

# Welcome

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#Futureofenergy

## Gas Demand

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System Operator

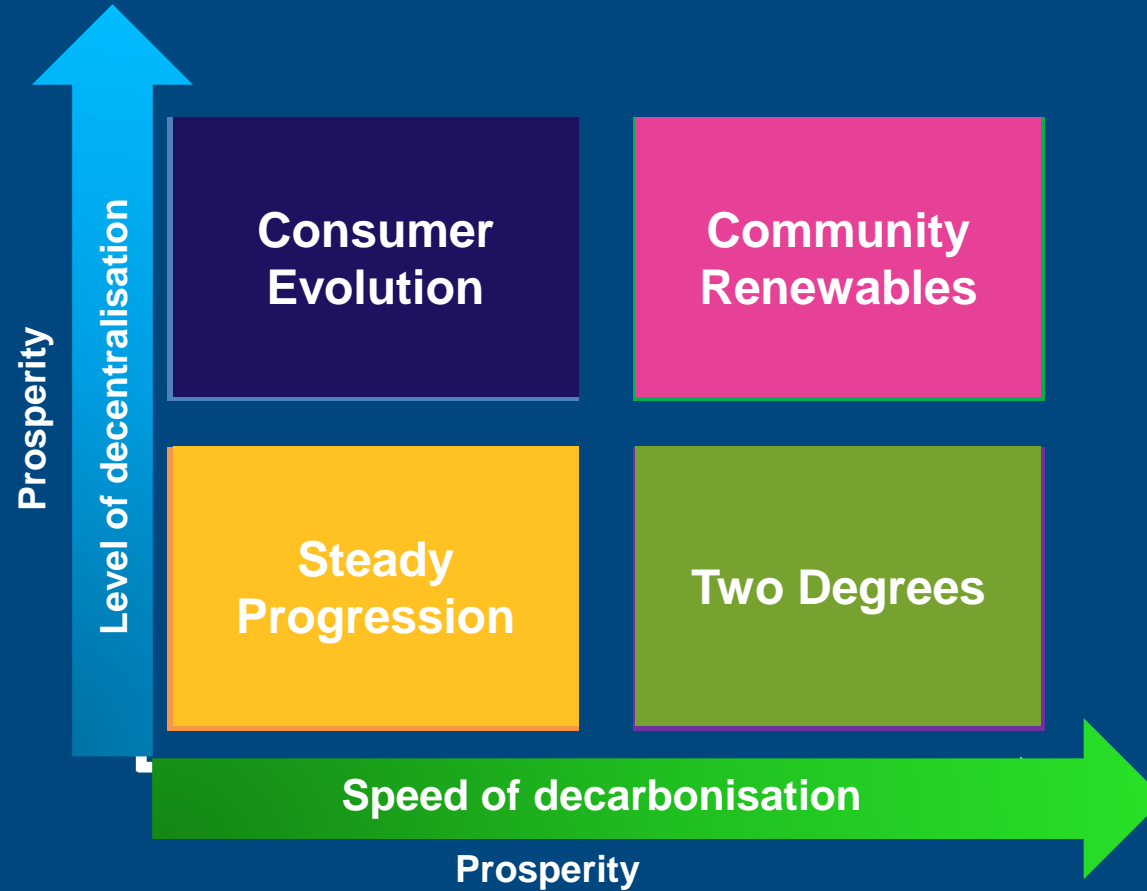
# What we will cover today

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- **FES 2018 scenario framework overview**
- **Gas Demand Components**
  - ✓ Residential demand
  - ✓ Industrial and Commercial demand
  - ✓ Gas for power
  - ✓ Gas for transport
  - ✓ Gas for H2 Conversion
  - ✓ Gas for export
- **Total annual gas demand**
- **Peak gas demand**
- **Q&A**
- **How to stay involved**

