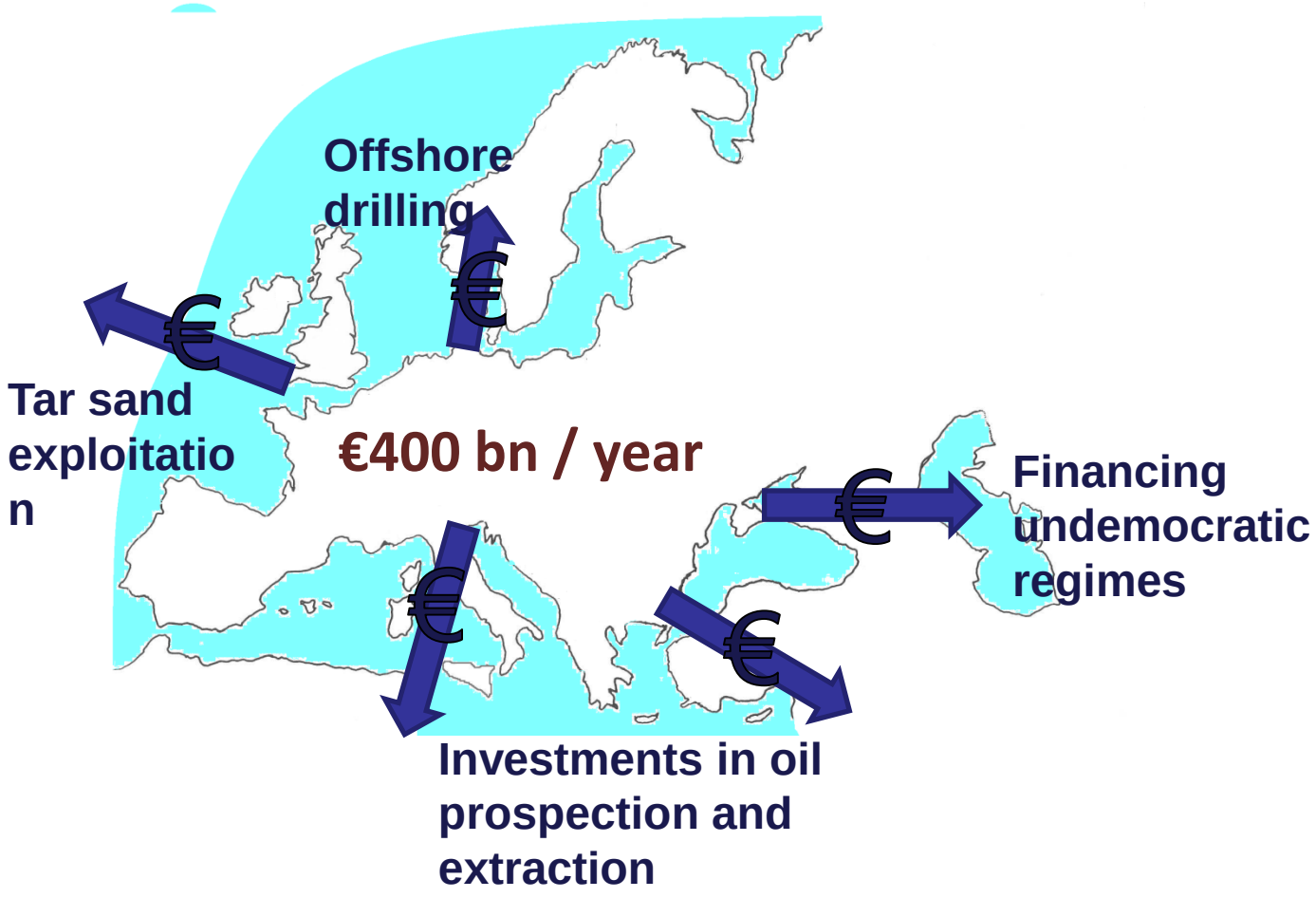
The multiple benefits of efficiency policies

