWh (April)	1 GWh		All		
<b>France</b>	> 100 GWh	> 16 GWh			7 GWh (19/02/03)	All consumers (except domestic sector)	
<b>Finland</b>		100%					
<b>Germany</b>	All consumers						
<b>Greece</b>		30%			35%		
<b>Ireland</b>		4 GWh (30%)		1 GWh (40%)			
<b>Italy</b>		> 20 GWh (1 GWh)		> 9 GWh (1 GWh)	50 000 kWh		
<b>Luxembourg</b>	> 100 GWh		> 20 GWh		> 9 GWh		> 1 GWh (2005)
<b>Netherlands</b>	> 2 MW			> 3 * 80 A		All consumers	
<b>Portugal</b>	> 9 GWh						
<b>Spain</b>	> 1 GWh	1 kV			All consumers		
<b>Sweden</b>	All consumers						
<b>United Kingdom</b>	All consumers						

## Exchange markets

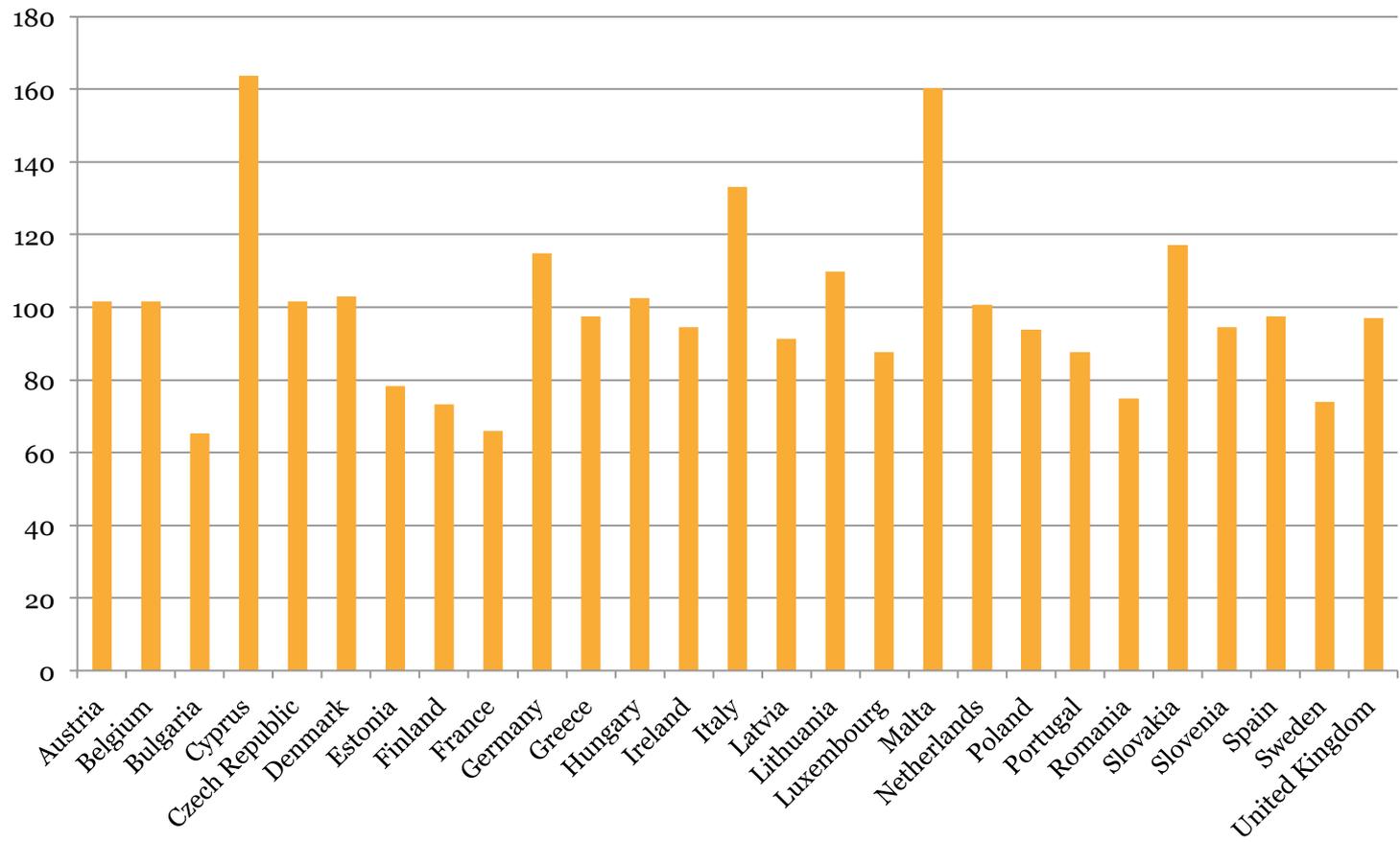


PRAGUE ENERGY EXCHANGE  
ENERGETICKÁ BURZA PRAHA



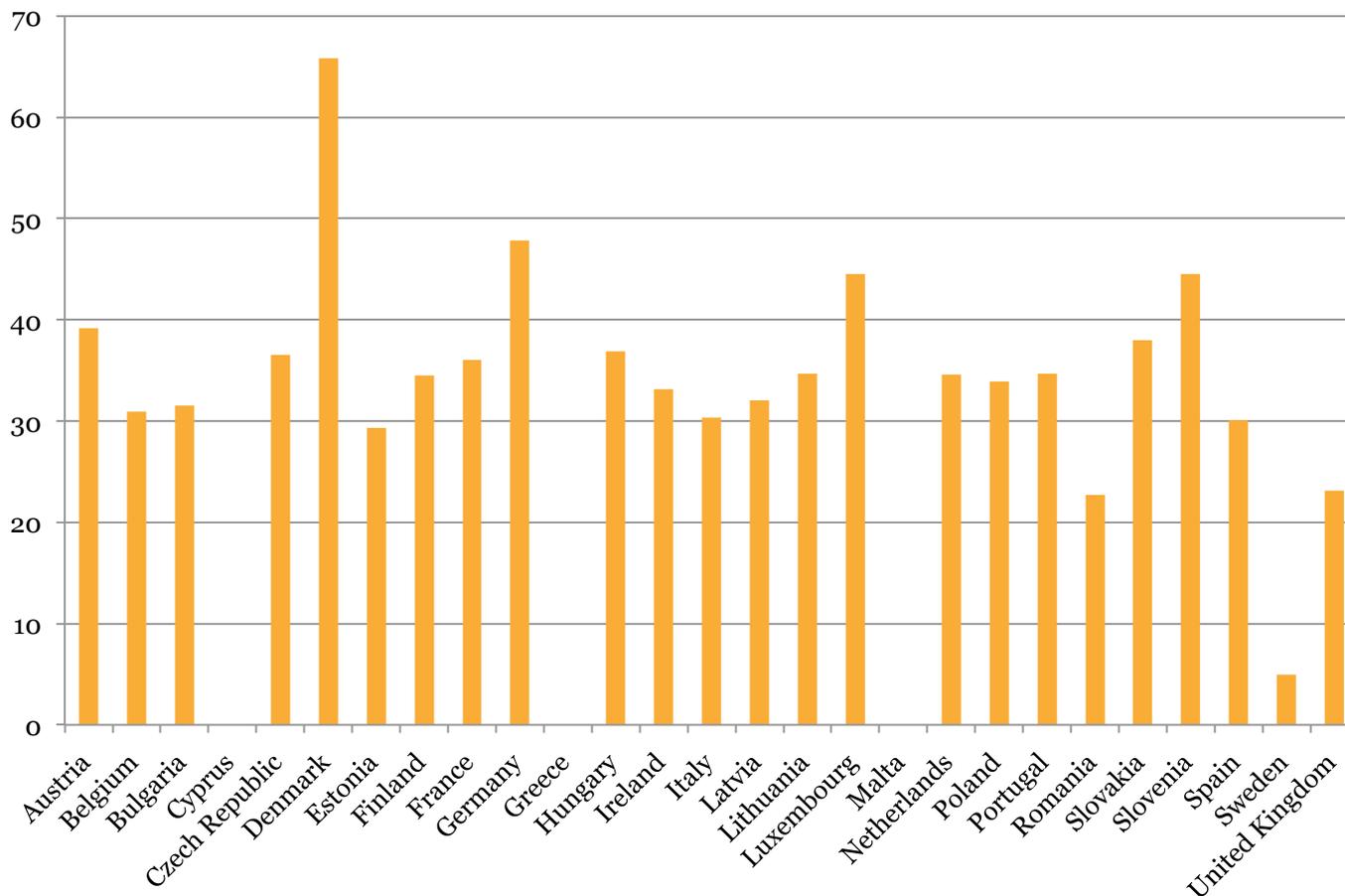
GESTORE MERCATI ENERGETICI

# Average power prices in industry (€/MWh)



Standard customer 20 GWh/year – 4 MW demand  
Source: Eurostat – June 2011

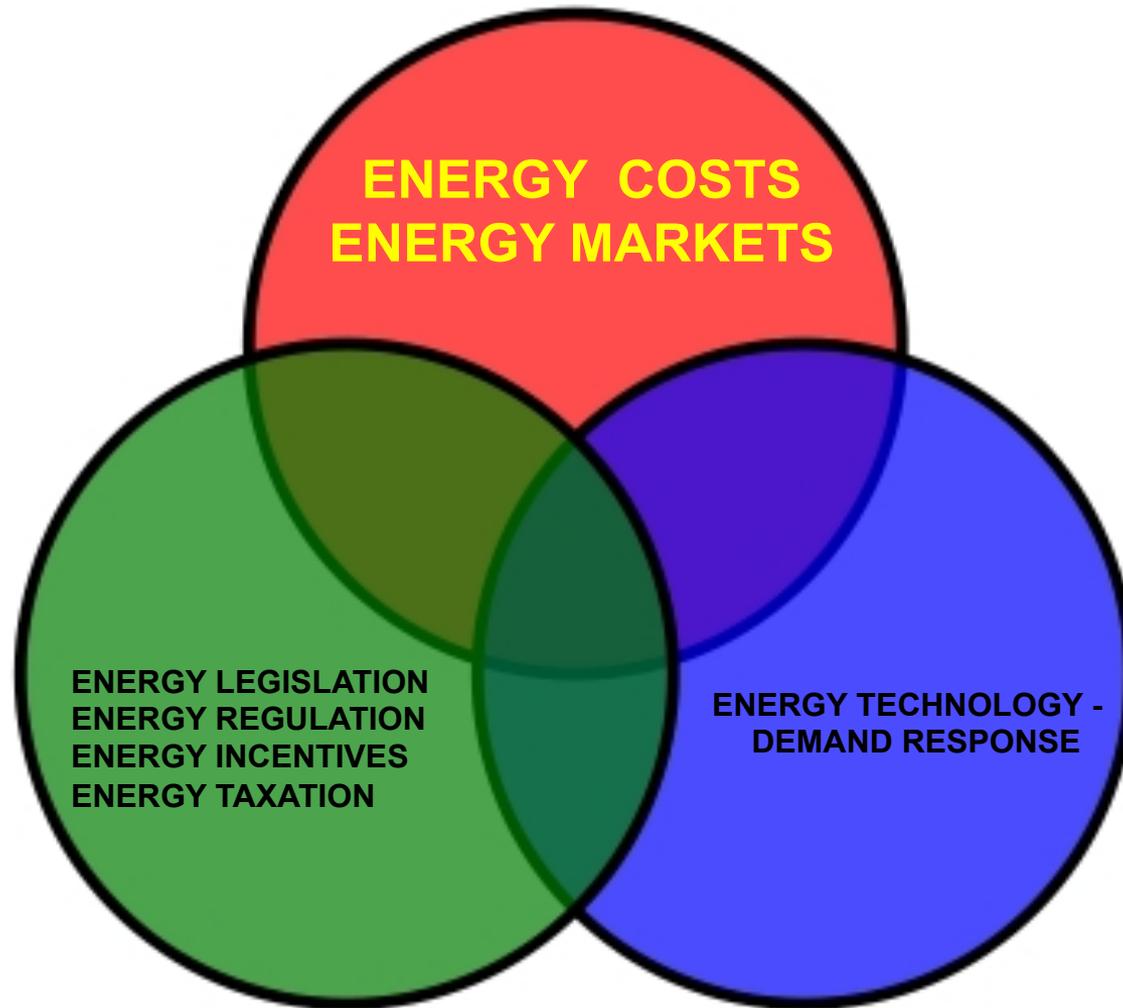
# Average natural gas prices in industry (€/MWh)



