

# Guidance

## ECO3 Guidance: Notification of demonstration actions v1.2

<b>Publication date:</b>	17 November 2021	<b>Contact:</b>	Andy Morrall, Senior Technical Manager
		<b>Team:</b>	Policy and engagement Hub
		<b>Email:</b>	eco@ofgem.gov.uk

In order for the notification of a demonstration action to be considered complete, suppliers must provide information, in addition to the data provided in the standard notification template, relating to delivery of the measure.<sup>1</sup> This document is intended to be used alongside the ECO3 Guidance: Innovation<sup>2</sup>, and specifically relates to the additional information required at notification for demonstration actions.

It is the responsibility of each supplier to understand the provisions of the Electricity and Gas (Energy Company Obligation) Order 2018 (the ECO3 Order) and how these provisions apply to them. This document is not intended to be a definitive guide to these provisions.

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<sup>1</sup> Article 24(1)(c) of the ECO3 Order.

<sup>2</sup> ECO3 Guidance: Innovation can be found at: <https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation>

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## Related Publications

The Electricity and Gas (Energy Company Obligation) Order 2018:

<http://www.legislation.gov.uk/uksi/2018/1183/contents/made>

The Electricity and Gas (Energy Company Obligation) (Amendment) Order 2019:

<http://www.legislation.gov.uk/uksi/2019/1441/contents/made>

ECO3 Guidance: Delivery:

<https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2018-22-eco3-guidance-delivery>

ECO3 Guidance: Supplier Administration:

<https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2018-22-eco3-guidance-supplier-administration>

ECO3 Guidance: Innovation and associated documents:

<https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation>

ECO3 Monitoring:

<https://www.ofgem.gov.uk/publications-and-updates/eco3-monitoring>

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## 1. Introduction

### General Requirements

1.1. Unlike standard ECO measures, demonstration actions involve performance monitoring to evaluate the effectiveness of the measure at achieving space heating cost savings. When notifying a demonstration action, suppliers must submit the findings of this performance monitoring, and other information including the cost of delivering the demonstration action.

1.2. In order to notify a demonstration action, suppliers must provide:

1. Notification of Measures
2. Summary report
3. Independent report
4. Technical monitoring report
5. Project costs incurred by the supplier
6. Installation dates and addresses

1.3. These components, which are described in Chapter 3, must be uploaded as separate documents to our secure file sharing service as a 'notification pack' before the notification deadline. For demonstration actions, this is the end of the month following the month in which the planned performance monitoring was completed. For further information on notification requirements for suppliers, see Chapter 6 of the ECO3 Guidance: Innovation.

1.4. The rules regarding late measures (automatic extensions and applications for extension to the notification deadline) apply in the same way to demonstration actions as other measures notified under the scheme. If the notification deadline does not allow enough time for data analysis and completion of the final report, suppliers should apply for extensions to this deadline. Extension requests for demonstration actions should include:

1. The name of the sponsoring supplier,
2. A list of measures the extension relates to,
3. The reason for the extension, and
4. Any evidence to support the reason for the extension.

1.5. Suppliers should refer to Chapter 7 of the ECO3 Guidance: Supplier Administration<sup>3</sup> for further information on these requirements.

### **Notification Deadlines**

1.6. Measures which are part of a demonstration action are subject to the same scheme deadlines as standard ECO measures. These include:

1. ECO3 closure on **31 March 2022**

- All ECO3 measures must be completed by this date. For demonstration actions this means that the agreed monitoring methodology must have been completed, and the monitoring equipment removed from the properties included in the demonstration action.

2. Notification deadline on **30 June 2022**

- This is the final date for measure notification, including measures subject to extension requests. For demonstration actions this means that the full notification pack must be submitted, and the individual measures notified to the ECO3 register.

3. Final determination is made by **30 September 2022**

- Following the end of the overall obligation period, Ofgem determine whether a supplier has met its ECO3 obligations and notify both the supplier and the Secretary of State of our determination, known as our 'final determination'. Measures for which compliance and/or eligibility has not been evidenced by **19 August 2022** may not be reviewed further and may therefore not be considered qualifying actions.
- For demonstration actions this means that the full notification pack must have all clarifications addressed, and amendments made. Following this, any amendments to the measures notified on the register must be processed, and the ECO3 eligibility

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<sup>3</sup> ECO3 Guidance: Supplier Administration can be found at: <https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2018-22-eco3-guidance-supplier-administration>

checks complete prior to 19 August 2022. Further information on the assessment of notified demonstration actions can be found in Chapter 3 of this guide.

