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Date: 29 June 2023

Dear National Grid ESO,

**SIF Project Direction ref: NGESO/CrowdFlex/SIFWholeSystem/Rd1 Beta**

National Grid ESO submitted Crowdflex (the Project) to be considered for funding through the Beta Phase of the Strategic Innovation Fund (SIF). As explained in greater detail below, this Project previously received SIF Funding and completed a Discovery Phase and Alpha Phase for round 1 of the SIF. In our<sup>1</sup> SIF funding decision which is finalised and will be issued on 18 July 2023, we selected the Project<sup>2</sup> for conditional funding and as a result we are now issuing this SIF Project Direction to implement that decision.

National Grid ESO must comply with the conditions contained in this SIF Project Direction as a condition of the Project receiving funding through the SIF. These conditions can be found in the Schedule to this document.

**Progression through SIF Phases**

The SIF consists of a multi-phase approach for Projects in order to mitigate the risk associated with innovations. The Discovery Phase focuses on feasibility, the Alpha Phase on experimental development, and the Beta Phase on deployment and demonstration.

The Project previously received SIF Funding for the Discovery Phase<sup>3</sup> and Alpha Phase<sup>4</sup> of round 1, and submitted an Application for the Project to be considered for SIF Funding

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<sup>1</sup> The terms 'we', 'us', 'our' refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

<sup>2</sup> Unless otherwise specified, defined terms in this SIF Project Direction have the meaning given to them in Appendix 1 of the SIF Governance Document.

<sup>3</sup> The Project Directions for round 1 of the Discovery Phase are available at:  
<https://www.ofgem.gov.uk/publications/strategic-innovation-fund-discovery-projects-approved-funding>.

<sup>4</sup> The Project Directions for round 1 of the Alpha Phase are available at:  
<https://www.ofgem.gov.uk/publications/strategic-innovation-fund-round-1-alpha-projects-approved-funding>.

through the Beta Phase of round 1 of the SIF. As stated above, the Project has been selected to receive SIF Funding for the Beta Phase of round 1.

### **Role of UK Research & Innovation (UKRI)**

As per Chapter 1 of the SIF Governance Document<sup>5</sup> the role of UKRI is to deliver the SIF in line with the SIF Governance Document - administering the funding programme, monitoring the delivery of Projects, collating data from Projects on benefits, making recommendations to Ofgem on operational matters, supporting third-party innovators and, where possible, successful Projects to become 'business as usual' activities. To support the success of the Projects and the SIF programme, we expect that the Funding Party and Project Partners collaborate with Ofgem and UKRI.

### **SIF Project Direction**

Paragraph 5.14 of the SIF Governance Document states that a SIF Project Direction will:

- Set out the Project-specific conditions, to which the Funding Party is committing in accepting SIF Funding.<sup>6</sup>
- Require the Funding Party to undertake the Project in accordance with the commitments made in the Application. Where appropriate, the SIF Project Direction may therefore include extracts from the Application or refer to specific sections of the SIF Application.<sup>7</sup>
- Where applicable, set out conditions (such as Project stage gates) linked to milestones and deliverables, which Projects must meet.<sup>8</sup>
- Set out the SIF Approved Amount for the Project, that will form part of the calculation contained in the SIF Funding Direction issued by the Authority under chapter 7 of the SIF Governance Document.<sup>9</sup>
- Set out the Project budget that the Funding Party must report against and how variations in the Project budget will be reported.<sup>10</sup>
- Where applicable, set out special information sharing requirements applicable to the Project.<sup>11</sup>
- Set out the mechanism for the Funding Party receiving the SIF Approved Amount as set out in the SIF Funding Direction.<sup>12</sup>

<sup>5</sup> <https://www.ofgem.gov.uk/publications/sif-governance-document>

<sup>6</sup> 'Project specific conditions' detailed under Point 3 – 'Condition President' of this SIF Project Direction.

<sup>7</sup> 'Project specific conditions' detailed under Point 3 – 'Condition President' of this SIF Project Direction.

<sup>8</sup> 'Project specific conditions' detailed under Point 3 – 'Condition President' of this SIF Project Direction.

<sup>9</sup> 'SIF Funding Amount' detailed under Point 5 – 'Condition President' of this SIF Project Direction.

<sup>10</sup> 'Annex 1 – Project Budget.

<sup>11</sup> 'Project specific conditions' detailed under Point 3 – 'Condition President' of this SIF Project Direction.

<sup>12</sup> 'SIF Funding Amount' detailed under Point 5 – 'Condition President' of this SIF Project Direction.

All SIF Project Direction requirements are detailed in the Schedule to this SIF Project Direction.

### **Decision**

Provided the Funding Party complies with the SIF Governance Document and with the Schedule to this SIF Project Direction, the Project is deemed to be an Eligible SIF Project<sup>13</sup>.

This SIF Project Direction constitutes notice pursuant to section 49A (Reasons for decisions) of the Electricity Act 1989.

**Marzia Zafar**

**Deputy Director, Decentralisation & Digitalisation**

**For and on behalf of the Authority**

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<sup>13</sup> The meaning 'Eligible SIF Project' is described in Chapter 2 of the SIF Governance Document.

## Schedule to SIF Project Direction

### 1. PROJECT DETAILS

SIF Project Direction reference: NGESO/CrowdFlex/SIFWholeSystem/Rd1\_Beta

Application number: 10070764

Project title: Crowdflex

Innovation Challenge/Project Phase: Whole system integration / Beta Phase round 1

Project start date: 01 July 2023

Project end date: 17 October 2025

SIF Approved Amount for SIF Funding: £18,610,355.00

### 2. PREAMBLE

This SIF Project Direction is issued by the Gas and Electricity Markets Authority (the "Authority") to National Grid ESO (the "Funding Party") pursuant to the SIF Governance Document issued pursuant to Special Condition 3.4 of the Electricity Transmission Licence (the "Licence"). It sets out the conditions to be complied with in relation to Crowdflex (the "Project") as a condition of it being funded under the SIF Funding Mechanism.<sup>14</sup>

Unless otherwise specified, defined terms in this SIF Project Direction have the meaning given to them in the Licence or Appendix 1 of the SIF Governance Document.

References to specific sections of the Funding Party's Application in this SIF Project Direction are, for ease of reference, made by referring to the section number in the Funding Party's Application.

### 3. PROJECT SPECIFIC CONDITIONS

In accepting funding for the Project, the Funding Party is subject to the following Project-specific condition(s):

#### **Condition 1**

The Funding Party must not spend any SIF Funding until contracts are signed with the Project Partners named in Table 1 for the purpose of completing the Project.

**Table 1. Project Partners**

ELEMENT ENERGY LIMITED
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<sup>14</sup> The SIF Funding Return Mechanism is defined in the SIF Governance Document.

