POLICY INSIGHTS

Clean Power 2030

Insights for local authorities about the Clean Power 2030 plan, who is responsible for its delivery and how it will impact local energy ambitions.

NOVEMBER 2024

Created for Innovate UK Net Zero Living programme by Regen

Acknowledgements:

This note has been funded by Innovate UK as part of the Net Zero Living programme.

Innovate UK's Net Zero Living programme is supporting 52 local authorities across the UK on the non-technical barriers to delivering local net zero.

Regen has joined the programme to provide support for local authorities in navigating and responding to policy and regulations that impact their ability to deliver their net zero ambitions. Innovate UK does not endorse any of the views or policy proposals set out in this briefing.

Authors:

Mollie Atherton, Local authorities lead, Regen
matherton@regen.co.uk

Merlin Hyman, Managing director, Regen
mhyman@regen.co.uk

About Regen:

Regen is an independent centre of energy expertise with a mission to accelerate the transition to a zero-carbon energy system. We have nearly 20 years' experience in transforming the energy system for net zero and delivering expert advice and market insight on the systemic challenges of decarbonising power, heat and transport.

We have over 150 members who share our mission, including clean energy developers, businesses, local authorities, community energy groups, academic institutions and research organisations across the energy sector.

Contents

Overview of Clean Power 2030

What is Clean Power 2030?

Clean Power 2030 (CP2030), is the Labour government plan to deliver its mission to achieve clean power by 2030. The plan is expected to be published by government in December, following advice from the National Energy System Operator (NESO). CP2030 will outline how much of which energy technologies and infrastructure will be 'needed' and where.

The Labour government's mission to 'Make Britain a Clean Energy Superpower' is the political basis for Clean Power 2030. Within this commitment, Labour has outlined that it will deliver a clean power system by 2030 and created a 'Mission Control' function within the Department of Energy Security and Net Zero (DESNZ) to deliver this.

CP2030 will be a spatial plan that outlines what technologies we need (e.g. solar, wind, nuclear, storage etc), how much of each of those technologies we need, how those technologies should be distributed across the UK, and the infrastructure needed to enable it.

The government has asked the newly public National Energy System Operator to provide independent advice on the development of CP2030 by early November, including

1. Different energy generation and demand mixes and a description of which assumptions need to be met or these to be deliverable.
2. Key requirements for the transmission network (including interconnection, where appropriate) generation and demand, and for secure system operation.
3. Consideration of criteria that could support connections reform.
4. High-level assessment of costs and benefits, opportunities and challenges, and risks.
5. Your view of actions for government, NESO, Ofgem, the energy industry and wider stakeholders to enable delivery of the pathways, clearly setting out where further work is required.

6. A spatial element, particularly focusing on those locations that offer opportunities for rapid infrastructure development, with sufficient detail and data to enable Mission Control to advise Ministers on options to support accelerated development of critical projects.

NESO's advice will effectively form the backbone of the CP2030 plan – outlining the technologies, the capacity needed of each, how they will be distributed across the UK and the infrastructure needed to enable it.

NESO's advice was published on 5 November and can be accessed here.

What does clean power mean?
The proposed definition of clean power is:

- Over 100% of UK demand is from clean power (we will be a net power exporter)
- Over 95% of power will be clean (5% of electricity will still be generated with unabated fossil fuels).
- The carbon intensity of the grid will be less than 50gCO2/KWh

How will CP2030 impact decision making?

One major impact of CP2030 will be reforming how energy projects secure connections to the network.

Currently, the queue of power generation projects waiting to secure a connection to the GB energy network is 722GW, far greater than the 200GW of new generation projects that are needed. Networks must treat all projects in the queue as equal – so whether they are speculative or not the networks must undertake the same processes to scope and design a grid connection offer. This means that grid operators are designing substations and connections that they know will never be built.

Projects joining the queue may have to wait over a decade for a connection. Locally led projects have to join this queue and compete for a connection with commercial-scale developments.

One of the ongoing reforms is exploring how to filter 'real' projects in the connections queue from speculative projects, and how to accelerate the delivery of projects that are **'ready'** to be built – for example they might have the land agreement in place,

planning permission either in place or underway and have secured capital investment to build the projects.

Projects assigned a **'ready'** status can then be prioritised in the connections queue to accelerate their delivery.

