



Department for  
Energy Security  
& Net Zero

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# Demand Side Response – UK Government Policy

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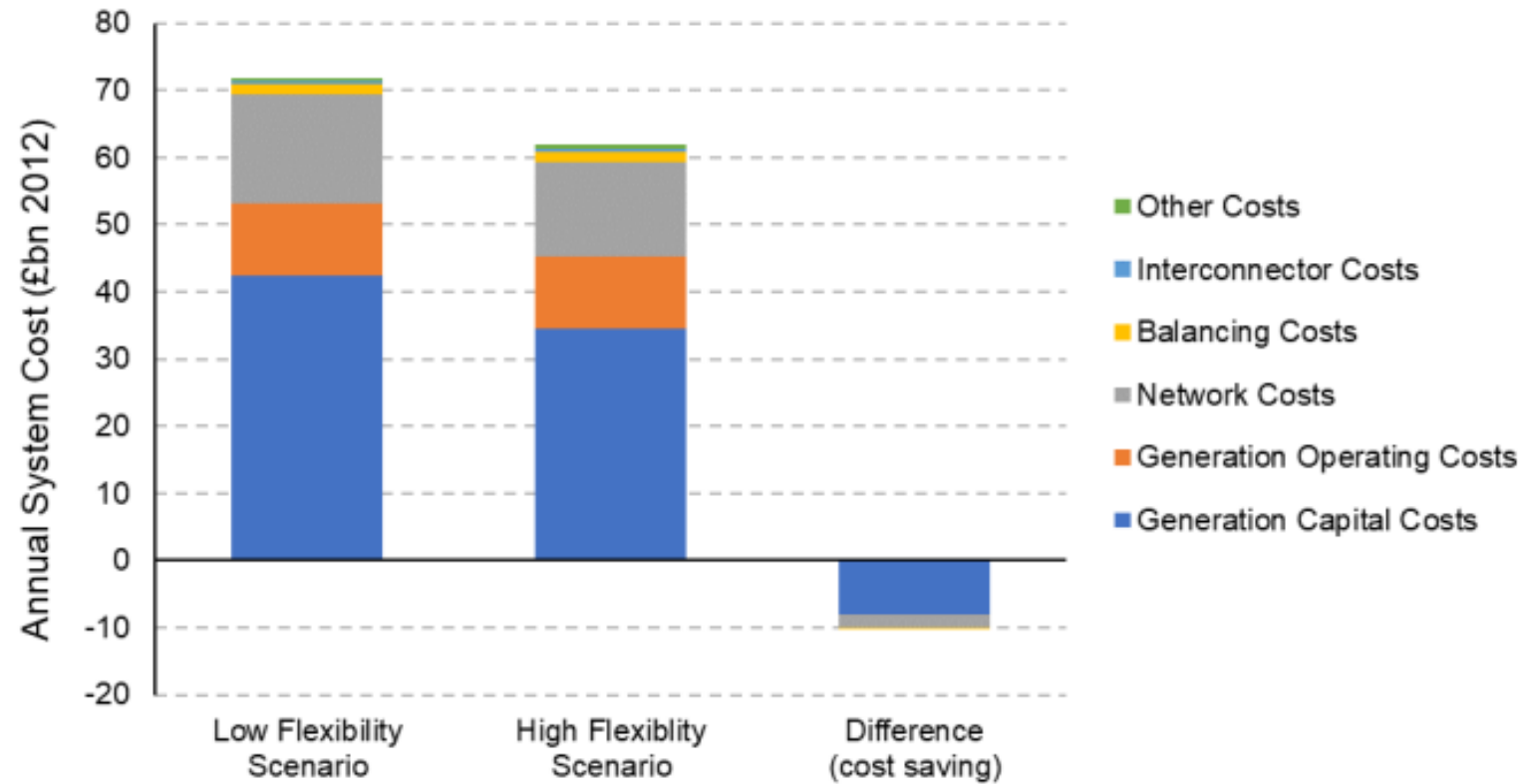
Department for Energy Security & Net Zero

UK Government

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# DSR along with other short-duration flexibility can reduce GB electricity system costs by £10bn per year by 2050

