

*BiTraDER |
Year 1 Customer
Workshop*

**Summary report
BiTraDER**

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1. *Executive Summary*

In February 2023 customers recruited for the BiTraDER project were invited to a workshop to gain in-depth feedback to inform the Market Design stage of the project.

The workshop covered an overview of Electricity North West, the need for flexibility and the objectives of the BiTraDER project. AFRY Management Consulting led a section of the Trading Rules and Electron led a section on the platform functionality.

Four customers attended the workshop and provided detailed feedback and questions on the project. The customers were all in the asset developer or asset management category, with three focusing on Solar PV. Therefore, the workshop allowed an in-depth insight into the understanding and views of those types of companies and generated valuable insights that will be incorporated into the development of the BiTraDER market.

This report provides an overview of what was covered in the workshop, alongside the feedback received from the post-workshop survey that was sent to the attendees. The respondents provided positive responses to the post-workshop survey, with all three respondents stating that they considered innovation projects such as BiTraDER to bring value to the industry. In addition, all respondents gave high scores for the workshop itself, with all scoring five out of five for the three sections of the workshop and giving high scores for the practical elements of the workshop, such as the communication prior to the workshop and for the venue itself.

It concludes with a Lessons Learned and Next Steps section which summarises how to incorporate any learnings into the next stages of the project. The key lessons include the need to gain input from organisations involved in trading side, as the attendees were all involved in asset development or management. A next step for the coming months will be to coordinate engagement with these parties.

In addition, there are some recommended steps to be taken to support high levels of engagement with the next in-person workshop which will be during the simulation trials stage. These are based on a timeline of starting these steps six months before the workshops but this will be revisited closer to the time.

- Six months before the workshop, reach out to all existing customers to assess their level of engagement i.e. is it likely that they would attend a workshop in ~six months time?
- If there are low numbers with high levels of engagement at this stage a new recruitment round will be needed. This should be done at least five months ahead of the workshop to allow time to identify customers and get them on board.
- Start engagement on the workshop early, including reaching out a few months in advance to identify what would make customers more likely to attend e.g. location, duration, style of workshop.

2. Introduction and background

Context

As part of the first year of the BiTraDER project, customers with connections to the distribution grid were recruited to provide input to the market design as well as giving preferences for platform design. A total of seventeen different organisations were recruited to the project, each with some experience of curtailable / non curtailable connections. The recruited customers are a mix of asset developers, asset managers, aggregators and asset owners. Assets of interest include battery storage, solar farms, wind farms, gas peakers and an aggregated portfolio of residential and industrial demand.

The customer engagement plan for the BiTraDER project included holding annual workshops with customers to provide project updates and maximise input from customers at key stages of the project. These workshops allow an opportunity to gain more in-depth feedback from consumers and allows them to ask questions to support their understanding of, and engagement with, the project.

All recruited customers were invited to an in-person workshop. The workshop was hosted in Manchester in February 2023. The meeting was attended by a combination of the BiTraDER team and four customers, all involved in asset development or management and largely focused on Solar PV.

Summary of the workshop

Table 1: Workshop agenda

Time	Agenda item
09:30 - 10:00	Arrival and networking
10:00 - 10:30	Introduction from Electricity North West / LCP Delta
10:30 - 12:30	AFRY trading rules session: <ol style="list-style-type: none"> 1. Introduction and objectives of the meeting 2. Context of the project and the need for flexibility – this will cover the status quo of the curtailment and how this could change in the future 3. Trading rules market design overview with the building blocks 4. Description how the trading could work – including ‘strawmen’ setting out what this would mean for a buyer/seller
12:30 - 1:45	Lunch - including an optional tour of Electricity North West’s control room
1:45 - 2:30	Trading rules discussion (contingency, may not be needed)
2:30 - 3:15	Electron - Key findings on platform functionality and process flow overview
3:15 - 4:00	Wrap up and next steps

The workshop first provided an introduction to Electricity North West, then AFRY presented an overview of the need for flexibility from a market point of view, before setting out how the BiTraDER project can help to solve these challenges. There was then a summary and discussion on the current design for the Trading Rules and the associated ‘building blocks’. This was used to facilitate a discussion and seek feedback from attendees on key market design questions – for example options for the payment structure.

Post-workshop survey

All customers that attended the workshop were asked to complete a survey using Microsoft Forms. The survey collected their views on the BiTraDER project and on the workshop itself. The feedback collected from this survey is summarised in Section 4.

