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Non-domestic customer consultation research

Report prepared for:

NIE

November 2015

Contents

Version 1.2
Submitted: 5th November 2015

Overview

This section of the report summarises the feedback from the research with non-domestic customers.

The research consisted of:

- Fifteen in-depth interviews with non-domestic customers (phase 1); and
- 508 telephone interviews with non-domestic customers (phase 2).

Feedback is structured under the following headings:

1.1 Views of NIE;
1.2 Experience of service delivery;
1.3 Communications;
1.4 Rating and prioritisation of service attributes;
1.5 Overall priorities and willingness to pay.

1.1 Views of NIE

Summary of findings

- Across both stages (quantitative and qualitative) of research, it was evident that non-domestic consumers tend not to think about their electricity services unless they encounter a problem or have a query. Despite this apparent apathy towards the service, those who participated in the qualitative interviews stressed that electricity services are vital to business operation.
- The quantitative survey findings highlight that over half (53%) would speak highly of the services provided by NIE and 5% would be critical. Two fifths indicated that they do not have a strong opinion of the services;
- Those most likely to be critical of the service are:
  - Organisations in the agricultural sector;
  - Those located in rural areas;
- 75% agree that they are satisfied with the service provided and 3% disagree;
- 78% believe that NIE is striving to be more efficient and 3% disagree;
- 77% trust that NIE will be effectively monitored and 3% disagree;
- 68% agree that NIE understands the needs of their organisation and 4% disagree;
- 72% consider NIE to be fair in its dealings and 4% disagree;
- 72% agree that it is easy to get in contact with the people they need to in NIE, while one in ten (10%) disagree;
- Those in the agricultural sector and located in rural areas are most likely to be dissatisfied or have an unfavourable opinion of NIE, as are those who have experience of unplanned outages and have applied for a connection.

In this section we explore the views and opinions of non-domestic customers relating to the services offered by NIE, perceptions of the organisation and the effectiveness of monitoring arrangements.

This section commences with an overview of the findings gathered from the qualitative research, with a focus on awareness of NIE and perceived importance of electricity services to business operation. It then addresses the key quantitative survey findings.

1.1.1 Setting the context

Qualitative findings

The qualitative interviews commenced by ascertaining the extent to which electricity services are important to the operation of non-domestic customers' organisations and commercial businesses. Irrespective of sector, size and level of usage, respondents indicated that electricity services are 'vital' or 'crucial' to their respective organisations. Large organisations have back-up generation but the extent to which they can sustain their operations without normal electricity supply varies, and as such, they still describe security of supply as critical.

> *"We don't have to call on our generators very much, we have a resilient electricity supply." (Large healthcare)*

> *"Security of supply is critical, if we have brown-outs or black-outs it effects our entire supply chain…we rely on a large amount of refrigeration and have limited back-up generation. Without power we will lose product and lose customers." (Rural, large manufacturing)*

> *"If we don't have electricity…we don't meet our own compliance standards and standards that we have to meet on behalf of the government. This means we can get potentially fined." (Large utility)*

> *"We couldn't do without it* [electricity]. *We need it for the changing rooms, car park and football pitches." (Rural, sports club)*

> *"Crucial – We are helpless without it. The whole business is based on three aspects that require electricity; software, manufacturing and communications." (Urban, small manufacturing)*

Other non-domestic customers highlighted the importance of a consistent voltage and noted that sudden changes can cause damage to machinery or equipment.

> *"There are sometimes problems with phase fluctuations, so you are getting power but maybe not as much power and the system looks at it and goes 'I'm not getting a proper supply here from the grid' so it shuts the plant down and moves to a standby generator and uses that instead until there is proper voltage on the grid." (Large utility)*

> *"The only problem I have had is with the current. The wind turbine is sensitive and will turn off if there is an imbalance in the current of more than 20 or 30 amps. This damages the turbine. We mill and mix our own feed for the pigs, there are quite a lot of rotors and electrical motors which require three phases. If there is a current imbalance I'm worried that damage would be done to my machinery." (Rural generation)*

Awareness of the role of NIE

Respondents were asked about their knowledge of the role of NIE. Large organisations are more aware of the specifics of NIE's role than small or medium sized organisations. This is perhaps a reflection of the fact that the larger organisations have energy and sustainability directors who work with NIE on a more regular basis. Therefore, they were all aware that NIE is responsible for the transmission and distribution network and new connections.

"NIE's role is to maintain the network, not supply electricity." (Rural, large agriculture)

"Generator connections and looking after the network for a resilient supply to the population." (Large healthcare)

"NIE? Good question! Well, they run the network and fix issues to do with power cuts." (Urban, large retail)

"Transmission and distribution, they take electricity from power stations to houses and businesses. We have a lot of sites requiring high voltage." (Large utility)

However, while awareness and understating of NIE's role is greater among larger organisations, one large manufacturer took this opportunity to state that NIE is not particularly engaging with customers.

"[It is] *A closed group, not very outwardly engaging to their stakeholders." (Large manufacturing)*

NIE and its role was somewhat more ambiguous to small and medium sized organisations, with many still unsure of the relationship between NIE and Power NI. A few also queried whether NIE supplies electricity.

"They generate electricity and are the main supplier in Northern Ireland." (Urban, small personal service)

"Provider and supplier of electricity. Not really sure of the relationship between it and Power NI." (Urban, medium construction)

"They are the only electricity operator in Northern Ireland, not like England. They seem to have a monopoly." (Voluntary/charity)

Regarding bill enquires, most small and medium organisations indicated that they would call the customer helpline detailed on their bill. However, some still believed that this number belonged to NIE; it was evident that they didn't recognise that they were calling their supplier.

Respondents were asked who they would contact regarding a range of electricity related issues. Responses are included in table 1.1.1.

Table 1.1.1: Electricity related issues: respondents' likely contact point

	Depth	Bill enquiry	Electrical fault	Power outage	Meter reading	Electricity connect	Fallen power lines
1	Large manufacturing	Supplier	Electrician /NIE	NIE	Self-report/NIE	NIE	NIE
2	Medium manufacturing	NIE	NIE	NIE	NIE	NIE	NIE
3	Small manufacturing	Supplier	Supplier	Supplier	DK	DK	DK
4	Large agriculture	Supplier	NIE	NIE	Self-report	NIE	NIE
5	Small agriculture/ generation	-	-	-	-	-	-
6	Large utility	Supplier	Check internally/ NIE	NIE	NIE	NIE	NIE
7	Large healthcare	Supplier	NIE	NIE	NIE	NIE	NIE
8	Semi-rural educational establishment	NIE	NIE	NIE	NIE	NIE	NIE
9	Large retail	Supplier	NIE	NIE	NIE	DK	NIE
10	Large hospitality	Supplier	NIE	NIE	Supplier	Electrician	Supplier
11	Medium construction	Supplier	Supplier/ NIE	NIE	NIE	NIE	NIE
12	Small personal service	Supplier	Supplier	Supplier/ NIE	Supplier	DK	DK
13	Medium business service	Supplier	NIE	NIE	Supplier	DK	DK
14	Voluntary/Charity	Supplier	Supplier/ NIE	Supplier/ NIE	DK	DK	Supplier/ NIE
15	Sports club	Supplier	Supplier	Electrician /NIE	NIE	NIE	NIE

1.1.2 Opinions of NIE

Quantitative findings

We now turn to the findings of the telephone survey in relation to opinion of NIE.

Respondents were asked a number of questions to capture their perceptions of NIE and ascertain the extent to which they would be positive or critical of the services provided.

