

Open Networks

Local Authority consultation
on a new local whole system
optioneering service

January 2022 | Version 1.0

ENA and Open Networks

About ENA

Energy Networks Association (ENA) represents the owners and operators of licenses for the transmission and/or distribution of energy in the UK and Ireland. Our members control and maintain the critical national infrastructure that delivers these vital services into customers' homes and businesses.

About Open Networks

Britain's energy landscape is changing, and new smart technologies are changing the way we interact with the energy system. Our Open Networks programme is transforming the way our energy networks operate. New smart technologies are challenging the traditional way we generate, consume and manage electricity, and the energy networks are making sure that these changes benefit everyone.

ENA's Open Networks programme is key to enabling the delivery of Net Zero by:

- opening local flexibility markets to demand response, renewable energy and new low-carbon technology and removing barriers to participation
- providing opportunities for these flexible resources to connect to our networks faster
- opening data to allow these flexible resources to identify the best locations to invest

delivering efficiencies between the network companies to plan and operate secure efficient networks

Purpose of this consultation

The Gas and Electricity Networks have been working together to develop a new Whole System service for Local Authorities.

Earlier this year, working with Regen we completed an extensive engagement exercise to understand the Needs Case for Local Authorities, and to capture feedback on different options and features for the design of a new service.

This document contains the conclusions the networks have drawn from this consultation exercise, and seeks confirmation of the Local Authorities broad support for the conclusions reached, involving the establishment of a new managed service, in accordance with a published methodology statement.

Summary of proposal

Energy Networks Association would contract with an external Service Provider to provide a managed chargeable whole system optioneering service. This Service Provider would deliver the service in accordance with a published methodology statement, working closely with the network companies to understand the impact on their systems.

The service is designed for specific large scale local developments such as for housing, business, and industry. This service may inform part of a Local Area Energy Plan (LAEP) but is not a service to provide an LAEP.

The service would provide a number of credible whole system options where conventional network capacity is constrained. The service would provide an initial capacity assessment, followed by the whole system review where capacity limitations have been identified.

A positive response to this confirmatory consultation will enable a Go/No Go decision to be put to the gas and electricity networks governance bodies in early Q2 2022.

How to engage and respond

This consultation will be open for two weeks and closes on **10th March 2022**. Please submit your responses via this [short MS Form](#) or by email to opennetworks@energynetworks.org.

All consultation responses are intended to be published on ENA's website, therefore if your response is confidential and not for publication, please notify us clearly. Or, if elements of your organisation's response are confidential then please provide us with a full version for consideration and a non-confidential version for publication.

How we will use your feedback: Once this consultation closes and all responses are received, they will be reviewed by the product team and used to inform a go/no-go decision by the gas and electricity networks governance bodies.

Proposed Local Whole System Optioneering Service

Executive Summary

The gas and electricity networks have been developing a new service, that would deliver value to Local Authorities by providing whole system solutions, where capacity constraints present barriers to new developments.

For example, where a Local Authority has plans for a large number of new homes, there may be an electricity network capacity constraint if conventional solutions are deployed. A whole system solution could explore alternatives such as District Heating and Combined Heat and Power, or freeing up capacity by moving existing electrical loads to alternative energy sources.

Earlier this year, the networks undertook a Local Authority engagement exercise working with Regen. This showed strong support for a new service, but did raise a number of issues and questions.

Based on the advice from ReGen, the networks have selected an approach to take forward to the final stage of development of this new service, which addresses the issues raised. This would be a whole system optioneering service for specific local developments, rather than supporting wider strategic decarbonisation plans.

The new service would use an independent Service Provider to manage the process and relationships. The LAs would still be in close contact with the networks, and the process, scope, data requirements, roles, responsibilities, service levels, and key assumptions would be set down in a published Local Whole System Methodology Statement.

The LA would submit an application into the new service, which would have fixed service levels for a response, once the initial data has been confirmed and application fee paid. The new Service Provider would manage the work, using the skills and resources of the networks, supplemented where necessary by external bodies where the expert knowledge isn't available from the networks.

The primary outputs would be the initial assessment to determine whether there is currently spare capacity, with a final report and supporting presentation lead by the networks setting out the most credible whole system options identified in accordance with the methodology.