3. Findings from the workshop

The workshop was only attended by four customers, but this allowed for in-depth discussion and deeper insights into some of the views on the BiTraDER project.

The workshop was attended by organisations involved in asset development and management. This allowed the BiTraDER team to gain insight into the opportunities and challenges created by BiTraDER for the attendees, and similar organisations. Three of the attendees worked with Solar PV and the other was a heat network operator. Therefore, the conversations were quite focused on how Solar PV assets would utilise the BiTraDER platform.

As outlined in the 'Lessons Learned and Next Steps' chapter a key next step will be to have discussions with organisations involved directly in the trading side of the process, to understand how they would interact with the BiTraDER platform.

Trading Rules

AFRY Management Consulting Ltd led the 'Trading Rules' section of the workshop. AFRY first provided a summary on the context of the project, followed by a summary of the current choices of market design and examples of how the trading under the BiTraDER project could work.

AFRY allocated time to explaining the background of the project and the current situation to ensure all attendees had an understanding of the process and terminology being discussed. The workshop also allowed open discussion and questions from the customers to support their understanding, these included:

- Questions around the Merit Order Management (MOM), e.g.:
 - Is MOM based on the total system?
 - How is the MOM order established?
 - If you experience high levels of curtailment, how will you then be moved down in the MOM list?
- Questions on the differences between renewable and non-renewable assets e.g.:
 - Are there any mechanisms to prioritise renewable assets over gas when assessing the MOM?

- Are factors such as the ability of the asset to deliver at a particular time considered? E.g. Solar PV cannot generate at night
- Questions about what is being done in markets outside Great Britain.

AFRY sought views from customers on a number of elements of the trading rules. Their questions included:

- With the design presented (*further details in the slides*), what major roadblocks do you foresee in order to participate?
- What other key inputs would you need in order to make a decision?
- If there was a single auction on the day ahead, would your preference be to have it before or after the day ahead?
- Does an hour settlement period seem reasonable?
- Are there major issues associated with a utilisation payment only?
- Do you have any preferences between pay as bid or pay as clear?

Below we have provided summaries of the key topics or issues discussed. Further details on what was presented can be found in the slides used during the workshop.¹

Understanding of BiTraDER project

There were differing levels of understanding on the BiTraDER project and multiple questions from customers around how it worked. Therefore, in future engagement it would be helpful to consider how to best communicate the concept to customers to ensure everyone has the same level of understanding. This could be in the form of a summary document circulated with customers ahead of any engagement.

Utilisation payments

At the time of the workshop AFRY's assumption was for the market to be based on utilisation payments only. However, there was some concern from the customers about utilisation payments, as assets would need to give up other revenue streams to participate. If a generator gets called up they will be paid a utilisation fee but otherwise they would not, and may miss out on other revenue streams.

Trading windows

There was a discussion on the most appropriate timescale for trading. One option covered was the suitability of working on trading windows 48 hours

¹ Slides used in the workshop can be found on the [Electricity North West website](#).

ahead of delivery. The attendees flagged that the notice period should be as short as possible, allowing Solar PV and wind farms to incorporate the latest accurate weather forecasts into the decisions to trade or not.

Settlement periods

There was also a discussion on whether the windows for response should be half hourly or hourly. One respondent stated that they would rather participate if there were longer periods to turn down for, for example if they had a window of six hours where they turned down they could plan something else for that time, such as maintenance.

Pay as bid vs pay as clear

At the time of the workshop, Afry's current thinking was that settlement would be based on a pay as clear market. As part of this, bids and offers will be anonymous and clearing will occur via a day ahead auction. There was some discussion around the definitions, usage and outcome of the two approaches (pay as bid or pay as clear), with questions from customers on what was done in other markets.

Trading capacity vs generation

There was also a discussion on whether the trading and settlement would be based on asset capacity, declared generated (ex-ante) or generation (ex-post) recorded. As most of the attendees worked with Solar PV the discussion focused on whether a Solar PV farm could still be curtailed overnight, even though it wouldn't be generating. The view in the room was that the payments should be made based on what they are actually generating in that period rather than what they have the capacity to generate.

Price discovery

There was a strong interest from the customers in the approach to price discovery. There were a number of questions from customers around how price discovery would work, how the market would allow parties to figure out pricing and the impact of pricing on site design and investment.

Design roadblocks

Another point raised by customers was the feasibility of some technologies being able to respond to the BiTraDER market signals. They pointed out that some sites do not necessarily have the infrastructure in place to turn off within 24 hours' notice; they would need to send an operative to the site to turn them off. Removing this barrier would be complex and they would need to carry out a detailed analysis to understand whether it made sense financially to implement these changes to participate in the market.