We asked seven questions on consumers' general opinions of NIE, as follows:

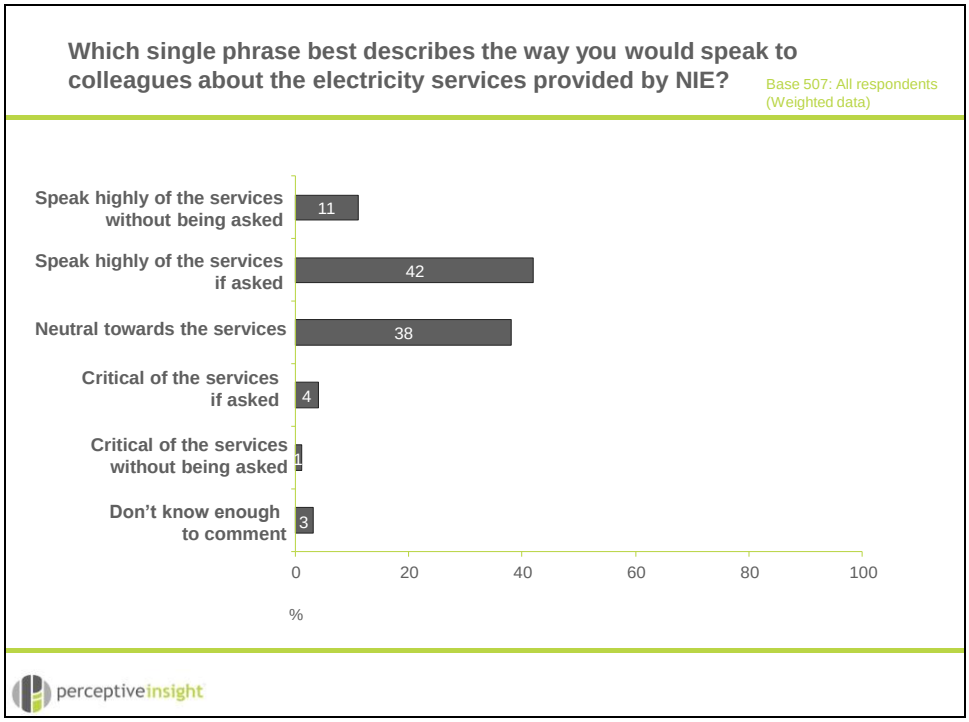
- What phrase best describes the way you would speak to colleagues about the services provided by NIE (see figure 1.1.1 and table 1.1.1);
- Views on the efficiency of NIE;
- Views on the effectiveness of monitoring NIE;

- Satisfaction with the service provided by NIE;
- NIE understands the needs of my organisation;
- NIE is fair in its dealings with my organisation;
- It is easy to get in contact with the people I need to in NIE.
  (see figure 1.1.2)

Advocacy of NIE's services

Over half of domestic customers (53%) indicated that they would speak highly of the services provided by NIE, with one in ten (11%) stating that they would do so spontaneously. Just 5% held a critical stance, whilst two fifths (38%) indicated that they are neither positive nor negative about the services.

Figure 1.1.1: Views of NIE



Organisations from the agriculture sector (13%) and situated in a rural location (8%) were more likely to be critical of the services provided. Those in the manufacturing, construction and motor trades were more likely to express a positive viewpoint.

Table 1.1.2: Views of NIE by sector, size, location

		Sector					Size			Location		
Which single phrase best describes the way you would speak to colleagues about the electricity services provided by NIE?	Overall	Agriculture	Manufacturing, Construction, Motor trades	Wholesale, retail, hospitality	Transport, services	Public admin, health and	10 or less employees	11 to 49 employees	50 or more employees	Urban	Rural	Both
Base unweighted weighted	*508/ 507*	*100/ 105*	*104/ 104*	*102/ 103*	*101/ 95*	*101/ 100*	*270/ 451*	*154/ 46*	*84/ 10*	*280/ 258*	*191/ 215*	*37/ 34*
I would be critical of the services without being asked	1%	5%	2%	-	0%	-	1%	1%	2%	1%	2%	1%
I would be critical of the services if asked	4%	8%	3%	2%	2%	3%	4%	5%	1%	2%	6%	-
I would be neutral towards the services	38%	43%	22%	49%	36%	41%	38%	38%	48%	35%	38%	63%
I would speak highly of the services if asked	42%	41%	53%	37%	42%	38%	42%	45%	32%	45%	41%	29%
I would speak highly of the services without being asked	11%	2%	20%	5%	16%	14%	12%	7%	7%	13%	11%	1%
Don't know enough to comment	3%	2%	1%	6%	4%	4%	3%	5%	10%	4%	2%	6%

Further sub-group analysis revealed some interesting perceptions of NIE based on experience of outages; 10% of those who have experienced a planned or unplanned interruption in the last 12 months were likely to be critical of NIE, compared with 3% who have not experienced an outage.

Furthermore, those who have applied for a new connection, or an alteration to the existing connection, were more likely to express a negative viewpoint. For example, 25% of those who have applied for a connection indicated that they would speak critically of the services. This compares with 4% of those with no experience of connections.

Opinion of NIE

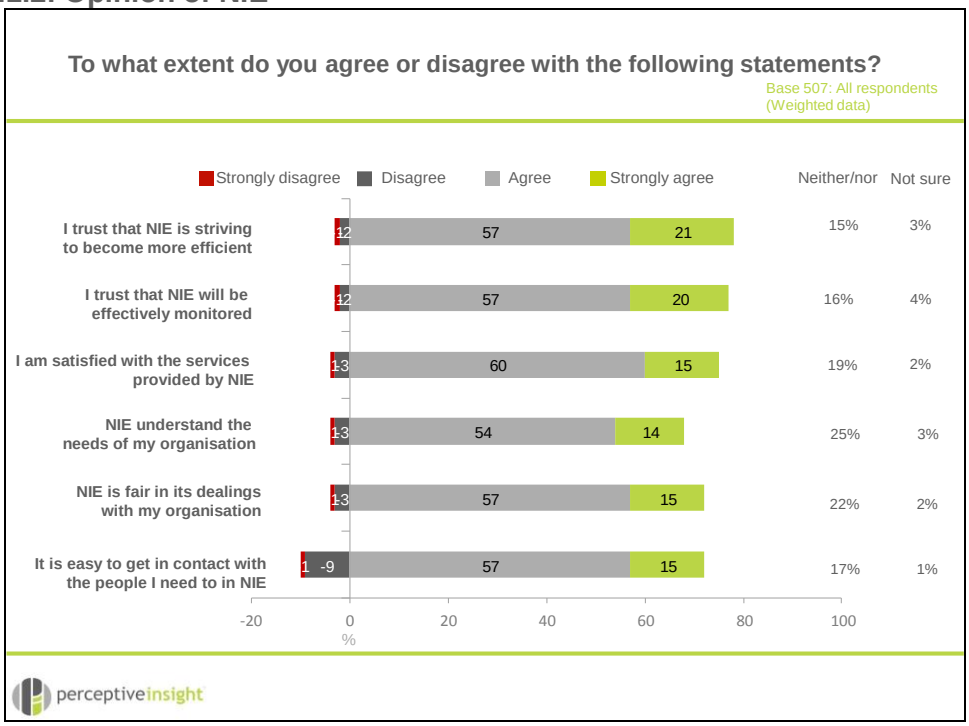
Respondents were asked a number of questions to capture their perceptions of NIE and the way in which the organisation is monitored. Figure 1.1.2 illustrates the following points:

- Over three quarters (78%) agreed with the statement that NIE is striving to become more efficient; while only 3% disagreed;
- A similar proportion (77%) trust that NIE will be effectively monitored, 3% disagreed with this statement and 20% indicated that they either had no opinion or were not sure;
- 75% agreed that they are satisfied with the services provided by NIE. This compares to 4% who indicated that they are not satisfied;

- 68% agreed that NIE understands the needs of their organisation, while 4% disagreed and one quarter (25%) indicated that they held no opinion or were not sure;
- 72% agreed that NIE is fair in their dealings with their organisation. A much smaller proportion (4%) disagreed with this statement;
- 72% agreed that it is easy to engage with the required personnel at NIE. One in ten (10%) disagreed that this is the case.

A relatively high proportion of respondents indicated that they would be neither critical nor complimentary of the services provided by NIE in relation to each aspect of service. This finding suggests that customers tend not to think about their electricity services unless they encounter a problem or experience a service issue.