Standard customer : 5 GWh/year

Source: Eurostat – June 2011

# *Cost optimization by a combination of Competences*

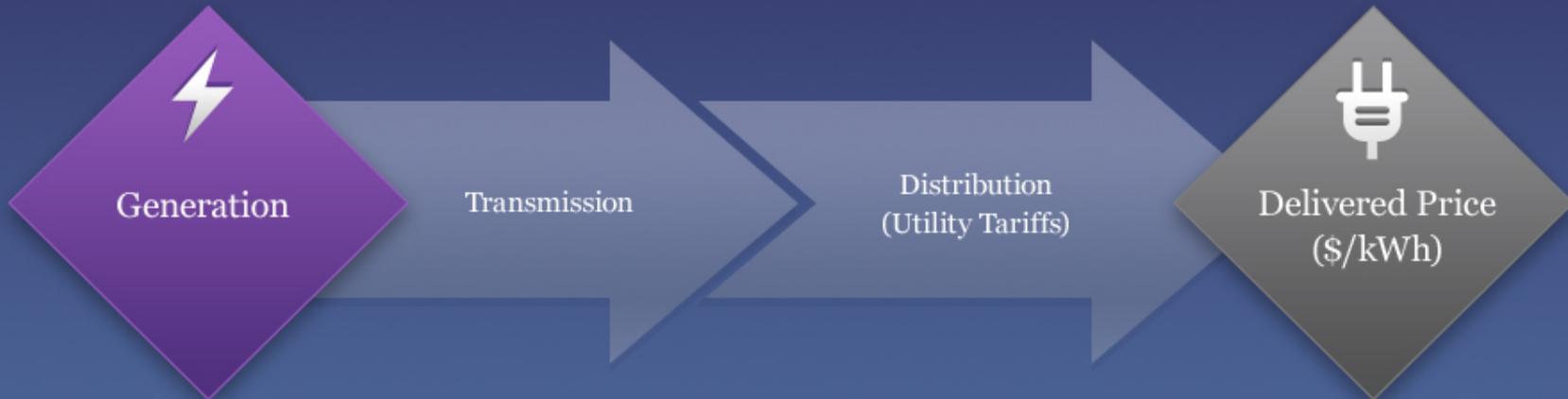


# Energy Cost Components

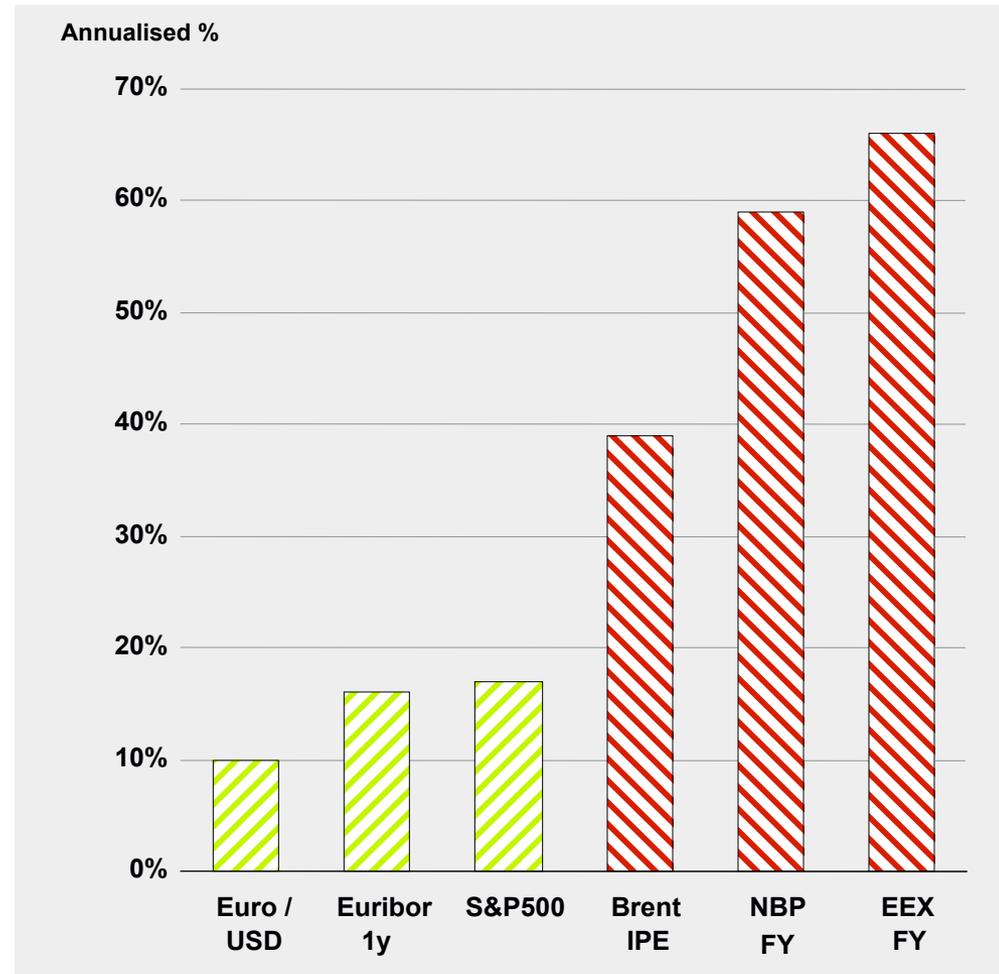
## Natural Gas



## Electricity

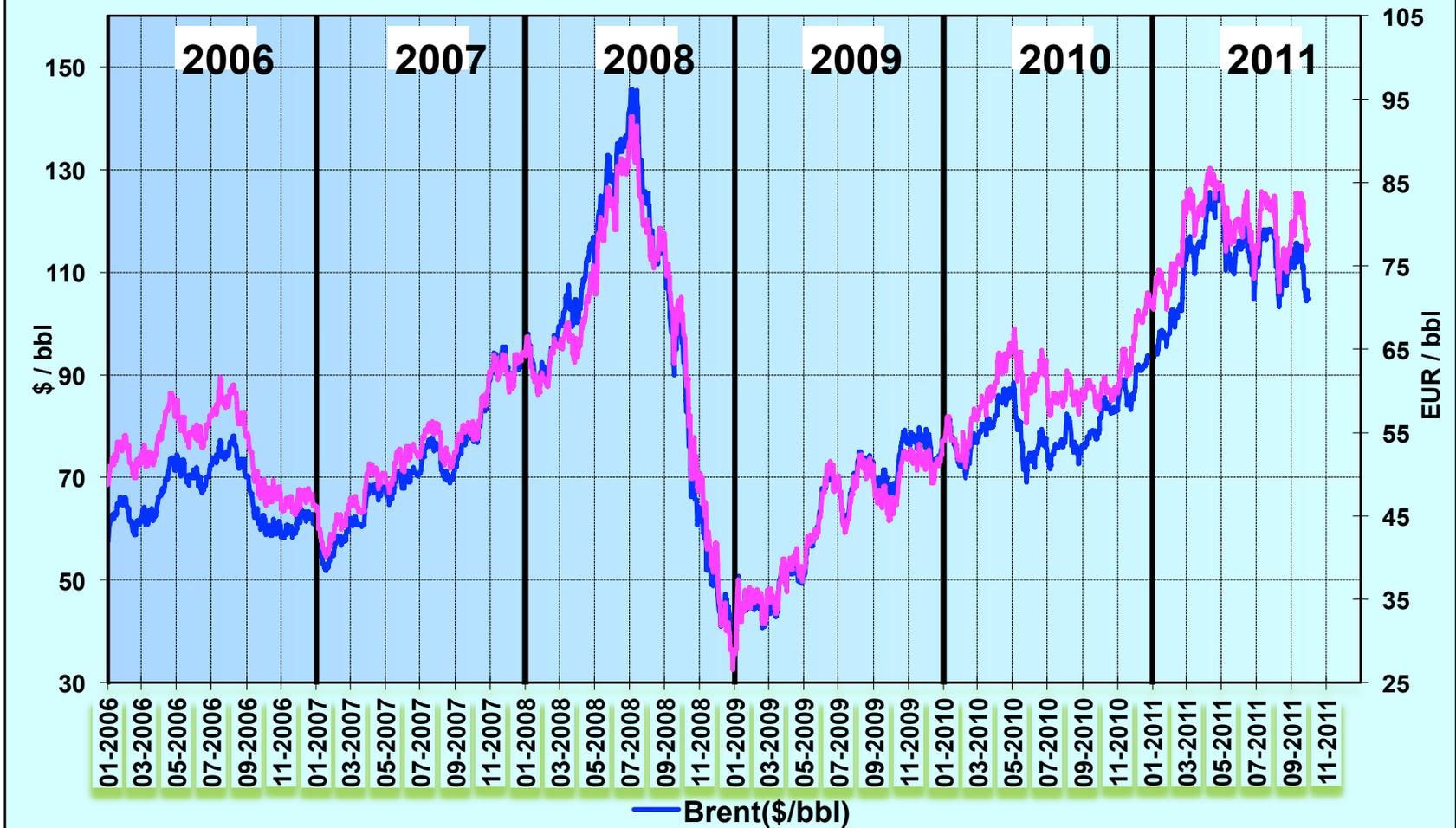


- Price volatility of energy is significantly higher than other market exposures.
- Most companies are negatively correlated to energy prices (energy  $\uparrow$  = margins  $\downarrow$ )
- The price of oil, electricity and gas is an important driver for the value of many companies.