NATIONAL GRID ELECTRICITY DISTRIBUTION PLC OCTOPUS ENERGY LIMITED OVO ENERGY LTD SOUTHERN ELECTRIC POWER DISTRIBUTION PLC CENTRE FOR NET ZERO LIMITED OHME OPERATIONS UK LIMITED AMAZON WEB SERVICES
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### ***Condition 2 – Financial contribution***

The Funding Party must report on the financial contributions made to the Project as set out in its Application. Any financial contributions made over and above that stated in its Application should also be reported and included within the Project costs template.

### ***Condition 3 – Meeting arrangements***

The Funding Party must participate in all meetings related to the Project that they are invited to by Ofgem, UKRI and DESNZ during and after the Beta Phase.

### ***Condition 4 – Stage gate scoping***

The Funding Party must, with support from Innovate UK/UKRI and, where applicable Ofgem, scope the requirements and success criteria for each stage gate within a Project at the quarterly reporting meetings ahead of any stage gate. These will be used to determine what criteria a Project must meet in order to pass a stage gate, and whether any additional information, such as a report, must be produced as part of the stage gate.

### ***Condition 5 – Dissemination of annual progress report(s)***

Each of the annual progress reports that the Funding Party publishes in the Beta Phase must, at a minimum, be uploaded to the ENA's Smarter Networks Portal. We also strongly encourage wider dissemination of the annual progress report(s) and support from all Project Partners in ensuring it reaches a wide audience.

### ***Condition 6 – Impact monitoring***

As part of the end of Project Phase report, the Funding Party must produce a Project Impact Monitoring and Evaluation Plan. This plan must outline how the Project plans to monitor and evaluate the delivery of benefits outlined in the Beta Phase Application following the end of the Beta Phase. The plan must also include the methodology that will be utilised for quantifying and qualifying benefits realisation and how the Funding Party plans to report this to Ofgem 1, 3, 5 & 10 years post-Beta Phase completion.

Further details on how to approach the development of this plan may be provided by Ofgem or IUK.

### ***Condition 7 – SIF Community Forums***

The Funding Party and all Project Partners must make reasonable attempts to attend, participate and/or contribute at SIF Community Forum events occurring during the Project delivery. We anticipate there being approximately one event per year.

### ***Condition 8 – Policy, regulatory and standards barriers***

The Funding Party must provide verbal updates at each quarterly meeting on any regulatory, policy and standards barriers and any change requirements which may impact delivery of the Beta Phase activities. The Funding Party must also include as an attachment to each of its annual progress report an update on any regulatory, policy and standards barriers which may require derogations and articulation of any proposed regulatory, policy and standards changes which would be necessary in deployment. The Funding Party must also provide an as an attachment to its end of Project Phase report a summary of the Project's findings on regulatory, policy and standards barriers, including any considerations for future work, and where applicable, where specific regulatory, policy and standards changes would be required for deployment.

### ***Condition 9 – Updated 60-second videos***

The Funding Party must provide within the first three months of the Project beginning (i.e. by 1 October 2023) an updated 60-second video. If the Project is greater than two years (longer than 24 months) in length, an updated video must also be provided at the Project's mid-point meeting. All Projects must also provide an updated 60-second video as part of their end of Project phase report. Innovate UK can share its guidance for 60-second videos with the Funding Party, if necessary.

### ***Condition 10 – Consumer engagement***

The Funding Party must provide an update as part of each stage gate scoping monitoring meeting on consumer engagement plans. This must include an update on any activities which involve engagement and interaction with energy consumers, and any impact the Project may have on existing or future energy consumers and their premises.

### ***Condition 11 – Post-Beta Phase roadmap***

The Funding Party must provide to the monitoring officer by the third quarterly monitoring meeting (i.e. in Q3) a roadmap for activities post-Beta Phase. This can build

on the Project's Application question (question 11) and must focus on how and when the proposed solution will become business as usual within your network and across the other GB gas or electricity networks.

As part of this, the Funding Party must include consideration for:

- I. any steps the Project will take to ensure its innovation has suitable business as usual adoption;
- II. the Funding Party's strategy for adoption of the innovation or proposed solution, giving consideration to potential investment, ongoing costs and third-party involvement and;
- III. any early indication of interest from other networks in adopting the innovation.

The Funding Party must provide an update on all the above at every two quarterly monitoring meetings (i.e. every six months) and must include a final update of this roadmap as attachment to its end of Project Phase report.

### ***Condition 12 – Commercialisation strategy***

The Funding Party must provide to the monitoring officer by the third quarterly monitoring meeting (i.e. in Q3) a roadmap for activities post-Beta Phase. This can build on the Project's Application question (question 12) and must focus on what considerations have the Project consortium made for the commercialisation of the proposed solution or innovation, and how the Project provides support for non-network partners to move towards commercialisation. As part of this, the Funding Party may wish to include consideration for:

- I. who the primary customer segment is beyond the Funding Party; the customer value proposition;
- II. if identified, the outline of the route to market and potential new partnerships;
- III. any additional Project Partner capital requirements in order to commercialize the innovation and;
- IV. how this product, process or service could be scaled across the GB network and taken to new markets.

The Funding Party must also include a final update of its strategy as an attachment to its end of Project Phase report. Ofgem and/or Innovate UK may issue a template for the final update as part of the end of Project Phase report.

### ***Condition 13***

As part of each of its Beta Phase annual progress report, the Funding Party must provide an attachment which summarises the insights developed by the Project and the flexibility

service providers on consumer demographics to date or since its last annual progress report.

#### **Condition 14**

The Funding Party must provide an outline report to its monitoring officer ahead of initial trial commencement outlining how the raw participant data gathered by the Project will be made publicly available. We understand that publishing this data in a raw format would not be GDPR compliant without gathering consent from all participants. Where consent is obtained, we expect the raw data to be published. Where consent is not obtained, to ensure GDPR compliance, we expect the Funding Party to aggregate the data to remove personally identifiable information. A good example of this aggregation process can be observed in DNOs Data Privacy Plans (DPPs). The Funding Party may wish to aggregate to a slightly higher level than the DPPs as this information will be openly available and the risk to consumer privacy is higher. The Funding Party should aggregate the raw data in such a way that manages the trade-off between consumer privacy and facilitating the development of other innovative products or services, and also does not distort or restrict access to future Crowdflex services by other flexibility service providers entering the market. As part of this report, the Funding Party must outline how its approach complies with Ofgem's Data Best Practice and remains GDPR compliant. These arrangements will require sign-off from Ofgem policy and subject matter leads ahead of kick-off.