The introduction of CP2030 will add a further reform to the connections process to accelerate the projects that align with the needs in the CP2030. These projects will be given **'needed'** status.

Projects that are both **'ready'** and **'needed'** will be offered a firm connection. The aim is to accelerate those projects to build the GW of energy needed to deliver the CP2030.

How will the network be planned after 2030?

CP2030 will be focused on 2025 to 2030 and also consider the period from 2030-2035. Its core goal will be to accelerate the development of projects that will secure the GW that the GB energy system needs to enable clean power by 2030.

DESNZ has also commissioned the NESO to produce a Spatial Strategic Energy Plan (SSEP) that will provide the longer-term blueprint for how the energy system can enable the UK's overall net zero by 2050 target.

The SSEP objective is to provide greater clarity to the industry, investors, consumers and the public on the shape of the future energy system, and how that will interact with their own plans, goals and ambitions. Like the CP2030, it will focus on the spatial requirements of the energy system, but SSEP will provide more detail.

The SSEP will also be aligned with the Regional Energy Strategic Plans (RESPs) that will be developed in the 10-13 regions set out by NESO. The RESPs and SSEP will inform and be informed by each other – to ensure that local visions and ambitions are considered throughout energy planning at local, regional and national levels.

The government has asked NESO to develop the methodology that will set out how the SSEP will be produced by the end of 2024.

What does this mean for local energy ambitions?

The CP2030 plan's primary focus is securing the GW of clean energy across the country over the next five years to ensure that it meets the clean power target. Energy generation or storage projects currently in the connections queue that align with CP2030 and are ready to be built will be prioritised.

Currently, there is no sign that local and community energy will receive any priority in this process. However, the methodology for the prioritisation process has not been decided yet, so there is still an opportunity to make the case for local and community projects to be prioritised as part of CP2030.

Local planning processes

CP2030 will also likely be a catalyst for the planning reforms outlined in the National Planning Policy Framework consultation which ended in September 2024, and for increased consideration for local engagement and community benefits – all of which are likely to impact local authority planning processes.

Clean Power 2030 institutional framework

Who is responsible for delivering CP2030 and how?

The Government is creating or reforming the organisations responsible for delivering Clean Power 2030, the roles and functions that they will need to have, the policies that will enable them to fulfil those roles and the governance chain of command from **'Mission Control'** to direct the transition.

Most important is the **National Energy System Operator** (previously National Grid ESO), which has recently been established as a public company and has delivering Clean Power 2030 as one of its core foundations.

Ofgem, is the energy system regulator which is responsible for any changes to the rules which govern the energy system.

Alongside this, the Government is establishing **GB Energy**: a new, publicly owned clean energy company based in Aberdeen. Its role is still somewhat unclear and will develop over the coming months and years, but its founding statement highlights its role in enabling the clean power targets.

Mission Control for Clean Power

Mission Control for Clean Power is the command centre for Clean Power 2030. It will focus on four strands of activity, including:

1. Setting and tracking the overall approach to delivering 2030 across the energy system
2. Real time monitoring of progress on UK infrastructure projects critical to 2030
3. Acting as an innovation centre by encouraging discussion among experts
4. Serving as a convener for the Mission Control approach across government and with industry

It is headed by Chris Stark, formerly CEO of the Climate Change Committee, and will work closely with Ed Milliband as the Secretary of State for Energy Security and Net Zero to set the strategy and make the key decisions that will inform CP2030.

National Energy System Operator

The National Energy System Operator (NESO) (previously the National Grid ESO) is a now public, not for profit body that will:

"Take a cross-sector approach to planning the country's energy system in the best interests of the British public - looking across electricity, gas and hydrogen, as well as renewable generation, storage and other emerging technologies like carbon capture usage and storage.

"The independent organisation will map out the country's future energy networks – helping both the government and Ofgem make informed decisions when considering new infrastructure, speeding up grid connections and progressing the UK's net zero goals."

The NESO is a step change for the UK's energy system. As part of its mandate as a public company, it has three primary duties:

1. **Net zero:** enabling the government to deliver on its legally binding emissions targets.
2. **Efficiency and economy:** promoting efficient, coordinated and economical systems for electricity and gas.
3. **Security of supply:** ensuring security of supply for current and future consumers of electricity and gases.