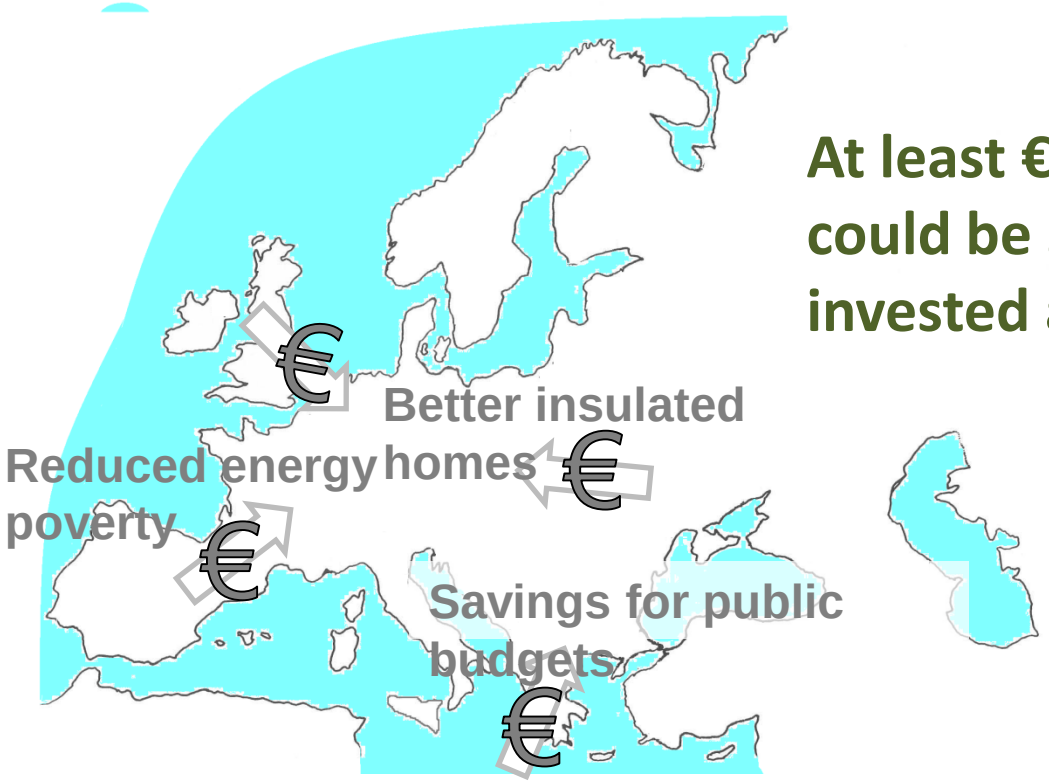
Claude Turmes, MEP

Rapporteur Energy Efficiency Directive

Reducing the EU's foreign energy expenditure

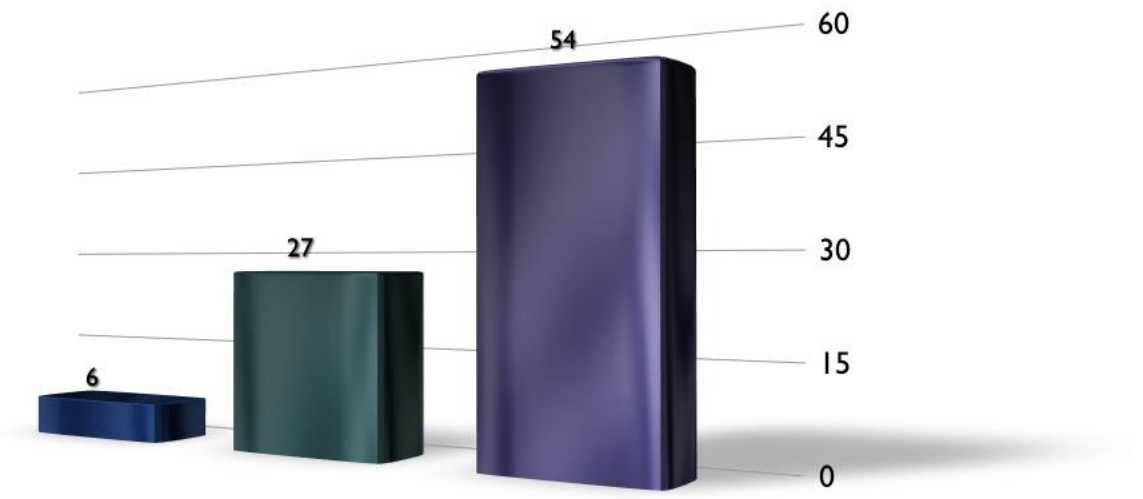


Reducing the EU's foreign energy expenditure



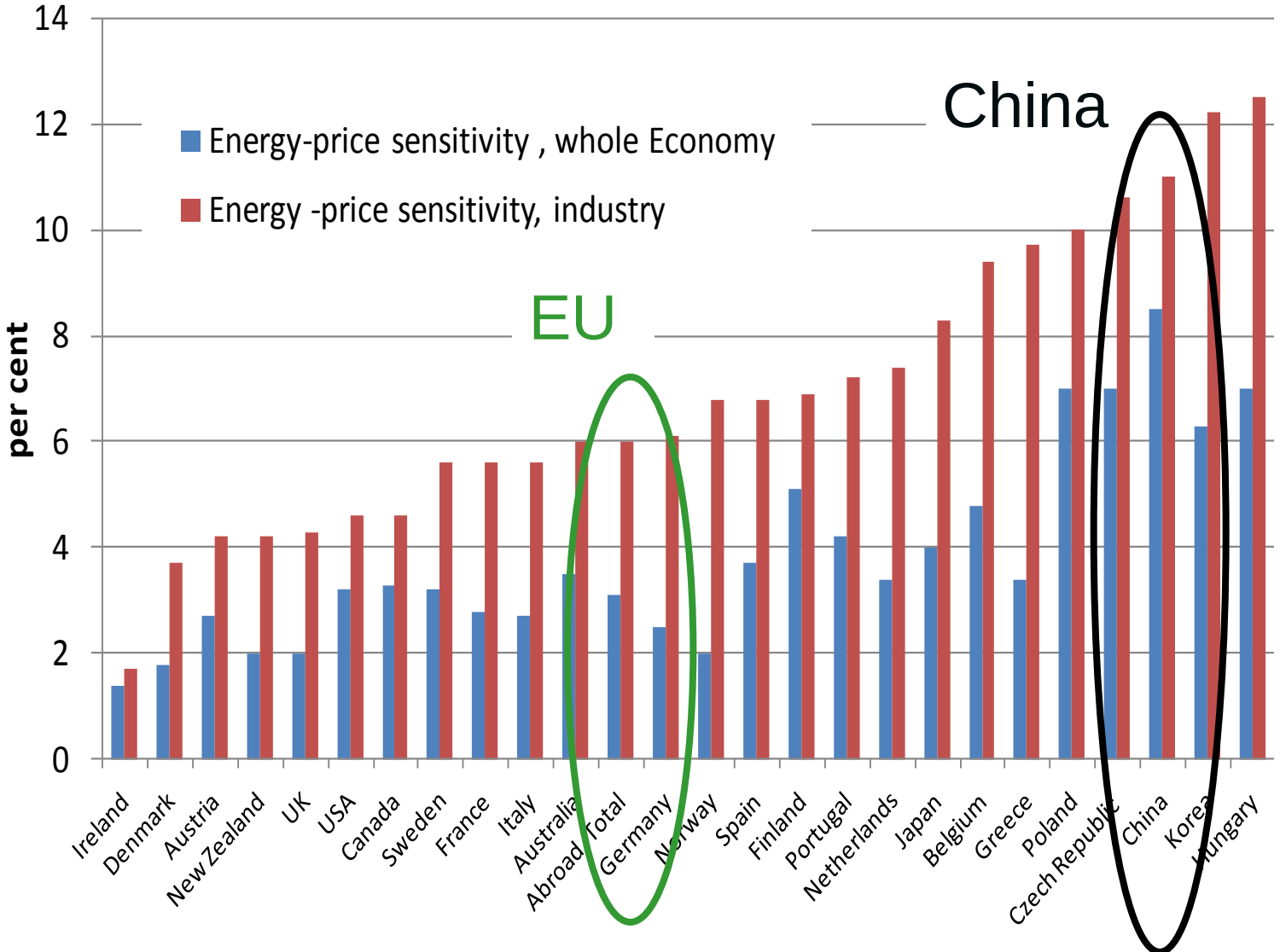
At least €50 bn / year could be saved and invested at home

Example of investments triggered
- German KfW & co-financing -



- co-financing ratio in 2006 of 1:4, and today of 1:9 !
- 6 billion federal funds, 27 billion efficiency investments, 54 billion private investment flow

Improving energy efficiency is improving our competitiveness

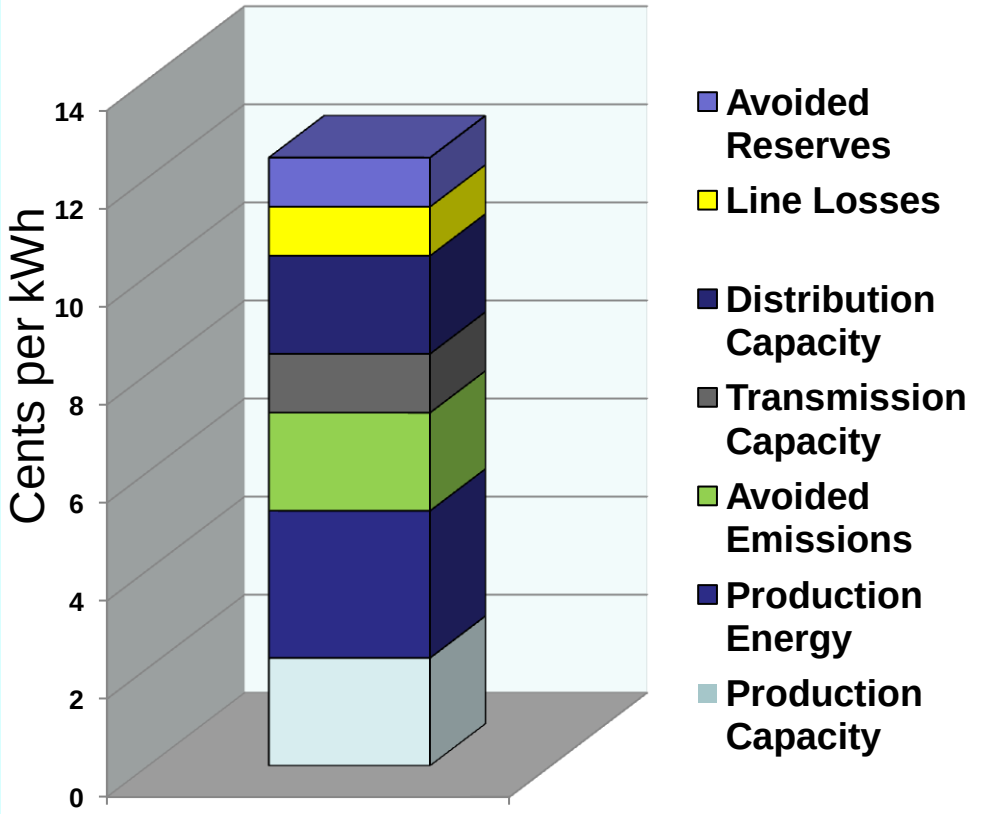


Energy Efficiency Has Many Power System Benefits

- **Production Energy**
- **Production Capacity**
- **Avoided Emissions**
- **Transmission Capacity**
- **Distribution Capacity**
- **Line Loss Reduction**
- **Avoided Reserves**