#### **Condition 15**

The Funding Party must provide as part of stage gate 1 (set out as Stage Gate 01 in the Gantt chart) and ahead of progressing to any trials a presentation clearly illustrating how the Crowdflex market will interact or complement and/or impact existing markets and the balancing mechanism. This presentation must illustrate these examples for both during trial delivery and for scenarios which may emerge upon Project completion. As part of this, the presentation must explain the potential impacts from Crowdflex on the Funding Party's business operations and why/how the Funding Party will look to integrate Crowdflex's approaches and markets into their business operations.

Additionally, this presentation must also cover:

- I. how the Crowdflex incentives will impact other markets, including how it will be integrated alongside demand flexibility services and constraint management zones
- II. any potential market distortion effects and



- III. an explanation of the expected bidding structure for assets under this trial and how this complies with relevant market rules and if this has limitations in the long term (i.e. beyond the trial and beyond the Beta Phase).

We expect to see in this presentation representation from senior ESO representatives, ESO markets, and ESO's control rooms.

### **Condition 16**

As part of stage gate 1 (set out as Stage Gate 01 in the Gantt chart) and ahead of progressing to any trials, the Funding Party must provide an explanation summarizing how the Project and the data generated by the Project will align with the Funding Party's licence conditions for sharing data and will align with Ofgem's Data Best Practice Guidance.

## **4. COMPLIANCE**

The Funding Party must comply with Special Condition 3.4 of the Electricity Transmission Licence (the "Licence"), the SIF Governance Document and with this SIF Project Direction.

## **5. SIF APPROVED AMOUNT**

The SIF Approved amount of £18,610,355.00 (as detailed under Section 1: Project details of this Project Direction) will be recovered by National Grid Electricity System Operator from GB customers and transferred to the Funding Party. The Funding Party is responsible for notifying National Grid Electricity System Operator of the bank account details to which transfers must be made, in addition to completing Annex 2 of this SIF Project Direction. If a Funding Party is required to return funding to National Grid Electricity System Operator, the reverse applies. The Funding Party must provide bank account details to National Grid Electricity System Operator within two weeks of accepting this SIF Project Direction.

## **6. PROJECT BUDGET**

The Project Budget is set out in Annex 1 of this SIF Project Direction.

The Funding Party must report on expenditure against each line under the category total in the Project Budget and explain any projected variance against each line as part of its detailed report which will be provided, in accordance with Chapter 7 of the SIF Governance Document. The Funding Party must report variations in the Project budget as outlined in Chapter 6 of the SIF Governance Document.

## **7. PROJECT IMPLEMENTATION**

The Funding Party must undertake the Project in accordance with the commitments it has made in the Application and with the conditions of this SIF Project Direction. These include (but are not limited to) the following:

- (i) undertake the Project in accordance with its Application,
- (ii) complete the Project on or before the Project completion date as detailed under section 1 of the schedule of this SIF Project Direction, and
- (iii) disseminate the learning from the Project at least to the level described in chapter 3 of the SIF Governance Document. Dissemination of learning must be carried out whether the Project was concluded successfully or otherwise.

## **8. REPORTING**

Ofgem and UKRI may issue guidance (and amend it from time to time) about the structure and content of the Project reporting required by Chapter 6 of the SIF Governance Document. The Funding Party must follow this guidance in preparing the reports.

The Funding Party must submit an end of Project Phase report to UKRI monitoring officers for the Beta Phase. Within this report, the Funding Party must submit information related to questions on Project delivery as detailed in chapter 6, table 6 of the SIF Governance Document.

## **9. MONITORING**

The Funding Party must comply with any reasonable request for information by its monitoring officer at UKRI and related deadlines. Ofgem, with the support of UKRI, will together monitor Project delivery, impacts and benefits. Throughout the term of the Project, progress is monitored by UKRI through a monitoring officer. The monitoring officer is the first point of contact for official notifications, queries and correspondence with UKRI and the Authority, unless otherwise required by this SIF Project Direction.

As detailed in Chapter 6 of the SIF Governance Document, meetings with the monitoring officer will take place at regular intervals, as advised by Ofgem or the monitoring officer during the delivery of the Project, and at the end of each Project Phase.

## 10. EVALUATION

The Funding Party has acknowledged when it submitted its Application for this Project, that reporting information and data gathered during the Project's timescales (as detailed in Section 1 of this SIF Project Direction) will be used to evaluate Project performance. In addition, the Funding Party may be required to provide requested information outside of the Project timescales and, in particular, for the period from the Project end date to the end of the SIF Programme. Further data and reporting information may be requested (frequency and method based on requirement) outside of standard monitoring and reporting requirements as deemed necessary. Further data and information requirements must be complied with by the Funding Party and Project Partners.

## 11. DATA SHARING

As set out in Chapter 3 of the SIF Governance Document, the Funding Party must follow Data Best Practice Guidance with regards to all data gathered or created in the course of a Project. We expect the Funding Party to document any reasons, such as commercial sensitivities, for desensitising data. As defined by, and in accordance with, Data Best Practice Guidance, Funding Parties must have a data triage process. Where multiple Project Partners are collaborating on a Project, the consortium must adopt a consistent Open Triage Process for the data related to the Project. Ofgem may require that Project information and data is also shared with other specified parties, such as parties working on complementary innovation funding programmes (subject to redaction of sensitive data).

## 12. CYBER SECURITY

It is the responsibility of the Funding Party and all Project Partners to implement and maintain appropriate security measures to protect personal data in accordance with The GDPR (General Data Protection Regulation)<sup>15</sup> and DPA (Data Protection Act) 2018<sup>16</sup>. Protection of computer systems from unauthorised access or being otherwise damaged or made inaccessible must be in place alongside effective working practices. These must be maintained in line with the Funding Party's IT Management Strategies and policies.

## 13. PROJECT MILESTONES

The Funding Party must submit its end of Project Phase report to its monitoring officer that verifies the Project milestones have been achieved or explains why they have not.

<sup>15</sup> [https://ec.europa.eu/info/law/law-topic/data-protection/data-protection-eu\\_en](https://ec.europa.eu/info/law/law-topic/data-protection/data-protection-eu_en)

<sup>16</sup> <https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted>

Project milestones are outlined below in Table 3, based upon details contained within Question 7 and Appendix Question 9 in the Funding Party's.