# FES 2017 to FES 2018

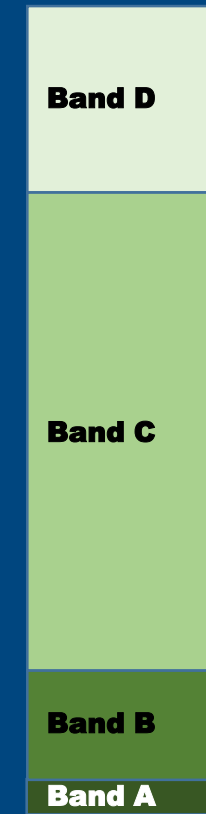
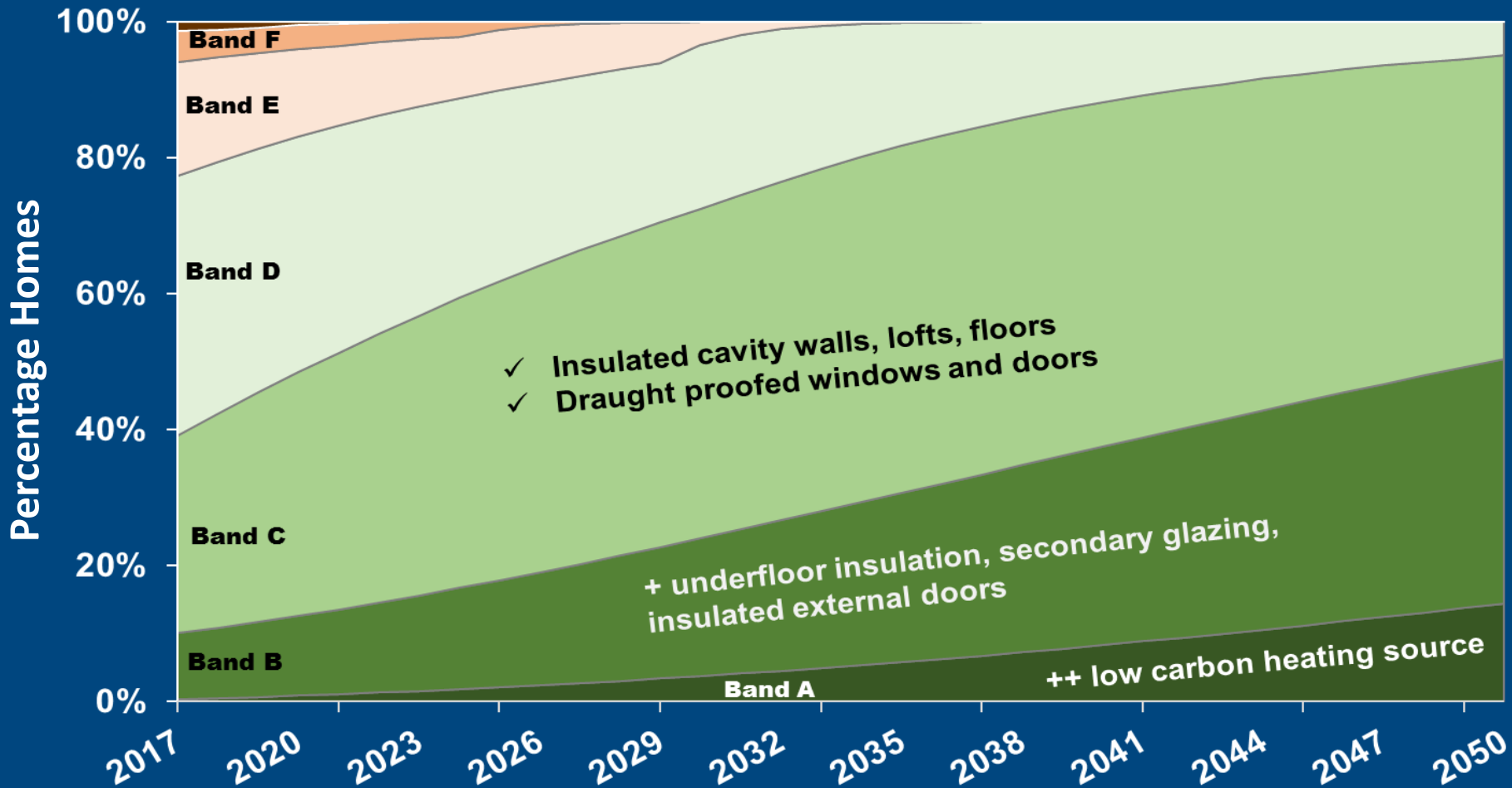
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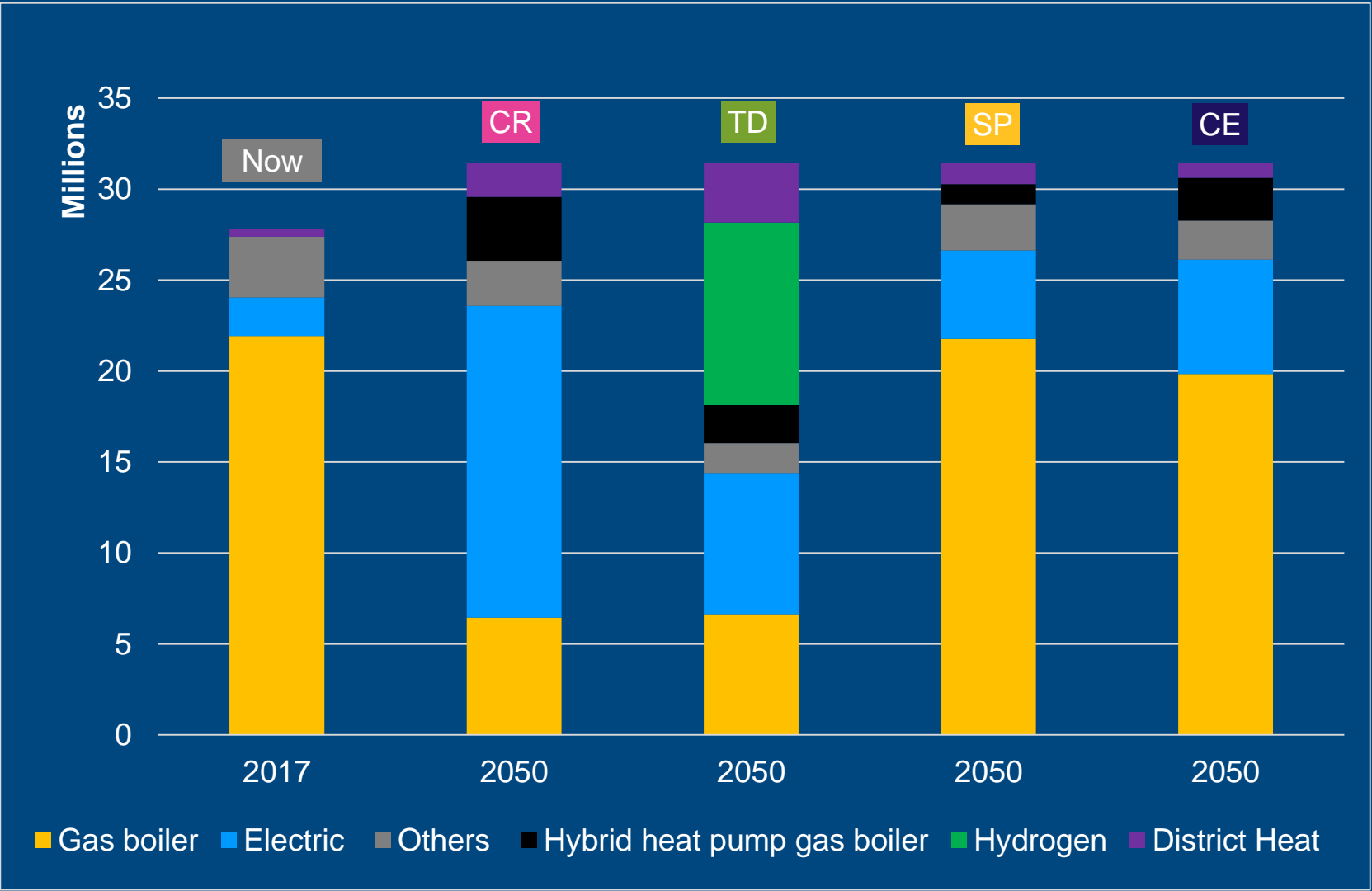
# Residential heat: thermal efficiency