As this is the culmination of an extensive engagement activity, we are asking for focussed responses on the conclusions reached:

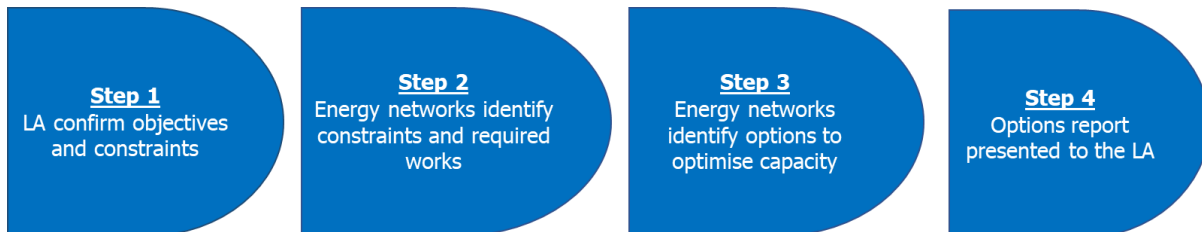
**Do you support the development of this service and is this a service you would want to use?
Please describe the drivers for your decision?**

If there is a clear majority from a significant number of respondents, the networks will put forward a detailed proposal to the Electricity and Gas networks governance bodies in early Q2 2022.

Process so far

The need for this new service was initially identified by the Open Networks Whole Systems Workstream, with the Advisory Group and Steering Group supporting work to develop the hypothesis.

A high level approach was identified (see below) and this was used as a framework to explore the value of a new service using some existing projects with Local Authorities.



Due to the extended timescales however for these trials, and the suitability of the projects, insufficient learning was obtained to inform the next stages of development. It was therefore decided to undertake a standalone engagement exercise, with the objective of capturing the views of at least 100 Local Authorities

Regen Consultation

Regen were selected to undertake the engagement exercise with Local Authorities. Supported by the networks, Regen developed and delivered the engagement process. It was designed to identify the Needs Case for a service, and to get feedback and a number of options for the design of the service, and the LA's priorities and concerns.

The Regen engagement was in three parts. In the first stage, 14 interviews were held with major Local Authority representative from across the UK. This was followed by a Webinar which involved 76 Councils. Finally, an online survey was issued with responses from another 58 bodies. Overall Regen received 210 individual responses.

The full report from Regen is available [here](#).

The below excerpts of the report show there was clear support from local authorities for a new service:

There is value in providing a whole system service

<p>80% of those responding to the consultation saw value in a 'whole system' joint optioneering service.</p>	<p><i>"Would be good to not have to have that discussion separately, a coordinated platform between Council and network providers covering the area would be good."</i></p> <p><i>"Probably don't need significant electricity and gas investment in the same place and so it would be best for all stakeholders to coordinate. Can see the point in what is being proposed."</i></p> <p><i>"We know that we have network constraints across our district, and particularly affecting growth in our principal town. A whole system approach would be welcome to help address this issue in a holistic and consistent way."</i></p>	<p>Do you agree that the 'whole system' Joint Optioneering Service would add value to your organisation?</p> <table border="1"> <caption>Interviews</caption> <tr><th>Response</th><th>Percentage</th></tr> <tr><td>Strongly agree</td><td>57%</td></tr> <tr><td>Agree</td><td>23%</td></tr> <tr><td>Unsure</td><td>21%</td></tr> <tr><td>Disagree</td><td>0%</td></tr> <tr><td>Strongly disagree</td><td>0%</td></tr> </table> <table border="1"> <caption>Webinars</caption> <tr><th>Response</th><th>Percentage</th></tr> <tr><td>Strongly agree</td><td>30%</td></tr> <tr><td>Agree</td><td>53%</td></tr> <tr><td>Unsure</td><td>17%</td></tr> <tr><td>Disagree</td><td>0%</td></tr> <tr><td>Strongly disagree</td><td>0%</td></tr> </table> <table border="1"> <caption>Online Survey</caption> <tr><th>Response</th><th>Percentage</th></tr> <tr><td>Strongly agree</td><td>30%</td></tr> <tr><td>Agree</td><td>50%</td></tr> <tr><td>Unsure</td><td>20%</td></tr> <tr><td>Disagree</td><td>0%</td></tr> <tr><td>Strongly disagree</td><td>0%</td></tr> </table>	Response	Percentage	Strongly agree	57%	Agree	23%	Unsure	21%	Disagree	0%	Strongly disagree	0%	Response	Percentage	Strongly agree	30%	Agree	53%	Unsure	17%	Disagree	0%	Strongly disagree	0%	Response	Percentage	Strongly agree	30%	Agree	50%	Unsure	20%	Disagree	0%	Strongly disagree	0%
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<p>There was support for the service in the webinar and online survey; however, unlike the interviews, the numbers who 'Agree' were higher than 'Strongly Agree', reflecting some reservations.</p>																																						
<p>A significant minority, 3/14 of the interviewees, and 20% overall respondents were unsure about the benefits.</p>	<p><i>"If you are paying for this - potentially not independent advice - then unsure of the benefit. I'm trying to think of a situation when it might be worth it."</i></p> <p><i>"Also not sure that it is too difficult to speak to two companies and what value that is therefore going to be having. The two aren't connected as a service offering."</i></p> <p><i>"Not sure what value we would get beyond what our DNO could tell us."</i></p>																																					

