

**Broader Impacts of Delays to
Securing a Connection to the
Electricity Distribution Network
Final Report**

September 2012

Prepared by:

Accent
Chiswick Gate
598-608 Chiswick High Road
London
W4 5RT

Prepared for:

Ofgem
9 Millbank
London
SW1P 3GE

Contact: Beryl Wall
E-mail: beryl.wall@accent-mr.com
Tel: 020 8742 2211
Fax: 020 8742 1991

Contact: Adam Knight

CONTENTS

Executive Summary	i
1. METHODOLOGY	1
1.1 Introduction	1
1.2 Respondent Profile	1
2. FINDINGS	2
2.1 Factors Influencing Customer Experience	2
2.2 Distributed Generation Customers	3
2.3 Four Key Customer Types.....	4
2.4 Financial Impacts.....	5
2.5 Impacts on Workers or Sub-Contractors	9
2.6 Impacts on the Wider Community	10
2.7 Impacts on Customer Reputation	13
3. KEY AREAS FOR IMPROVEMENT.....	14
3.1 Introduction	14
3.2 Site Visit.....	14
3.3 The Need for Improved Communication	15
4. CONCLUSIONS AND RECOMMENDATIONS.....	17
4.1 Introduction	17
4.2 Impacts on Workers or Sub-Contractors	17
4.3 Financial Impacts.....	18
4.4 Impacts on the Wider Community	18
4.5 Impacts on Customer Reputation	19
4.6 Previous Experience of Requesting a New Connection	19
4.7 Areas for Improvement.....	19
4.8 Recommendations	20
Appendix A: Depth Questionnaire	

EXECUTIVE SUMMARY

Introduction

Ofgem is currently undertaking the first price control review of the electricity distribution network owners (DNOs) under the new RIIO price control framework¹ – RIIO-ED1. The pricing review will set revenue allowances for DNOs to fund their activities over the price control period commencing April 2015. Ofgem will also establish a framework of incentives intended to best protect the interests of customers by providing rewards and penalties for performance against specified targets.

A key element of Ofgem's preparatory work for ED1 is to identify appropriate behaviours by companies and associated outputs measures and incentives. This will include incentivising DNOs to deliver a timely and efficient service to customers seeking a connection to the electricity network. Although the connection service will include many constituent stages, from the initial issue of an indicative quote through to energisation of the connection, customers require an end to end service that meets their expectations. It is important to Ofgem that it has appropriate information on the broader impacts of delays in the connection process to inform its decisions in this regard.

Ofgem therefore commissioned qualitative research among non domestic customers who had requested a new connection within the last 12 months. Respondents included a small number of distributed generation customers, ie those who generate electricity through, for example, solar panels or wind turbines and therefore need a two-way connection to enable them both to feed surplus power into the grid and to access the distribution grid as a demand customer.

The research was designed to provide an in depth understanding of customers' views on:

- their overall experience of the process of seeking a connection
- whether the timescale met their requirements
- where there was any delay, their views on the impact of not receiving the connection(s) within an optimal time on their immediate business/activity
- the perceived economic impact of the delay
- the broader social impacts of the delay; these may encompass social issues impacting upon local communities or those affecting the broader generality of the GB population
- any steps taken to mitigate any impacts by both the DNO and the customer.

The results of the research will help inform any cost benefit analysis of changes to current arrangements subsequently undertaken by Ofgem as part of the overall price control.

¹ <http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/Decision%20doc.pdf>

Accent conducted 54 telephone depths with business customers who had recently had a new connection.

The Findings

- Of the 54 customers who took part in the study, 32 (59%) had not experienced a delay in having a new electricity connection (or to their most recent new connection) while 22 (41%) had². In addition, a small number of those who had not experienced a delay overall were still dissatisfied with some aspects of the work.
- The research found a wide range in customer experiences, ranging from those who were satisfied with the complete process (ie from the initial request to energisation of the new connection) to those who had experienced months of delay.
- Some of these differences in experience related to whether the customer had previous experience of requesting a new connection: those who had previously experienced delays and expected this to be the case again, typically made allowance in their project timescale and/or in their project management processes (eg through chasing the DNO for confirmation of timings etc).
- Not all of those who experienced delays were dissatisfied. The better experiences, regardless of whether delays were experienced, tended to occur where nothing critical was dependant upon the connection being in place. Less good experiences occurred where it was critical that the connection be installed in good time. Alongside this, it was thought that the DNOs show little awareness of the wider impacts a delayed connection may have – on, for example:
 - developers needing to sell properties
 - businesses needing to move into premises, continue doing business/trading etc
 - residents waiting to buy or rent properties and move in
 - project managers coordinating other utilities or sub contractors who need power to carry out their work
 - local communities affected by restrictions to local trade
 - the reduced security of unoccupied properties and the impact of that on the local community, etc.
- Four distinct customer experiences were identified:
 - those with previous experience of having a new connection, who were satisfied
 - those with previous experience of having a new connection, who were dissatisfied
 - those with no previous experience of having a new connection, who were satisfied
 - those with no previous experience of having a new connection, who were dissatisfied.
- The main issues arising from the delay itself were identified as relating to:
 - workers and/or sub contractors

² It is important to note that qualitative research approaches are used to shed light on why people hold particular views, rather than how many hold those views. This research is intended to be illustrative rather than statistically reliable and, as such, does not permit conclusions to be drawn about the extent to which something is happening.

- financial issues (incurring additional costs and losing revenue)
 - the wider community
 - reputation (with clients and with customers) and associated potential impacts on future work or custom.
- Any dissatisfaction, regardless of whether the work was delayed, was exacerbated by the fact that the work has to be paid for up front.

Impacts on Workers or Sub-Contractors

- Some work, particularly for larger scale projects and typically in the property/building sector, cannot proceed until the new connection is in place; any delays therefore risk holding up trades people and sub contractors, other parts of the business or other utilities; there are often financial impacts associated with this, as well as the challenges it presents to project management.
- As a result of delays to connections, staff may not be hired or may be laid off, albeit temporarily, with an associated loss of earnings. These may be trades people waiting to work on site or retail staff waiting for a shop to open.
- Customers who are able to redeploy their workforce are less vulnerable in this respect to delayed connections than are those who have less flexibility.