Platform Functionality

Electron provided an overview of the proposed trading platform functionality, including a high level process for customers. There was a discussion with customers on the barriers that they could see with the process. A key barrier they raised was the need to register for multiple trading platforms without a certainty that they would utilise them all. If they could access data on information such as clearing prices or an estimate of the potential value it would market mean they are more likely to participate. However, the customers did not want their data to be made public to appoint at which they are identifiable.

There was discussion on the ability to make the market data available so that customers could make better informed decisions on participating in the market. Transparency was an important factor to customers.

4. *Post-workshop survey*

Attendees of the workshop were invited to fill in a survey to gather further insight into their views on the project and on the workshop format. A summary of the responses is provided in this section. A full list of the questions can be found in the Annex.

Summary of the survey

The survey was completed by three out of the four attendees and contained 13 questions with a mix of multiple choice and free text responses. The responses were overall positive about the project and the workshop.

Views on participating in flexibility

The survey asked about respondents views on their organisation participating in flexibility services and all respondents said they were 'very interested' in offering flexibility services to the electricity network. Two out of the three said they were 'very likely' to offer flexibility services to the electricity network in the next five years and one said they were 'somewhat likely'.

Views on taking on curtailable connections and the potential role of BiTraDER

All three respondents said they were 'very likely' or 'somewhat likely' to accept a curtailable or flexible connection over a non-curtailable or firm connection. All respondents said they would be likely to use a facility such as that proposed in BiTraDER to trade to avoid curtailment (one very likely and two somewhat likely).

Respondents showed a relatively good understanding of the concept of bilateral trading of curtailment obligations, with an average understanding of 8 out of 10. All respondents said that their participation in BiTraDER has supported their understanding of this, which suggests the workshop and previous engagement has been successful in communicating topics clearly to customers.

All three respondents said they considered innovation projects such as BiTraDER to bring value to the industry.

Views on the workshop

The workshop attendees were asked for their view on the three sections of the workshop:

1. Introduction and project context (delivered by Electricity North West)
2. Market rules section and discussion (delivered by AFRY)
3. Trading platform functionality (delivered by Electron)

All three respondents gave an 'excellent' score (5/5) for all sections.

All attendees also gave an 'excellent' score for the 'ease of getting to the venue' and for 'the venue and facilities'.

All attendees provided positive feedback on :

- The relevance of the session to their role (One 5/5, two 4/5)
- The relevance of the session to their organisation (One 5/5, two 4/5)
- Communication in the run up to the event (Two 5/5, one 4/5)
- The venue and the facilities (Three 5/5)
- Ease of getting to the venue (Three 5/5)

On the 'quality of networking opportunities' one respondent gave a two and the others gave a four and a five. The quality of networking was limited by the attendance of the event, which will be something considered in the planning for the next workshop.

5. *Lessons Learned and Next Steps*

There is due to be future workshops held with customers for the BiTraDER project so it is important that any lessons learned are incorporated into the planning and delivery of those workshops to ensure the workshops offer a productive method of customer engagement.

There is not due to be an in-person workshop in the second year of the project so there will be a gap until 2025 for the next workshop. Some lessons will also be relevant to other customer engagement, such as online workshops and surveys.

Types of organisation attending

The attendees of the workshop all worked for organisations leading on the development or management of assets (three focused on Solar PV and one on heat networks). The session therefore enabled an understanding of the perspective of asset developers or asset managers on the BiTraDER project.

There are other types of customers, particularly those involved in the trading side, that it will be necessary to engage with during the market design stage. Therefore, **a key next step will be to identify traders to engage with over the coming months to collect their feedback.**

Attendance rate

The workshop was only attended by four of the sixteen customer organisations recruited for the project. Lower numbers meant that more detailed discussions and insights were possible with the customers that attended, however, for future workshops it would be helpful to gather views from a wider range of stakeholders. There could be a number of reasons for the low attendance rate, including:

- Post-pandemic many people are still not regularly attending in-person meetings which can make the travel time seem like an inconvenience that is not worth doing when meetings can be held online.
- The format of the workshop being all-day, alongside travel time, may mean that customers cannot spare the time to attend.
- Customers may not see enough return benefit in committing a full day to the project

- Competing commitments – for example, one customer said they could not attend because there was another workshop, held by National Grid, that was booked in for the same day.

