

UKpassivhaus conference 2020

A HEALTHY & GREEN FUTURE



A HEALTHY & GREEN FUTURE

WED 04 NOV | 15:00 – 16:30

WWW.UKPHC.ORG.UK

#UKPHC20

ATMA
The Air Tightness Testing & Measurement Association

green
building
store

Kingspan.

LEAD SPONSORS

A HEALTHY & GREEN FUTURE: PROGRAMME



@PassivhausTrust

15:00 WELCOME

John Palmer, Passivhaus Trust

15:10 PASSIVHAUS IN NORTH AMERICA THROUGH THE NAPHN LENS

Bronwyn Barry, North American Passive House Network

15:35 TWO DECADES OF PASSIVHAUS IN THE UK

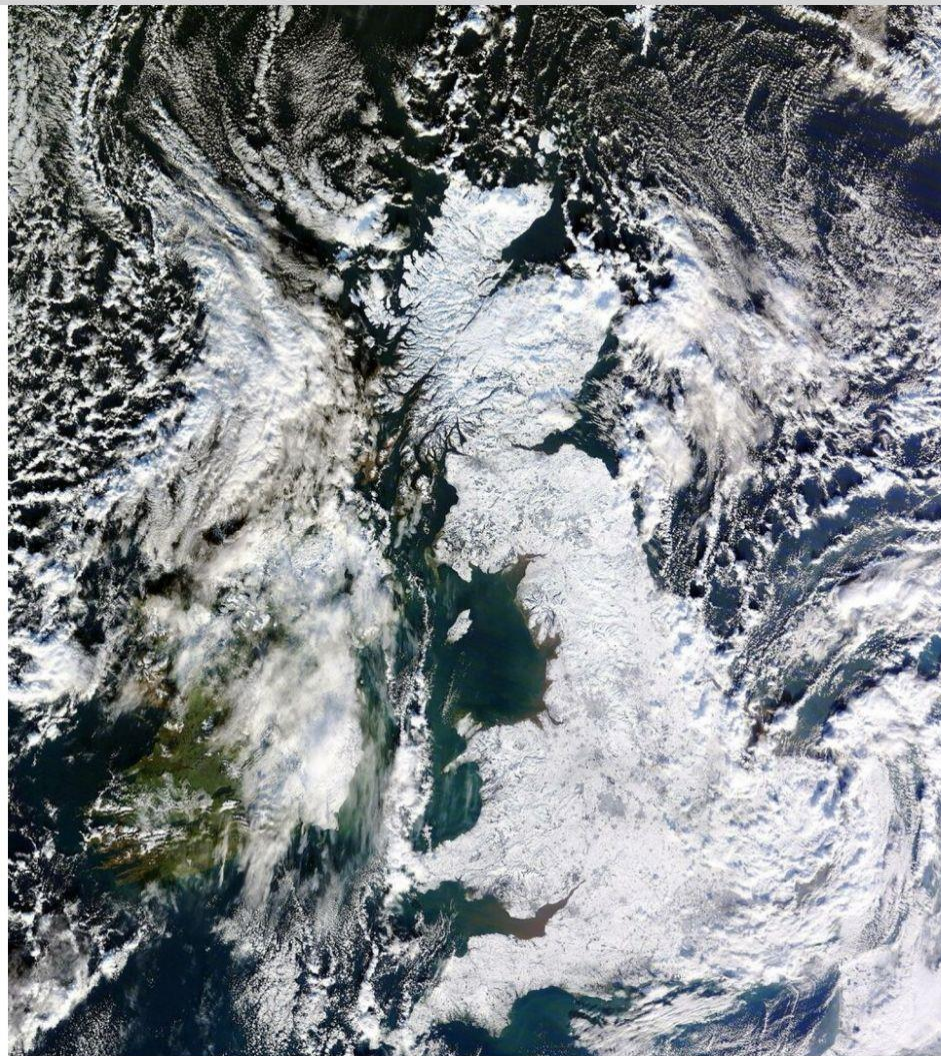
John Palmer, Passivhaus Trust

15:55 WHAT ARE THE CHALLENGES FOR THE NEXT 10 YEARS?

Denise Craghill, City of York Council

Michelle Mundie, Glasgow City Council

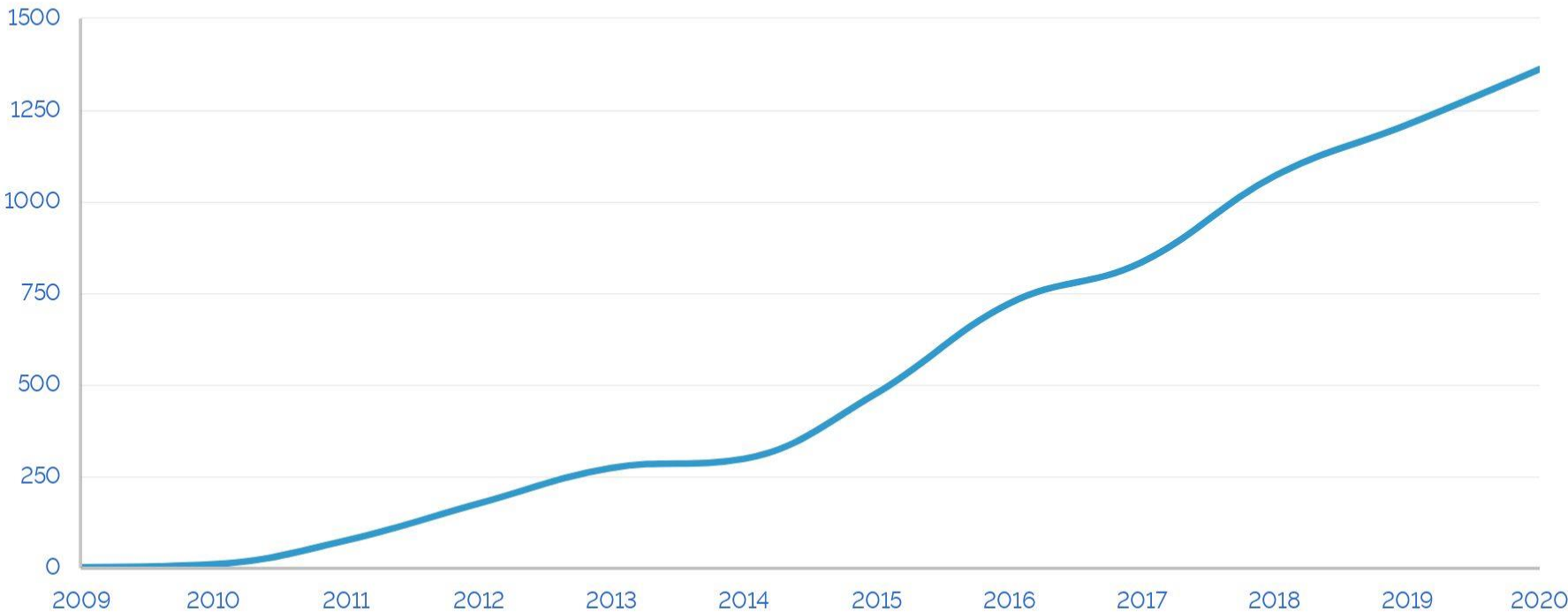
Patrick Brown, City of Edinburgh Council



AMPELOGRAPHER TEXT BOX
VUVUZELA
BOONIES
DUBSTEP
TOOL TIP
IPOD
DEETS
SNOWMAGGEDON
JEGGINGS
PARKOUR
OBAMACARE
CARE PACKAGE
FREE
SHEEP
FREE RUNNING



Certified Passivhaus Units



A HEALTHY & GREEN FUTURE



BRONWYN BARRY
NORTH AMERICAN
PASSIVE HOUSE
NETWORK

PASSIVHAUS IN NORTH AMERICA THROUGH THE NAPHN LENS

**UKpassivhaus
conference 2020**



ATMA
The Air Tightness Training & Measurement Association

green
building
store

Kingspan



A HEALTHY & GREEN FUTURE: PROGRAMME



@PassivhausTrust

15:00 WELCOME

John Palmer, Passivhaus Trust

15:10 PASSIVHAUS IN NORTH AMERICA THROUGH THE NAPHN LENS

Bronwyn Barry, North American Passive House Network

15:35 TWO DECADES OF PASSIVHAUS IN THE UK

John Palmer, Passivhaus Trust

15:55 WHAT ARE THE CHALLENGES FOR THE NEXT 10 YEARS?

