



European
Commission



Monitoring energy efficiency policies: an EU perspective

IEA Energy Efficiency Indicators Workshop

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Why do we need to monitor energy saving policies?

- Fundamental to good policy making: assessment of energy policy impacts and development of new policies
- To show achievement objectives:
 - EU objective of 20% primary energy saving in 2020
 - National 9% end energy saving objectives for the Member States (Energy Services Directive)
- To analyse general energy efficiency trends
- To identify best practices
- To comply with legal obligations



Current work on energy indicators in the EU

- Development of **EU wide common “recommendations”** on how to measure final energy savings and development/ identification of key energy efficiency indicators to assess energy savings.
- Eurostat runs **survey** on household final energy consumption (EC Regulation on Energy Statistics (No 1099/2008)).
- **CEN/CENELEC** is working on various sets of standards (ESD, Energy audits etc.)
- **Intelligent Energy Europe**: Financial support for Odyssee-Project to work on indicators



Overall concept on energy savings

Political target:

Redeem cost-efficient saving potential
of 20% primary savings by 2020

ESD 9%
indicative target

- Council: Move towards 20% energy
efficiency improvement
- Europe 2020: Headline target
energy efficiency

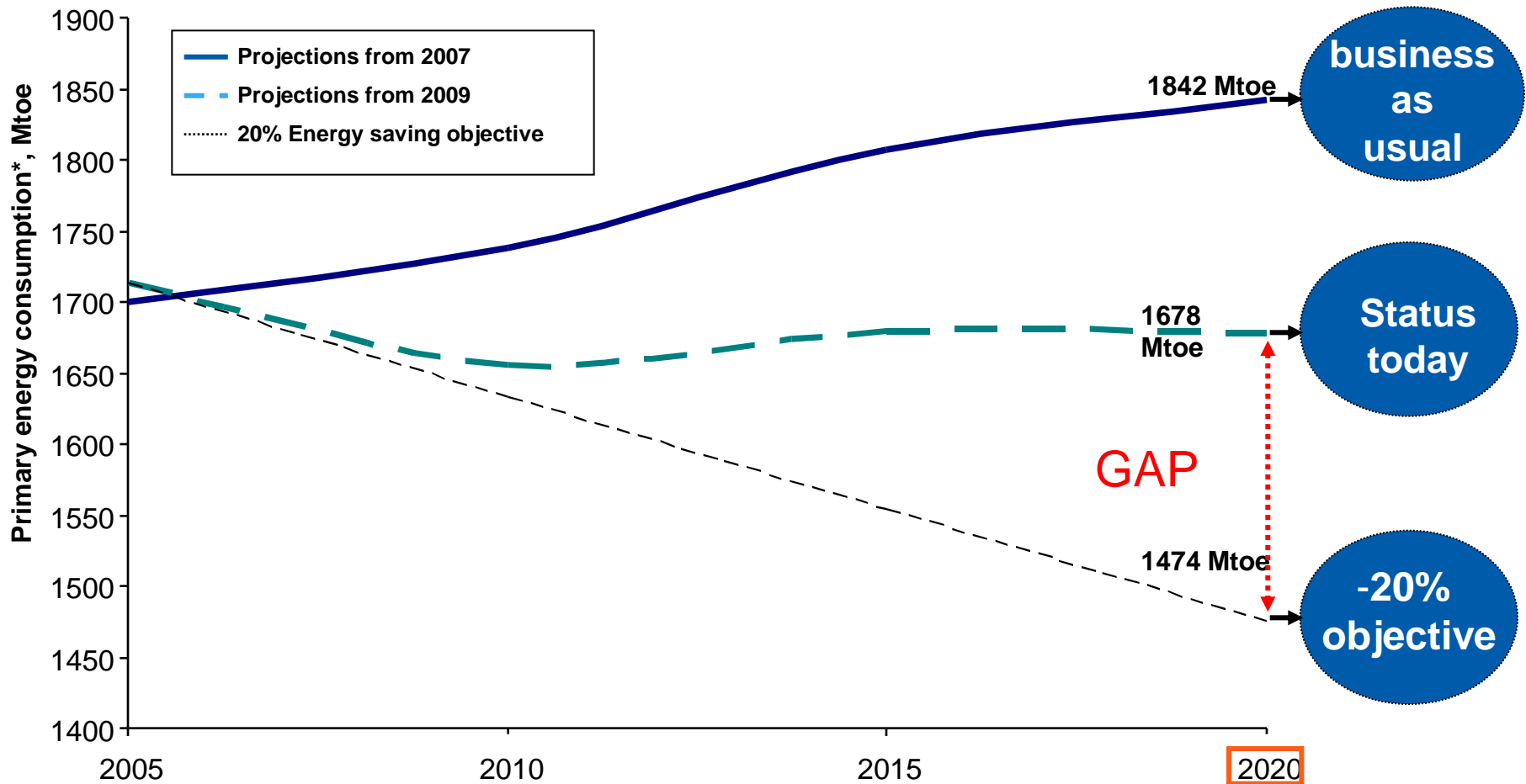


Example: how to monitor achievement of 20% EU primary energy saving in 2020?

1. Energy model projections for 2020
2. Monitoring of key energy statistics
3. Recurrent analysis and update of economic energy efficiency potentials



