

Network Innovation Strategy 2022

This workshop will start in a few minutes

28th January, 2022



Agenda

Workshop objective To explore in detail the priorities within each of the network innovation themes.

| | Welcome | Dan Clarke, ENA | |
|----------|--|--|----------------------|
| 1 | Network Innovation Strategy introduction and background | Dan Clarke, ENA | 10:05 – 10:15 |
| 2 | Network innovation principles and themes | Grace Millman, Regen Christine Chapter, Regen | 10:15 – 10:30 |
| 3 | Network innovation theme breakout discussion | Facilitated by ENA and networks | 10:30 – 11:10 |
| 4 | Break | - | 11:10 – 11:20 |
| 5 | Network innovation theme breakout discussion | Facilitate by ENA and networks | 11:20 – 12:00 |
| 6 | Feedback from facilitators and Menti voting | Facilitators from ENA and networks | 12:00 – 12:25 |
| | Thank you and close | Dan Clarke, ENA | |

Webinar housekeeping

Breakout rooms

- You will be moved into the breakout rooms automatically by the event manager (Hannah)
- When it is time to leave the breakout rooms, you will be brought back into the main workshop by Hannah.
- If you have any problems, please message 'Regen' in Zoom.

Chat function

- Please use the **chat function to engage with other attendees** and introduce yourself.

Problems

- If you have any problems, please message 'Regen' in Zoom or drop the Event Manager (Hannah) an email: hstanley@regen.co.uk

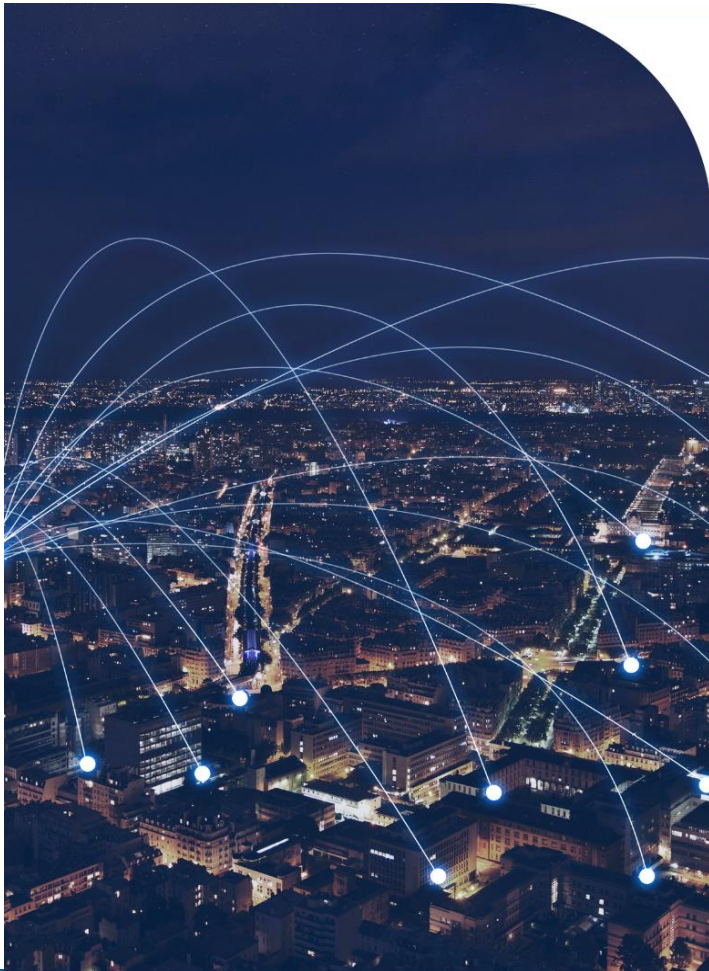
Slides

- The slides will be **shared** with you after the event.