High case: CR & TD

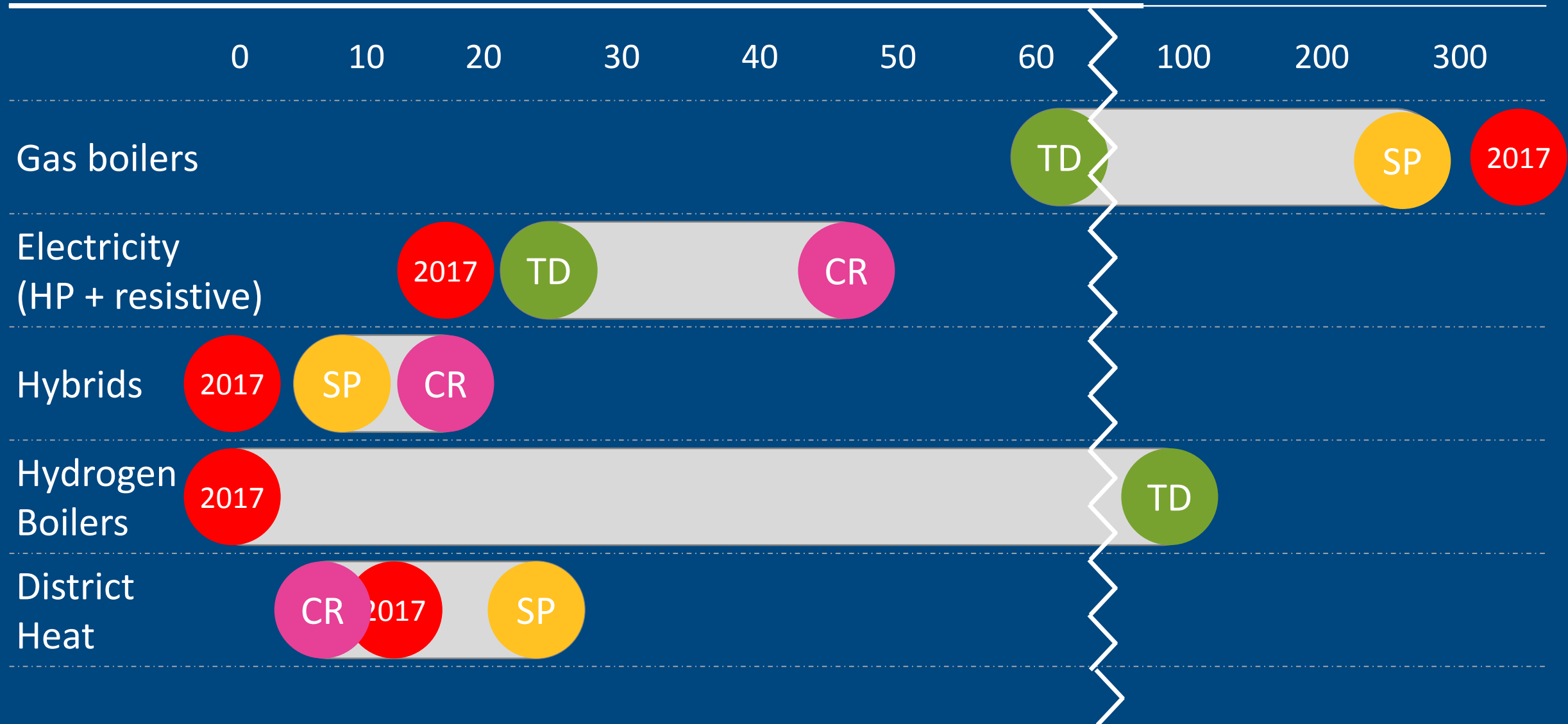
Low case: SP & CE



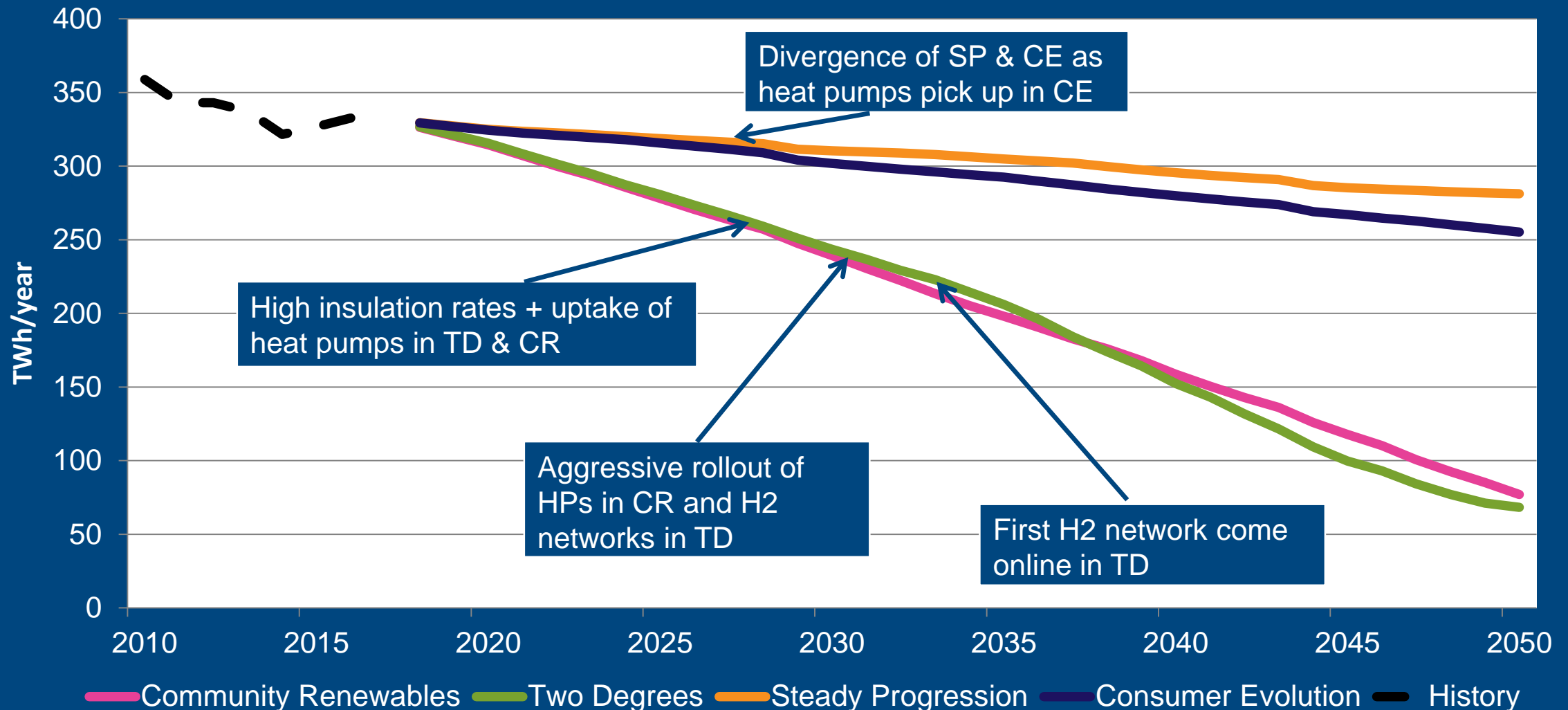
# Residential heat: low-carbon technology