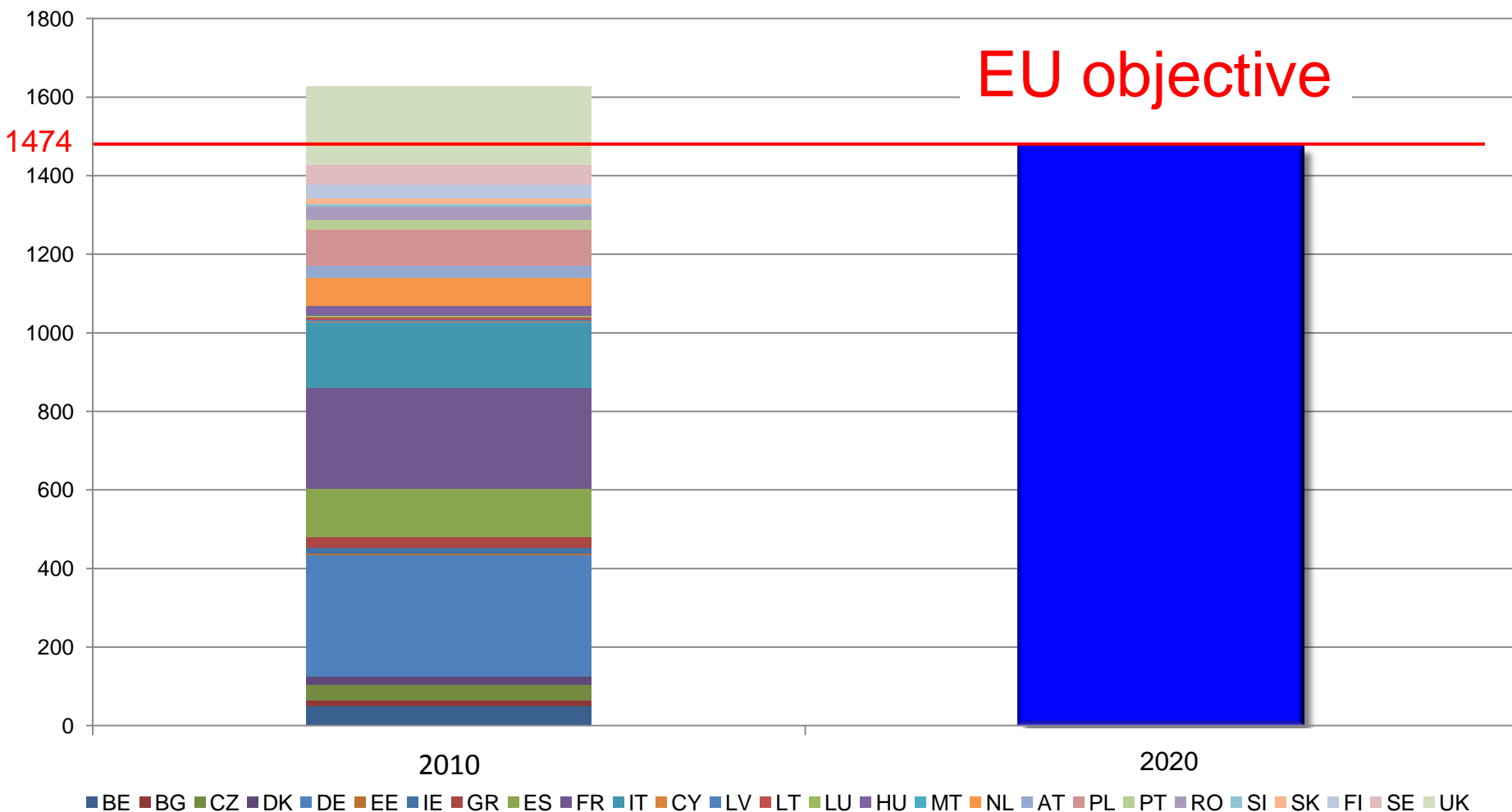
The EU 20% energy efficiency objective



* Gross inland consumption