

Welcome

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#Futureofenergy

Future Energy Scenarios 2018

Electricity Demand

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System Operator

What we will cover today

- Future Energy Scenarios (FES) 2018 overview
- How much electricity will we need?
- How will we travel?
- Can changing behaviour save us money?
- How will we heat our homes and workplaces?
- Q&A

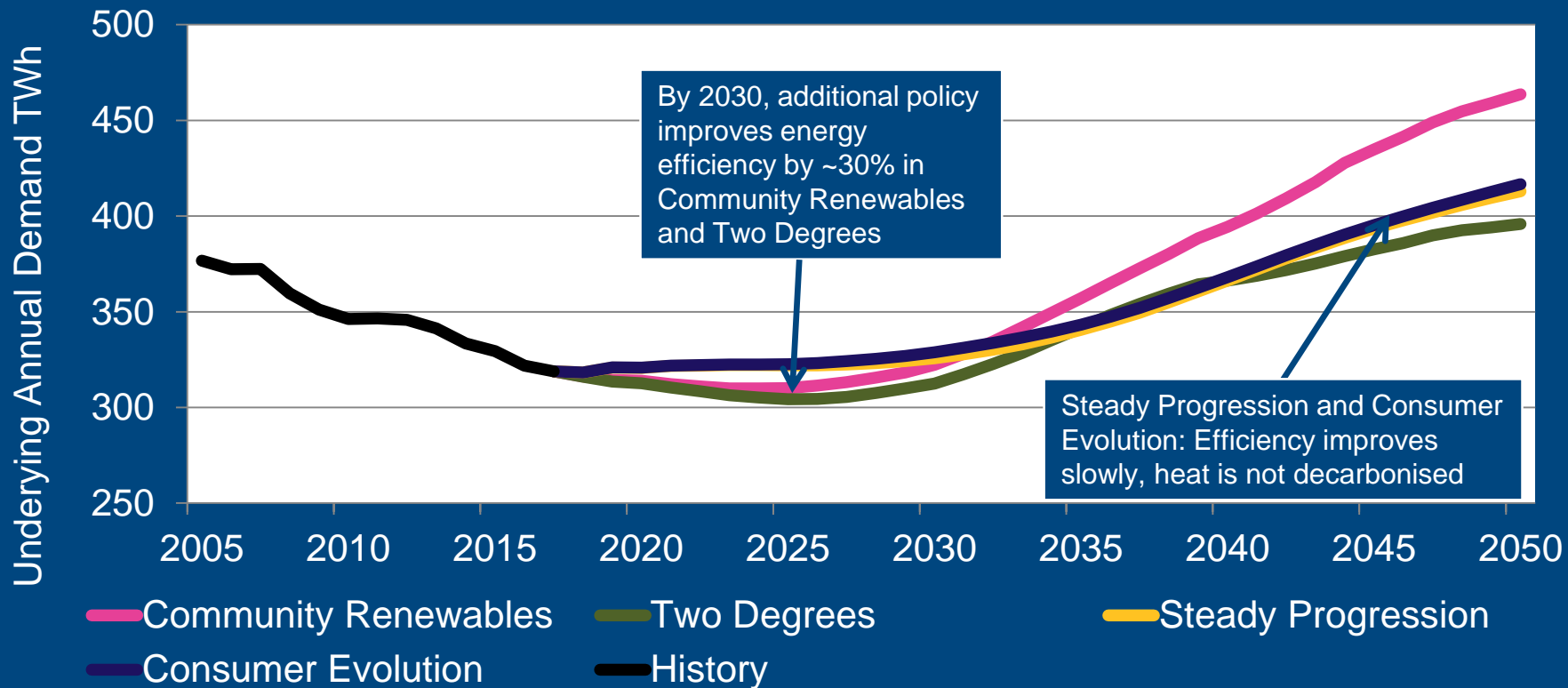
FES 2017 to FES 2018



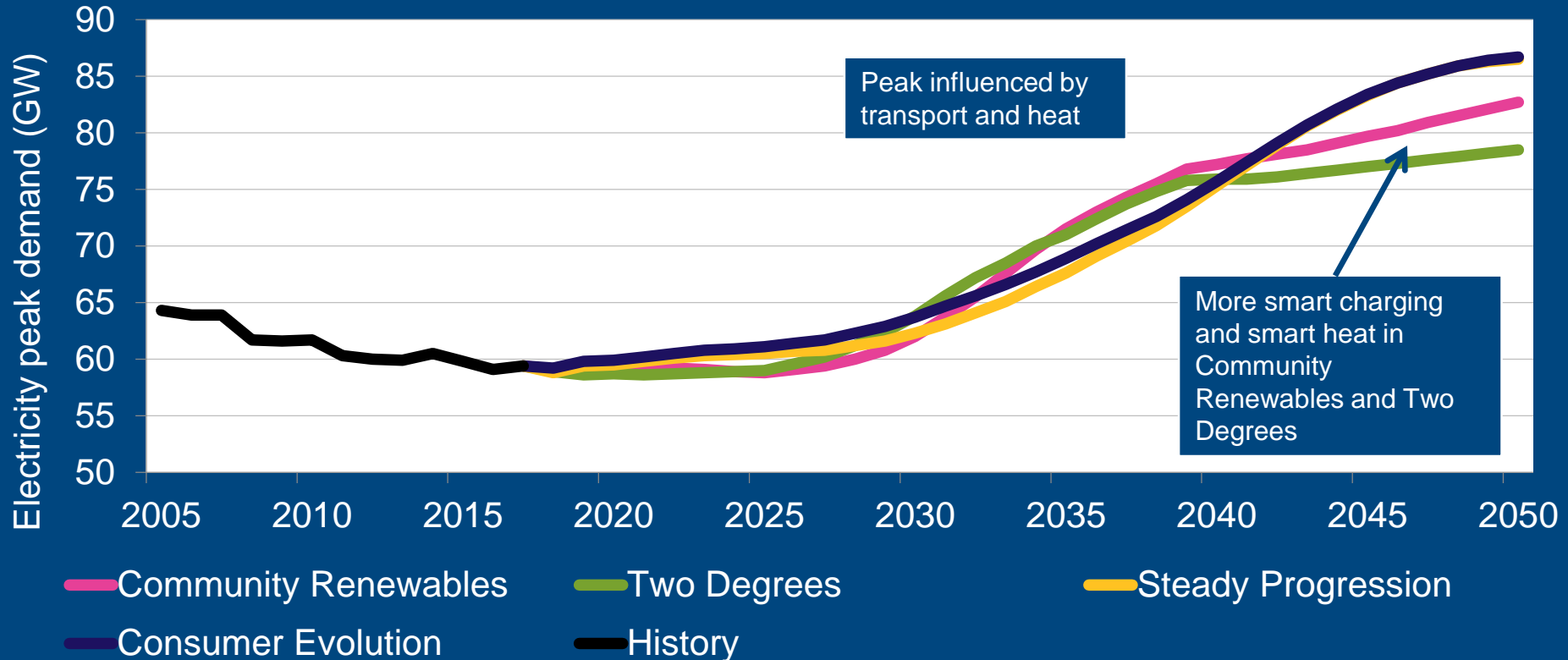
Electricity Demand: Overall Demand

How much electricity will we need?

