

Overview

- The 20% target: what does it mean?
- Energy Saving Potential in the EU
- Current EU Energy Saving Policies
- The Policy Gap!
- Benefits of Energy Saving – economic, social and environmental
- How can the EU help bridge the Policy Gap?

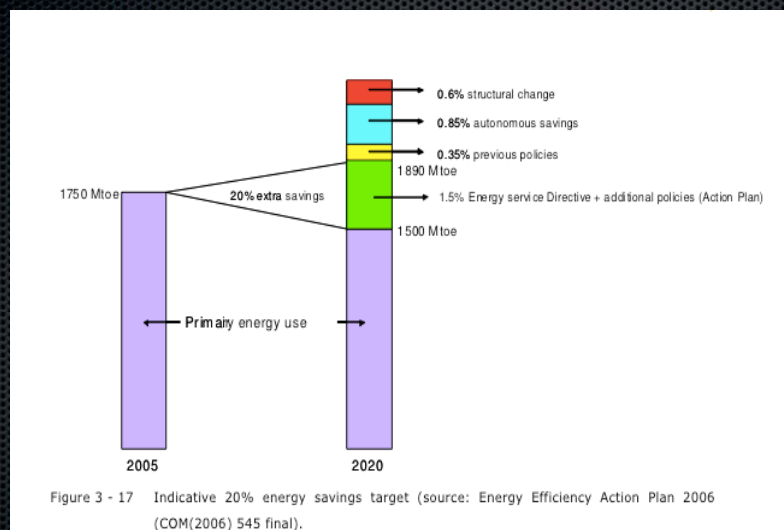
The EU's 20% Energy Saving Target

- Originates from the 2005 Green Paper on Energy Efficiency ('Doing More With Less')
- Confirmed in subsequent Action Plans and Council conclusions
- To be adopted in June 2010 by European Council as part of 2020 Strategy
- Considered as part of the 20-20-20 triad
- ...BUT not mandatory

What does the target mean?

- Actually energy *saving* not efficiency – aim is to do the same (or more) with less energy, not more with the same
- 20% reduction in primary energy consumption by 2020 compared to business as usual levels (PRIMES 2007)
- Translates to a requirement for 393 Mtoe additional savings by 2020
- 14% reduction compared to 2005 levels
- (= 560 Mtoe CO₂ emissions)

What does the target mean?

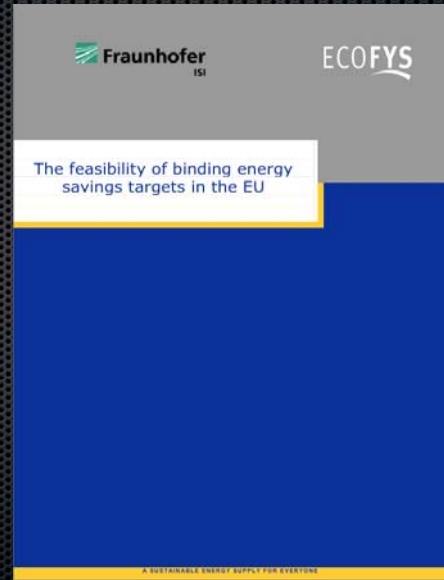


- The Ecofys-Fraunhofer study -

Analysis to underpin policy - recommendations on ES

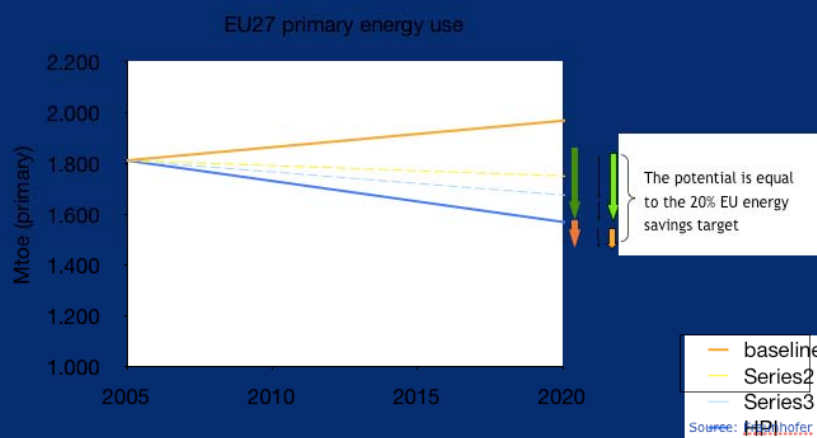
Commissioned by ECF and RAP at request of many stakeholders