Denise Craghill, City of York Council

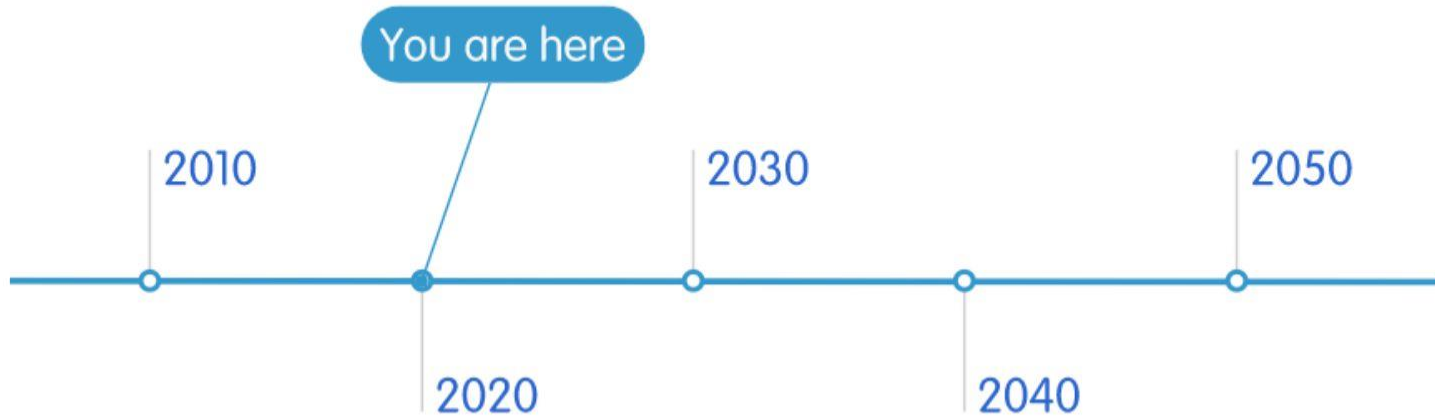
Michelle Mundie, Glasgow City Council

Patrick Brown, City of Edinburgh Council



TWO DECADES OF PASSIVHAUS

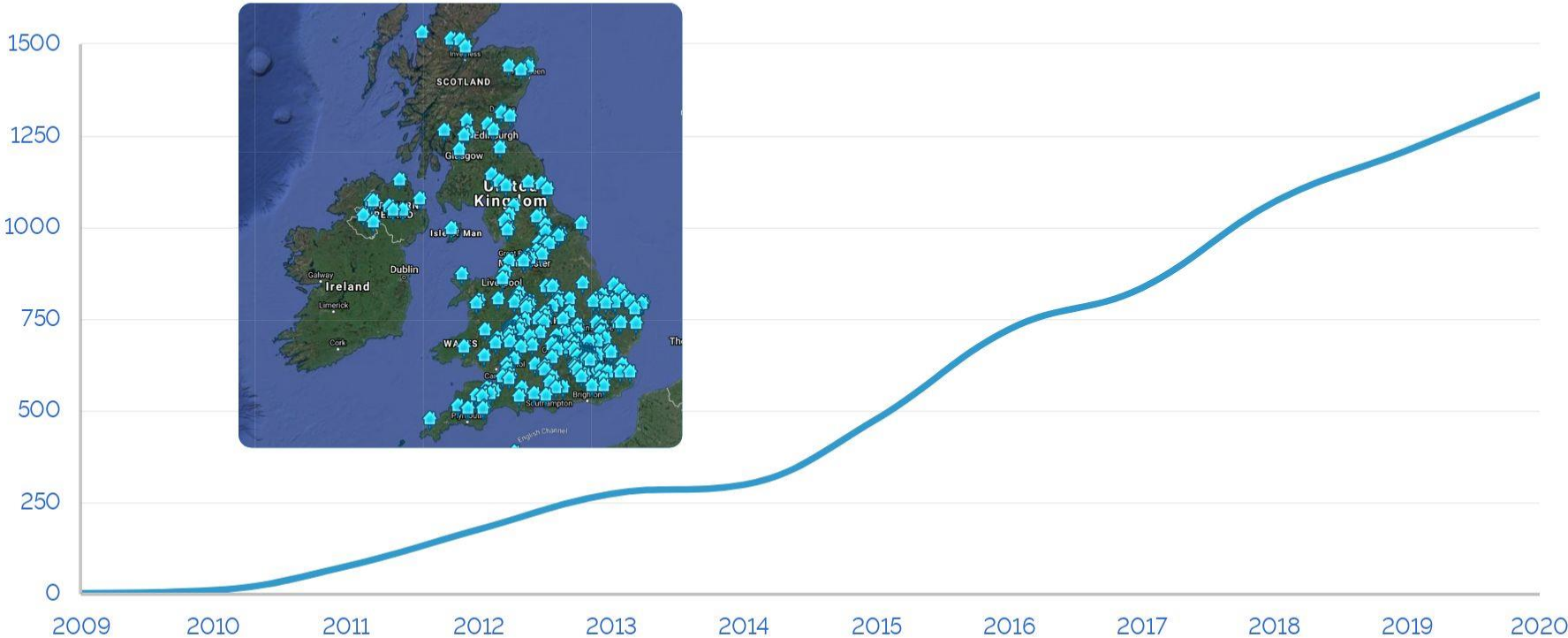
John Palmer, Passivhaus Trust



Agenda

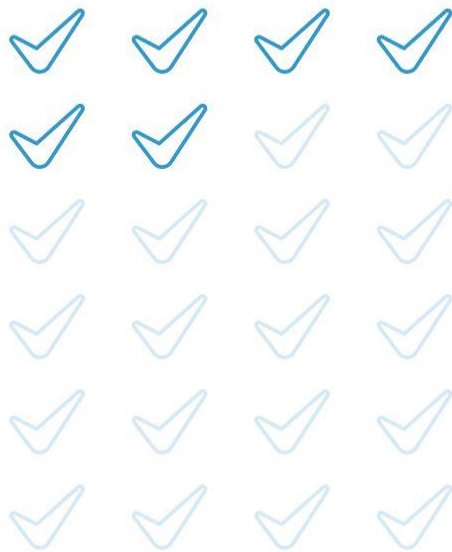
- 1 The Journey
- 2 Where are we now?
- 3 Passivhaus in context
- 4 The next 10 years ...

Certified Passivhaus Units



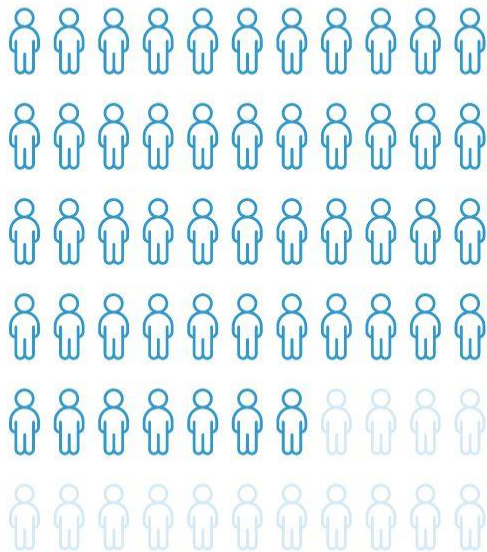
The Journey - 2010 to 2020

298



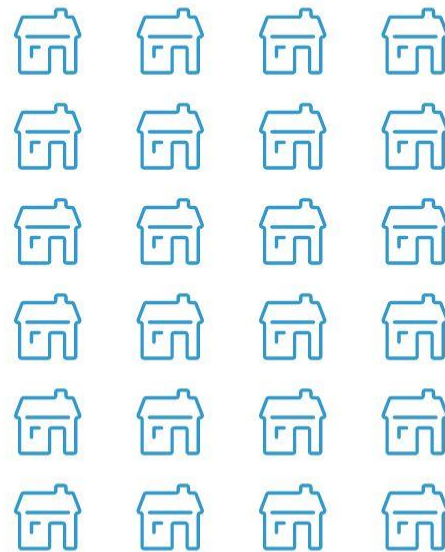
Certified Projects

1,033



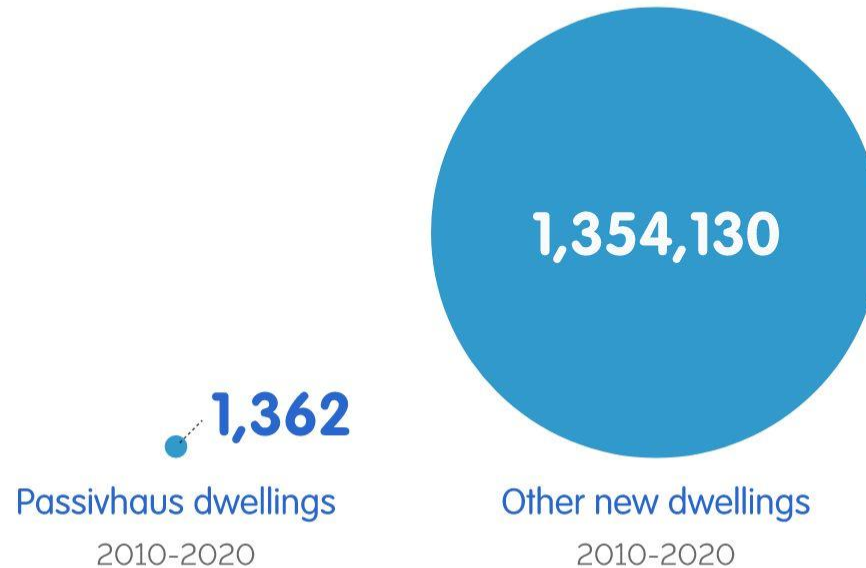
Passivhaus Designers Trained

1,362



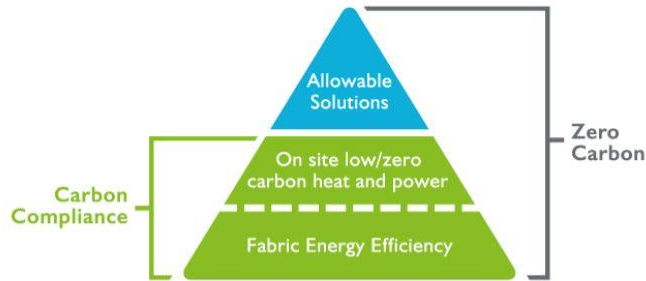
Total UK Passivhaus Units

But, what about the big picture ...



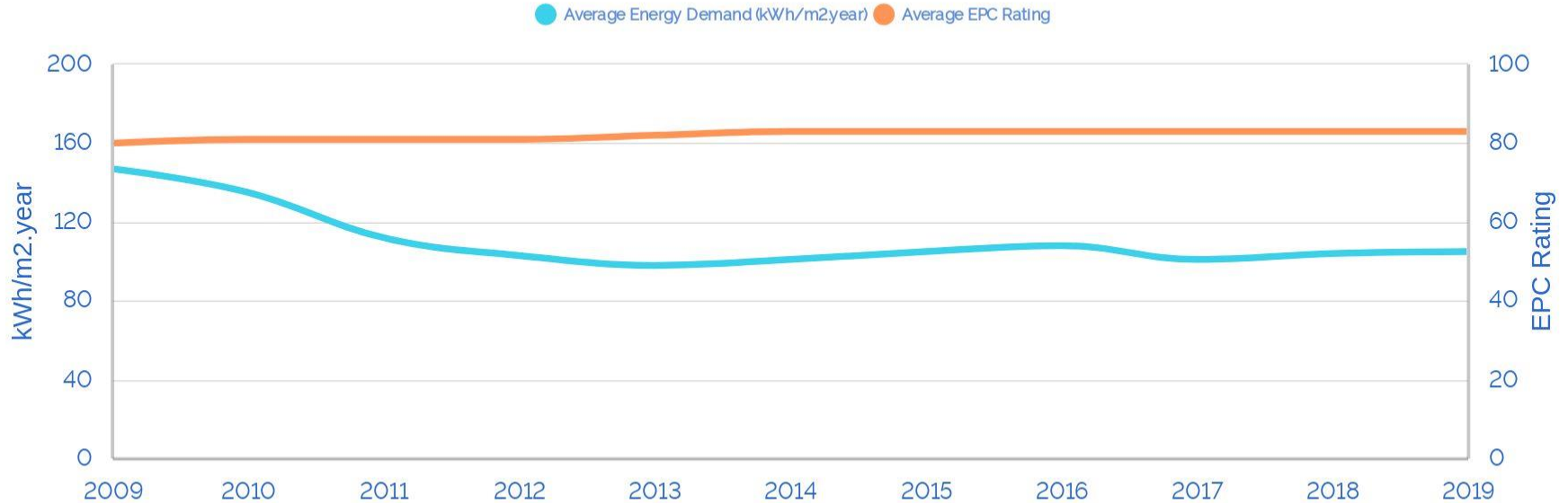
Where we should have been ...