1.7. Since the notification and decision process for demonstration actions is significantly more complex than that of standard measures, we recommend that suppliers take note of these dates, and ensure that the demonstration action is notified as early as possible.

1.8. In order to meet these deadlines, it is also important that care is taken to notify the demonstration action as described in this document, ensuring that the submission is accurate, objective, and consistent.

### **Publishing of Information**

1.9. If a notified demonstration action is approved as a qualifying action, some of the above components provided for notification will be published on our website.<sup>4</sup> The documents that will be published are listed below:

1. Summary report, including total costs incurred by the supplier, and a summary of the breakdown of these costs.
2. Independent report.

1.10. Templates are available for the summary report, project costs, technical monitoring report, and installation dates and addresses. These templates can be found in the 'ECO3 Innovation: Demonstration action notification templates' document on our website<sup>5</sup>. The requirements for these components are described in further detail in Chapter 3 of this document. The full project costs template, and technical monitoring template will not be published. Suppliers must share the completed technical monitoring template with both TrustMark and ATMA.

1.11. If the independent report contains any personal information such as property addresses, we may ask for this to be redacted prior to publishing the document.

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<sup>4</sup> Article 24(2) of the ECO3 Order.

<sup>5</sup> <https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation>



1.12. As some components will be published, all completed templates must be submitted as separate documents.

## 2. Notification Requirements

### Section summary

There are six components required as part of the 'notification pack' in order for a demonstration action to be notified. These components are listed below, along with further information on each, describing how they should be completed and notified. A 'notification checklist' outlining these components can also be found in Chapter 4 of this document. With the exception of the 'notification of measures', all of these components should be uploaded to the Innovation folder on our secure file sharing service.

### Notification of Measures

2.1. Demonstration actions (including any control properties) must be notified per property using the notification template, in the same way that standard measures are. Further information on notifying completed measures can be found in Chapter 7 of the ECO3 Guidance: Administration. Some of the fields on the notification template must be filled out differently for demonstration actions – these additional requirements are outlined below, and are included in the data dictionary<sup>6</sup>.

- Measures which are part of a demonstration action should be notified with a unique 'Measure\_Type' specific to that demonstration action. This will be confirmed with the supplier following the approval of a demonstration action, and will be of the format 'DA\_[name of demonstration action]'. Any control properties that do not have the measure installed should be notified as 'DA\_[name of demonstration action]\_Control'.
- Because standard scoring methods do not apply to measures delivered as part of a demonstration action, the 'Scoring\_Method' field should be notified as 'DA'.
- Demonstration action measures are considered complete when the planned performance monitoring is completed.<sup>7</sup> The 'Date\_of\_Completed\_Installation' for these measures should be filled out using the date on which the planned monitoring was completed.

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<sup>6</sup> <https://www.ofgem.gov.uk/publications-and-updates/eco3-data-dictionary>

<sup>7</sup> Article 24(3)(a) of the ECO3 Order.

2.2. Demonstration actions are scored in a different way compared to standard ECO measures. If approved as a qualifying action, the demonstration action is awarded an LBS score based on the lower of the 'estimated' and 'actual' cost of delivery, multiplied by 5.2.<sup>8</sup> For the notification of measures, the total awarded LBS score should be divided by the number of properties in the sample (including control properties if applicable). Further information on calculating the LBS score for demonstration actions can be found in paragraphs 4.3 – 4.5 of the ECO3 Guidance: Innovation.

## Summary Report

2.3. The demonstration action summary report (template in 'ECO3 Innovation: Demonstration action notification templates'), is intended to provide a summary of the demonstration action which can be read by a non-technical audience. The standard format of the summary report template will also allow comparisons to be made between different ECO demonstration actions.

2.4. We recommend that any significant issues that impacted delivery of the original monitoring methodology are included in the summary report to help future project delivery and advance learning in the field.

2.5. We will assess the summary report to ensure the demonstration action has met the regulatory requirements. We recommend that the summary report is completed by the author of the independent report, as both will be published on our website following notification of the demonstration action. The word count specified in the summary report template is intended to be used as a guide for the level of detail required.

2.6. The summary report must accurately reflect the independent report, and must not contain any material or text intended for marketing or promotional purposes.

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<sup>8</sup> x 6.24 if the criteria in paragraph 4.1 of the ECO3 Guidance: Innovation are met.

## Independent Report

2.7. The independent report is required to allow the findings in the summary report to be thoroughly evaluated. It should include the usual scientific conventions, such as the hypothesis to be tested, confidence interval, error bars and referencing sources. It should also include information on the methodology used to monitor, collect, and analyse the data, as well as limitations of the work.