minus non-energy uses

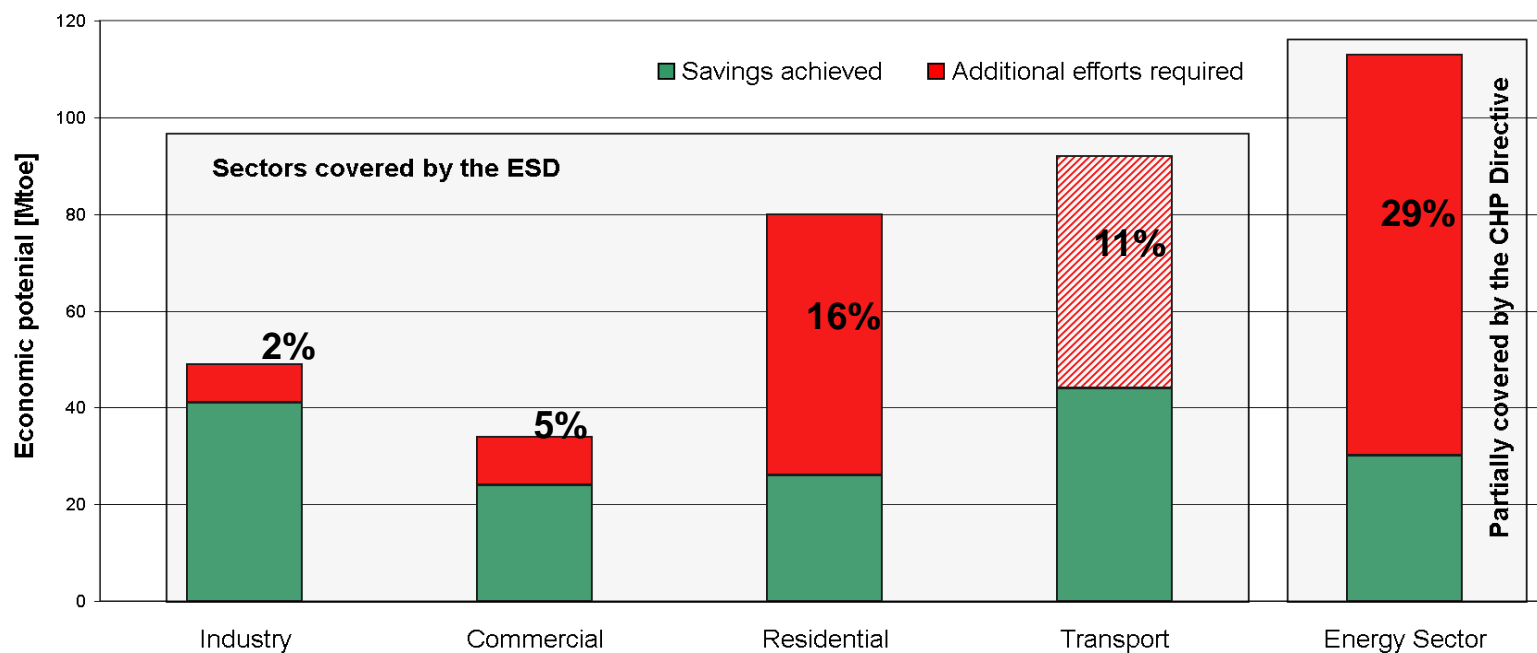
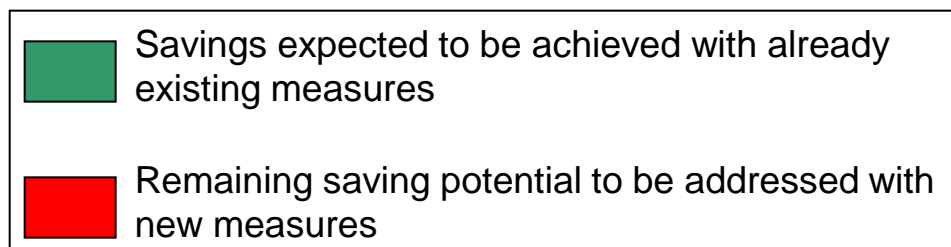