Figure 1.1.2: Opinion of NIE



The following table analyses respondents' opinion and satisfaction with NIE by key respondent characteristics. It shows that those in the agricultural industry are most likely to be dissatisfied with services provided by NIE, as are those from a rural setting.

Further analysis reveals that those with experience of unplanned outages, and who have applied for a new or alteration to an existing connection, were less likely to be satisfied with the services provided by NIE.

These trends appear to be apparent across the various questions relating to opinion of NIE.

Table 1.1.3: Satisfaction with NIE services by sector, size, location

		Sector					Size			Location		
I am satisfied with the services provided by NIE.	Overall	Agriculture	Manufacturing, Construction, Motor trades	Wholesale, retail, hospitality	Transport, services	Public admin, health and	50 r less employees	11 to 49 employees	50 or more employees	Urban	Rural	Both
Base unweighted weighted	*508/ 507*	*100/ 105*	*104/ 104*	*102/ 103*	*101/ 95*	*101/ 100*	*270/ 451*	*154/ 46*	*84/ 10*	*280/ 258*	*191/ 215*	*37/ 34*
Strongly agree	15%	1%	14%	10%	24%	25%	15%	12%	11%	23%	6%	1%
Agree	60%	75%	62%	59%	44%	58%	59%	68%	71%	52%	66%	82%
Neither	19%	14%	20%	28%	18%	16%	20%	15%	10%	18%	21%	17%
Disagree	3%	5%	4%	4%	3%	-	3%	3%	5%	2%	5%	0%
Strongly disagree	1%	3%	-	-	2%	-	1%	-	-	1%	2%	-
Not sure	2%	2%	-	0%	9%	0%	2%	2%	4%	4%	1%	-

1.2 Experience of service delivery

Summary of findings

- One fifth of businesses have experienced a planned power cut in the last 12 months, the majority of which encountered an outage on one occasion;
- In most instances (58%) the planned power cut lasted more than four hours in duration;
- Over half (55%) were of the perception that it is reasonable for a planned power cut to last up to four hours, and to occur once a year (43%). It is perhaps concerning to note that around one fifth expressed intolerance for any planned power cuts per annum;
- The current method of informing customers of a planned power cut (i.e. notification card) is generally deemed sufficient;
- Around one quarter (26%) have experienced an unplanned interruption in the last year;
- In two thirds of cases (69%) this occurred on one occasion. One third (33%) reported that the unplanned interruption lasted less than one hour, whilst 29% stated that it was 3 to 10 hours in duration and 2% confirmed that it was over 10 hours;
- Over two fifths of those who have experienced a planned or unplanned interruption made contact with NIE. Respondents were generally satisfied with the various methods of communication;
- Just 5% have experience of applying for a new or alteration to an existing connection. Such respondents provided varied feedback in relation to the extent to which they perceived the experience to be satisfactory. However, it should be reiterated that this group were more likely to be critical of the services provided by NIE;
- Furthermore, the qualitative information gathered from the in-depth interviews highlighted connections as an area of dissatisfaction for many businesses.

In this section we explore the extent to which non-domestic customers have had issues with their electricity services, with specific reference to planned and unplanned interruptions, and the contact that has been made with NIE over the past year. This section also explores the experiences and views of organisations in relation to applying for connections.

Initially we consider the findings from the qualitative in-depth interviews before measuring the extent of the issues through the quantitative survey.

Qualitative feedback, as gathered from the in-depth interviews, is structured as follows:

- Experience of electricity related issues in the last 12 months;
- Perceptions of an acceptable level of power cuts per annum.

Within our quantitative survey of non-domestic organisations we asked whether respondents had experienced any planned or unplanned interruptions in the last 12 months. Feedback is summarised accordingly:

- Incidence of experiencing a planned power cut (see figure 1.2.1);
- Frequency of planned interruptions (see table 1.2.1);

- Duration of planned power cuts (see figure 1.2.2);
- Perceived acceptability of maximum length of planned power cuts (see figure 1.2.3);
- Perceived acceptability of the maximum number of planned power cuts per annum (see figure 1.2.4);
- Preferred communication methods in the instance of planned power cuts (see table 1.2.2);
- Incidence and experience of unplanned power cuts (see figure 1.2.5);
- Frequency of unplanned power cuts (see table 1.2.3);
- Duration of unplanned power cuts (see figure 1.2.6);
- Experience of contacting NIE in relation to outages (see figure 1.2.7);
- Experience of various contact methods (see figure 1.2.8);
- Satisfaction with the customer service experience (see figure 1.2.9);
- Experience of contacting NIE, as captured in the qualitative information gathered from the in-depth interviews.

The final section of this chapter focuses on organisations' experiences of connections. The qualitative feedback gathered from the in-depth interviews precedes the survey findings. The latter is structured accordingly:

- Application for connections (see figure 1.2.10 and table 1.2.4);
- Views of the connection experience (see figure 1.2.11).

1.2.1 Qualitative views and experience of electricity related issues

Qualitative findings

During the in-depth interviews, participants were asked if they had experienced any electricity related issues within the previous year.

Very few respondents reported any electricity related issues over the last 12 months. Of those that did, it was mainly infrequent occurrences of brown-outs or a one-off power failure. There was also some experience of planned interruptions. In each instance, the organisation was notified in advance by NIE. A large organisation was able to make use of its generator during a planned outage of 10 hours. A small organisation did not experience any power outage following notification by NIE and assumed the work was carried out successfully without any interruption.

> *"There are areas where we would have more frequent problems, South Armagh etc…sites would have power issues where the electric would be off and on because of a power blip. We get call-outs in the night and have to go and reset the plant."*
> *(Large utility)*

However, respondents with experience of connections all reported issues with NIE and the process. While there was an understanding that this was not necessarily an issue regarding supply, respondents were keen to point out at an early stage how problematic connections have proved (this issue is explored further in this chapter).

"We invested £450k in a CHP to save ourselves money and to reduce our carbon footprint…because NIE stalled and stalled that cost us money and affected our payback on the investment." (Large healthcare)

"Getting people to do disconnections in a quicker time if possible, six weeks seems to be the key word with them…it should take a week to ten days. Things just seem to go round peoples' desks." (Urban, medium construction)

"Connections to units, we can't get connections for units, it's been five weeks and I still don't understand the process. This is an industry wide problem." (Urban, large retail)

Some feel that although the performance of the electricity network has been very good, electricity costs for businesses are more than in other regions of the UK or the Republic of Ireland.

"Security of supply has been extremely successful but that comes at a price and the price is uncompetitive in this region." (Rural, large manufacturing)

Power cuts - Perceptions of an acceptable level of occurrence

There is general agreement that a small number of power cuts a year is acceptable. It was suggested that this is even to be expected as NIE cannot completely eradicate all reasons for power cuts, such as third party damage. Instead, non-domestic customers were more concerned about the duration of power cuts. They stated that infrequent power cuts are easier to deal with than sustained outages lasting over one or two hours.

Overall, non-domestic customers feel that power cuts are not a problem.

"A power cut is something you are never going to completely eliminate and it is not always to do with NIE…I just don't think investing a lot of money in it would be the right thing." (Rural, sports club)

"Two 30 minute power cuts a year is probably better than one power cut lasting two hours. We can find things for staff to do for half an hour but two hours would impact on the business and clients." (Urban, medium business services)

"Power cuts are generally fixed quickly. I don't experience them very often and when they do happen they are fixed quickly. Response times are good." (Large healthcare)

"If you only have five or six times a year when your electric is off and it's only off for half an hour or an hour, at most…it wouldn't be as bad as three or four power cuts a year but the electric was off for three hours or four." (Rural generation)

"[Power cuts are] *Not a major problem, happen every now and then. When it is over an hour or two, that has a bigger impact." (Urban, large retail)*

"I would deem 1 in 6 customers experiencing a power cut to be quite high, however, I appreciate the myriad of reasons why faults occur is outside the control of NIE." (Semi-rural, educational establishment)

However, one organisation reported that they were running at close to full capacity and, regardless of its own back-up generation abilities, would be unable to sustain an outage lasting more than a matter of minutes.