NESO will work across several areas that will enable it to deliver the plans, markets and operations to enable its three duties.

These areas are:

Energy Insights

Use whole system expertise to deliver independent insights to government, Ofgem and industry, backed by transparent evidence.

Strategic Planning

Take a long-term approach to planning, which identifies whole energy system needs and ensures that the system can be designed and built accordingly.

Security of Supply

Enable a stable, reliable and secure energy system through an integrated and coordinated approach to ensure energy supply needs can be securely met.

Resilience & Emergency Management

Provide whole system coordination and analysis for system resilience and preparation for emergencies across Great Britain's energy industry.

Energy Markets

Develop competitive and coordinated energy markets that result in a cost-efficient energy system and give us the tools for low- carbon operation.

System Operations

Accelerate progress towards clean power by taking a whole system approach to operations.

Connections

Deliver efficient system access for electricity generation and demand projects, so that those projects that are ready and aligned to Great Britain's clean power ambitions are prioritised.

Data and AI

Digitally advance Great Britain's whole energy system by collaborating with industry, enabling the exchange of data and driving value through artificial intelligence.

NESO's role in Clean Power 2030

Within NESO's strategic planning functions it is responsible for advice on CP2030 and then for developing and regularly updating the SSEP and the regional energy plans. It will also be responsible for producing the Centralised Strategic Network Plan which is the investment and development plan for the transmission network to meet the targets set out in the SSEP, CP2030 and regional plans.

NESO also be responsible for the connections reform process that will see projects assigned with **'needed'** status and prioritised in the connections queue.

Other policy levers that NESO will have to enable CP2030 include its strategic planning functions – however it is more likely now that the SSEP will be designed to pick up from the CP2030 as the longer-term plan, but the two must still align.

Ofgem

Ofgem is the energy system regulator in Great Britain. It regulates the monopolies that operate the gas and electricity networks across the country and determines how much the organisations can charge bill payers for operating and investing in the networks.

It also sets the rules for energy markets that determine how energy is bought and sold which has significant impact when it comes to steering investment into particular sites and locations.

At the heart of Ofgem's mandate is consumer protection – this manifests itself as commitments to:

- Deliver a net-zero economy at the lowest cost to consumers.
- Identify and stamp out bas practice and ensure fair treatment for all consumes (particularly vulnerable consumers).
- Enable competition and innovation to drive down prices.

Ofgem's role in Clean Power 2030

Ofgem is responsible for any changes to the rules by which the energy system abides – therefore any changes in the regulatory systems that will help deliver CP2030 will be signed off by Ofgem and then used to regulate the industry.

In a recent blog, Ofgem highlighted that any decisions on new licence conditions, methodologies and proposed code modifications will be subject to comprehensive stakeholder consultation. We expect these consultations to take place over the coming months so that, if taken forward, changes can be made in early 2025.

Ofgem has final responsibility when it comes to connections reform as the organisation that writes and enforces the rules of the energy system. Alongside DESNZ and NESO, Ofgem is already implementing some of the changes that are helping accelerate **'ready'** projects through the connections queue. It has also recognised that further reforms might be necessary to then give **'needed'** status to project that algin with the plans set out in the CP2030.

It also responsible for regulating and signing off electricity networks' business plans 2028 as part of the RIIO-ED3 process. Within this, it may be looking to ensure that the energy networks plan for investment algin with the investment identified as 'needed' to deliver CP2030.

Ofgem has also recently consulted on reforms for electricity market arrangements (REMA), exploring how it can reshape the GB energy markets to encourage and accelerate investment in clean energy and bring value to consumers. Regen responded to this consultation, both on behalf of the organisation itself and its members, but also on behalf of the Net Zero Living Programme to focus on the local perspective:

- REMA consultation response – Regen response
- REMA consultation response – Net Zero Living response

The outcomes of this reform process will be an important factor in directing energy investment alongside the CP2030 plan.

Ofgem is also expected to launch a consultation into retail market reforms which focuses on how electricity is bought and sold by consumers. We will be exploring and responding to this consultation when this happens.