**Table 3. Project milestone<sup>17</sup>**

Reference	Project milestone	Deadline	Overall objectives and key tasks	Summary of Milestones and Success Criteria	SIF Funding Request (100%)
Milestone 1	WP0: Project management	17 October, 2025	<p>Overall work package objectives: To ensure the successful completion of the project on-time and within budget.</p> <p>To engage with all stakeholders, the public and all interested parties and ensure results are disseminated.</p> <p>To ensure that all data is managed and protected in accordance with agreed policies and approaches.</p> <p>Key tasks:</p> <p>1. Governance: General Management; Contracting &amp; legal; Finances; Management meetings; and Consortium</p>	<p>M0-1: Contract signed: Contract signed. (£131,913.97)</p> <p>M0-2: Completion of mini-trial 1: Mini-trial 1 complete. (£492,467.80)</p> <p>M0-3: Completion of mini-trial 2: Mini-trial 2 complete. (£983,624.09)</p> <p>M0-4: Completion of availability payment trial 1: Availability trial 1 complete. (£97,356.46)</p> <p>M0-5: Completion of availability payment trial 2: Availability trial 2 complete. (£476,474.88)</p>	<p>£2,785,150.24 (15%)</p>

<sup>17</sup> As outlined in in the Application or Project Plan appendix.

			<p>Internal Knowledge Sharing, Undertake Project Change Requests (as needed).</p> <p>2. Engagement: Stakeholder identification &amp; mapping; Engagement Planning; Monitoring Innovation Developments; Dissemination &amp; Engagement.</p> <p>3. Data and Information Management and Security: Establish Data Management process; Establish security and privacy protocols; Establish communication routes and approach; Ongoing monitoring of data management.</p> <p>4. Workstream A (Requirements and transition to BAU) Management: Steering Committee Meetings; Market-related consultation; Regulatory horizon monitoring; BEIS/DESNZ &amp; Ofgem Engagement; Plan for putting</p>	<p>M0-6: Completion of mini-trial 3: Mini-trial 3 complete. (£96,477.15)</p> <p>M07: Project Complete: Mini-trial 3 complete. (£506,835.89)</p>	
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			<p>derogations into-code (optional; post-project).</p> <p>5. Workstream B (Modelling) Management: Engagement with Industry Panel(s) to gather input on API Specification and disseminate results; ESO Virtual ES Advisory Group Engagement.</p> <p>6. Workstream C (Trialling) Management: Management of any Derogation applications.</p>		
Milestone 2	WP1: User scoping and ongoing requirements capture	17 October, 2025	<p>Overall work package objectives: To identify the ESO demand flexibility model owner/user and gather their requirements throughout the project.</p> <p>To develop a common baselining approach and an agreed framework for assessing the performance of the models.</p>	<p>M1-1: Initial specifications/requirements (Baselining/Performance/API/model) produced to enable development to commence: ESO model spec produced as a living document. (£422,848.56)</p> <p>M1-2: ESO model acceptance: ESO model owner accepts Domestic</p>	<p>£1,219,461.49 (7%)</p>

			<p>To develop and agree both model and API specifications.</p> <p>To monitor model performance, identify data gaps and feed these into the model development and trial plan along with the evolving requirements to recommend trialling updates.</p> <p>Key tasks:</p> <ol style="list-style-type: none"> <li>1. Identify ESO model user/owner: Key ESO model owner who will provide requirements.</li> <li>2. Identify current approach: Work with the model owner to understand the current (BAU) approaches to forecasting.</li> <li>3. Initial requirements capture: Gather and workshop the initial requirements for the ESO Domestic Flexibility model,</li> </ol>	<p>Demand Flexibility Model. (£796,612.93)</p>	
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		<p>utilising the Alpha outputs as the starting point.</p> <p>4. Identify all model inputs and outputs: Confirm the key outputs and inputs for both the ESO Domestic Flexibility and FSP Domestic Demand models.</p> <p>5. Agree common baselining approach: Review baselining techniques and discuss and agree a common baselining approach for the models (or understand the impacts of deviations from this standard where needed).</p> <p>6. Agree forecasting performance metrics: Establish a common set of forecasting performance metrics so that improvements (or declines) in the prediction performance of the models can be assessed.</p> <p>7. Create initial model specification: Update the specifications developed in Alpha for the ESO Domestic Flexibility</p>		
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			<p>model and the FSP Domestic Demand models. To be maintained/updated as living documents.</p> <p>8. Create initial API Specification: Develop the full specification for the API(s), based on the work in Alpha. To be maintained/updated as a living document.</p> <p>9. Monitor model performance, conduct review, and feedback requirements changes: Ongoing process aligned with agile development tasks to utilise dashboards and reporting systems for periodic review and feedback/update. Will include assessing baselining and model performance.</p> <p>10. Identification of data gaps: ESO model owner reviews the trialling in the context of the model performance to identify where there are gaps and the options for filling these.</p>		
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			<p>11. Recommend changes to the trialling: Based on ongoing ESO requirements and identified data gaps, recommendations will be made for changes to the trail focus / design. This will include, but is not limited to, what the trialling has already proven and what new data is required for the evolving model(s) to give more accurate predictions. Recommendations will be made for the Steering Committee to review and confirm.</p> <p>12. Acceptance: ESO model owner confirms acceptance of the final ESO Domestic Flexibility Model.</p>		
Milestone 3	WP2: System impact and ongoing cost benefit analysis	17 October, 2025	<p>Overall work package objectives:</p> <p>To assess the impacts of the models and flexibility services at the system (physical), economic, and environmental levels for both ESOs and DNOs.</p>	<p>M2-1: KPIs agreed: KPIs agreed by ESO and DNOs. (£35,888.03)</p> <p>M2-2: Mid-Point update: Impact Assessment Data Gathered for Mini-Trials 1 &amp; 2 and Availability Trial 1. (£129,024.51)</p>	<p>£342,621.37</p> <p>(2%)</p>

			<p>To undertake a detailed cost-benefit analysis of these impacts and the transition into BAU.</p> <p>Key tasks:</p> <ol style="list-style-type: none"> <li>1. Develop Key Performance Indicators (KPIs) for system impacts: Agree performance indicators and baselines to assess impacts of the models and trials.</li> <li>2. Undertake ESO impact assessment: Cross-ESO assessment of potential impact of flexibility as delivered by the modelling / Virtual Energy System based flexibility implementation.</li> <li>3. Assessment of control room impact of trial events: Investigate Control Room and grid data from trial events and non-event periods with similar external factors (period of time/grid conditions) to demonstrate any impacts.</li> </ol>	<p>M2-3: Completion of Impact &amp; CBA report: Impact &amp; CBA report complete. (£177,708.82)</p>	
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			<p>4. Evaluate system impact of trial events (physical): Impact on system from kW/kWh perspective (i.e., kWh of curtailment avoided/imbalance, etc.), firm capacity that flexibility could provide to replace conventional capacity/network in the future.</p> <p>5. Evaluate system impact of trial events (economic): Impact on system from an economic perspective (i.e., avoided cost of curtailment/imbalance, etc.), savings of conventional capacity/network investment avoidance.</p> <p>6. Evaluate system impact of trial events (environmental): Impact on system from an environmental (CO2) perspective (i.e., avoided CO2 emissions of curtailment/imbalance, etc. via domestic flexibility).</p>		
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			<p>7. Extrapolate for integration into BAU: Model the potential for the future of domestic flexibility.</p> <p>8. Undertake DSO impact assessment: Impact assessment of flexibility events on DNOs.</p> <p>9. Assessment of primacy rules and stacking options: Review performance of customers subject to ESO/DSO primacy rules.</p>		
Milestone 4	WP3: Implementation strategy	17 October, 2025	<p>Overall work package objectives:</p> <p>To assess any barriers to implementation.</p> <p>To develop the plans across the consortium partners for bringing the models and any services / products into BAU.</p> <p>Key tasks:</p>	M3-1: Completion of roadmap: Roadmap complete. (£133,410.90)	£133,410.90 (1%)