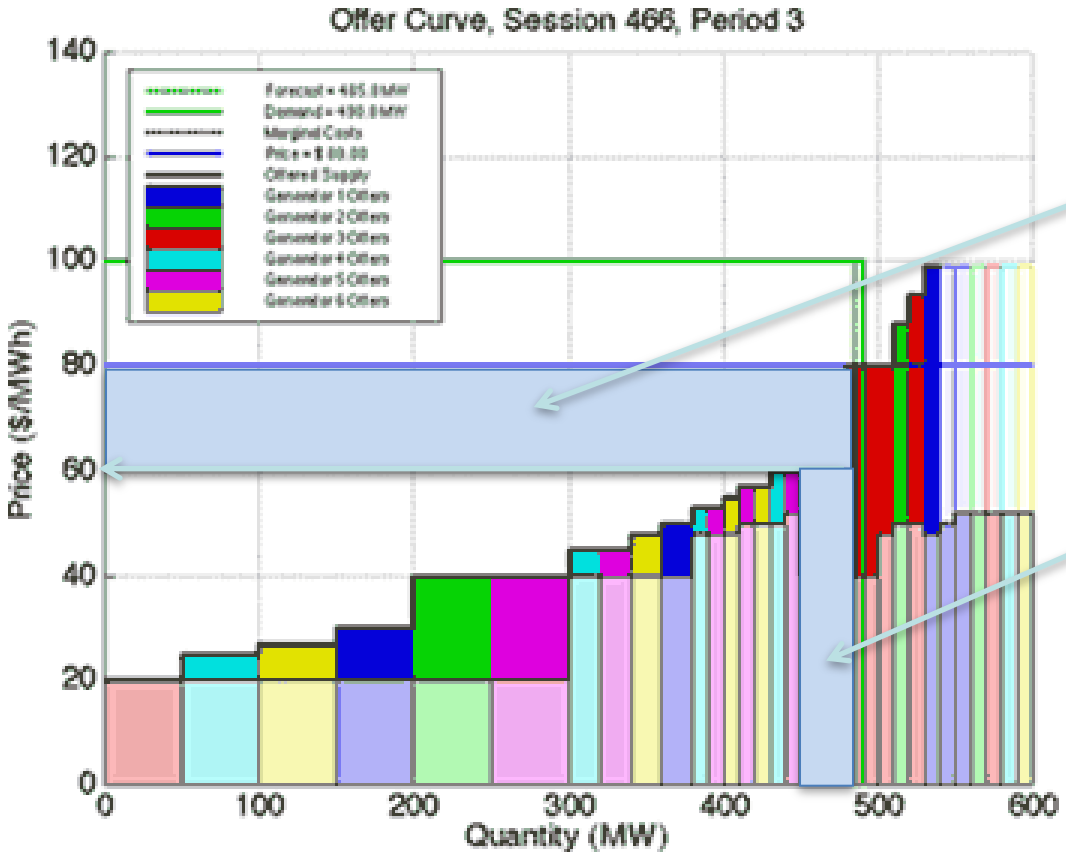
Plus "Non-Energy" Benefits including:

- **Add'l resource benefits (water), building durability, health & safety**



***Source**: RAP - Regulatory Assistance Project, May 2011*

Efficiency Lowers Clearing Prices – benefits all consumers

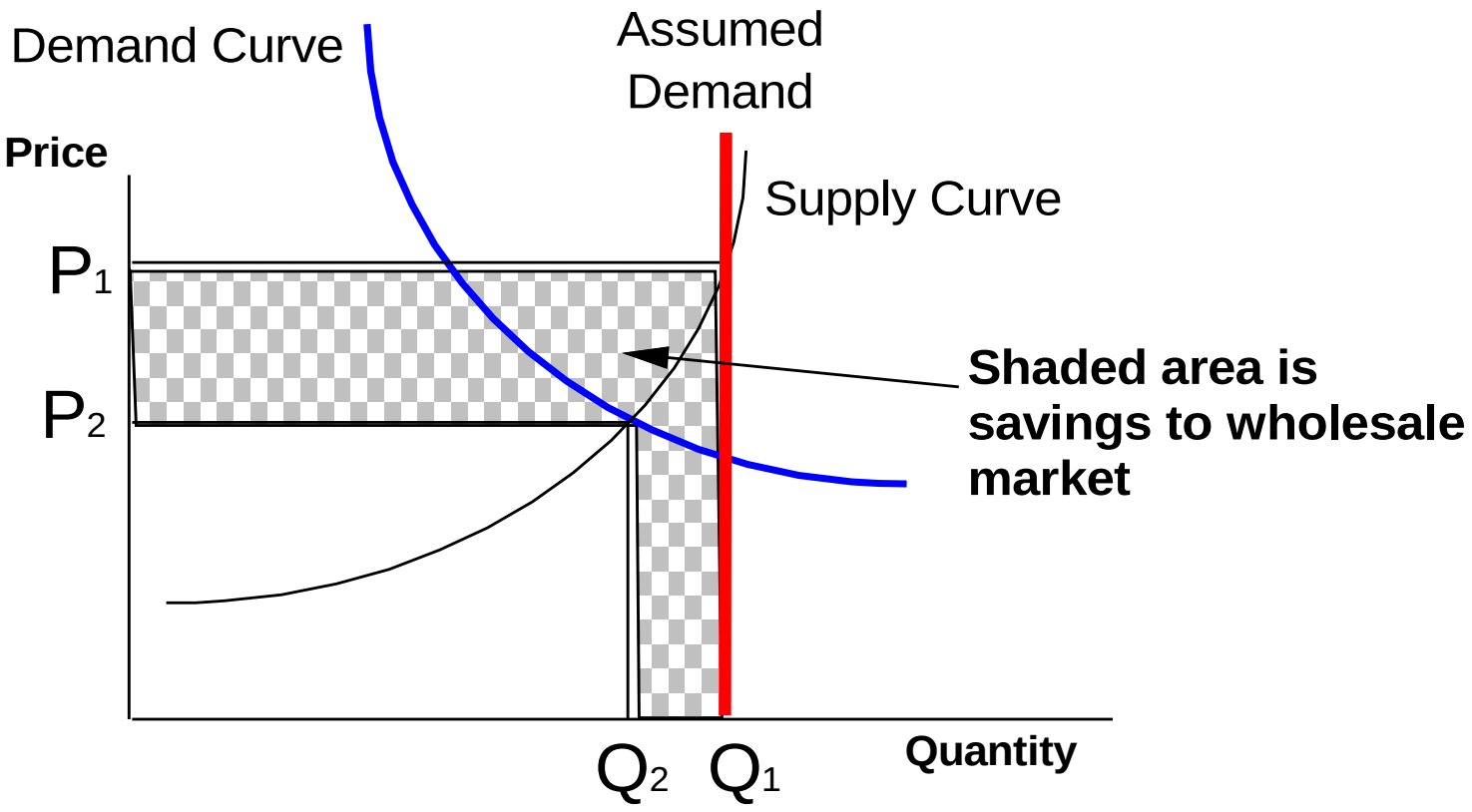


Lower clearing price benefits all consumers

Demand reduction from EE

***Source**: RAP - Regulatory Assistance Project, May 2011*

The Public Value of Efficiency



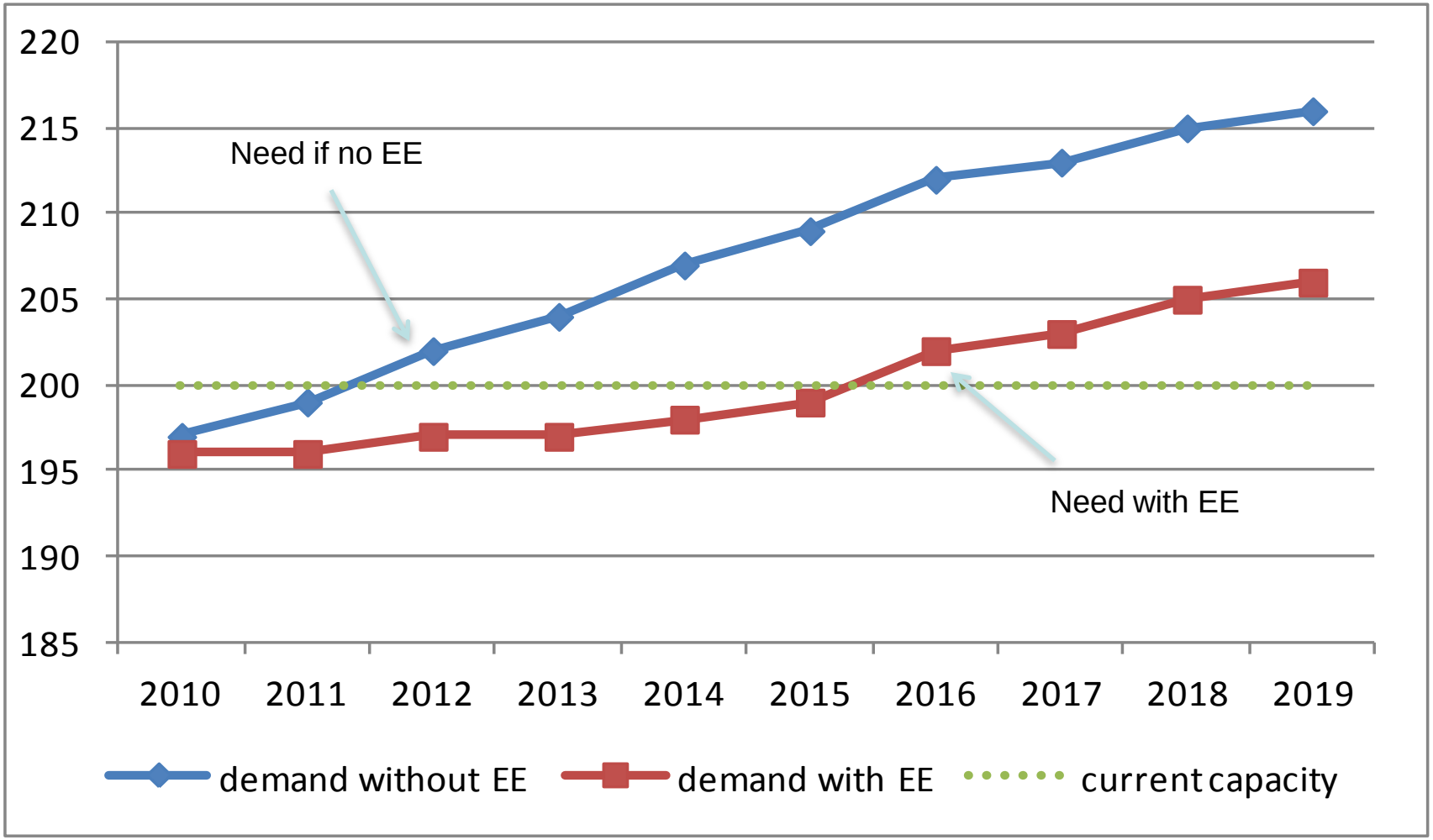
Efficiency Multiplier: New England Examples

- ***EE program costs are almost entirely offset by power market price reductions obtained by all consumers***
- ***(in addition, program participants will have lower consumption and lower bills)***
- ***Connecticut:***
  - ***Cost of Energy Saved = 2.8 cents/kWh***
  - ***Bill reductions via DRIPE = 2.72 cents/kWh***
- ***Massachusetts:***
  - ***Cost of Energy Saved = 3.36 cents/kWh***
  - ***Bill reductions via DRIPE = 3.31 cents/kWh***

Source data: *Avoided Energy Supply Costs in New England*, July 2011 Report, Synapse Energy Economics; *Saving Energy Cost Effectively: A National Review of the cost of Energy Saved Through Utility Sector Energy Efficiency Programs,* ACEEE report U092, Friedrich et al September 2009

***Source**: RAP - Regulatory Assistance Project, May 2011*

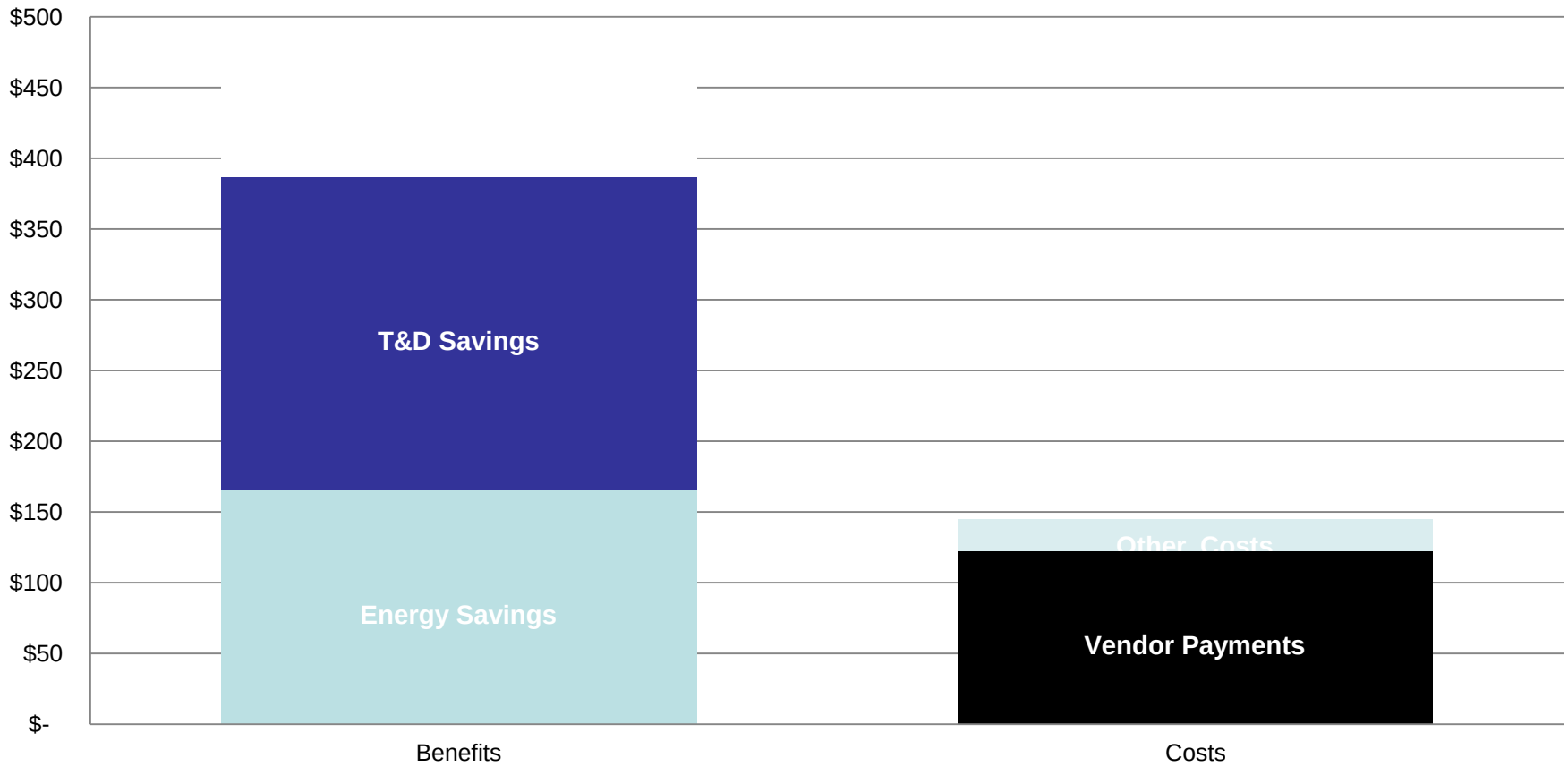
Example: New York City Substation Peak MW



Source: Data from Figure 1 in Gazze, Chris & Madlen Massarlian, "Planning for Efficiency: Forecasting the Geographic Distribution of Demand Reductions", in Public Utilities Fortnightly, August 2011.

