

## **PLACE SCRUTINY COMMITTEE**

Tuesday 18 June 2019

### **Present:**

Councillor Sills (Chair)

Councillors Buswell, Atkinson, Henson, D, Lyons, Moore, D, Moore, J, Owen, Pattison and Williams

### **Also present:**

Chief Executive & Growth Director, Director (DB), Programme Director Exeter City Futures, Corporate Energy Manager, Principal Project Manager (Development) (HS) and Democratic Services Officer (SLS)

### **In Attendance:**

Councillor Sutton Deputy Leader, Portfolio Holder Climate and Culture

Tony Norton Head of the Centre for Energy and the Environment, University of Exeter

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### **DECLARATION OF INTERESTS**

No declarations of disclosable interest were made.

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### **QUESTIONS FROM THE PUBLIC UNDER STANDING ORDER 19**

In accordance with Standing Order 19, a member of the public submitted a question in relation to a date by which the Carbon-Neutral Mandate Group will report back.

A copy of the question had been previously circulated to Members, and this, together with the response from Councillor Sutton, Deputy Leader and Portfolio Holder Climate and Culture are appended to the minutes.

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### **TOWARDS CARBON NEUTRAL EXETER**

The Deputy Leader and Portfolio Holder for Climate & Culture introduced the report and referred to the declaration made by Exeter on the 15 March 2019 to make Exeter a Carbon-Neutral City by 2030. This ambition was aligned to the vision for the city and the report offered Members an update of what had already been achieved in the transition to a low carbon economy. The report also included a paper by Exeter City Futures Community Interest Company (ECF CIC) entitled "Towards a Carbon Neutral Exeter" which provided an overview of the approach to enable the city to become carbon neutral. The City Council had made a clear commitment borne out by the significant expansion of her Portfolio to include climate change. She introduced key speakers and colleagues from Exeter City Futures, Exeter University and Exeter City Council and referred to a number of recommendations in the report for the next steps that Exeter City Council should take in order to become carbon neutral. The City Council had already made a number of significant changes in the way they worked, as well as a commitment to work in concert with other partners and stakeholders.

The Programme Director Exeter City Futures provided some context to the report and the shared vision for the future of the city that would enable the population to thrive. The vision that has been captured through engagement activities and included vibrancy, quality of life, ability to access services, clean air, with open spaces for children to play in and protection of the biodiversity. Exeter City Council had now made a commitment to ensure that Exeter should extol best practice in respect of projects and structures with strong partnerships in place with individuals, communities and businesses. The local authority had made a clear commitment to the operational reduction of carbon, but whilst it was acknowledged that it had not progressed as quickly as it would have wished, she was pleased to see that many of the features of those leading cities had been replicated in Exeter. This all represented a massive challenge which would include the following for Members to consider:-

- the creation of a road map that was owned by the city, to show what we need to do, to achieve a carbon neutral status as well as reflect the needs and priorities of the people who live in the city and she referred to the Exeter City Futures '12 Goals'.
- the City Council which had made a clear commitment about their own carbon emissions reduction and had committed some resources, energy and skills to achieve that to develop the road map.
- the creation of the Carbon Neutral Mandate Group which would ensure that the voices of people were heard, and offer an objective body to hold the city to account in delivering the agreed roadmap. Exeter City Futures provided a shared governance structure and partnerships and this was now ready to move forward with action and coordination of demonstrable projects to make that happen.

The Corporate Energy Manager made a brief presentation and included the detail of over 20 major energy saving projects that had been delivered by the Council's Energy Team for the Council's corporate estate. Their initial aspiration was to stem the rising energy costs of the local authority, but more latterly the approach had also been to address the Council's carbon emission output. Members had previously agreed to support a number of commercially deliverable projects on the Council's own estate, on an invest to save basis. The projects included the installation of LED lighting, energy efficient handdryers, solar panel canopies on two of the city's car parks and other solar PV projects, including a large array at the Livestock Centre roof which was now energy self-supporting as well as holding a supply of renewable energy to share. There had been a 34% reduction in carbon emissions from a change to the Council's own electric fleet, and a 37% drop in energy consumption at the Civic Centre overall. She confirmed that the Council had also received notification of a grant support for a project that would involve a solar array near the Exton Road operational depot and the Materials Reclamation Facility. The work would also include an additional battery storage facility and the significance of the project would enable an EV charging facility for the Council's refuse fleet – thus saving carbon emissions of approximately 917 tonnes per annum, as well as helping to reduce air pollution in the City. A copy of the presentation is attached to these minutes.

The Principal Project Manager (Development) referred to the Core Strategy Development Plan Document which sets out the policies to guide future development and change in Exeter and included consideration of renewable and low carbon energy. It was important to take advantage of the changing technology

such as District Heating, but these were expensive long term projects that could be difficult to deliver and also required working with local partners and Central Government. He presented a map of Exeter's locally available heat sources and density of heat demand which were in the four locations of Cranbrook, the M5 corridor at Monkerton/ the north part of Pinhoe/ Science Park, the centre of the city and around the RDE, and then South West Exeter and Marsh Barton. A copy of the presentation is attached to these minutes.

Tony Norton, Head of the Centre for Energy and the Environment from the University of Exeter made a presentation to share his understanding of the energy market and the challenges to deliver a carbon neutral city with Members. He made a number of observations about the report from the Committee on Climate Change entitled Net Zero, which provided recommendations to the Government on the date for a net-zero emission target in the UK, as well as a detailed analysis for each sector of the economy, and how the country could achieve net zero emissions by 2050. He was able to offer an insight into the report's baseline data, the sectors within the city and a sense check on the national policy context that would shape the energy market and policy. He explained a number of scenarios for the net zero status by 2050 with a gradual rise to 80% by 2030 and the further more challenging ambition to reach 96% by 2050, and the more speculative option of the high cost and barriers to public acceptability to take the level to 100%. The Chair thanked Tony Norton for a very comprehensive presentation, which is attached to these minutes.

Questions put by Councillor J Moore and Councillor D Moore with responses by the Deputy Leader and Portfolio Holder for Climate & Culture, Councillor Sutton.

- **What advantages are there to having Exeter City Futures, a Community Interest Company, leading on carbon neutral Exeter as opposed to council staff?**

Exeter City Futures had been established at a time of significant cuts to funding by Central Government, and alternative ways of working in the area of carbon reduction were identified. Local authorities were encouraged to work with other partners and stakeholders to lever in innovative investment and funding. Members had agreed to commit the resources for the ECF delivery team and Liz O'Driscoll was appointed as the Programme Director Exeter City Futures and lead. Her appointment had provided the necessary level of scrutiny and the advantage of ECF's Community Interest Company status meant that the expertise of key partners such as the Royal Devon & Exeter (RD&E) Hospital, Devon County Council, the University of Exeter and Exeter College could be drawn upon. The Programme Director Exeter City Futures was based at Broadwalk House and the Civic Centre.

Councillor J Moore in responding was concerned that by using Exeter City Futures, the City Council was in effect outsourcing an important issue which could adversely impact the Council's ability to review its policies and plans associated with reaching the carbon neutral targets and she suggested Members have some training in this regard. The Programme Director Exeter City Futures advised that carbon reduction was a key Council goal and remained the responsibility of the Council and the formation of Exeter City Futures had been agreed through the Council's democratic process, but ECF did not have any decision making powers. Exeter City Futures was responsible for dealing with the carbon neutral commitment of the city as a whole and the peer alignment with Devon County Council, the RD&E Hospital, University of Exeter and Exeter College was very helpful. She invited any Member to contact her to arrange to meet to discuss any aspect of her work.

- **Certain priorities are set out in ECF's 12 goals. What priority is given to trees and green spaces in reaching the carbon neutral 2030 target?**

The 12 goals all related to delivering carbon neutrality and the initial focus of Exeter City Futures was to consider how to optimise transport and energy systems in the city. The goals that reflected the shared priorities had a wider remit than congestion and energy and included clean air, skills for the future, innovation and finance, the importance of road resilience and good reliability in the bus network. A further shift to a shared public transport system as well as increasing walking and cycling would be necessary as part of the roadmap to reach carbon neutrality. The goals were fluid and would be amended over time to help maximise input, and certainly biodiversity was something that should be included. Councillor J Moore welcomed that approach.

Questions from Councillor D Moore.

- **What are the baseline figures for carbon emissions in Exeter?**

The baseline figures related to 2016 with updated figures due imminently. Figures were published annually by the Department for Business Energy and Skills, two years in arrears. The data had been used to inform the work of the Greater Exeter Strategic Plan (GESP) and included industry; commercial electricity and commercial gas; other commercial fuels; domestic gas and other fuels, agriculture; major road transport and motorways, minor road transport; diesel railways and transport :-

- Exeter - 425 Kilotonnes (Co2 equiv) 3.342 tonnes per capita
- the GESP area is 2,305 Kilotonnes(Co2 equiv) 4.83 tonnes per capita
- Devon 4,158 Kilotonnes (Co2 equiv) 5.34 per capita

Councillor D Moore stated that the UK baseline of CO2 emissions were the figures used as part of the UK report to the Paris Climate Change Agreement and she queried whether they were a reasonable baseline for Exeter. Councillor Sutton anticipated they would become more refined over time.

- **What are the baseline figures for the Council's carbon emissions and by how much have emissions changed to date, as the Council has developed and worked towards its energy neutral plan?**

Councillor D Moore in putting her question thanked Tony Norton for his comprehensive presentation and information which she considered answered her question.

- **How will the Carbon Neutral 2030 policy impact on the Council's own Investment Portfolio?**

Examining the impact on the portfolio was part of the work going forward.

- **What would be the fastest way to update the Local Plan if the Council wished to raise Sustainable Construction standards across all developments?**

This issue could with the support of neighbouring authorities, be incorporated into the Greater Exeter Strategic Plan. The Principal Project Manager (Development) advised that Exeter had no need to update its Local Plan with regard to sustainable construction standards. It was helpful for the City Council to have policies above the controlled standards and the regulations and he included the Sustainable Homes

Code 4. The Chief Executive & Growth Director added that he was not aware of another local authority that had set a higher standard on the requirements for sustainable construction standards, with examples in the city of having built to passivehaus standards. If any changes were required it may be possible to review the local Plan through the Greater Exeter Strategic Plan (GESP). Councillor Moore D stated that the City Council's approach in this respect should be commended.

- **Should Devon County Council review its draft Exeter Transport Plan in light of Exeter's commitment to carbon neutrality by 2030 and what steps can you take to ensure this?**

A revision of the Transport Plan was a laudable goal, but Devon County Council was the transport authority and therefore the City Council's scope was limited. Devon County Council was on the Board of Exeter City Futures and a meeting of the Transport Board was due to be convened. Any opportunity to encourage the County Council and neighbouring district authorities would have wider benefits for all. The Chief Executive & Growth Director thanked Tony Norton for his contribution and for the cautionary marker that whilst the 2050 agenda remained a serious challenge in the UK, the 2030 figure was also extraordinary. There was no city in the UK that had achieved the target of 50% of journeys originating and ending in the city by walking and cycling, and the challenge remained to change behaviour. He was excited by the prospect of the opportunity to look at this in the future and see what might be achieved.

- **Which plans are to be included in the 'full audit of the city'? It was important to recognise that a step change in activity, behaviour, finance and policy will be required to get to a carbon neutral city.**

A full audit of all planned and ongoing projects was necessary to understand the city's capacity to pursue carbon neutral status. Leicester City Council had already embarked on an audit of city projects and skills as part of their journey to carbon neutral status. Exeter would keep in contact with them, and other cities, to see if following a similar methodology would be useful to understand what is already happening within the city and also to learn from their wider experiences.

The Chair proposed a recommendation, which was seconded by Councillor Atkinson to agree the definitive term to be used of carbon neutral rather than other forms of wording which had been used, including zero carbon. Carbon Neutral would provide a consistent terminology. The Programme Director Exeter City Futures added that a number of terms were used on an interchangeable basis, with the most used definitions being either Net Zero Carbon or Carbon Neutral. Members supported the recommendation and considered that 'Carbon Neutral' would be a consistent term to use.

Members made the following comments –

- welcomed the opportunity for collaborative work but were disappointed that initiatives such as the Green Deal were no longer available to retrofit older homes in the city and help drive down levels of carbon emissions.
- welcomed the presentations and information which had been given in an accessible and understandable manner. Renewable energy had a carbon footprint and the figures were outdated being from 2016 and Exeter needed time to own the measurements and monitor accurately and carefully. The Chief Executive & Growth Director noted the comment on the former Green Deal Initiative and that inspections and a bespoke solution would be required and a definitive baseline figure was important to identify. The

Principal Project Manager (Development) added that it was also important to create a business model for the physical retrofit work, as already conducted by Exeter City Council. It would remain difficult to make energy efficiencies to older houses particularly those with lath and plaster. He confirmed that, although some older houses would be difficult to treat and required significant intervention, such density of development could in the future be advantageous when looking at the introduction of new forms of energy such as District Heating.