"From now [May] *until September we can't sustain a loss of even 30 minutes at one of our sites because our customer demand is so high, utilisation is almost 100%." (Rural, large manufacturing)*

A small number of non-domestic customers recognised that location is a factor in terms of power cuts, and suggested that rural and exposed areas are more likely to be susceptible.

"In my opinion they need to spend a bit of money on very rural areas. Over a period of time, maybe five years, money needs to be invested there to try to prevent power cuts. I wouldn't say spend all the money there, that wouldn't make sense." (Rural generation)

"It depends where you live…it's more of a rural issue. My issue would be the effect on core front line services. Certain people need to be put first." (Voluntary/charity)

1.2.2 Quantitative measure of service interruptions and contact experience

Quantitative findings

In order to contextualise the findings, the survey initially assessed the number of organisations in possession of a back up generator, and, if this provision is in place, the length of time that it can provide back up power.

One quarter (24%) indicated that they have a back up generator, most of which were located in rural settings and from the agricultural and manufacturing/construction trades. The vast majority (95%) stated that the generator is for emergency use only. In terms of length of time that this can provide back up power, the following responses were provided:

- More than 5 days (46%)
- At least one day but less than 5 days (8%)
- At least 12 hours but less than 24 hours (8%)
- At least three hours but less than 12 hours (24%)
- At least one hour but less than 3 hours (8%)
- Less than one hour (1%)

Incidence and experience of planned power cuts

Figure 1.2.1 reveals that one fifth of businesses have experienced a planned power cut in the last 12 months. Just under half (49%) cannot recall experiencing a planned power cut at all.

Figure 1.2.1: Incidence of experiencing a planned power cut

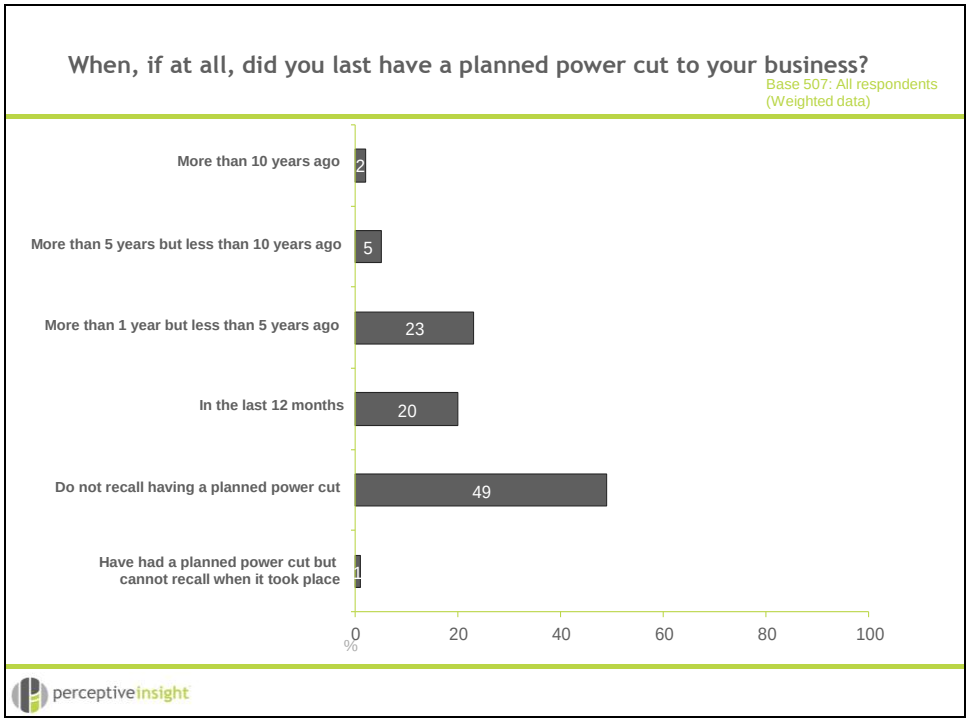


Table 1.2.1 shows that one in ten (12%) have experienced one planned power cut in the last twelve months. For 5%, this occurred on two occasions and for 3% on three occasions. As previously noted, the vast majority (80%) have not experienced a planned power cut in the last twelve months.

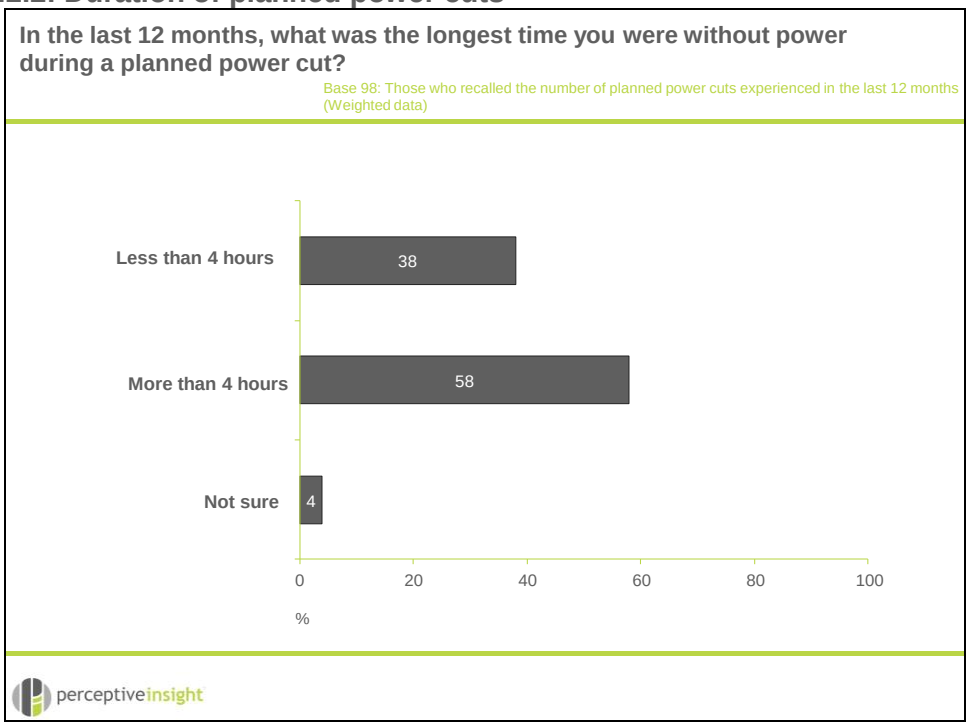
Those in the agriculture sector and in a rural setting are more likely to have experienced a planned interruption and for interruptions to be more frequent.

Table 1.2.1: Frequency of planned power cuts by sector, size, location

Thinking about the last 12 months, how many times have you experienced a planned power cut?	Overall	Sector					Size			Location		
		Agriculture	Manufacturing, Construction, Motor trades	Wholesale, retail, hospitality	Transport, services	Public admin, health and education	10 or less employees	11 to 49 employees	50 or more employees	Urban	Rural	Both
Base unweighted weighted	*508/ 507*	*100/ 105*	*104/ 104*	*102/ 103*	*101/ 95*	*101/ 100*	*270/ 451*	*154/ 46*	*84/ 10*	*280/ 258*	*191/ 215*	*37/ 34*
Once	12%	24%	12%	8%	7%	6%	11%	16%	15%	7%	18%	7%
Twice	5%	18%	1%	4%	0%	0%	5%	5%	1%	1%	9%	5%
Three times	3%	9%	2%	2%	0%	-	3%	2%	4%	0%	6%	0%
More than three times	0%	2%	-	-	-	-	0%	1%	1%	-	1%	-
Have not experienced a planned interruption in the last 12 months	80%	47%	85%	86%	92%	92%	81%	76%	77%	92%	65%	87%
Not sure	0%	-	0%	-	-	2%	0%	1%	1%	0%	1%	0%

Over half (58%) of those who reported a planned power cut in the last 12 months indicated that it was more than 4 hours in duration.