2.8. As the independent report will be published on the Ofgem website, it must be completed to a standard ready for publishing. It must include figure headings for each table or graph, contents page and page numbers. Applicants may also wish to consider the presentation of the report as it will be available to the public.

2.9. The independent report must be prepared by a person who is not involved in the application, or a connected person.<sup>9</sup> The report must include the author, and date which the report was completed. It must not contain any material or text intended for marketing or promotional purposes.

2.10. For publication purposes, please ensure the title has the following title format:  
*Independent Report for ECO3 Demonstration Action – [name of demonstration action].*

2.11. We will assess the independent report, alongside the rest of the notification pack, in order to determine whether the notified demonstration action measures can be considered a qualifying action. The technical advisory panel (TAP) may also provide a recommendation on the validity of the findings, taking into account how closely the agreed monitoring plan has been followed. Whether or not the expected cost savings are achieved will not impact the measures being considered a qualifying action.

2.12. The independent report must include information on the following three key areas:

1. Performance Monitoring Methodology
2. Analysis and Results

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<sup>9</sup> A connected person is deemed to be any person connected to a participant within the meaning of section 1122 of the Corporation Tax Act 2010(a).

### 3. Discussion and Conclusion

2.13. This list and the sections below are non-exhaustive, and are intended to provide information on the core requirements of the report. The report can follow any scientific structure as long as these requirements are met. Additional information can be included to support the submission, or improve learning in the relevant field. We may also request further information on any areas that need further clarification.

#### **Performance Monitoring Methodology**

2.14. In order to successfully notify a demonstration action and receive the associated score, the agreed methodology must be followed to completion. We will be unable to complete our assessment of the demonstration action notification unless we are satisfied that the project was conducted in accordance with the agreed methodology. We understand that issues may arise during the delivery of a demonstration action which could affect how closely the agreed performance monitoring can be followed. If such issues do arise, we urge suppliers to contact us as soon as possible before there is any deviation from the agreed methodology.

2.15. An application for an amendment to an approved demonstration action<sup>10</sup> can be made, and will only be approved if they meet the criteria in the ECO3 Order. We, as the Administrator, must be satisfied that reasonable arrangements are in place for monitoring if the measure will achieve cost savings. We have interpreted this to mean the performance monitoring methodology must be reasonably expected to produce a statistically significant result to determine whether the measure achieves cost savings.

2.16. To allow a critical evaluation of the overall validity and reliability of the demonstration action, the report must contain a methodology detailing the specific procedures used to collect the data, including:

1. A description of the sample,
2. A breakdown of the monitoring duration,
3. The parameters monitored,
4. How these parameters were monitored, including frequency,

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<sup>10</sup> Amendment application form can be found under 'subsidiary documents' at: <https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation>

5. The number of properties monitored,
6. Which independent factors were taken into account and corrected for through modelling, and
7. Consideration of any other potential bias that may impact the data, and steps taken to minimise its effects.

## **Analysis and Results**

2.17. The report must set out the performance monitoring results, and information on whether or not the demonstration action achieved cost savings<sup>11</sup> as defined in the ECO3 Order:

*"cost savings" means, in relation to a measure—*

- a) *the money that would be saved by that measure over its expected lifetime in heating domestic premises to 21 degrees Celsius in the main living areas and 18 degrees Celsius in all other areas; and*
- b) *where the measure also results -*
  - i. *in savings in the cost of heating water, the money that would be saved by the measure over its expected lifetime in heating water in those premises; or*
  - ii. *in the generation of electricity, the money that would be saved by the measure over its expected lifetime in generating electricity for use at those premises, excluding any electricity generated for the purpose of heating the premises or for heating water*

2.18. We expect to see the analysis and results from the performance monitoring in a logical sequence to show whether a cost saving was achieved<sup>12</sup>, along with the statistical significance of the results obtained. To demonstrate this, the report must include information on:

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<sup>11</sup> Article 24(1)(c)(iv) of the ECO3 Order.

<sup>12</sup> Definition of cost savings in Article 2 of the ECO3 Order.

1. The analysis method(s) used, and justification for use of that method being the most appropriate,
2. Whether the null hypothesis was accepted or rejected,
3. The results, including graphs with error bars and/or tables summarising data collected,
4. The confidence interval or uncertainty associated with the results,
5. How the results were extrapolated if applicable,
6. How the results were compared (e.g. against a control group or NEED<sup>13</sup>),
7. The analysis of the effects of external conditions and bias (e.g. unmeasured heat gains or losses), and
8. Secondary findings (e.g. additional benefits of the product, such as hot water cost savings, improved comfort, or indoor air quality).