- need for recognition of equality and deprivation should any retrofit of older properties be pursued, and although the sustainable development goals were welcomed, it was important to ensure that all of the Council's work and policies took account of biodiversity issues and the link to climate change. The Chief Executive & Growth Director referred to the challenge for Exeter City Council as we could not fund the costs associated with retrofit. There was a need to show the city's ambition, but the City Council had to find a way of unlocking investment to tackle the problems associated with this move. He added that Exeter needed more opportunities to live in the city and not perpetuate car based developments, with residents able to walk and cycle to their destination, balance the demands of biodiversity, and protect the landscape and open spaces.
- Exeter's incinerator on Marsh Barton was the largest single emitter of emission and with the predominately plastic and food waste there should be other ways to treat such waste. The Director (DB) advised that a report on expanding the city's collection of kerbside recycling to include food and glass, as well as investment at the Materials Reclamation Facility (MRF) to put back their waste into new products as a closed loop, would be presented to the next meeting of Place Scrutiny Committee.
- whether Exeter City Futures came under the auspices of the Local Authority Act and if the Directors would be seek future funding from Exeter City Council to ensure they could carry forward the important work. The Chief Executive & Growth Director stated that Exeter City Futures was a Community Interest Company and the financial contribution made by the City Council was in relation to staff. He added there were six different organisations who contributed to Exeter City Futures.

The Chair asked Members to consider an additional recommendation in respect of a request for the City Council to support the work of the Devon Climate Emergency Response Group (CERG) and participate in a 'People's Assembly'. The Deputy Leader and Portfolio Holder for Climate & Culture stated that Devon County Council would establish the Group and take the lead and it was anticipated that the Leader and Chief Executive & Growth Director would attend the meetings. The Chief Executive & Growth Director confirmed that whilst the County Council was taking the lead, it was important to collaborate and broaden the participation to effect the many behavioural issues needed to remove cars from the city. A Member referred to her experience of a Citizens Assembly and sought further detail including the remit and governance arrangements of the Group, amidst some concern of raising expectations given the limited resources available. The Chief Executive & Growth Director advised that Devon County Council had put forward £250,000 towards this and he expected them to host the meetings. A Member also welcomed the opportunity of establishing a People's Assembly but suggested that if the City Council was not minded to approve participation in the People's Assembly that a request to Devon County Council be made to explore Exeter issues. The Chair asked the Chief Executive & Growth Director to write to Devon County Council to ask them to consider this approach if the proposed recommendation was not agreed.

The Chair also proposed an additional recommendation, seconded by Councillor Owen to convene a Special meeting of Place Scrutiny Committee, on a biannual basis, to discuss progress by the City Council in respect of Climate Change and also allow the opportunity for outside bodies to continue to update Members. The recommendation was put to the vote and carried.

A Member referred to the Action Plan and did not wish for a whole year to pass, and she asked that a report be made back in six months' time. The Chief Executive & Growth Director advised that one of the first actions was for the stakeholders to establish a roadmap, with the costs clearly identified, and a report being brought back to Committee in six months' time. The Action Plan would be brought forward for the city as a whole and certainly the City Council did not have the resourcing needed to deliver such a big challenge. There may well be a gap between the aspirations and necessary lobbying to the Government and also the Local Enterprise Partnership and private sector.

Councillor D Moore noted the proposed work, but she proposed a recommendation, seconded by Councillor J Moore, that in light of the roadmap, the City Council must go beyond consideration of its estates and review the statutory plans and policies associated with work with the GESP. The recommendation was put to the vote and lost. The Programme Director Exeter City Futures referred to the recommendation which stated that the carbon neutral target for Exeter would be framed in a way that linked to wider regional targets. The Deputy Leader, Portfolio Holder Climate & Culture added that Place Scrutiny Committee and Council would consider the progress of the journey and by meeting biannually, as well as any significant reporting, would ensure that best use was made of valuable Council resources.

Councillor D Moore proposed an additional recommendation, seconded by Councillor J Moore, that the Council reporting mechanism should include, an analysis of the progress and impact in working towards the Carbon Neutral goal, and that this be added to the decision making process in relation to equality and diversity; health and wellbeing; safeguarding children, young people and vulnerable adults; economy, safety and the environment. The recommendation was nevertheless put to the vote and carried.

Councillor J Moore proposed, seconded by Councillor D Moore to ask that past and present employees should be allowed to comment on investment matters relating to any industries contributing to the climate emergency in the Council's Pension Fund. Members considered that this was a matter for the Investment Committee of Devon County Council. A Member was able to advise that the Devon County Council Pension Fund was proactive in consideration of their investment proposals. Although it was not considered within the remit of Exeter City Council, the recommendation was nevertheless put to the vote and was lost.

Place Scrutiny Committee supported the report and requested Executive to recommend approval by Council on the 23 July of the following:-

- (1) affirmation that the Council declare a 'Climate Emergency;
- (2) the definitive term to be used of Carbon Neutral rather than other forms of wording which had been used, including zero carbon. Carbon Neutral would provide a consistent terminology;
- (3) the carbon neutral target for Exeter be framed in a way that links to wider regional targets. This shows Exeter's intention to decrease its emissions without increasing emissions in the wider region;

- (4) Exeter City Council commit to their operations becoming carbon neutral ahead of the 2030 date and mobilise resource to develop internal plans to deliver the target;
- (5) Exeter City Council request a “Carbon Neutral Delivery Team” is convened by Exeter City Futures Community Interest Company (ECF CIC) to establish a city plan for delivery that builds on the Energy Independence Roadmap produced by ECF CIC and uses the 12 Goals as the basis of the approach (see Appendix 1 to this report for a list of the Goals). The Carbon Neutral delivery team will:
  - i) draw together existing evidence and data to establish baseline state of the city presented under each of the 12 Goals
  - ii) conduct a full audit of the city to highlight gaps between current plans and what is required to achieve zero carbon
  - iii) define a clear city plan showing outcomes that will need to be met to deliver carbon neutral, how existing activities support and where there are gaps
  - iv) identify immediate opportunities and crucial first steps
- (6) Exeter City Council commit resource to be part of the Carbon Neutral Delivery Team and, due to the urgency required, co-locate those resources with ECF CIC to ensure that the City Council is leading by example and sharing learning with other ECF CIC Member organisations and the wider ECF CIC Partner Network. (A list of current members of the ECF CIC Partner Network is provided in Appendix 2 to this report);
- (7) Exeter City Futures CIC be requested to convene a “Carbon Neutral Mandate Group” through a series of summits to validate, challenge and endorse the Roadmap produced by the Carbon Neutral working group;
- (8) Exeter City Council support the work of the Devon Climate Emergency Response Group (CERG) and note the outcomes and recommendations. Exeter City Council will participate in a "People's Assembly" with the governance arrangements to be confirmed by the CERG;
- (9) convene a Special meeting of Place Scrutiny Committee, on a biannual basis, to collate and discuss all of the work by Exeter City Council in respect of Climate Change and also allow the opportunity for outside bodies to continue to update Members; and
- (10) Council reports should include an analysis of the progress and impact in working towards a Carbon neutral city goal, as they currently do for the impact on any decision in relation to equality and diversity; health and wellbeing; safeguarding children, young people and vulnerable adults; economy, safety and the environment.

(The meeting commenced at 5.30 pm and closed at 8.15 pm)

Chair

## **PUBLIC QUESTION RECEIVED for Place Scrutiny Committee – 18 June 2019 from Bridget Walton**

### **Question**

Given the declared emergency and the need to make real progress without further delay, will the scrutiny committee stipulate a date by which the Zero Carbon Mandate Group (now the carbon-neutral mandate group) should report with firm, actionable and appropriately timetabled actions to achieve the declared aims in all sectors?

**Response made by** Councillor Sutton, Deputy Leader and Portfolio Holder Climate & Culture (italics).

*The Carbon Neutral Mandate Group was a critical part of the recommendations that were set out. We want to ensure that a group is created to validate, challenge and endorse the roadmap produced through Exeter City Futures. This Group will hold the city (collectively) to account and ensure that the outcomes that we aim for are right for our residents and businesses as well as addressing the challenges of climate change at the pace needed.*

*The Carbon Neutral Mandate Group will be convened by Exeter City Futures, Community Interest Group and will likely include Exeter's global expertise in climate science from the MET Office and University of Exeter, Key Politicians (the Leader and also her role as the Portfolio Holder for Climate & Culture) and other key stakeholders from the wider community e.g. but not exclusively youth, faith, and activist groups.*

*We recognise the urgency required and do not intend to delay the mobilisation of this Group. However, it was important to take note of the wider regional activities and ensure that we define the terms of reference of this Group so that it adds value to and aligns with other emerging regional initiatives, such as the Devon Climate Emergency Response Group, and the proposed Citizens Assembly.*

*Once the terms of reference have been set then we will be able to be clear about the reporting mechanisms of the Carbon Neutral Mandate Group.*

*We do have a choice to make about whether to wait until the regional groups are established or whether to push on and then seek engagement at a later stage to ensure alignment. Exeter City Council is committed to delivering a carbon-neutral City and believe that we can act as an exemplar to the wider region of what can be achieved.*

*Work has already commenced on the preparation of the baseline status report as outlined in the recommendations and a significant amount of analysis of the types of outcomes we will need to include in the roadmap has been done. From this we will be able to understand the technical, financial, political and behavioural challenges that need to be addressed to achieve carbon-neutrality.*

Bridget Walton responded to the reply and wished to draw Members' attention to the lack of a definition relating to carbon neutral and referred to the IPCC report which offered a definition, and she suggested that a correction be made in the report. She commented on the lamentable progress over the last three years and was concerned that Exeter City Futures and Exeter City Council had not defined the baseline for Carbon Emissions. She also commented on the reliance in the report of the 12 goals

some of which could increase admissions. She wished to ensure that Exeter City Futures does not become a green fig leaf to cover little or grossly inadequate action by the Council.

She said that Councillors had acknowledged that they faced a crisis, but must now also deliver change and be ready to make difficult decisions and be bold and decisive to find ways to make change happen urgently. She asked that they not be tempted to wait for new technology and solutions for the problems we face now, but consider simple things like insulating homes, and as a planning authority the new housing being built presented the ideal opportunity. It also related to public transport and cycling, moving away from the single occupancy car alongside all of the issues relating to fossil free fuel. She stated that these things overlapped with Exeter's need to address congestion and pollution and inactivity and were a win for the city to go on and deliver. She invited this to be done with the urgency that the climate emergency which you have declared, demands. She ended by stating that our children and grandchildren would need to live in this world that we leave them, and we should act to leave them a sustainable and healthy world.