		<p>1. Identification of output model / services / products: Identify the specific models, services and products that can be taken forward into BAU.</p> <p>2. Assess barriers to implementation: Examine operational links between the models and the service. Includes an assessment of the arrangements for how FSPs provide forecasts / data to ESO on an on-going basis.</p> <p>3. Road mapping: Develop a roadmap for bringing the model, services and products examined and tested in CrowdFlex into BAU.</p> <p>4. Implementation strategy: Develop the learnings from CrowdFlex: Beta into a strategy to implement the flexibility model into BAU. Includes initiation of further use case prototyping to operationalise the model for integration into ESO IT Systems.</p>		
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			<p>5. Market development: Development of a detailed plan for implementing any changes to operational BAU markets / regulations to enable the model developed in CrowdFlex to enter BAU (e.g., requirements for data provision).</p> <p>6. Go-To-Market Plan: Industry partners will also develop internal plans for how they can enter new and existing markets, based on the outputs of CrowdFlex.</p>		
Milestone 5	WP4a: Iterative development of Octopus's model of domestic demand	17 October, 2025	<p>Overall work package objectives: To develop the Minimum Viable Products for each FSP's model of domestic demand.</p> <p>To train the models and deploy them.</p> <p>To take in trial data and findings and iterate and refresh these models based on updated user requirements and trial findings.</p>	<p>M4a-1: First aggregated demand profiles provided to ESO by Octopus: First aggregated demand profiles received. (£88,198.61)</p> <p>M4a-2: Octopus Model Completed: Models complete. (£260,685.59)</p>	<p>£348,884.20</p> <p>(2%)</p>



			<p>Key tasks:</p> <ol style="list-style-type: none"><li>1. Data architecture &amp; pipeline build: Design and develop data architecture approach; identify and confirm data sources; build data pipelines.</li><li>2. Build asset registry: Build asset registry system.</li><li>3. Initial design &amp; development: Creating the Minimum Viable Products (MVPs) of the FSP Domestic Demand models.</li><li>4. Create user interface / interaction: Design and build the user interaction points.</li><li>5. Develop authentication layer: Develop systems and processes for ensuring access is permissioned and authenticated as required.</li></ol>		
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		<p>6. Develop model monitoring and evaluation tools: Build the tools to track the models' forecasting performance over time and capture any model drift (when performance deviates outside user-specified thresholds).</p> <p>7. Initial model training: Initial training of the model using the first set of trial data.</p> <p>8. Model deployment: Ongoing hosting of the "trained" models in a place that downstream services (ESO) can access them.</p> <p>9. Data collection: Data input from CrowdFlex beta trials, transferred via the agreed data management process (WPO).</p> <p>10. Iterative development: Sprint-based development to improve the models. Also includes API / integration.</p>		
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			<p>11. Model retraining: On an agreed frequency (e.g., fortnightly, monthly or quarterly) retrain the model on the latest data.</p> <p>12. Reporting: Provide appropriate input to the internal and final reports (see WP5).</p>		
Milestone 6	WP4b: Iterative development of OVO's models of domestic demand	17 October, 2025	<p>Overall work package objectives:</p> <p>To develop the Minimum Viable Products for each FSP's model of domestic demand.</p> <p>To train the models and deploy them.</p> <p>To take in trial data and findings and iterate and refresh these models based on updated user requirements and trial findings.</p> <p>Key tasks:</p>	<p>M4b-1: First aggregated demand profiles provided to ESO by OVO: First aggregated demand profiles received. (£33,682.92)</p> <p>M4b-2: OVO Model Completed: Models complete. (£119,147.85)</p>	<p>£152,830.77</p> <p>(1%)</p>

			<p>1. User Requirements: Confirm outputs and user requirements. Consolidate ESO requirements with internal FSP use cases.</p> <p>2. Design: Develop a model design to deliver requirements</p> <p>3. Build: Iterative development of the model, including performance improvements and feature development.</p> <p>4. Interface / VES Integration: Development to interface the model with ESO's VES infrastructure, including authentication, reporting, data architecture and pipelines. Includes relevant specific feature or performance development requested by ESO.</p> <p>5. Reporting: Provide appropriate input to the internal and final reports (see WP5).</p>		
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Milestone 7	WP4c: Iterative development of Ohme's models of domestic demand	17 October, 2025	<p>Overall work package objectives: To develop the Minimum Viable Products for each FSP's model of domestic demand.</p> <p>To train the models and deploy them.</p> <p>To take in trial data and findings and iterate and refresh these models based on updated user requirements and trial findings.</p> <p>Key tasks:</p> <ol style="list-style-type: none"> <li>1. Data architecture &amp; pipeline build: Design and develop data architecture approach; identify and confirm data sources; build data pipelines.</li> <li>2. Build asset registry: Build asset registry system.</li> <li>3. Initial design &amp; development: Creating the Minimum Viable Products</li> </ol>	<p>M4c-1: First aggregated demand profiles provided to ESO by Ohme: First aggregated demand profiles received. (£9,667.90)</p> <p>M4c-2: Ohme Model Completed: Models complete. (£27,629.10)</p>	<p>£37,297.00</p> <p>(0%)</p>
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			<p>(MVPs) of the FSP Domestic Demand models.</p> <p>4. Create user interface / interaction: Design and build the user interaction points.</p> <p>5. Develop authentication layer: Develop systems and processes for ensuring access is permissioned and authenticated as required.</p> <p>6. Develop model monitoring and evaluation tools: Build the tools to track the models' forecasting performance over time and capture any model drift (when performance deviates outside user-specified thresholds).</p> <p>7. Initial model training: Initial training of the model using the first set of trial data.</p> <p>8. Model deployment: Ongoing hosting of the "trained" models in a place that</p>		
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			<p>downstream services (ESO) can access them.</p> <p>9. Data collection: Data input from CrowdFlex beta trials, transferred via the agreed data management process (WP0).</p> <p>10. Iterative development: Sprint-based development to improve the models. Also includes API / integration.</p> <p>11. Model retraining: On an agreed frequency (e.g., fortnightly, monthly or quarterly) retrain the model on the latest data.</p> <p>12. Reporting: Provide appropriate input to the internal and final reports (see WP5).</p>		
Milestone 8	WP5: Iterative development of an ESO model	17 October, 2025	Overall work package objectives: To develop the MVP for an ESO model of domestic flexibility.	M5-1: First aggregated domestic demand prediction produced. (£521,219.54)	£1,220,436.27 (7%)