Financial Impacts

- Delays to installing the new connection frequently had financial impacts for the customer, and respondents found these impacts to be the most easily identifiable. Financial impacts ranged from incurring additional costs of a couple of hundred pounds through to the survival of the business itself coming under threat, and included:
 - unexpected costs incurred through having to use a generator or sharing an electricity supply temporarily, or keeping workers on site for longer than planned because they cannot proceed without power
 - costs incurred through keeping trades people on site while waiting for the go ahead
 - loss of revenue through, for example, loss of sale or rental income, or loss of trade revenue
 - potential loss of funding if, for example, the bank does not see the milestones being met that would trigger release of funds.

Impacts on the Wider Community

- Impacts on the wider community were wide ranging and included:
 - inability to purchase/move into residential or commercial properties
 - interruption to electricity supply or to other utilities
 - inconvenience of works
 - loss of service (eg retail)
 - reduced security through a property lying empty or security systems not activated because of lack of power.

- It was suggested that the impacts on the wider community extended to contributing to the recession in that the delays to connections halt business: companies cannot trade; customers cannot spend and so on.
- Customers who had not experienced delays were, nonetheless, aware of the potential impacts on the wider community and mentioned potential consequences similar to those experienced by dissatisfied customers, eg:
 - the potential inability to purchase/move into properties
 - potential impacts on employees or sub contractors
 - the potential impact on the local economy through loss of business eg from lack of shopping opportunities, spend from local holidaymakers etc
 - the loss of water or electricity supply to local people (from distributed generation customers).

Impacts on Customer Reputation

- There were clear examples of a delayed new connection impacting on a business's reputation eg
 - their standing with their client
 - their standing with sub contractors.
- Respondents were clear that impacts on their reputation could jeopardise future business, for example securing other building contracts or lettings from customers.

Previous Experience of Requesting a New Connection

- Customers with previous experience of requesting a new connection tend to be in property development and, as such, are experienced project managers; they find the process relatively easy and know what will be required of them, although many still build in extra time to allow for any slippage to the timescale.
- However, having previous experience did not guarantee that they did not experience a delay.
- Customers with no previous experience may have little idea of what will be involved and are likely to need more support and advice from their DNO. They generally expect high levels of service although one (who had received his new connection on time) said that he had heard that the work could take longer than expected.

Areas for Improvement

- Areas that could be improved and could help minimise or avoid these impacts of delays include:
 - site visits from the DNO
 - communications between DNOs and the customer
 - understanding each customer's level of experience and understanding of requirements.

Site Visit

- While some customers did not need a site visit, there were some who would have found it helpful. These included experienced customers who wanted advice regarding the best way of proceeding (even before placing the connection request) as well as inexperienced customers who needed support and advice.
- There were clear examples of situations where a site visit before finalising the quotation request would have helped avoid delays to the work; typically this was where the customer did not know exactly what was required and/or would have liked advice.
- It was pointed out that an early site visit could also benefit the DNO, saving them additional visits and extra work later in the process.

Lack of Communication

- Several respondents complained of poor communication on the part of their DNO (eg calls not being returned, or the customer having to chase the DNO for updates), which made their own job more difficult to do and contributed to delays in providing the new connection.
- Customers with previous experience of new connections were very proactive in terms of maintaining good communications with their DNO to help ensure that the work was completed on time.
- There was a suggestion that DNO internal communications were inadequate so that, from the customer's perspective, different departments within the DNOs or their sub contractors seemingly did not talk to each other. The perceived impact of this was the DNO did not always have the resources available to do the work when they planned.

RECOMMENDATIONS

- Improvements to the new connections process will clearly benefit customers and the DNOs themselves.
- While many business customers are knowledgeable and comfortable with requesting a new connection, DNOs should not assume that the customer understands the process. They should establish each individual customer's degree of understanding at the outset, and tailor their approach accordingly, eg.-
 - does the customer need help with the request form?
 - does the customer understand what they are required to do in advance of the DNO's work? If not, set this out clearly
 - would an early site visit be helpful, even before the request is placed, to ensure that the requirements are clear?
 - explain exactly what the DNO will do and when, and explain (if appropriate) where the timescale may be revised
 - stay in touch and update on timescale throughout to manage each customer's expectations.

- DNOs should make every effort to streamline ordering equipment, provision of resources and completion of tasks
- DNOs should be aware that there is often much more than the customer's immediate needs at stake and that a delay on their part can have very wide negative impacts including:
 - financial - through additional costs incurred, loss of sales and revenue, loss of funding etc
 - workforce - including tradespeople not being able to proceed – with potential impacts on other projects – people not being paid or being laid off etc
 - reputation - and the impact this may have on future business as well as loss of service to customers
 - the wider community - including local residents/businesses affected by loss of power, a negative impact on a neighbourhood through properties standing empty longer than expected, people not being able to move into their homes, shops not being available to them etc.

1. METHODOLOGY

1.1 Introduction

Accent conducted 54 telephone depth interviews with customers who had received a new electricity connection within the last 12 months. Respondents had contacted their DNO regarding their new connection between 31 August 2011 and 01 February 2012. The interviews lasted around 30 minutes and were spread across customers of all the distribution regions and included those who had experienced a delay in receiving their new connections and those who had not.

The topic guide, which was agreed in advance with Ofgem, is attached as Appendix A.

1.2 Respondent Profile

All respondents were required to have had a new electricity connection installed but were not required to have experienced a delay to this work. This allowed Accent to explore what may have contributed to the differences in customers' experiences.

No quotas were set, as we were dependent upon the profile of the available sample. Instead, the aim was to achieve a spread of respondent profiles and to include some distributed generation customers. The 54 interviews were conducted among:

	n
• Commercial	42
• Other Social	2
• Private Housing	10
• Urban	33
• Rural	21
• Demand	50
• Distributed generation	4
• Had experienced a delay	22
• Had not experienced a delay	32

2. FINDINGS

2.1 Factors Influencing Customer Experience

Key Findings

- Customers with previous experience of requesting a new connection tend to be in property development and, as such, are project managers; they find the process easy and know what will be required of them, although many build in extra time to allow for any slippage to the timescale
- Customers with no previous experience may have little idea of what will be involved and are likely to need more support from their DNO
- Customers for whom the new connection was critical were more likely to be dissatisfied in the event of a delay; this could be, for example, where business continuity, rental or sales revenue was dependent upon the new connection; it may also be where other site work could not proceed without a power supply

The research identified two key factors that were seen to influence the customer experience of having a new electricity connection installed:

- previous experience of having a new connection, and
- the critical or non-critical nature of the new connection.