# An Energy Neutral Council



# More than 20 major projects delivered



Phase3 LED



Civic Centre PV



John Lewis PV



Harlequins CP



Oakwood PV



Ark PV



Mary Arches



MRF PV



Mary Arches CP



Museum PV



Civic LED



Belle Isle PV



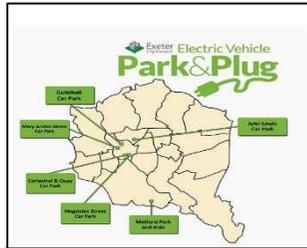
Livestock Centre



Climb Cent



Knesshay 3 CP



EV Chargepoints



Guildhall CP



Low Energy Dryers



Wat Tyler PV



Cathedral CP



EV Chargepo

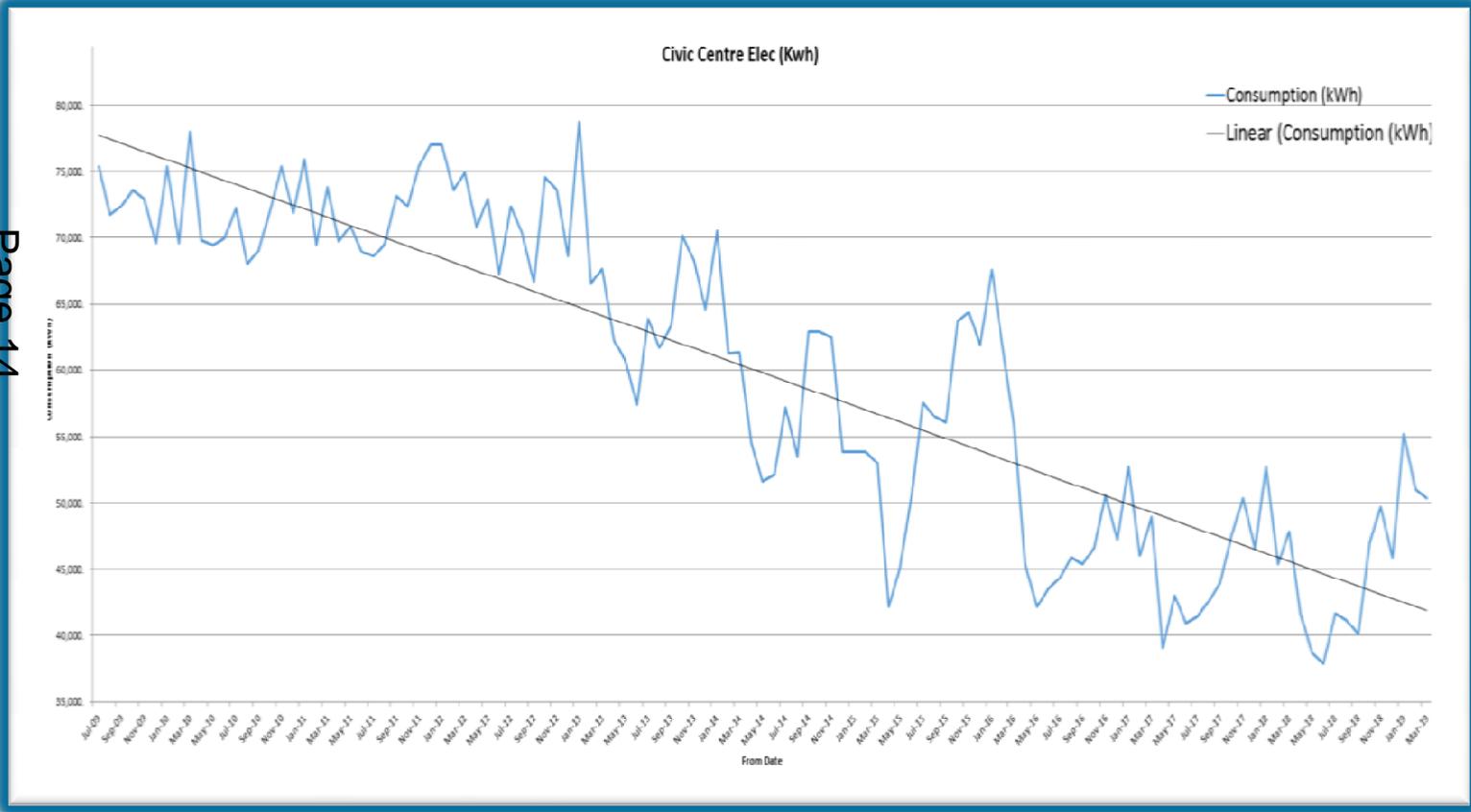
# Flagship Solar PV Projects

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# Current Position

Civic Centre energy consumption (kWh)



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37% drop in energy consumption

Carbon reduction of 29%

50% Carbon reduction by 2022

# Clapperbrook Solar PV & Smart Grids Project

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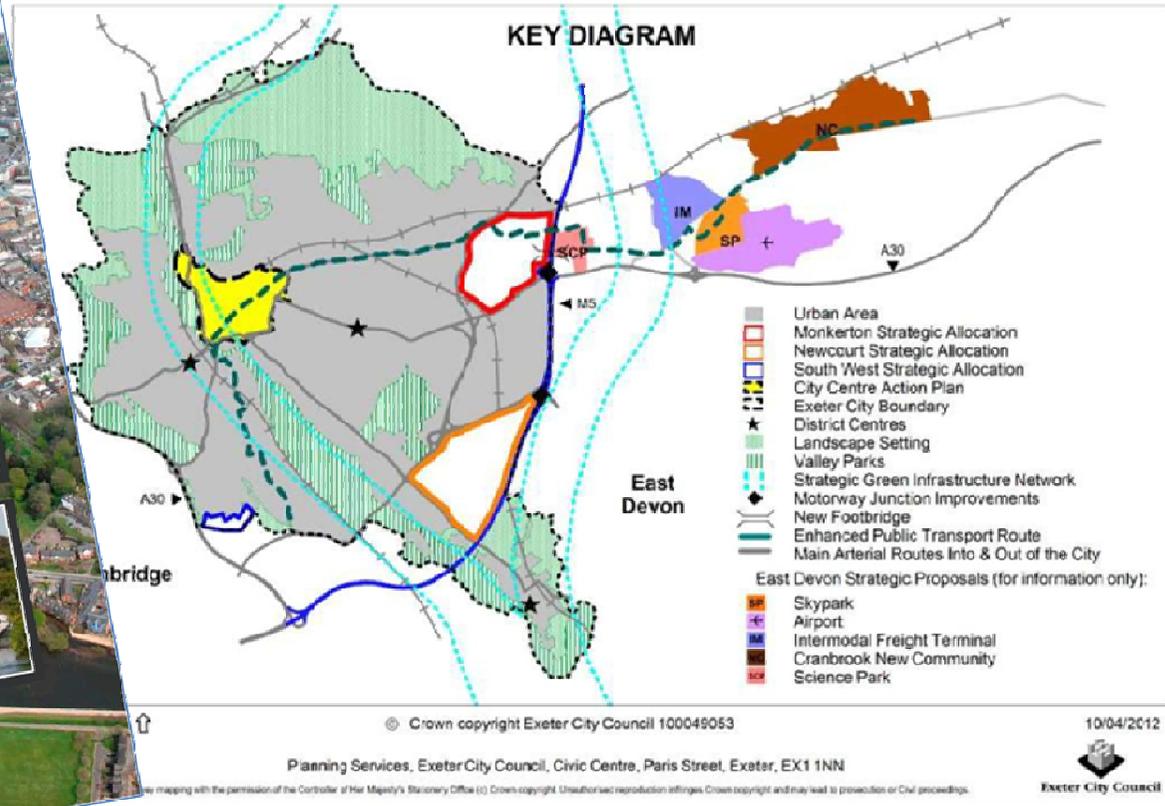


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Exeter City Council

# CORE STRATEGY

Adopted February 2012



## ADOPTED CORE STRATEGY POLICY CP13

**CP13:** Decentralised Energy Networks will be developed and brought forward. New development (either new build or conversion) with a floorspace of at least 1,000 square metres, or comprising ten or more dwellings, will be required to connect to any existing, or proposed, Decentralised Energy Network in the locality to bring forward low and zero carbon energy supply and distribution. Otherwise, it will be necessary to demonstrate that it would not be viable or feasible to do so. Where this is the case, alternative solutions that would result in the same or better carbon reduction must be explored and implemented, unless it can be demonstrated that they would not be viable or feasible.

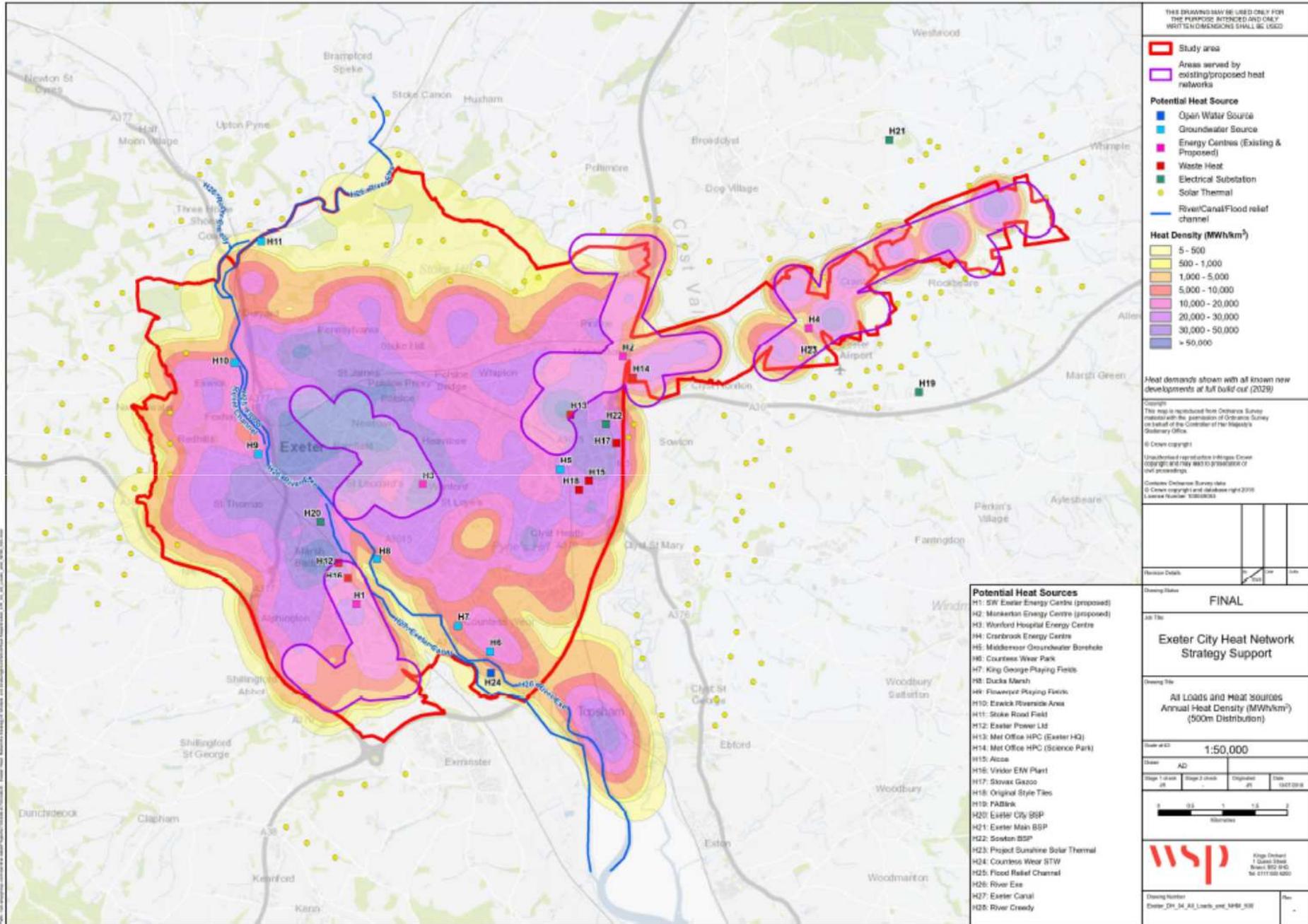


Figure 12 – Locally available heat sources shown on heat map

## ADOPTED CORE STRATEGY POLICY CP15

**CP15:** Proposals for development are expected to demonstrate how sustainable design and construction methods will be incorporated. All development must be resilient to climate change (particularly summer overheating) and optimise energy and water efficiency through appropriate design, insulation, layout, orientation, landscaping and materials, and by using technologies that reduce carbon emissions.

Residential development will be required to achieve the above (Para 10.29) Code for Sustainable Homes Level (overall performance across the code categories and complying with minimum standards).