Electricity Demand: Annual TWh nationalgrid



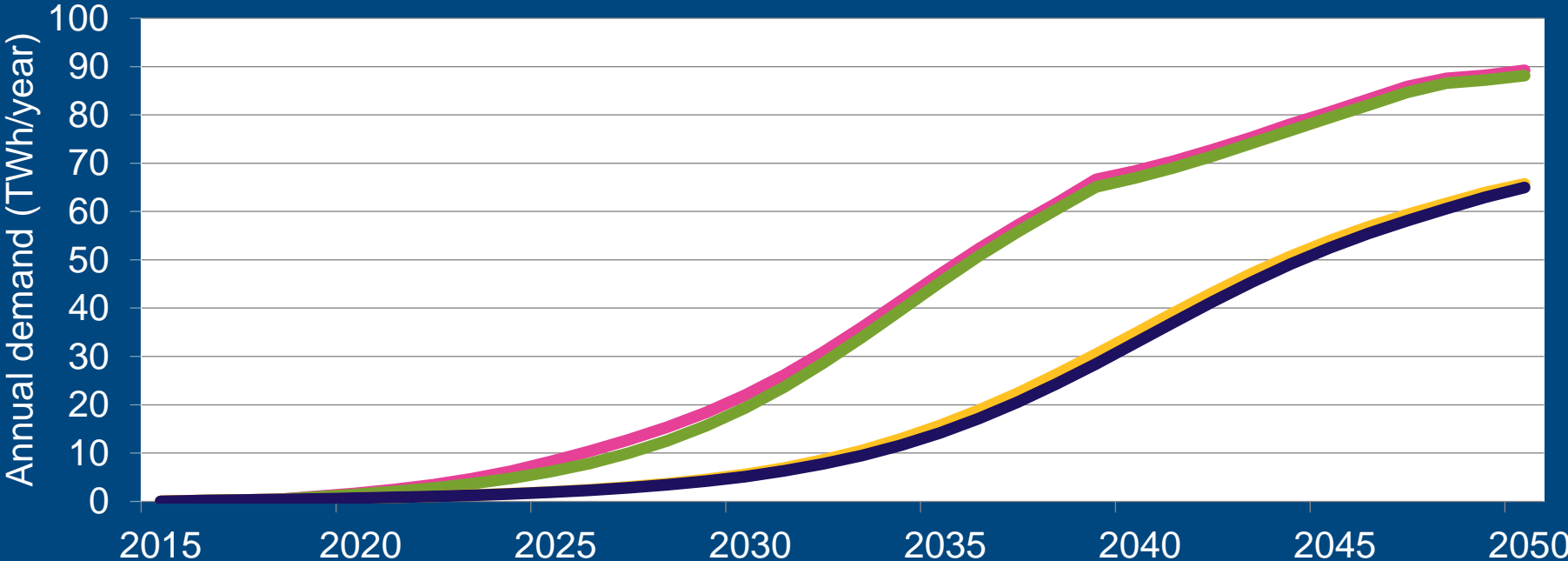
Electricity Demand: Peak GW



Electricity Demand: Road Transport

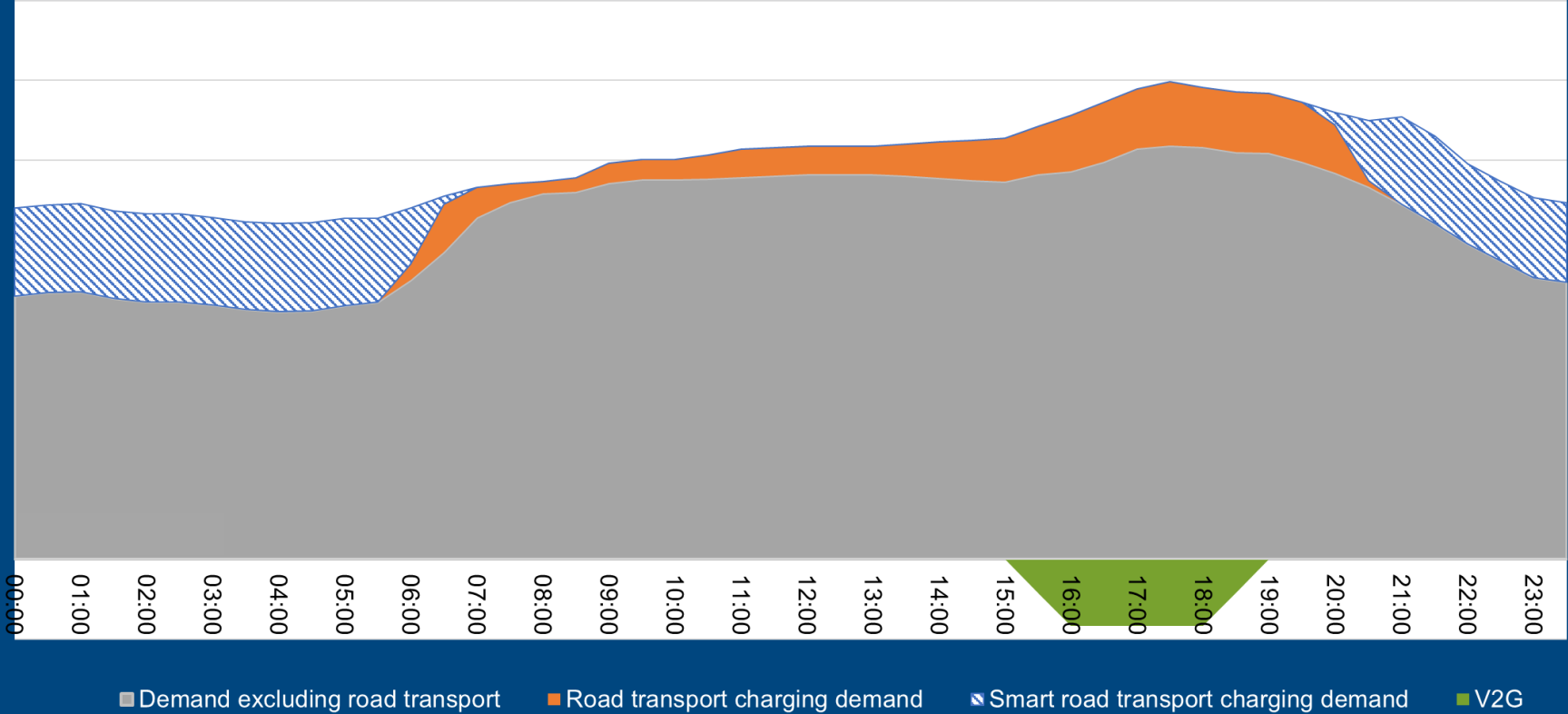
How will we travel?