Network Innovation Strategy introduction and background

Dan Clarke, ENA

Network Innovation Strategy introduction



Innovation is central to the ability of the energy networks to rise to the challenge of net zero

Role of the strategy

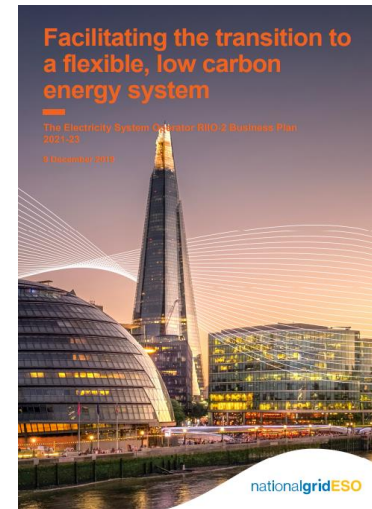
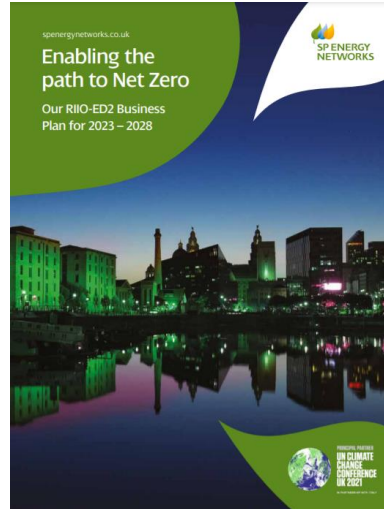
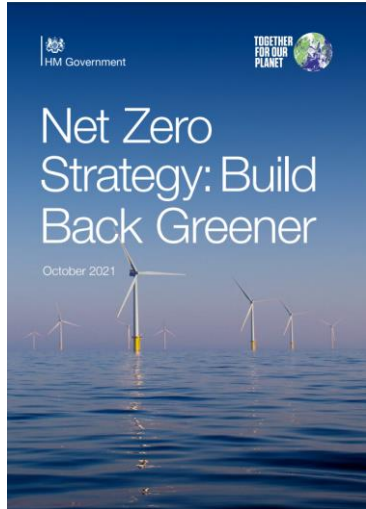
Ensures network innovation is **coordinated**, focuses on **key priorities** and delivers **benefits** to consumers.

The revised strategy will be shaped by an **extensive** and **carefully designed** programme of **stakeholder engagement**.

- Before Christmas, we ran an online consultation asking you about the proposed themes and principles for network innovation in 2022. Thank you to those of you who took the time to fill in the survey.
- The revised, joint electricity and gas network innovation strategy will be **published at the end of March 2022**.
- You can find more information on the **Smarter Networks Portal** (<https://smarter.energynetworks.org/>) which we'll be keeping up to date as we develop the strategy.

The changing innovation landscape

The political landscape has undergone a huge **transformation** over the last two years and the **importance of net zero** has grown significantly.



The energy networks' business plans set out their **ambitions and expected expenditure** for the next price control period.

1. <https://www.gov.uk/government/publications/net-zero-strategy>
2. <https://ukcop26.org/wp-content/uploads/2021/11/COP26-Presidency-Outcomes-The-Climate-Pact.pdf>
3. <https://www.spenergynetworks.co.uk/userfiles/file/SPEN%20RIIO-ED2%20Final%20Business%20Plan%20-%201st%20December%202021%20-%20FINAL.pdf>

4. <https://www.nationalgrideso.com/document/158051/download>
5. https://cadentgas.com/nggdwsdev/media/Downloads/business-plan/Cadent_BusPlan_PART3_May-10-2021.pdf

What has been implemented since the last innovation strategy?

Facilitating and accelerating the UK's transition to net zero

IMRRP

Old steel pipes are being **replaced with hydrogen-ready polyethylene** and the networks are set to achieve a 66% reduction in CO₂ emissions (between 2014 – 2032).

ENA'S Open Networks programme

The networks are standardising and simplifying processes, **removing barriers to participation** and building market confidence, whilst helping to facilitate local markets.

Hydrogen Network Plan

Focuses on the **role of gas in decarbonising** heat, transport, industry and power.

DSO Roadmap

Captures progress to manage the network at a local level, help connect low carbon flexibility services and reduce the need for reinforcement, **leading to lower bills**.

Hydrogen Blending Delivery Plan

Sets out market framework changes required to enable **20% hydrogen blending**.

Supporting consumers in vulnerable situations

Whole Systems Assessment Tool

To evaluate the **impact of innovation projects** on customers in vulnerable situations and identify how to maximise potential benefits and mitigate adverse impacts.

Easy Assist project

Developed a solution to enable customers in vulnerable situations to **more easily turn off their supply** using the emergency control valve.

What has been implemented since the last innovation strategy?