Not yet published

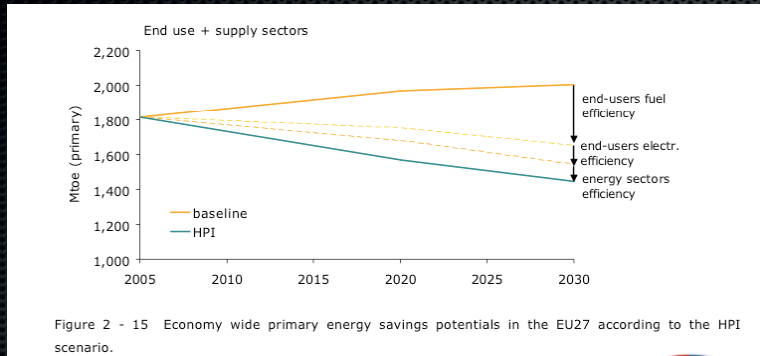


Do we really waste this much energy? YES!

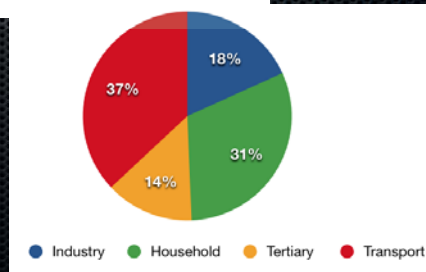
The 'HPI' EU energy savings potential



Distribution of this potential



- Final energy saving potentials by end user sector by 2020 (fuel and electricity) :



How can we save energy?

- BUILDINGS** : reduce heating / cooling demand of new buildings, improve energy conversion, reduce electricity demand...
- TRANSPORT**: technical measures to improve fuel efficiency of vehicles, behavioural measures (eco-driving, modal shift, spatial planning, working patterns)
- INDUSTRY** : reduce energy use of cross-cutting technologies (e.g. electric motors, steam boilers), sector specific technologies (e.g. for chemical manufacture)
- ENERGY SUPPLY** : reduce energy use in refineries, more efficient fossil power generation and district heating, increased use of renewables

Policies to tap this? (1)

Legislation	Remarks
Energy Services Directive	<p>Requires Member States to draw up Action Plans (NEEAPs) to meet indicative target of 1% reduction in final energy use per year, until 2016.</p> <p>Intended to encourage delivery of <u>efficiency programmes</u> / measures to end users, and development of energy services market.</p> <p>Highly discretionary to Member States and level of ambition / delivery so far low.</p>
Energy Performance of Buildings Directive (EPBD)	<p>Addresses new buildings and those undergoing major renovation (= 40% EU energy use, 36% CO2 emissions).</p> <p>Transposition and implementation has been slow.</p> <p>Recast in 2009 strengthened the Directive but less than hoped, particularly regarding existing buildings, financing and urgency of deadlines.</p>