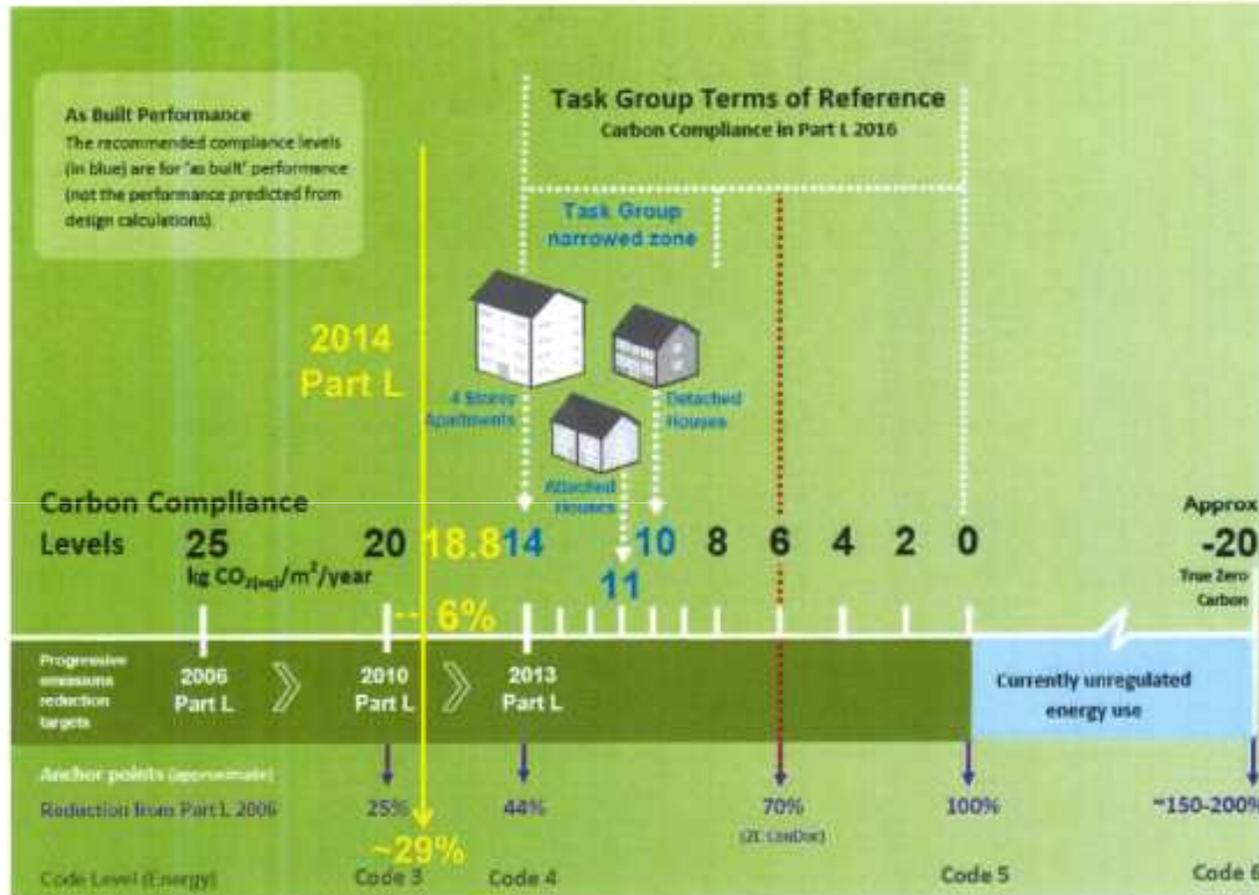
All non-domestic development will be required to achieve BREEAM 'Very Good' standards increasing to 'Excellent' standards from 2013. Non-domestic buildings are expected to be zero carbon from 2019.

Due to their scale the Monkerton/Hill Barton, Newcourt and Alphington urban extensions should achieve levels of sustainability in advance of those set out nationally.

### The Code for Sustainable Homes

Code level	Energy standard (reduction from 2006 Part L)	Year
3	25%	2010
4	44%	2013
5	Zero carbon	2016

# Carbon compliance and Zero Carbon



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# CCC Net Zero Technical report May 2019

18<sup>th</sup> June 2019

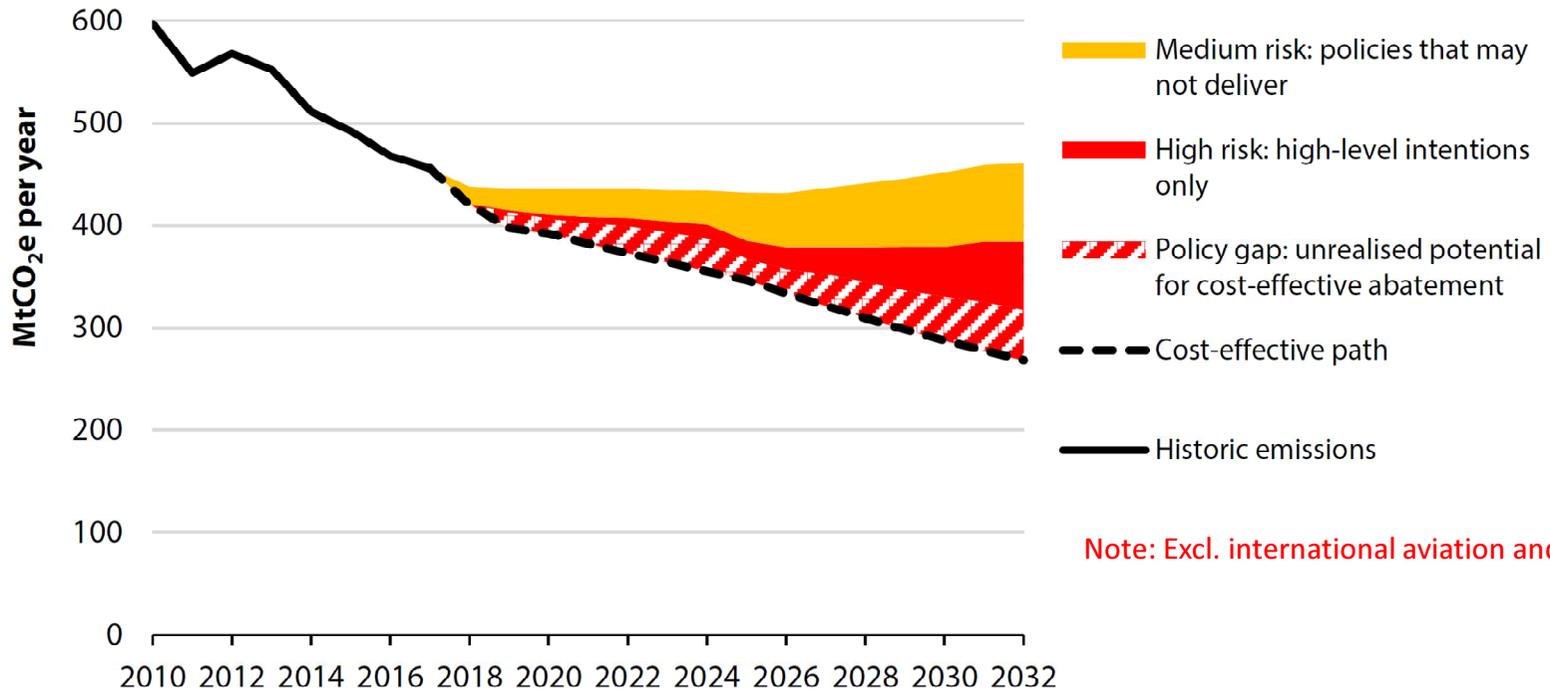
Tony Norton

Centre for Energy and the Environment

# CCC – 2018 Progress Report to Parliament



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# CCC – Net Zero by 2050



## Scenarios

- Core measures needed to achieve 80% by 2050
- Further Ambition more challenging more expensive
- Speculative options low levels of readiness, high cost & barriers to public acceptability

## Sectors

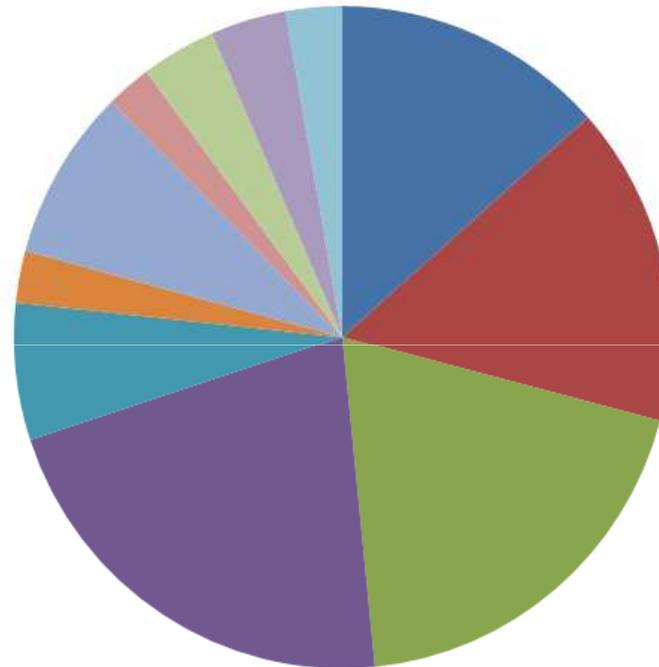
Power and hydrogen  
Buildings  
Industry  
Transport

Aviation and shipping  
Agriculture, LUC & forestry  
Waste  
F-gas emissions  
Green house gas removal

# CCC – 2017 emission by sector

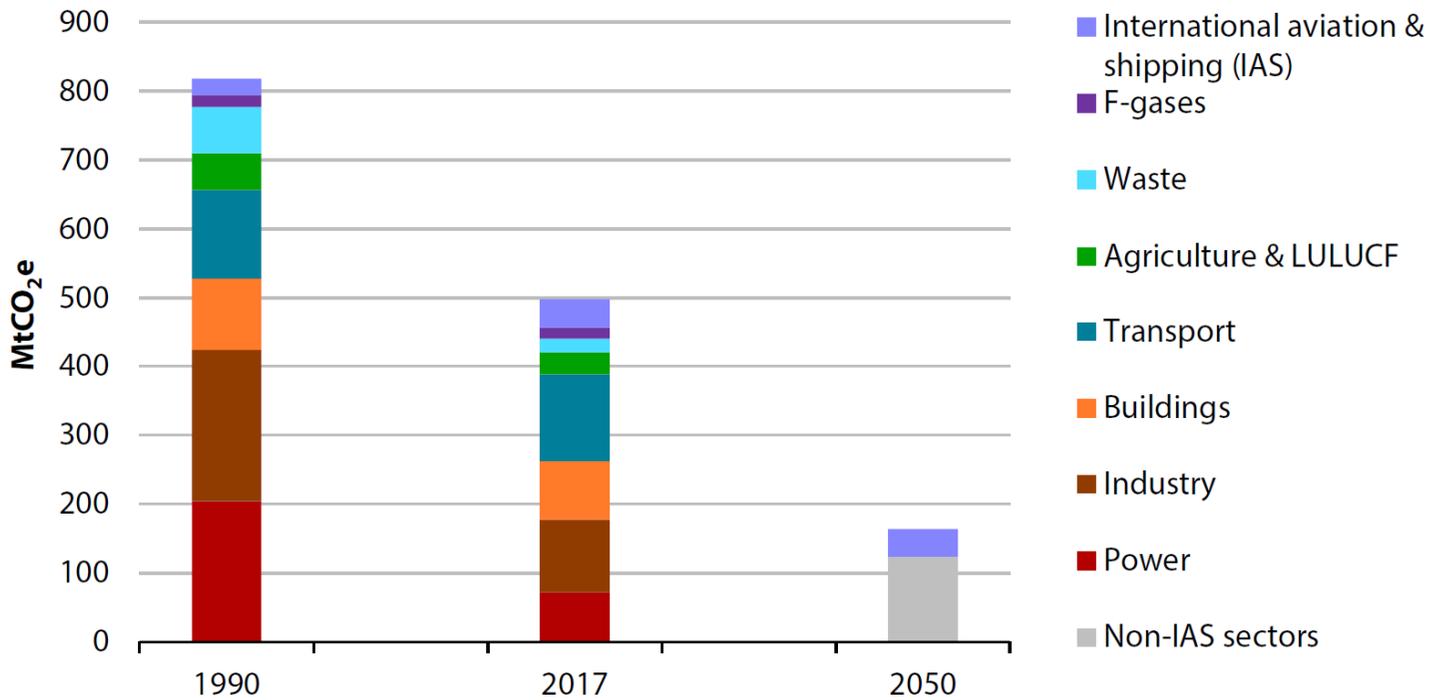


Sector	Emissions MTCO <sub>2</sub> e	%
Power and hydrogen	73	15%
Buildings	85	17%
Industry	105	21%
Transport	117	23%
Aviation	37	7%
Shipping	14	3%
Agriculture	46	9%
Land use change	12	2%
Forestry	-20	-4%
Waste	20	4%
F gas emissions	15	3%
GHG removal	0	0%
<b>Total</b>	<b>503</b>	<b>100%</b>