***Source**: RAP - Regulatory Assistance Project, May 2011*

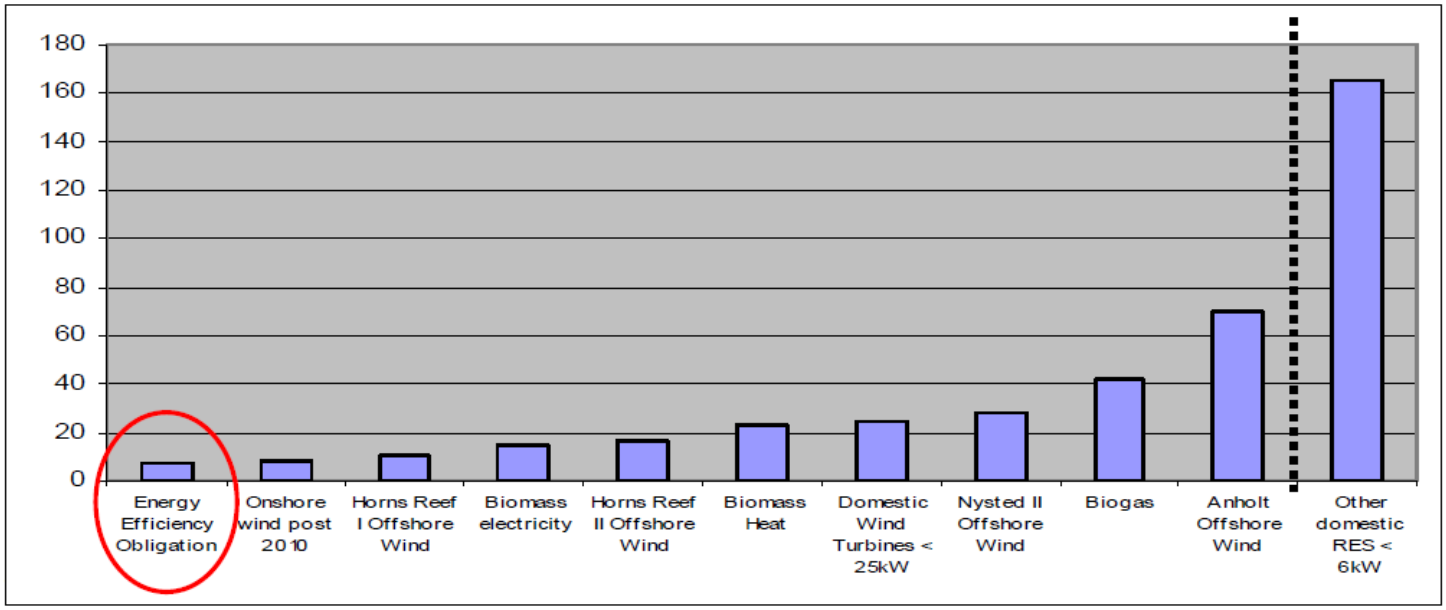
Active Deferral – New York City Results
(2003-2010 Benefits & Costs in millions of $)



***Source**: RAP - Regulatory Assistance Project, May 2011*

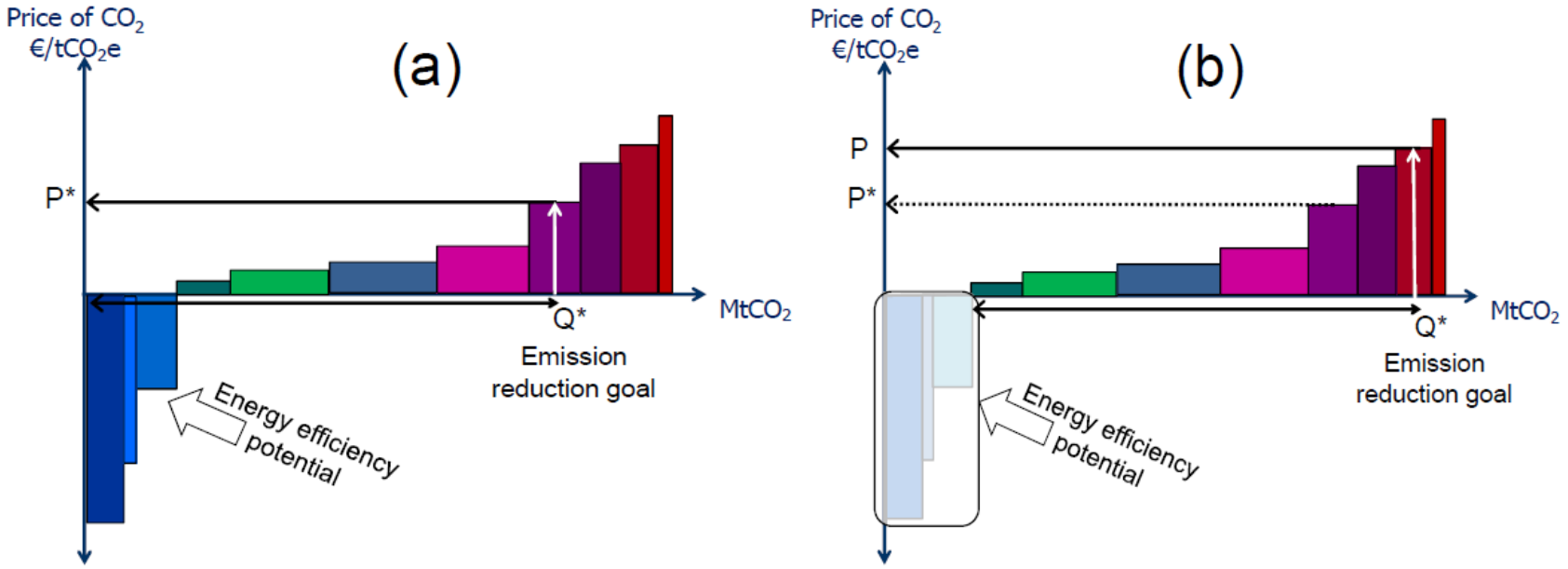
EE - merit order

Cost effectiveness 2)



Energy Efficiency & Carbon Price

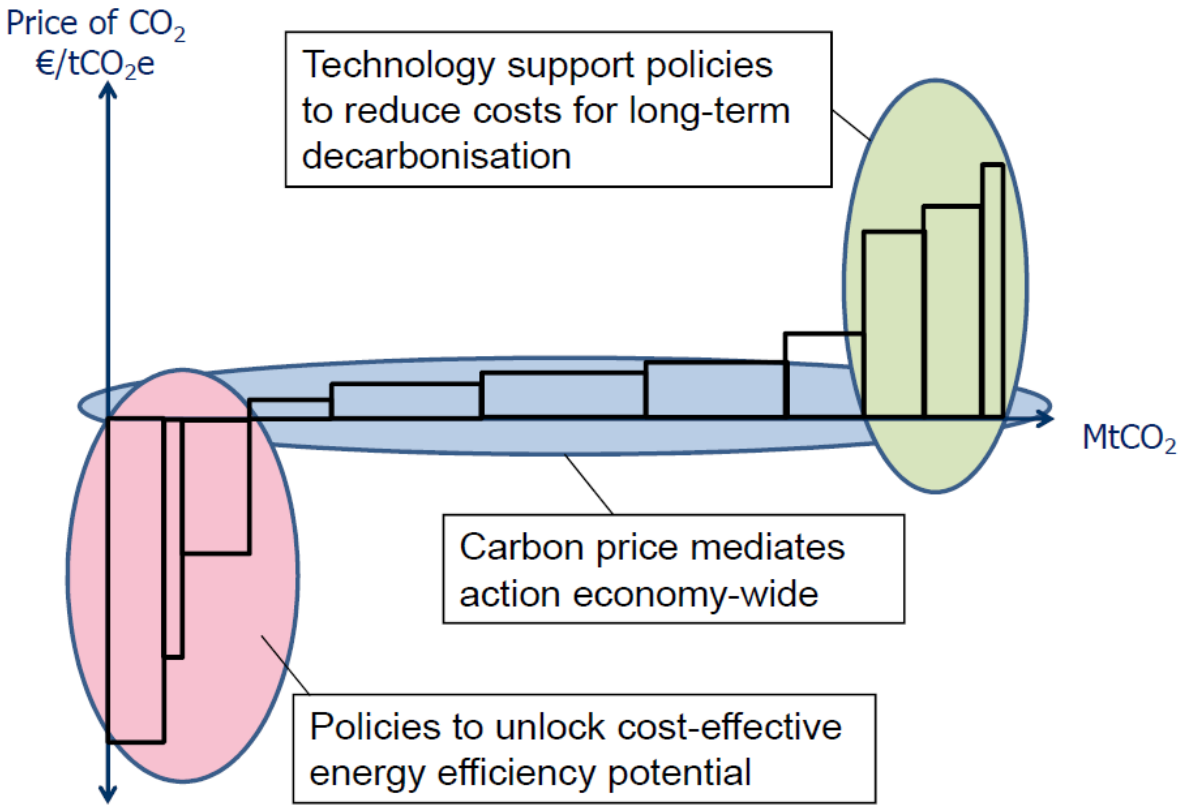
Figure 2 Ignoring energy efficiency potential can lead to higher carbon prices