Transport – Annual electricity demand



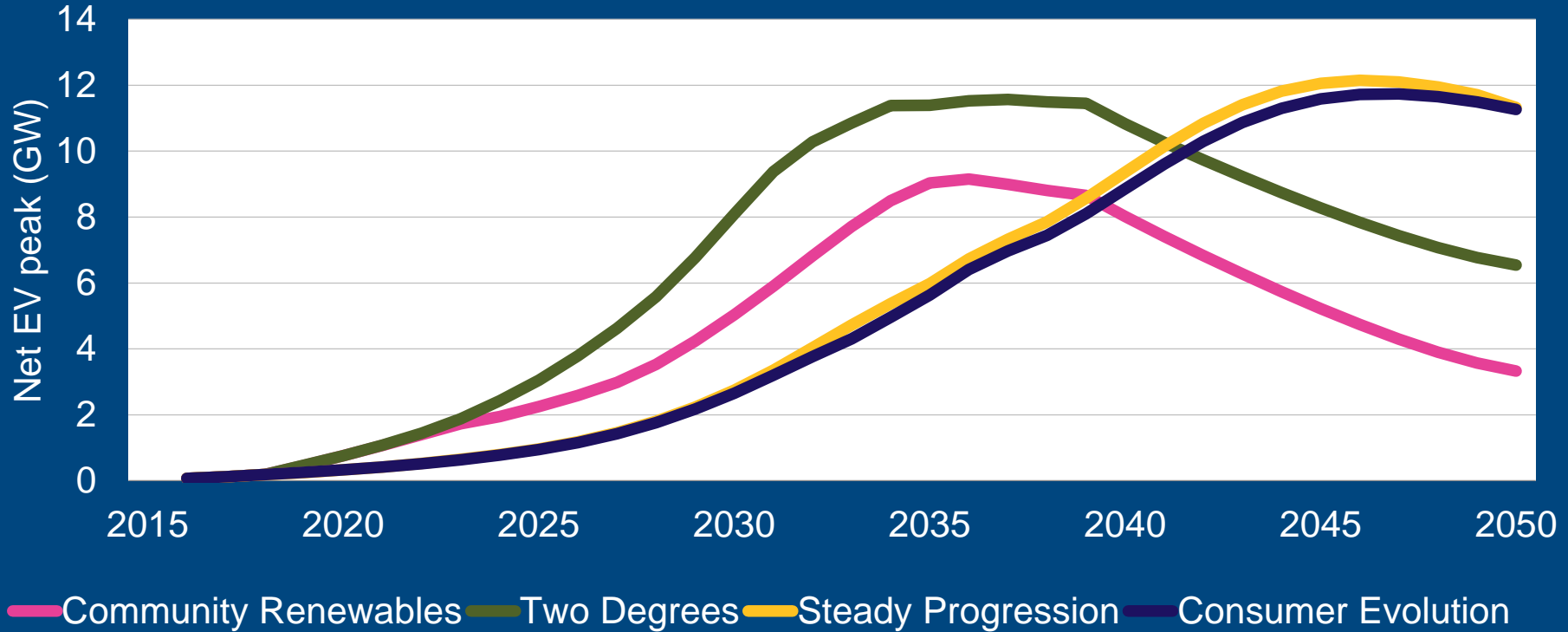
Community Renewables Two Degrees Steady Progression Consumer Evolution

Smart charging - 2040 winter's day



Electricity Demand: Peak and V2G

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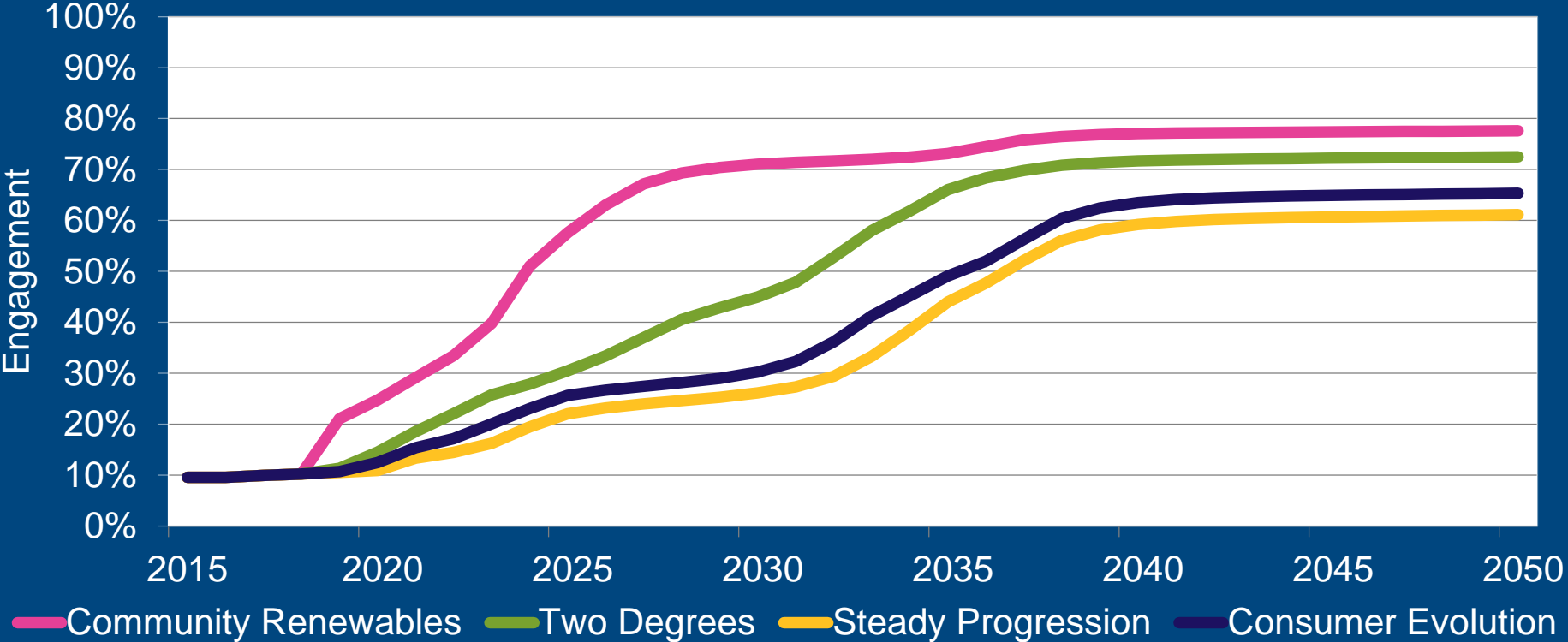