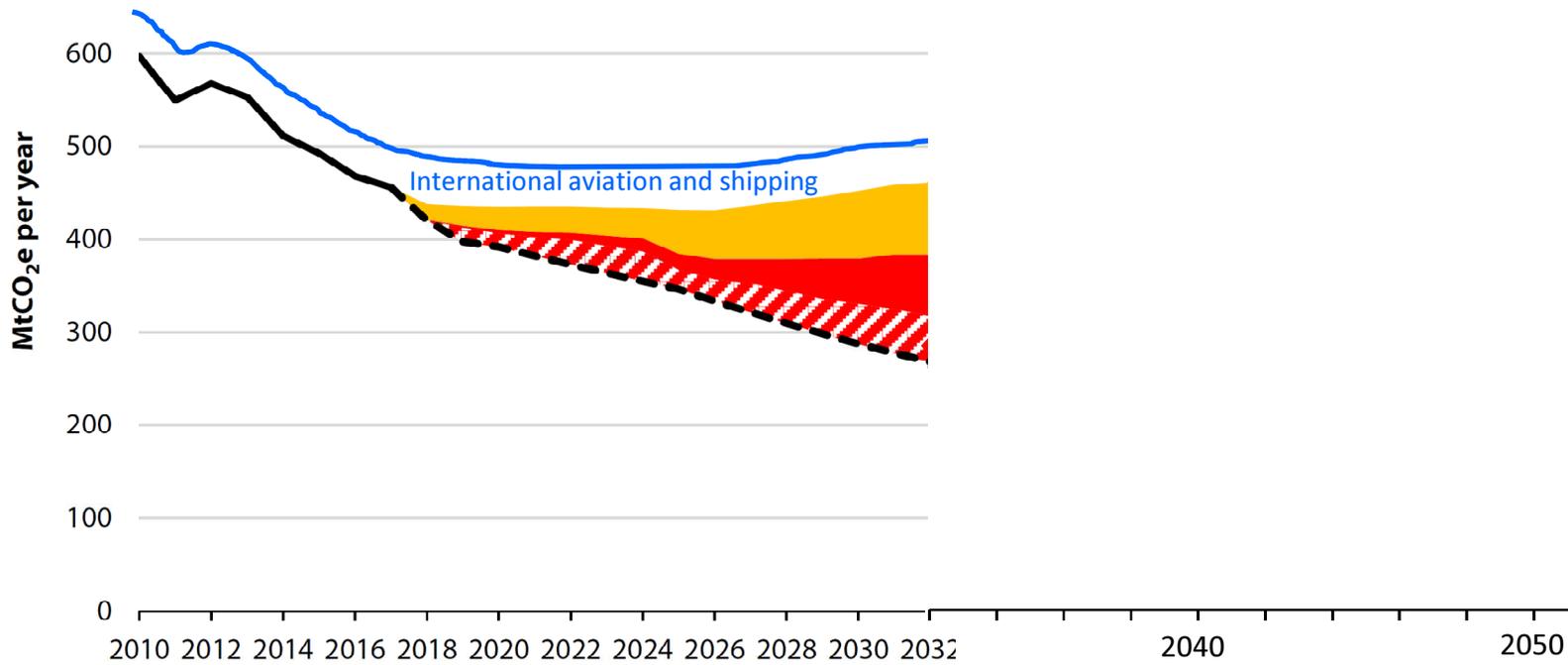


- Power and hydrogen
- Buildings
- Industry
- Transport
- Aviation
- Shipping
- Agriculture
- Land use change
- Forestry
- Waste
- F gas emissions

# CCC – Scale of the challenge to 80%



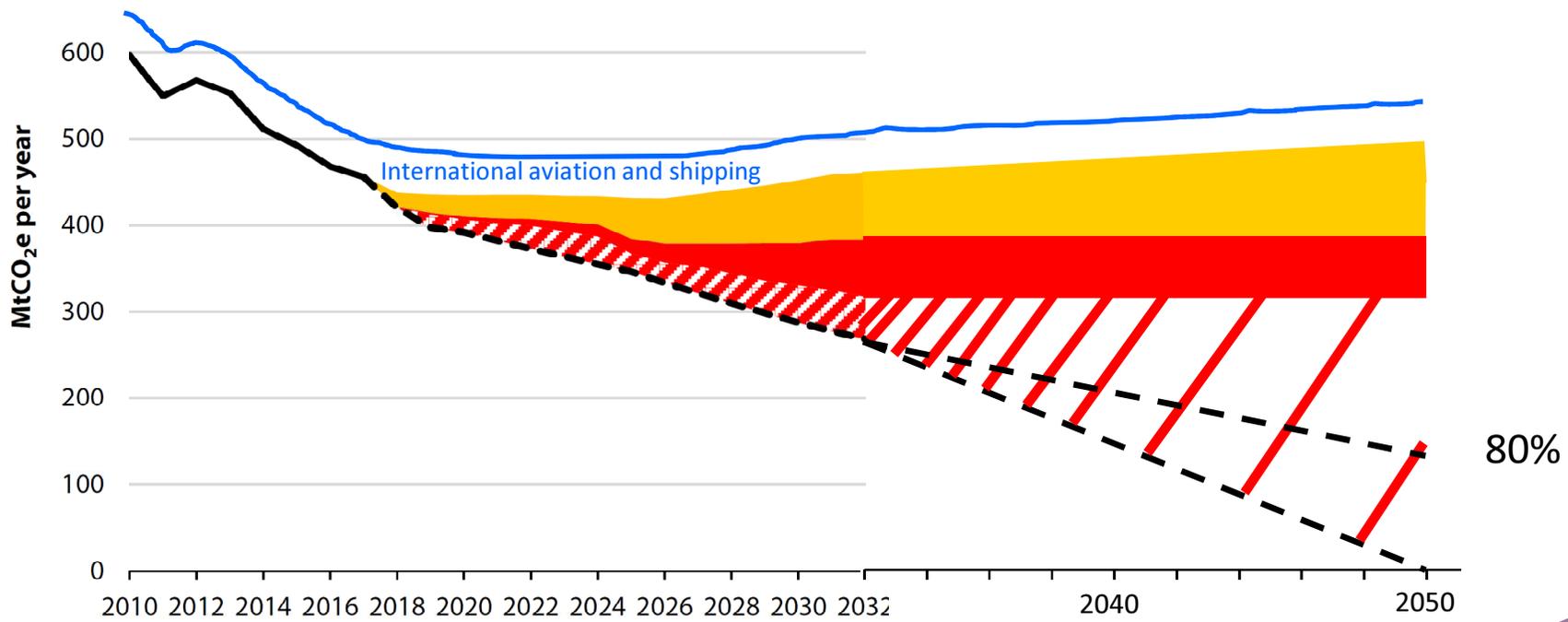
# Extrapolation of CCC 2018 projections



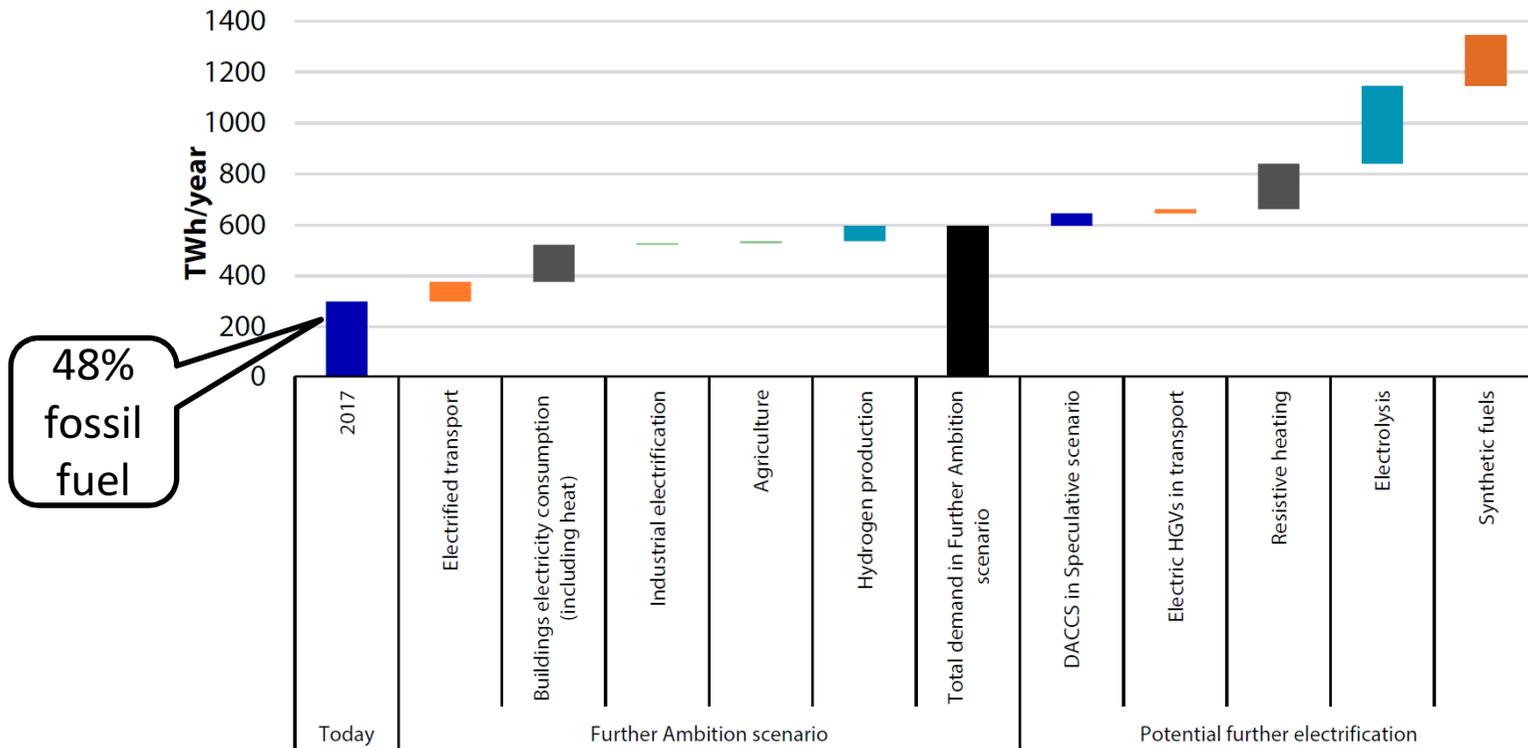
# Extrapolation of CCC 2018 projections



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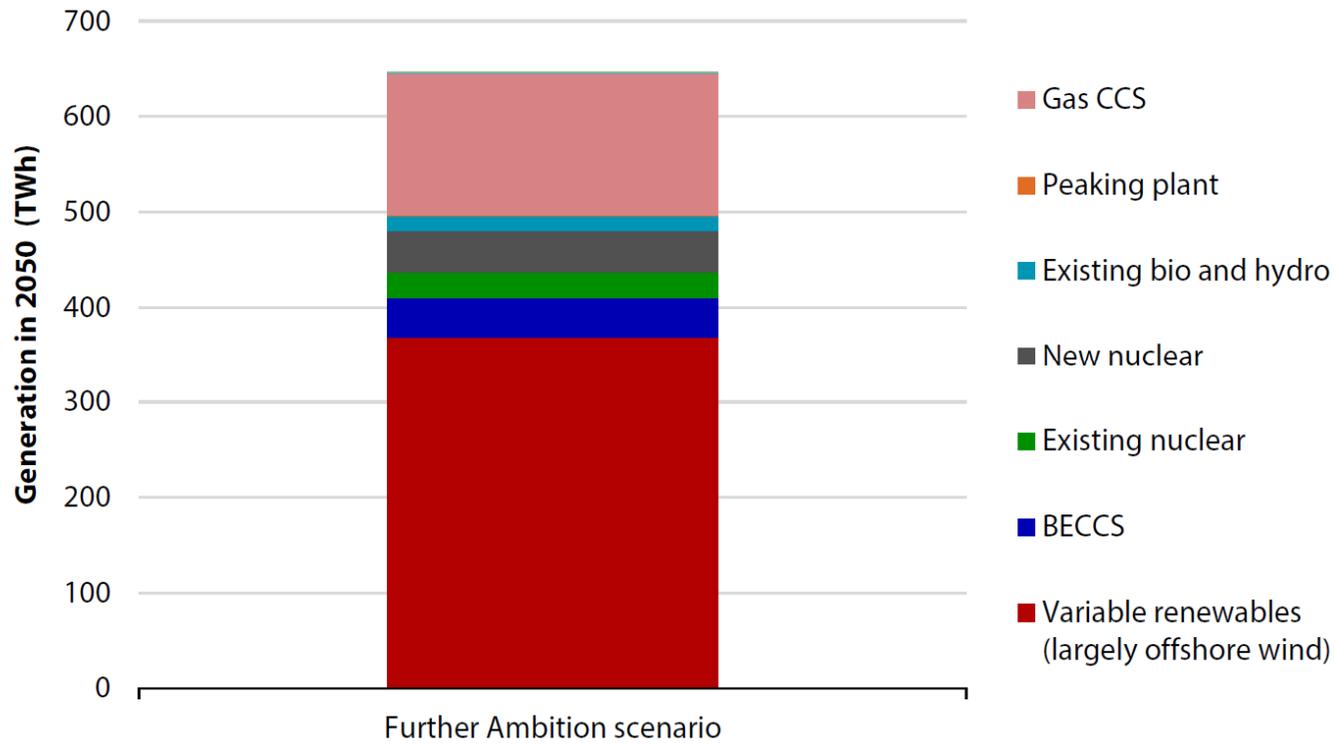