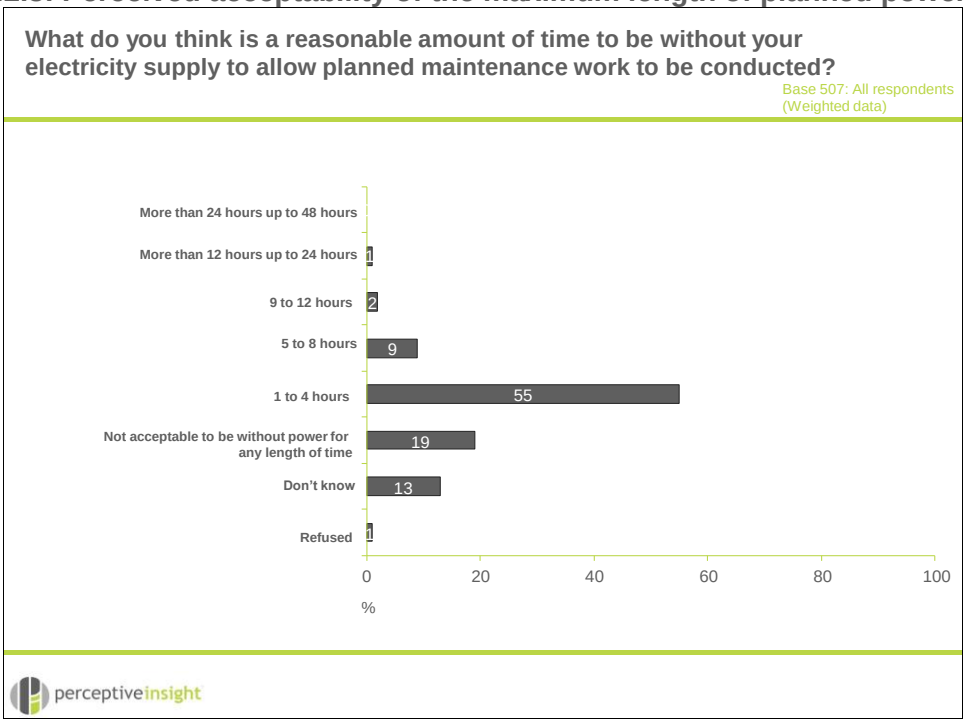
Figure 1.2.2: Duration of planned power cuts



Organisations were asked what they deem a reasonable amount of time to be without electricity supply to enable planned maintenance works. Over half (55%) perceived one to four hours to be acceptable (37% stated that they would manage without power for three to four hours). 9% perceived it to be acceptable to be without power for up to 8 hours, whilst only 3% reported a figure in excess of 8 hours.

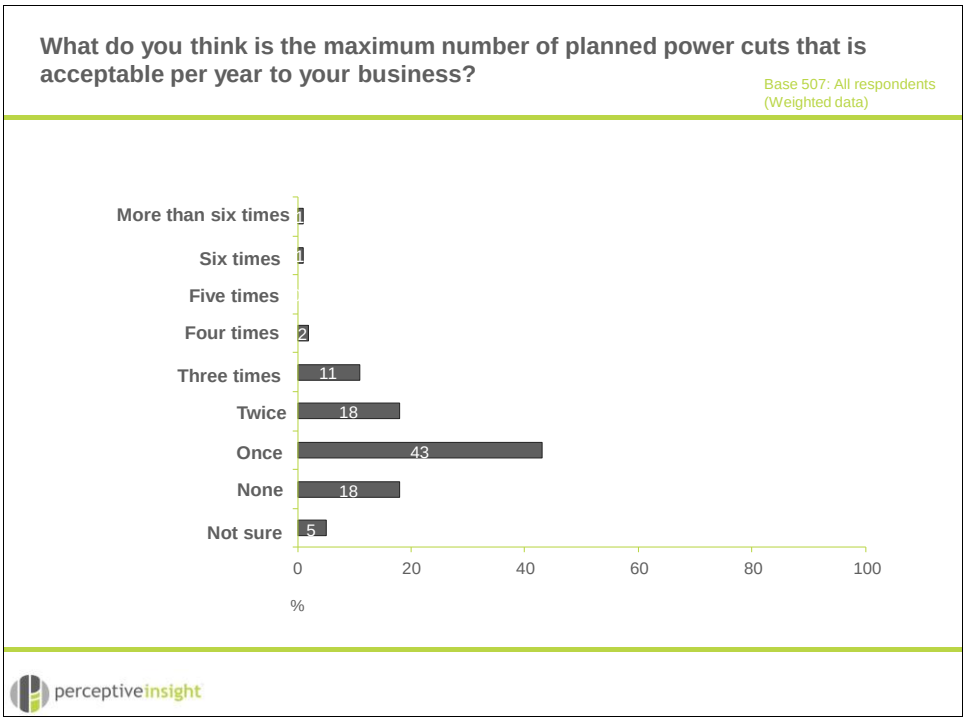
It should be noted that one fifth (19%) believe it is unacceptable to be without power for any length of time to enable planned maintenance. The response was most likely to be cited by organisations in the agricultural (27%), public administration, health, education (24%) and the wholesale, retail, hospitality (21%) trades.

Figure 1.2.3: Perceived acceptability of the maximum length of planned power cuts



Similar to previous feedback, 18% expressed intolerance for any planned power cuts to their business. Two fifths (43%) indicated that one planned power cut per annum is acceptable, whilst 29% stated that they could tolerate two to three planned interruptions each year.

Figure 1.2.4: Perceived acceptability of the maximum number of planned power cuts per annum



Communication methods in the instance of planned power cuts

The survey assessed the extent to which organisations perceive the current mode of informing customers of planned power cuts (i.e. via notification cards) to be acceptable. The majority (81%) agreed that this is an acceptable method of notification. Those who deemed it unsuitable (19% - 98 respondents) provided the following responses:

- 3 days is insufficient notice (94%);
- Card gets misplaced/sent to wrong person (8%).

Preferred communication methods

Almost three quarters cited the current method of communication as their primary preference. This was followed by personal telephone call and email. No respondents expressed a preference for social media or online applications in the instance of planned outages.

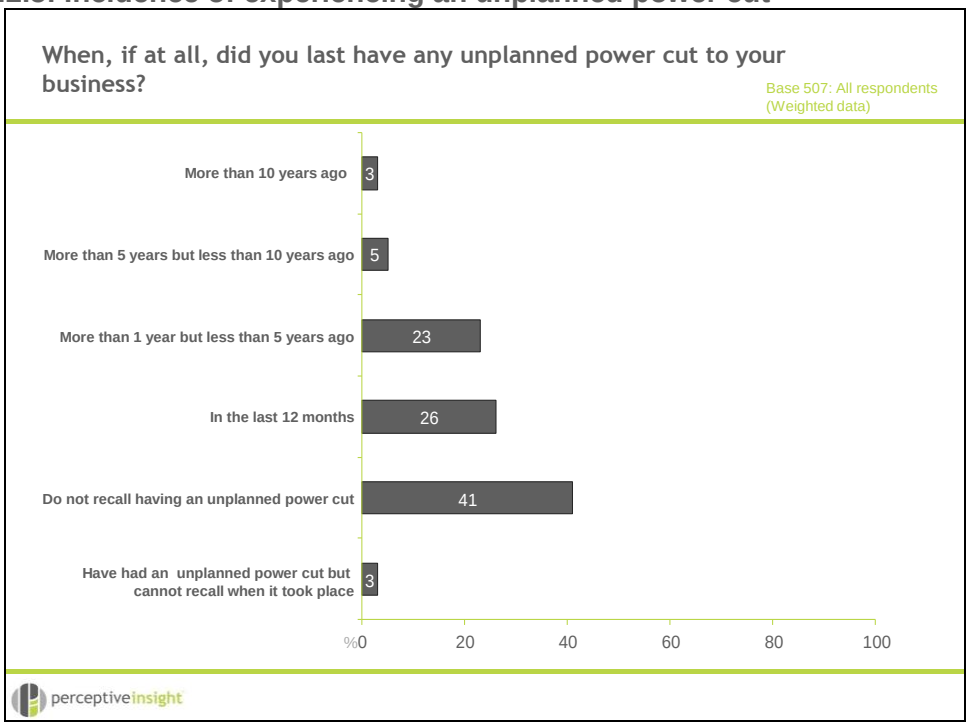
Table 1.2.2: Preferred communication methods in the instance of planned outages

Unweighted base: 508 *Weighted base: 507*	Primary preference	Secondary preference
A card through your door	73%	9%
NIE website	1%	1%
Text message	1%	7%
Email	8%	27%
Telephone – personal	14%	40%
Telephone – automated	1%	5%
NIE Facebook	-	-
NIE Twitter	-	-
NIE app	-	-
In-person	0%	0%
Letter	3%	9%
Other	-	1%

Incidence and experience of unplanned power cuts

Two fifths of respondents (41%) indicated that they could not recall having an unplanned power cut. Around one quarter (26%) have experience of unplanned interruptions in the last year, whilst 23% recalled an unplanned interruption over one year ago, but within the last five years.