Zero Carbon Policy



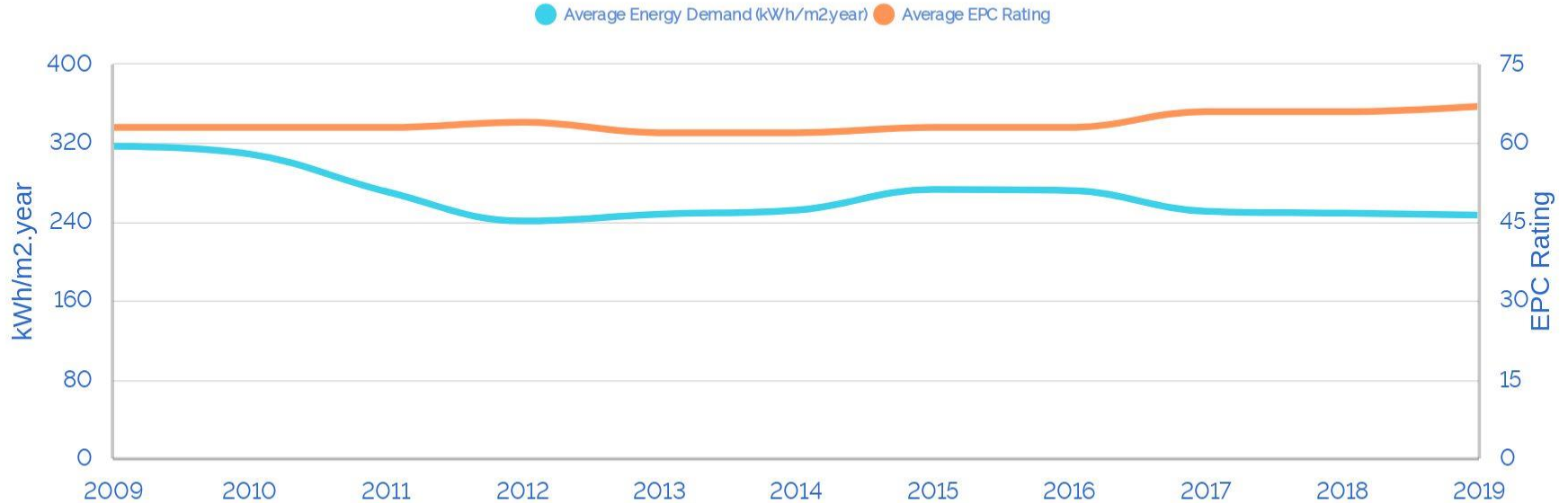
“The policy, as set out today, requires all new homes from 2016 to mitigate, through various measures, all the carbon emissions produced on-site as a result of the regulated energy use.”

EPC Lodgement Data - New Dwellings



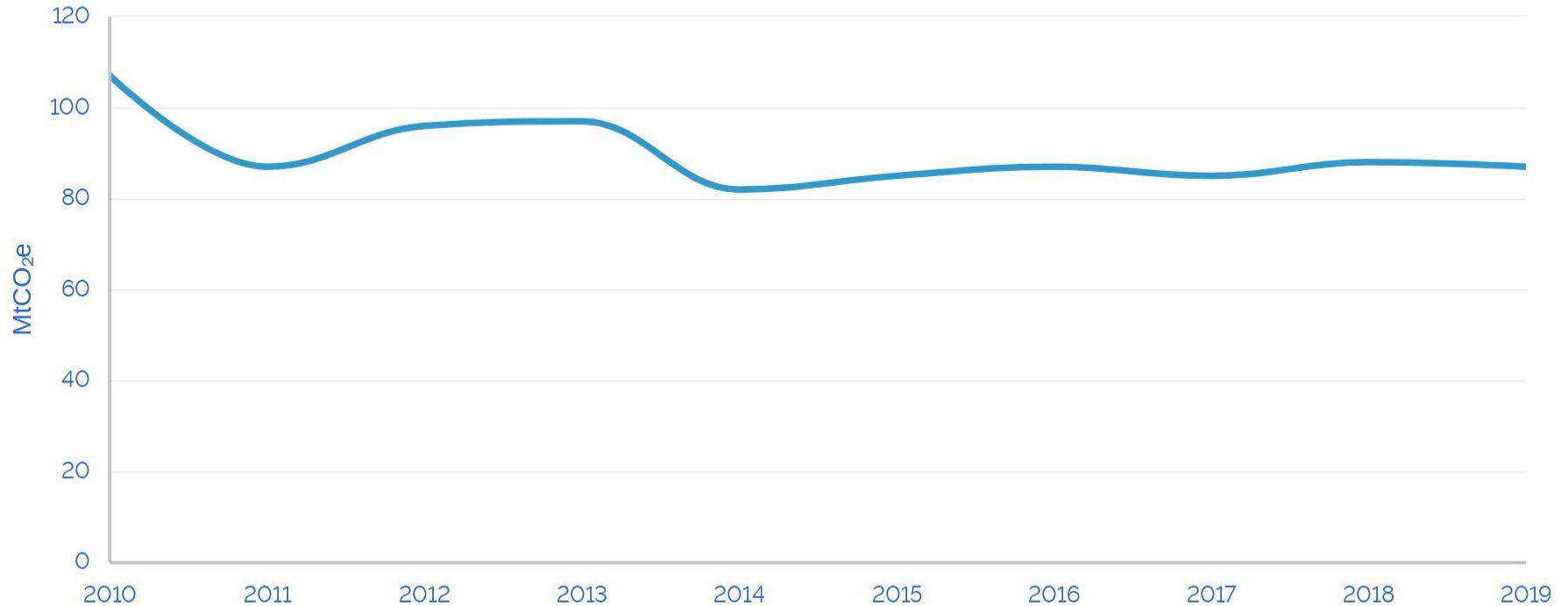
Source: Live tables on Energy Performance of Buildings Certificates, MHCLG, Jan 2020

EPC Lodgement Data - All Dwellings



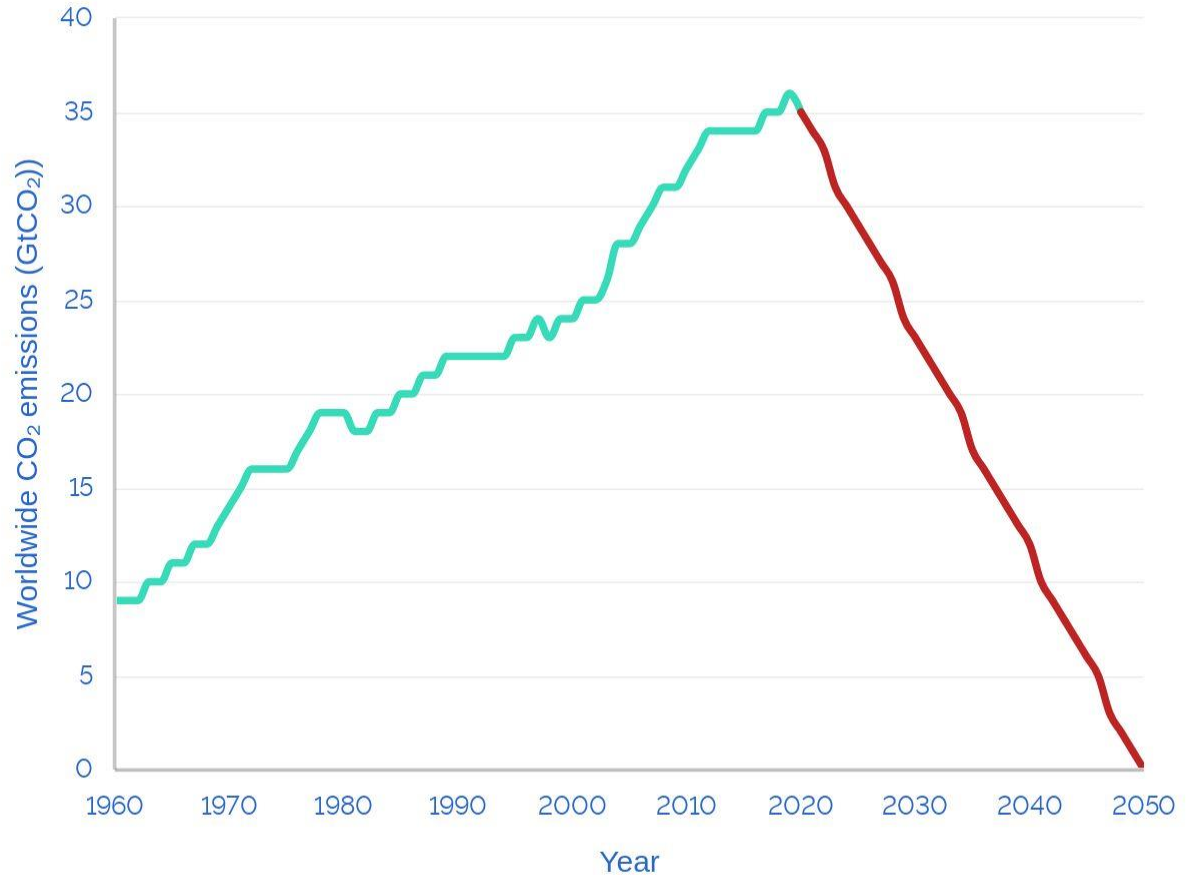
Source: Live tables on Energy Performance of Buildings Certificates, MHCLG, Jan 2020

UK Greenhouse Gas Emissions (Buildings)



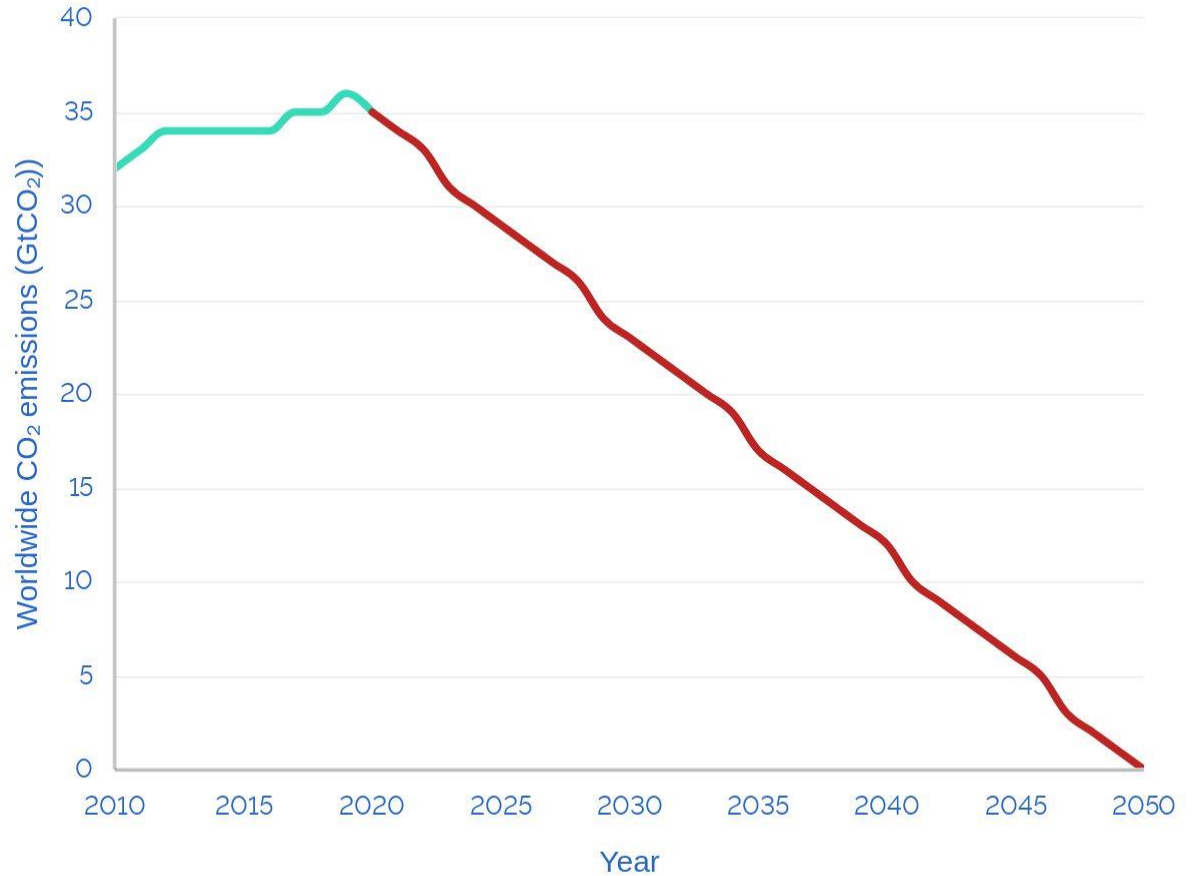
Trajectory to net zero
has to start now to keep
warming below 1.5°C