# CCC – Net Zero – Power and hydrogen



48% fossil fuel

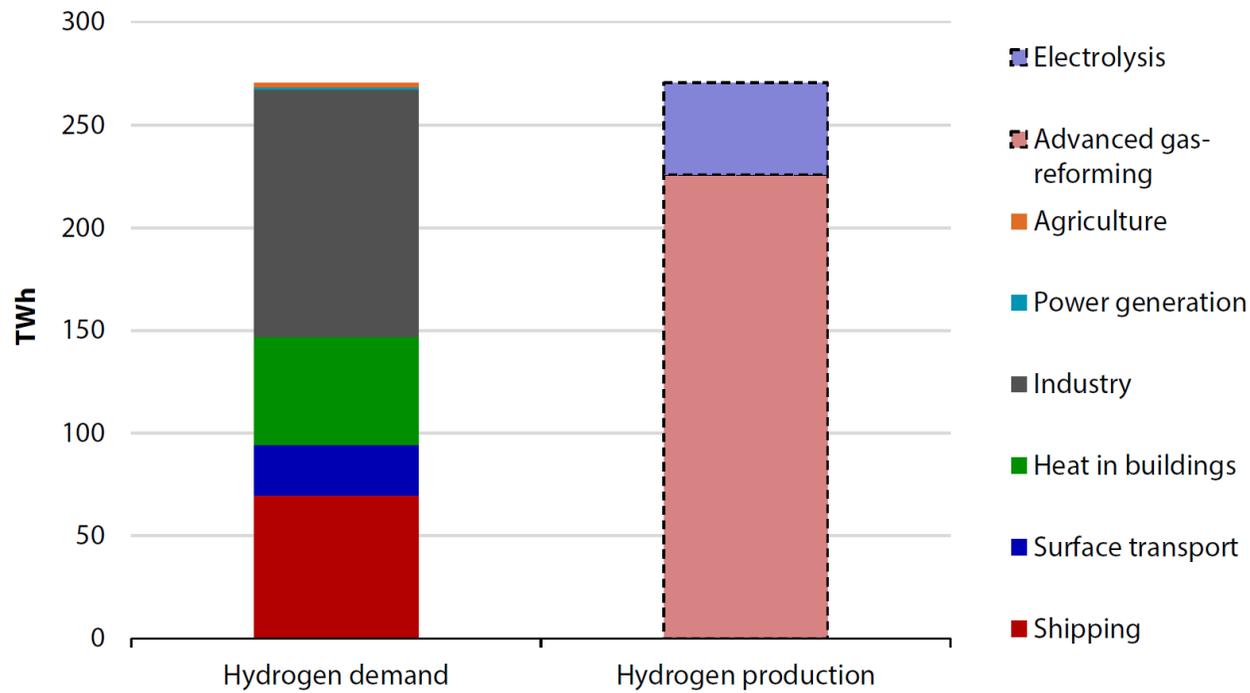
# CCC – Net Zero – Power and hydrogen



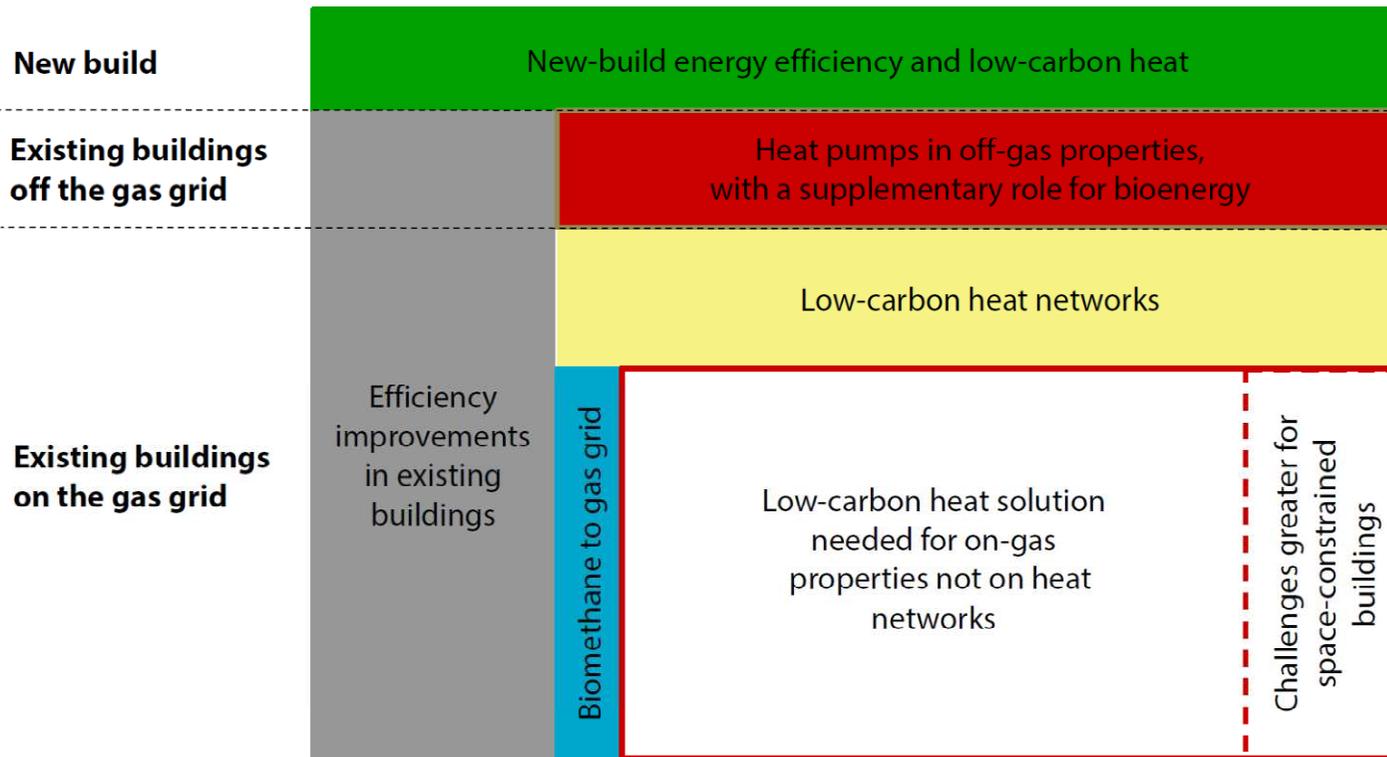
# CCC – Net Zero – Power and hydrogen



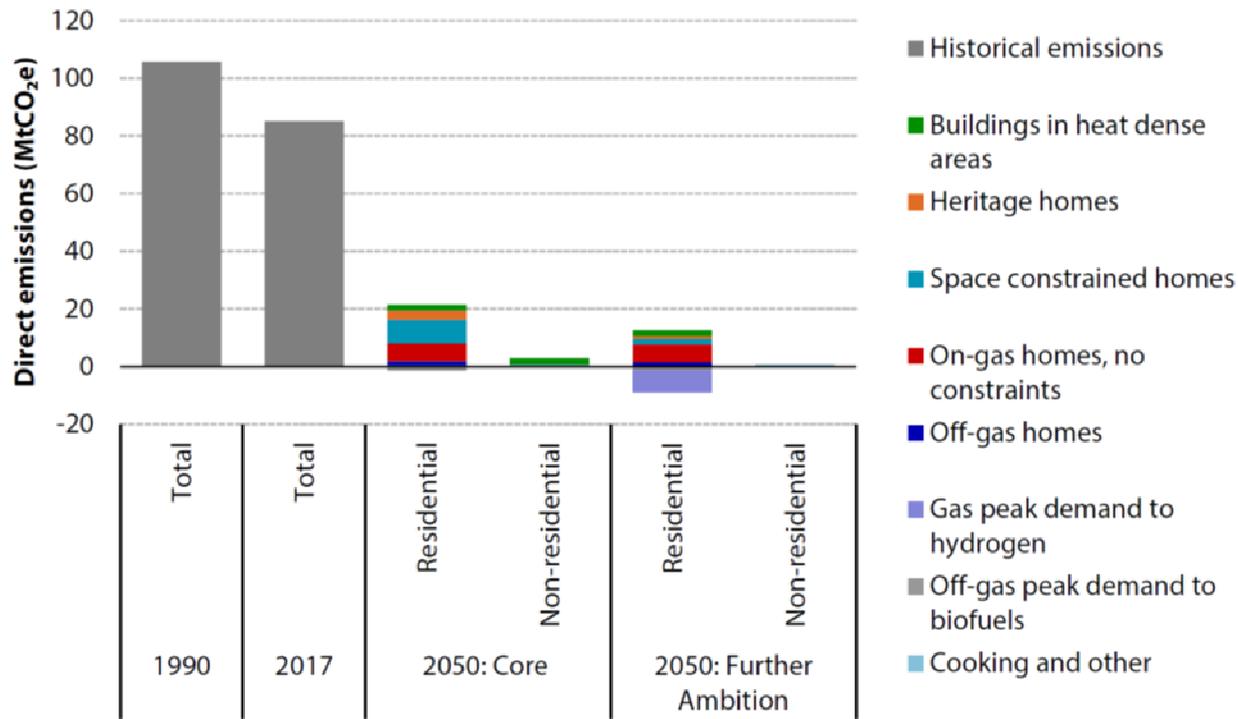
### Hydrogen in the Further Ambition scenario



