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Energy Demand

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Environmental Targets

Gone Green

2020 Renewable target hit, carbon budgets on track

Slow Progression

Targets missed or delayed

Government Policy

Gone Green

Global accord on climate change, Increasing international policy harmonisation

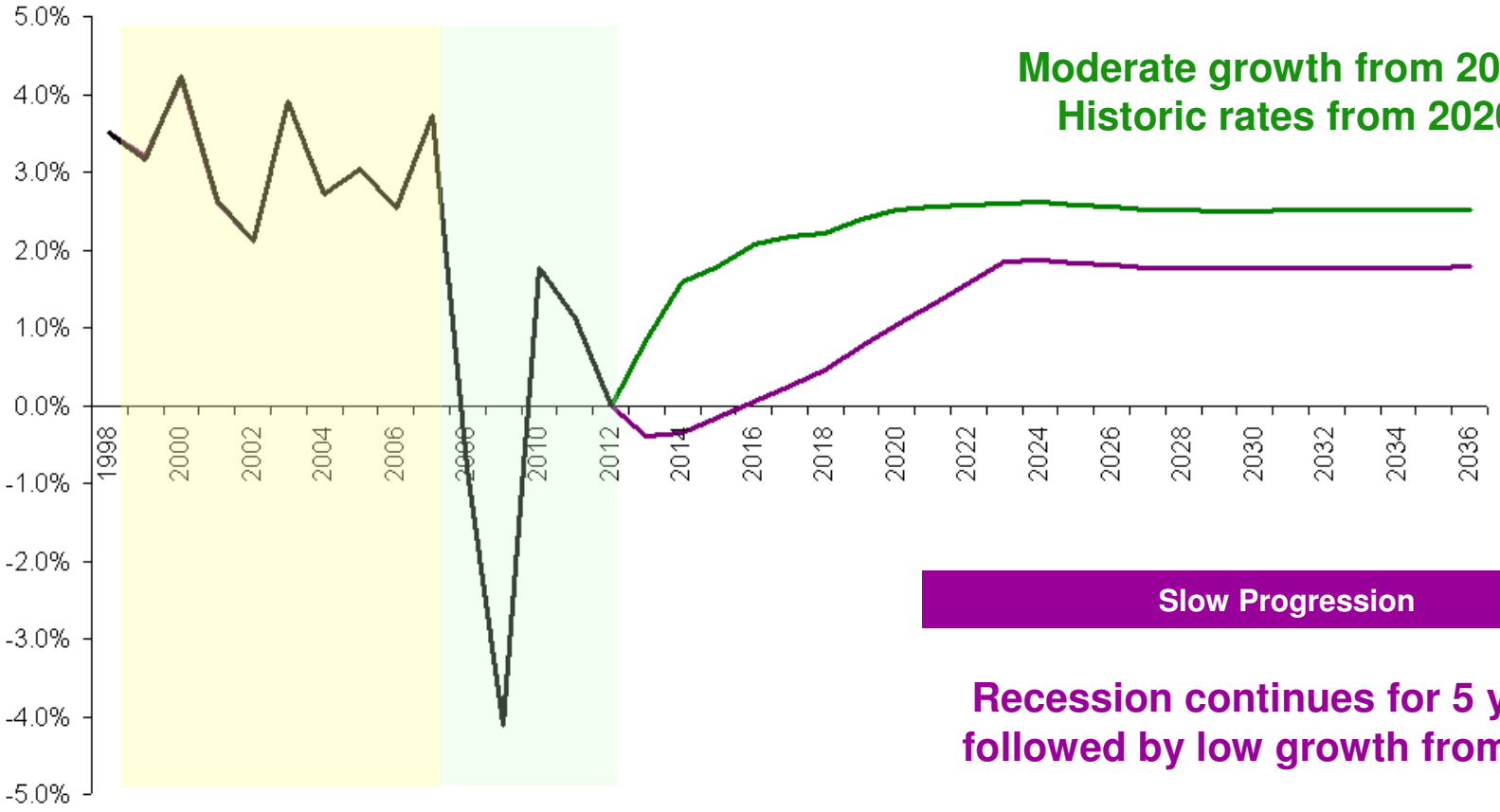
Slow Progression

Global climate agreements are not secured, lack of international policy harmonisation