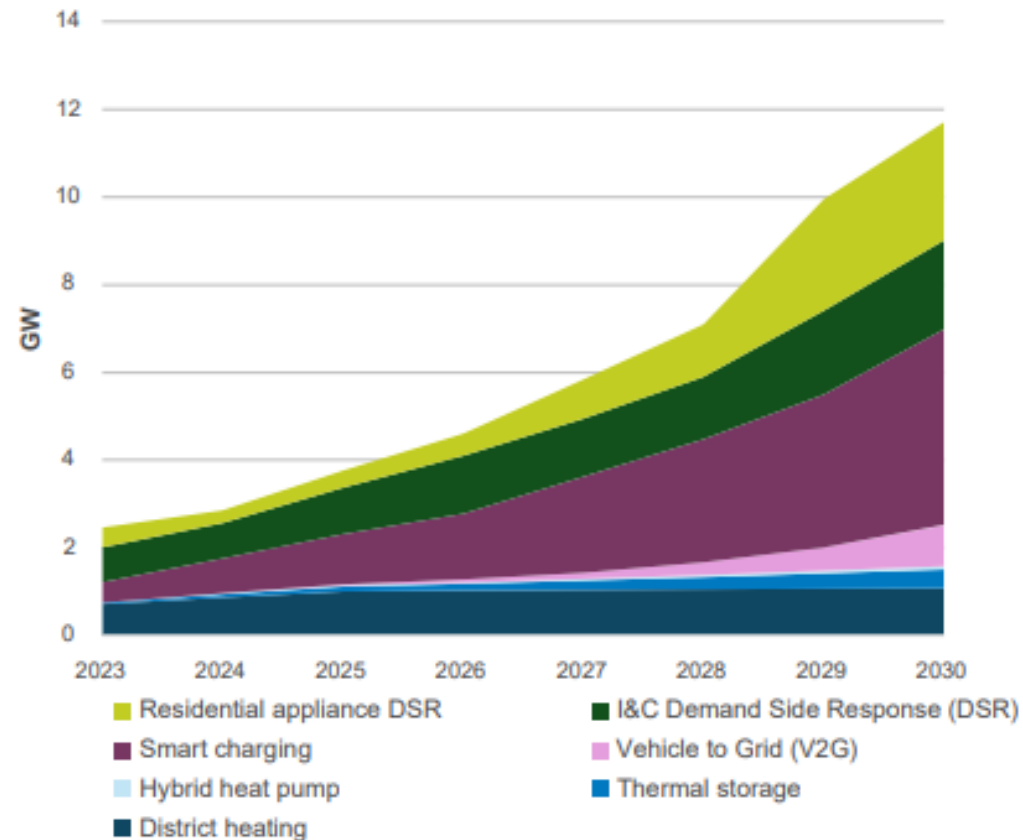
Illustrative system costs in 2050, showing costs in high and low flexibility scenarios



Source: BEIS, Smart Systems and Flexibility Plan, 2021

# Recent advice on 2030 clean power from the National Energy System Operator (NESO) involved trajectories with significant DSR growth

## Demand flexibility at peak in NESO's Further Flex and Renewables Clean Power 2030 Pathway



Source: Advice on achieving clean power by 2030, NESO, 2024

# Through the SSES Programme, the UK Government is putting in place technical, security and regulatory frameworks for DSR

## Objectives of the Secure Smart Electricity Systems (SSES) Programme



Create the right **technical frameworks** to support growth of competitive DSR appliance & services markets for domestic-scale consumers



Protect the **security** of the energy system, ensuring suitable risk mitigations for the remote control of electrical load



**Consumer protection** to ensure consumers are confident in increasingly engaging with DSR appliance and service providers

## SSES Programme Regulatory Framework

Energy Act 2023 powers, providing for:

a) Secondary legislation to regulate the sale of Energy Smart Appliances (ESAs)