Develop joined-up approaches across sectors and energy vectors

Whole system CBA framework

Whole system development of a suite of tools and process to improve transparency

Whole system regional planning techniques and processes

This enables the selection of **the most optimum solution** across electricity or gas networks on a whole system basis.

- Energy Networks Innovation Process
- National Energy System Map,
- Smarter Networks Portal
- Data Triage Process
- Playbook

e.g., Greater Manchester Pathways

Developing and testing market-based solutions to increase the flexibility and efficiency of the energy system

East Coast Hydrogen feasibility report

Flexible Generation Forecasting

Launched at the House of Commons, this sets out the potential to **connect over 7 GW of hydrogen production by 2030**, which could support 39,000 businesses and over 4 million homes.

This project seeks to understand how **flexible gas generation** could be used to support future generation challenges with the deployment of more renewables in the system.

Network innovation principles and themes

Grace Millman, Regen

Christine Chapter, Regen

Online consultation: summary findings

- 138 responses
- 85% of respondents agreed with the overarching principles of innovation
- At least 80% of respondents agreed with each of the proposed innovation themes.
- At least 81% of respondents agreed with the definitions of the proposed innovation themes.
- We have taken on board the feedback and have amended the themes, and their definitions, as appropriate.

“ Whole energy systems is a key theme which will need to embrace agility and adaptability to ensure the networks are able to embrace emergent challenges and opportunities which might not yet be anticipated. ”

“ The change in language is reflective of better understanding of vulnerability. Should also remember that vulnerability is a flexible thing - people move in and out of vulnerable situations depending on life events and the theme needs to reflect that this is not a static pool of people. ”

“ We very much support the increased emphasis on market-based solutions, as this will allow industry to adapt with the networks and enable new business models to provide tools for the energy transition.”