Figure 1.2.5: Incidence of experiencing an unplanned power cut



As noted, almost three quarters have no experience of unplanned outages in the last 12 months. 18% have encountered one unplanned power cut, while 3% experienced two, and 5% three or more unplanned interruptions in the last 12 months.

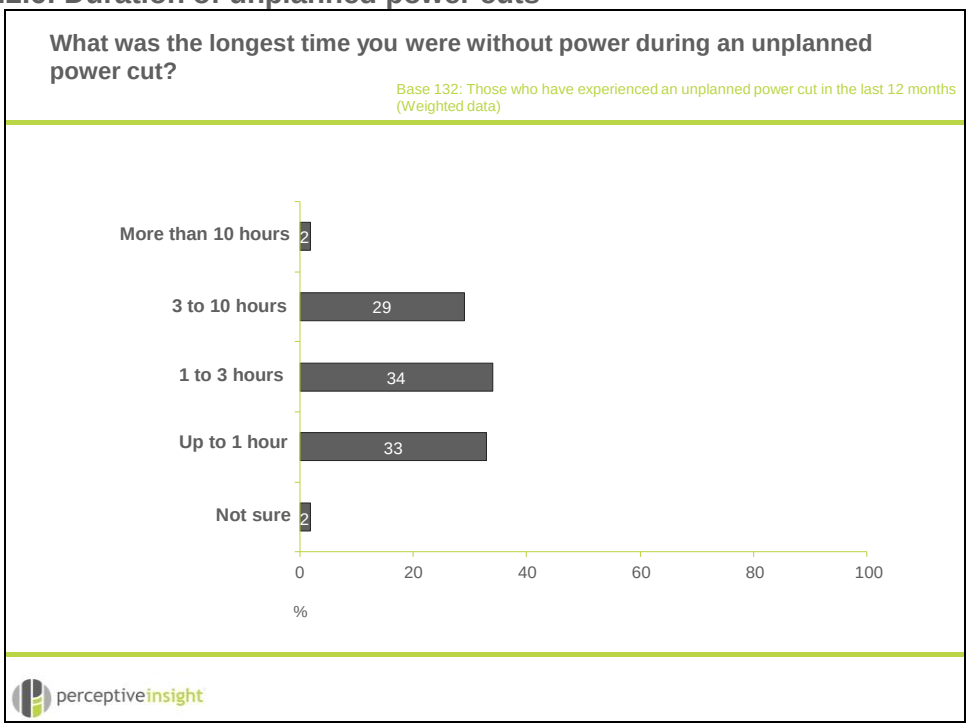
Perhaps not surprisingly, those in rural locations are more likely to have experience of unplanned outages, and on a more frequent basis, than their urban counterparts.

Table 1.2.3: Frequency of unplanned power cuts by sector, size, location

		Sector					Size			Location		
Thinking about the last 12 months, how many times have you experienced an unplanned power cut?	Overall	Agriculture	Manufacturing, Construction, Motor trades	Wholesale, retail, hospitality	Transport, services	Public admin, health and education	10 or less employees	11 to 49 employees	50 or more employees	Urban	Rural	Both
Base unweighted weighted	*508/ 507*	*100/ 105*	*104/ 104*	*102/ 103*	*101/ 95*	*101/ 100*	*270/ 451*	*154/ 46*	*84/ 10*	*280/ 258*	*191/ 215*	*37/ 34*
Once	18%	22%	18%	13%	21%	17%	18%	21%	15%	18%	18%	21%
Twice	3%	10%	1%	1%	2%	0%	3%	5%	6%	1%	6%	0%
Three times	2%	2%	5%	0%	4%	1%	2%	5%	1%	2%	3%	2%
More than three times	3%	6%	4%	1%	0%	2%	3%	2%	7%	0%	6%	1%
Have not experienced an unplanned interruption in the last 12 months	74%	61%	72%	86%	72%	80%	75%	66%	70%	79%	68%	75%
Not sure	0%	-	-	-	-	0%	-	1%	-	0%	-	-

One third of respondents reported an unplanned outage lasting one hour or less. A further third experienced an outage lasting up to three hours in duration, whilst 29% experienced a lengthier power cut, lasting between three and ten hours.

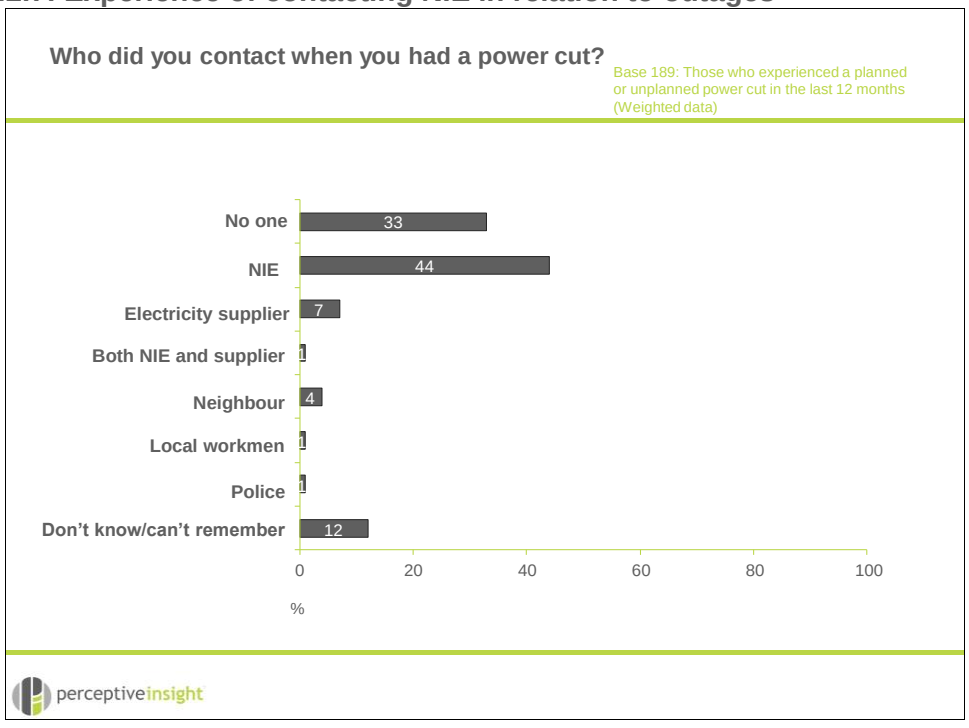
Figure 1.2.6: Duration of unplanned power cuts