Primary energy consumption 2010 – EU objective 2020





REMAINING ECONOMIC ENERGY SAVING POTENTIALS FOR 2020 THROUGHOUT THE SECTORS






Impact assessment: Analytical approach

Energy Efficiency Plan 2011 (gap, potential, measures)

??? Revision ESD and CHP Directives ???
Mid-term reviews, JRC studies, Stakeholders' input

Ecodesign, Energy Labelling,
EPBD, Financing

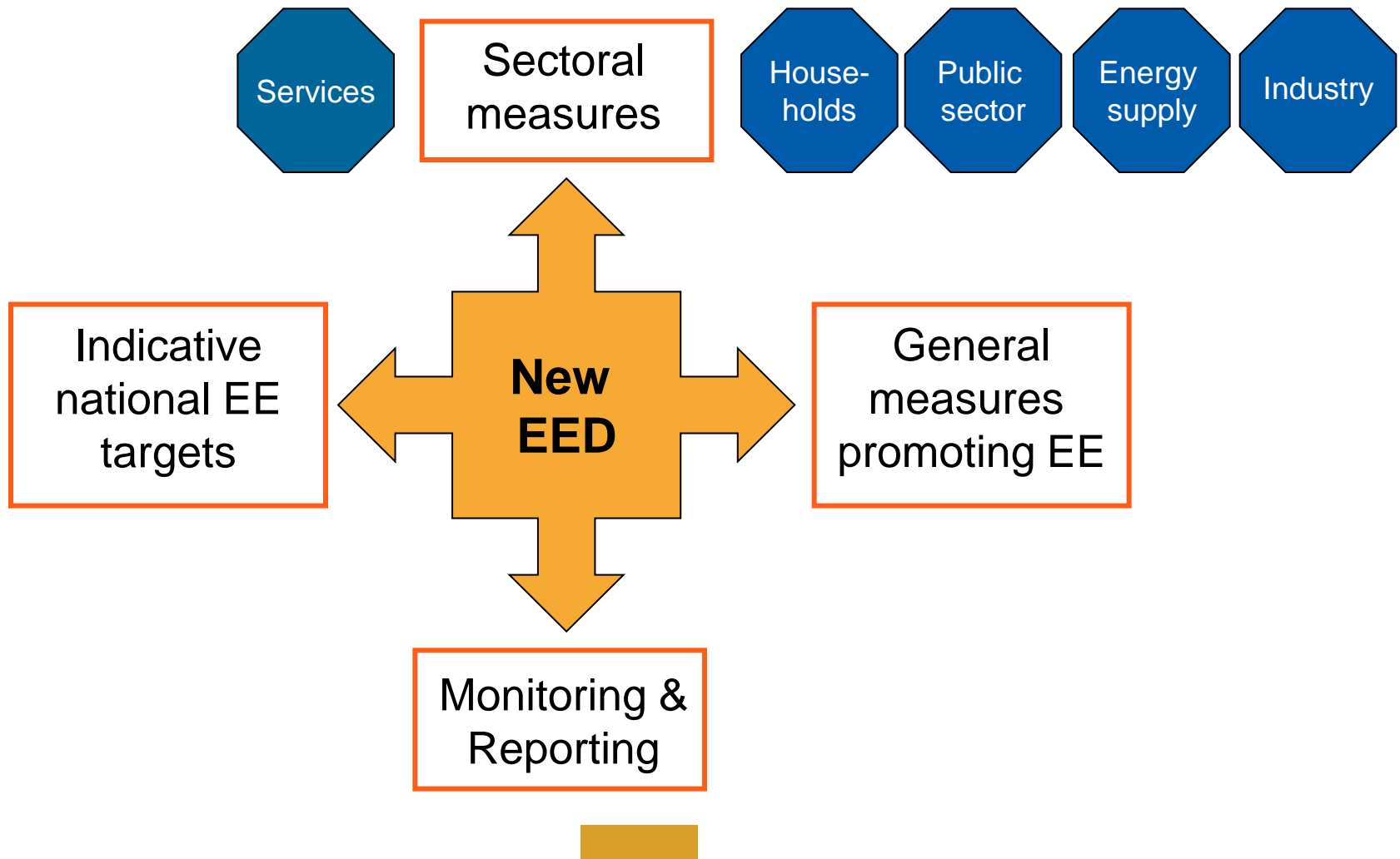
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- 1) Screening and selecting policy options
 - 2) Analysis of energy, economic, admin. costs, social, and environmental impact based on:
 - Existing experience (discussions, input stakeholders, questionnaires..)
 - Studies – more than 300
 - Model runs (PRIMES, E3ME, extrapolations of BEAM)
 - 3) Evaluation of subsidiarity/effectiveness/efficiency/coherence
 - 4) List of preferred option
 - 5) Evaluation of synergies/antagonisms
 - 6) Modelling of the package of measures