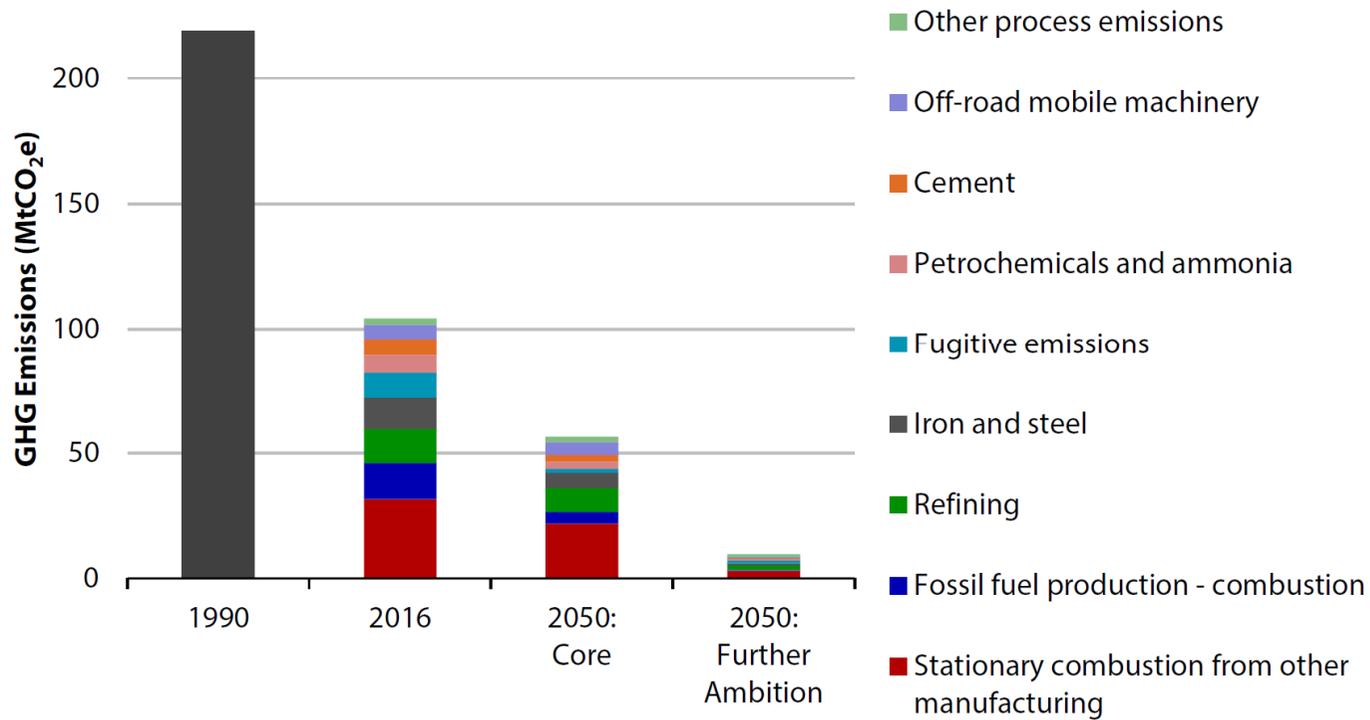
# CCC – Net Zero – Buildings



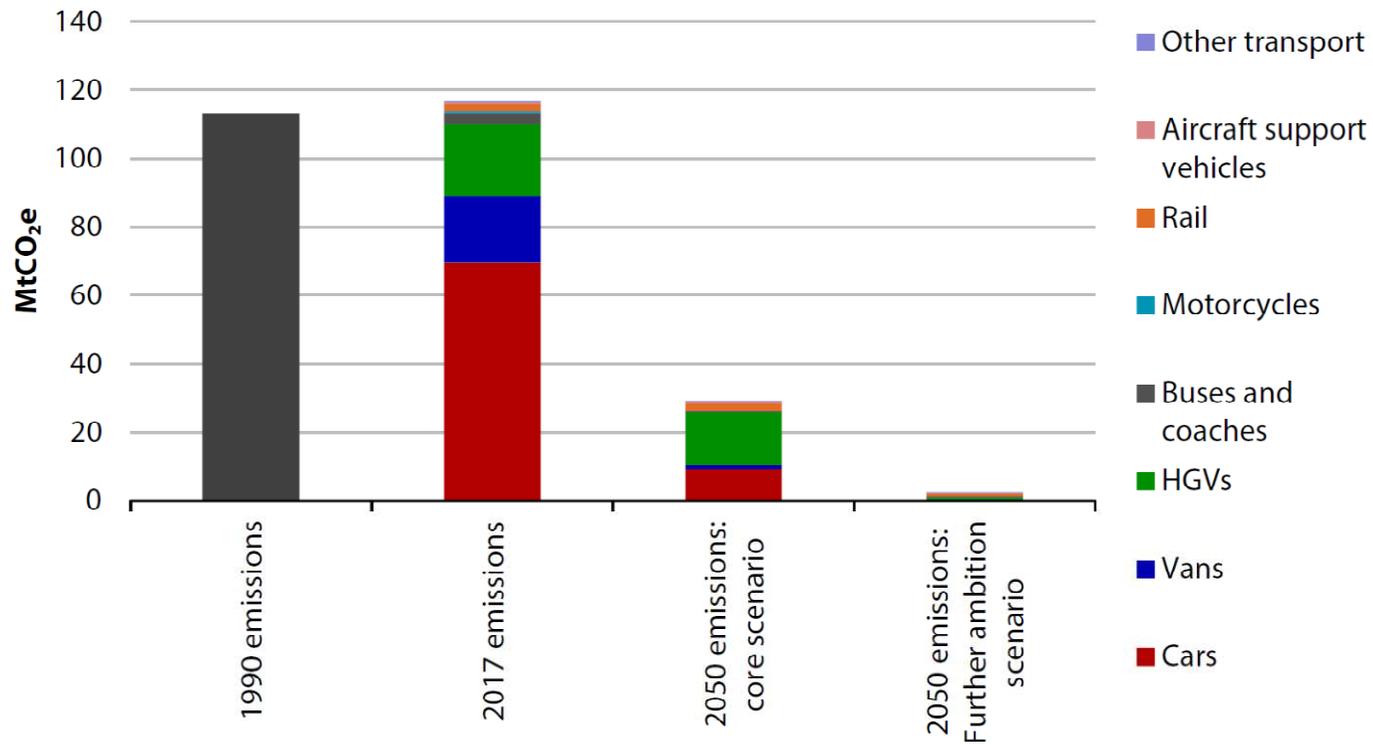
# CCC – Net Zero – Buildings



# CCC – Net Zero – Industry



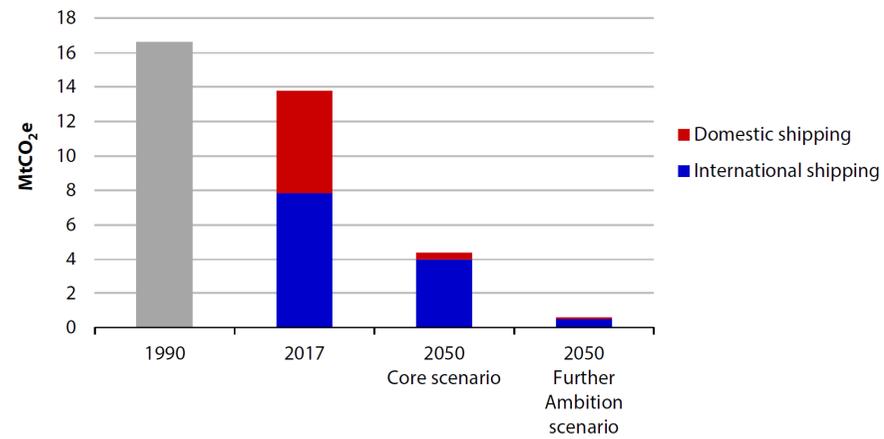
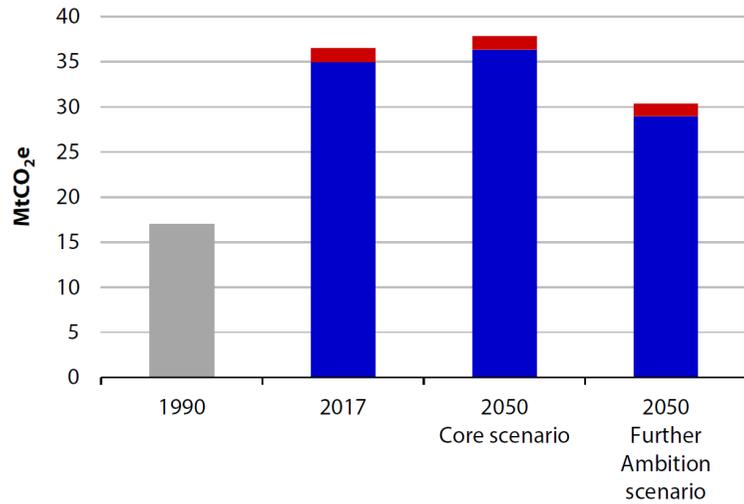
# CCC – Net Zero – Transport



# CCC – Net Zero – Aviation and shipping



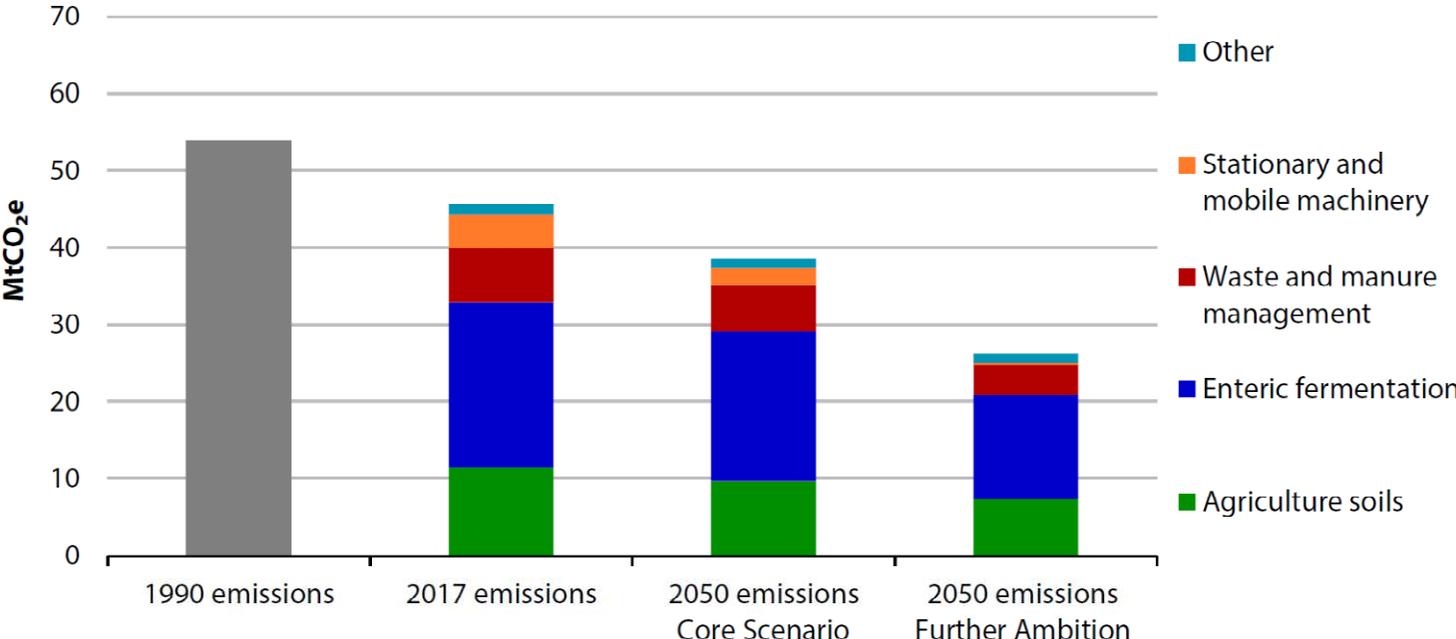
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# CCC – Net Zero – Agriculture



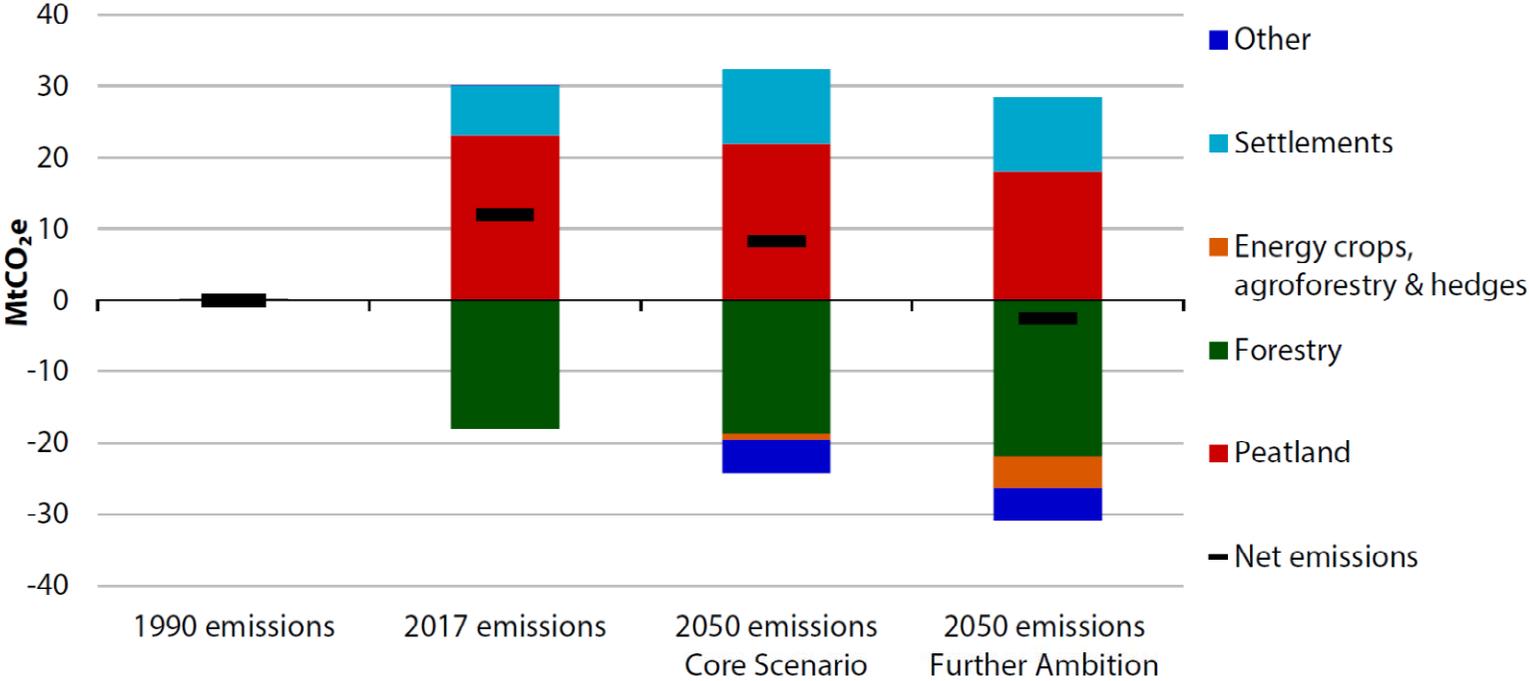
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# CCC – Net Zero – LUC & forestry



