Renovate Europe Day 2017

The macro-level and sectoral impacts of energy efficiency policies

A presentation to Renovate Europe Day 2017

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cambridge econometrics
clarity from complexity

Tuesday 10 October 2017, European Parliament, Brussels

Overview

- Background
- Scenarios
- Summary findings
- Factors affecting the scale of the outcomes
- Concluding remarks

The studies presented were ordered and paid for by the European Commission, Directorate-General for Energy, Contracts no. ENER/C3/2013-484/03/FV2015-523 and Contract no. ENER/C3/2013-484/10/FV2015-602 under the Multiple Framework Service Contract ENER/C3/2013-484. The information and views set out in this study are those of the author(s) and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this study. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.

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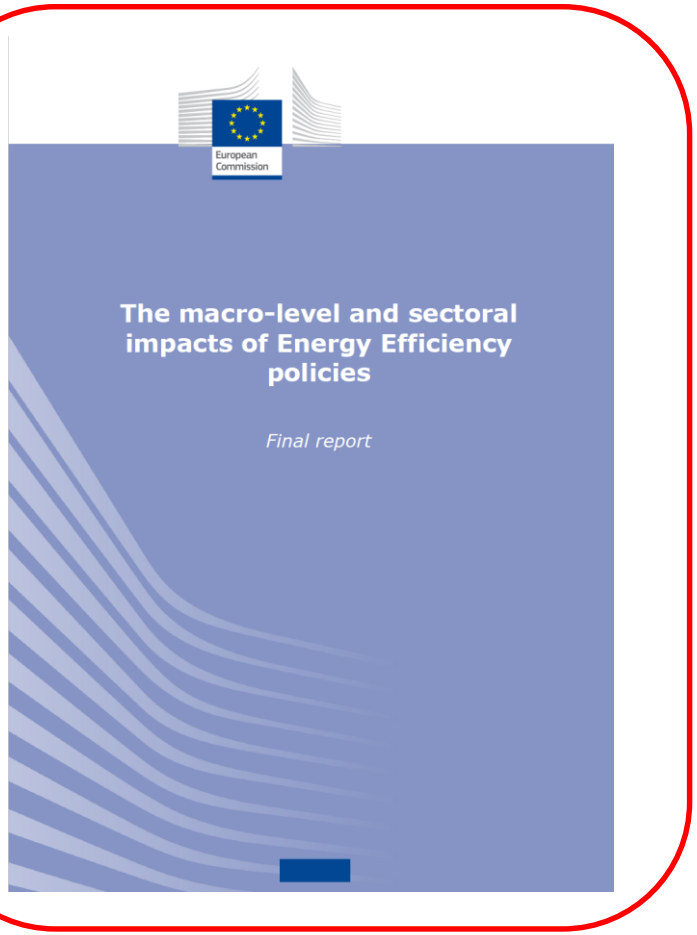
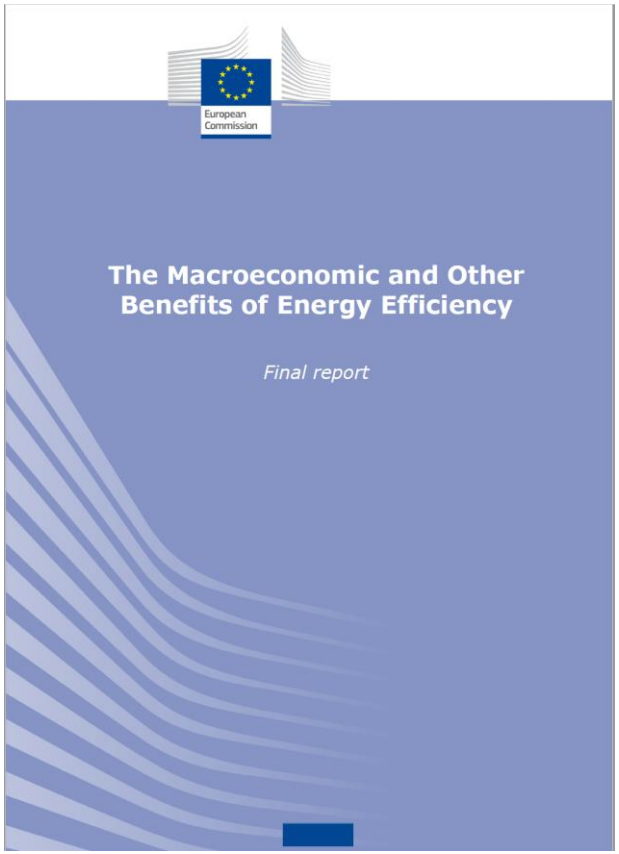
Research for the European Commission





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Scenarios for Energy Efficiency

	EUCO 27	EUCO 30	EUCO 33	EUCO 35	EUCO 40
Primary Energy Consumption (PEC)	1,369	1,321	1,260	1,220	1,129
Final Energy Consumption (FEC)	1,031	987	929	893	825
PEC compared to PRIMES Reference	-67	-115	-176	-216	-307
FEC compared to PRIMES Reference	-50	-94	-152	-189	-256

Note(s): Figures shown are MTOE
Source(s): PRIMES, NTUA

Impacts by 2030

	GDP	Net Employment	Health benefits (€bn)	GHG emissions	Public Budgets (% of GDP)
EUCO30	0.4%	170,000	28.3	-40.7%	0.1%
EUCO33	1.3%	680,000	54.8	-42.7%	0.5%
EUCO35	1.6%	1,040,000	57.6	-43.6%	0.8%
EUCO40	2.2%	2,080,000	77.0	-46.6%	1.2%

GDP and employment results include the impact of partial crowding out.

GDP % impact is relative to GDP in the 27% baseline scenario

Net employment impact is relative to employment in the 27% baseline scenario

GHG emissions reduction refers to the reduction in EU wide annual GHG emissions compared to 1990. Policies in the Climate and Energy Package for 2030 are constant in all scenarios, with the exception of energy efficiency targets and policies. Includes rebound effects.

Impacts by 2030: energy poverty

- Based on the EPBD study with slightly different, albeit complementary, scenarios

	LOW IMPACT, LOW AMBITION	LOW IMPACT, HIGH AMBITION	HIGH IMPACT, LOW AMBITION	HIGH IMPACT, HIGH AMBITION
Arrears on utility bills	194	1,456	764	5,171
Presence of leaks, damp, rot	310	2,327	1,221	8,256
Ability to keep house adequately warm	233	1,748	917	6,204

Note(s): Figures shown are '000s of households.
Source(s): Wuppertal Institute

Factors affecting the scale of outcomes

- **Ambition**: the modelling suggests that net benefits continue to accrue as ambition increases
- **Crowding out**: the extent to which investment of resources displaces other investments (capacity)
- **Financing**: the *potential* economic benefits are greater if the energy efficiency measures are self-financed, rather than publicly financed
- **Policy Target**: focussing on households in energy poverty dramatically improves the social outcomes

Conclusions

- Significant economic and social benefits ***could*** be realised if ambitious but achievable targets are set and backed up with effective policies
- The economic benefits will be greatest if governments set clear targets early and businesses believe that these targets will be met with policies
  - this will reduce the impact of crowding out
- Policy-makers will need to consider objectives
  - focussing on the scale of energy efficiency ambition will not necessarily address the problem of energy poverty

Thank you for listening!

- For links to the reports, follow me on Twitter

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