Customers with Previous Experience of Ordering a New Connection

In most cases, it appeared that previous experience of requesting a new connection could contribute to the work being completed satisfactorily. For example, an experienced customer will know what work they are expected to undertake themselves, may have a single point of contact at the DNO, or may have built in some additional timescale – some because they have experienced delays in the past (with new electricity connections as well as with other utilities) and some because that is their project management style:

- customers spoke of ensuring that all preparatory work would meet or even exceed the DNO's requirements; a trench would be dug, for example, but it would be deeper than necessary so as not to give the DNO an excuse to postpone the work
- customers who routinely request new connections in one distribution area are able to build up a relationship and, possibly, have a single point of contact with the DNO; this contrasts with other customers who work across different distribution areas and who could find it difficult to know who to talk to or to get anyone to return their calls
- there were incidences of customers saying that having a new connection always causes problems, whatever actions they take; some said that the utilities, not just the DNO, are the worst companies to deal with and they find it essential to build in additional time for them.

Customers with No Experience of Ordering a New Connection

Customers with no previous experience of ordering a new connection generally appeared to be disadvantaged. They found the request form confusing, did not always know any more than their basic requirements, did not understand what would be involved and were unfamiliar with the overall project management requirements.

Customers who had not previously requested a new connection could be at a disadvantage in not always understanding what preparatory work was required of them or, indeed, of understanding exactly what they should request from their DNO. The owner of a fish and chip shop, a church warden, a farmer or a caravan site owner, for example, cannot be expected to be familiar with the process, to have either the appropriate experience or the expertise, and are likely to need greater support from their DNO.

Critical Nature of the New Connection

However, previous experience of ordering a new connection was found to be less important in terms of a satisfactory outcome than whether anything critical was dependent upon the new connection.

No Previous Experience

Among those with no experience of requesting a new connection, a farmer who had been using a generator for a couple of years was content to continue to do so until the new connection was installed. There was clearly no critical outcome attached to a new electricity connection to the farm. A church warden was not inconvenienced by the delay to a new connection because it occurred in the summer when the church could manage without electricity for a short while.

In contrast, a fish and chip shop owner who was expecting an interruption of two days but then had no power for five days, who therefore lost revenue, who could not pay staff and who could not continue to trade, clearly had more to lose and was very dissatisfied.

Previous Experience

Similarly, among those who had requested a new connection previously, a new build construction company had suffered a delay to their connection but had experienced no negative impacts as the site was still under construction.

In contrast, an electrical contractor waited “five to six” months to have a new connection installed in a new retail property, which impacted significantly on retail revenue, recruitment, the opportunity for local residents to shop there, and could have also affected the contractor’s reputation.

2.2 Distributed Generation Customers

Four distributed generation customers were included in the research.

One, a farmer, had requested a connection for a wind turbine. It took six months for the quote to arrive, although he was not unhappy and reasoned that he had requested it at time when many customers were installing solar panels. His main concern was reconsidering whether the project would still be viable if his deadline (March) could not be met. Once the quote arrived, the work proceeded smoothly, finishing on time.

Another farmer had solar panels installed and needed a new transformer. He was very satisfied with the work:

“[DNO] was extremely efficient, extremely courteous and I don’t think I have ever dealt with a utilities organisation that was so satisfactory.”

Distributed generation, no delay

A third farmer had wind turbines and solar panels. He sought help from his electrician in actually requesting the new connection. His work also met the March deadline and he was very satisfied the whole process.

The fourth respondent owned holiday homes. He had installed solar panels and was also very satisfied with the work done.

2.3 Four Key Customer Types

Key Findings

- The research found a wide diversity in customer experiences, ranging from those who were completely satisfied to those who had experienced months of delay with significant consequences.
- Having previous experience of requesting a new connection did not guarantee that the work would go smoothly; four distinct customer experiences were identified:
 - those with previous experience of having a new connection, who were satisfied (with the process)
 - those with previous experience of having a new connection, who were not satisfied
 - those with no previous experience of having a new connection, who were satisfied
 - those with no previous experience of having a new connection, who were not satisfied.

Diversity of Experience

The research showed a wide variation in customer experiences. Of the 54 customers who took part in the study, 32 (59%) had not experienced a delay in having a new electricity connection (or to their most recent new connection) while 22 (41%) had. In addition, a small number of those who had not experienced a delay overall were still dissatisfied with some aspects of the work.

It is important to bear in mind that the research was qualitative in nature. However, the demonstrated level of dissatisfaction across the sample should give cause for concern.

In most cases it appeared that previous experience of requesting a new connection could contribute to the work being completed satisfactorily. However, the research found that

customers with no previous experience of ordering a new connection generally appeared to be disadvantaged.

We therefore looked at the experiences of four key customer types:

- **experienced delays, but were satisfied**
- **experienced delays, and were dissatisfied**
- **did not experience delays, and were satisfied**
- **did not experience delays, but were dissatisfied.**

Whether the customer had experience of ordering a new connection was found to be less important in terms of a satisfactory outcome than whether anything critical was dependent upon the new connection.

Impacts of Delays

It was clear that a delay to an electricity connection can impact on customers in a number of different ways. The main areas of impact were found to be:

- **financial impacts (including incurring additional costs and losing revenue)**
- **impacts on workers and/or sub contractors**
- **impacts on the wider community**
- **impact on reputation.**

A number of respondents felt very strongly that the DNOs simply do not appreciate these potential wider implications of delays to their work. In the construction, housing and retail sectors, there are likely to be many other sub contractors or trades people who cannot do their work until the electricity supply is installed. This was seen to have wider financial impacts:

“I feel that they indirectly contribute to the recession, as nobody is productive. The only winner is the electricity distributor, who have had their dough up front, and they’ll react as and when they feel like it.”

Electrical Contractors, delay

2.4 Financial Impacts

Key Findings

- **Delays to installing the new connection frequently had financial impacts for the customer, and these impacts were, perhaps, the most easily identifiable. Financial impacts included:**
 - **a threat to the business**
 - **unexpected costs incurred through, for example, having to use a generator or sharing an electricity supply temporarily, or keeping workers on site**
 - **costs incurred through keeping trades people on site while waiting for the go ahead**
 - **loss of revenue through, for example, loss of sale or rental income, or loss of trade revenue**
 - **potential loss of funding**

- **Where there were no delays, financial impacts were also incurred through**
 - **difficulties in completing the request form**
 - **chasing the DNO for information and progress reports**

Delayed and Dissatisfied Customers

A delay to a connection often carries financial impacts, albeit of varying degrees, for the customer.

At its most extreme, a delay can impact on a business to the extent that the actual survival of the business is threatened. A client may pull out of a deal, or a purchaser may withdraw from a sale. The customer risks not being paid by their client when expected or incurring penalties as a result of not being able to deliver to their client in time. All of this can have serious implications for a company's cash flow. In the current economic climate businesses may be particularly vulnerable and less able to withstand any such delays.