Preferred policy mix + legal form



ENERGY EFFICIENCY DIRECTIVE





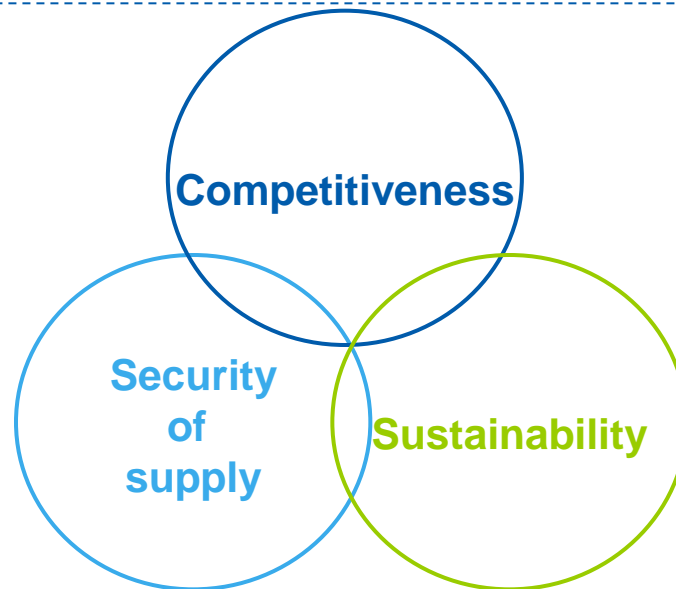
EED – Key data for indicators

1. primary energy consumption (GIC-NEU)
2. total final energy consumption
3. final energy consumption by sector (industry, transport, households, services)
4. gross value added by sector (industry, services)
5. disposable income of households
6. gross domestic product (GDP)
7. electricity generation from thermal/combined power generation
8. heat generation from thermal/CHP power generation
9. fuel input for thermal power generation
10. passenger kilometers (pkm)
11. tonne kilometers (tkm)