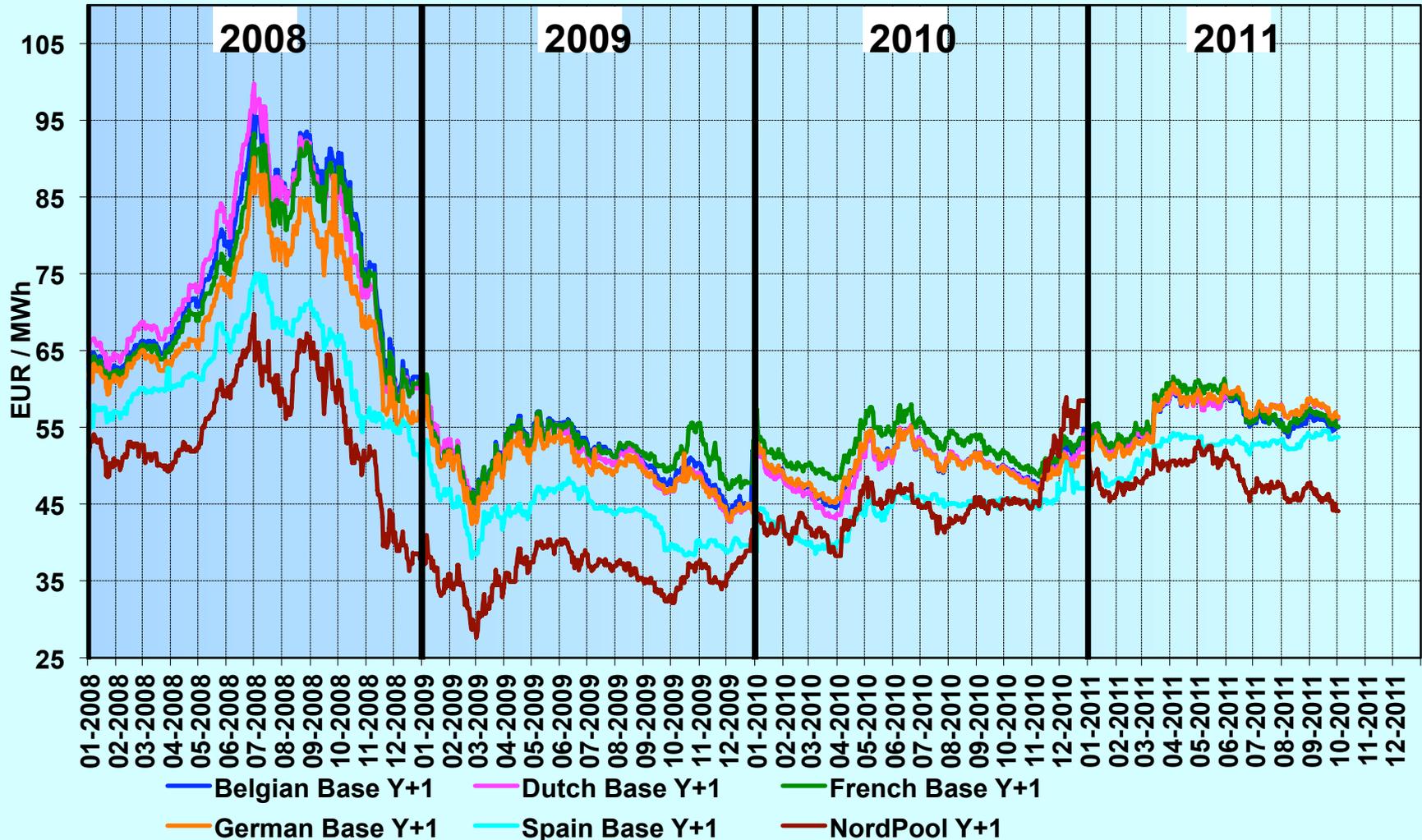
Update: 02/10/2011

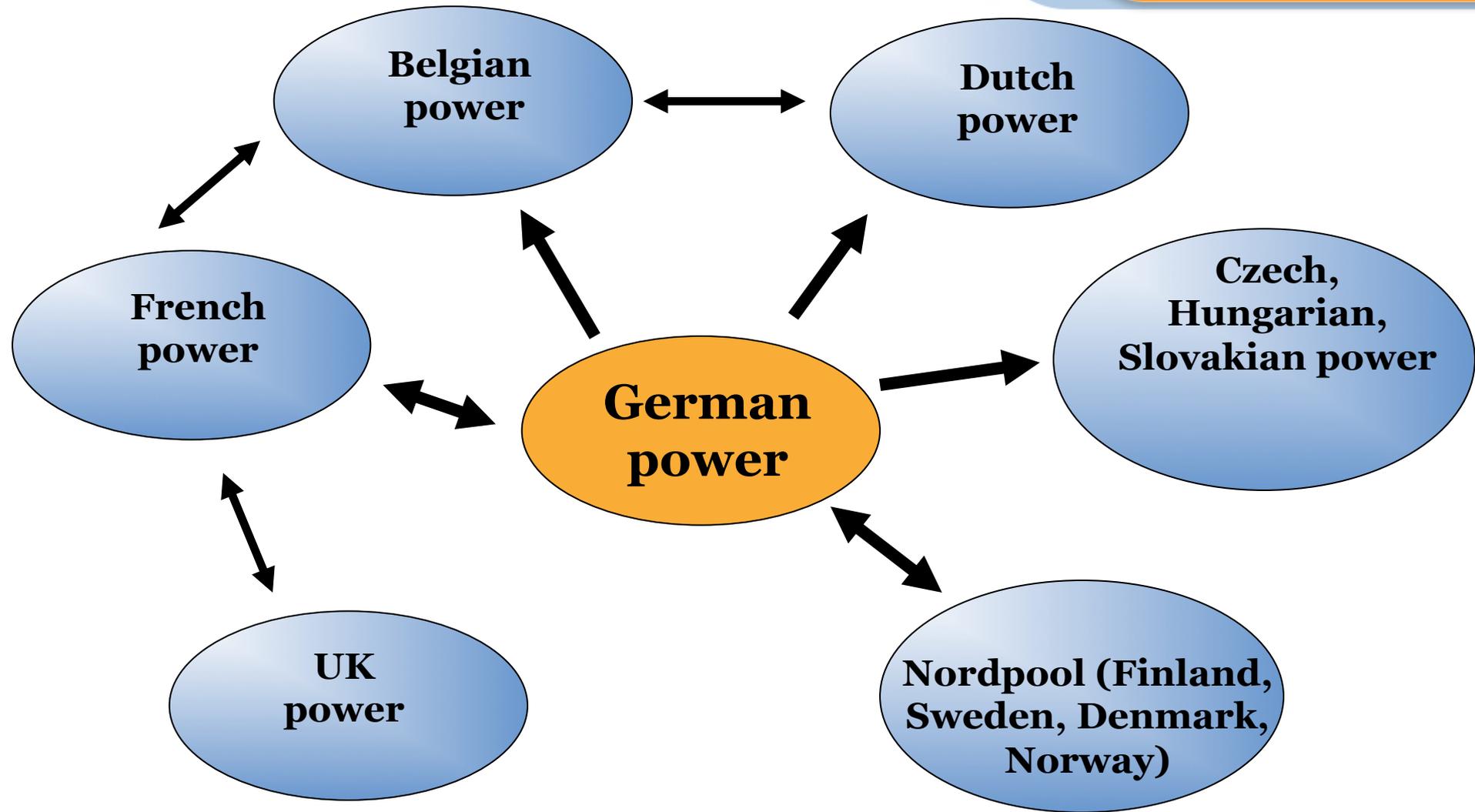
## Brent (\$/bbl and €/bbl)