“We were on the verge of losing our sales...In this climate this would've been a very serious issue. The company I was working for might've even gone under.”

Property Developer, delay

“It was a retail store that was being built so, if we did not provide them with a store for the opening day, they could have backed out. It would have jeopardised the entire deal because it was all contingent on that.”

Facilities Management, delay

In critical situations, for example when electricity was needed to continue trading, to enable other works to take place or to ensure that a deal could go through, some customers will pay for a temporary generator. This can be expensive, particularly if it is needed for some time – one respondent said he had to hire a generator for five weeks. Customers who had used a generator to provide electricity until the new connection was in place said they had incurred costs in the region of £1,000-£2,500 as a result. These are costs that the customer did not expect or plan for and were therefore a source of great dissatisfaction.

In other cases, customers shared an electricity supply so they could continue to do business while waiting for their new connection. Typically, these costs were calculated informally.

“We had organised things, and we found they hadn't organised everything, and we hadn't got power, so we had to source it from elsewhere...The downstairs shop is the Red Cross, and we had to get power off them, so we struck up a deal with them which ended up costing me £500.”

Chartered Surveyor, delay

Unexpected costs could be incurred through a lack of knowledge, information or advice regarding the requirements of the actual work. One customer had incurred an unexpected additional cost of £2,500 to import switching gear from Germany. This customer runs a caravan park and so does not have the experience of electrical

contractors, property developers and other customers who are more familiar with the process. She explained that she had built housing for the new meters. She had not realised that the new supply would be split into two 50 kVAs which, for safety reasons, had to be separated. She therefore required switching gear to separate the two, and was unhappy to find at a late date (and with no indication having been given by the DNO in the quote) that this was not readily available in the UK but had to be purchased from abroad. Early discussion and clarification with, perhaps, a site visit, may have avoided this situation.

Financial impacts also occur through the need to retain workers and/or sub contractors on site while waiting for the connection to be installed. The customer may have to keep an electrician on site in case the DNO does arrive to do the work, or they may have already booked sub contractors. While large companies may be able to redeploy the workforce in the event of a delay without losing money, this is more difficult for smaller companies and contractors: larger companies are likely to have more projects under way, while smaller companies may have booked sub contractors for a particular project and so risk losing them or having to pay more to keep them.

A loss of revenue can arise from being unable to rent or sell property. Property developers spoke of their customers threatening to pull out of a residential sales because they could not move in when expected, or from a commercial property deal because they could not start trading when expected. One respondent had felt it necessary to charge a business tenant a lower rate to compensate for the lack of sufficient power to the premises resulting from the delay to the new connection. The loss of income was bad for their business as well as emotionally stressful:

“We were skint as we had put our heart and soul into the project. We were receiving no income to support the project and the workers...To be honest whilst the power was off we were charging the client lower rent as they couldn't work at the full capacity they wanted to work to.”

Property Developer, delay

Retail customers who experience a delay to connection lose revenue instantly from being unable to trade. A small fast food trader had expected to close the shop for a couple of days. In the event, they were closed for nearly a week, resulting in loss of business (including a delivery service) and leaving staff unpaid.

A new retail outlet had its opening delayed for weeks as a result of a delay to electricity connections, finally opening just before Christmas. Given the importance of December shopping to the retail industry, this delay clearly had a significant impact.

There are potentially wider financial implications where a delayed connection that delays income being realised could make investors or lenders nervous so that there is then a risk that funding could be withdrawn. For example, a property developer said that his bank had been on the verge of withdrawing funding for a development where clients had been expected to move in two months earlier. Without an electricity supply, not only was he unable to sell the properties, he was also unable to draw on any funds from the bank; clearly this could cause his business serious financial difficulties.

Delayed but Satisfied Customers

Customers who experienced delays to their connections but were still satisfied typically had no financial activity or risk associated with their new connection.

Not Delayed and Dissatisfied Customers

Customers who did not experience any delays and yet were still dissatisfied because of financial impacts to them were mostly dissatisfied with the request process or with the quote.

Some with no previous experience of requesting a new connection found the request form very difficult to complete and were unhappy that it took up so much of their professional time. This dissatisfaction increased if the requirement then turned out to be different from what they had envisaged, taking up more of their time and risking delays.

A distributed generation customer (a farmer) asked his electrician to complete the technical aspects. A director of a design and construction company (but with no experience of requesting a new connection), felt that the form was unnecessarily complicated:

“Unless you have a degree of construction knowledge, I think it would be very confusing to the average individual if they were doing it for themselves.”

Design and Construction, no delay but dissatisfied

There is a clear need among some customers for input from the DNOs at this early stage to understand the customer’s situation and clarify their requirements.

There was also dissatisfaction with the quote, in particular that the money has to be paid up front and in full before the service is delivered.

Others who had often experienced delays to connections previously were inclined to be dissatisfied with the work, even if there was no delay. This could be because they had to make allowances for the DNO, allow extra time in case the DNO was not able to meet the given timescale, proactively chase them and ensure that communications were good so that project management could proceed smoothly. These pre-emptive measures are time consuming for them, and therefore have a perceived cost to the customer in terms of time and effort spent.

Not Delayed and Satisfied Customers

Customers who had not experienced delays were also very aware of the potential business and financial impacts that could have arisen, and acknowledged that such impacts could be significant on their business. These could include not being able to sell properties, rescheduling sub contractors or not being able to employ them at all, and being sued for breach of contract.

Typically, they had good communications with their DNO. They also tended to have previous experience, may have experienced delays previously and so had allowed extra time or had no critical activities dependent upon their new connection.

“Little calls here and there just to say “when can you do that “and “did you understand this”. You have to give them a gentle nudge sometimes just to make sure they do what they are supposed to. Just the experience of doing this kind of work before alerted me to do this kind of thing.”

Mainframe Contractor, no delay

2.5 Impacts on Workers or Sub-Contractors

Key Findings

- **Some work, particularly for larger scale projects, cannot proceed until the new connection is in place; any delays therefore risk holding up workers, sub contractors, other parts of the business or other utilities**
- **As a result of delays, staff may not be hired or may be laid off, albeit temporarily, with an associated loss of earnings**

Delayed and Dissatisfied Customers

For projects in the housing or retail sectors, where customers generally had experience of ordering new connections, it was often the case that work could not proceed until the new supply had been connected or, indeed, an old supply had been disconnected. It was clearly apparent that the new connection was critical to customers’ activities in these cases and any delay would have serious implications on employees and/or sub contractors.