Electricity Demand: Demand Side Response

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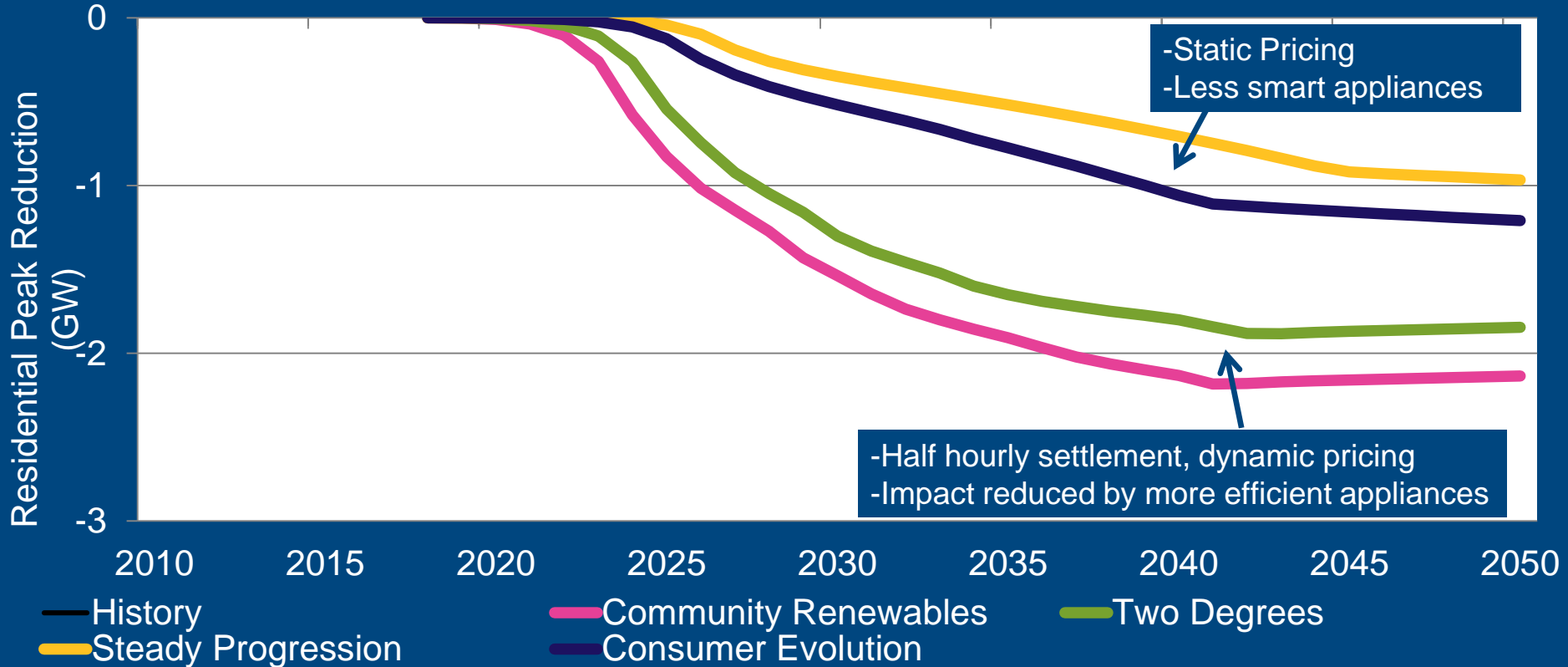
Could changing our behaviour save us money?

Smart charging and engagement



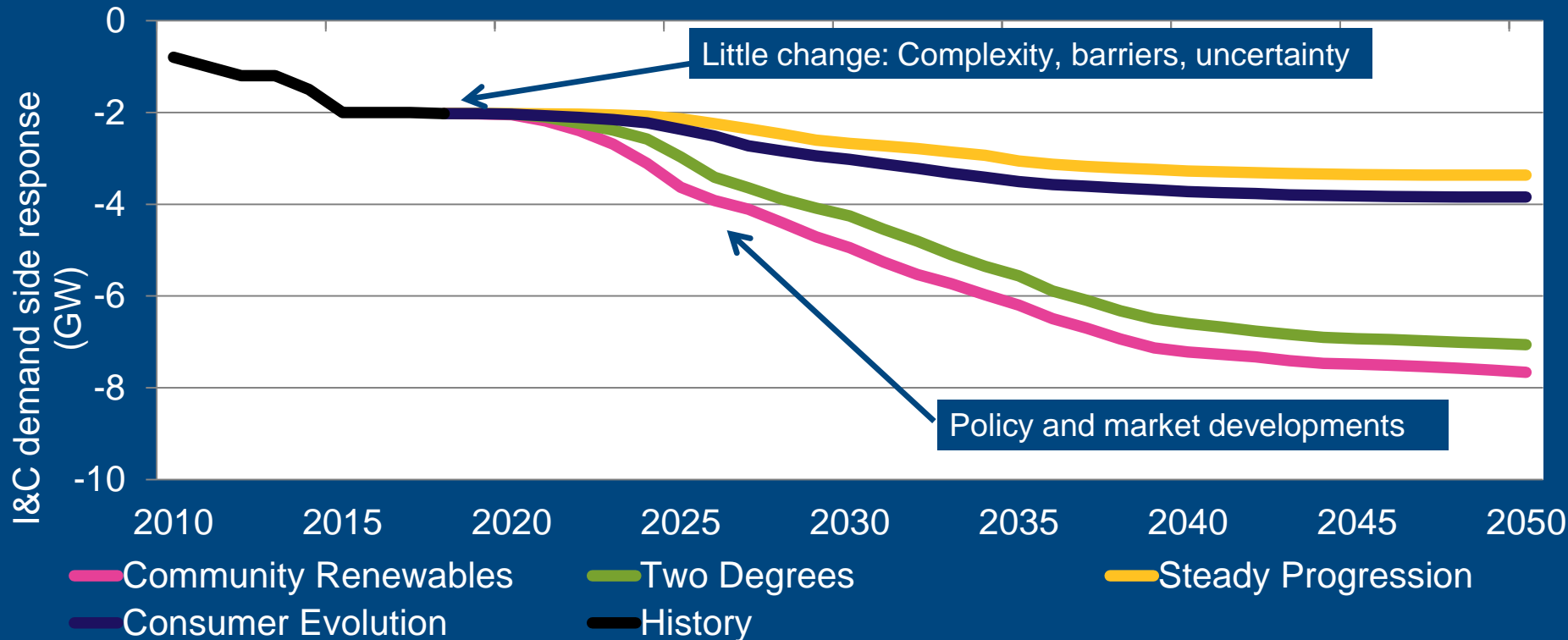
Electricity Demand: Residential Peak Reduction

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Electricity Demand: Industrial & Commercial Response