Update: 02/10/2011

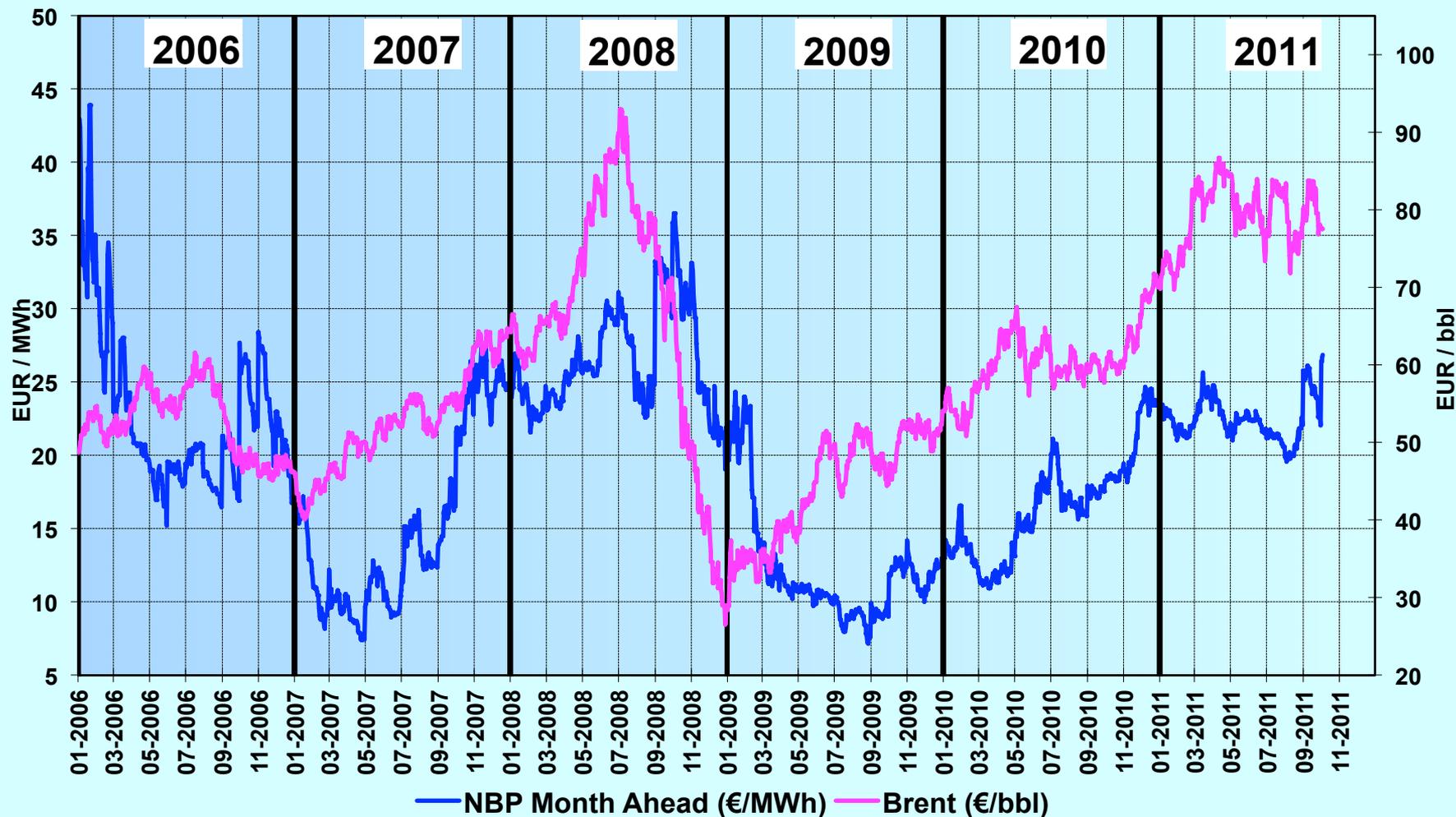
## European electricity : Year +1

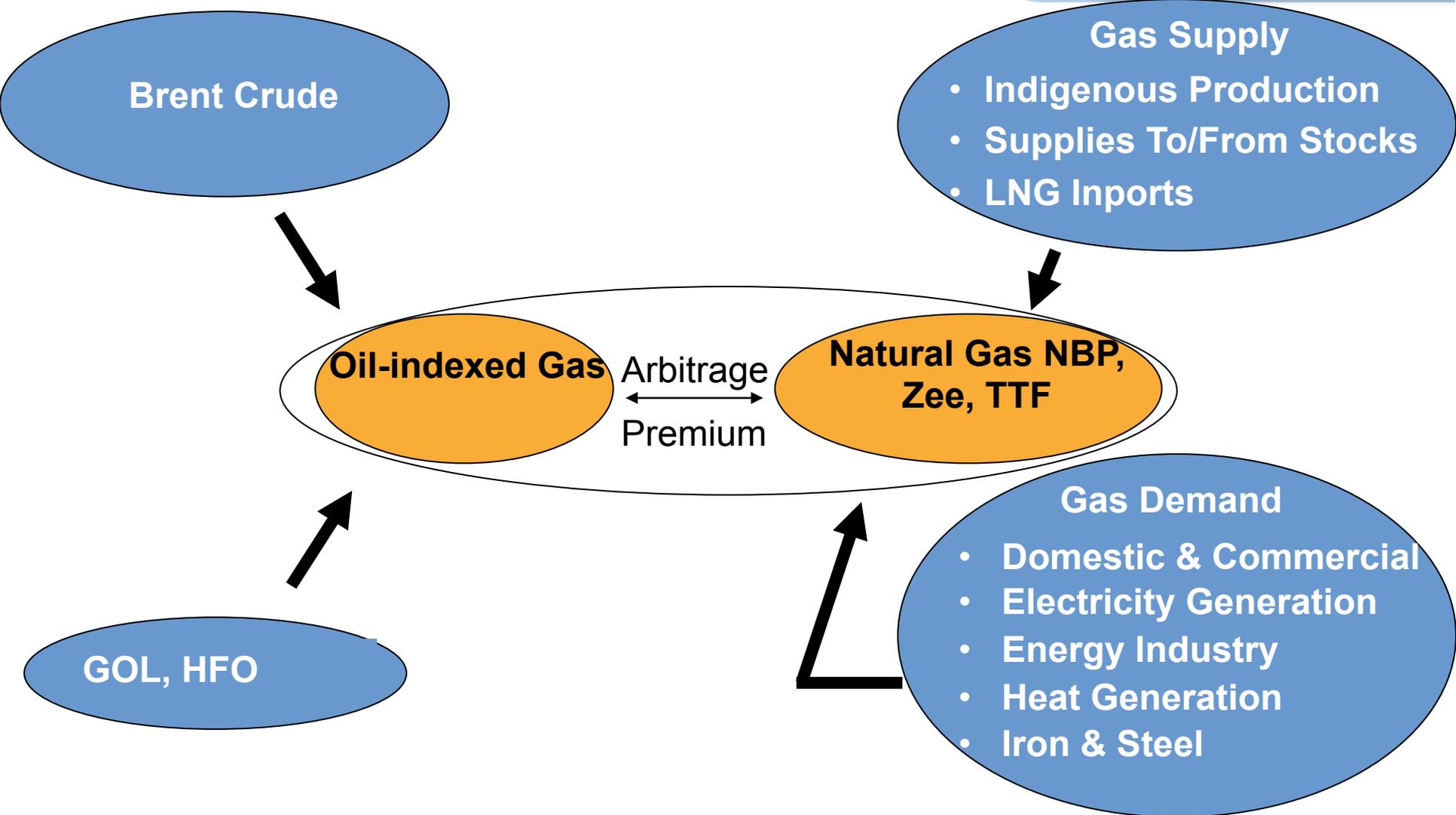




Update: 04/10/2011

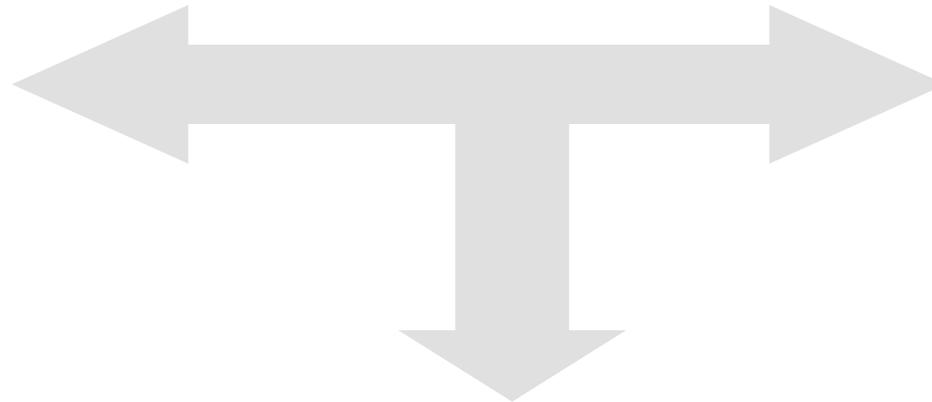