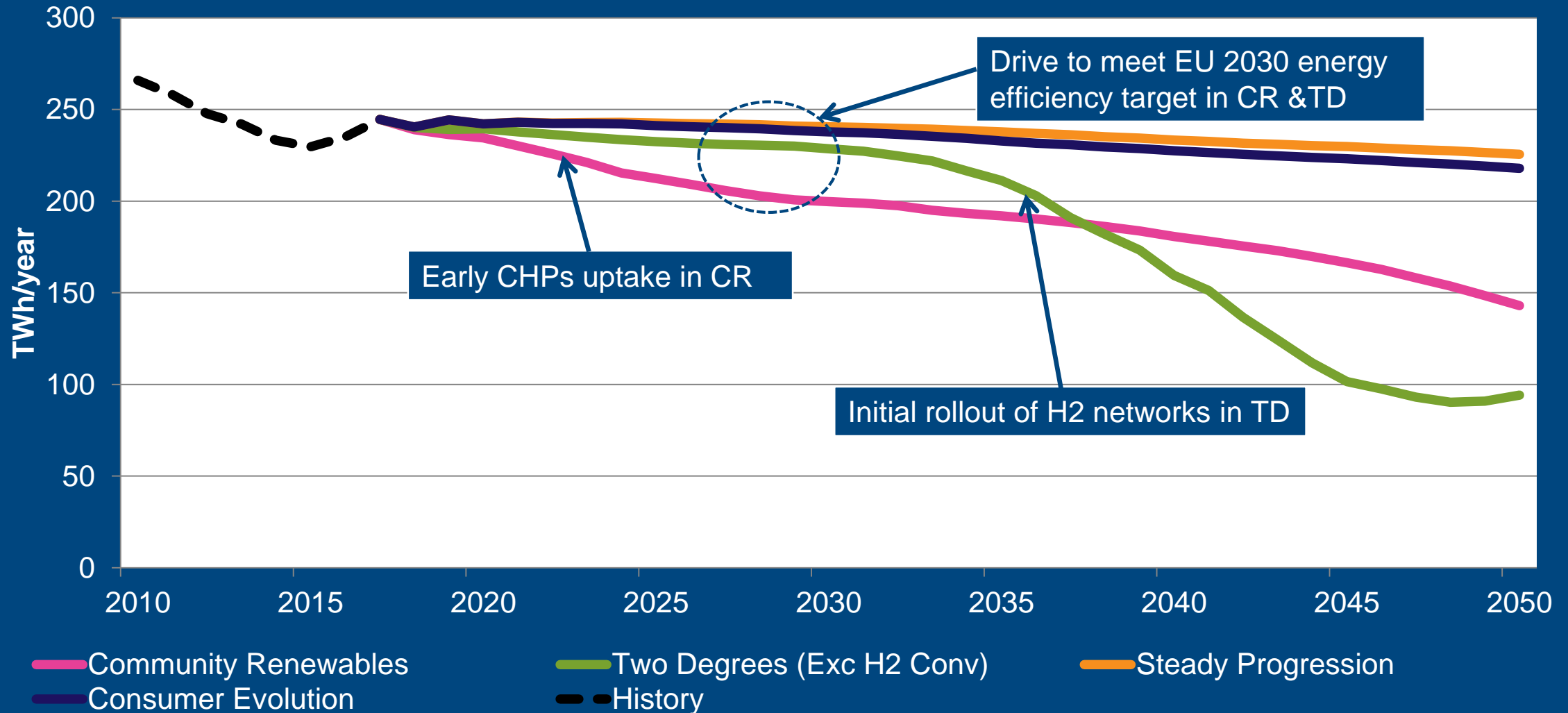
# Residential heat: TWh provided in 2050