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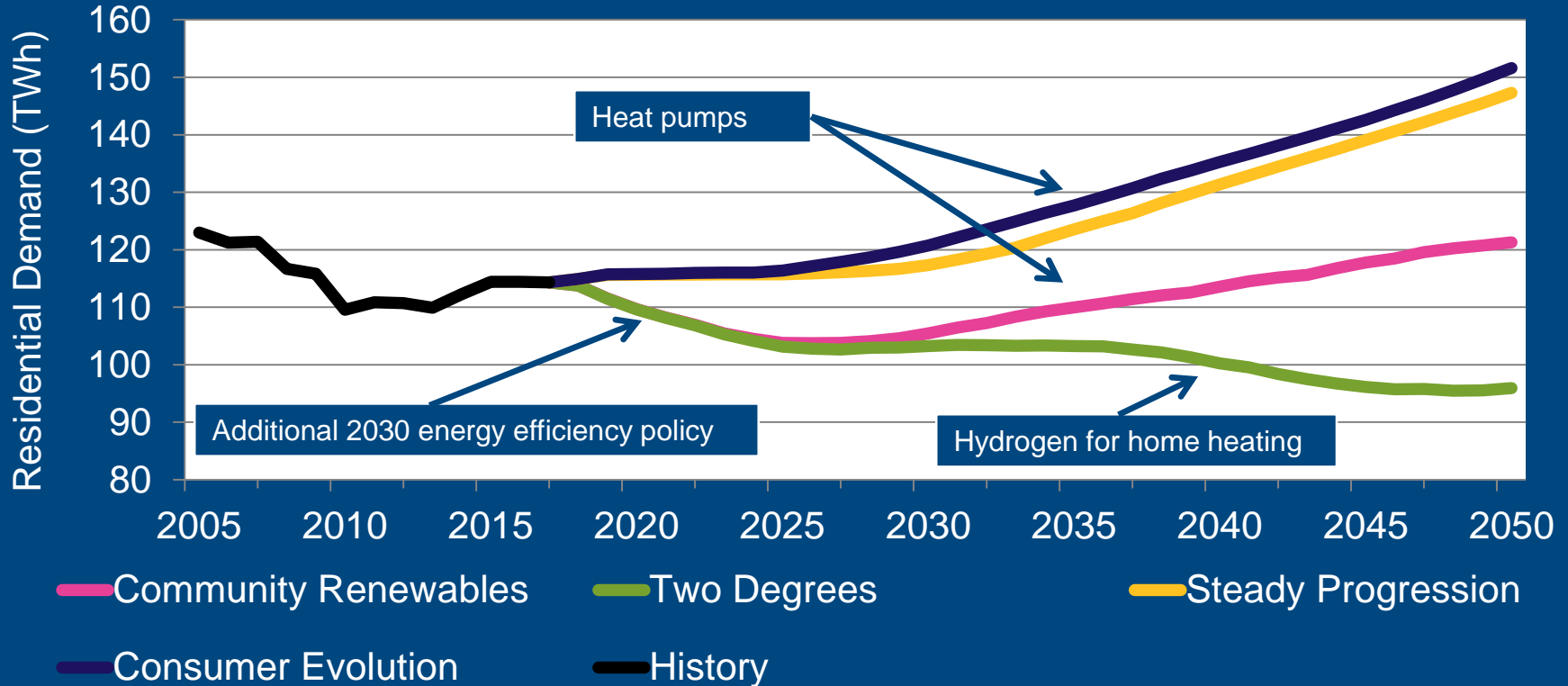
Electricity Demand: Energy Efficiency

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Could efficient appliances save us money?

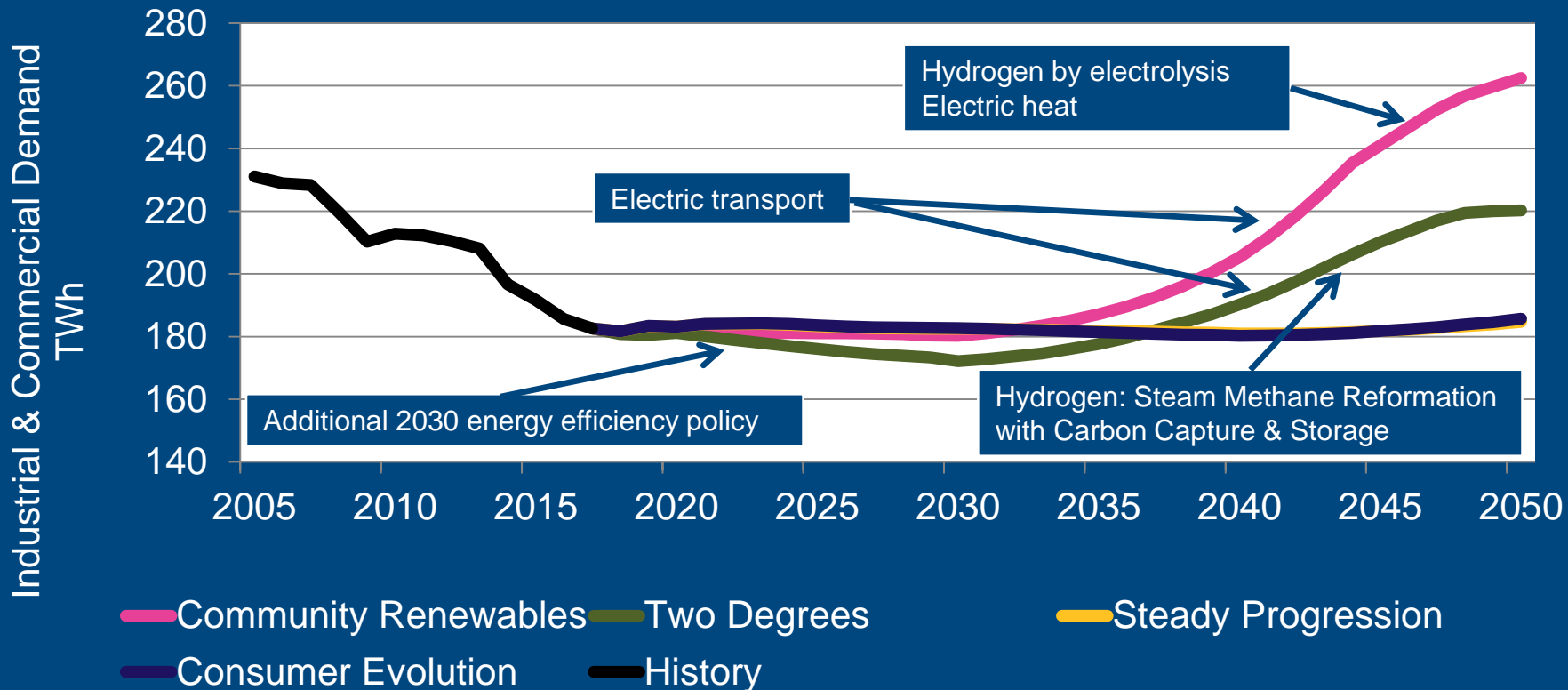
Electricity Demand: Residential (no transport)

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Electricity Demand: Industrial & Commercial