## NBP Month Ahead (€/MWh) and Brent (€/bbl)





## INTERACTIONS

**Risk profile**

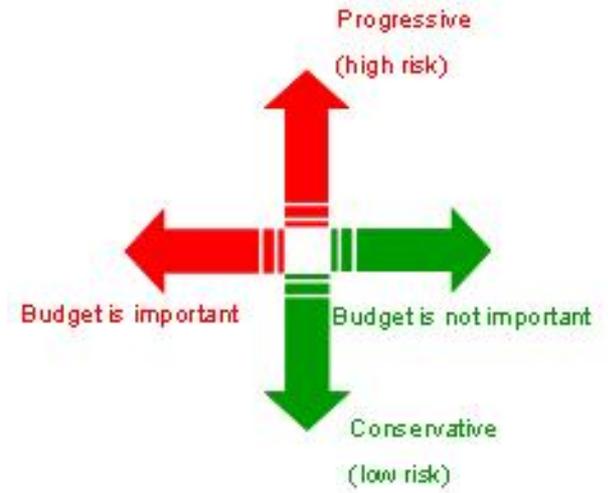
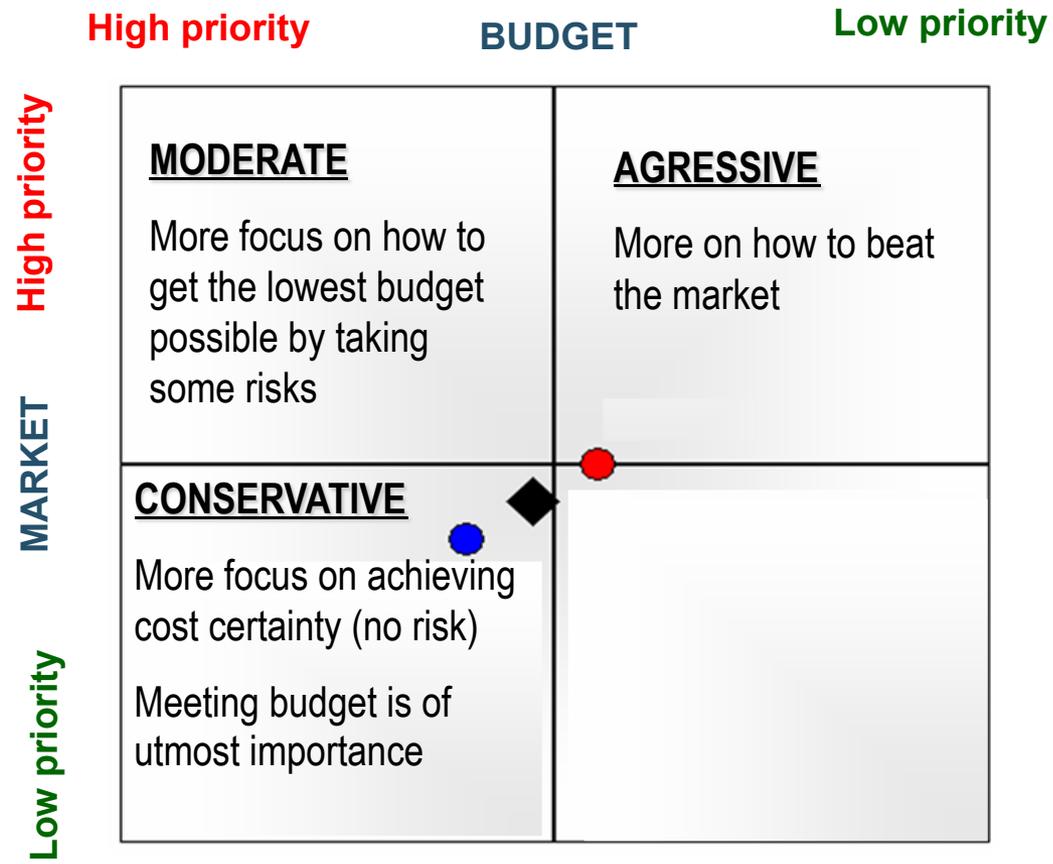