There was strong support for a new service to be delivered as quickly as possible:

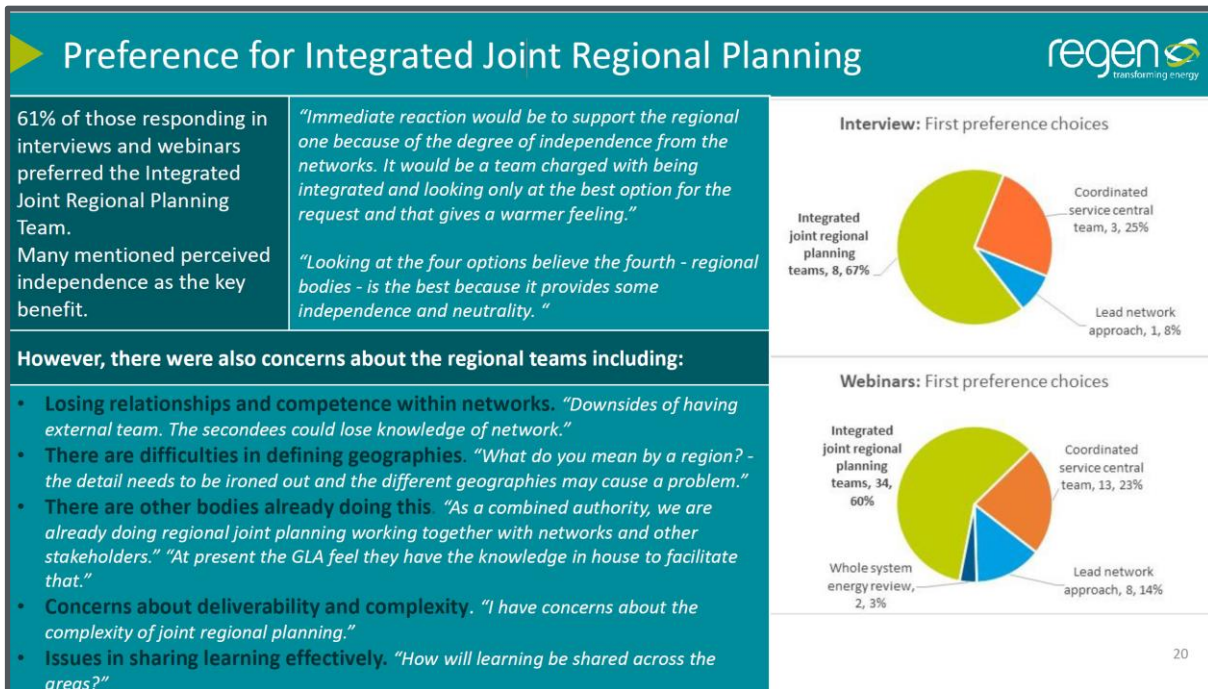
How urgent is this?

