

# Brexit and Buildings: are Britain's non-EU climate change targets at risk?

eceee Summer Study 2017

Pedro Guertler (E3G) & Dr Jan Rosenow (RAP)  
*Presented by Dr Joanne Wade (UKACE)*

## Five directives from the EU we'll be glad to see the back of

### EU working time directive

The directive, which has been phased into British law since 1998, is a source of acute frustration for surgeons and medical staff. Many believe it deprives them of the chance to perform enough procedures to become fully competent because of the strictures it imposes on shift patterns.

The directive guarantees employment terms such as a maximum 48-hour week and four weeks of paid holiday per year, as well as rules on hours of rest for shift workers.

While individual workers can ask to be exempted from the directive, NHS trusts are obliged to draw up rotas that meet the rules. This often means that doctors who are on call, but who sleep undisturbed through their shift, are nevertheless sent home "to rest" when they could take part in training.

### Bendy bananas

In 1994 the European Commission drew up regulation 2257/94, which stated that bananas in general should as a minimum be "free from malformation or abnormal curvature of the fingers". Under the regulation "extra" class bananas must be "free from defects" while class 1 bananas can have "slight defects of shape" while class 2 bananas are allowed to have "defects of

shape". The regulation was repeatedly highlighted by Boris Johnson during the EU referendum campaign.

### Green energy

The EU renewable energy directive requires the UK to generate 15 per cent of its energy from renewable sources by 2020 - up from just three per cent when the directive was adopted in 2009. That's not just electricity but also energy used in heating and transport.

The target has led to Government subsidies for renewable power sources such as wind, solar and biomass power plants, which are ultimately paid for by customers through their energy bills. The National Audit Office estimated that green energy subsidies will cost every household £110 a year by 2020.

### Great crested newt

The great crested newt is endangered in some parts of Europe, but remains fairly common in England. However under the EU habitats directive, which covers all 28 member states, they are a protected species.

If even a small number are found newts have to be fenced, trapped and relocated in the spring, which can cost £10,000 even for a small project. George Osborne, the former Chancellor, said in 2011 the directive placed

"ridiculous costs on British businesses".

### Incandescent lightbulbs

In 2009 the European Commission announced plans to phase out traditional incandescent lightbulbs amid concerns that 95 per cent of the energy that goes into them gets turned into heat rather than light. However their replacements, LED and fluorescent bulbs, while far more energy-efficient, have proved unpopular because they give off a cold, unnatural light compared to their predecessors.

### Best vacuum cleaners

In September 2014 the European Commission introduced new energy efficiency rules which banned many of the best vacuum cleaners on sale.

Companies were prohibited from manufacturing or importing any vacuums with motors above 1,600 watts. The deadline led to a rush on sales of the best performing vacuum cleaners. Of seven "best buy" ratings awarded by Which? since January 2013, five of them have motors of more than 1,600 watts.

From September this year the limit will be reduced to just 900 watts. The commission said the rules would help cut energy usage and lower people's bills.

# Don't throw out the energy efficiency baby with the Brexit bathwater

March 13, 2017 by Jan Rosenow, Pedro Guertier and Richard Cowart  
— 4 Comments



*Will Brexit put energy efficiency progress in the UK at risk, ask Jan Rosenow, Pedro Guertler and Richard Cowart of RAP (Regulatory Assistance Project)? In electric appliances and heating systems – probably not. The biggest risk is in the building sector. UK policymakers will need to put efficiency first if they want to reach carbon targets and keep costs down.*



# Research questions

1. What is the current abatement gap in buildings?
2. How much abatement can be achieved under different scenarios?
3. What are the costs and benefits of abatement?
4. What are the policy options to achieve this?