**Price Forecasts  
(Banks, IEA, ...)**

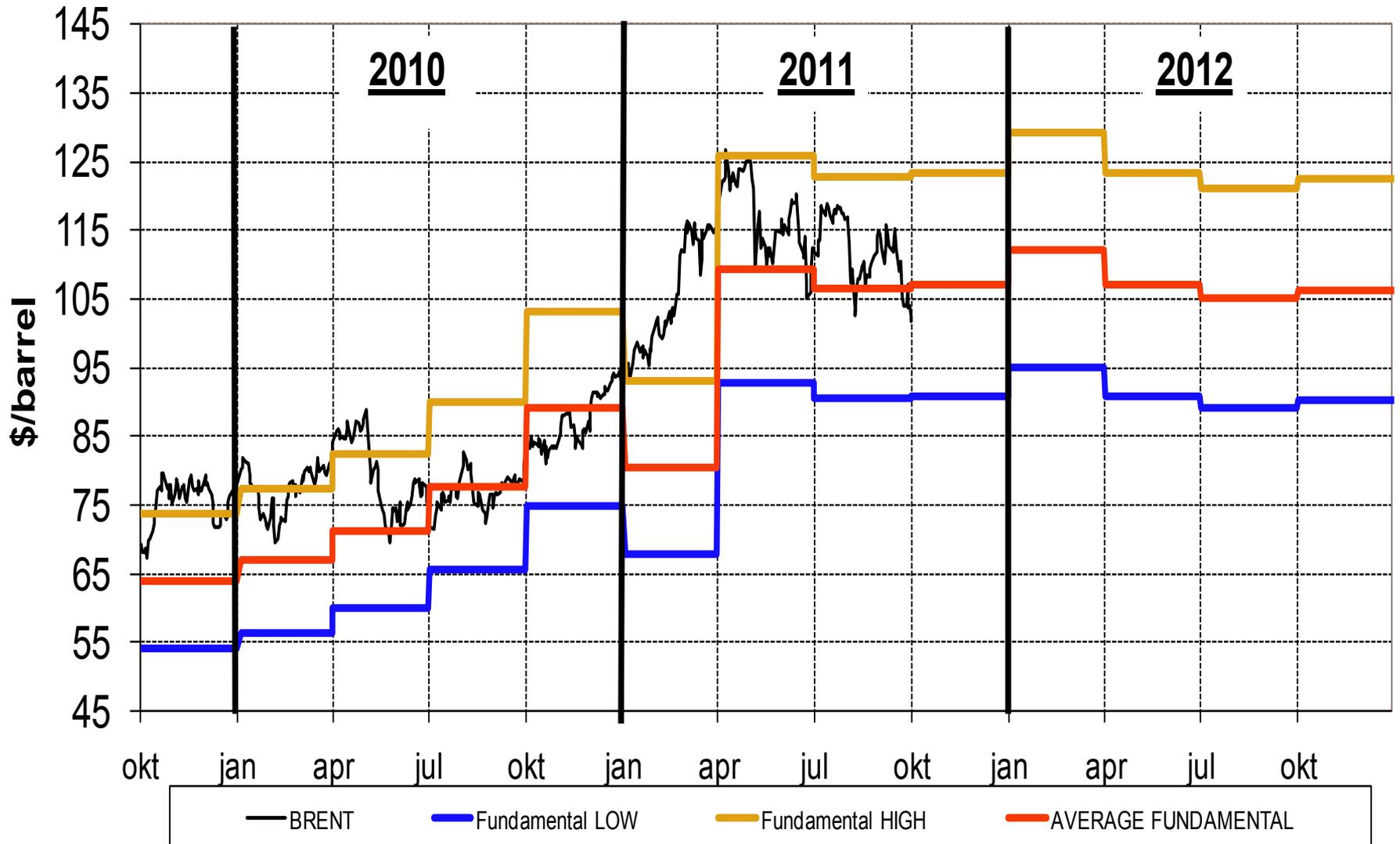
**STRATEGIC ENERGY  
SOURCING PLAN**

**Risk management**

# Risk Profiler – Principle



# BRENT oil forecast



The Risk Profiler combined with the price forecasts gives the following orientations :

- 1. the duration of the supply contract(s)**
- 2. fixed price or flexible pricing**
- 3. the price structure (spot, months, quarters, seasons,..;) and the type of indexation**
- 4. take profit and stop losses in case of flexible contracts**
- 5. number of possible price fixations and volume**
- 6. timing for price fixation**

# Strategic Sourcing Process

## Market Opinion

created from constantly monitoring all relevant market dynamics & regulatory trends

**Know supplier strengths & weaknesses**

**Utilize efficient & flexible RFP and bid tools**

**Analyze and determine most strategic solution**

**Validate pricing, negotiate and execute deal**

## Buying Recommendation

created by identifying market opportunity and quantifying potential impact

**Define pricing benchmarks and product structures**

**Analyze bids against sourcing & risk strategy**

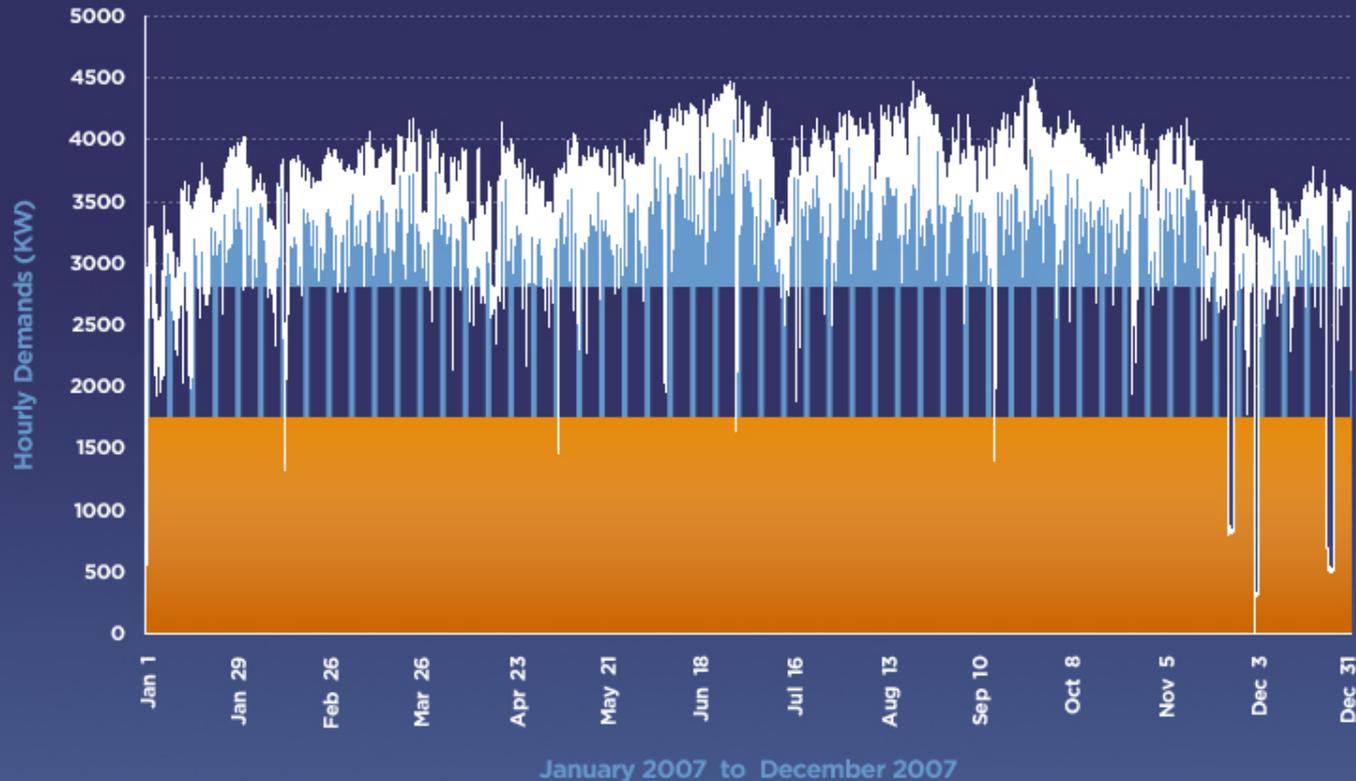
**Secure refreshed pricing from preferred supplier**

Strategic

Tactical

# Interval Data Analysis

*How you use power is more important than how much you use*



 ATC block

 On-peak block

 Hourly usage

- The more detailed the load profile, the better offered prices
- Better analysis of suppliers proposals
- e.g.: Germany – it is possible that a new tax is introduced if no EMS