For example, employees or sub contractors waiting on site with power tools are not able to work until there is an electricity supply. Painters cannot work without electricity to provide light, particularly in the shorter, winter days. Any task that requires heating to dry out the building, such as putting in flooring or plastering, is affected by delays to an electricity connection.

The customer then has to decide whether he/she can retain employees and/or sub contractors under these circumstances, and whether to run a generator to provide an alternative electricity supply. Smaller property developers are less likely than larger companies to be able to redeploy sub-contractors as typically, they have booked them for a particular project and do not have other projects available to them. These decisions are likely to affect them both financially and in terms of their professional reputation with employees and sub contractors as well as with their own customers.

For retailers, a delay in installing a new connection is likely to interrupt business and result in staff being laid off temporarily as well as incurring a loss of revenue.

An electrical contractor who works as a shop fitter – and has requested new connections previously – said that he frequently experiences delays to new connections so that shops cannot open on time. The result is that sub contractors cannot do any work that relies on

power, shop staff cannot be hired and the end customer cannot do business (with further negative implications for the local economy and community).

The manager of a fish and chip shop – with no previous experience of requesting a new connection – had to close for longer than expected and, having spent a couple of days asking staff to do additional cleaning, eventually had to send them home for the rest of the week, unpaid.

Delayed but Satisfied Customers

Customers in the construction business who experienced delays to new connections but who said there were no negative impacts on their workers or sub contractors tended to be larger organisations with the flexibility of being able to assign them to other tasks or projects.

Not Delayed and Dissatisfied Customers

A key source of dissatisfaction among customers who did not experience any delay was a perceived lack of understanding on the part of the DNO that their customer has to deal with other utilities and sub contractors. This led to a call for improved communication and clarity. Often, any information had been gained as a result of good project management on the part of the customer, so that updates were sought by them from the DNO on a regular basis. There was some frustration that the onus had been on them to stay in touch and monitor progress.

“We tried to communicate when we could, just gentle reminders of what our output dates are...That’s our own programme, our experience and our programme. We have weekly reports and that process means that we have to liaise as often as we can with all the utilities.”

Mainframe contractor, no delay and dissatisfied

Not Delayed and Satisfied Customers

Satisfied customers were generally in a position to reschedule work easily, redeploy their workforce or had nothing critical dependent upon the completion of the new connection.

2.6 Impacts on the Wider Community

Key Findings

- **Impacts of delayed connections on the wider community (both experienced and perceived) were wide ranging and included:**
 - **inability to purchase/move into residential or business properties**
 - **interruption to electricity supply or to other utilities**
 - **inconvenience of works**
 - **loss of service (eg retail)**
 - **reduced security resulting from buildings being unoccupied**

Delayed and Dissatisfied Customers

There were clear instances where impacts of a delayed connection could be seen on the wider community. These impacts covered a wide range of areas but were most evident where people were waiting for the electricity supply to be installed before they could move into a property. While this delay has a financial impact for the customer, the impact on their clients ranges from inconvenience, to a financial loss to personal stress.

In one case, housing association residents were waiting to move into a property. Fortunately, the residents were able to stay longer in their previous property without the housing association incurring any additional costs of providing temporary accommodation, but both residents and the housing association were clearly inconvenienced by the delay.

In another case, residents waiting to move into nine new houses were delayed by a month and moved in just before Christmas, with personal stress to them in addition to the cost to the customer.

“It caused us considerable financial issues as we wanted to move people in by November, and then obviously stress on the part of my clients as they want to move in, and them having to move in the week before Christmas.”

Property developer, delay

Another clear example of the wider social impacts of delays to new connections is the loss of service from a retail outlet. New retail outlets postponed their opening date, inconveniencing potential customers, while an existing retail outlet had to close for longer than expected, to the inconvenience of its customers.

“There are other fast food outlets but we are the only fish and chip shop. And we do a delivery service as well so, obviously, we couldn’t do that.”

Retailer, delay

The research revealed some less obvious but important impacts of a delayed connection on the wider community.

One respondent spoke of a reduction in security in the local area, resulting from a delayed connection. An occupied building is generally more secure than an empty building. An empty building can invite vandalism, burglary and other anti social behaviour. The potential theft of copper cable was mentioned specifically.

“As you’ve probably heard there are a lot of thefts of copper cable. The people that saw us putting it in were coming around like rats waiting outside the building as they knew we had put the cables in.”

Property developer, delay (24)

Also in the context of security, another respondent pointed out that a building without power cannot activate its burglar alarms, leaving it particularly vulnerable to theft.

In another less obvious instance of impacts upon the wider community, one customer needed the new connection to pump water from a private supply to local people.

Because of the delay, both the customer and local people had had to access the local water company's supply instead.

Delayed but Satisfied Customers

Customers who had experienced delays but were satisfied with the final outcome were aware of the potential impact of a delayed connection upon the wider community. A caravan park owner, for example, knew that potential guests would have been inconvenienced and would have had to find another holiday location. This would then impact on the local community's economy through loss of business from holidaymakers.

It was observed that local householders could also be inconvenienced where their power supply is interrupted on a number of occasions to enable delayed connection work to be completed.

Not Delayed and Satisfied Customers

Customers who had not experienced delays were also aware of the potential impact of a delayed connection upon the wider community.

In one particular instance, the residents waiting to move into a property were people with disabilities. Any delay to installing a power supply would have meant that many of the home adaptations could not have taken place. The respondent explained that, had the property not been ready for them they would probably have had to go into respite temporarily so they could be properly cared for. However, when the aim was independent living, this would have been stressful for the residents and their families.

A property developer working on a group of holiday homes could have lost sales if there had been delays to the new connections so that the local economy may have been affected.

One distributed generation customer explained that delays to his connection could have impacted on the local community who could, potentially, not have received the electricity supply they expected.

“There could have been a problem with the customers in the local area, where the electricity could have fed back to them and caused them a problem. Now this only happens in the summer when there is a better production of electricity.”

Farmer, no delay

2.7 Impacts on Customer Reputation

Key Findings

- There were clear examples of a delayed new connection impacting on a business's reputation eg
 - their standing with their client
 - their standing with sub contractors
 - the potential impact on their ability to secure future business.

Respondents were very conscious that their business reputations could be affected by their inability to deliver to time as a result of a delay to an electricity connection. Their standing with clients, their relationships with sub contractors and their success in securing future business could all potentially be threatened by any delays to completion arising from a delay to installing new electricity connections.