12. population



THE BENEFITS

- ↓ Reduce EU's energy bill by about € 200 bn annually in 2020
- ↑ Create up to 2 million new jobs by 2020
- ↑ Boost R&D & markets for EU global leadership



- ↓ Reduce EU's energy dependence
- ↓ Reduce investments in energy infrastructures
- ↑ Improve the energy trade balance

- ↓ Reduce CO₂ emissions
- ↓ Limit environmental degradation



Thank you very much !

For further information on energy efficiency please consult our website:

<http://ec.europa.eu/energy/efficiency/>

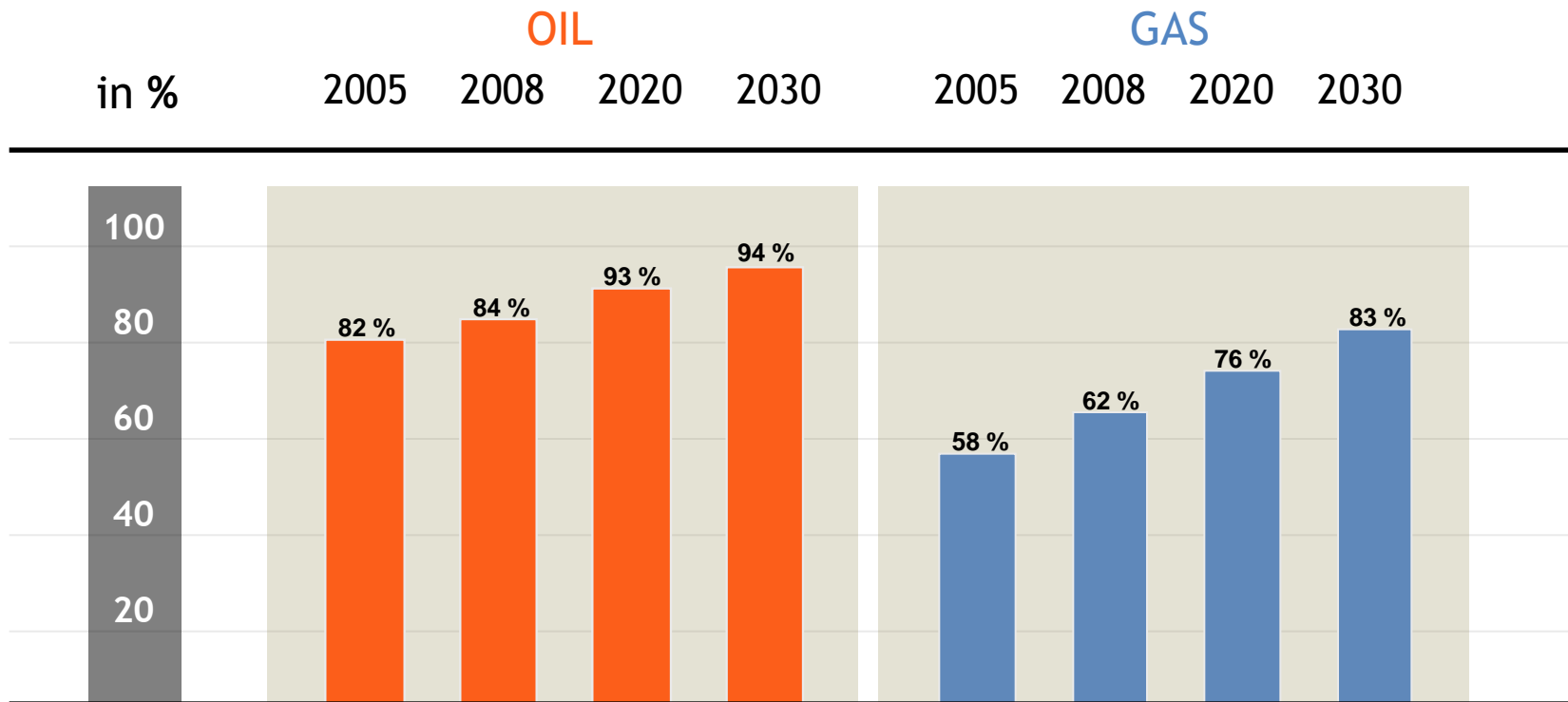
[marc.ringel\(at\)ec.europa.eu](mailto:marc.ringel(at)ec.europa.eu)