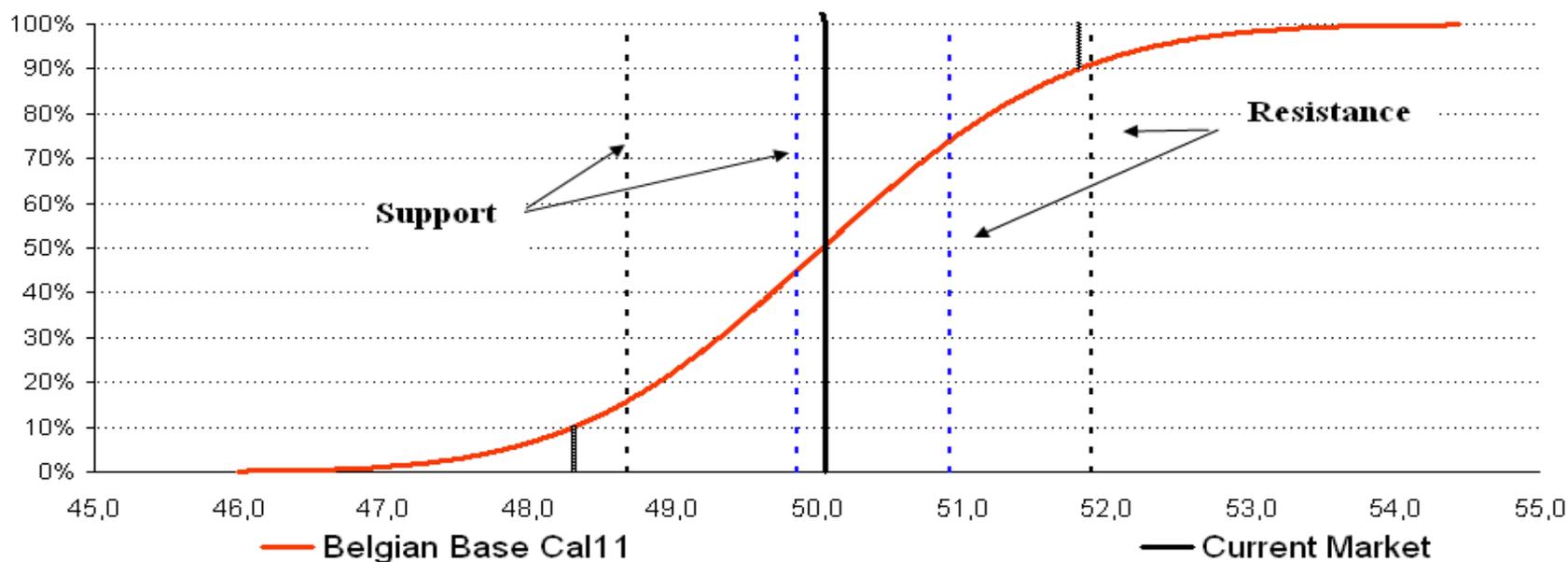
# Risk Monitoring : Value at Risk Report

Client: Client A  
 Holding Period (Days): 10  
 Left Tail Confidence Level: 90%

Current Price: € 50,05  
 Volume: 10.000 MWh

Volume	10.000 MWh	
10-day Upside Potential	526.661 €	52,67 €/MWh
10-day Upside VaR	26.161 €	(2,6)
<b>Current Exposure</b>	<b>500.500 €</b>	
10-day Downside VaR	-25.637 €	(-2,6)
10-day Downside Potential	474.863 €	47,49 €/MWh

Annualized 10-day Volatility: 13,7%





## *Negotiations*

Aggressively advocate for best option

## *Timing*

Be prepared to act when the time is right

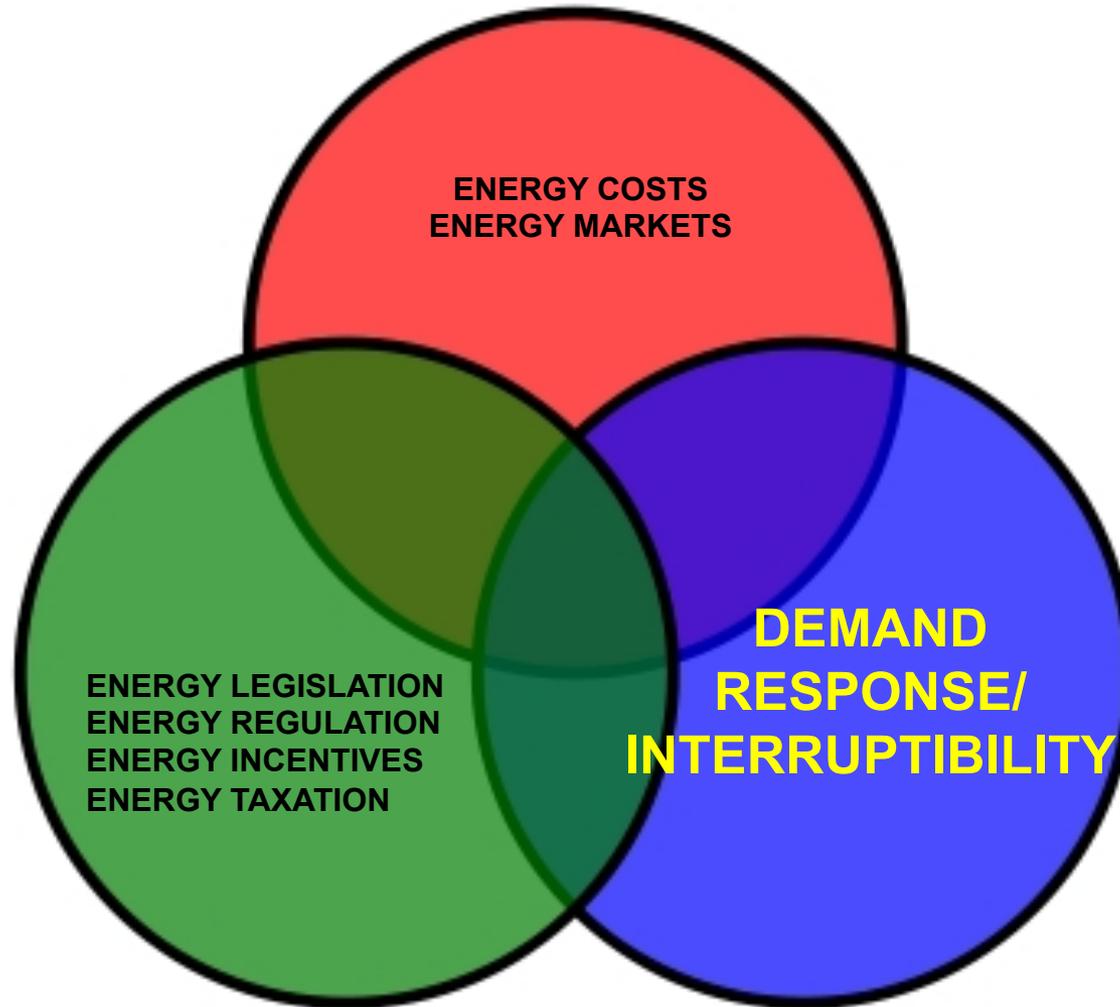
## *Suppliers*

Choose the most competitive and reliable supplier

## *Reductions*

Leverage programs to spend and use less

# Cost optimization by a combination of Competences



## Optimization of transport / distribution contracts

- \* Optimal power demand subscription or hourly/daily capacity for natural gas subscription in the different rate periods