There was a feeling among customers that they would not be remembered for the hard work they had put in or the quality of their work, but primarily for the fact that the connection of the electricity supply had been delayed.

Delayed and Dissatisfied Customers

Respondents who had experienced delays naturally felt the potential damage to their reputation more keenly than those who had not, as their recent experiences had made this possibility very real. This was the case for small and large business customers:

“I couldn't put any figures on these, but our performance looks lacklustre due to the distributor's performance, and sub-contractors will talk about this.”

Electrical Contractors, delay

“This programme was going on all over the country, so it wasn't looked upon very kindly that we were delayed.”

Telecoms, delay

3. KEY AREAS FOR IMPROVEMENT

3.1 Introduction

The research identified two key areas for improvement that could help minimise or avoid any negative impacts on customers of delays to connections. They both arise from the need to understand each customer's level of experience and understanding of requirements:

- site visits
- communications.

3.2 Site Visit

Key Findings

- While some customers did not need a site visit from their DNO, there were some who would have found it helpful. These included experienced customers who wanted advice regarding the best way of proceeding (even before placing the connection request) as well as inexperienced customers who needed support
- It was also suggested that an early site visit could benefit the DNO, saving them additional visits and work later in the process

There was some variation as to whether the DNO provided a site visit to clarify the requirements, identify options and, if appropriate, advise on the best solution. Where a site visit was provided, there was also some variation in exactly when in the process this occurred – ie before or after the request for quotation for a new connection was made.

For some customers, a site visit was routine and an important part of the planning process which would ensure that the work proceeded smoothly and to time.

“The service beforehand was good. The man in charge called round beforehand, and discussed the best place for the connection to go into building.”

Farmer, no delay

For others, there was a strong feeling that an early site visit would have helped avoid subsequent delays. Even among those who had not experienced a delay, there were some who felt that an early site visit would have been helpful. However, it is important to say that some customers do not want a site visit: typically these are property developers with experience of seeking new connections so that they know what they are doing.

This suggests that the DNOs should establish their customers' requirements, level of experience and need of advice early on, and tailor their approach to each customer accordingly.

Delayed Customers

There were also instances where no site visit took place but, had it done so, it would have helped identify at an early stage the nature or scale of the work that was required, thereby avoiding delays later in the process. Typically, this was where there were a number of options regarding the new connection or the customer did not have the technical knowledge to make a decision.

A letting agent, for example, wanted advice on how to proceed, and when this was not forthcoming, began preparations for one quotation only for it to be changed subsequently by the DNO. This led to work being done unnecessarily and work that was required not being done, with a delay of some six months. In the end, the customer requested a connection with an incorrect specification just to be able to have a conversation about his requirements.

“I spoke to [DNO] and they said that they wouldn’t send an engineer out. I asked them how I would go about sorting what I needed. They said ‘you have to tell us what you need and then we will do you a quote’. I said ‘How can I tell you what I need until I get an engineer out as I wouldn’t know what is possible because I am not a [DNO] engineer?’”

Letting Agent, delay

In such cases, it is likely that an early site visit would have benefited the DNO in terms of resource planning as well as the customer. There were instances, for example, of the DNO coming out to start work and finding that the quotation was incorrect or that the site was not ready for them:

“I was totally dissatisfied. When we finally got the quotation which we’d worked out on behalf of [DNO], they came back and told us the quotation was wrong and they had to send a surveyor around which was rubbing salt into the wounds.”

Construction, delay

“Well, one man come up to do it, and said that the small house we had erected to put the supply in would have to have the roof on a bit higher, but before they said 5ft-6ft high would be fine. Yet when the man came out he said it would have to be at least 7ft.”

Farmer, delay

3.3 The Need for Improved Communication

Key Findings

- **Several respondents complained of poor communication on the part of their DNO, which made their own job more difficult to do and contributed to delays in providing the new connection**
- **There was also a suggestion that internal communications were not sufficiently good so that the DNOs did not always have the resources available to do the work when they planned**
- **This dissatisfaction was exacerbated by the fact that the work has to be paid for up front.**

Delayed and Dissatisfied Customers

While some respondents clearly had no problems with their DNO and were satisfied with the work undertaken, several complained about a lack of communication that made their task very difficult. They talked of DNOs not returning their calls and not keeping them updated on progress. This poor communication was felt to contribute to delays.

“It wasn’t until I chased them that I realised they were waiting for easement notices, and I wasn’t told this at the beginning of the process.”

Property Developer, delay

Some respondents thought that DNOs’ internal communications were also poor and as a consequence, they were not always able to successfully coordinate resources to undertake the work as scheduled. This was also blamed on changes to previous work practices. It was said that a single team used to have the necessary skills to complete all the work. In contrast, a number of single-skilled teams are now required to perform the individual tasks involved, and communication between these different teams is apparently weak, leading to delays.

It was also blamed on ‘just in time’ approach to ordering equipment (ie ordering it just as it is needed rather than in advance) which, it was suggested, was not always successful and could therefore cause delays as a result of the necessary equipment not being available.

A number of respondents mentioned this, including property developers and a project management consultant. Others also commented that the workforce themselves made the same point.

“We had to reschedule three times...Well it’s just their internal processes and things they need to improve, they need to be slicker.”

Telecoms, delay

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Introduction

- The research found a wide range in customer experiences, ranging from those who were completely satisfied to those who had experienced months of delay.
- These differences in experience were not always related to whether the customer had previous experience of requesting a new connection: many of those with previous experience had experienced delays and even expected to.
- Often, the better experiences were associated with circumstances where nothing critical was dependant upon the connection while the less good experiences were very much dependant upon the connection being installed in good time; alongside this, it was thought that the DNOs show little awareness of the wider impacts a delayed connection may have.
- Four distinct customer experiences were identified:
 - those with previous experience of having a new connection, who were satisfied
 - those with previous experience of having a new connection, who were not satisfied
 - those with no previous experience of having a new connection, who were satisfied
 - those with no previous experience of having a new connection, who were not satisfied.
- The main areas of impact were identified as being:
 - workers and/or sub contractors
 - financial (incurring additional costs and losing revenue)
 - the wider community
 - reputation (with clients and with customers) with potential impacts on future work or custom.
- Areas that could be improved and could help minimise or avoid these impacts of delays include:
 - site visits
 - communications
 - understanding each customer's level of experience and understanding of requirements.

4.2 Impacts on Workers or Sub-Contractors

- Some work, particularly for larger scale projects and typically in the property/building sector, cannot proceed until the new connection is in place; any delays therefore risk holding up trades people and sub contractors, other parts of the business or other utilities; there are often financial impacts associated with this, as well as the challenges it presents to project management.