***Source**: IEA, 2011 – Summing up the parts, combining policy instruments for least-cost climate mitigation strategies*

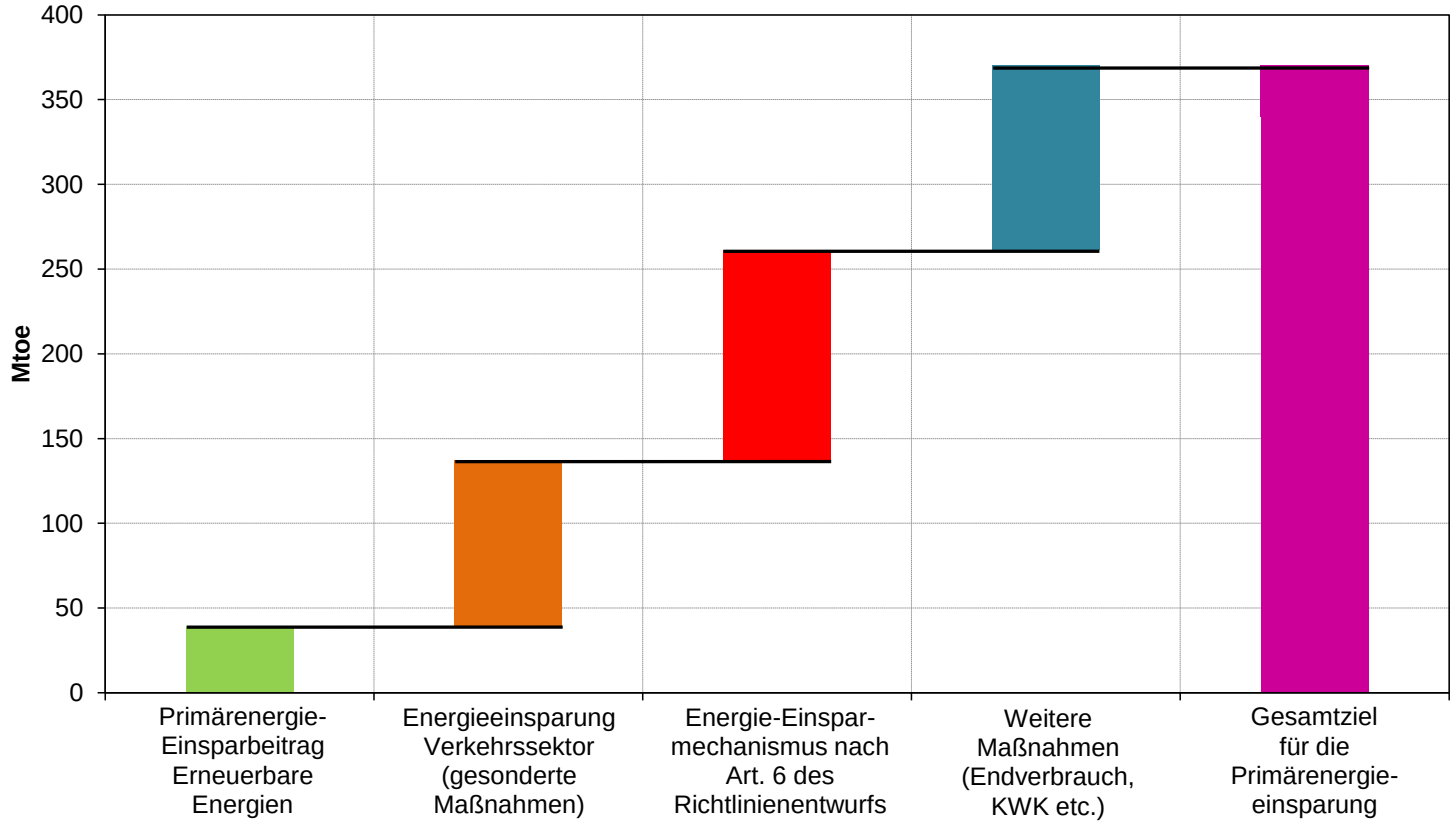
Energy Efficiency & Carbon Price

Figure 1 The core policy mix: a carbon price, energy efficiency and technology policies



***Source**: IEA, 2011 – Summing up the parts, combining policy instruments for least-cost climate mitigation strategies*

EED - Einordnung der Beiträge zur Erreichung des Gesamtziels einer Primärenergieeinsparung von 20% bis 2020



***Quelle**: Öko-Institut, 2011*

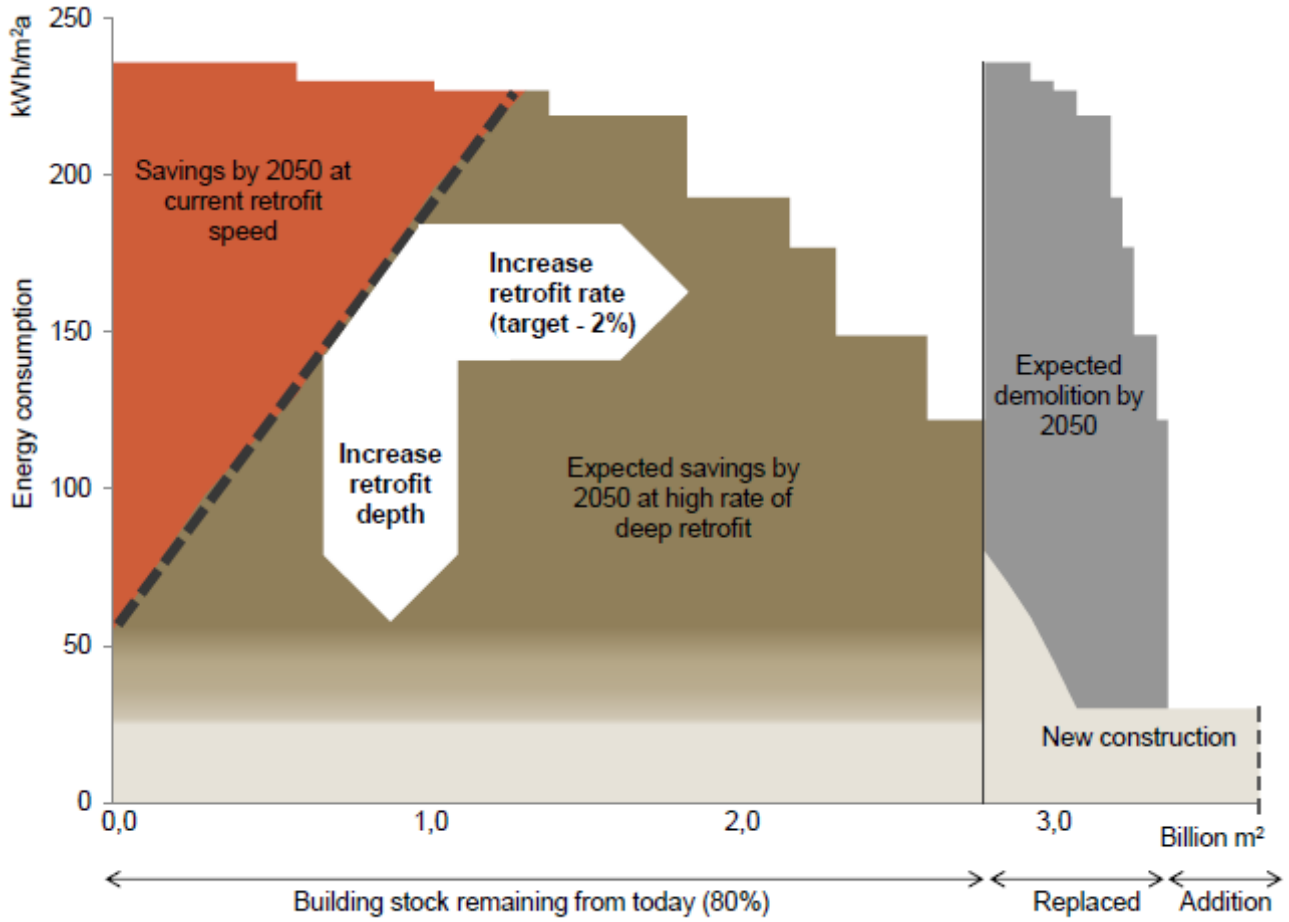
The new Energy Saving Directive - closing the 200 Mtoe gap -