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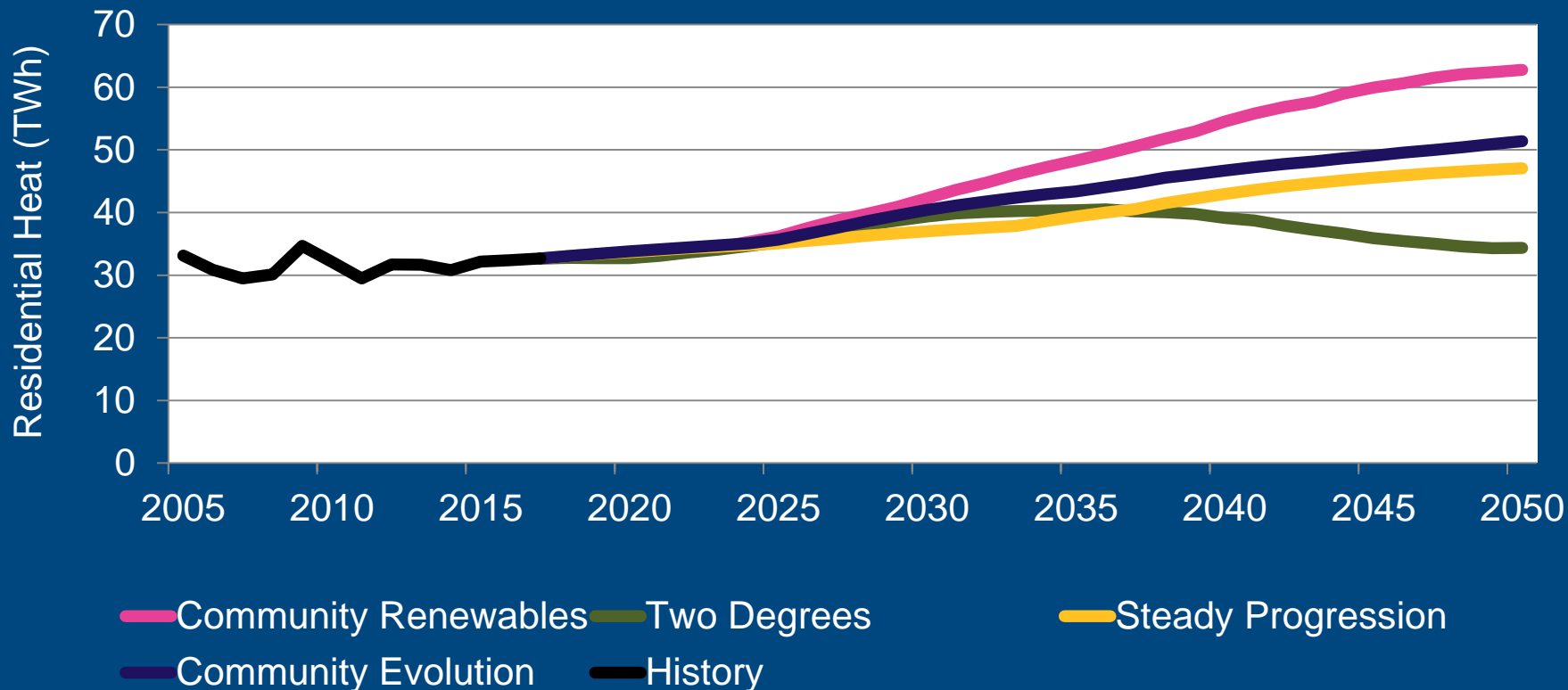
Electricity Demand: Future of Heat

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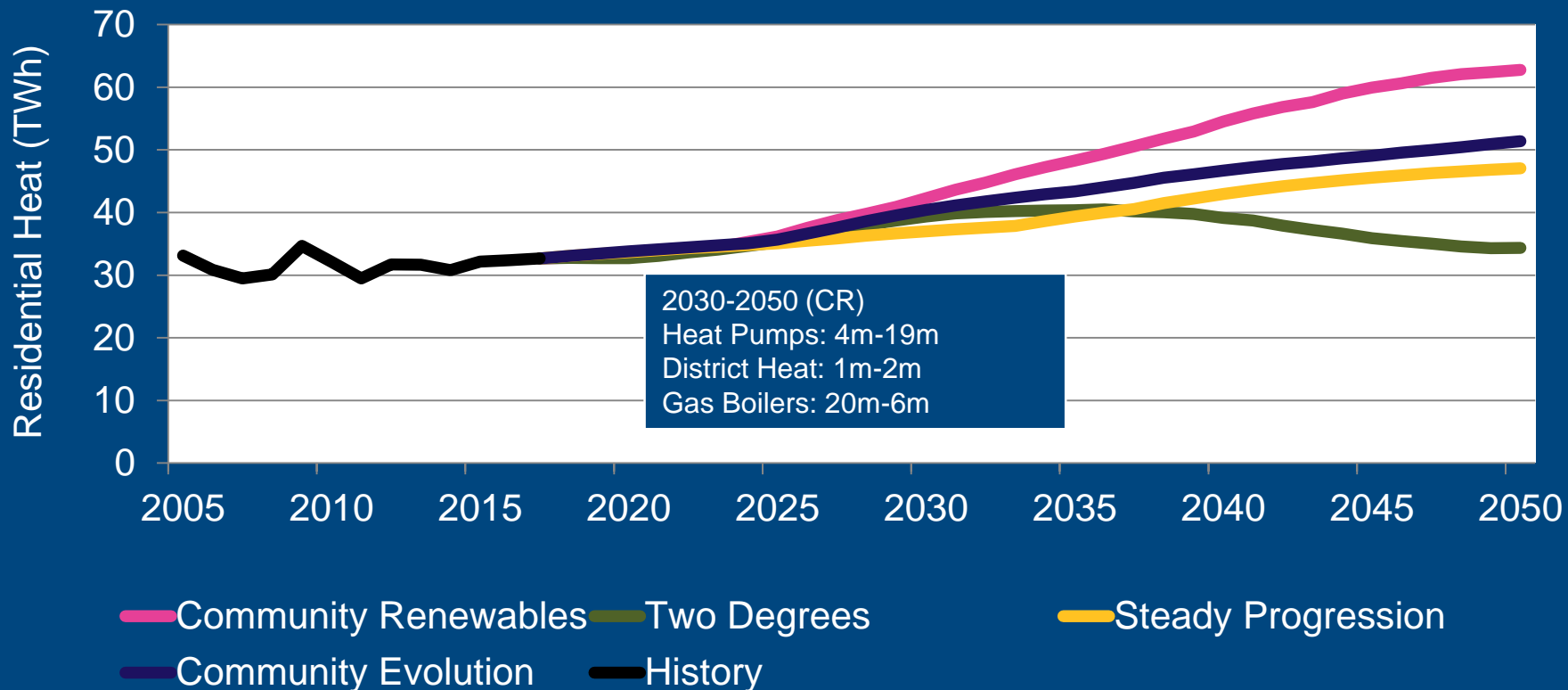
How will we keep warm at home and at work?