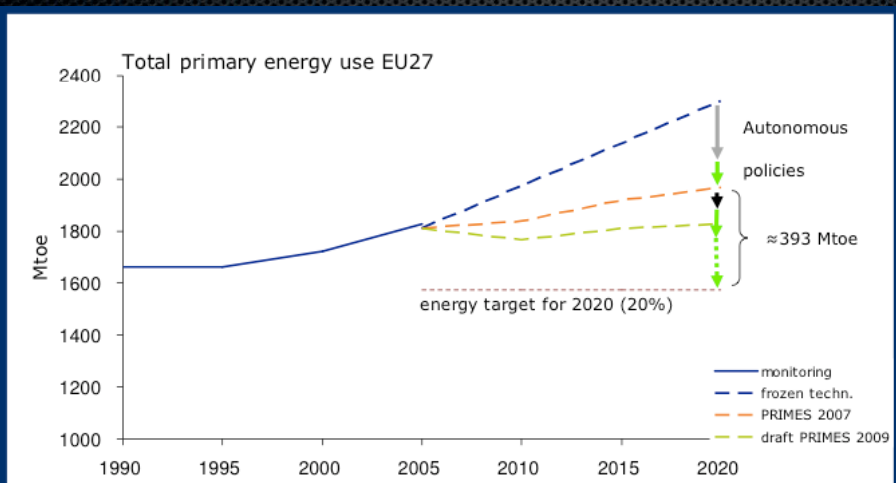
Policies to tap this (2)

Legislation	Remarks
<u>Eco-Design Directive</u>	<p>Sets framework to decide measures to improve energy performance of products and appliances e.g. <u>lightbulbs</u>, boilers, TVs (= half of EU's CO2 emissions).</p> <p>Minimum performance / <u>labelling</u> requirements are set as implementing measures for individual product categories.</p> <p>Aims to progressively phase out worst-performing products in each category.</p> <p>Growing industry pressure to move towards industry-designed voluntary initiatives as basis (or even substitute) for implementing measures.</p>
Energy Labelling Directive	<p>Mandatory display of A-G energy label. Aims to direct consumers to best-performing products.</p> <p>Lack of rescaling since 1992 means large majority of products are now in A category.</p> <p>Recast in 2009 to update and extend its scope - interplay with EuP.</p>
CO2 in cars regulation	<p>Sets progressive CO2 emission limit values for passenger cars</p> <p>Unambitious limit values, timetable and penalty arrangements.</p>
<i>Draft Regulation on CO2 in vans</i>	<i>Will set progressive CO2 emission limit values for vans and utility vehicles.</i>

GHG Policies : ETS and Effort Sharing

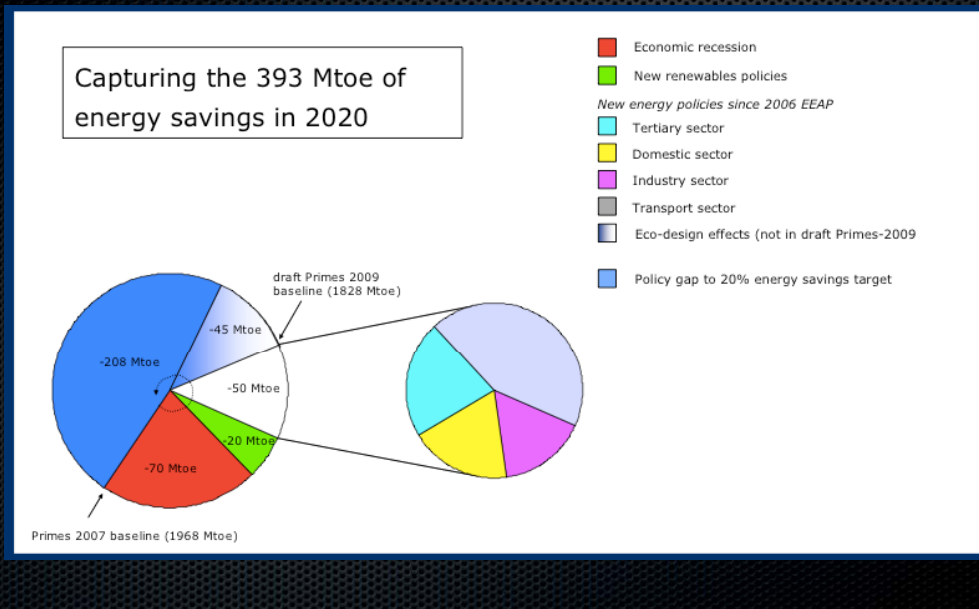
- Framework for delivery of the 20% emissions reduction target (two thirds ETS, one third effort sharing)
- ETS = heavy emitting industry and power production, Effort Sharing covers all other sectors
- Both Directives of ETS reduced due to recession, carbon price of 20Euro should incentivise energy savings but:-
 - Incentivising potential (/t CO₂ rather than 40Euro/t CO₂)
 - Effort Sharing is only a framework Decision – specific measures needed within it