Economy

Gone Green

Moderate growth from 2014, Historic rates from 2020

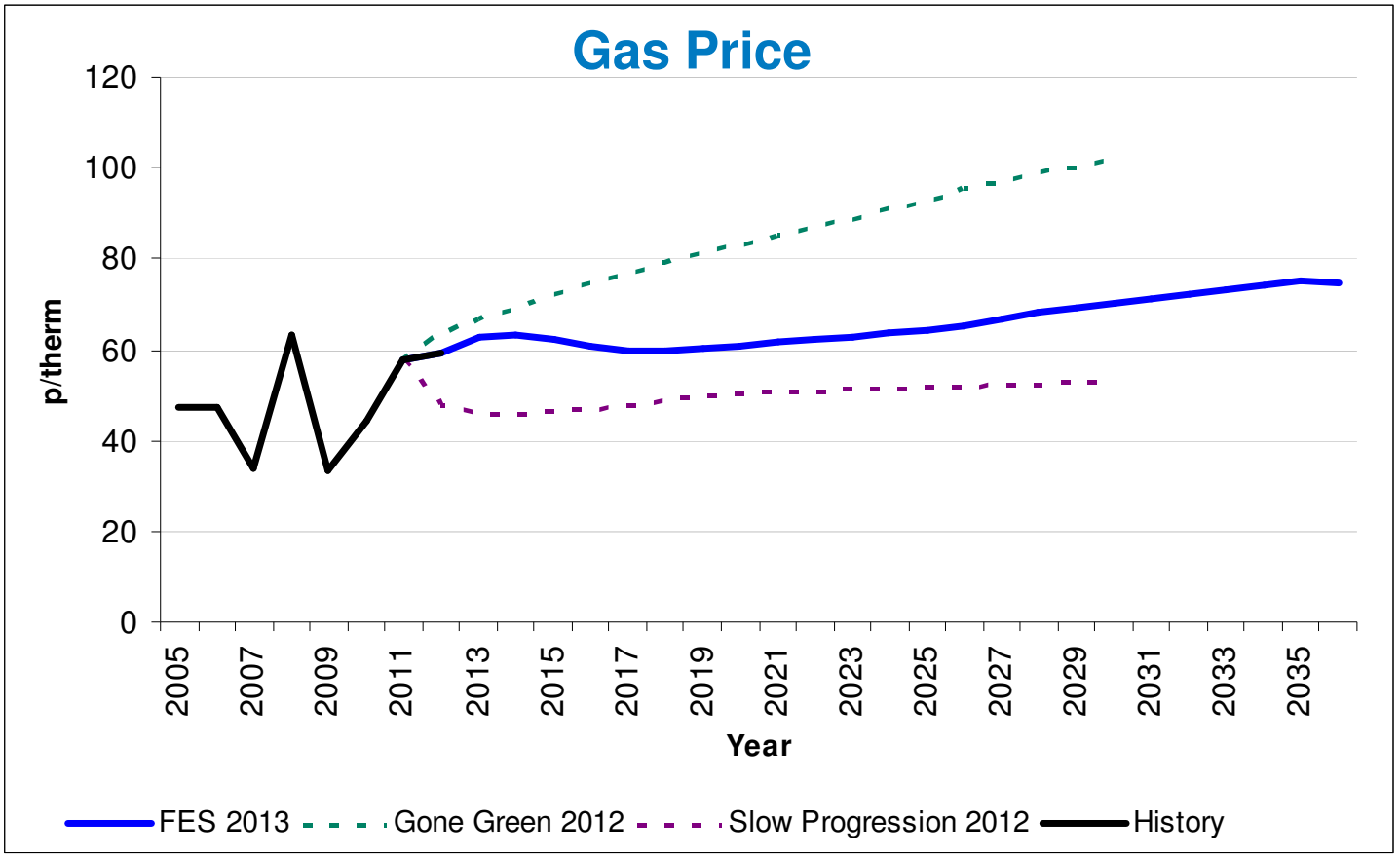


Slow Progression

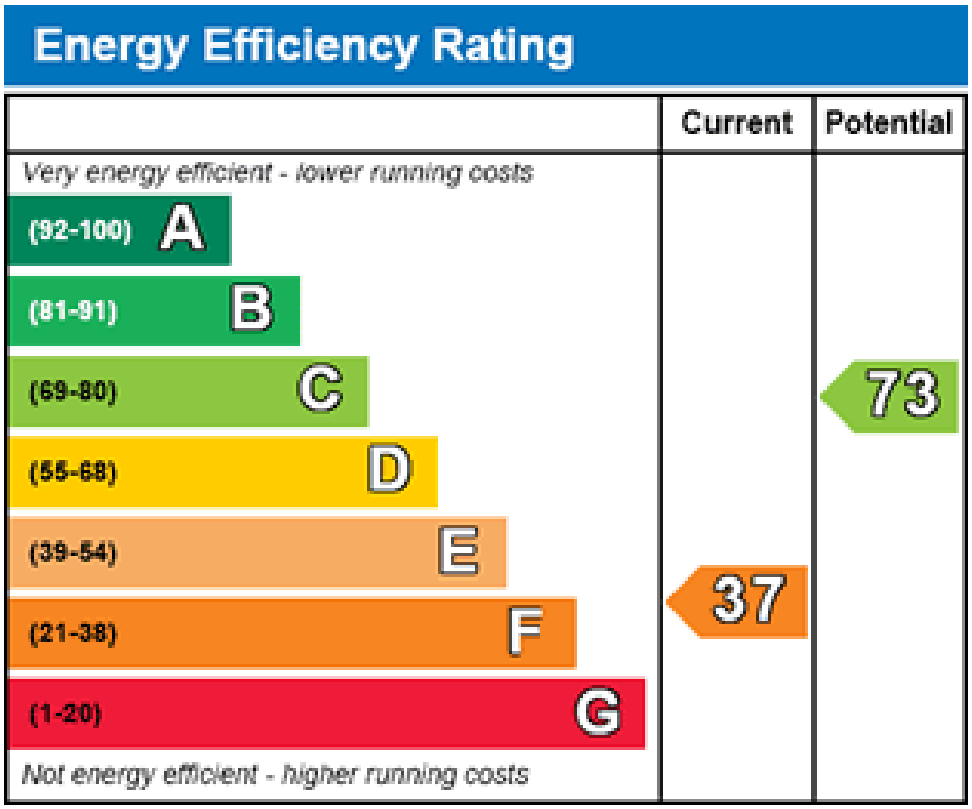
Recession continues for 5 years, followed by low growth from 2023

Fuel Prices

Single price scenario used to avoid counteracting GDP



Energy Efficiency



Gone Green

Drive for energy efficiency
e.g. 2 Band improvement

Slow Progression

Lower drive for energy efficiency
e.g. 1 Band improvement

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Consumer Behaviour

Gone Green

Smart and time of use tariffs drive demand reduction and shifting
50% of consumers interact

Slow Progression

Smart meters low impact
25% of consumers interact

"Smart appliances and time of use tariffs could reduce residential demand by 4% and shift peaks by 5%"