Electricity Demand: Home heat technologies

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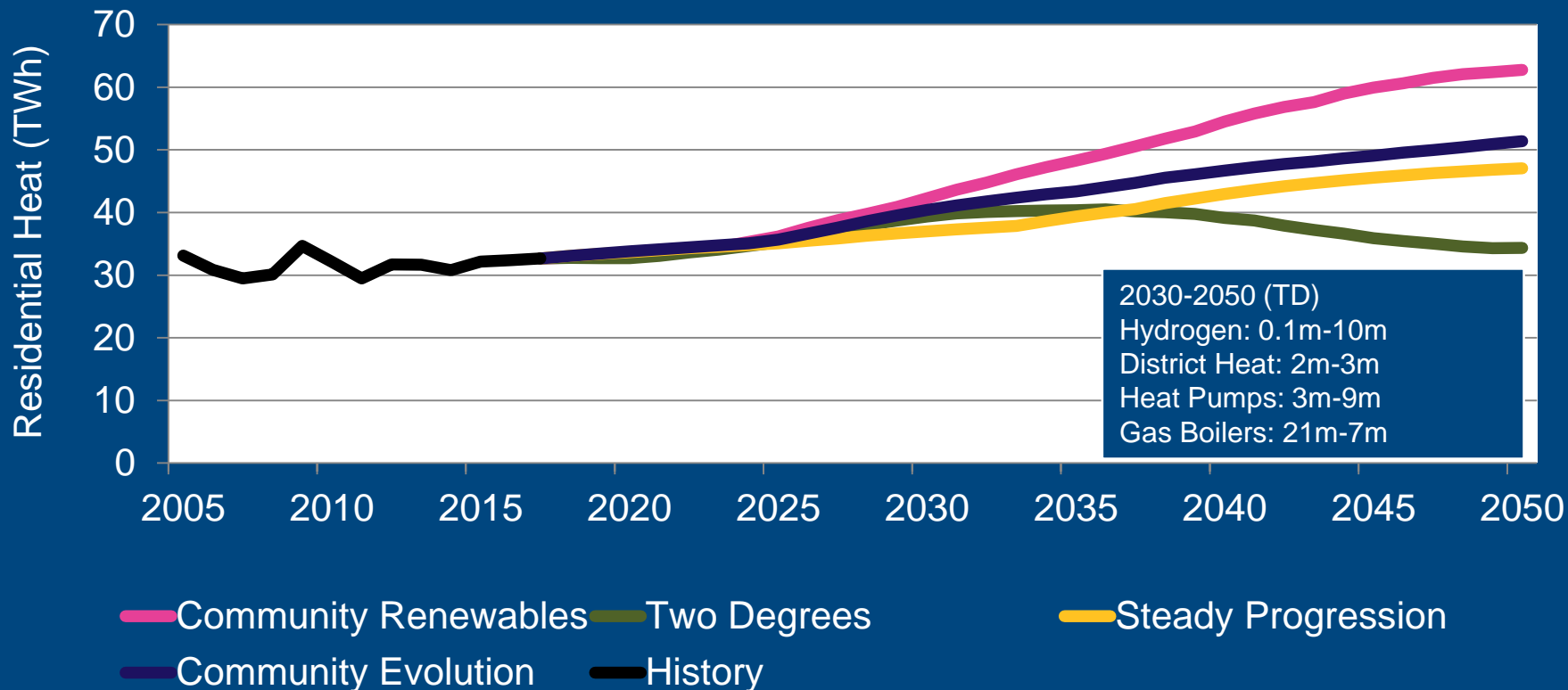


