We need leadership for achieving energy savings

The Coalition for Energy Savings
www.energycoalition.eu
Coalition members
Convergence of interests

- Industry is committed to providing innovative solutions and engaging in public-private partnerships.

- NGOs are willing to drive awareness and information campaigns, to engage pan-European civil society and to defend social and environmental interests.

- Policy and professional associations are willing to support EU wide analysis and identify EU and country specific solutions.
“Energy Efficiency policies as industrial policy, job creator and innovation driver for Europe”......**Engine of economic recovery**
Three priorities for sustainable growth and jobs

- Growth based on knowledge and innovation
  - Innovation
  - Education
  - Digital society

- An inclusive high-employment society
  - Employment
  - Skills
  - Fighting poverty

- Green growth: a competitive and sustainable economy
  - Combating climate change
  - Clean and efficient energy
  - Competitiveness

Presentation of J.M. Barroso to the Informal European Council, 11 February 2010
The chemical industry has improved energy and GHG efficiency

Over the last 17 years the chemical industry has increased its output and at the same time kept energy input constant: consequently its energy intensity decreased by 4.6% per year on average.

*Energy intensity is measured by energy input per unit of chemicals production (including pharmaceuticals).

Source: Eurostat and Cefic Chemunite International
Energy savings

**Energy ratio**
(MJ / pb)

- 2002: 0.82
- 2003: 0.79
- 2004: 0.73
- 2005: 0.69
- 2006: 0.66
- 2007: 0.60
- 2008: 0.59
- 2009: 0.57

**Total energy use**
(billion MJ)

- 2002: 5.3 billion MJ
- 2003: 5.7 billion MJ
- 2004: 5.9 billion MJ
- 2005: 6.1 billion MJ
- 2006: 6.5 billion MJ
- 2007: 6.8 billion MJ
- 2008: 6.9 billion MJ
- 2009: 6.6 billion MJ

**Production volume**

EU targets 20/20/20 (-20%)
Level required to stop climate change (-80%)

Jens Rupp / Sustainability / 2010
Refurbished homes:
- 270,000 per year
- 812,000 total so far*

Jobs created/retained:
- 202,000 per year

Government budget:
- €1.25 billion per year

Loan commitments:
- €6.2 billion per year

Co-financed investments:
- €12 billion per year

* Over 2006 – 2008 period
Individual project investments and jobs

45 MWe (Bio-Energy) CHP in Paper industry
2008-2012: Construction phase
400 jobs at its height.
2012-2030: Further 50 permanent jobs in the operation phase, (maintenance, operation and supply chain)

6 Gwe CHP capacity growth per year (2013 – 2020) would provide around 100 thousand jobs from 2016 onwards.
Glazing insulation performances
U_g value W / m^2 K

- Single glazing: 5.8
- Early uncoated double glazing: 2.7
- Modern Low-E coated double glazing: 1.1
- Coated triple glazing: 0.7
Three priorities for sustainable growth and jobs

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• Green growth: a competitive and sustainable economy
  – Combating climate change
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• The Challenges
  - Energy efficiency and Energy savings measures have a positive payback, so they will happen automatically anyway!
## Nature of the problem

### Market barriers to efficiency

<table>
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<tr>
<th>Description</th>
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<tr>
<td>Lack of information</td>
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<td>Upfront costs</td>
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<tr>
<td>Payback periods - high implicit discount rate</td>
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<tr>
<td>Consumer inertia: Hassle factor, timing mismatches</td>
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<td>Split incentives – eg, Builder/buyer</td>
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<tr>
<td>Tenant/landlord</td>
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<td>Unpriced external costs</td>
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<tr>
<td>Uncompensated benefits – eg, system reliability</td>
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### Lessons:

The barriers are the same in both traditional utility systems and in restructured, liberalized markets. Single-barrier attempts don’t work (audits alone, financing alone, etc.).

Cheap measures now, more later creates lost opportunities.

Who will make a profit with successful efficiency?

Utility-system charges, not taxes to leverage private capital.
Funding and Financing Options

Challenge: how to finance EE programs that must be much larger.

Distinguish: **Funding** (the system or socialized portion, ~25%) from **Financing** (private capital from customer and loans ~75%)

Adequate and stable – not annual appropriations. Ideally, outside of public Treasury receipts

Revenue collection and program administration can be different (e.g, “wires and pipes” charges)
The new EED (is) should be an engine for economic recovery.

The EED should both generate the funds for energy efficiency investment (through reallocation of existing funds as well as generating new funds) and stimulate the private sector to commit.

The private sector will commit finance if the EU shows forward commitment and creates (through policy) the elements for the market to mature.
If someone said there is an **energy source** which offers all this...

- **fight climate change**
- **save millions of Euros**
- **lower import bills**
- **training**
- **reduced emissions**
- **safety**
- **energy savings**
- **no waste**
- **education**
- **less fuel poverty**
- **innovation**
- **sustainable employment**
- **stimulate technology developments**
- **inexhaustible**
- **energy security**
- **better health**

...would you **support** it?
Caution with EU binding efficiency targets

- **BUT caution with EU economy-wide efficiency targets (no measuring method):**
  - Increased energy efficiency must not be confused with simply capping absolute EU energy consumption: such a cap would risk distorting prospects for EU investment in infrastructure and manufacturing plants, driving such investments outside Europe.
  - Danger of adding administrative burdens and double regulation: e.g. avoid overlap with other measures like EU ETS, which covers most of the chemical sector’s emissions.
  - Instead introduction of tax incentives, combined with voluntary sector initiatives as more effective drivers of energy efficiency.
Industrial cogeneration specificity

- Solvay is using both gas and coal-fired cogeneration
- Solvay has built in partnership 900 MWe of gas-fired cogeneration from 1995 to 2002
- Solvay has still an untapped potential for developing cogeneration units in Europe, but no project on-going
  - Unfavourable European regulation
  - Current national support scheme not sufficient
Energy efficiency is cost-effective!
Energy system investment needs

Total investment needs in the electricity and gas sector between 2010-20: over 1 trillion €

- Power generation: ~ 500 bn
  - RES: ~ 310-370 bn
- Transmission and distribution: ~ 600 bn
  - Distribution: ~ 400 bn
  - Transmission: ~ 200 bn

NB: approximative figures, mainly from DG ENER calculations based on data from PRIMES, ENTSO-E, KEMA, ECOFYS etc.