Microgen

Gone Green

Minimal hydro/wind deployment. Modest growth in solar PV

Slow Progression

Hydro/wind deployment broadly static. Low solar PV growth as incentives reduce

1.8GW Microgen capacity today

Heat

Gone Green

Wider uptake of heat pumps including on gas network beyond 2025

Slow Progression

Boilers replaced at current rates, low take up of heat pumps and biomass

100,000
heat pumps fitted today

~1.3m boilers replaced per annum

Transport

Gone Green

Modest EV/plug-in hybrid uptake.
Higher rail electrification

Slow Progression

Low EV/plug-in hybrid uptake.
Some rail electrification

5,000 Electric vehicles
on the road today

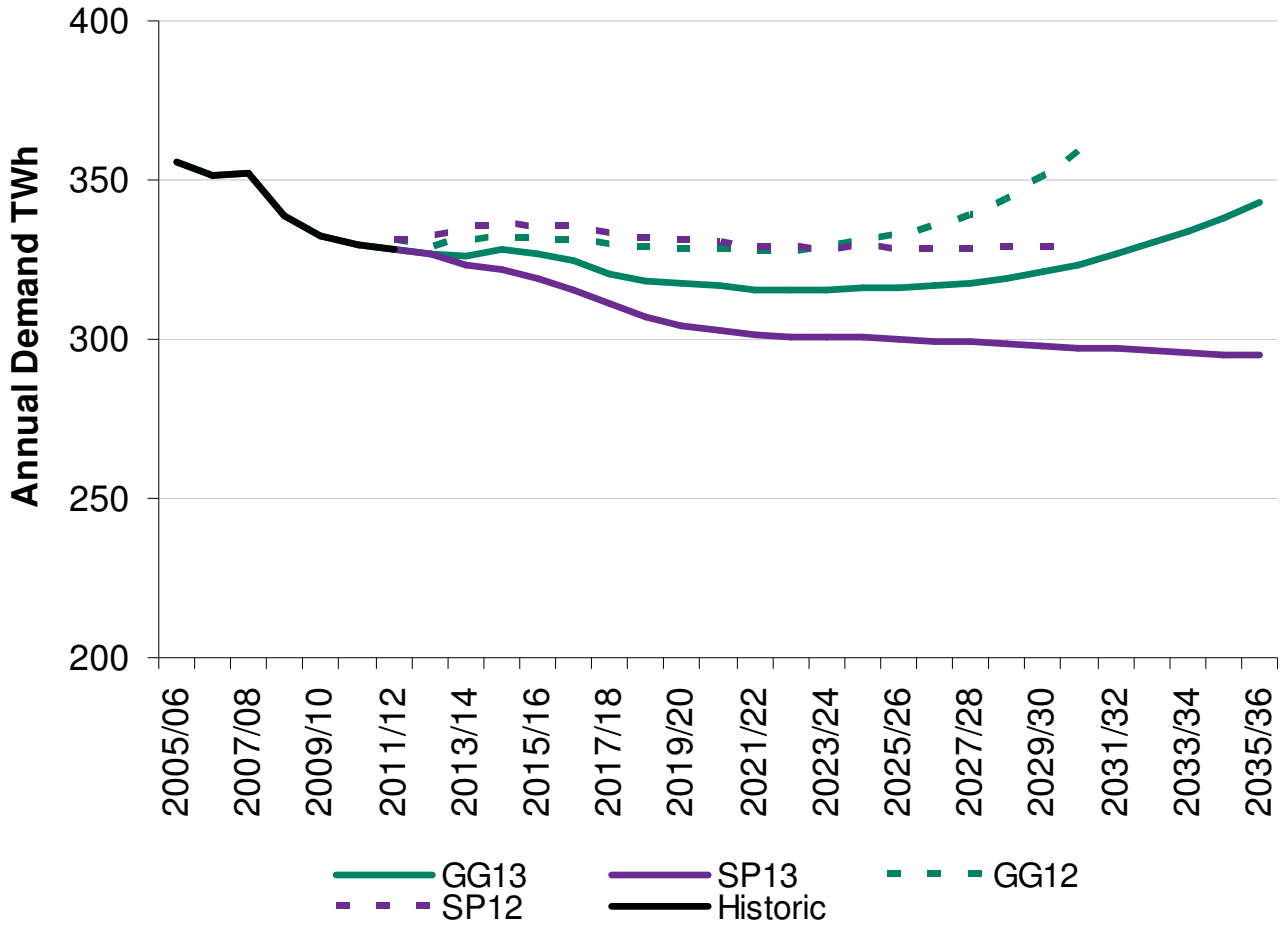
4TWh Rail
Demand today

Annual Power Demand

Demands reduce due to low growth and microgen increases

Short to medium term decreases due to energy efficiency and economic impacts

Heatpumps, electric vehicles and growth increase Gone Green demand post 2020

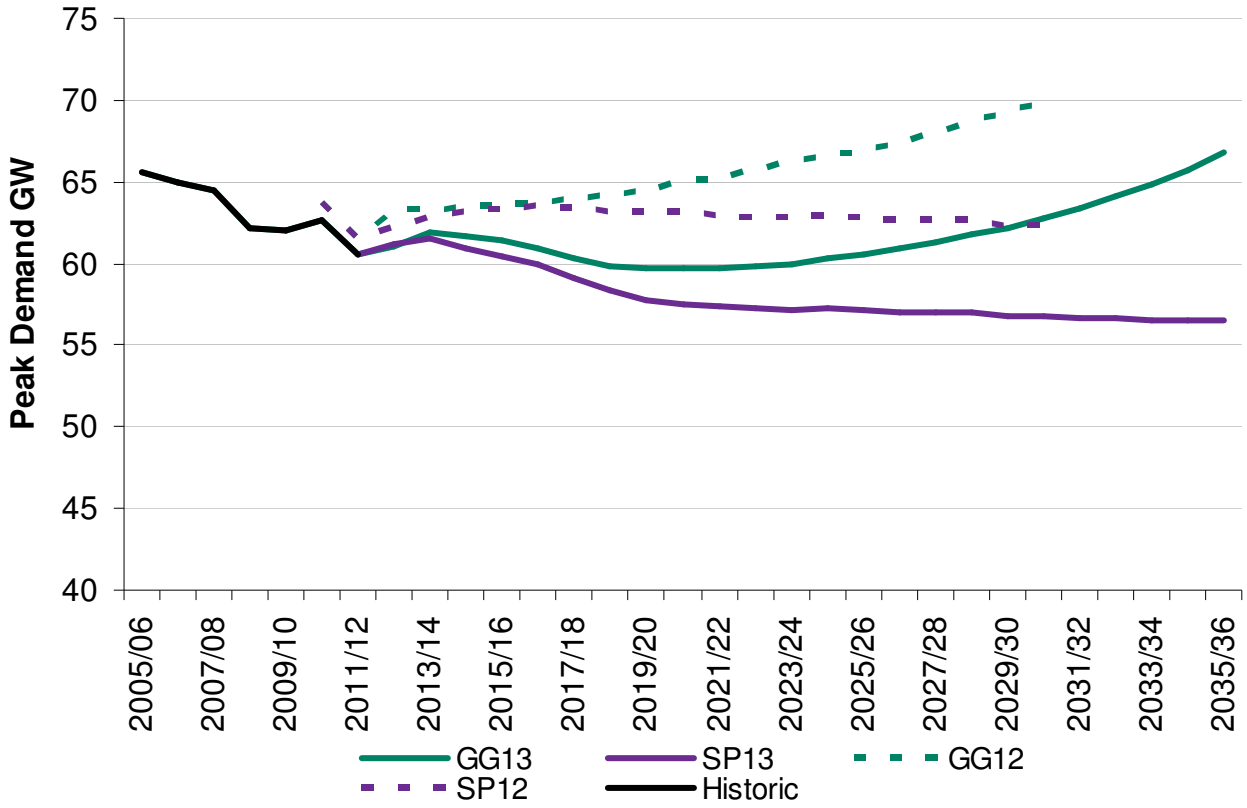


Peak Power Demand

Industrial recovery drives initial rise in Gone Green before energy efficiency counteracts.

Gone Green demand increases more rapidly than annuals towards 2030 due to electrifying heat and transport.