IPCC 2018 Special Report



Trajectory to net zero
has to start now to keep
warming below 1.5°C

IPCC 2018 Special Report



Cross-economy coordination

Net Zero as headline goal

Cabinet Committee set up

HMT Funding Review underway

UK ETS will reflect Net Zero

Climate Assembly



Sectoral policy

Transport

≤2035 EV switch

Transport strategy in development

HGVs

Industry

Some industry funds

CCS plans

No industry or Hydrogen strategies

Buildings

Future Homes

Heat and Buildings strategy must transform heating

Power

Offshore wind, onshore wind & solar

Flexibility for energy system

Agriculture and land use change

Agriculture & Environment Bills in development

Funding for woodland & peat

Agenda

- 1 The Journey
- 2 Where are we now?
- 3 Passivhaus in context
- 4 The next 10 years ...

A close-up shot of a young girl with light brown hair styled in two thick braids. She has a serious, almost angry expression on her face, with furrowed brows and a slight frown. She is wearing a blue and white vertically striped collared shirt. The background is out of focus, showing what appears to be an indoor setting with a white wall and some indistinct shapes.

"How dare you!"

News story

UK becomes first major economy to pass net zero emissions law

New target will require the UK to bring all greenhouse gas emissions to net zero by 2050.

Published 27 June 2019

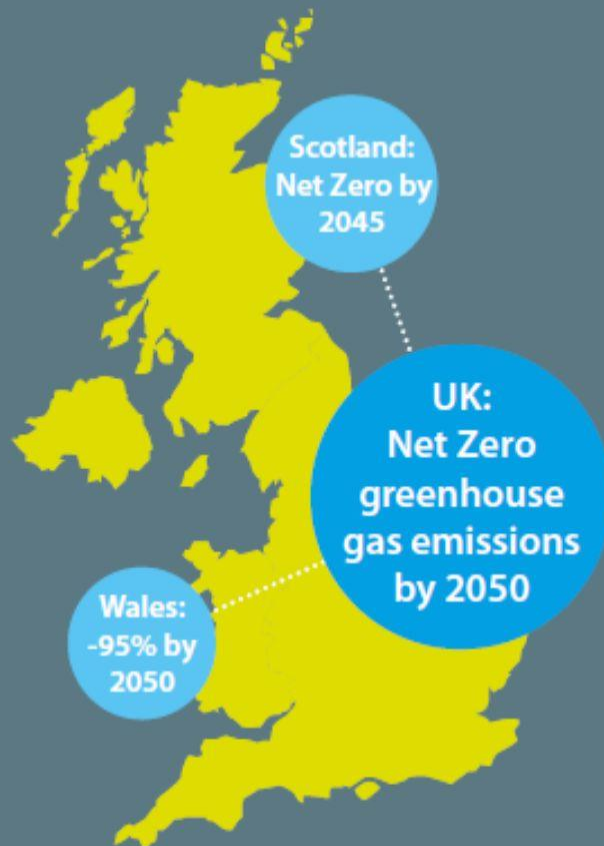
From: [Department for Business, Energy & Industrial Strategy](#) and [The Rt Hon Chris Skidmore MP](#)

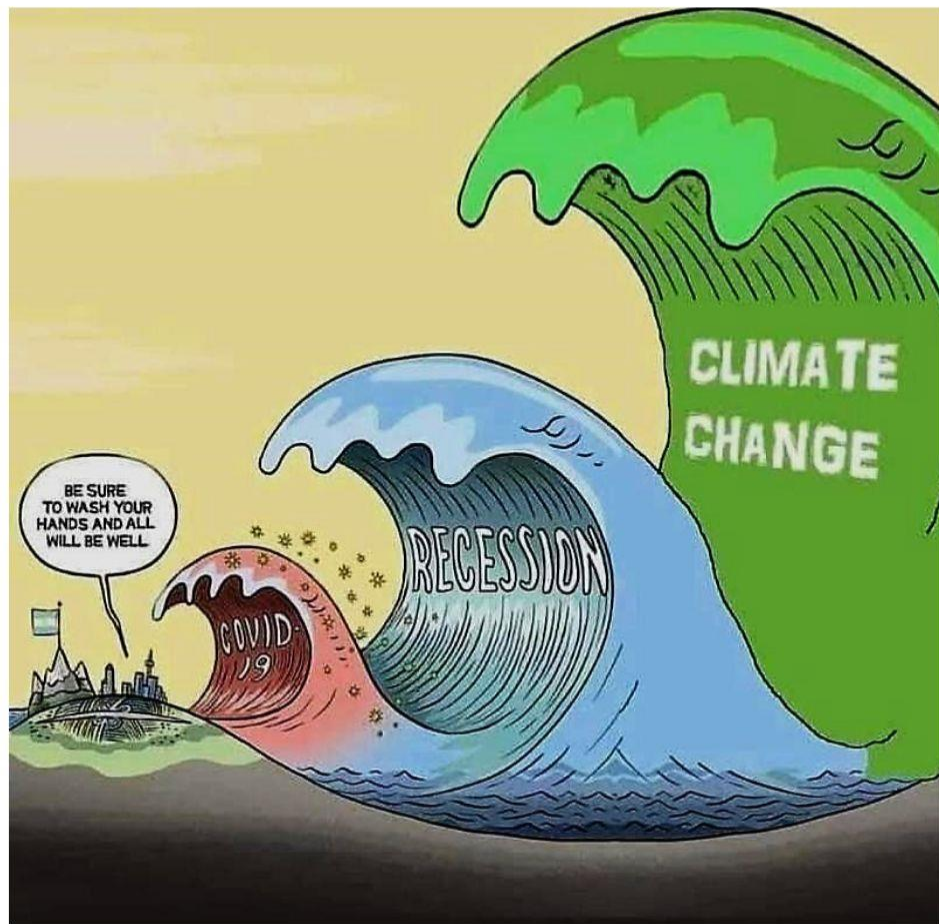
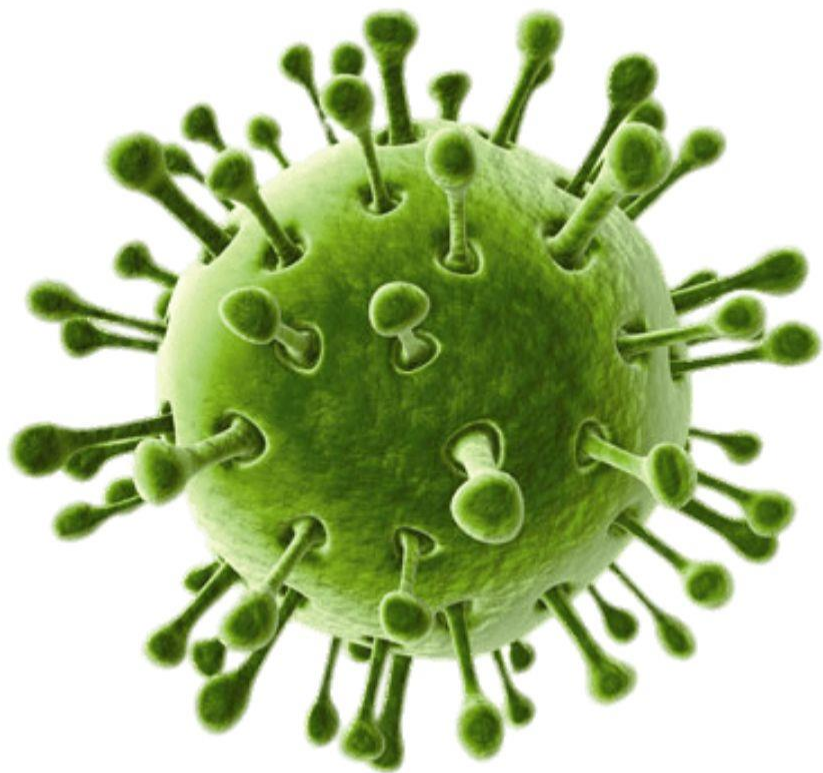


Chris Skidmore signs legislation to commit the UK to a legally binding target of net zero emissions by 2050

The UK today became the first major economy in the world to pass laws to end its contribution to global warming by 2050.

The target will require the UK to bring all greenhouse gas emissions to net zero by 2050, compared with the previous target of at least 80% reduction from 1990 levels.