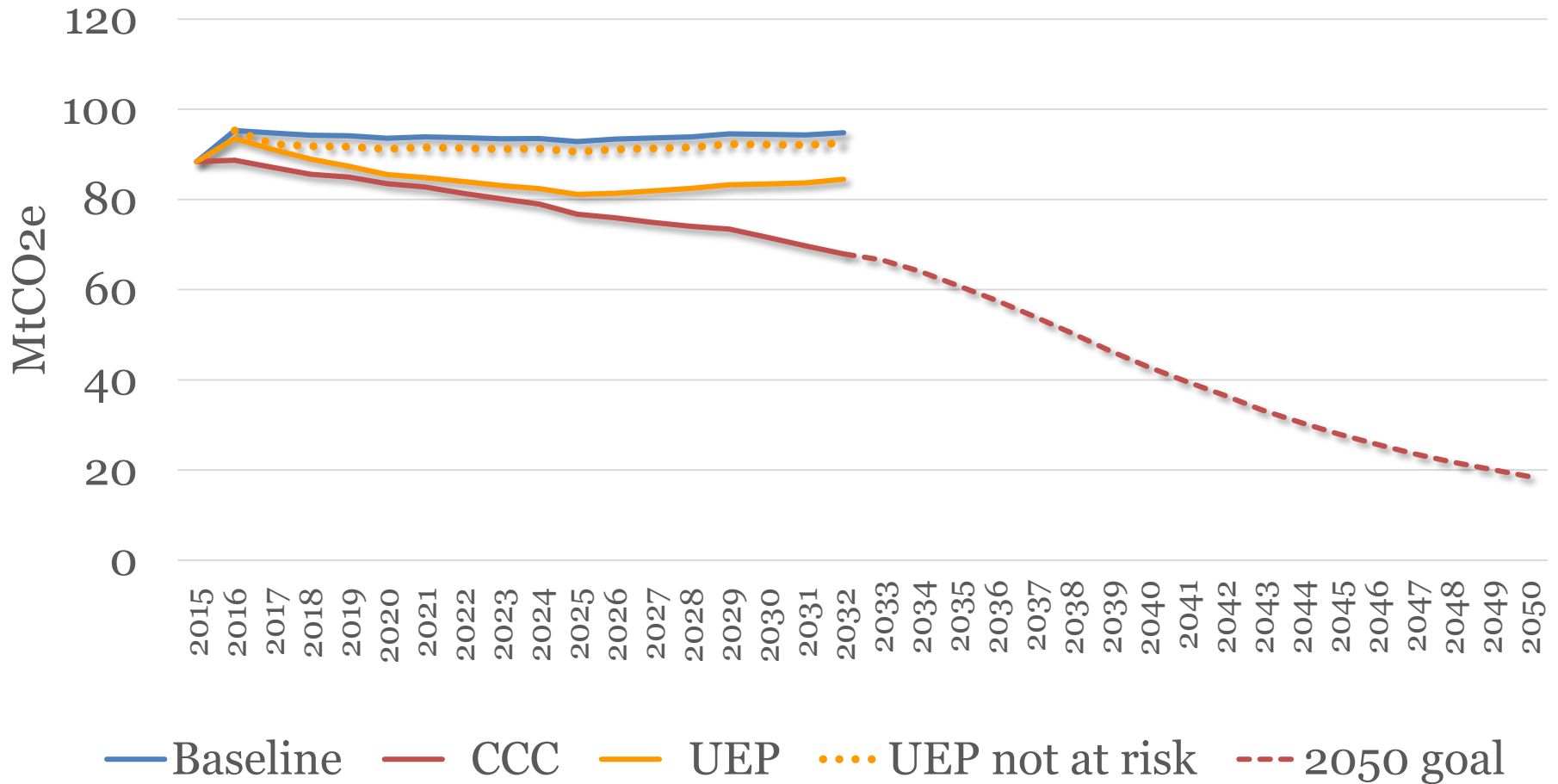
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# What is the current abatement gap? - direct emissions -