Contacting NIE in the instance of a power cut

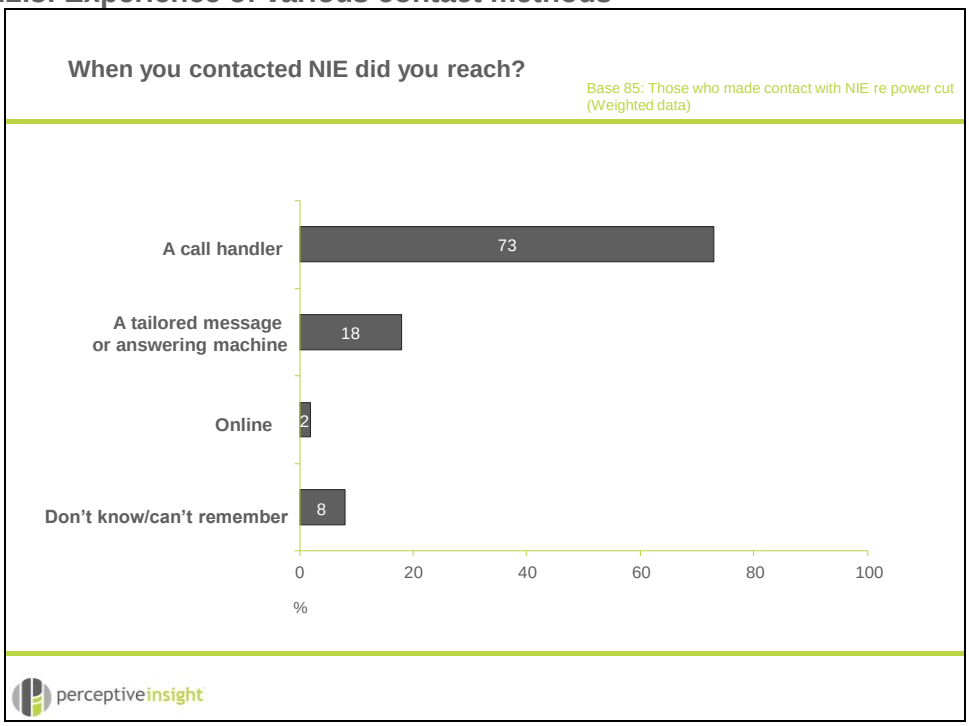
Respondents were asked who they contacted when they experienced either a planned or unplanned outage. 44% contacted NIE only, whilst 1% made contact with both NIE and their electricity supplier. One third indicated that they did not make contact with any organisation in relation to the supply interruption.

Figure 1.2.7: Experience of contacting NIE in relation to outages



Almost three quarters (73%) of those who contacted NIE engaged with a customer representative. Just under one fifth (18%) experienced the HVCA system, whilst only 2% contacted NIE via online methods.

Figure 1.2.8: Experience of various contact methods

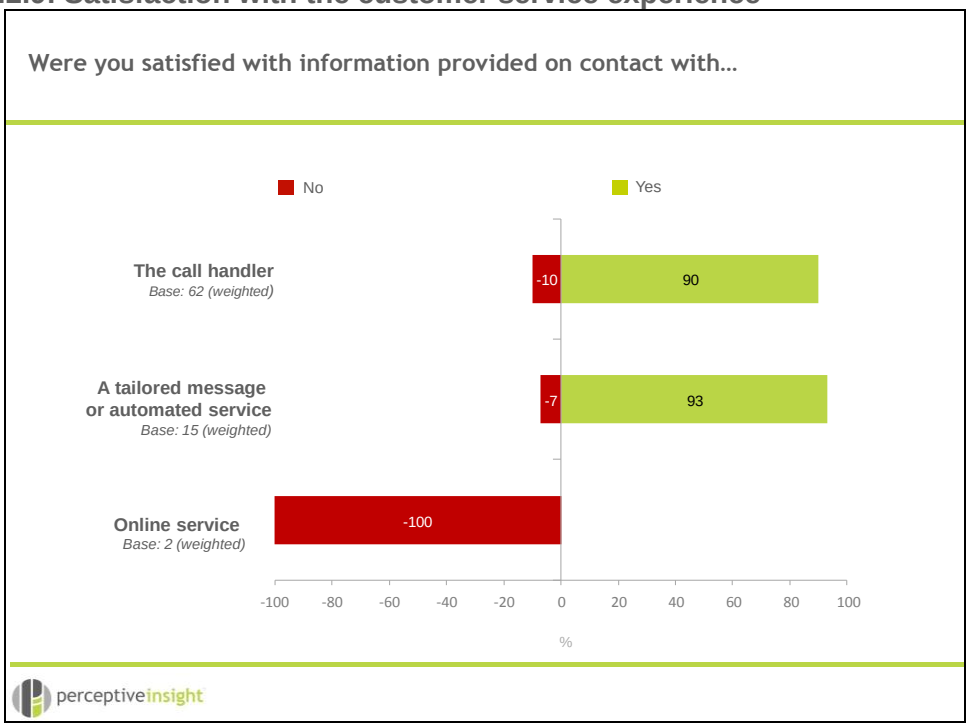


With the exception of the online service[1], respondents were generally satisfied with the contact methods used.

Those who were dissatisfied with the customer service experience (n=6) suggested that they received insufficient information in relation to the supply interruption (3 comments) or that the interruption was not rectified by the time/date specified (2 comments).

[1] It should be noted that satisfaction with the online service is based on a very low number of respondents, and therefore, results should be treated with caution.

Figure 1.2.9: Satisfaction with the customer service experience



Qualitative findings

Experience of contacting NIE

Apart from connections (as detailed below), the qualitative feedback revealed that very few non-domestic customers have had experience of contacting NIE and therefore had limited knowledge of the customer service it provides. While there was some confusion regarding how to contact NIE in different scenarios, customer service was generally perceived as of a satisfactory standard. A number of non-domestic customers had received notice that NIE was carrying out work in the area and that there may be power interruptions. However, respondents did not notice any issues and believed this is a credit to NIE.

"They are good when it comes to conducting work. Good communication and they get the work done without too much interruption." (Urban, large retail)

"[We were] *Kept updated on interruptions. It's good that they already inform businesses of their works in the local area." (Urban, small personal service)*

"Normally they put a wee card out. If you're given enough notice you just have to work around it." (Rural generation)

Overall, non-domestic customers found it difficult to comment on NIE's customer service given limited experience. However, several mentioned that this illustrates that they have had few issues with NIE. They inferred this as meaning they receive good customer service regarding supply.

Connections

Non-domestic customers with experience of connections, typically commercial businesses, had a particularly negative view of NIE and the service it provides to customers regarding connections. While some mentioned that they could not fault the quality of work carried out by NIE, the professionalism of its engineers and its customer service in other areas, the experience of getting a connection, or disconnection, from the network was deemed an altogether difficult and unpleasant experience.

The first issue mentioned related to difficulties getting in contact with the right person or department within NIE to arrange a connection or find out how things are progressing.

> *"It's just not a good system. It is too difficult to get from A to Z, from making a complaint to getting someone out on the ground. The amount of people a new connection has to go through is unreal…it is too long timescale-wise." (Urban, medium construction)*

> *"I suppose their structure works; you get a response, but it is vague on the detail. Connecting with the right person is difficult. Client management could be improved." (Rural, large manufacturing)*

Costs and payment structures were also mentioned as causing difficulties for non-domestic customers. For a few businesses this has led to the abandonment of investment in new or expanded facilities.

> *"NIE are very demanding when it comes to payment; they didn't work with us much. Basically we were told we had to pay by a certain date and if not they wouldn't begin the work. What they don't realise is we are large public sector body, payment is no issue for us…it just might take three weeks because of how procurement works." (Rural, large healthcare)*

> *"We look at renewables because in my role I have to look at all methods of becoming more efficient and de-carbonising. We have project proposals in place that often get stopped because of the cost of connections. At one of our facilities, the supplier chose not to go ahead with the full proposal because of the risk relating to not getting a connection agreement in place. It would have cost £6,500 and £7,000 for planning permission. Everybody in my industry knows that NIE are stalling on connections." (Rural, large manufacturing)*

> *"The costs are horrendous now for new connections and disconnections. The Regulator has now set these prices; they weren't that expensive before. They charge you £500 for ten minutes work." (Urban, medium construction)*

> *"Investment is essential in industrial areas. For example,* [main town] *needs invested in to cope with expanding industry. A shortage of power reduced our own expansion plans. We were fully prepared to invest in a new site and still have planning permission. However, NIE told us it would be £2million to upgrade the substation or gain capacity in the area so we didn't proceed." (Rural, large agriculture)*

> *"NIE have quoted upwards of £450,000 for one 250kw wind turbine because they say you would have to update the actual line back to Ballykinler." (Rural generation)*

In addition to costs, the process is deemed too slow for businesses. They feel that NIE should be able to complete the work in a shorter timescale and work more efficiently. Some non-domestic customers believe this could be improved with better communication or a more straightforward process as applications appear to be 'bogged down' in paperwork.