	of domestic flexibility		<p>To integrate the FSP Domestic Demand and ESO Domestic Flexibility models.</p> <p>To train the ESO Domestic Flexibility model and deploy it.</p> <p>To iterate and refresh the ESO model based on updated user requirements and trial data feed.</p> <p>Key tasks:</p> <ol style="list-style-type: none"> <li>1. Data architecture &amp; pipeline build: Design and develop data architecture approach; identify and confirm data sources; build data pipelines.</li> <li>2. Initial design &amp; development: Creating Minimum Viable Product (MVP) of the ESO Domestic Flexibility model.</li> <li>3. Create user interface / interaction: Design and build the user interaction points (e.g., dashboards, reporting, etc).</li> </ol>	<p>M5-2: Internal modelling performance update 1 given. (£221,390.43)</p> <p>M5-3: Internal modelling performance update 2 given. (£198,609.19)</p> <p>M5-4: Final ESO Domestic Flexibility Model deployed. (£154,633.17)</p> <p>M5-5: Model Final Report delivered. (£124,583.95)</p>	
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		<p>4. Develop authentication layer: develop systems and processes for ensuring access is permissioned and authenticated as required.</p> <p>5. Develop model monitoring and evaluation tools: Build the tools to track the models' forecasting performance over time and capture any model drift (when performance deviates outside user-specified thresholds).</p> <p>6. Model deployment: Hosting the "trained" models.</p> <p>7. Data collection: Secure transfer of FSP aggregated demand data via the agreed data management process (WP0) and collection of additional data streams.</p> <p>8. Model training: Trying slight variants of different models to optimise for a given objective (e.g., reducing the error of predictions, using metrics such as</p>		
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			<p>mean absolute error, or mean squared error). Begins once first aggregated demand data is received.</p> <p>9. Iterative development: Sprint-based development to improve the models based on developing requirements (WP1). Also includes API / integration work.</p> <p>10. Model retraining: On a certain frequency (e.g., fortnightly, monthly or quarterly) retrain the model on the latest data.</p> <p>11. Reporting (Internal and External): Formal reporting of the results of the modelling work both internally for audit trail and the final report on the model development.</p>		
Milestone 9	WP6: Trial design, planning and scheduling	17 October, 2025	Overall work package objectives: To develop the trial protocol, which will include agreeing and identifying: the trial structure, the participants,	M6-1: Completion of the initial trial protocol: Initial trial protocol produced as living document. (£847,454.63)	£2,159,341.97 (12%)

		<p>customer engagement strategies, the criteria for assessing trial performance, etc.</p> <p>To develop an approach for ensuring primacy rules are followed and primacy and stacking can be tested.</p> <p>To agree and develop the technical and procedural structures for scheduling and delivering trials and trial events.</p> <p>To agree the framework by which payments will be made from ESO/BAU - &gt; FSPs -&gt; customers.</p> <p>To update the trial plans based on the recommendations made by the ESO model owner and confirmed by the Steering Committee.</p> <p>Key tasks:</p> <p>1. Develop initial Trial Protocol: Update the draft Trial Protocol created in alpha</p>	<p>M6-2: Payment arrangements agreed: Plan in place for transfer of payments from ESO to Customers via FSPs. (£288,067.94)</p> <p>M6-3: Finalisation of Trial Protocol: All changes made to trial protocol. (£1,023,819.40)</p>	
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			<p>to provide a complete plan for the first round of trialling. Includes designing the process for ensuring primacy rules are followed, engage the ESO Control Room, and establishing both a trial performance monitoring framework and the process for adjusting the subsequent trials based on evolving modelling requirements. The Trial Protocol will then be maintained as a living document.</p> <p>2. Refresh customer archetypes and finalise recruitment targets: Establish the locational and demographic (or similar, as appropriate) profiles for customers to feed in to the plans for recruiting the required volumes of participants.</p> <p>3. Create general engagement advice/guidelines: Based on the work conducted in alpha, workshop and produce advice for the tone of</p>		
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		<p>participant engagement material. Outputs will be reviewed by “Voice of Customer” representatives (CAB, Local Authorities) who will give advice to help ensure no accidental harm comes to trial participants.</p> <p>4. Run focus groups: Run focus groups with a small selection of FSP’s customers to gather insights on consumer attitudes to the trial plans.</p> <p>5. Develop recruitment and refreshment targets: Agree outcomes for recruiting and refreshing customers to participate in CrowdFlex.</p> <p>6. Develop trial technical infrastructures: Develop the technical infrastructure required within each organisation to deliver the trials. This includes the approaches to issuing trial event instructions to consumers via a</p>		
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			<p>range of delivery mechanisms such as Home Assistants like Alexa.</p> <p>7. Create consumer interaction interfaces: Develop the interfaces within each organisation (manual and automated) with which to engage participants.</p> <p>8. Develop support for automation APIs: Develop any necessary technical infrastructure to be able to dispatch automated domestic assets within CrowdFlex (e.g., EVs/HPs/HEMS/Home assistants/Smart devices).</p> <p>9. Implement a data gathering approach: Agree the systems, processes, and data schemes for the collection of data both for the modelling and surveying.</p> <p>10. Utilisation event trials scheduling and planning: Develop the utilisation event schedule and the process for</p>		
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		<p>implementing changes coming from the evolving modelling requirements.</p> <p>11. Availability trials planning: Develop availability event schedule and the process for implementing changes coming from the evolving modelling requirements.</p> <p>12. Confirm “Post gate closure” (BM) participation arrangements: Understand the requirements and develop the approach for BM access (current options identified include derogation, elective-HH settlement or contract for difference).</p> <p>13. Develop trial payment arrangements: Coordinate and set up frameworks for trial event payments to flow through to participants. Includes establishing the arrangements for ensuring the correct payment is made for any flexibility delivered. Each FSP</p>		
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			<p>will establish their own frameworks to make payments to customers.</p> <p>14. Update Trial protocol: Ongoing updates of the trial protocol based on the evolving modelling requirements. Culminates in the publication of the trial protocol as a record of the trial plans.</p>		
Milestone 10	WP7: Trial delivery	17 October, 2025	<p>Overall work package objectives: To recruit participants (and refresh recruitment as necessary).</p> <p>To deliver the required trial data to the appropriate partners in line with the data management plan.</p> <p>To monitor the performance of trials (that is, to ensure there are no problems or issues and to rectify any that are discovered).</p> <p>To complete the three utilisation mini-trials (initially aligned with a scheduled service).</p>	<p>M7-1: Trial month 1 complete: Monthly schedule of trials delivered. (£1,404,182.61)</p> <p>M7-2: Trial month 2 complete: Monthly schedule of trials delivered. (£521,797.77)</p> <p>M7-3: Trial month 3 complete: Monthly schedule of trials delivered. (£492,526.38)</p> <p>M7-4: Trial month 4 complete: Monthly schedule of trials delivered. (£452,469.33)</p>	<p>£8,651,180.00 (46%)</p>