Electricity Demand: Home heat technologies

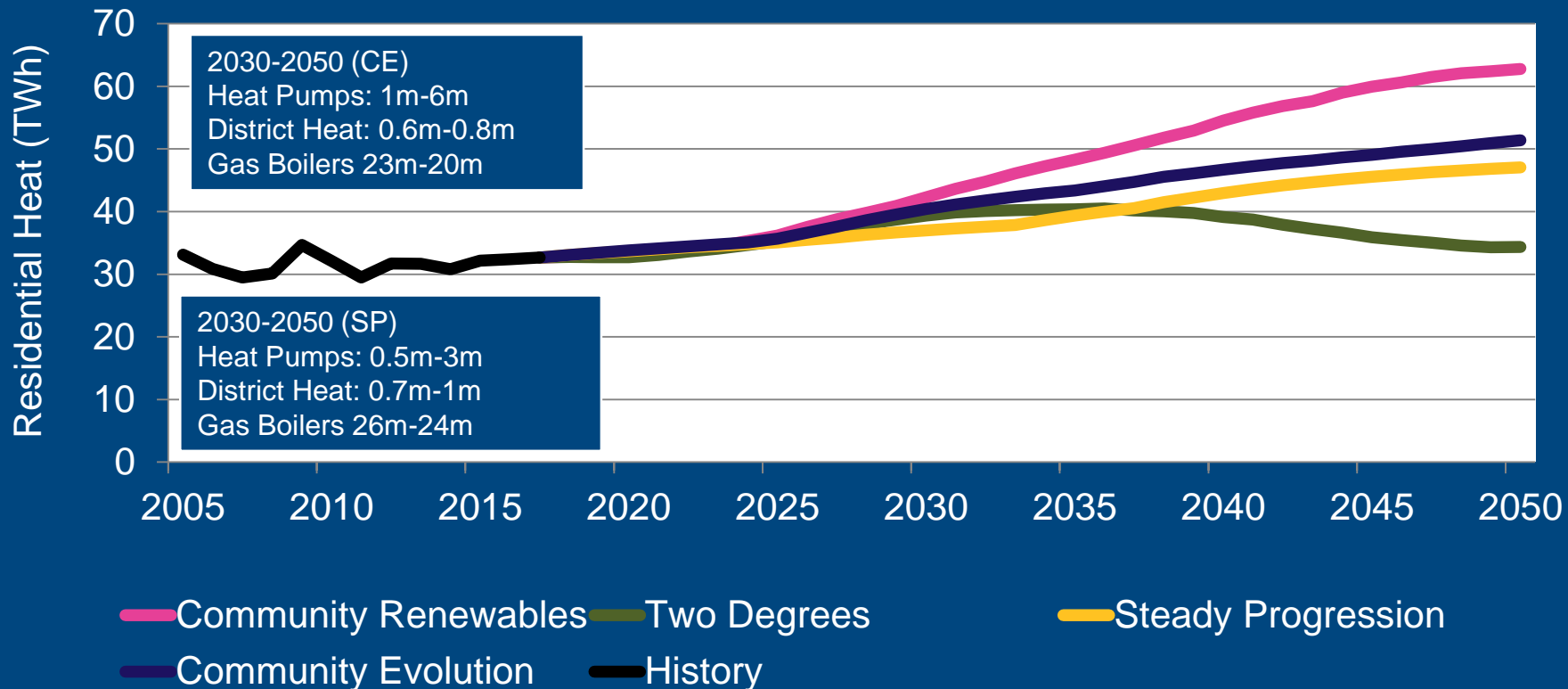


Electricity Demand: Home heat technologies

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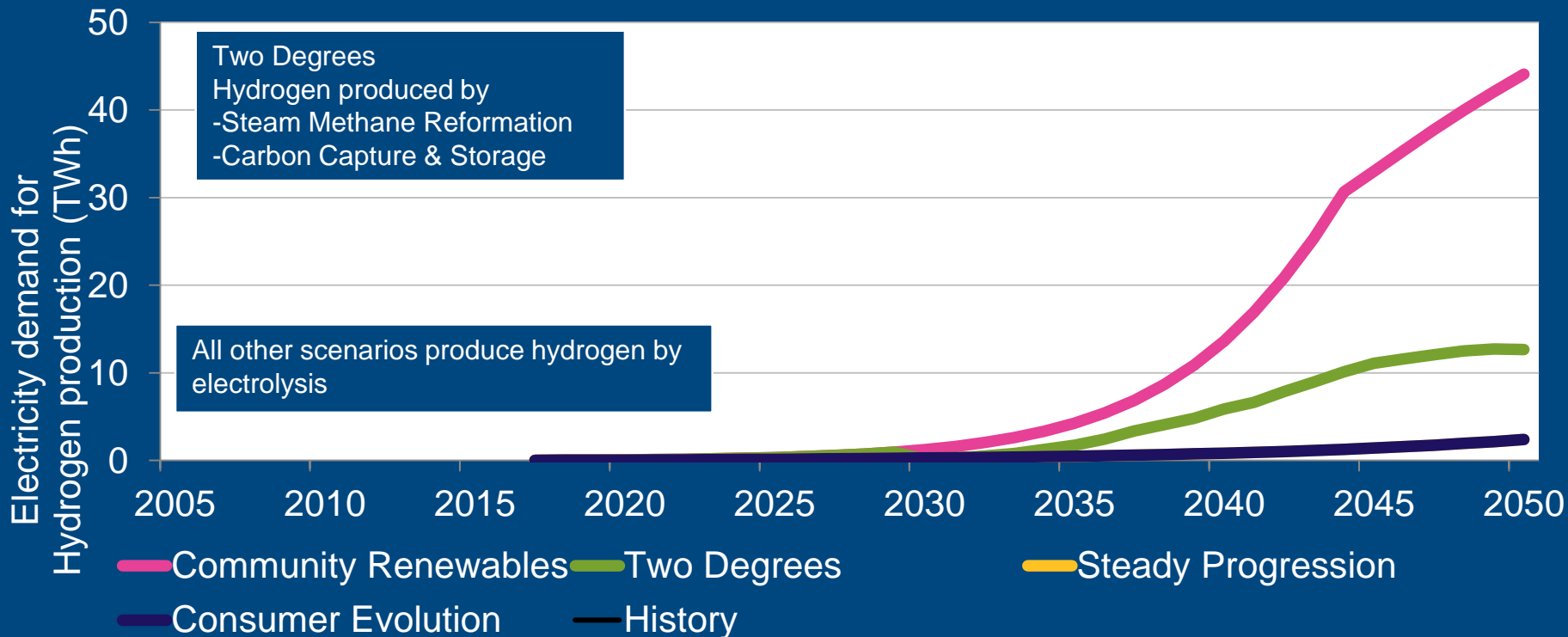


Electricity Demand: Home heat technologies



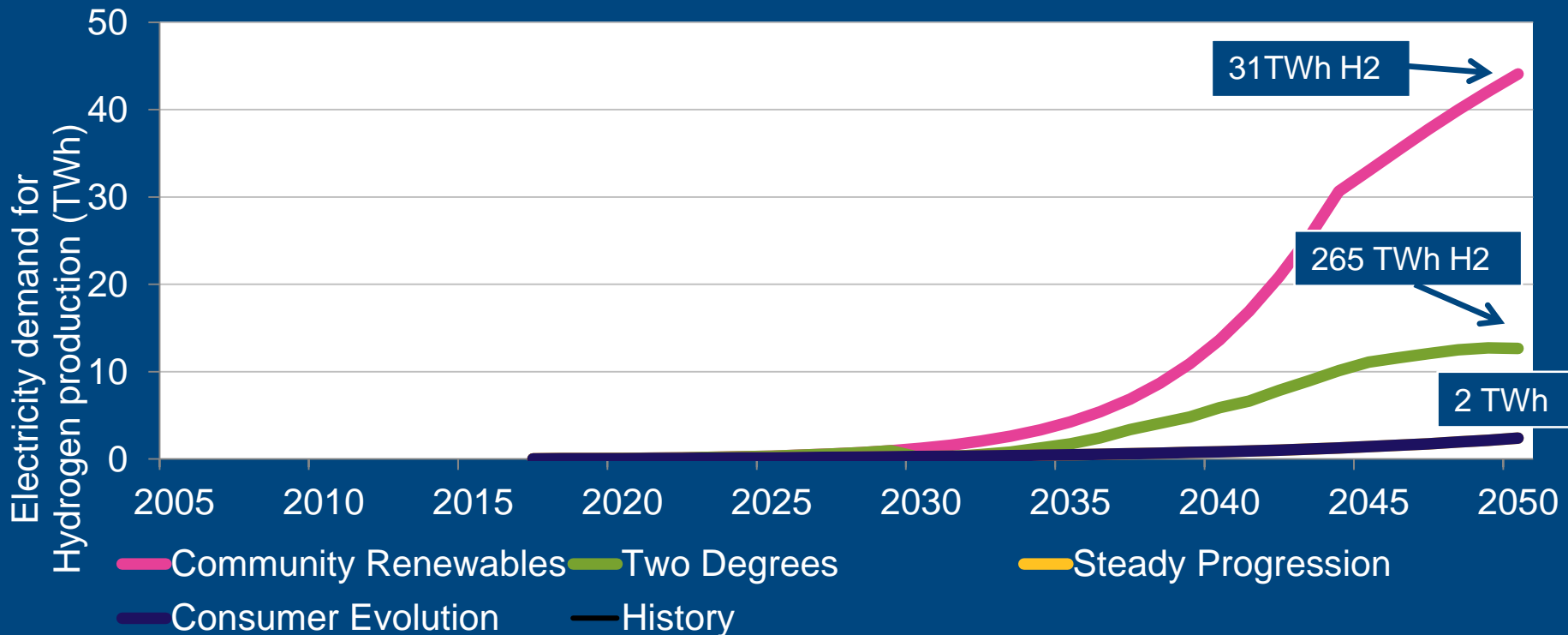
Electricity Demand: Hydrogen

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Electricity Demand: Hydrogen

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Electricity Demand:

Key Messages

Electricity Demand:

- Demand grows in all scenarios grows due electrification of transport
- Smart charging and vehicle-to-grid will play a key role in supporting a low carbon system
- Decarbonisation of heat is crucial and requires policy and market support
- Energy efficiency improvements could help to reduce consumer costs and optimise energy industry investment.

Future Events

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

For more information visit: www.fes.nationalgrid.com



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