DEPENDENCE ON ENERGY IMPORTS IS LIKELY TO GROW

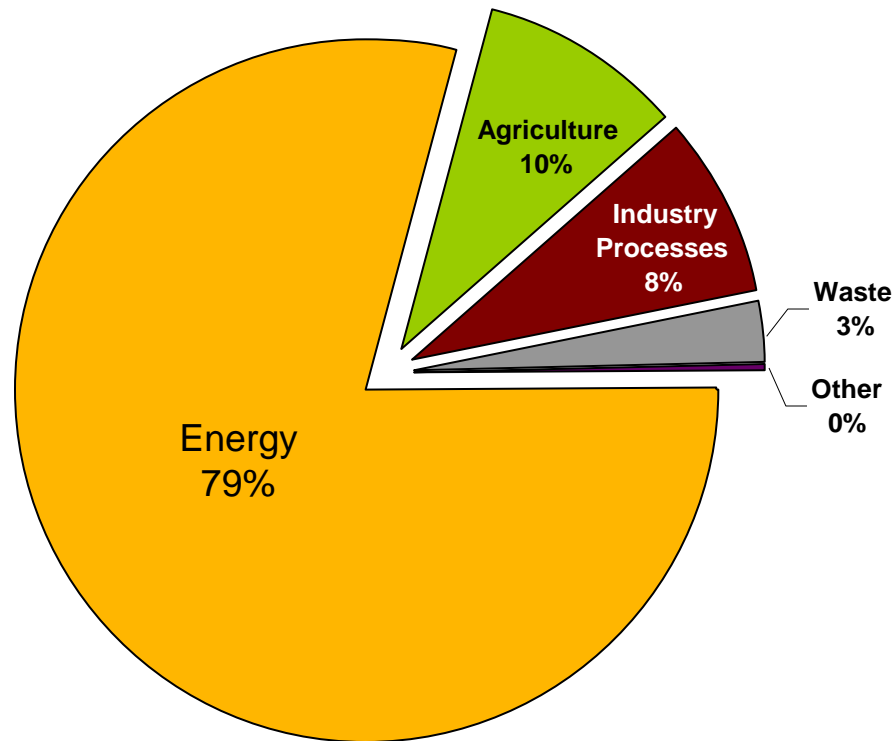
« **Business as usual** » scenario based on 2009 figures





ENERGY IS A MAJOR SOURCE OF EMISSIONS

Share of greenhouse gas emissions in 2008





MEETING ALL THREE “20-20-20 BY 2020” GOALS BECOMES A MATTER OF URGENCY