			<p>To complete the two availability trials (initially aligned with a post-gate closure service).</p> <p>To implement the changes defined in the trial protocol reflecting the evolving user requirements.</p> <p>Key tasks:</p> <p>General:</p> <p>1. Recruit participants: Recruitment of participants, monitoring recruitment progress against plan and launching additional recruitment activities where needed. Recruitment will need to be aligned with specific areas of interest for CrowdFlex, such as CMZs while also ensuring sufficient GB coverage.</p> <p>2. Refresh participants: Review participation levels at regular intervals and run additional recruitment</p>	<p>M7-5: Trial month 5 complete: Monthly schedule of trials delivered. (£212,958.56)</p> <p>M7-6: Trial month 6 complete: Monthly schedule of trials delivered. (£222,575.57)</p> <p>M7-7: Trial month 7 complete: Monthly schedule of trials delivered. (£861,437.41)</p> <p>M7-8: Trial month 8 complete: Monthly schedule of trials delivered. (£768,319.16)</p> <p>M7-9: Trial month 9 complete: Monthly schedule of trials delivered. (£681,648.74)</p> <p>M7-10: Trial month 10 complete: Monthly schedule of trials delivered. (£214,077.76)</p>	
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		<p>campaigns ahead of each trial, if required.</p> <p>3. Survey participants: Run pre-event surveys with customers to collect data required for modelling and analysis (e.g., Low Carbon Technologies (LCT) in homes, affluence, house properties, etc.). Additional surveys will be run during the trial to collect further data (e.g., consumer experience, impact of trial on comfort, etc.).</p> <p>4. Monitor performance: Monitor the trial implementation to ensure performance is as per Trial Protocol (e.g., no issues arise with vulnerable consumers, for example) and act to rectify any performance issues. Halt study if major issues occur that cannot be rectified.</p> <p>5. Implement changes: Implement any changes defined in the trial protocol updates based on the changes</p>	<p>M7-11: Trial month 11 complete: Monthly schedule of trials delivered. (£525,750.00)</p> <p>M7-12: Trial month 12 complete: Monthly schedule of trials delivered. (£459,350.44)</p> <p>M7-13: Trial month 13 complete: Monthly schedule of trials delivered. (£441,421.21)</p> <p>M7-14: Trial month 14 complete: Monthly schedule of trials delivered. (£440,203.51)</p> <p>M7-15: Trial month 15 complete: Monthly schedule of trials delivered. (£430,938.07)</p> <p>M7-16: Trial month 16 complete: Monthly schedule of trials delivered. (£417,572.64)</p>	
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			recommended by the ESO model owner/user and the Steering Committee.	M7-17: Trial month 17 complete: Monthly schedule of trials delivered. (£51,975.42)	
			Scheduled service (utilisation payment) events:	M7-18: All Trialling complete: Final payments made. (£51,975.42)	
			6. Other flexibility trial co-ordination: Co-ordinate with the other domestic flexibility services and trials (e.g., Local Constraint Market (LCM), DFS, Local Flexibility) as they undertake trials and roll-outs, to ensure we do not duplicate any work un-necessarily and to gather learnings from the appropriate teams.		
			7. Perform utilisation payment mini-trials: Perform trial events based on the event schedule - Winter 1 (2023/24); Summer 1 (2024) & Winter 2 (2024/25) – as defined in the trial protocol.		
			8. Undertake special DNO-co-ordinated events: Where main-series events do		

			<p>not provide any required learnings, undertake specially designed events to test DNO-related questions.</p> <p>9. Calculate baseline &amp; trial event consumption: Based on consumption data, calculate the baseline demand and trial event response to evaluate the performance of the trial event and to remunerate participants.</p> <p>10. Controlled data provision: Provide data to appropriate parties for analysis and modelling, according to the agreed data control framework (WP0).</p> <p>11. Undertake customer compensation &amp; feedback surveying: Invite customer feedback and compensate customers.</p> <p>Post-gate closure service (availability) events:</p>		
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			<p>12. Perform availability trials: Undertake the two tranches of availability trials as defined in the trial protocol.</p> <p>13. Special DNO-co-ordinated events: Where main-series events are not already co-ordinated, undertake special events to test DNO-related questions.</p> <p>14. Uptake data collection and provision: Collect data on customer participation. Feed back into modelling work as per data control framework.</p> <p>15. Asset response data collection and provision: Collect data on customer asset's response to events to understand effectiveness. Feed back into modelling work as per data control framework.</p>		
Milestone 11	WP8: Trial analysis and reporting	17 October, 2025	Overall work package objectives: To undertake detailed analyses of the various trial events.	M8-1: Automation report complete: Automation report delivered. (£805,635.24)	£1,559,740.31 (8%)

			<p>To undertake a meta-analysis of all CrowdFlex trials.</p> <p>To provide feedback to the ESO model owner/user and the SteerCo to guide ongoing requirements gathering, model development and trial plan updates.</p> <p>Key tasks:</p> <p>1. Data analysis of each scheduled (utilisation) trial event: FSPs each analyse the trial participant consumption data both in and outside of trial events to establish insights. Outputs will be reported both to provide pure insight for flexibility services, and as an input to the modelling work packages. This will include, but is not limited to:</p> <ul style="list-style-type: none"> <li>• Response to events and the factors that influenced it (incl. event timing, external factors, proximity to other events, behaviour outside of trial event</li> </ul>	<p>M8-2: Completion of Trial Analysis Final Report: Final report on trial outcomes complete. (£754,105.07)</p>	
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			<p>windows, state of system at trial event (e.g. system peak), etc.).</p> <ul style="list-style-type: none"> <li>• Price sensitivity.</li> <li>• Fatigue to repeated flexibility events.</li> <li>• Flexibility characteristics (incl. magnitude of response, persistence of response, ramp rate, etc.).</li> <li>• Consumer participation factors (incl. Opt-in rate, continued participation, etc.).</li> <li>• Impact of domestic technology and automation.</li> <li>• Impact of baseline tariff.</li> </ul> <p>2. Data analysis of each post-gate closure (availability) trial event: As above but for “post-gate closure” services.</p> <p>3. Ongoing ESO model owner/user and SteerCo feedback: Progress updates and findings provided to the ESO model</p>		
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			<p>user/owner and the SteerCo to guide decision making on trial focus. Also feeds into trial spec, event design, change requests, etc.</p> <p>4. Conduct meta-analysis at project close: Undertake an overall meta-analysis of all trial events utilising the data already provided to ESO throughout the trial.</p> <p>5. Automation “Horizon scan”: Based on trial findings, undertake a study to assess how Smart devices may be able to assist future flexibility.</p> <p>6. Reporting: Appropriate internal and external reporting of the findings.</p>		
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#### **14. USE OF LOGO**