- As a result of delays to connections, staff may not be hired or may be laid off, albeit temporarily, with an associated loss of earnings. These may be trades people waiting to work on site or retail staff waiting for a shop to open.
- Customers – typically larger property developers – who are able to redeploy their workforce are less vulnerable in this respect to delayed connections than are those who have less flexibility and are likely to have booked tradespeople for one particular project.

4.3 Financial Impacts

- Delays to installing the new connection frequently had financial impacts for the customer, and respondents found these impacts to be the most easily identifiable. Financial impacts ranged from incurring additional costs of a couple of hundred pounds through to the survival of the business itself coming under threat, and included:
 - unexpected costs incurred through having to use a generator or sharing an electricity supply temporarily, or keeping workers on site for longer than planned because they cannot proceed without power
 - costs incurred through keeping trades people on site while waiting for the go ahead
 - loss of revenue through, for example, loss of sale or rental income, or loss of trade revenue
 - potential loss of funding if, for example, the bank does not see the milestones being met that would trigger release of funds.

4.4 Impacts on the Wider Community

- Impacts on the wider community were wide ranging and included:
 - inability to purchase/move into residential and commercial properties
 - interruption to electricity supply or to other utilities
 - inconvenience of works
 - loss of service (eg retail)
 - reduced security through a property lying empty or security systems not activated because of lack of power.
- In one instance, the people waiting to move into a property were vulnerable people with high level care needs; in another, residents were only able to move in to a property just before Christmas.
- Where a property cannot be completed until the connection is in place, there can be a negative impact on the local area resulting from a building staying empty longer than necessary since it becomes vulnerable to theft and vandalism.
- It was suggested that the impacts on the wider community extended to contributing to the recession in that the delays to connections halt business: companies cannot trade; customers cannot spend and so on.

- Customers who had not experienced delays were aware of potential impacts on the wider community and mentioned:
 - the inability to purchase/move into properties
 - the loss of water or electricity supply to local people
 - an impact on the local economy through loss of business eg from holidaymakers.

4.5 Impacts on Customer Reputation

- There were clear examples of a delayed new connection impacting on a business's reputation eg
 - their standing with their client
 - their standing with sub contractors.
- Respondents were clear that impacts on their reputation could jeopardise future business, for example securing other building contracts or lettings from customers.

4.6 Previous Experience of Requesting a New Connection

- Customers with previous experience of requesting a new connection tend to be in property development and, as such, are experienced project managers; they find the process relatively easy and know what will be required of them, although many still build in extra time to allow for any slippage to the timescale.
- However, having previous experience did not guarantee that they did not experience a delay.
- Customers with no previous experience may have little idea of what will be involved and are likely to need more support and advice from their DNO. They generally expect high levels of service although one (who had received his new connection on time) said that he had heard that the work could take longer than expected.

4.7 Areas for Improvement

- Areas that could be improved and could help minimise or avoid these impacts of delays include:
 - site visits
 - communications
 - understanding each customer's level of experience and understanding of requirements.

Site Visit

- While some customers did not need a site visit, there were some who would have found it helpful. These included experienced customers who wanted advice

regarding the best way of proceeding (even before placing the connection request) as well as inexperienced customers who needed support and advice.

- There were clear examples of situations where a site visit before finalising the quotation request would have helped avoid delays to the work; typically this was where the customer did not know exactly what was required and/or would have liked advice.
- It was pointed out that an early site visit could also benefit the DNO, saving them additional visits and extra work later in the process.

The Need for Improved Communication

- Several respondents complained of poor communication on the part of their DNO (eg calls not being returned, or the customer having to chase the DNO for updates), which made their own job more difficult to do and contributed to delays in providing the new connection.
- Customers with previous experience of new connections were very proactive in terms of maintaining good communications with their DNO to help ensure that the work was completed on time.
- There was a suggestion that DNO internal communications were not adequate so that, from the customer's perspective, different departments within the DNOs or their sub contractors seemingly did not talk to each other. The perceived impact of this was the DNO so did not always have the resources available to do the work when they planned.

4.8 Recommendations

- Improvements to the new connections process will clearly benefit customers and the DNOs themselves.
- While many business customers are knowledgeable and comfortable with requesting a new connection, DNOs should not assume that the customer understands the process. They should establish each individual customer's degree of understanding at the outset, and tailor their approach accordingly, eg.-
 - does the customer need help with the request form?
 - does the customer understand what they are required to do in advance of the DNO's work? If not, set this out clearly
 - would an early site visit be helpful, even before the request is placed, to ensure that the requirements are clear?
 - explain exactly what DNO will do and when, and explain (if appropriate) where the timescale may be revised
 - stay in touch and update on timescale throughout to manage each customer's expectations.
- DNOs should make every effort to streamline ordering equipment, provision of resources and completion of tasks.

- DNOs should be aware that there is often much more than the customer's immediate needs at stake and that a delay on their part can have very wide negative impacts including:
 - financial - through additional costs incurred, loss of sales and revenue, loss of funding etc
 - workforce - including tradespeople not being able to proceed – with potential impacts on other projects – people not being paid or being laid off etc
 - reputation - and the impact this may have on future business as well as loss of service to customers
 - the wider community - including local residents/businesses affected by loss of power, a negative impact on a neighbourhood through properties standing empty longer than expected, people not being able to move into their homes, shops not being available to them etc.

APPENDIX A
Depth Questionnaire



Interviewer:

Respondent name:

Respondent telephone:

Job title:

Company:

Date: Time:

Good morning/afternoon My name is ... and I am calling from Accent. You very kindly agreed to take part in research we are conducting for Ofgem looking at customers' experiences of having new electricity connections. Is now a convenient time to talk?

Yes
No: reschedule

The research is being conducted in accordance with the Code of Conduct of the Market Research Society (MRS) and also with the Data Protection Act, with whom Accent is registered. This means that everything you say is confidential and will not be attributed to your company or to you personally, without your express permission.

With your permission I'd like to record our discussion. This is standard market research procedure and is to ensure accuracy – so I do not have to try to remember what you have said – and for analysis purposes only. The recording will not be passed to any third party not associated with the research project, and I assure you that none of your comments will be attributed to you by name.

The interview will last around 30 minutes.

Introduction **2 mins**

- Confirm company, name and job title
- What is your company's business?
- And briefly, how would you describe your role and responsibilities?
- Which company do you talk to when you want to discuss a new connection?