# What is the current abatement gap?

## 5<sup>th</sup> Carbon Budget central CCC scenario

**Direct  
emissions  
from  
buildings**



32% lower in 2030  
compared to 1990  
24% below the baseline

**Electricity  
savings**



62TWh (22%)  
compared to baseline

## BEIS updated emissions projections (UEP)



21% lower in 2030  
compared to 1990  
12% below the baseline



35TWh (13%)  
compared to baseline



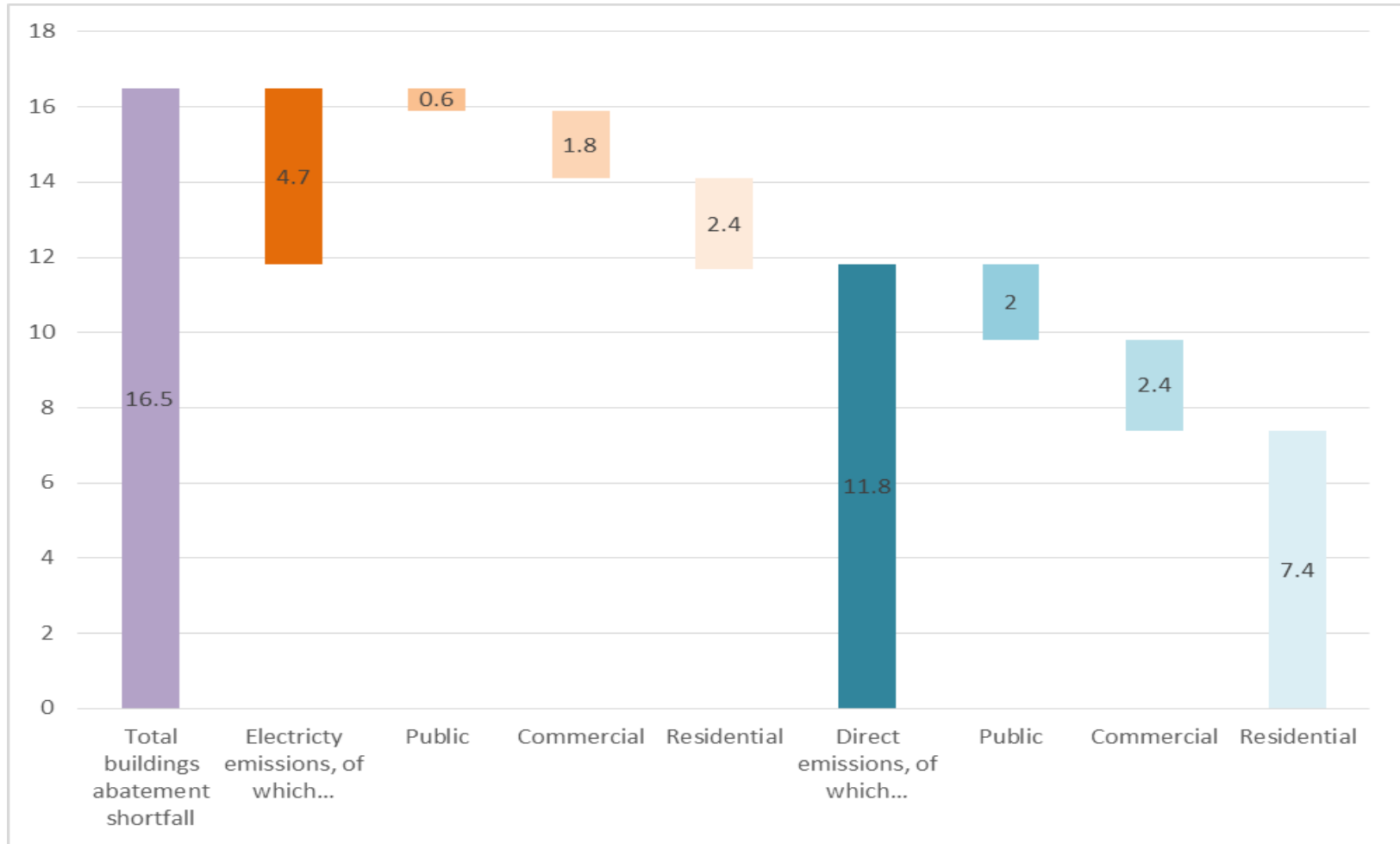
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# Current abatement gap [MtCO<sub>2</sub>e]