Slow Progression, peak demand falls due to low I&C growth

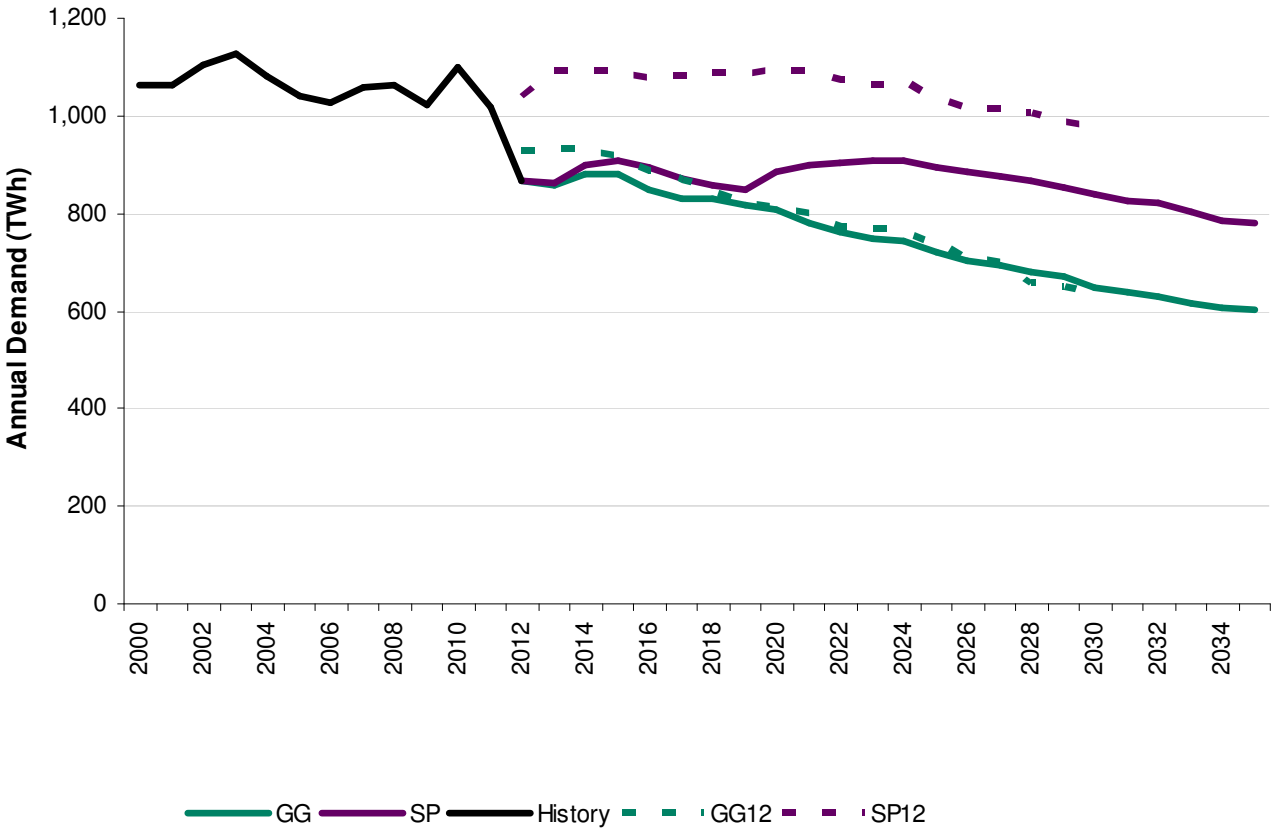


Annual Gas Demand

Range narrower than 2012

Energy efficiency and economy reduces demand

Initially lower than 2012 but Power Generation drives increases in medium term

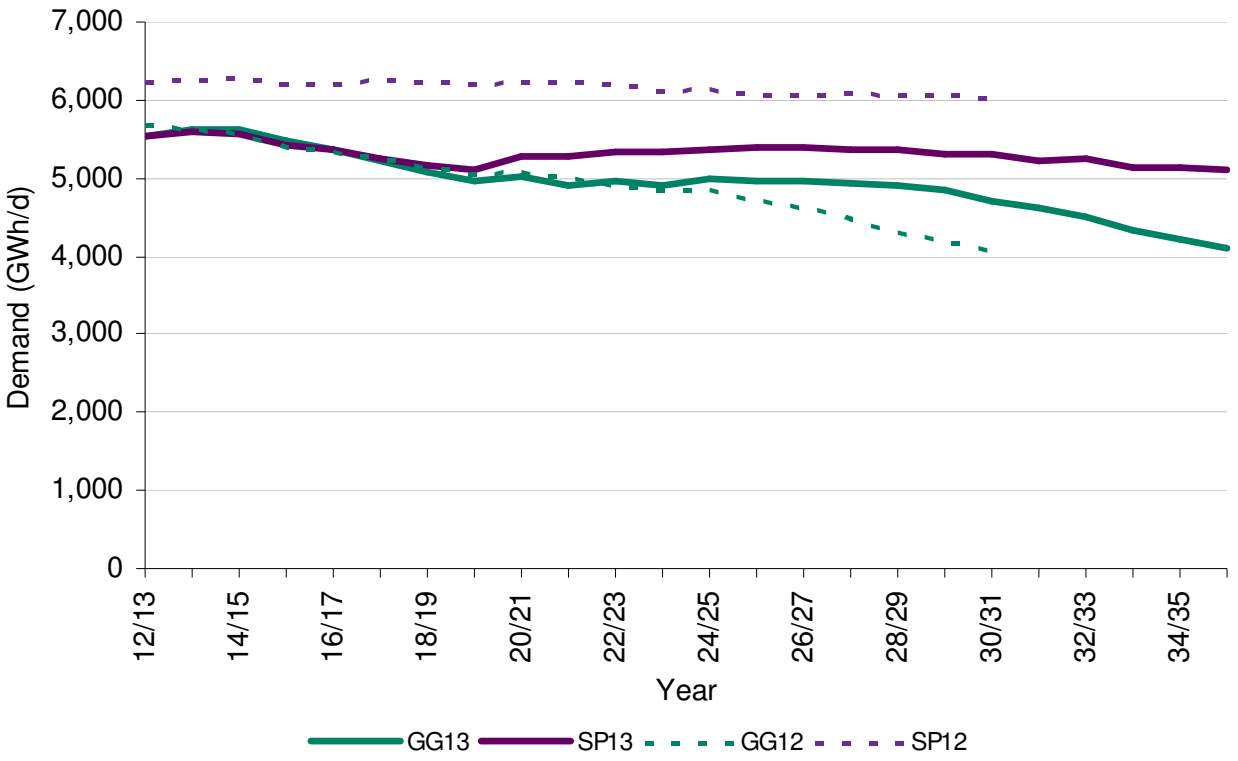


Peak Gas Demand