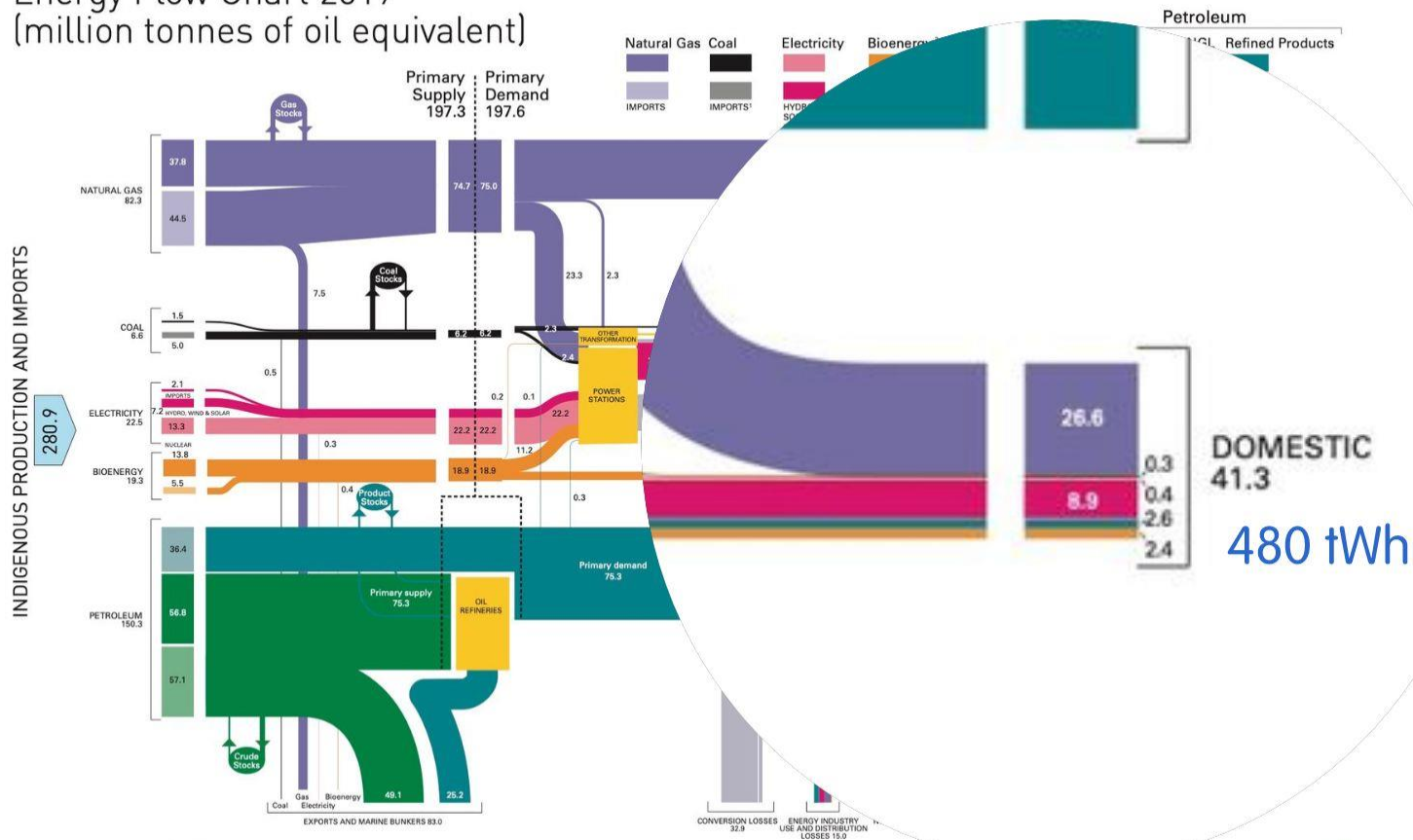




Agenda

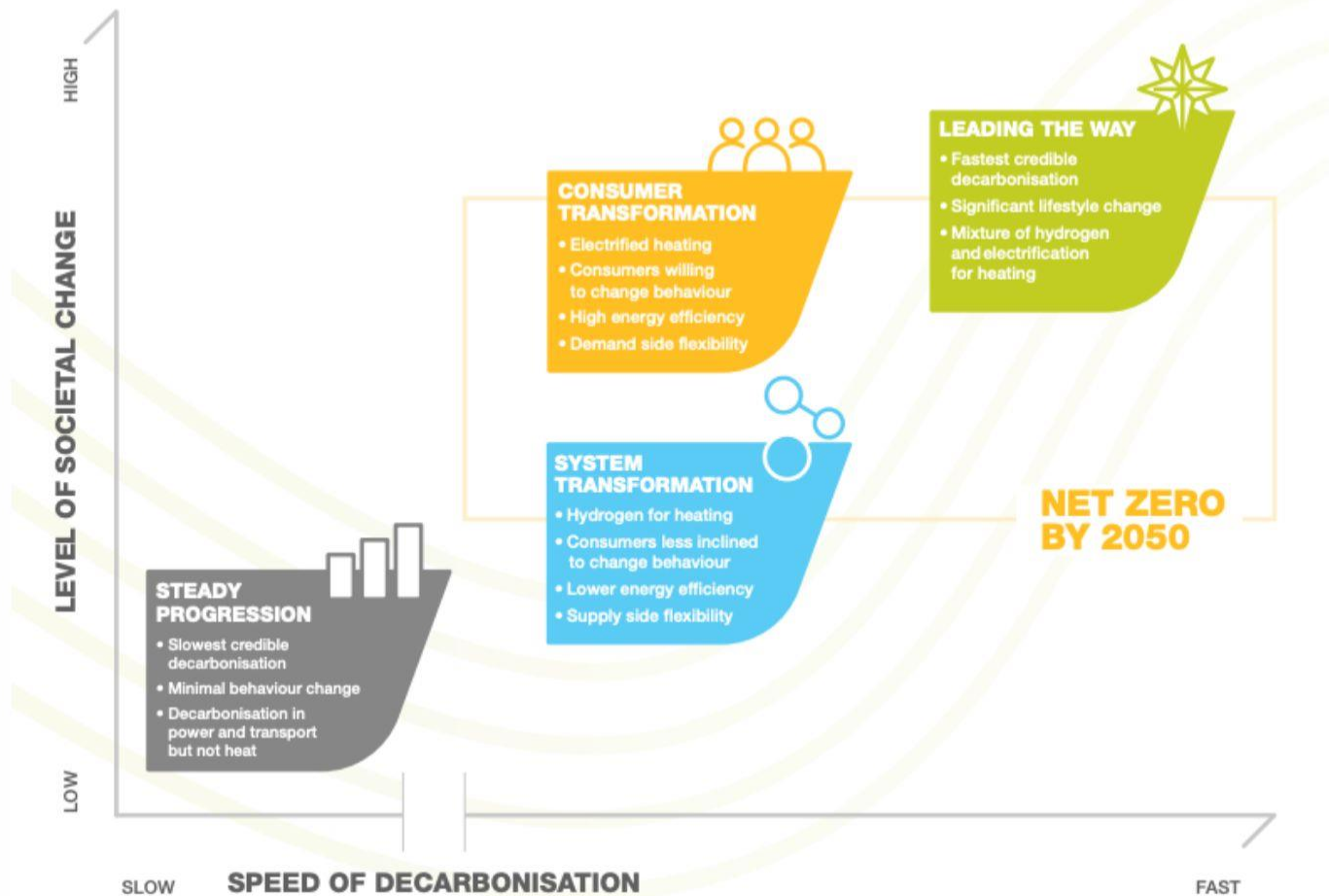
- 1 The Journey
- 2 Where are we now?
- 3 Passivhaus in context
- 4 The next 10 years ...

Energy Flow Chart 2019 (million tonnes of oil equivalent)



FOOTNOTES:
1. Coal imports and exports include manufactured fuels.
2. Bioenergy is renewable energy made from material of recent biological origin derived from plant or animal matter.
3. Includes heat sold.
4. Includes non-energy use.

This flowchart has been produced using the style of balance and figures in the 2020 Digest of UK Energy Statistics, Table 1.1, (gross calorific values basis)

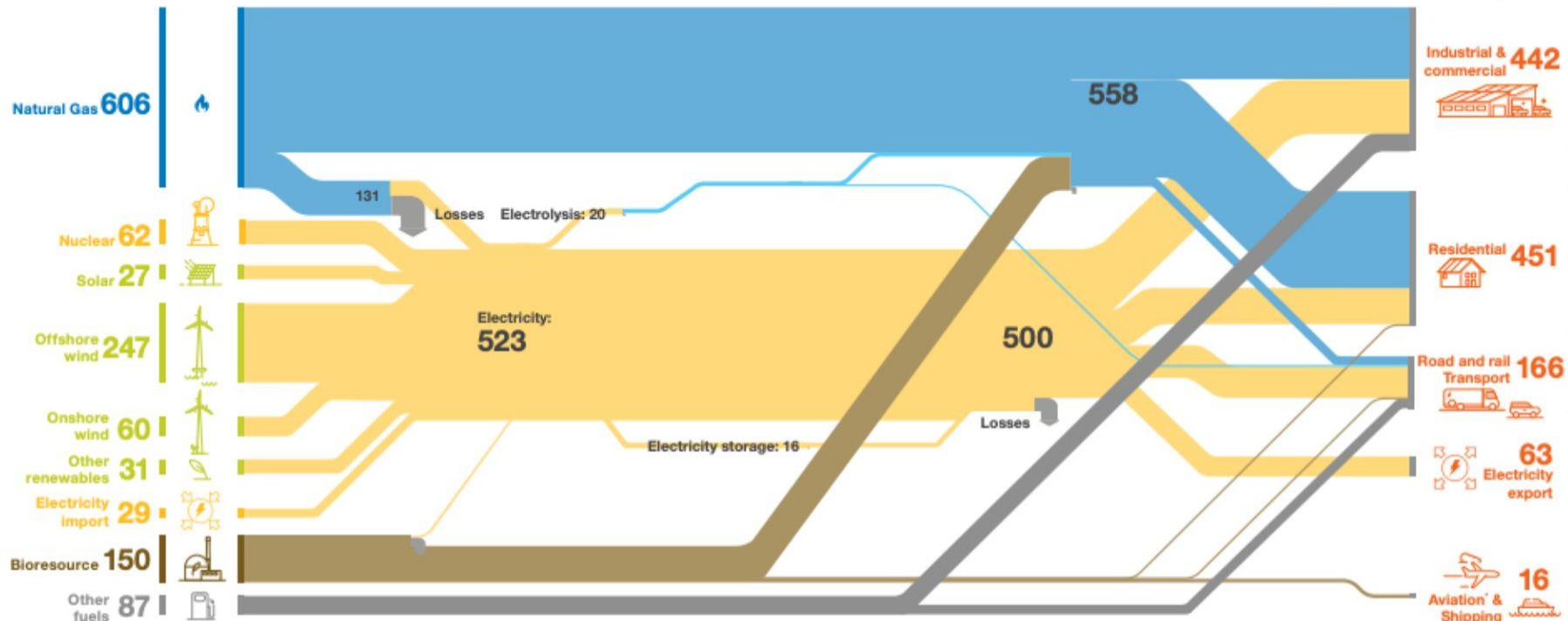


Future Energy Scenarios - Steady Progression

Energy flows in 2050 (TWh) - National Grid Future Energy Scenarios 2020

STEADY PROGRESSION

- Slowest credible decarbonisation
- Minimal behaviour change
- Decarbonisation in power and transport but not heat