<p>Over half the interviewees felt that this service should be implemented soon and evolve over time.</p> <p>In the webinar, three quarters of attendees felt it was important to start quickly and evolve over time.</p>	<p><i>"Time is not on our side - whatever is chosen needs to happen faster."</i></p> <p><i>"Incremental improvement - the perfect is the enemy of the good."</i></p> <p><i>"Would like to see something from 2022."</i></p>	<p>Webinars: How urgent is this service?</p> <table border="1"> <tr><th>Response</th><th>Percentage</th></tr> <tr><td>Start quickly and evolve over time</td><td>75%</td></tr> <tr><td>Take longer to implement the right solution</td><td>25%</td></tr> </table>	Response	Percentage	Start quickly and evolve over time	75%	Take longer to implement the right solution	25%
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<p>Three interviewees raised reservations about the value and felt that it should be better thought out before going ahead.</p>	<p><i>"It's about changing the way we operate, so need to take longer to get the right solution."</i></p>	<p>Key Message</p> <p>The majority of consultees were keen to see a solution implemented quickly and see that evolve over time.</p>						

Four broad high level Service structures were set out during the engagement and feedback sought on preferences.

Whole System Add-on	Lead Network Joint Planning Service	Central Team Coordinated Service	Integrated Regional Planning Teams
A LA continues to pursue gas and electricity network enquiries separately, but can then submit these conclusions to a Central Team to undertake a Whole System Review.	The LA asks a lead network company to coordinate a whole system review.	A Central Team manage the application and the whole system outputs, with engineering assessments undertaken by the network companies.	A complete one stop shop Central Team to manage the application and undertake the technical assessments.

There was clear support for the Integrated Joint Regional Planning Team approach, with Coordinated Service a consistent second choice.



▶ Consistent second choice for a Coordinated Service

Respondents' second choice was consistently the Coordinated Service, in addition to 23% choosing it as their first preference.	<p><i>"Prefer the coordinated service - would like to see that acting like an independent arbiter. Could be the body that translates one sides needs to the other. A dedicated front of house team that could explore and unlock options. A neutral test bed to explore those alternatives."</i></p> <p><i>"Seems attractive because key concern of continuity, needs one point of contact, team or individual. Regional might be a bit too remote, but 3 is a good compromise."</i></p>	<p>Interviews: Average ranking of service delivery methodology</p> <table border="1" style="font-size: small; margin-top: 5px;"> <tr><th>Methodology</th><th>Average Ranking</th></tr> <tr><td>Integrated joint regional...</td><td>1.42</td></tr> <tr><td>Coordinated service central...</td><td>2.08</td></tr> <tr><td>Lead network approach</td><td>3</td></tr> <tr><td>Whole system energy review</td><td>3.5</td></tr> </table>	Methodology	Average Ranking	Integrated joint regional...	1.42	Coordinated service central...	2.08	Lead network approach	3	Whole system energy review	3.5
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However, some respondents saw a risk that the coordinating service could just be a 'letter box' solution that may add to time scales.	<p><i>"Option feels like a layer of bureaucracy."</i></p> <p><i>"Efficiency wise - a single request can be efficient but in some cases the gatekeeper slows things down and removes the individual relationships with the networks which are also important."</i></p> <p><i>"Looking for a solution that would be less onerous to prepare information and submit it - so attractive to have a point in-between that manages that - unless it might impact timescales with an additional step?"</i></p>	<p>Webinars: Average ranking of service delivery methodology</p> <table border="1" style="font-size: small; margin-top: 5px;"> <tr><th>Methodology</th><th>Average Ranking</th></tr> <tr><td>Integrated joint regional...</td><td>1.51</td></tr> <tr><td>Coordinated service central...</td><td>2.00</td></tr> <tr><td>Whole system energy review</td><td>2.98</td></tr> <tr><td>Lead network approach</td><td>3.07</td></tr> </table>	Methodology	Average Ranking	Integrated joint regional...	1.51	Coordinated service central...	2.00	Whole system energy review	2.98	Lead network approach	3.07
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Key Message												
Clear preference for Joint Regional Planning Teams with Coordinated Service as consistent second choice.												