2.19. The detailed data collected for each property must also be held by suppliers and made available on request.

### **Discussion and Conclusion**

2.20. The report must also contain an assessment of the effectiveness of the measure at achieving cost savings<sup>14</sup>. This should include a discussion of the findings from the analysis of the results, including any external bias that may have impacted the results, and confirmation of any measured cost savings.<sup>15</sup> The confidence interval or uncertainty must be stated each time the results or cost savings are quoted. Any conclusions drawn in relation to cost savings should be well founded and unbiased, and supported by appropriate evidence.

2.21. The cost savings should be presented to show the range of the confidence interval. For example, if the results showed a 10%±5% improvement, the cost savings should be presented at both 5% and 15%. It can then be stated there is a 95% confidence that the cost savings fall within this range.

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<sup>13</sup> The National Energy Efficiency Data-framework.

<sup>14</sup> Article 24(1)(c)(iv) of the ECO3 Order.

<sup>15</sup> Article 24(1)(c)(iii) of the ECO3 Order.

2.22. The average cost saving figure should be contextualised in relation to the UK housing stock. For example, if only limited archetypes were included in the sample, please explain how representative these results are likely to be for the UK housing stock.

2.23. The report should also contain discussion on the limitations of the demonstration action, including how these may have a bearing on the results.

2.24. We would also recommend a per property cost of installing the product is included in the independent report, as this would be useful for industry if the product were to become an ECO measure.

## Technical Monitoring Report

2.25. Demonstration actions are not subject to the standard quarterly technical monitoring process, therefore the technical monitoring report is aimed at testing the appropriateness of the technical monitoring questions proposed for the measure. A plan for the technical monitoring of demonstration actions is agreed as part of the application process. Suppliers must provide results and learnings from technical monitoring carried out during the demonstration action. Technical monitoring results should be recorded and submitted using the template provided in the document 'ECO3 Innovation: Demonstration action notification templates'<sup>16</sup>, and shared with ATMA and TrustMark. Score monitoring is not required for demonstration actions.

2.26. The report should also contain discussion around what was learned from conducting the technical monitoring trial. This should include, but is not limited to, how appropriate the questions were, any recommended changes to the questions, and any issues identified through technical monitoring. It may also be useful to include feedback from the technical monitoring agents who conducted the trial.

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<sup>16</sup> Notification templates can be found under 'subsidiary documents' at: <https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation>



## Project Costs

2.27. As part of the notification of a demonstration action, suppliers must also provide evidence of the cost of delivering the demonstration action.<sup>17</sup> This must include:

1. the total cost incurred by the supplier in promoting and monitoring the demonstration action,
2. a comprehensive breakdown of this cost, and
3. a signed declaration from an authorised signatory.

2.28. The total cost and breakdown must be the actual costs incurred in completing the demonstration action, and submitted using the template provided in the document 'ECO3 Innovation: Demonstration action notification templates', with all relevant costs accounted for. All figures must be in pounds sterling and should include VAT where relevant. The declaration must be signed by an authorised signatory for the company to confirm the costs submitted accurately reflect the costs that were incurred by the supplier. Evidence of these costs should be retained by the supplier and made available upon request.

2.29. The breakdown of costs should be to a sufficient level of detail to determine how much has been spent on each aspect of the demonstration action. The breakdown should be submitted using the template provided, and the costs grouped under the relevant headings.

2.30. The level of detail required in the cost breakdown is similar to that provided in the application, and we would not anticipate a significant number of costs to be itemised under each heading in the template. To provide an example of the level of detail required, under the heading 'Recruitment' we anticipate a breakdown to include:

1. The cost of identifying and recruiting suitable eligible households,
2. Lead generation,
3. Recruitment surveys,
4. Incentives, and
5. Any ongoing liaison with residents.

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<sup>17</sup> Article 24(1)(c) of the ECO3 Order.

2.31. If any of these costs differ significantly from what was agreed, the differences must be highlighted, and an explanation provided in the project costs template as to why this is the case. This includes instances where what was agreed has not been delivered (e.g. sample size) and the costs have not been reduced accordingly. If any of the install properties are found not to meet the general eligibility requirements for ECO, the monitoring data may still be included in the analysis/results, but any costs associated with installation and monitoring in those properties must be removed from the total actual cost incurred. We realise this may not result in a proportionate reduction in costs such as project management, data analysis and completion of the final report, however it is important to provide justification in these circumstances. This removal of costs and any justifications should be clearly detailed on the submitted project costs template to demonstrate the appropriate costs have been removed.

