Strategic Innovation Fund
Agenda

- What is SIF?
- How does SIF work?
- SIF vs NIA
- Partnering with us
- Common reasons why we aren’t able to take ideas forward
- ESO Innovation Priorities
What is SIF?
• SIF replaces the Network Innovation Competition (NIC)
• SIF aims to tackle big sector-wide questions about the future (2028+) energy system
• Aims to:
  • Deliver a net zero energy system at lowest costs to consumers
  • Position the UK as the ‘Silicon Valley’ of energy systems
• Paid for by consumers on their energy bills
• Designed to help energy networks users and consumers
• Only licensed energy networks are eligible to lead an application/project
• Project participants need to provide a minimum of 10% of total project costs as a compulsory contribution from alternative funds
• Project participants must read and accept the terms of the SIF Governance Document when applying

What is SIF?
What is SIF? (continued)

- Ofgem, working with UKRI, sets the strategic direction by using Innovation Challenges
- Applications must align with one out of 4 Innovation Challenges launched with each SIF Round
- Each Innovation Challenge has minimum partner requirements, e.g. another energy network licensee or research and technology organization (RTO)
- Project ideas move through the sequential phases of SIF (Discovery, Alpha, Beta)
- As of Round 2, it is possible to apply directly to Alpha or Beta phases if eligible
- SIF is competitive, and projects need to apply to each phase separately
- Receiving funding for one phase does not guarantee funding for next phases
SIF projects must demonstrate benefits across:

- Financial cost reductions for network operation/energy bills/network users
- Carbon emissions reductions
- Improved access to revenues for users of network services, or the creation of new revenue streams
- Number of products, processes, and services launched which are new to the market within Great Britain
How does SIF work?
How does SIF work?

A new type of innovation competition process

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<tr>
<th>DISCOVERY</th>
<th>ALPHA</th>
<th>BETA</th>
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<tr>
<td>(feasibility study)</td>
<td>(experimental development)</td>
<td>(build, operation and/or demonstration)</td>
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<tr>
<td>Up to 3 months</td>
<td>Up to 6 months</td>
<td>Duration will depend on the scale and complexity of the solution (between 6 months and 5 years)</td>
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<td>Capped at £150k</td>
<td>Capped at £500k</td>
<td>c. £10m+</td>
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<td>define the problem and the value in solving the Problem</td>
<td>preparing and testing the different solutions to the Problem and test the riskiest assumptions</td>
<td>deployment of the solution to the Problem</td>
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<td>understanding what consumers and network users need and identify any constraints</td>
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3 Phase Approach
SIF vs NIA
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<tr>
<th><strong>Strategic Innovation Fund (SIF)</strong></th>
<th><strong>Network Innovation Allowance (NIA)</strong></th>
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<tr>
<td><strong>Ofgem administers funding</strong> with support from Innovate UK (UKRI) – new fund to replace Network Innovation Competition</td>
<td>Each network receives a set allowance to administer as part of their network price control</td>
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<td>SIF is expected to invest <strong>£450m by 2026</strong></td>
<td>ESO will have ongoing access to <strong>£47m (inc. 10% ESO contribution)</strong> to fund innovation projects over RIIO-2</td>
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<td>Focused on funding large-scale transformational research and development projects in 3 phases. UKRI open a funding round for each phase. (Discovery - £150k, Alpha – up to £500k, Beta – up to £30m)</td>
<td>Focused on funding early-stage research and development or small-scale demonstration projects. Each network has their own process for approving funding for projects.</td>
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<td>For each funding round application, <strong>Ofgem and UKRI publish challenge areas</strong> related to the energy transition to net zero that projects should address</td>
<td>Projects must have the potential to deliver benefits to consumers in vulnerable situations, or the energy transition to net zero</td>
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<td>Each Innovation Challenge of SIF has <strong>minimum partner requirements</strong> (e.g. another energy network licensee)</td>
<td>No minimum partner requirements</td>
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Partnering with us
Partnering with ESO

- Project ideas need to meet one of the SIF Innovation Challenges and address at least one of ESO’s innovation priorities.
- There will be an Open Call for SIF ideas for each SIF Round and timelines for submitting ideas to us will follow on our website/newsletter.
- Ofgem are the final decision makers of the Strategic Innovation Fund.
How can I get involved?

Submit your project idea via the online form or contact us directly with project ideas that you think may be appropriate for SIF (innovation@nationalgrideso.com)

Book a slot to speak to ESO SIF Team (coming soon)
Common reasons why we aren’t able to take ideas forward
Common reasons why we aren’t able to take ideas forward

• Innovation funding cannot be used to validate commercial models – we must remain as impartial as possible in supporting market participants
• Duplication of a previous project or Business as Usual activity
• We don’t have sufficient ESO Subject Matter expert resource to support the project at the time
• ESO is not an appropriate lead – other energy network licensees are more suited to lead
• The project does not follow the phased approach or does not align to the funding cap of each phase
• The scope and scale of the project is more suitable for NIA than SIF
ESO Innovation priorities
Our 2023 – 24 Innovation Priorities

Zero Carbon Transition

- It is difficult to remove the final, harder-to-decarbonise aspects of the system
- Fundamental changes need to be made to system planning and operation
- Finding a standard way to calculate the carbon intensity of generators

Digital & Data Transformation

- Driving digitalisation and a whole system approach requires greater transparency and open access to data
- Risk of cyber-attacks is growing
- Processing calculations from data and algorithm intensive models
Our 2023 – 24 Innovation Priorities

**Whole Energy System**

- How can we improve efficiency and enable decarbonisation by considering energy vectors and different sectors alongside each other?
- How can products, markets and best practice be aligned across distribution and transmission networks?

**Future Markets**

- Understanding what and how different aspects of the energy system will change how markets function
- Understanding and testing different market reforms
- Exploring how consumers can become active participants in the system
Our 2023 – 24 Innovation Priorities

**Constraint Management**

- Changes in the volume and location of electricity generation will lead to significant constraint costs
- One of the key areas of congestion is the Anglo-Scottish boundary (B6)

**System Stability & Resilience**

- As we move towards zero carbon operation and synchronous generation capacity decreases, the system becomes less stable
- This means faster frequency changes, less voltage and fault ride-through stability which makes it more difficult for both synchronous and non-synchronous generators to operate safely