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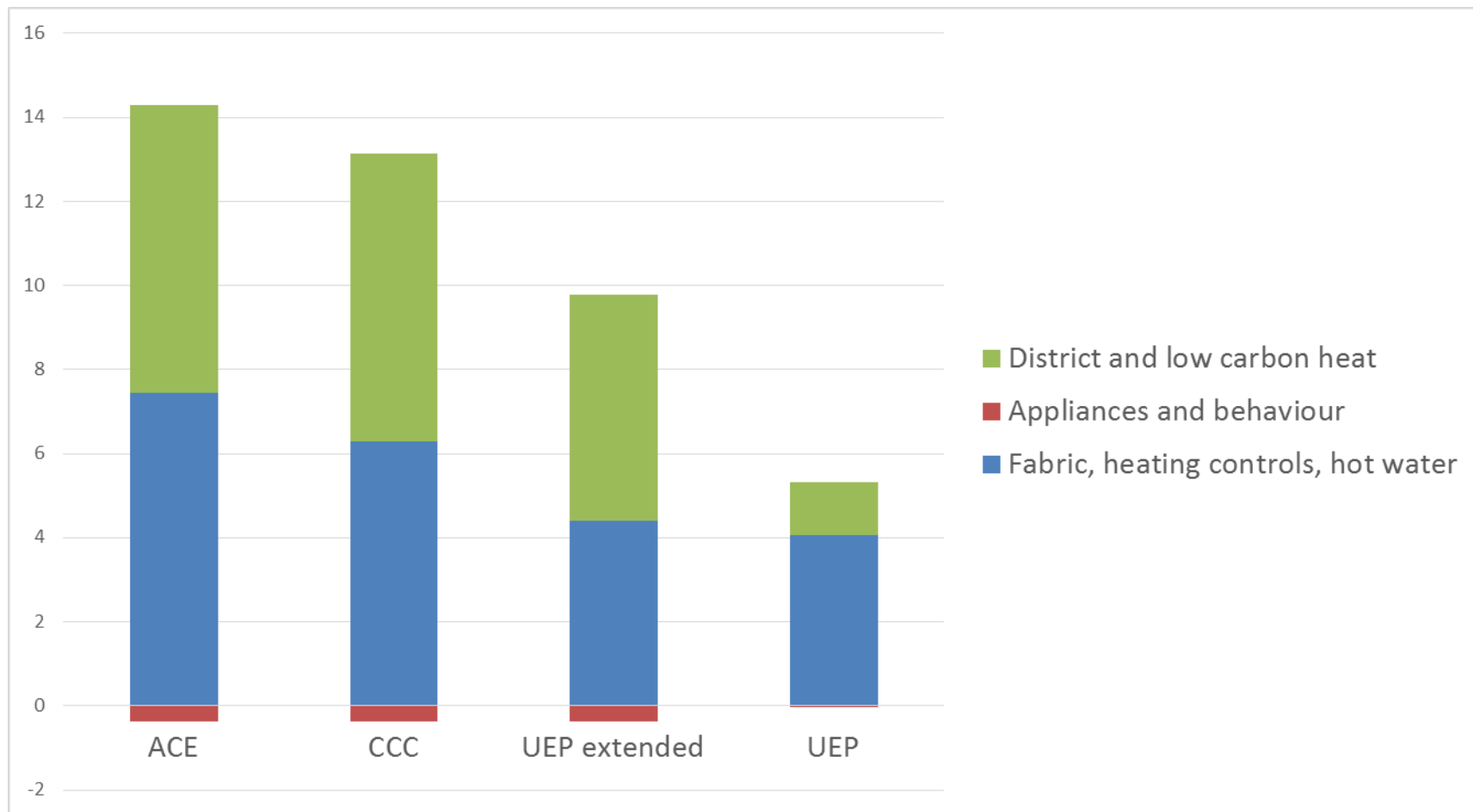
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# How much abatement can be achieved under different scenarios?

1. CCC central scenario – ‘CCC’
2. BEIS projection – ‘UEP’
3. BEIS projection extended pro-rata – ‘UEP extended’
4. More on efficiency in residential sector – ‘ACE’