These policies will deliver only **one third** of the potential savings by 2020

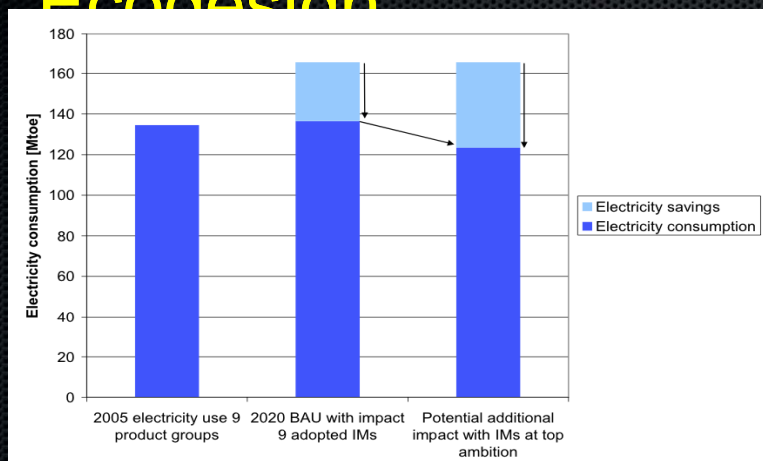


Factor 3 additional POLICY IMPACT required

The Energy Savings Policy Gap



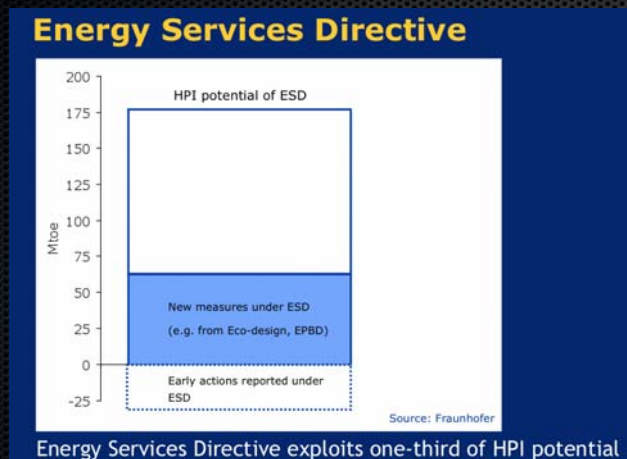
Inadequate achievements of existing policies : Ecodesign



- Adopted measures (covering 40% energy use) do not set top ambition level
- Low resourcing in DG Energy
- Poor market surveillance
- Linked to Energy Label

Figure 3- 22 Savings impact of the 9 adopted Implementing Measures (middle column) and potential savings impact when the Implementing measures would have been set at top ambition level (Source: data compiled by ECOS based on EuP preparatory studies, regulatory measures and internal expertise).

Inadequate achievements of existing policies: Energy Services Directive



- Applies to energy providers and final energy consumers (excl. ETS)
- Last set of National EEAPs show only one third of potential is exploited (Ecofys/Fraunhofer forthcoming)
- Too discretionary

Inadequate achievements of existing policies: EPBD

- Recently recast (formal adoption next month)
- No ambitious measures for existing buildings (>90% building stock)
- Targets for new buildings too late to be relevant for 2020 targets
- Little on financing
- Success rests on good implementation by Member States

Why is achieving the 20% target important? (1)

- NON WASTAGE : energy which doesn't need to be used!
- ENERGY SECURITY :
 - Negawatts = cheapest source of new energy
 - Could reduce import dependency of oil, gas and coal back to 1990 levels in 2020 (rather than 35% increase to 62%)
- RENEWABLE ENERGY :
 - Lower total use means easier attainment of target
 - Maximised change of entirely RE-powered economy
 - Less likelihood of coal / nuclear lock-in