This feedback provides a clear proof to the network's hypothesis that a new service would be welcomed and would add value.

There were a number of issues and concerns raised during the engagement, that had to be addressed in the process and which will shape the design of the service. The themes are discussed below together with an explanation of how their resolution has been addressed in the next stages of this project.

Themes identified during the consultation

- Scope of the service
- Deliverables
- Benefits
- Impartiality
- Transparency
- Funding
- Resourcing

Scope of the service

There was considerable discussion through the engagement on how this new service would fit into the emerging process for the creation of Local Area Energy Plans. These are generally strategic plans across a whole County, District or Borough, or multiple Local Authorities within a Combined Authority such as in Manchester or the West Midlands.

This new service is not being designed to support or deliver these strategic wide area decarbonisation plans. This new service is for specific local but large scale developments where early identification of options can enable better informed planning decisions and the planning and timely provision of efficient network infrastructure.

The scenario this new service is designed to address is where a Local Authority is looking at one site or a number of options for a new large scale housing and/or business/industrial development.

Work is underway commissioned by the Government, to determine whether there is a need for a national framework for Local Area Energy Plans. This requirement is driven by the desire for LAEPs to be comparable, consistent, coherent, and connectable into a wider strategic picture, if not a national view. The electricity and gas networks are working closely with the Government and their contractors to support this process, and we expect to play a leading role in any new emerging country-wide framework.

Deliverables

This service will have two primary deliverables:

- 1) **Initial capacity review** – are reinforcements required for the projected additional demands.
 - Where capacity is scarce, the LA will be asked whether they wish to choose a conventional reinforcement study, or opt for the whole system service.
- 2) **Whole System Options** - where reinforcements are required, a number of alternatives to conventional network reinforcements will be provided which optimise capacity across the electricity and gas networks. The report would describe the options, its components, indicative costs and implementation timescales, and delivery risks and issues. The report would also detail the basis of the report, and specify any key assumptions and other data sources used.

Where there is an electricity system constraint, alternative whole system solutions could include:

- Installation of a combined heat and power energy centre with district heating for the new development

- Switching of existing resistive electrical heating systems nearby on to an existing or new district heating scheme to free up capacity.

Where there is a gas system constraint, alternative whole system solutions could include:

- Installation of greater levels of electrical heating in new premises
- Switching of existing gas fired heating systems nearby on to an existing or new electricity driven district heating scheme, to free up capacity
- Reduce gas demand with energy efficiency programme on existing buildings

Benefits

There are a number of significant benefits that this service can deliver:

1. Regulatory Support

With early engagement, regulatory funding barriers can be addressed, and new or modified regulatory mechanisms adopted. For example, enabling early construction ahead of need where a Local Authority is prepared to underwrite the stranding risk.

2. Diverse solutions

This service would identify alternative solutions that may better meet the needs of the locality, compared with the conventional single system, single vector approach used to date by the energy networks.

For example, it could identify the value of building an energy centre for heating and power as a better long term solution than upgrading cables, conductors and pipes.

3. Tailored Solutions

The Local Authority could feed in their specific constraints and objectives in their application, to deliver a tailored approach. For example, a LA may need the capacity provided by a particular date, to make use of existing assets such as District Heating, or to avoid infrastructure works in certain locations due to known land-owner sensitivities.

4. Efficient Solutions

Early engagement provides a view on the total requirements for a development, which can then be progressed as a single managed project. At present infrastructure is identified within each vector, and only as each phase of a development is progressed. Planning to the whole is generally more efficient than responding to discrete increments.

Optimising across both the gas and electricity networks can also support more efficient solutions, as capacity would be balanced across the two networks.

Early engagement on options can also allow Local Authorities to factor in infrastructure costs into their decision making process, allowing for site selection where network costs and risks are minimised.

5. Improved more efficient relationships

With a common standardised approach, and single point of contact, it will be easier to build effective and efficient value adding relationships. The Service Provider will be able to manage any complexities with working across different vectors and geographies.

6. Better informed decisions

By providing alternative solutions, particularly at an earlier stage, the Local Authorities will have a more rounded set of options, and greater scope to pursue their delivery, and to factor these into wider plans such as for decarbonising their own housing and other buildings, or energy efficient initiatives.