- **Binding Targets (art. 1, 3 and parts 19):**
  - 20% binding efficiency EU in 2020 (1473 Mtoe)
  - Reference values for binding national energy efficiency targets
  - Intermediary targets 2014, 2016, 2018
  - EU Commission to verifie (and make infringement procedures when necessary

AND

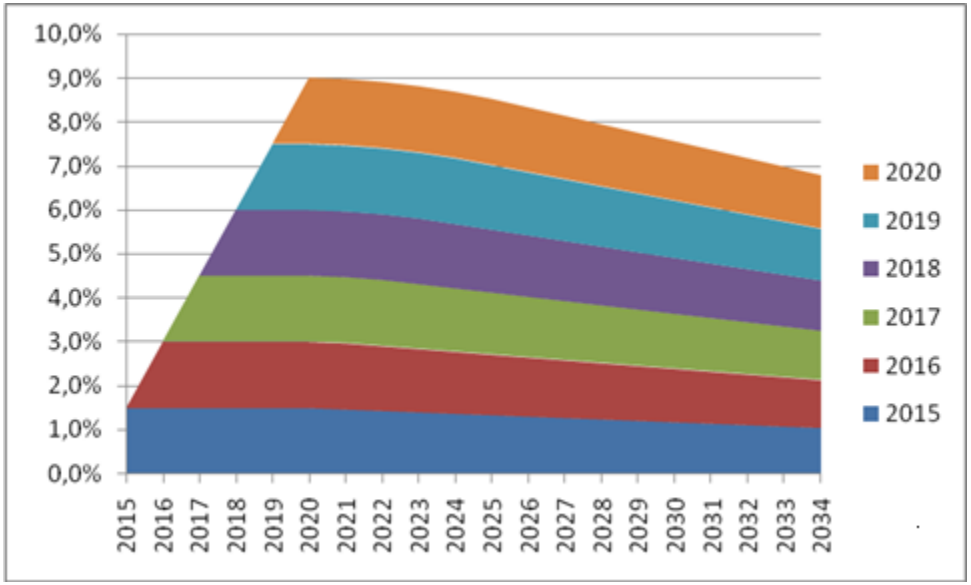
Binding measures

- Art. 2a (new): financing: structural funds, EU ETS
- Art. 3a (new): building roadmap 2050
- Art. 4&5: examplary role of public bodies
- **Art.6: 1,5% end use energy savings (110 Mtoe)**
- Art.7: energy management obligations
- Art.8 & 8a: empowering consumers
- **Art. 10&11&12.5: CHP and other supply (50 Mtoe)**
- Art.12: grid &efficiency; **DSM**
- Art. 13&14: **ESCO market**, training,…
- ART. 19: set aside mandate to correct EU ETS

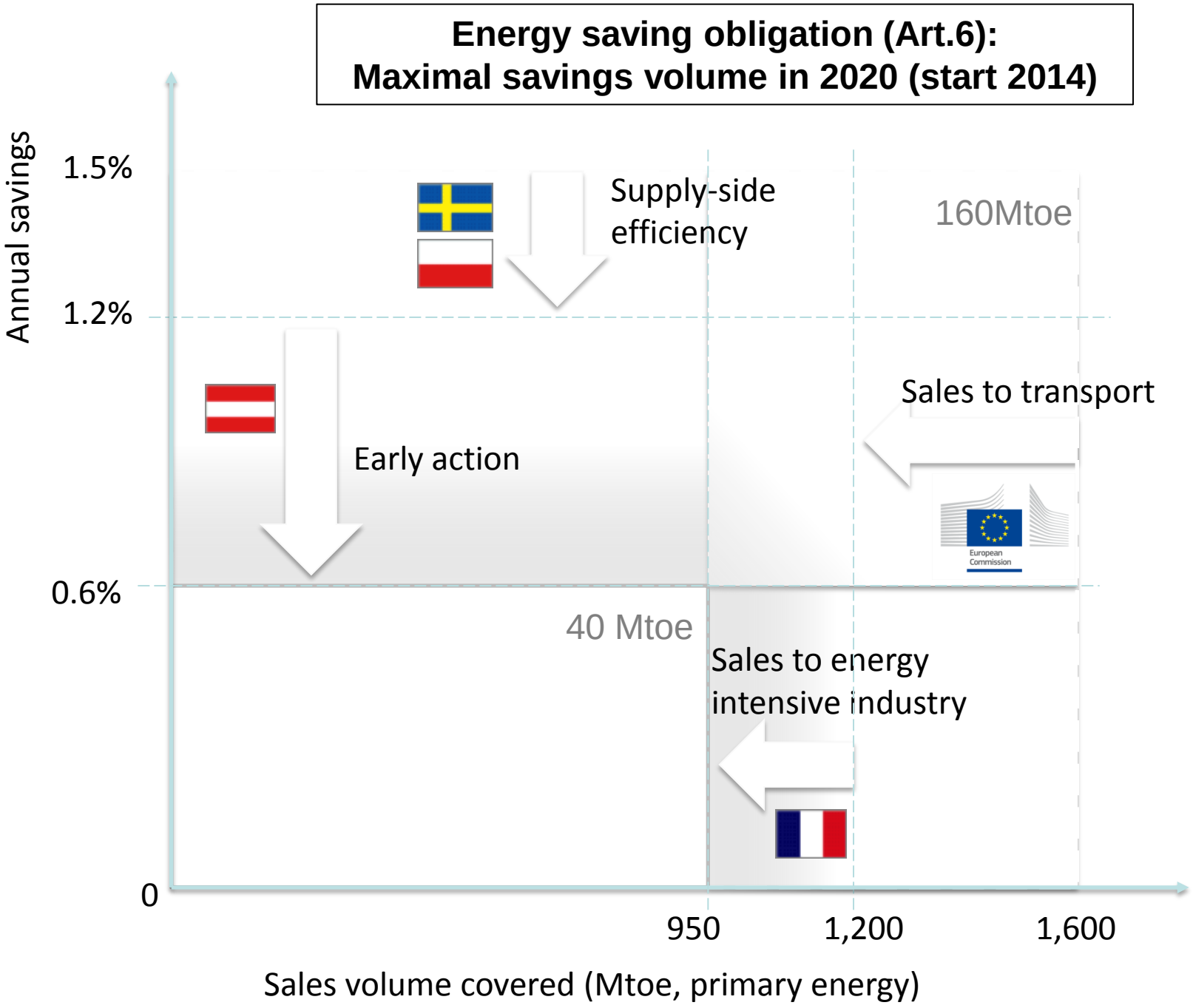


Source: Karsten Neuhoff et al. DIW - CPI, September 2011 - Thermal efficiency retrofit of residential buildings: The German experience

EED - Cumulative Savings



Source: Danish Energy Agency, 2012


Energy saving obligation (Art.6):
Maximal savings volume in 2020 (start 2014)
Annual savings
1.5%
1.2%
0.6%
0
Supply-side efficiency
160Mtoe
Sales to transport
Early action
European Commission
40 Mtoe
Sales to energy intensive industry
950
1,200
1,600
Sales volume covered (Mtoe, primary energy)

"Why on earth would an energy company want me to use less energy?"