# Gas Demand: Annual Residential

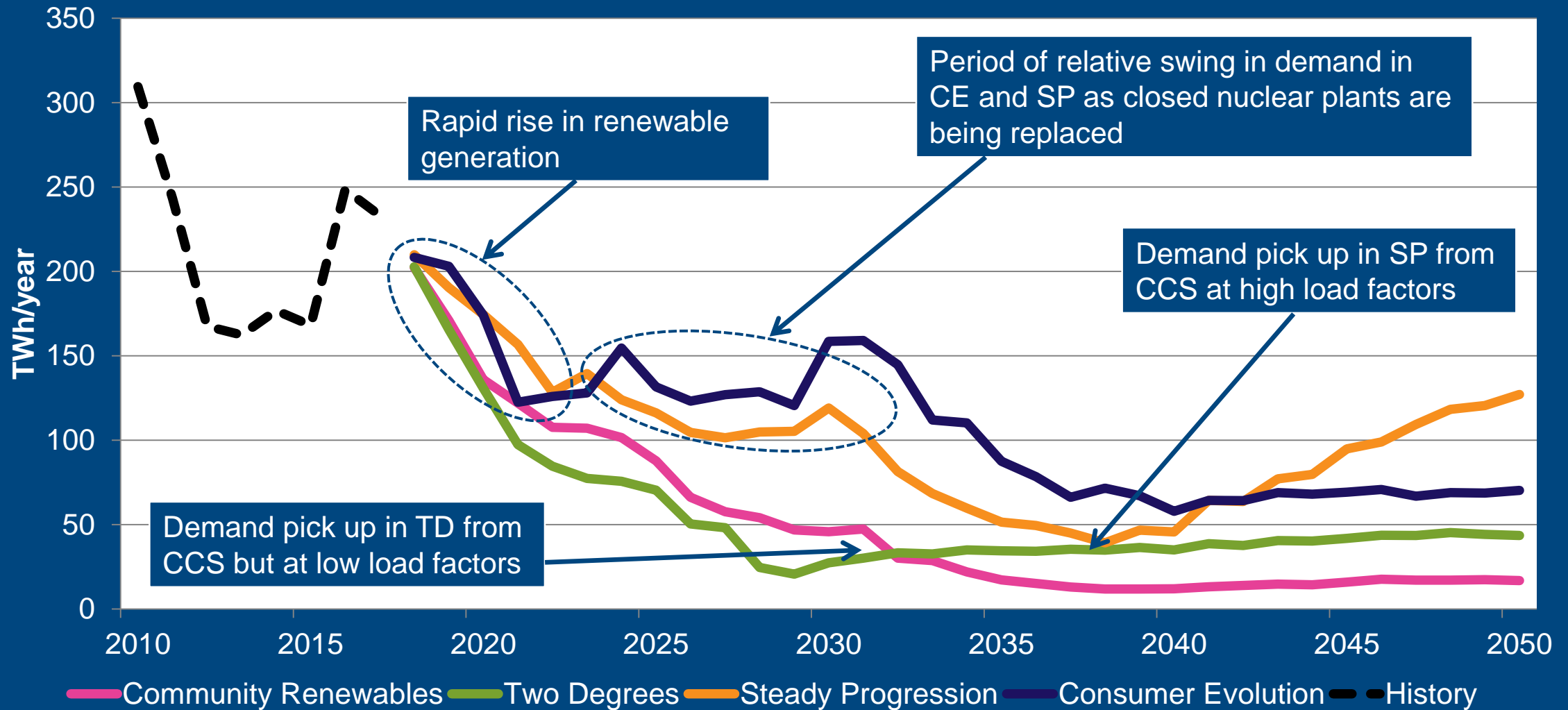


# Gas Demand: Industrial and Commercial

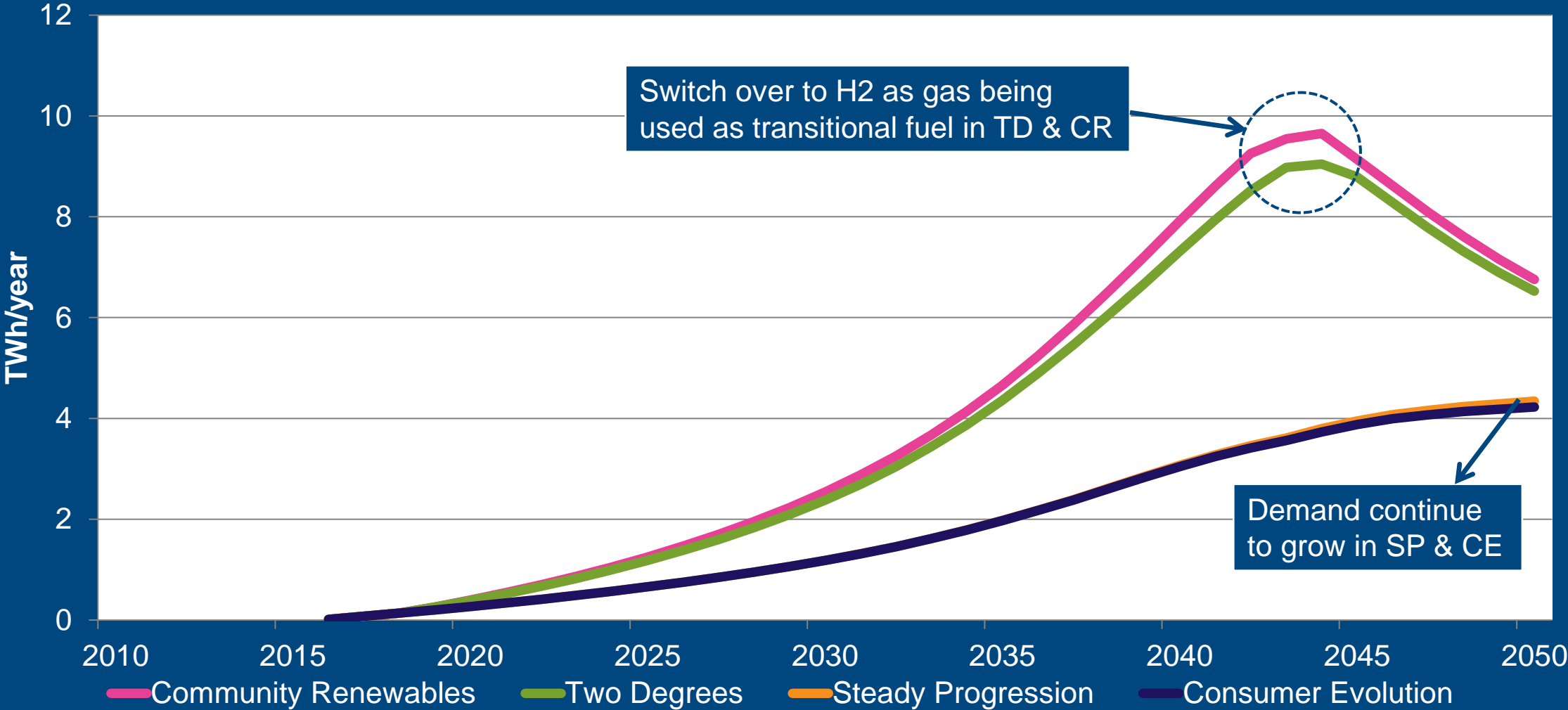




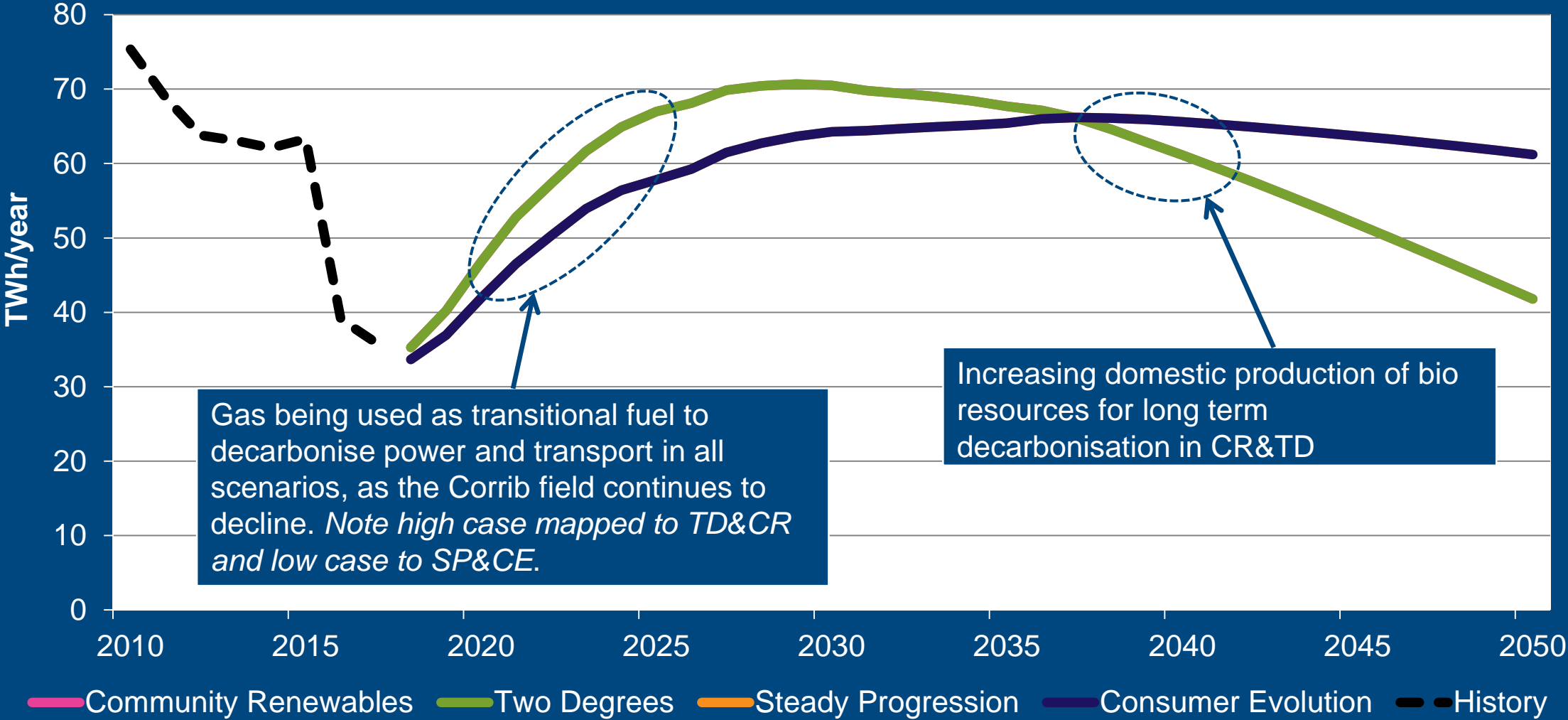
# Gas Demand: Power



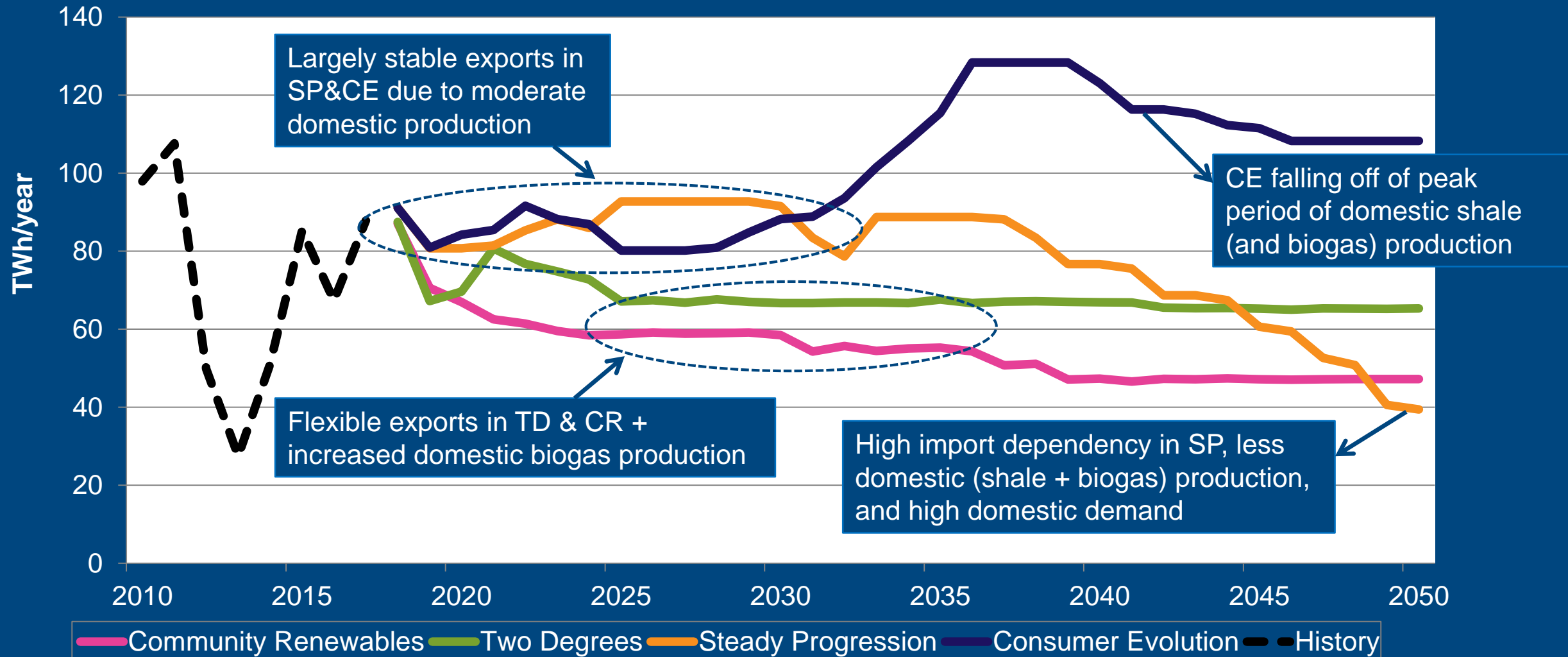
# Gas Demand: Transport



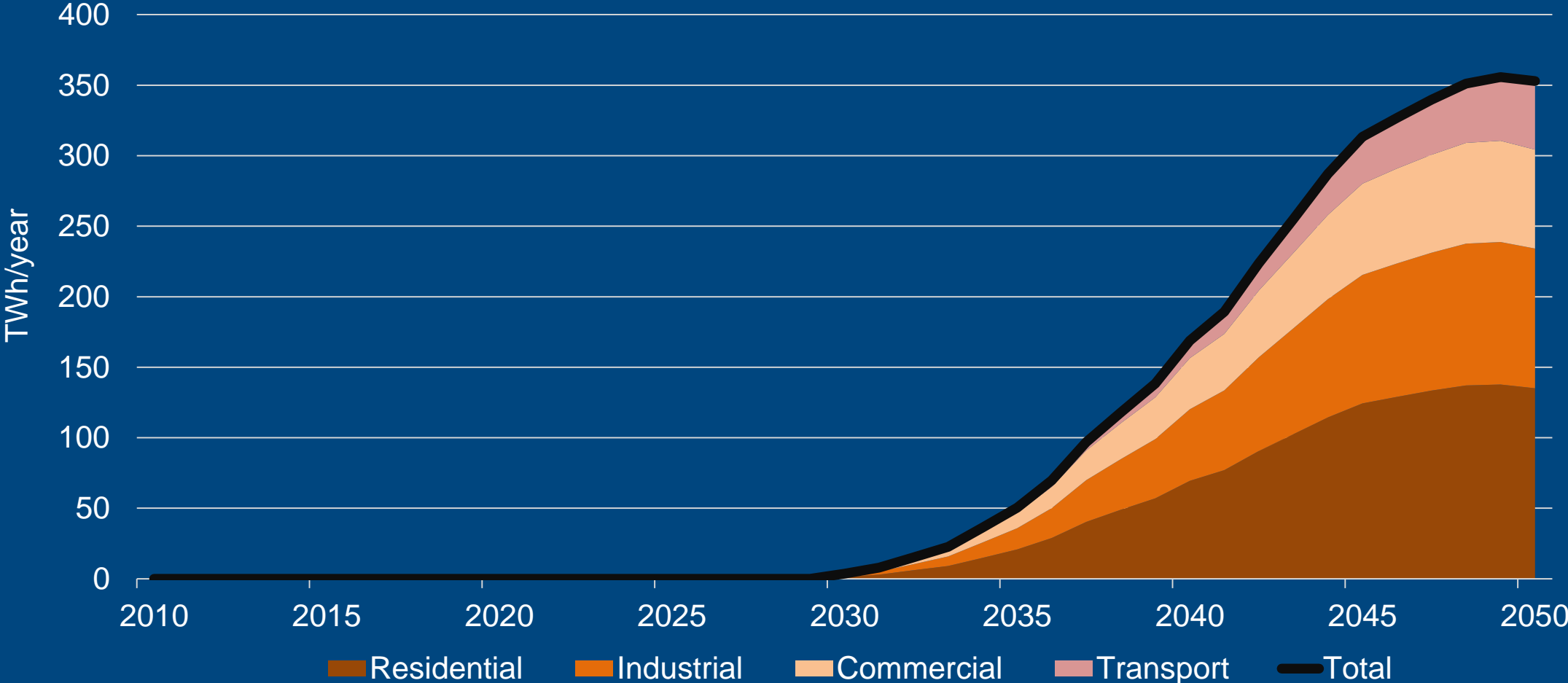
# Gas Demand: Exports through Moffat



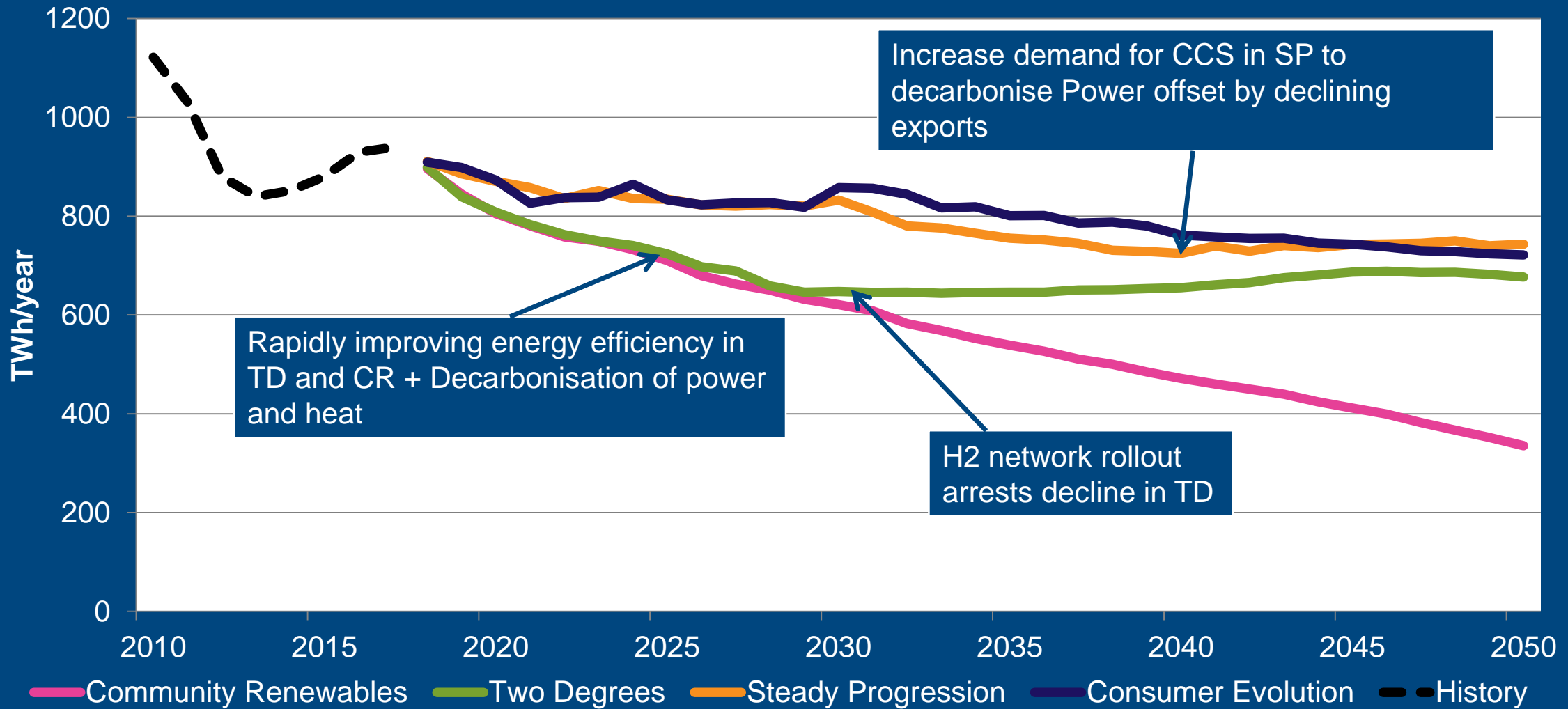
# Gas Demand: Exports through IUK



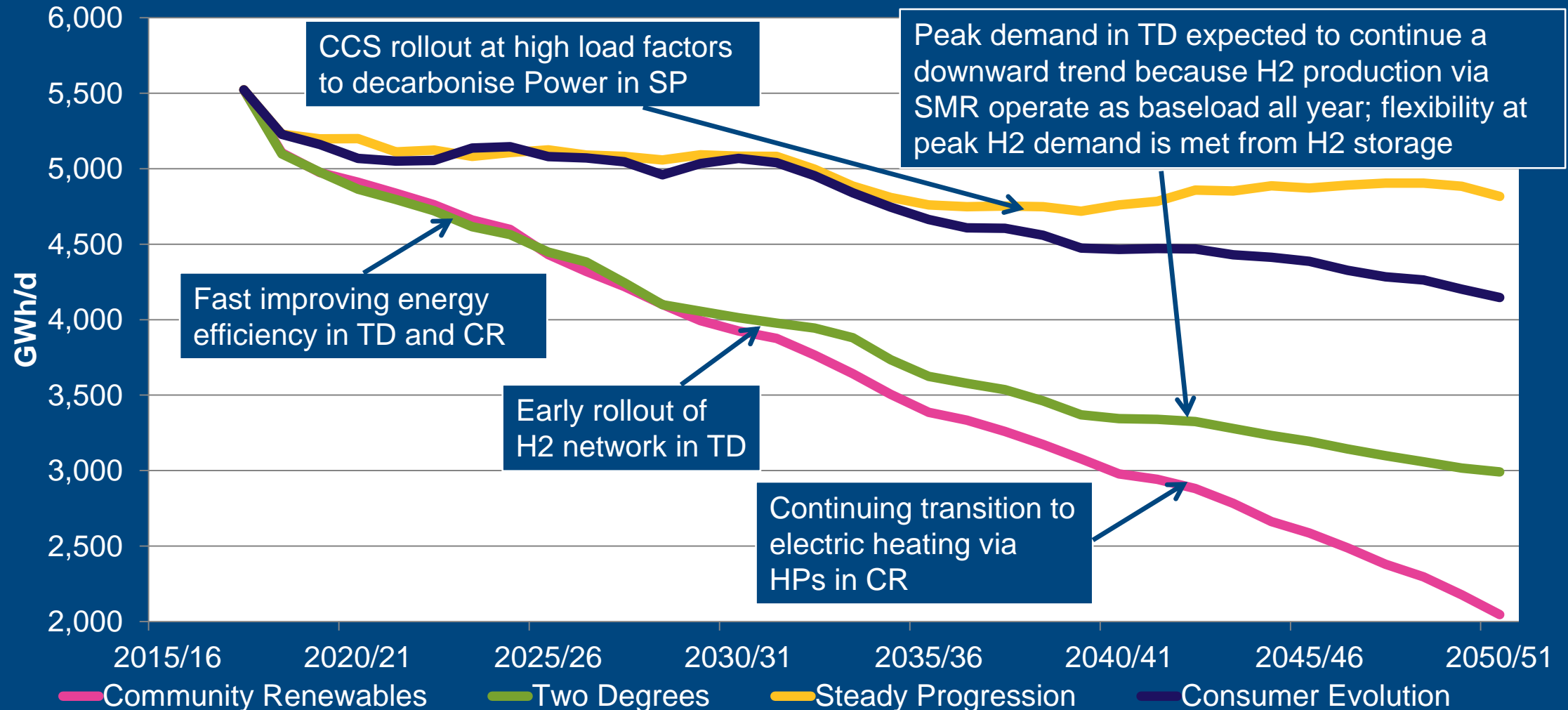
# Gas Demand: H2 Conversion in TD



# Gas Demand: Total, including exports



# Gas Demand: 1-in-20 Peak



# Key messages