As some whole system solutions cannot be delivered by the energy networks, Local Authorities will need to take forward non-network solutions directly or by contracting with other parties.

- Higher quality robust data
- Lower stakeholder and network costs
- Higher value solutions for customers and stakeholders
- Optimised network utilization
- Delivering timely capacity
- Improved more efficient relationships
- More efficient decision making

Impartiality

Local Authority feedback referenced concerns over the impartiality of the new service, such as an energy network favouring solutions for their own system. Any new process must be able to demonstrate this risk is being effectively managed.

Gas and Electricity networks working on whole system solutions is likely to be more impartial than the conventional single system approach, due to each network holding the other to account, with appropriate challenge and review.

However, to further recognise this matter, the proposals being taken forward by the networks involve an independent Service Provider, contracted by the Energy Networks Association. The Service Provider will manage the process, and in order to further minimise the risk of bias, they will follow process and principles set out in a published whole system methodology statement. The Service Provider would be responsible for developing this methodology and updating it as appropriate, with appropriate consultation with stakeholders.

ACTION: Service managed by an organisation unaffiliated to the networks and contracted to the ENA

ACTION: Service delivered in accordance with a published local whole system study methodology statement

Transparency

Similar to the concerns noted on impartiality above, Local Authorities wanted transparency on the process, so that they would have confidence in the outputs. Transparency would be provided by the service following a published methodology, which would be established and developed with appropriate stakeholder consultation. Should issues arise during the operation of the new service, the methodology can be updated to ensure transparency is provided.

ACTION: Service delivered in accordance with a published local whole system study methodology statement

Funding

During the engagement, Local Authorities were asked if they supported paying directly to use this new service. The responses were strongly against payment, and the discussion cited a lack of available resources.

However, at a previous Open Networks Advisory Group, stakeholders indicated that payment may not be an issue as in many cases Local Authorities are paying consultancies to provide similar information, even though it may not be as robust.

Networks are bound by licence obligations requiring any charges to our service to be cost reflective. This is to ensure those parties causing the cost, are paying for it, and there is no unacceptable level of cross subsidy. Cost reflective charges can also be important to avoid spurious requests for work, re-work, or optioneering, which may not be asked for if there was a specific incremental cost incurred. This is important to the networks to enable limited resources to be deployed efficiently, and meet the relevant service levels.

Whether there is a charge for this service will be subject to consultation and regulatory approval, however at this stage the gas and electricity networks are minded to levy a cost reflective charge for this service. It may however be appropriate to consider a refund mechanism for a study should an option identified by the study be taken forward.

ACTION: A cost reflective charge would be levied for this service subject to regulatory approval

Resourcing

A number of the Local Authorities highlighted a lack of resource and knowledge in their organisations to properly utilise this new service.

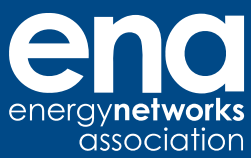
Whilst this new service cannot directly address this specific issue, the creation of a standardised value adding service with well defined inputs and outputs will make it easier to build expertise and confidence. It will also make knowledge transferable and facilitate knowledge sharing between Local Authorities. In addition, having a single point of contact with the new Service Provider, can also help build an effective working relationship over time, to further support the building of capability in Local Authorities.

Next steps

A decision on whether to deploy this service will need to be approved by both the Electricity and Gas networks Steering Groups. A recommendation for approval can only be made where there is clear support from Local Authorities for this new service. A positive response to this consultation is therefore required to demonstrate that there is support for these proposals. If this is not provided, then the networks will review the feedback and make a decision on how to proceed with this initiative.

If there is Local Authority support, it is anticipated that a Go/No Go decision will be taken by the energy networks in early Q2 2022. Following a Go decision, the next stage will be to prepare for and launch a procurement event to identify and select the Service Provider. Based on the responses to this procurement event, the shape and pace of the roll out of the new service will be determined.

Once appointed and mobilised, a key initial deliverable will be a consultation led by the new Service Provider, on the Local Whole System Study Methodology Statement. This will define the detailed form of the service offering to Local Authorities, and we look forward to as many Local Authorities as possible actively participating in the development of this Methodology.



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