Narrower range than 2012, due to economics and energy efficiency

Domestic peaks start to reduce nearer 2030 due to fuel switching

Power generation peaks maintained beyond 2020



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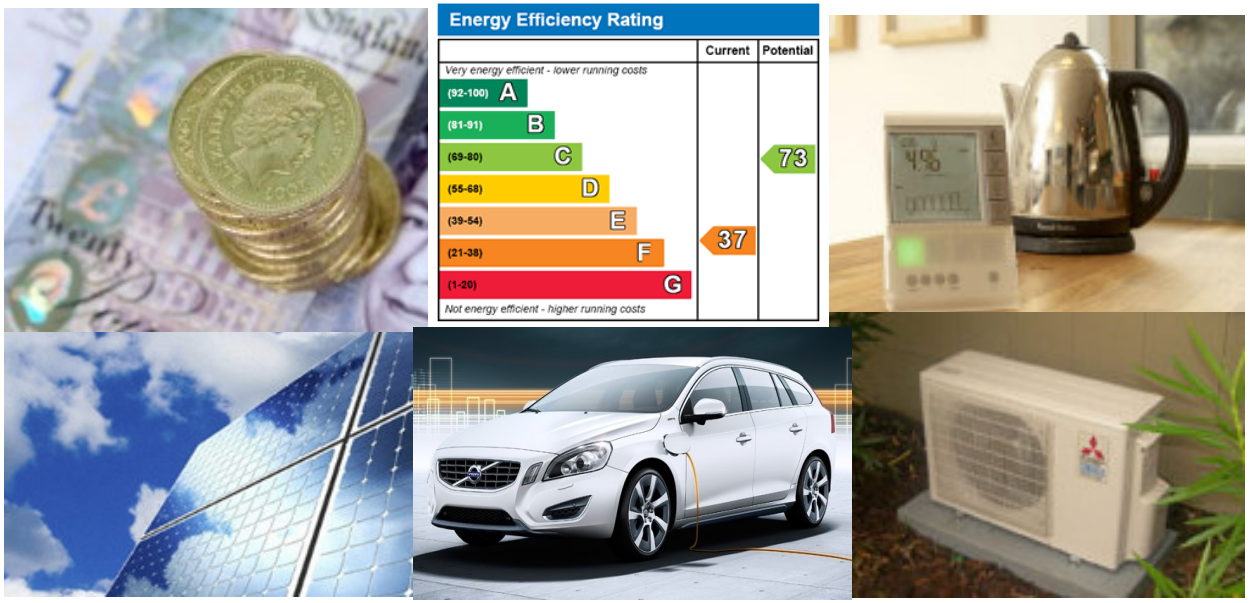
6 key points about energy demand



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Key thought…