Background **2 mins (4)**

- As you know, we want to know about your company's experience in having a new connection (or connections) installed, and I'd like to talk to you about your most recent connection(s). But first, had you had new connections installed before that?
- **If yes:** did you experience any delays on any of those connections?

- **If yes:** do you now factor in additional time on the basis of those delays? **Probe**

Requesting the connection	5 mins (9)
----------------------------------	-------------------

- Thinking about the most recent new connection(s) you had, what were the circumstances that led to the need for a new connection(s)? How many connections did you have installed?
- How did you go about requesting your most recent new connection(s)? (On line, single point of contact/account manager etc)
 - how easy was it requesting the new connection(s)?
 - what information were you given at that stage?
 - were you given an overall timescale?
 - **if no:** when were you given an overall timescale?
 - was the overall timescale in line with your expectations? In line with business requirements?
 - **if no:** in what way? **Probe**
- How satisfied were you with this stage of the work? **Probe**

Getting the quote	3 mins (12)
--------------------------	--------------------

- How long did it take to receive the quote for the new connection?
 - was this in line with the original timescale/when you expected to receive it?
 - **If yes:** did you have to chase for the quote in order to receive it on time? **Probe**
 - **If no:** in what way? Did this have any knock on effect on the overall workplan? Did you have to make any adjustments at the time as a result of receiving the quote later than expected? **Probe**
- Were any activities dependant upon receiving the quote for the new connection? **Probe**
- If quotation received later than expected: what was the impact on those activities of receiving the quotation later than you'd expected? **Probe**
- How long were you given to respond to the quote?
- Did this timescale to respond cause you any problems? Eg in terms of resources, securing finance, getting approval etc. **Probe**
- Were there any (other) issues surrounding the quote that impacted on the timescale of the work? **Probe**
- How satisfied were you with this stage of the work? **Probe**

Having the work done	3 (13)
-----------------------------	---------------

- Did the work to put in the new connection(s) start as specified in the original timescale? As specified in a revised timescale? **Probe**

IF YES

- What would you say were the key reasons for the work starting on time?
- Did you take any action to ensure that the work started on time?
 - **If yes:** what prompted/alerted you to the need for that? What action did you take? **Probe**
 - What would have been the impact at the time on your business if you had not taken that action **Probe**
- Are you aware of your DNO/the company responsible for the connection taking any action to ensure that the work started on time? **Probe**
- What would have been the impact on your business activities if the work had not started on time? ?

- What might the knock on effects have been? Who else may have been affected

IF NO

- What were the reasons for the work not starting on time?
- How did you respond to the work not starting on time?
 - What impact did that have on your overall workplan?
 - What adjustments did you have to make?
 - What impact did it have at the time on your business activities?
 - Was there any knock on effects of this? Was anyone else affected? **Probe**
 - Did you take any action to mitigate the effects of a delayed start to the work
 - **If yes:** What action did you take? What would have been the impact on your business at the time if you had not taken that action **Probe**
 - Are you aware of your DNO/the company responsible for the connection taking any action in response to the delayed start? **Probe**

Completing the work	3 mins (16)
----------------------------	--------------------

- Did the work to put in the new connection(s) finish as specified in the original timescale? As specified in a revised timescale?

IF YES

- What would you say were the key reasons for the work finishing on time?
- Did you take any action to ensure that the work finished on time?
 - **If yes:** what prompted/alerted you to the need for that? What action did you take? **Probe**
 - What would have been the impact on your business if you had not taken that action **Probe**
 - Would any else have been affected? **Probe**?
- Were you aware of your DNO/the company responsible for the connection taking any action to ensure that the work finished on time? **Probe**

IF NO

- What were the reasons for the work not finishing on time? **Probe**
- How did you respond to the work not finishing on time?
 - What impact did that have on your overall work plan?
 - What adjustments did you have to make?
 - What impact did it have on your business activities?
 - Was there any knock on effect of this? Was anyone else affected? **Probe**
 - Did you take any action to mitigate the effects of a delayed completion to the work
 - **If yes:** What action did you take? What would have been the impact on your business if you had not taken that action **Probe**
 - Were you aware of your DNO/the company responsible for the connection taking any action in response to the delayed completion? **Probe**

Those experiencing delays	10 mins (26)
----------------------------------	---------------------

- Looking back at the overall experience of having the new connection(s), and the delay(s) you experienced, what would you say was the impact of those delays? Is there anything you were unable to do or had to revise or reschedule because of the delays?
- What were the short term impacts on your ...? **Probe eg**

- Business activities?
 - Business revenue?
 - Employees?
 - Recruitment activity?
 - **Distributed generation respondents:** Environmental business (financial or ethical), eg
 - missing out on funding or other financial benefits (eg FITs) arising from providing low carbon energy
 - not being able to contribute to low carbon economy
 - any impact on reputation, financially/ethically
 - any wider impacts eg on employees, social, wider community
 - **Distributed generation respondents:** Security of supply?
 - Customers? (Probe for impact on activity, revenue, employees, recruitment etc)
 - Suppliers? (Probe for impact on activity, revenue, employees, recruitment etc)
 - Local community?
 - Wider community?
 - Anyone else?
- Were there any longer term impacts on your...? **Probe eg**
 - Business activities?
 - Business revenue?
 - Employees?
 - Recruitment activity?
 - **Distributed generation respondents:** Environmental business (financial or ethical), eg
 - missing out on funding or other financial benefits (eg FITs) arising from providing low carbon energy
 - not being able to contribute to low carbon economy
 - any impact on reputation, financially/ethically
 - any wider impacts eg on employees, social, wider community
 - **Distributed generation respondents:** Security of supply?
 - Customers? (Probe for impact on activity, revenue, employees, recruitment etc)
 - Suppliers? (Probe for impact on activity, revenue, employees, recruitment etc)
 - Local community?
 - Wider community?
 - Anyone else?

Those not experiencing delays	10 mins (26)
--------------------------------------	---------------------

- Looking back at the overall experience of having the new connection(s), if you had experienced any delays, what would you say would have been the impact of those delays? Is there anything you would have been unable to do or would have had to revise or reschedule because of the delays?
- What would have been the short term impacts on your ...? **Probe eg**
 - Business activities?
 - Business revenue?
 - Employees?
 - Recruitment activity?
 - **Distributed generation respondents:** Environmental business (financial or ethical), eg
 - missing out on funding or other financial benefits (eg FITs) arising from providing low carbon energy
 - not being able to contribute to low carbon economy
 - any impact on reputation, financially/ethically