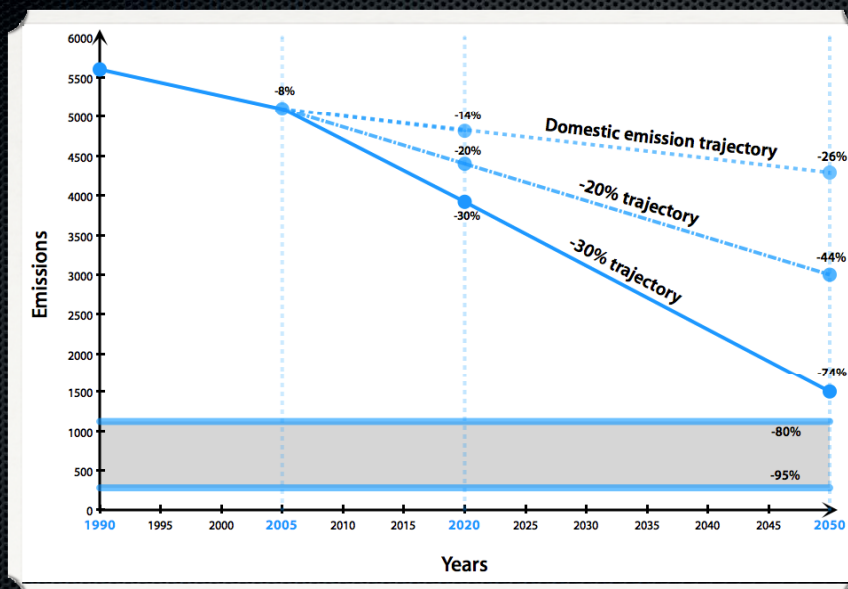
Why is achieving the 20% target important? (2)

- SAVING ENERGY IS SAVING MONEY :
 - Failure to close policy gap of 208 Mtoe will effectively waste 78 bn Euros annually by 2020 (gross)
 - ... and 71 bn Euros for end consumers
- JOBS AND COMPETITIVENESS
 - First mover advantage, skilled and specialised workforce
 - Lower operating costs
 - 10-30 person years of direct employment created for every million pounds spent on EE measures (ACE, 2000)
 - Work is labour intensive and localised

Why is achieving the 20% target important? (3)

- NECESSARY FOR DEEP GREENHOUSE GAS CUTS
 - 20% target will deliver 560 Mt CO₂ reductions (economy wide emissions factor of 2.7)
 - Coincidentally this equates to the EU's 20% emissions reduction target
 - Several other means are available for meeting this target (renewables, fuel switch, CCS, offsets...)
- IMPLICATION: the EU has the potential to attain more than 20% ghg cuts...

The “off-track” approach



Getting back on track...

2020 target (ref. 1990)	Reduction rate between 2005 and 2020	Reduction rate to achieve -80% from 2020 to 2050	increase in reduction rate after 2020
14% (domestic)	0.4%	2.2%	1.8% [x4]
20%	0.8%	2%	1.2% [x2]
30%	1.47%	1.67%	0.2%

How can the EU stimulate greater action on ES? (1)

- **Make the 20% target binding**
 - ?effort shared between MS
 - ? Assign responsibility for part of it to energy regulators / distributors / retailers
- **Financing measures**
 - ? taxation? funds? ETS revenues? PPPs?

How can the EU stimulate greater action on ES? (2)

- **Improved delivery mechanisms (revise ESD)**
 - obligations on distributors / retailers (white certificates?)
 - greater support / guidance to establishment and functioning of ESCOs
 - innovative pricing formulae
 - ...?

Stronger sectoral policies

- **Buildings** : national renovation rates, smart metering
- **Products and appliances** : ensure high ambition level for key product groups (boilers, water heaters...), expand scope of Ecodesign directive, market surveillance measures, strict application of rescaling for energy label
- **Transport** : stronger efficiency / emissions standards for cars, expanded to other categories of vehicles
- **Supply side** : stronger incentives for CHP, efficiency obligations on infrastructure operators, transmission charges, mandatory efficiency standard for establishment of new capacity, smart grids
- ... ?

Thank you very much!