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How Europe can put Efficiency First

eceee Industry Summer Study, Berlin

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Three questions on energy efficiency in Europe

Where have we come from?

Where could we go?

How do we get there?
1 Where have we come from?
Decoupling – a reality in Europe

GDP EU-28

Final energy consumption EU-28

Source: Eurostat (2017)
Yes, efficiency works!

Example: UK household energy use

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td></td>
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</tbody>
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Source: ECUK (2017)
Huge policy diversity across EU Member States – example of Article 7 of the Energy Efficiency Directive

[Bar chart showing % of Article 7 savings by measure type for various EU countries]

- Any other policy measures
- Training and education
- Energy labelling schemes
- Standards and norms
- Regulations or voluntary agreements
- Financing schemes or fiscal incentives
- Energy or CO2 Taxes
- Energy Efficiency National Fund
- EEOs

Source: Forster et al. (2016)
Energy Efficiency Obligations key mechanism to deliver savings

- Energy Efficiency Obligations (EEOs): 33%
- Energy or CO2 Taxes: 15%
- Energy labelling schemes: 0.4%
- Standards and norms: 9%
- Regulations or voluntary agreements: 11%
- Financing schemes or fiscal incentives: 19%
- Training and education: 4%
- Any other policy measures: 6%
- Energy Efficiency National Fund: 3%
- Energy labelling schemes: 0.4%

Source: Forster et al. (2016)
Where could we go?
In Europe EE needs to deliver 76% of additional carbon cuts

GHG emissions reduction by measure in the Bridge Scenario, relative to the INDC Scenario, 2030

Sources: IEA (2016)
What will future ambition look like?

Remaining potential for savings is substantial

Source: Fraunhofer ISI et al. (2014)
3 How do we get there?
Efficiency First:
Reframing energy efficiency
Synergies between renewable energy and energy efficiency
reported savings ≠ actual savings

Source: Rosenow et al. 2017, adapted from Wade and Eyre (2015)
‘If I were emperor of the world, I would put the pedal to the floor on energy efficiency and conservation for the next decade.’

Prof Steven Chu
About RAP

The Regulatory Assistance Project (RAP)® is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

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