2.32. Suppliers must satisfy themselves that the costs incurred in delivering the demonstration action are accurate and appropriate. Suppliers may wish to consider implementing a method of assurance, such as an audit, to validate the project costs prior to submission.

2.33. We may on occasion ask for additional information, evidence, or a further breakdown of the costs, particularly where these differ significantly from what is expected.

2.34. Although demonstration actions can be used to collect evidence of energy savings which could be used to apply for SAP inclusion and/or a new score, these applications do not form part of the demonstration action. Activities not related to the demonstration action itself must not be included in the notified costs. Further information on developing deemed scores after the completion of the demonstration action can be found in Chapter 5 of this document.

## **Installation Dates and Addresses**

2.35. As part of notification of a demonstration action, suppliers must submit installation dates and addresses for each property included in the demonstration action.<sup>18</sup> A template for the installation dates and addresses can be found in the 'ECO3 Innovation: Demonstration action notification templates', and this information will not be published.

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<sup>18</sup> Paragraph 6.7 of the ECO3 Guidance: Innovation

2.36. This information should be provided in a separate document, and must include:

1. the Ofgem 'measure type' and 'measure reference number',
2. addresses of properties included in the demonstration action,
3. installation and removal dates for the monitoring equipment, and
4. installation dates for the product being tested.

### 3. Notification Checklist

#### Section summary

The notification checklist should be used by suppliers to ensure the notification pack contains all of the required components. It does not need to be submitted as part of notification.

Component	Relevant paragraphs	Template provided?
Notification of measures	2.1 – 2.2	Yes - <a href="https://www.ofgem.gov.uk/publications-and-updates/eco3-notification-template">https://www.ofgem.gov.uk/publications-and-updates/eco3-notification-template</a>
Summary report	2.3 – 2.6	Yes - <a href="https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation">https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation</a>
Independent report	2.7 – 2.24	No
Technical monitoring report	2.25 – 2.26	Yes - <a href="https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation">https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation</a>
Project costs	2.27 – 2.34	Yes - <a href="https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation">https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation</a>
Installation dates and addresses	2.35 – 2.36	Yes - <a href="https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation">https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation</a>

## 4. Assessment of Notified Demonstration Actions

### Section summary

This chapter provides a summary of the process following notification of a completed demonstration action, and submission of the notification pack.

4.1. Once the demonstration action has been notified, we will review the information provided before approving any of the measures. During this process, we will compare the notified demonstration action with what was agreed in the application (or any subsequent amendments), and consult the TAP members on the validity of the independent report, and the assessment of cost savings.

4.2. This is a more in depth process than the notification and approval of standard measures, so can take longer. We may also ask for additional information if any aspects of the notification pack need further clarification. To reduce the time taken in this process, please ensure the templates are completed correctly, and the documents submitted are accurate and consistent throughout.

4.3. If any of the information required by the ECO3 Order cannot be provided, there is a risk that the demonstration action notification may not be considered a qualifying action. If our assessment reveals any errors or discrepancies in the project costs, or if certain costs cannot be evidenced, we may ask suppliers to amend the notified score. If any notified properties receiving the measure do not meet the ECO3 eligibility criteria they will be rejected<sup>19</sup>, and the resulting impact on the awarded score will be assessed on a case by case basis.

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<sup>19</sup> Rejection of measures will follow the 'minded to' process used for standard ECO measures.

## 5. Next Steps

### Section summary

We recognise that following notification of a demonstration action, a supplier may wish to apply for that measure to be included in the ECO scheme as a standard measure going forward. This chapter contains information on how to do this.

5.1. In order for a measure to be delivered as a standard measure under ECO, an appropriate score (based on SAP where possible) will need to be established for that measure.

5.2. To apply for a new score, suppliers must submit an application for an alternative scoring methodology. This process is separate to that of notifying demonstration actions, and further details can be found in Chapter 5 of the ECO3 Guidance: Delivery, under the heading 'Alternative methodologies', and on our website<sup>20</sup>. We recommend that inclusion in SAP is explored, and where possible achieved, prior to application for a deemed score.

5.3. Scores in ECO are associated with a measure type, rather than a specific product, and alternative methodology applications should be made accordingly. The completion of a demonstration action is not a guarantee that a score will be awarded. Additional evidence to that collected under the demonstration action will be required, for example on measure lifetime, installation standards - and potentially on energy savings, if the data gathered in the demonstration action is insufficient.

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<sup>20</sup> <https://www.ofgem.gov.uk/publications-and-updates/eco3-alternative-methodologies>