  - P1 - .... – P6 for Spain

  - F1 - ... - F3 for Italy

  - P1 - ... - P5 for France

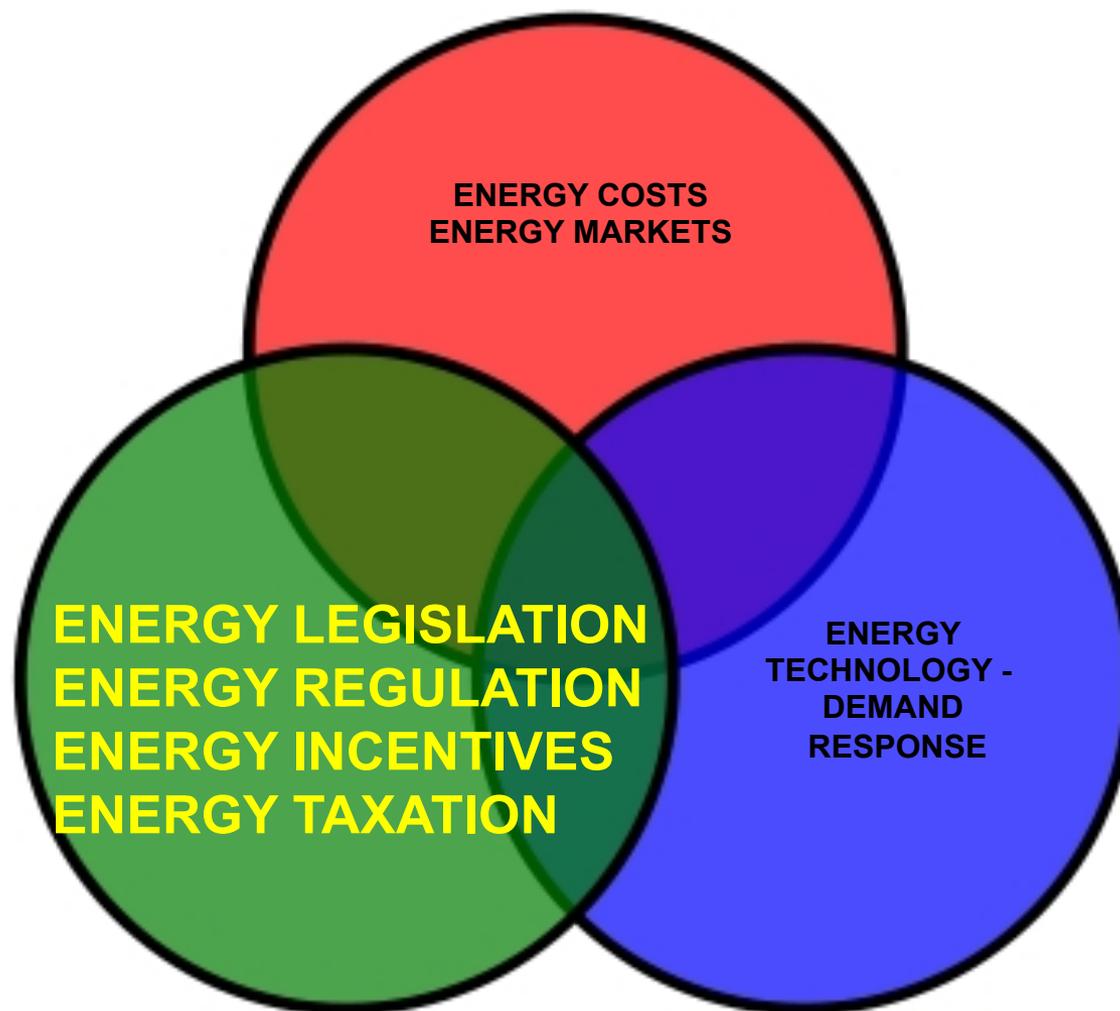
  - Peak/ Off peak for some other countries

  - Winter/ Summer for natural gas

- \* Load shedding or switching to an alternative fuel
- \* Peak shaving by partial own generation at moments of high demand

- ❖ Electrical storage remaining a technological and economical challenge, grid operators have to balance supply with demand at any moment
- ❖ Demand Response enables electricity users to actively help the grid operators to
  - meet peak demand
  - limit peak demand to allow generators to operate the most efficient power stations
- ❖ Participating customers are compensated in function of
  - importance of interruptible load,
  - Maximum allowed duration of the interruption
  - notice to give to the consumer
- ❖ Possible savings: 3 to 5 % of electricity costs

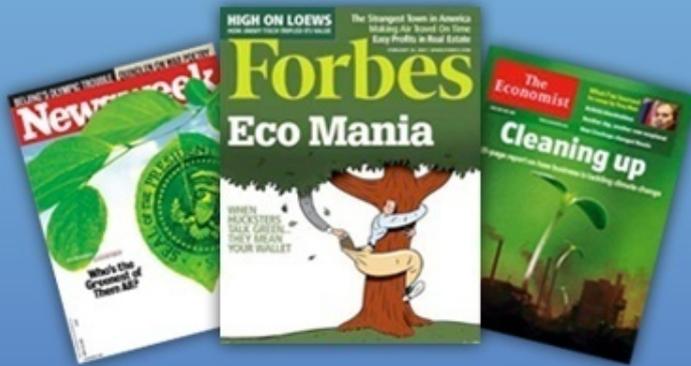
# *Cost optimization by a combination of Competences*



# Sustainability Pressures

*Societal / Citizenship*

*Customer / Competitive Market*



reducing with  
the Carbon Trust

**TESCO**



**Walmart**



**CRC** ENERGY  
EFFICIENCY  
SCHEME



**Global  
Reporting  
Initiative™**

**CARBON  
DISCLOSURE  
PROJECT**



**Dow Jones  
Sustainability Indexes**

*Regulatory*

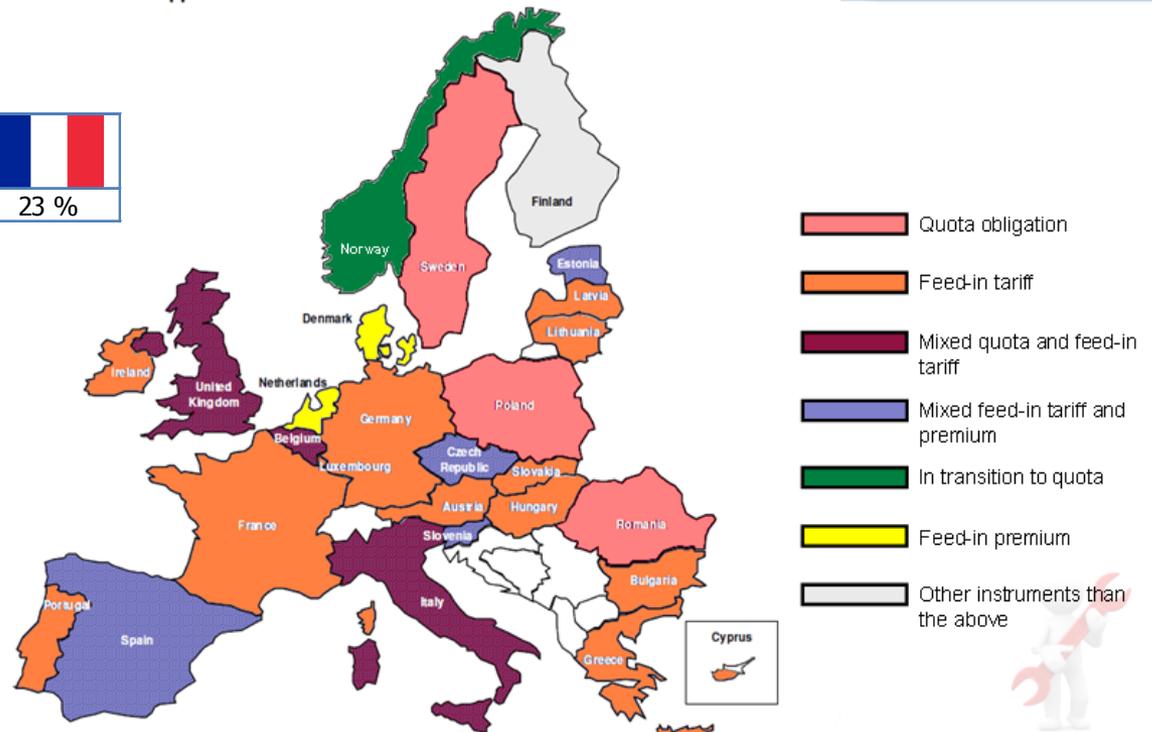
*Investor / Shareholder*

- ❖ On-line survey to assess performance of suppliers on sustainability initiatives
- ❖ CO2 emissions factor for the supplied power – CO2 footprint
- ❖ Supplier support for energy reduction initiatives

## SUSTAINABILITY WATCH

tracking of opportunities and threats in both European and National energy and climate policies  
standards / regulation / finance

Main RES-E support instruments in the EU-27



- ❖ Suppliers offers renewable energy as a selling point
- ❖ Prices: 0 to 8 €/MWh
- ❖ Germany: 1 to 2 €/MWh
- ❖ Sweden: 0 to 1 €/MWh (Bra Miljoval – good Energy) – Very prestigious
- ❖ France: different options – RECS are delivered by the Observer – part of the premium is often transferred to the Nature Option Energy foundation.

- ❖ **Climate Change Levy in UK**

**Climate change Agreements give energy intensive business a discount on the CCL as long as they meet specific energy efficiency or carbon savings**

- ❖ **Renewable obligation in UK**

- ❖ **EEG in Germany**

- ❖ **Federal taxes in Belgium (audit covenants)**

- ❖ **Certificates of origin in Belgium**

- ❖ **Czech Republic: green energy is free of energy tax (1.32 €/MWh)**