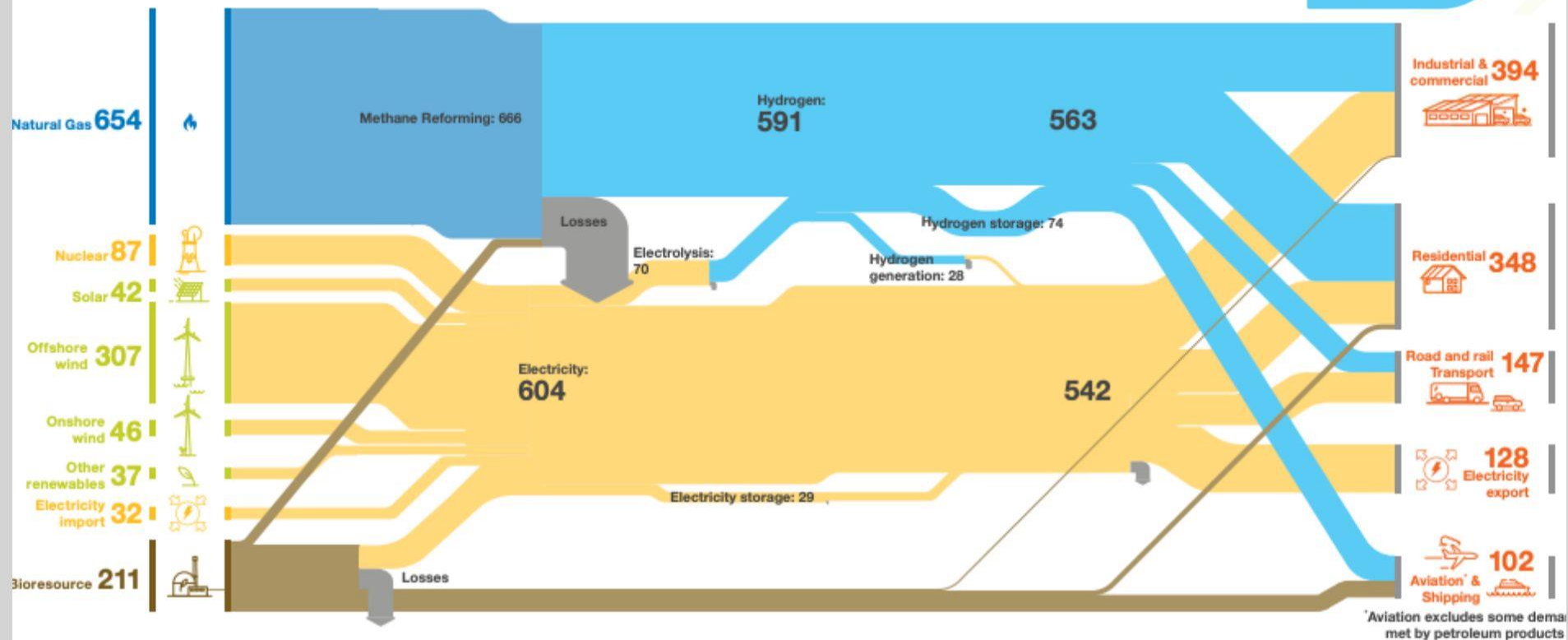
*Aviation excludes some demand met by petroleum products

Future Energy Scenarios - System Transformation

SYSTEM TRANSFORMATION

- Hydrogen for heating
- Consumers less inclined to change behaviour
- Lower energy efficiency
- Supply side flexibility

Energy flows in 2050 (TWh) - National Grid Future Energy Scenarios 2020



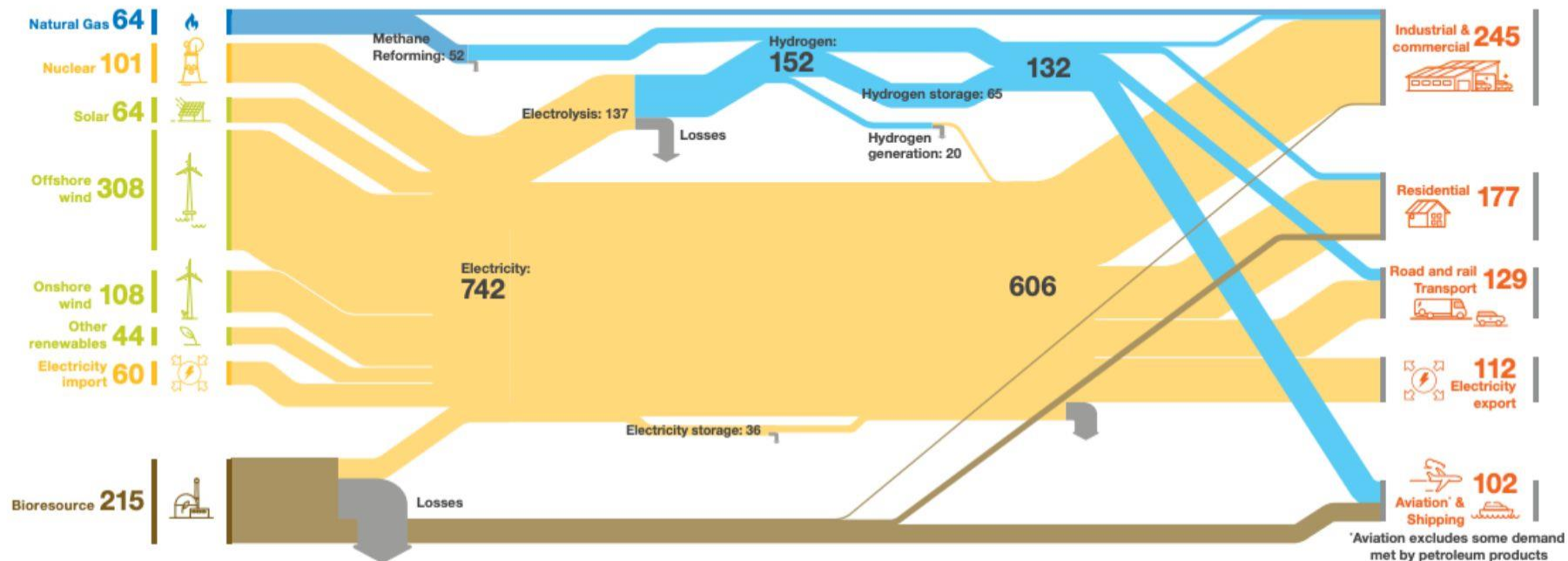
Future Energy Scenarios - Consumer Transformation



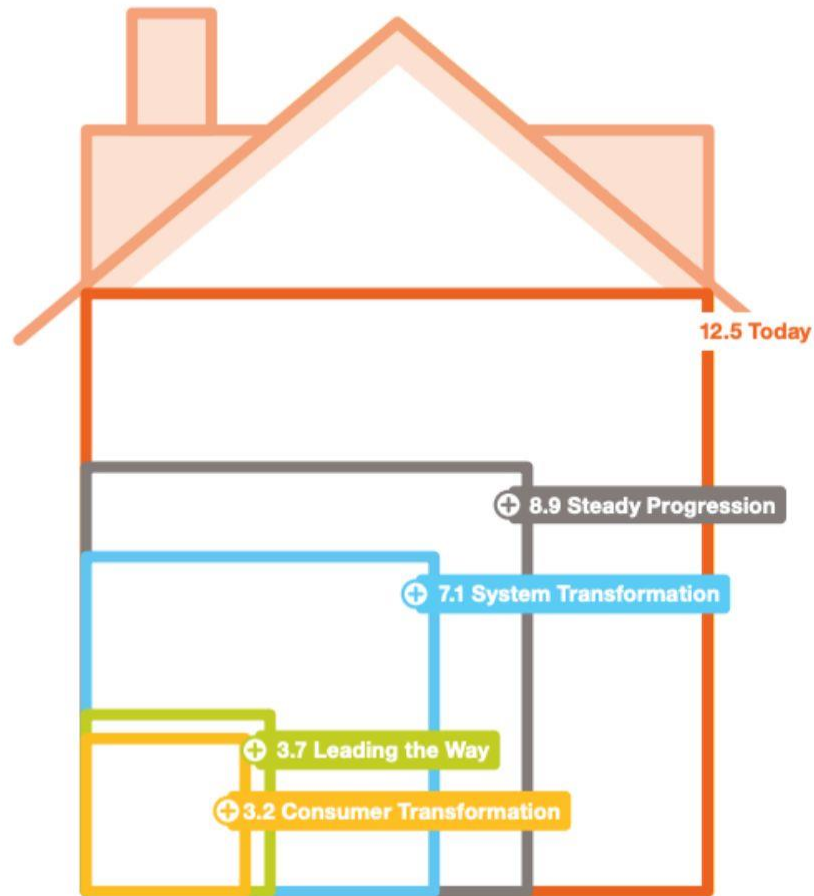
CONSUMER TRANSFORMATION

- Electrified heating
- Consumers willing to change behaviour
- High energy efficiency
- Demand side flexibility

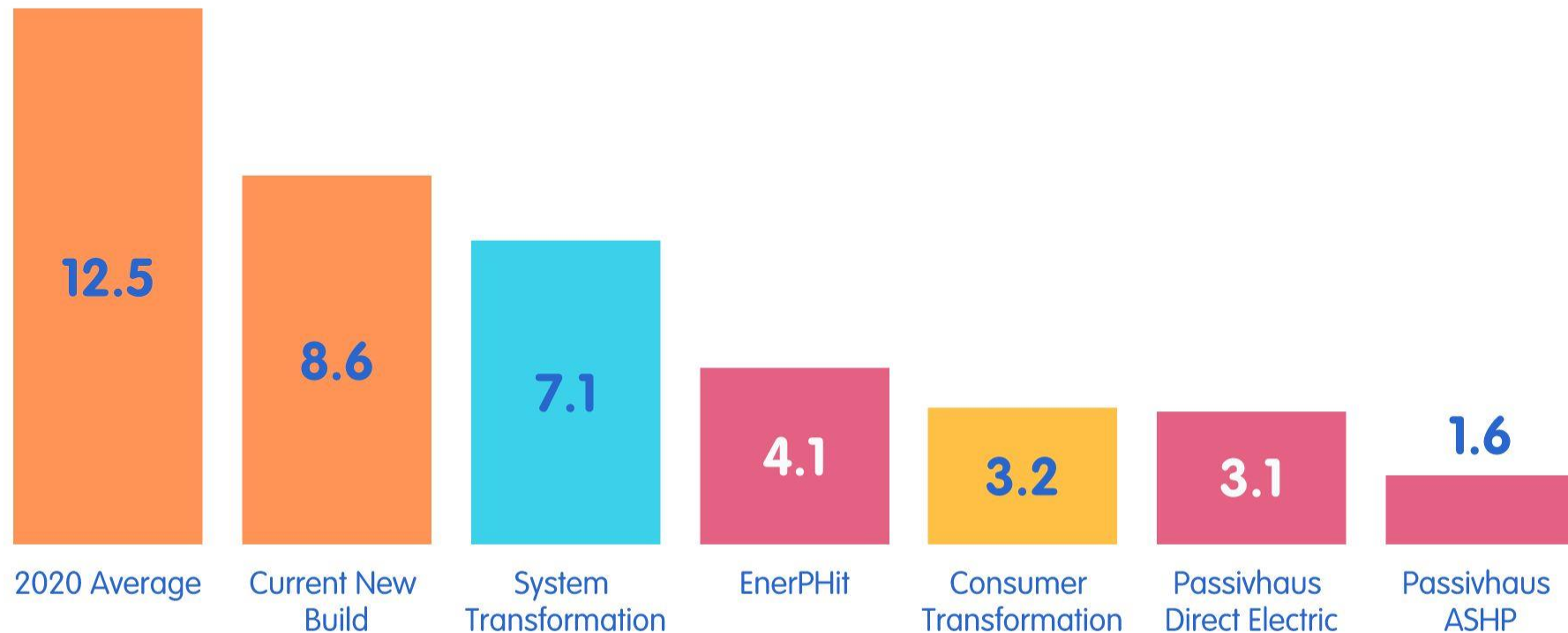
Energy flows in 2050 (TWh) - National Grid Future Energy Scenarios 2020