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- **Residential:** Improving energy efficiency and electrification of heat will see demand decline in all scenarios
- **Power:** Growth of renewables and nuclear will see gas used increasingly as flexibility provider
- **I&C:** Increased electrification and biofuels will drive decarbonisation to 2050
- **Transport:** Increase gas demand in 2040s to decarbonise heavy goods vehicles
- **Exports – Moffat:** increase in gas demand in short to mid term as Ireland goes off coal
- **Exports – IUK:** A wide range of potential outcomes depending on level of shale development
- **Hydrogen:** from 2030s demand by SMR+CCUS in TD scenario will see gas consumption shift dramatically away from DNs to the NTS
- **Peak 1-in-20:** will see a long term decline in all scenarios driven mainly by declining demand in residential and power sectors



# Future Events

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Webinars	Dates
FES 2018 Overview	Tuesday 17 <sup>th</sup> July, 10:00-11:00am
Gas Demand	Wednesday 18 <sup>th</sup> July, 10:00-11:00am
Electricity Demand	Wednesday 18 <sup>th</sup> July, 2:00-3:00pm
Gas Supply	Thursday 19 <sup>th</sup> July, 10:00-11:00am
Electricity Supply	Thursday 19 <sup>th</sup> July, 2:00-3:00pm

To join please visit:

<http://fes.nationalgrid.com/webinars/>

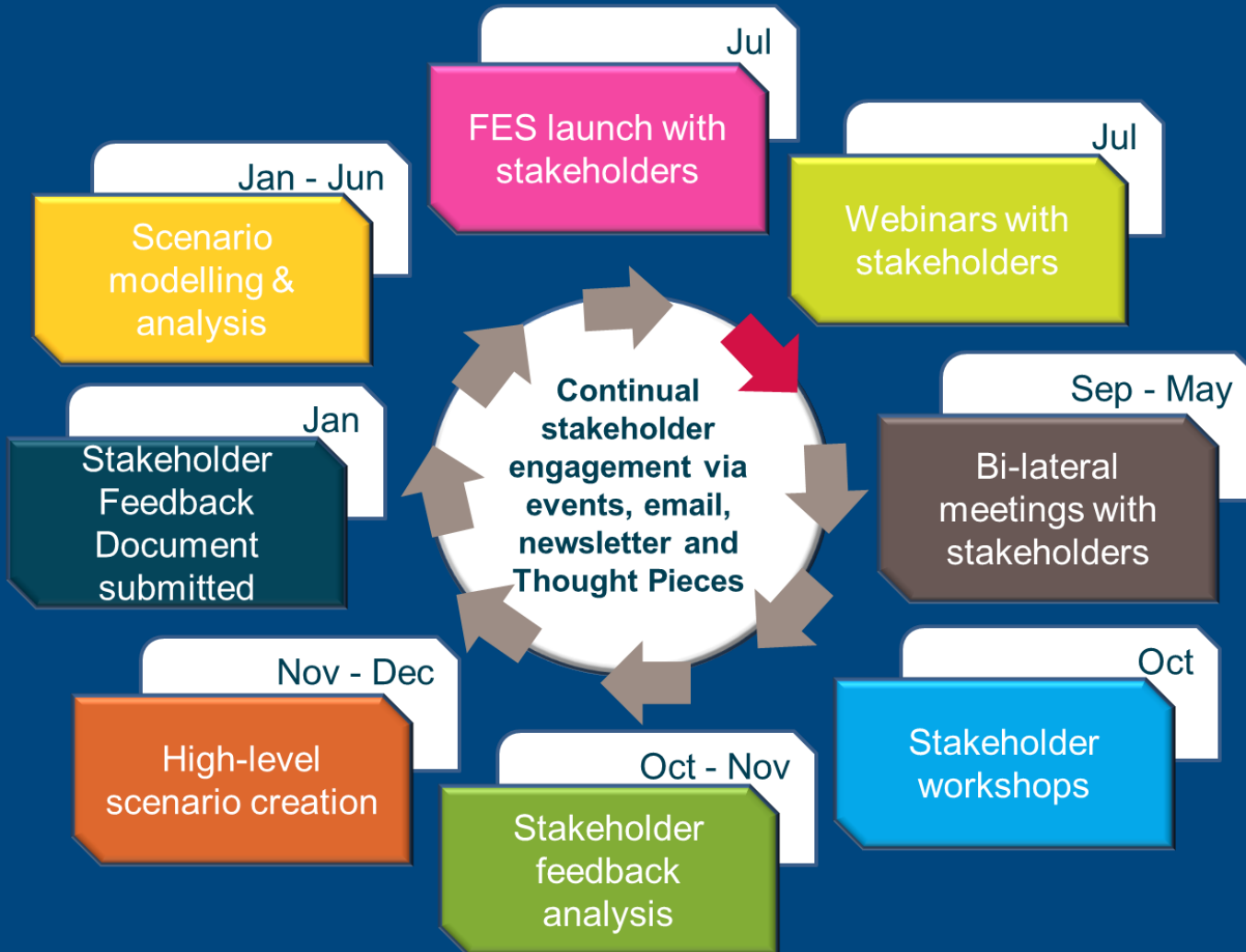
# 2018 Future Energy Scenarios

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## Questions



# How to stay involved



- FES 2018 launched on 12 July
- FES 2018 webinars during w/c 16 July
- Stakeholder engagement for FES 2019 from autumn 2018
- Keep up-to-date via our website and newsletter

# Thank you for your time

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## Stay in touch: [fes@nationalgrid.com](mailto:fes@nationalgrid.com)

## For more information visit: [www.fes.nationalgrid.com](http://www.fes.nationalgrid.com)



System Operator