# Residential buildings – direct emissions abatement 2030 [MtCO<sub>2</sub>e]



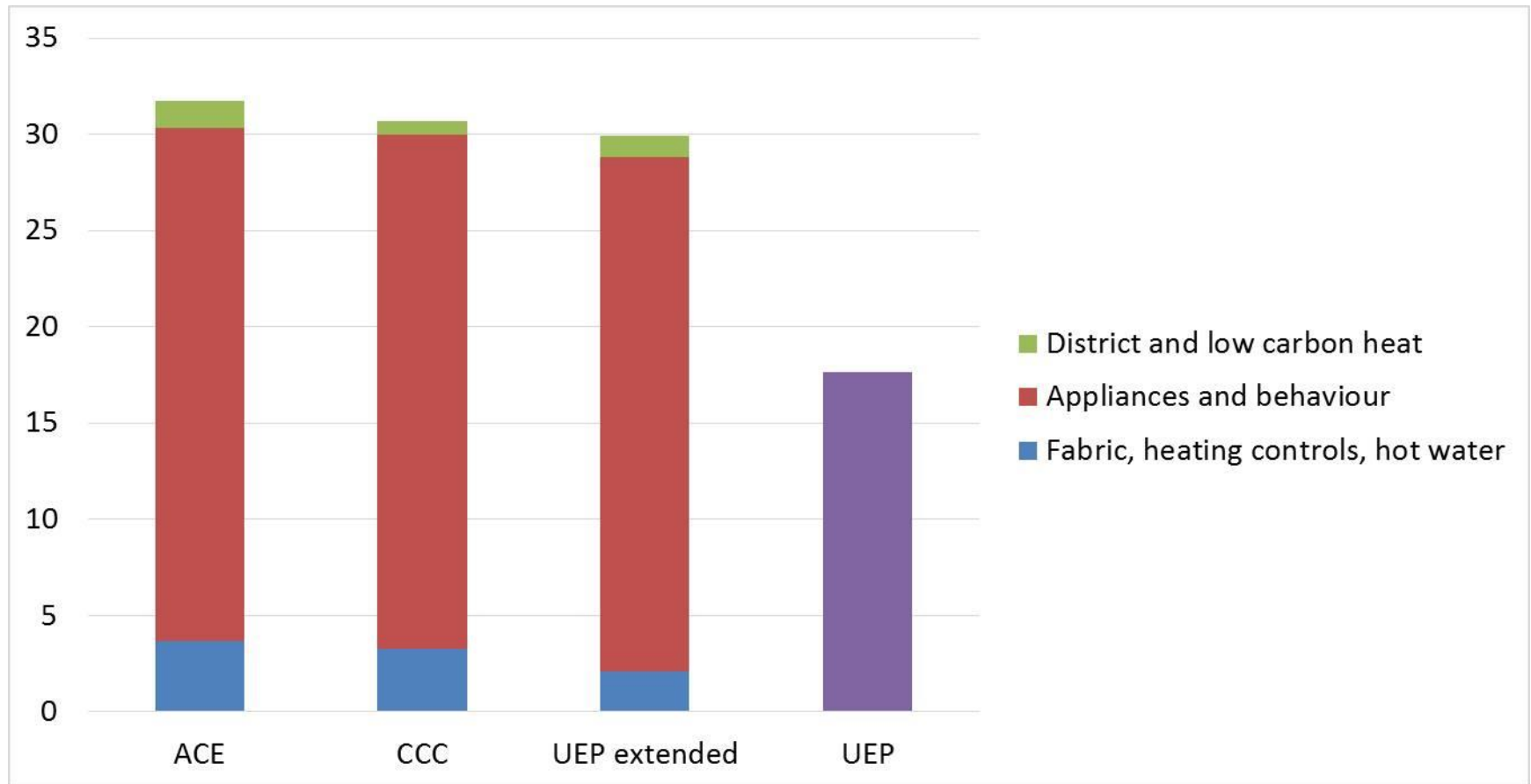
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# Residential buildings – electricity savings 2030 [TWh]