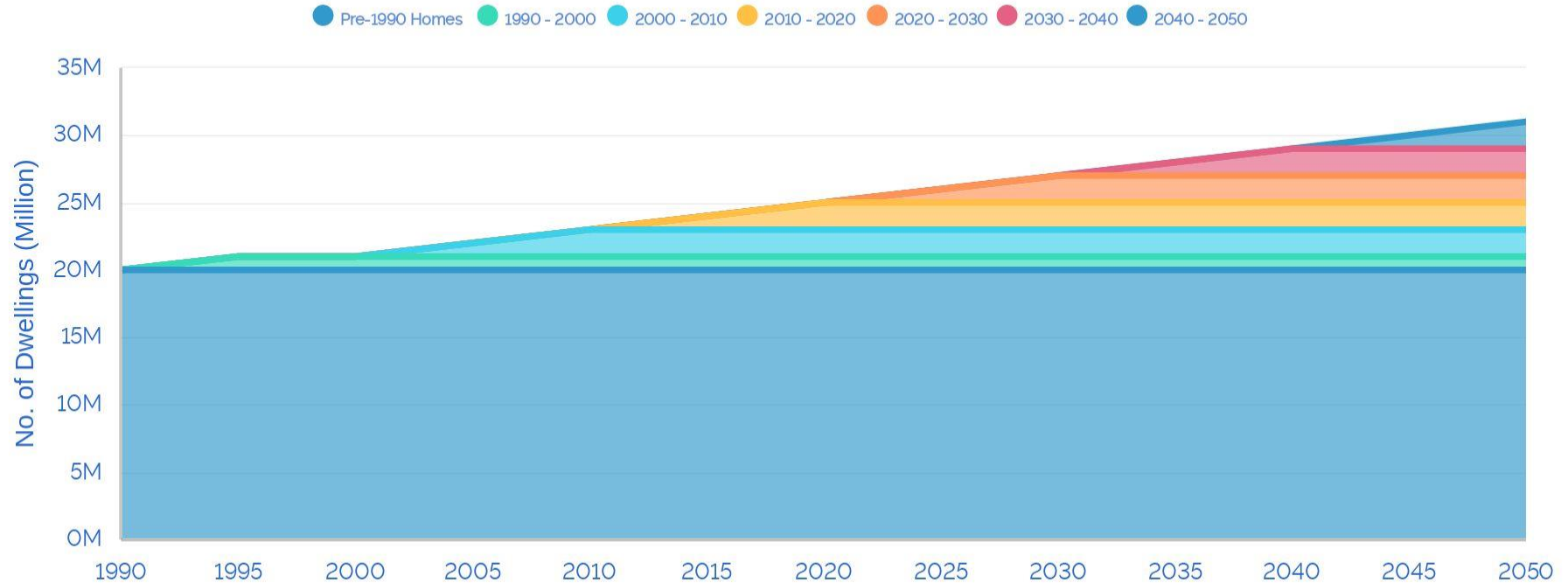
Average Heating and Hot Water Demand per home (MWh/year)



Average Domestic Heating and Hot Water Demand (MWh/year)



England Housing Stock - projections to 2050





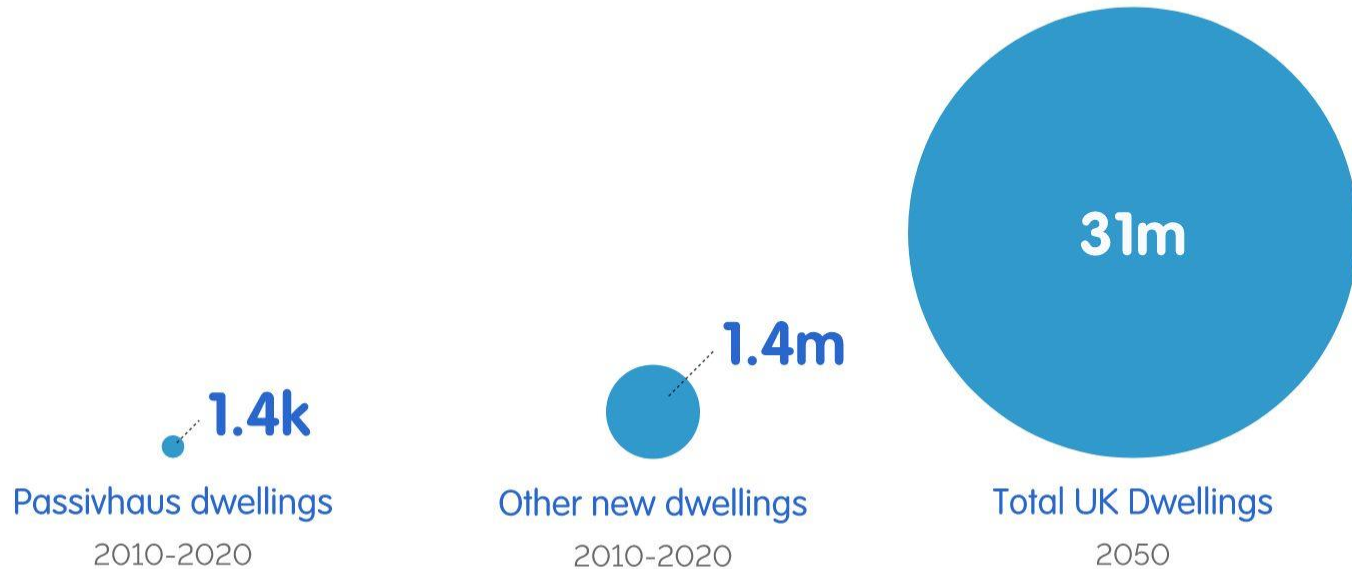
Residential

“Energy Efficiency is a 'no regrets'
measure for all scenarios”

National Grid, Future Energy Scenarios 2020



So, we have a lot of work to do ...



Agenda

- 1 The Journey
- 2 Where are we now?
- 3 Passivhaus in context
- 4 The next 10 years ...

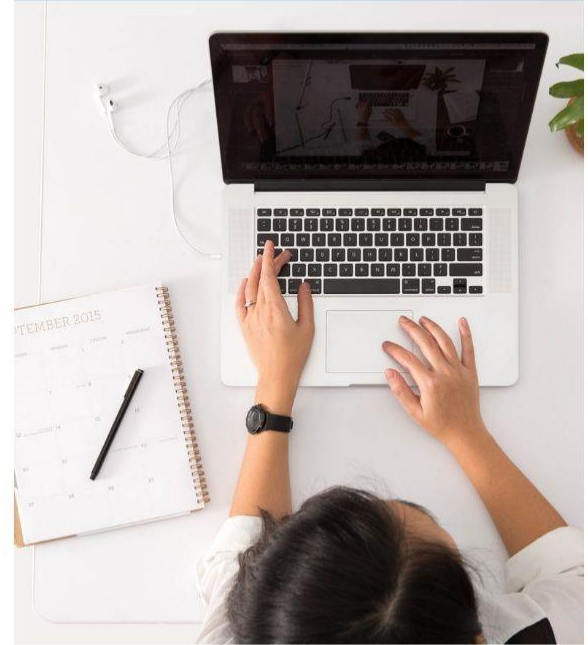
Looking ahead to the next 10 years ...