The Funding Party and the Project Partners, External Funders and Project Supporters or subcontractors<sup>18</sup> must not use the Innovate UK/UKRI and/or Ofgem logo for purposes associated with the Project in any circumstances.

As an alternative for use of both Ofgem and UKRI logos, all external Project communications must include the following standard form of wording:

- (i) "this project is funded by network users and consumers under the Strategic Innovation Fund, an Ofgem programme managed in partnership with UKRI."

For additional guidance, refer to the communications and media guidelines for competition winners, detailed as part of your delivery pack. These guidelines are designed to help with some suggestions and encourage you to take a proactive approach to communicating about your Project.

#### **15. SHARING OF LESSONS LEARNED**

The Funding Party is required to ensure that the sharing of lessons learned and the facilitation of knowledge transfer is conducted as effectively as possible, to ensure that all parties, and therefore all consumers including future consumers, can benefit from Projects.

As contained within Chapter 3 of the SIF Governance Document, we require the Funding Party to work collaboratively to maintain the ENA Smarter Networks Portal so that all reporting and dissemination of learnings on Projects (as required by chapter 6 of the SIF Governance Document) is available via the ENA Smarter Networks Portal.

#### **16. COLLABORATION**

The Funding Party must collaborate with third-party innovators as Project Partners, as well as work closely with other parties in the energy supply chain, as set out in Chapter 3 of the SIF Governance Document.

The Funding Party must collaborate with other parties and with UKRI to organise an annual conference in a format appropriate to enabling the building of consortiums and disseminating learning widely. The conference may be a single event for gas and electricity, or more than one event, as appropriate.

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<sup>18</sup> As detailed in the Application.

## **17. AMENDMENT OR REVOCATION**

As set out in Chapter 7 of the SIF Governance Document, this SIF Project Direction may be amended or revoked under the following circumstances:

- (i) if the Funding Party considers that there has been a material change in circumstance that requires a change to the SIF Project Direction, and the Authority agrees; or
- (ii) to reflect amendments made to the Licence.

## **18. HALTING OF PROJECTS**

This SIF Project Direction is subject to the provisions contained in Chapter 7 of the SIF Governance Document relating to the halting of Projects. By extension, this SIF Project Direction is subject to any decision by the Authority to halt the Project to which this SIF Project Direction relates and to any subsequent relevant SIF Funding Direction issued by the Authority pursuant to Special Condition 3.4 of the Electricity Transmission Licence (the "Licence").

Further to the requirements in Chapter 7 of the SIF Governance Document, in the event the Authority decides to halt the Project, to which this SIF Project Direction relates, the Authority may issue a statement to the Funding Party clarifying the effect of that halting decision as regards to the status and legal force of the conditions contained in this SIF Project Direction.

## **NOW THEREFORE:**

In accordance with the SIF Governance Document issued pursuant to Special Condition 3.4 of the Electricity Transmission Licence (the "Licence") of the Licence the Authority hereby issues this SIF Project Direction to the Funding Party in relation to the Project.

This constitutes notice of reasons for the Authority's decision pursuant to section 49A (Reasons for decisions) of the Electricity Act 1989.

Failure to comply with the conditions of this SIF Project Direction means that Ofgem may treat all or part of the SIF Approved Amount received by the Funding Party as SIF Disallowed Expenditure.

## ANNEX 1: PROJECT BUDGET

SIF Project Direction costs		
Cost Category	Total Project costs (£)	Total SIF Funding requested (£)
Labour	£13,185,504	£10,946,889
Materials	£131,597	£118,437
Subcontracting	£1,339,125	£1,092,603
Travel and subsistence	£42,115	£34,378
Other costs	£7,831,795	£6,418,047
<b>Total</b>	<b>£22,530,136</b>	<b>£18,610,355</b>

Project Partner	Total project costs (£)	Project contribution (£)	Total SIF Funding requested (£)	In-kind contribution (£)	Project contribution (%)
NATIONAL GRID ELECTRICITY SYSTEM OPERATOR LIMITED	£10,632,804	£1,918,761	£8,714,043	£0	
ELEMENT ENERGY LIMITED	£498,809	£62,351	£436,458	£0	
NATIONAL GRID ELECTRICITY DISTRIBUTION PLC	£42,372	£4,237	£38,135	£0	
OCTOPUS ENERGY LIMITED	£2,235,875	£447,175	£1,788,700	£0	
OVO ENERGY LTD	£3,266,460	£653,292	£2,613,168	£0	
SOUTHERN ELECTRIC POWER DISTRIBUTION PLC	£181,194	£18,119	£163,075	£0	
CENTRE FOR NET ZERO LIMITED	£1,940,680	£194,068	£1,746,612	£0	
OHME OPERATIONS UK LIMITED	£2,498,050	£375,000	£2,123,050	£0	
AMAZON WEB SERVICES	£1,233,892	£246,778	£987,114	£0	
<b>TOTAL</b>	<b>£22,530,136.00</b>	<b>£3,919,781.00</b>	<b>£18,610,355.00</b>	<b>£0</b>	<b>21%</b>

**ANNEX 2 TO SCHEDULE: TEMPLATE OF BANK ACCOUNT DETAILS TO BE PROVIDED TO NG ESO ([revenue.invoice@nationalgrideso.com](mailto:revenue.invoice@nationalgrideso.com))**

**Company name:**

**Primary Contact Details (only one contact permitted)**

First Name:

Last Name:

Email address:

Mobile phone number:

Work phone number:

**Address details**

Address name:

Street address:

City:

State / region:

Post code:

PO box: (if applicable)

PO box post code: (if applicable)

**Banking details**

These should be evidenced in non-editable format. The evidence provided must show company name and bank details and it should be dated within the last 6 months.

Any of the below documents will suffice:

- Bank statement (scanned document)
- Void cheque
- Paying in slip
- Screenshot of online banking (showing a logged in account with bank account and sort code, with browser visible)