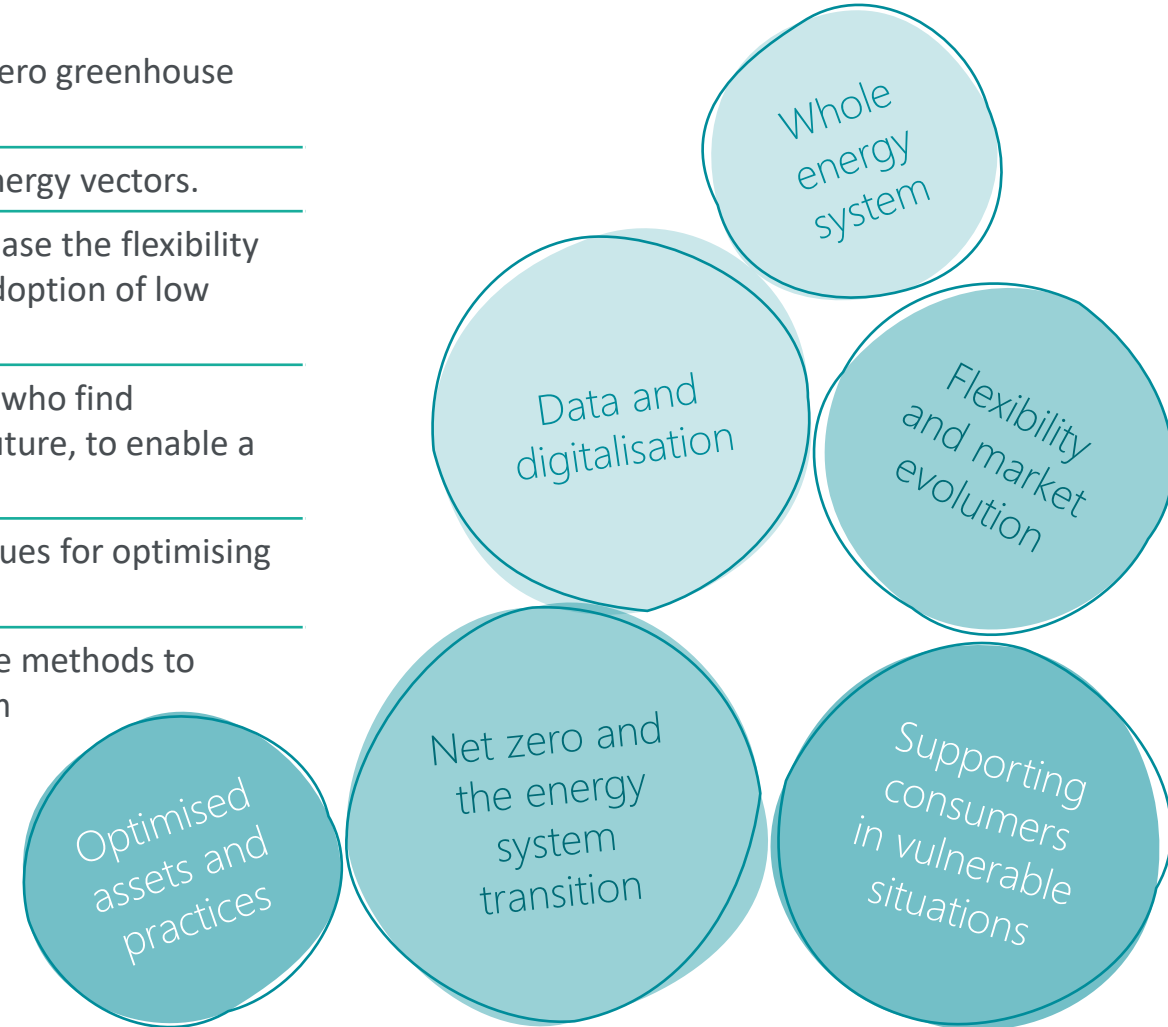
Proposed principles for 2022

| | |
|---|--|
| Collaboration and stakeholder engagement | Network innovation activity should provide shared learning and increase collaboration between network companies and stakeholders. |
| Consumer benefit | Network innovation activity should ultimately benefit consumers financially, supporting them in a just transition. |
| Carbon impact | Innovation projects should have a positive impact on the environment and the UK's net zero emissions target. |
| Data and knowledge sharing | Data and knowledge should be shared with stakeholders in a transparent and accessible way. |
| Implementation and deployment | Viable initiatives should be implemented and deployed into business as usual. |
| Innovation culture (new for 2022) | Network companies should embrace an innovation culture throughout their businesses to better enable them to deliver transformative change. |



Proposed themes for 2022

| | |
|--|--|
| Net zero and the energy system transition | Facilitating and accelerating the UK's transition to net zero greenhouse gas emissions. |
| Whole energy system | Developing joined-up approaches across sectors and energy vectors. |
| Flexibility and market evolution | Developing and testing market-based solutions to increase the flexibility and efficiency of the energy system; accelerating the adoption of low carbon solutions. |
| Supporting consumers in vulnerable situations | Exploring how best to support the needs of consumers who find themselves in vulnerable situations, today and in the future, to enable a just transition. |
| Optimised assets and practices | Developing and implementing industry-leading techniques for optimising assets and practices. |
| Data and digitalisation (new for 2022) | Developing new data services and applying data science methods to harness the power of digitalisation to solve both system operation and wider stakeholder challenges. |



Network innovation theme breakout discussions

Introduced by Dan Clarke, ENA

Breakout room objective

Objective

To facilitate discussions that shortlist the focus areas within each of the network innovation themes.

Format

- Six breakout rooms, one for each network innovation theme.
- Each breakout room will be run twice, each for 40 minutes, with a 10-minute break in between.
- Facilitated by a network representative and joined by members of the ENA and Regen.

What is a focus area?

- The focus areas for each theme are the priorities for network innovation.
- The 2022 focus areas are intended to be shared across both networks; however, some focus areas may be gas or electricity network specific.

You will have the chance to vote on the focus areas for each network innovation theme at the end of the workshop, using Menti voting.

Breakout discussion 1

10:30 – 11:10

Break

11:10 – 11:20

Breakout discussion 2

11:20 – 12:00

Welcome back and next steps

Dan Clarke, ENA

Menti voting objective

Objective

To enable all stakeholders the opportunity to feedback on the focus areas for each of the themes.

Format

- Six questions, one for each network innovation theme.
- You will be asked to rank the proposed focus areas from most important to least important.

How to access Menti?

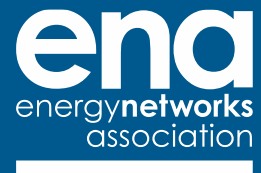
- You can access Menti on your phone or computer.
- Link: www.menti.com
- Session ID: **9736 5792**
- QR code:



Feedback from facilitators and Menti voting

Close

Dan Clarke, ENA



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The voice of the networks