b) Licensing of load controllers

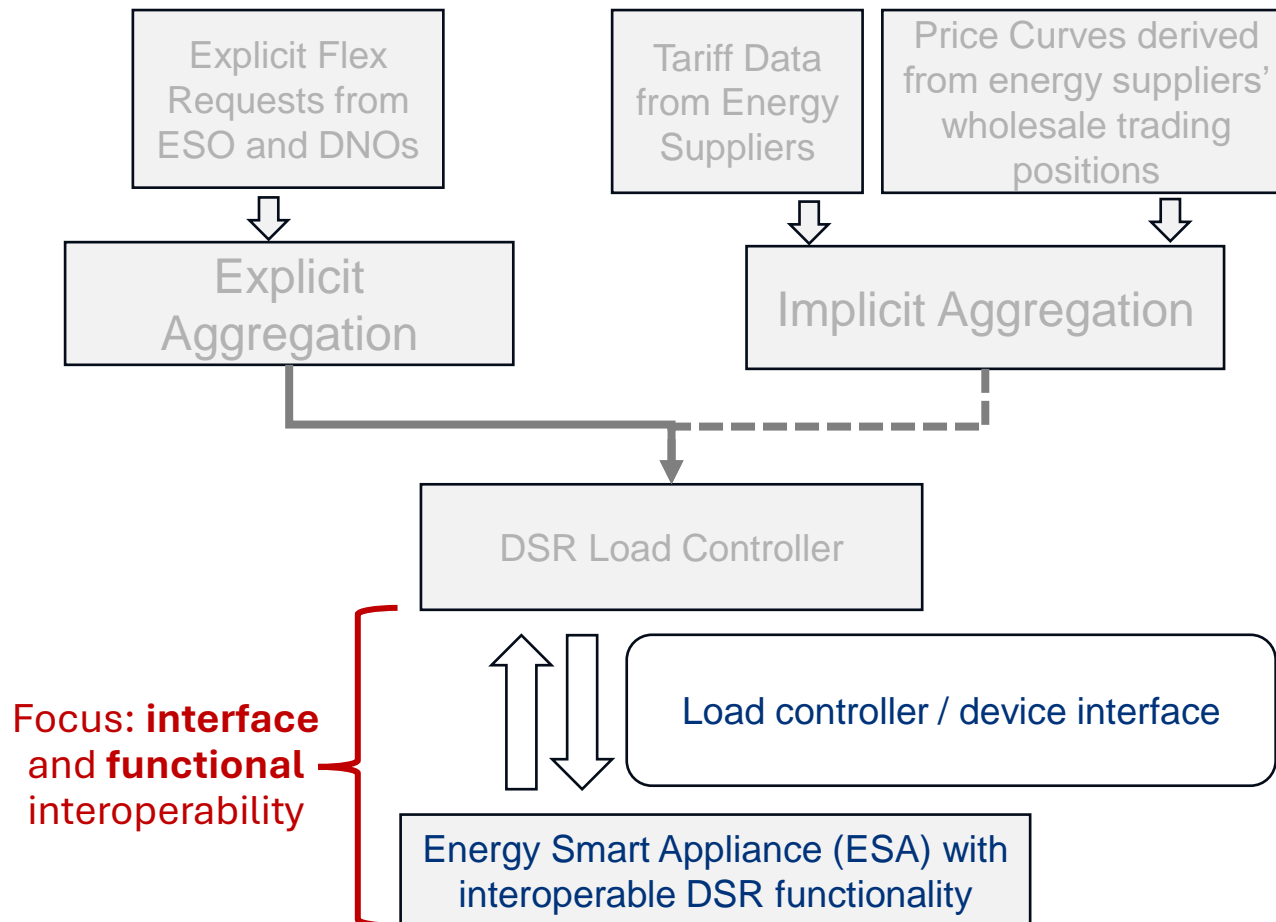
c) Code changes (TOU tariff accessibility and SSES enduring governance)

# Interoperability – the ability for a consumer to remotely switch DSR service provider – is a key objective for UK government DSR policy

*In delivering this outcome we want technical solutions that as far as possible:*

- Work with the grain of existing DSR industry business architectures
- Align with international practice
- Utilise existing technical standards
- Focus on only standardising a minimum viable product (MVP)
- Work for at least the biggest electrical loads in domestic settings: EV chargers, heat pumps and domestic batteries
- Can be delivered quickly

## Simplified Business Architecture Design





# Government will respond to the SSES Programme consultation in Spring 2025, including on interoperability policy questions, while continuing to engage industry at the SSES Technical Working Group

## Smart Secure Electricity Systems Programme consultation: Summary Document

A consultation package on energy smart appliance, licensing and tariff interoperability proposals to enable a smart and secure electricity system through demand side response.

Closing date: 21 June 2024

April 2024

## Smart Secure Electricity Systems Programme: Energy Smart Appliances

Consultation on how government will ensure the appropriate regulation of energy smart appliances

Closing date: 21 June 2024

April 2024