We're E.ON. We sell energy. But, ideally, we'd like more customers, all using less of it.

It would be better for you, because you'd have lower bills. Better for us, because we'd have happier customers. And better for everyone, because we all need to reduce carbon emissions.

"OK, so what are you doing?"

We're helping families to take the next step to energy fitness with our Energy Fit Starter Pack.

We're even helping people to generate their own.

With our new solar panels initiative, for example, you can now generate some of the electricity you need at home – and get paid to do it.

"So what do you want me to do?"

Come to eontalkingenergy.com, where we would love you to ask questions, and question our answers.

While you're there, you can also find out how to save energy, carbon and money.

Whether you're an E.ON customer or not.

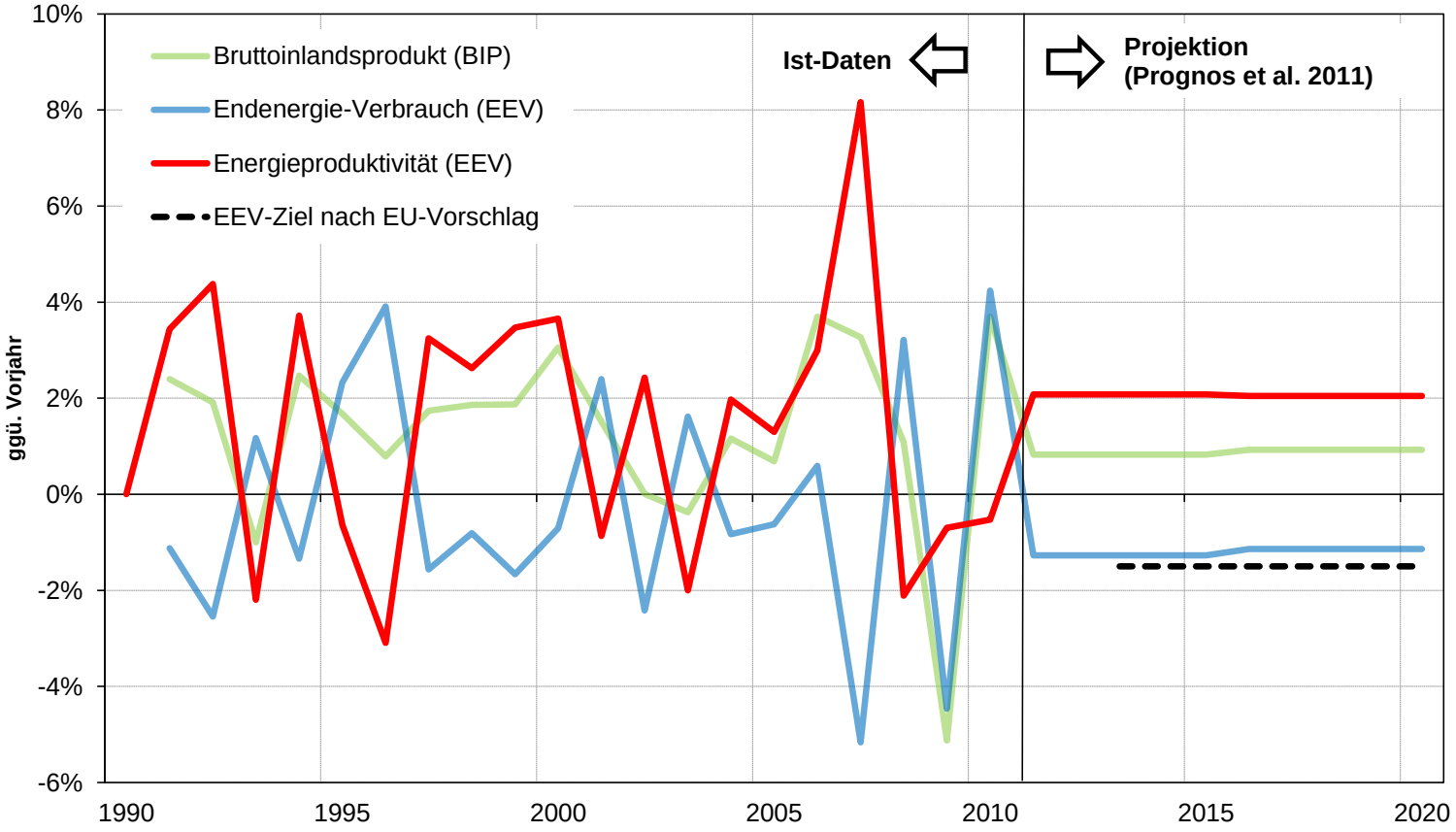
Helping you get energy fit. We're on it.

eontalkingenergy.com

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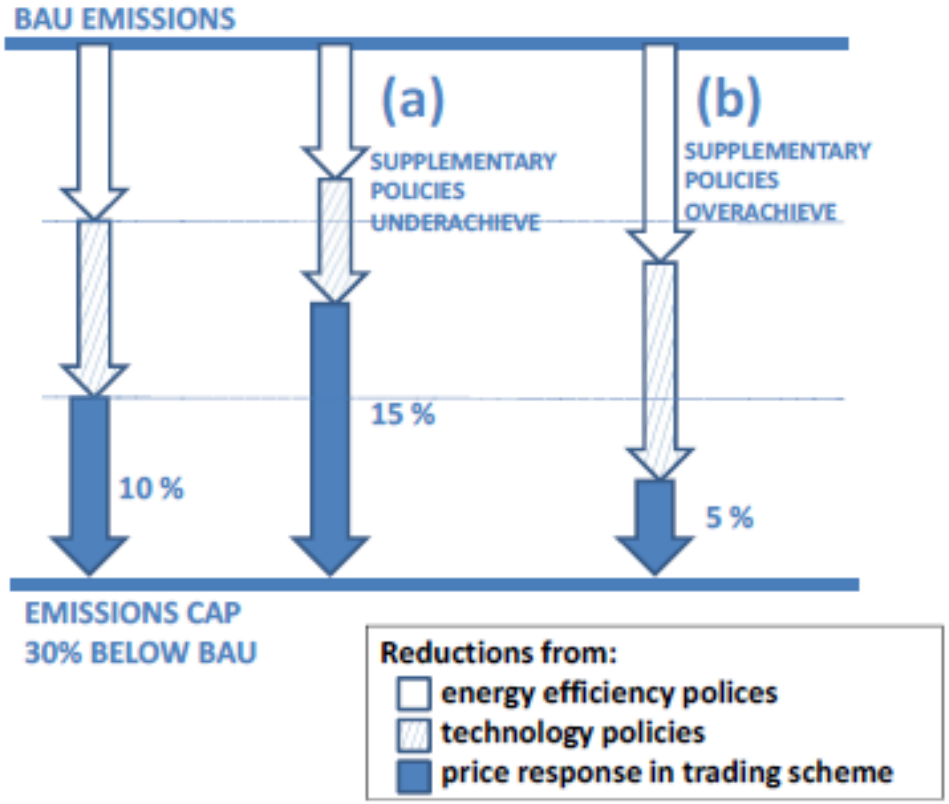
Zwischenjährige Veränderungsraten von Endenergieverbrauch, Bruttoinlandsprodukt und Endenergieproduktivität, 1990-2020



Quelle - *AG Energiebilanzen, Statistisches Bundesamt, Prognos et al. (2011), Öko-Institut*

Interactions between the 3 targets

Figure 4.1 Impact of supplementary policy delivery on emissions trading system



***Source**: IEA, 2011 – Summing up the parts, combining policy instruments for least-cost climate mitigation strategies*

LET US BRING INVESTMENTS IN

And EFFICIENCY WILL
BRING US OUT

OF THE DOUBLE
RESOURCE & ECONOMIC CRISES

Thank you
for your attention!

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claude.turmes@europarl.europa.eu