Great British Energy

Great British (GB) Energy will be a new, publicly owned clean energy company. It is a flagship initiative by the Labour government to support the growth of clean energy in the UK. It will not be an 'energy supplier' that supplies energy to people's homes or businesses, rather it is being modelled on Orsted or Vattenfall which are the

national energy companies of Denmark and Sweden respectively and invest in and develop energy projects.

GB Energy will be based in Aberdeen and has been promised £8.3bn to spend on energy schemes over the next five years. This spending will form a central part of the Labour governments industrial strategy.

There will be five key functions to GB Energy:

1. **Project investment and ownership** – investing in energy projects alongside the private sector, helping get them off the ground.
2. **Project development** – leading projects through development stages to speed up their delivery, whilst capturing more value for the British public.
3. **Local Power Plan** – supporting local energy generation projects through working with local authorities, combined authorities, and communities across the UK.
4. **Supply chains** – building supply chains across the UK, boosting energy independence and creating jobs.
5. **Great British Nuclear** – exploring how Great British Energy and Great British Nuclear will work together, including considering how Great British Nuclear functions will fit with Great British Energy.

GB Energy's role in Clean Power 2030

GB Energy's role in CP2030 is as yet unclear because the company is still being established, however it highlights the clean power mission in its founding statement:

"We have a clear mission to make Britain a clean energy superpower and to decarbonise the power sector by 2030. This is an unprecedented transformation of our energy system and will require an accelerated effort across government and the private sector. Great British Energy can help give confidence to industry and investors and put the UK on the path to become a clean energy superpower.

"To deliver our 2030 target, we will need significant investment in our generation capacity. Much of that will come from private investment and Great British Energy will work closely with industry, as well as communities, local authorities and other public sector organisations, to invest in and drive the deployment of clean energy."

GB Energy's five functions will be its levers to enable CP2030. In its founding statement is outlines that the five functions will speed up the deployment of mature and new technologies, as well as local energy projects to support the government's aim of delivering clean power by 2030. In particular, the Local Power Plan function will be a key enabler for accelerating the development of local power.

Local Power Plan

The Local Power Plan will support the roll out of small and medium scale renewable energy projects by partnering with and providing support to local and combined authorities, and community energy groups. It has committed to developing up to 8GW of these projects with established technologies like solar and wind and will include projects that are shared in ownership with private developers.

The Local Power Plan will also provide commercial, technical and project-planning assistance, increasing the capability and capacity of local and combined authorities, and community organisations to build a pipeline of successful projects in their local areas.

It is not yet clear how the Local Power Plan is going to factor into CP2030 – the 8GW target of the Local Power Plan is a small portion of the overall capacity needed to deliver CP2030 but an ambitious and welcome target for local and community power. However, if the 8GW target is going to be met then factoring local and community projects in CP2030 must be considered or they risk becoming deprioritised in the connections process.

Regen has recently published a blog making the case to consider local and community projects within the 'needed' methodology to ensure that they do not get left behind in the connections reform process.

Project development, project investment and ownership and **supply chain** will also have clear roles to play in enabling the skills and supply chains to develop and build the projects in the CP2030, supporting the development of clean energy and ensuring that GB Energy generates publicly owned revenue which can further benefit consumers, taxpayers and billpayers.

CP2030 next steps and timeline

NESO will be publishing its advice to the government about the CP2030 in early November 2024. The full CP2030 plan will then be published in early 2025. We expect that there will be opportunities to engage with the advice and a consultation process that focuses on the connections reforms that will help enable the CP2030. Regen will be engaging with this process and producing consultation responses to shape this reform. **A timeline for the CP2030 process is outlined below.**

9 July 2024

UK government commissions NESO (then, ESO) to produce independent advice for Clean Power 2030.

July – October 2024

NESO engagement and modelling on CP2030 advice to government

October 2024

UK government commissions NESO to produce independent advice for Strategic Spatial Energy Plan (SSEP) methodology

November 2024

NESO publishes advice to government – outlining its recommendations for the different pathways for CP2030 and the technologies, capacity and distribution in those pathways.

November - December 2024

Expected consultation period on methodology for how projects will be prioritised as 'needed' in the connections process, as directed by NESO advice.

December 2024

NESO deadline for advice on methodology for the SSEP development

December 2024

UK government publishes Clean Power 2030 plan including advice for NESO on what to assign 'needed' status in connections reform process.