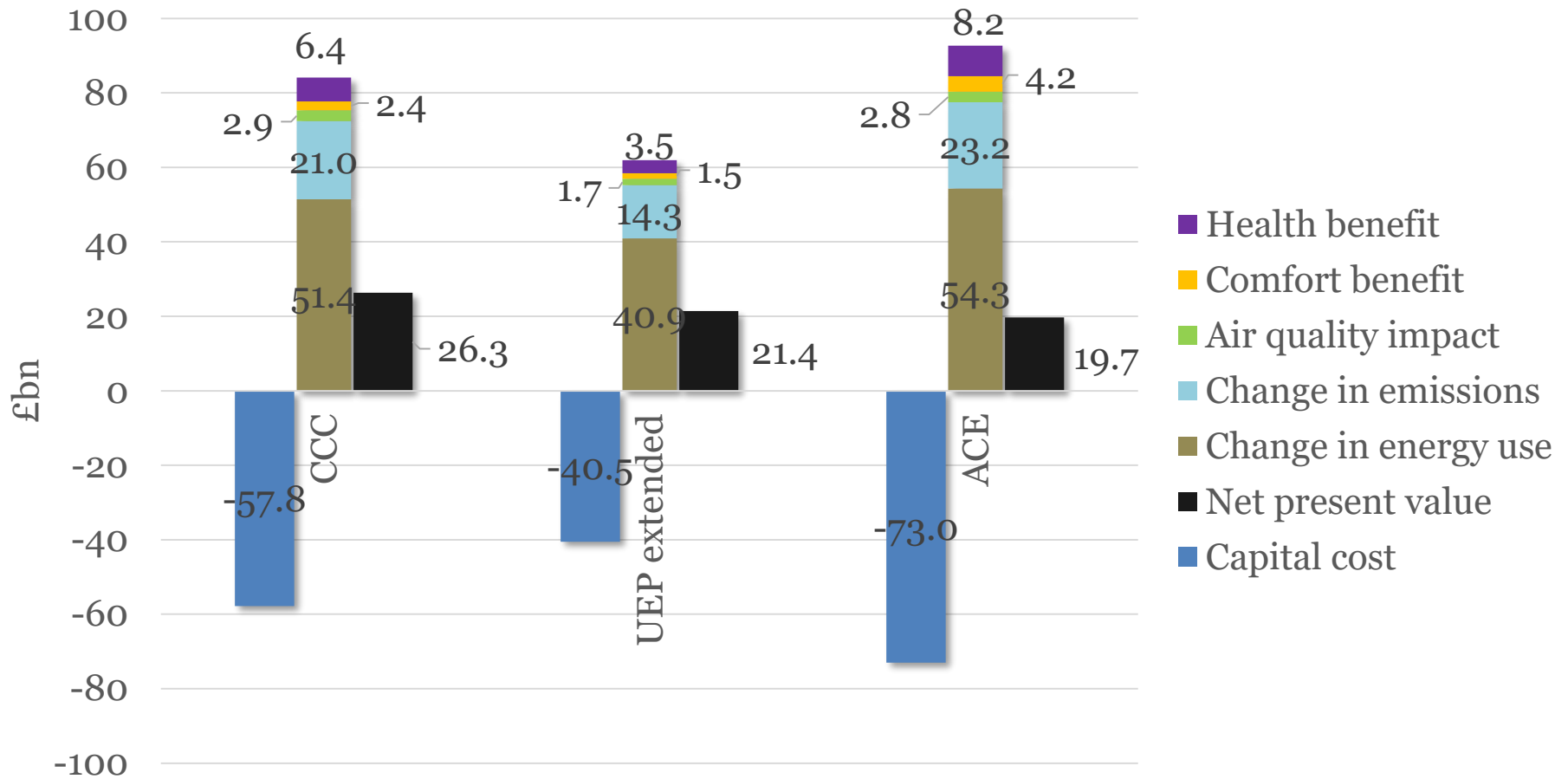
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# What are the costs and benefits of abatement?



# What are the policy options to achieve this?

To drive the investment needed to capture the benefits, comply with the 5<sup>th</sup> Carbon Budget, and get on track to 2050, all of the following will be needed from policy:

- 1) Increased credibility**
- 2) Increased effectiveness**
- 3) Increased timescale**
- 4) Increased ambition**
- 5) New policy**

# Conclusions

- 1) Brexit increases risk that policies won't deliver
- 2) Significant abatement gap
- 3) Many potential policy ideas but no clear plan



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# Further reading

## Guertler, P. Rosenow, J. (2016): Buildings and the 5th Carbon Budget

(available here: <http://www.ukace.org/wp-content/uploads/2016/09/ACE-RAP-report-2016-10-Buildings-and-the-5th-Carbon-Budget.pdf>)



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