Passivhaus in context



Support for Clients



Education, Education & Education

Passivhaus in Context - the big picture

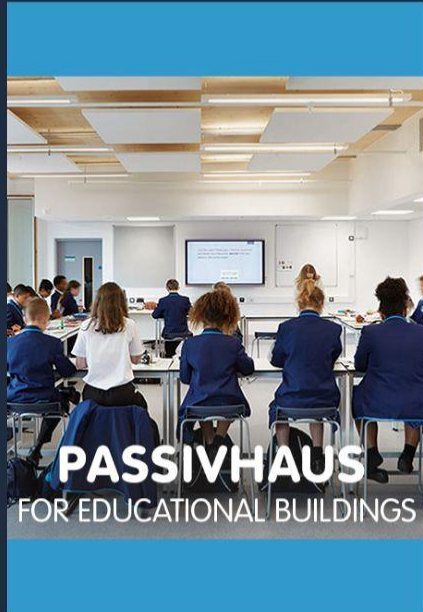


Zero Carbon

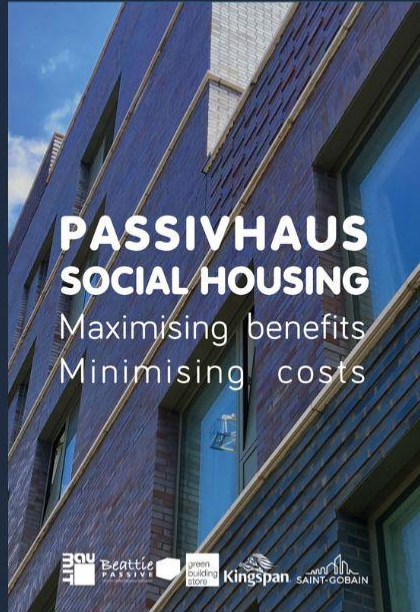


Retrofit

Support for Clients



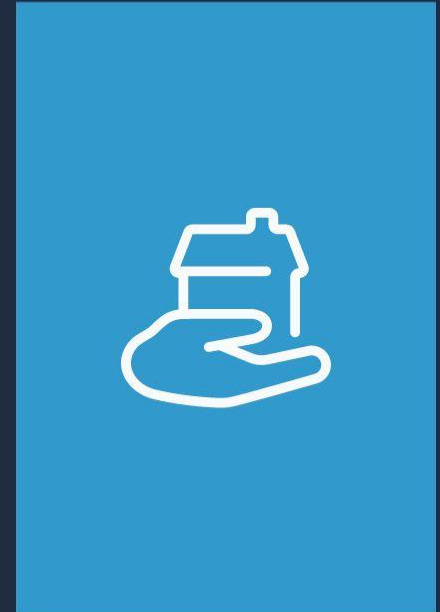
Educational
Buildings



Social Housing

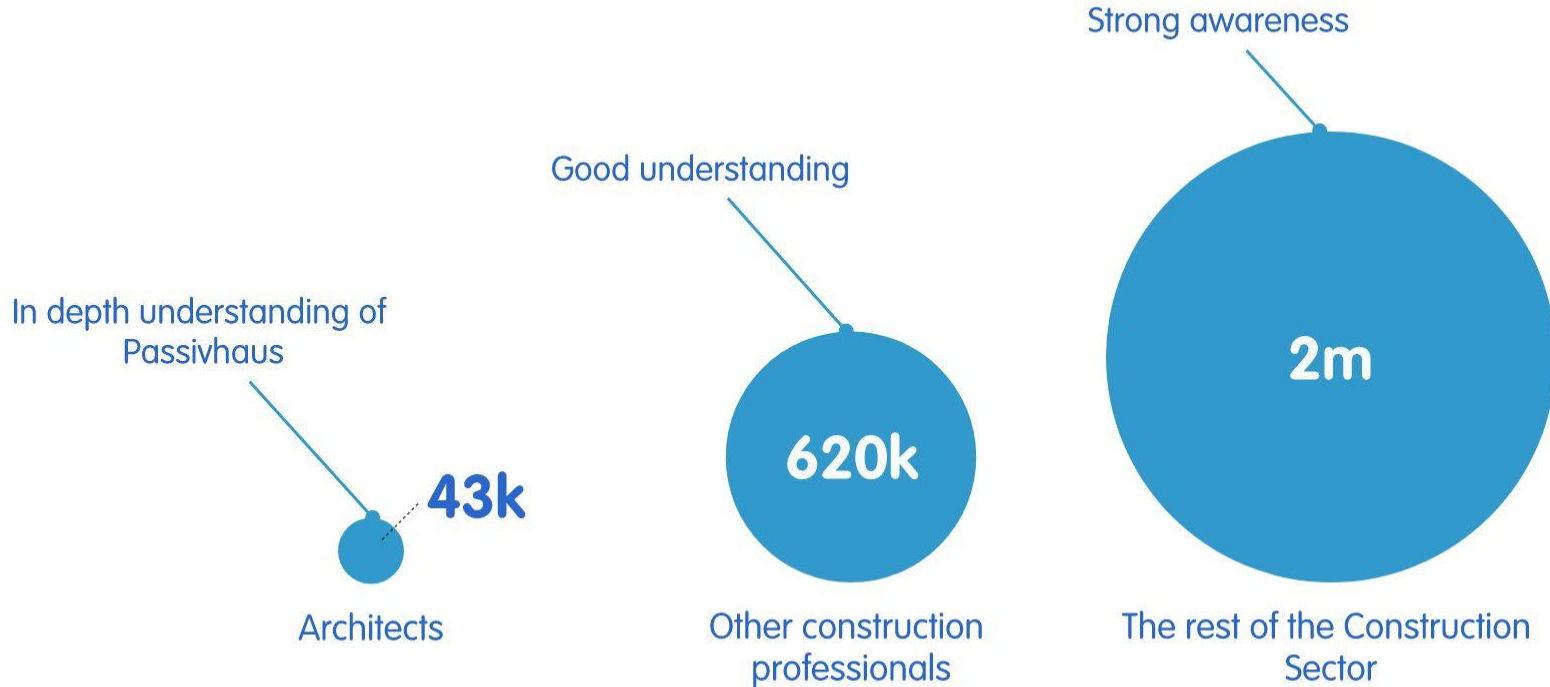


Self Build



other ... ?

Education Challenge - people in the construction sector



Welcome to the Passivhaus learning hub, a comprehensive collection of learning resources for all levels of experience, from beginner to advanced – discover why to go for the low energy building Standard and how to deliver it.

SEARCH HUB 

WHAT IS PASSIVHAUS?


New to Passivhaus? Explore these introductory resources and discover how the low energy Standard delivers the highest levels of comfort, quality and energy efficiency for all types of buildings.

A document thumbnail with a blue sky background and the text 'Why choose Passivhaus?' and 'Document' in a blue box.

Document

Why choose Passivhaus?

Read about the benefits of Passivhaus, and why it's the right choice for a high comfort, low...

A document thumbnail with a white background and yellow arches, with the text 'EASI GUIDE TO PASSIVHAUS DESIGN' and 'Document' in a blue box.

Document

EASI GUIDE TO PASSIVHAUS DESIGN

A simple guide for architects approaching Passivhaus design – follow these ten key principles.

A video thumbnail showing a person in a room, with the text 'PASSIVHAUS GOES PERSONAL' and 'Video' in a blue box.

Video

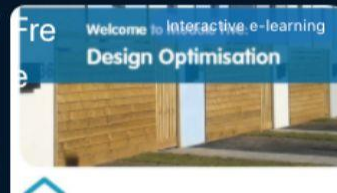
PASSIVHAUS GOES PERSONAL

Discover why building to Passivhaus is good for you!

A video thumbnail with a white background and a clock, with the text 'Passive House Explained in 90 seconds' and 'Video' in a blue box.

Video

PASSIVHAUS EXPLAINED IN 90 SECONDS

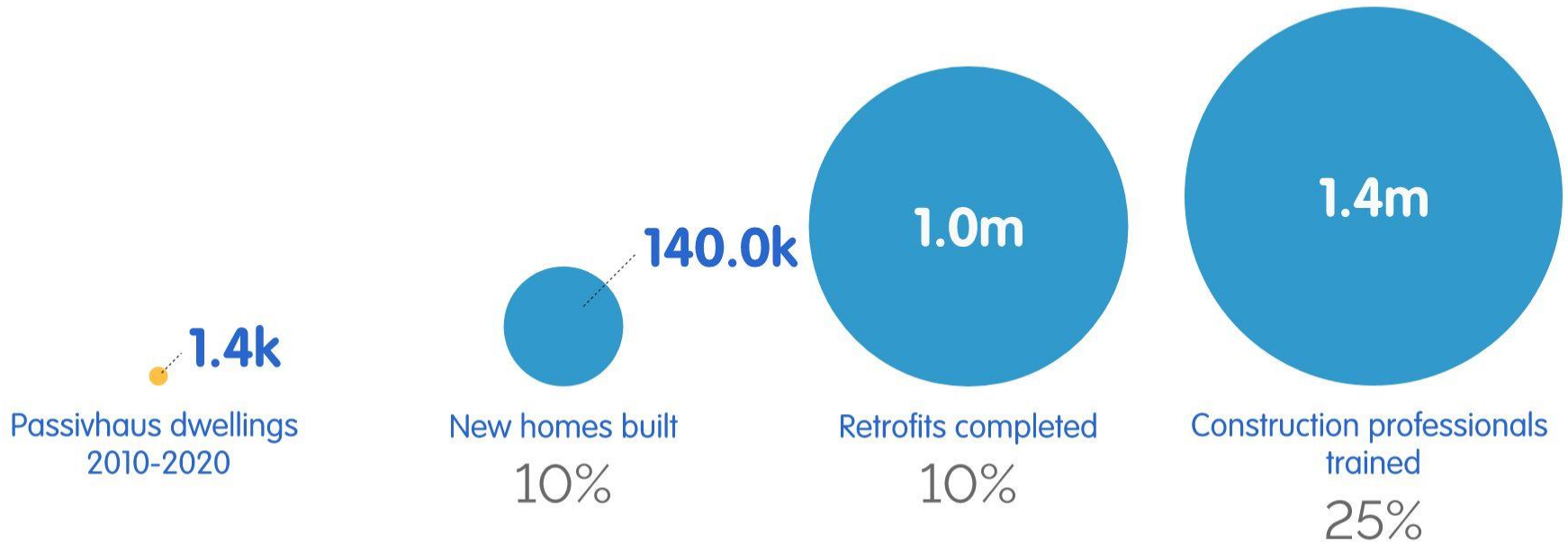
An interactive e-learning thumbnail with a blue header and a photo of a building, with the text 'Welcome to Interactive e-learning Design Optimisation' and 'Fre' in a blue box.

Fre

DESIGN OPTIMISATION

High-level design advice to make Passivhaus easy and affordable. All the advice can be applied to a non-Passivhaus building and...

So here's the challenge for the next 10 years ...





Who's up for the challenge?

UKpassivhaus conference 2020

A HEALTHY & GREEN FUTURE



THANK YOU

WWW.UKPHC.ORG.UK

#UKPHC20

ATMA
The Air Tightness Testing & Measurement Association

green
building
store

Kingspan.

LEAD SPONSORS



A HEALTHY & GREEN FUTURE: PROGRAMME



@PassivhausTrust

15:00 WELCOME

John Palmer, Passivhaus Trust

15:10 PASSIVHAUS IN NORTH AMERICA THROUGH THE NAPHN LENS

Bronwyn Barry, North American Passive House Network

15:35 TWO DECADES OF PASSIVHAUS IN THE UK

John Palmer, Passivhaus Trust

15:55 WHAT ARE THE CHALLENGES FOR THE NEXT 10 YEARS?

Denise Craghill, City of York Council

Michelle Mundie, Glasgow City Council

Patrick Brown, City of Edinburgh Council



A HEALTHY & GREEN FUTURE



DENISE CRAGHILL
CITY OF YORK
COUNCIL



MICHELLE MUNDIE
GLASGOW CITY
COUNCIL



PATRICK BROWN
CITY OF
EDINBURGH
COUNCIL

**WHAT ARE THE
CHALLENGES OF THE NEXT
10 YEARS?
BEST PRACTICE PANEL**

**UKpassivhaus
conference 2020**



ATMA
The Air Tightness Training & Measurement Association

**green
building
store**

Kingspan

A HEALTHY & GREEN FUTURE: SPEAKERS



BRONWYN BARRY
NORTH AMERICAN
PASSIVE HOUSE
NETWORK



JOHN PALMER
PASSIVHAUS
TRUST



PATRICK BROWN
CITY OF
EDINBURGH
COUNCIL



MICHELLE MUNDIE
GLASGOW CITY
COUNCIL



DENISE CRAGHILL
CITY OF YORK
COUNCIL

**UKpassivhaus
conference 2020**



ATMA
The Air Tightness Training & Accreditation Association

**green
building
store**

Kingspan

UKpassivhaus conference 2020

A HEALTHY & GREEN FUTURE



COMING UP NEXT

16:40 -18:10

2020 KEYNOTE PROJECTS

WWW.UKPHC.ORG.UK

#UKPHC20

LEAD SPONSORS

ATMA
The Air Tightness Testing & Measurement Association

green
building
store

Kingspan.



You are here

2010

2030

2050

2020

2040