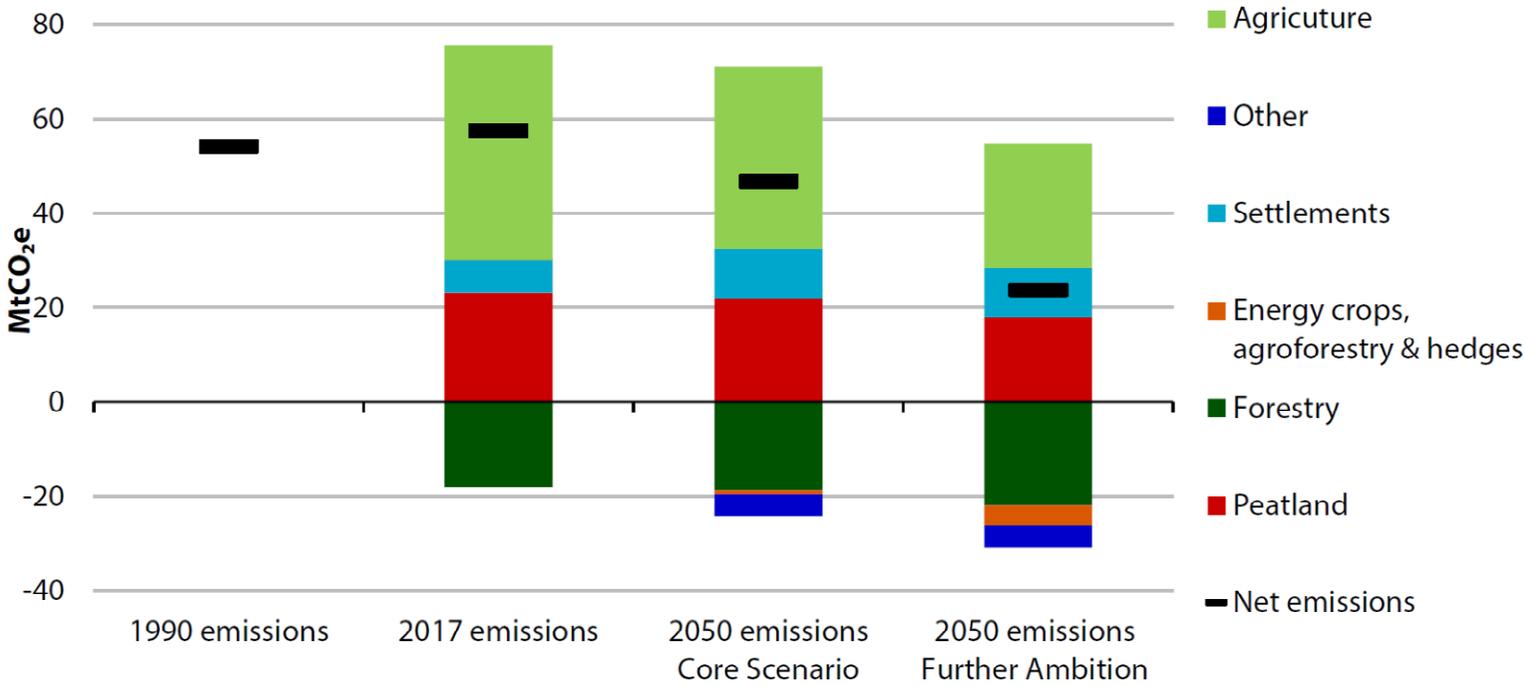
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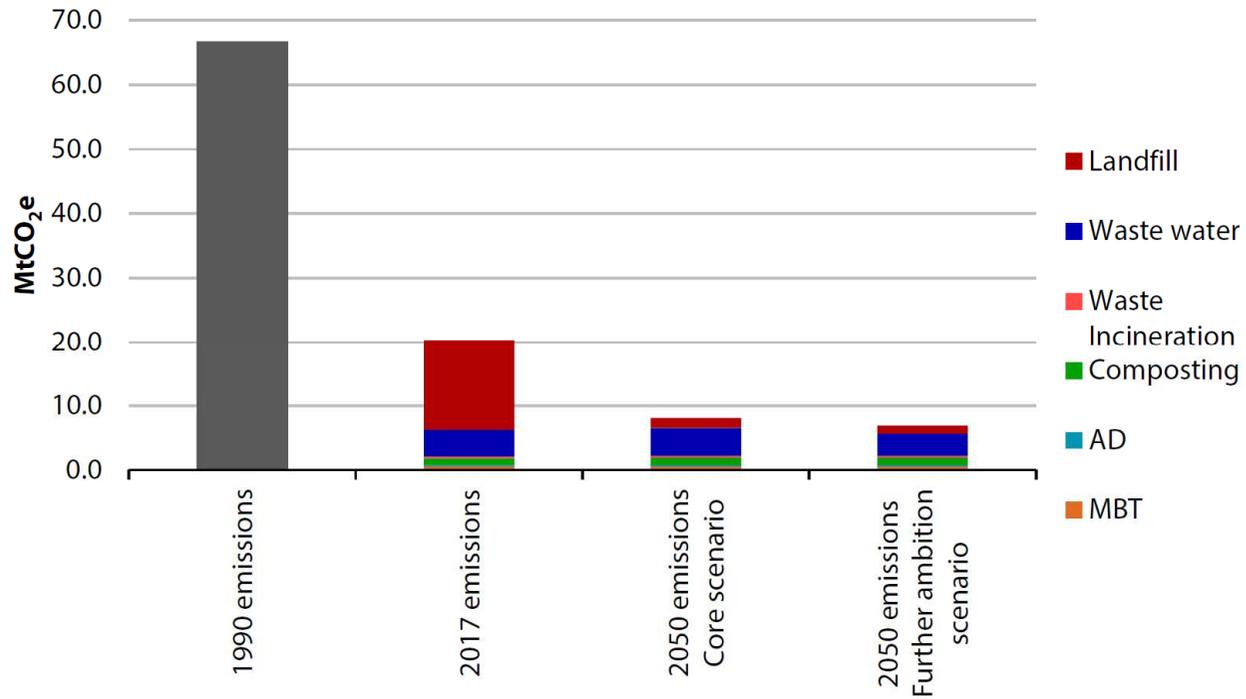
# CCC – Net Zero – Agriculture, LUC & forestry



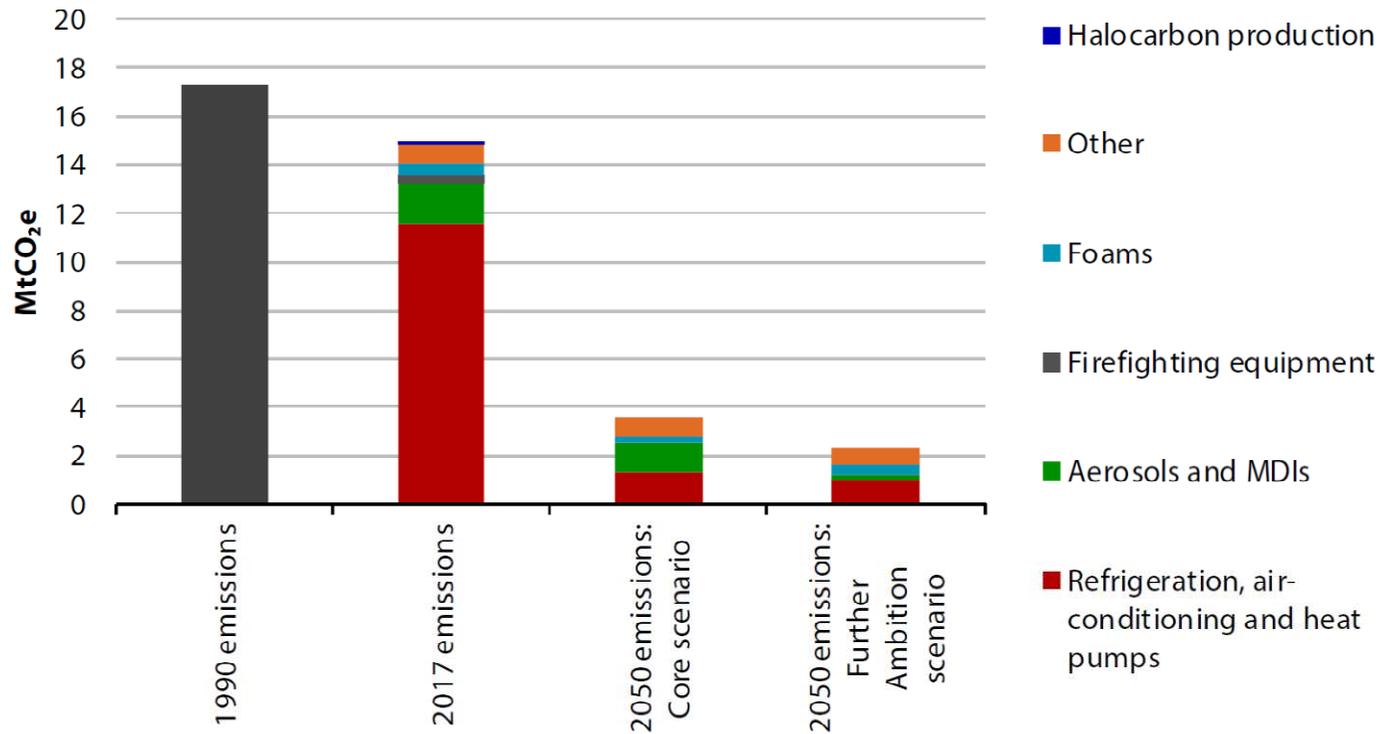
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# CCC – Net Zero – Waste



# CCC – Net Zero – F gas emissions



## CCC – Net Zero – Greenhouse gas removal

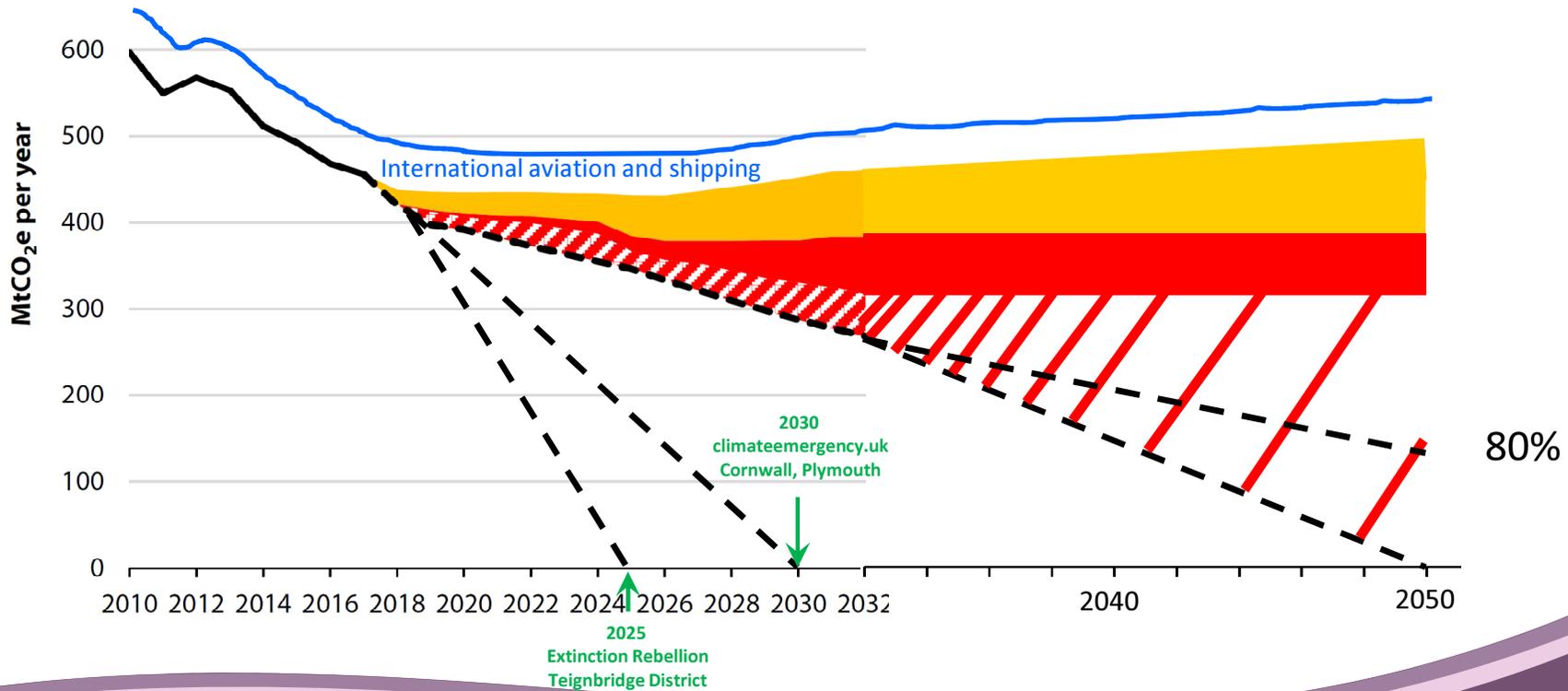


- Forestry and peatland (included elsewhere)
- Wood in construction
- Bioenergy with CCS (BECCS)
- Direct air capture of CO<sub>2</sub> with storage (DACCS)
- Biochar
- Enhanced weathering

# Accelerating Net Zero



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# CCC Net Zero Technical report May 2019

18<sup>th</sup> June 2019

Tony Norton

Centre for Energy and the Environment

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