There is a balance required between gaining the most feedback from customers on the BiTraDER project and requiring too much resource from them. While the workshop did not have high numbers it was still a highly useful opportunity to gain feedback and incorporate customer views into the design of the trading rules and platform functionality.

The next in-person workshops will be during the simulation trials and the live network trials and it will be crucial to have engagement from customers at these stages. It may be that if the project is closer to being launched then customers are willing to engage, as it is easier to see a benefit to their organisation. However, retaining customers until these workshops could be difficult so it will be important to ensure that ahead of the workshop taking place there are enough customers involved in the project and they would be happy to attend an in-person workshop.

Therefore, before the next workshop the following steps should be taken.

These are based on a timeline of starting these steps six months before the workshops but this will be revisited closer to the time.

- Six months before the workshop, reach out to all existing customers to assess their level of engagement i.e. is it likely that they would attend a workshop in ~six months time?
- If there are low numbers with high levels of engagement at this stage a new recruitment round will be needed. This should be done at least five months ahead of the workshop to allow time to identify customers and get them on board.
- Start engagement on the workshop early, including reaching out a few months in advance to identify what would make customers more likely to attend e.g. location, duration, style of workshop.

Explaining the market

A key learning from the workshop was the need to ensure engagement with customers provides clear and simple explanations of the project, and relating topics. There is a variety of engagement with and understanding of the flexibility market and the workshop provided an opportunity for the attendees to ask questions and provide detailed responses. It's worth noting for future engagement that for many of the customers flexibility will only be a small fraction of what they do so any communications should provide clear explanations of what is being discussed.

Learnings from the post-workshop survey

The post-workshop surveys done by the attendees was very positive, with all giving 'excellent' scores for all three sections of the workshop. There were also 'excellent' scores given for the venue and the ease of getting to the venue. However, it's difficult to take this as a direct learning to use for future workshops as the location will depend on the customers attending, some of whom may be different to the customers engaging at this stage of the project.

Table 2: Post-workshop survey questions

<p>1. How interested are you / your company in offering flexibility services to the electricity network?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Very interested <input type="checkbox"/> Somewhat interested <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat not interested <input type="checkbox"/> Very uninterested
<p>2. How likely are you / your company to offer flexibility services to the electricity network in the next 5 years?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Very likely <input type="checkbox"/> Somewhat likely <input type="checkbox"/> Neither likely nor unlikely <input type="checkbox"/> Somewhat unlikely <input type="checkbox"/> Very unlikely
<p>3. How likely is it that you would accept a curtailable / flexible connection over a non-curtailable or "firm" connection?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Very likely <input type="checkbox"/> Somewhat likely <input type="checkbox"/> Neither likely nor unlikely <input type="checkbox"/> Somewhat unlikely <input type="checkbox"/> Very unlikely
<p>4. If you had a curtailable connection, how likely is it that you would use a facility such as that proposed in BiTraDER to trade to avoid curtailment?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Very likely <input type="checkbox"/> Somewhat likely <input type="checkbox"/> Neither likely nor unlikely <input type="checkbox"/> Somewhat unlikely <input type="checkbox"/> Very unlikely
<p>5. Do you think participating in BiTraDER has had any impact on your interest in providing flexibility?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure

<p>6. On a scale of 1-10 where 1 is no understanding and 10 is excellent understanding, how would you describe your understanding of the concept of the bilateral trading of curtailment obligations?</p>	1-10
<p>7. Has your participation in BiTraDER had any impact on this understanding of the bilateral trading of curtailment obligations?</p>	<input type="checkbox"/> Definitely <input type="checkbox"/> Somewhat <input type="checkbox"/> Not at all
<p>8. Do you think innovation projects such as BiTraDER bring value to the industry?</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure
<p>9. Any further comments to the above questions?</p>	
<p>10. How would you rate the different sections of the BiTraDER workshop on a scale of 1-5?</p> <ul style="list-style-type: none"> ■ Introduction and project context (Electricity North West) ■ Market rules section and discussion (Afry) ■ Trading platform functionality (Electron) 	1 (Poor) – 5 (Excellent)
<p>11. Any further comments on the above answer?</p>	
<p>12. How would you rate the following aspects of the workshop on a scale of 1-5?</p> <ul style="list-style-type: none"> ■ Quality of networking opportunities ■ Communication in the run up to the event 	1 (Poor) – 5 (Excellent)

- **Relevance of the sessions to your organisations**
- **Relevance of the sessions to your role**
- **The venue and facilities**
- **Ease of getting to the venue**

13. Do you have any tips for how we can improve these in person workshops in future? e.g. location, length, communication, content etc