> *"We upgraded a site of ours in Ballymena a few years ago and in terms of our perception of efficiency and our experience of them, they dictated everything. A small army turned up to do the job and they had no sooner arrived when they broke for a break…they seemed to have nothing but supervisors." (Rural, large manufacturing)*

> *"Protracted…I find that getting them tied down to do the work can be very 'hit and miss'. We could be planning a project six months in advance and even with six months it isn't good enough for NIE to guarantee supply in that time." (Large utility)*

> *"Six months from request to completion. Unsatisfactory process in terms of timescale, cost and payment structure. Six months is too long, two months is more realistic and would be much better. Overall, it is two weeks physical work, the rest is just paper work." (Rural, large agriculture)*

> *"Dreadful, regardless of whether it's the supplier or NIE it is terrible customer service, I still can't get an answer. The whole thing is disconnected." (Urban, large retail)*

The same issues also appear to arise with generation connections; again customers stated that the process is too slow.

> *"I had an issue which I believe other people may have had due to the high demand on the grid which can't take the extra capacity of wind turbines. There was a period of time when you wrote your letter in and NIE said it would be three months in getting a quote back; it was very slow. And you're waiting nine months after you do that. So really it takes over a year from when you install the wind turbine to when you get your actual connection." (Rural generation)*

Overall, none of the non-domestic customers who had experience of connections had a positive view on the process. While they indicated that improved communication and customer service would be welcomed, they stated that project timescales and costs would also have to be addressed in order to improve the connection process.

Quantitative findings

Connections

The quantitative stage of the research revealed that 5% of organisations have applied for a new connection, or an alteration to their existing connection, in the last three years.

Figure 1.2.10: Application for connections

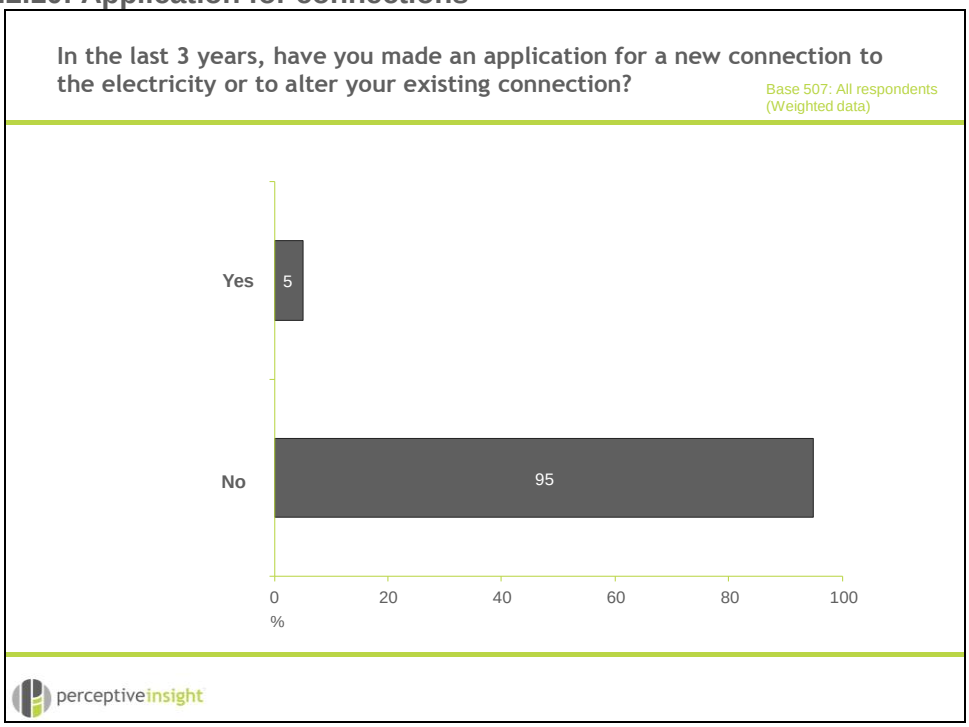


Table 1.2.4 shows that agricultural businesses and those from the rural setting are most likely to have applied for a connection. This finding is particularly notable given that these sectors were most likely to be critical of the services provided by NIE. It is possible that the experience has influenced their opinion of the organisation.

Table 1.2.4: Application for connection by sector, size, location

		Sector					Size			Location		
Application for connections	Overall	Agriculture	Manufacturing, Construction, Motor trade	Wholesale, retail, hospitality	Transport, services	Public admin, health and education	10 or less employees	11 to 49 employees	50 or more employees	Urban	Rural	Both
Base unweighted	*508/*	*100/*	*104/*	*102/*	*101/*	*101/*	*270/*	*154/*	*84/*	*280/*	*191/*	*37/*
weighted	*507*	*105*	*104*	*103*	*95*	*100*	*451*	*46*	*10*	*258*	*215*	*34*
Yes	5%	10%	5%	3%	2%	2%	4%	6%	5%	3%	7%	2%
No	95%	90%	95%	97%	98%	98%	96%	94%	95%	97%	93%	98%

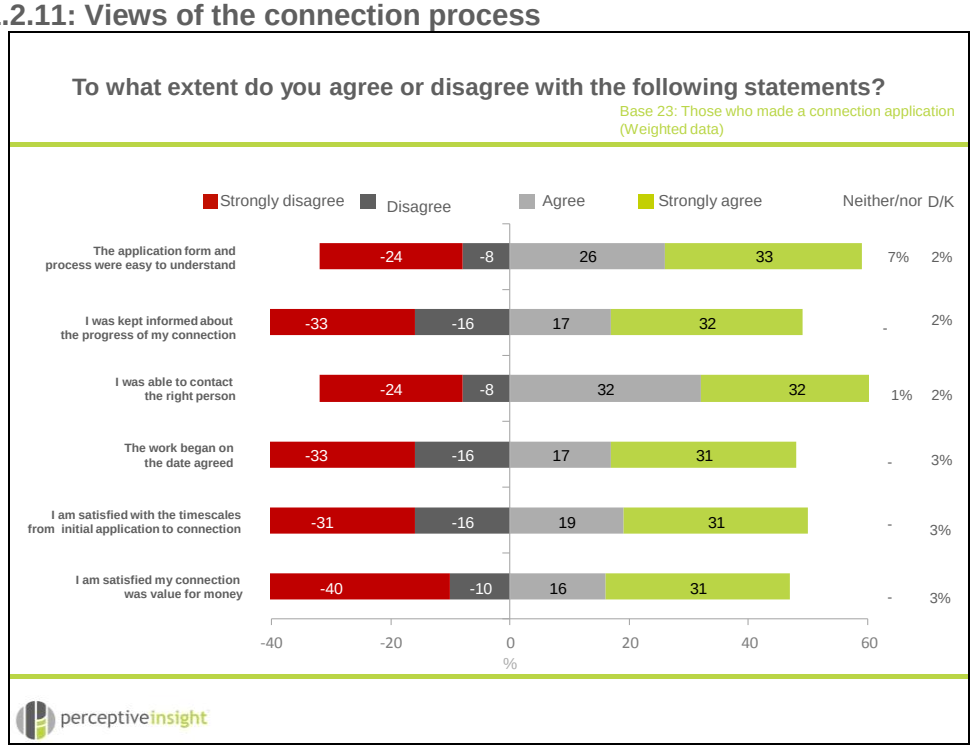
Views of the connection process

Those with experience were asked a number of questions about the connection process, however, it should be noted that the results are based on a small number of respondents (n=23). Figure 1.2.11 illustrates the following points:

- 59% agreed the application form and process were comprehensible, whilst 32% disagreed this was the case;

- 49% agreed that they were kept informed about the process of their connection. However, the same proportion (49%) indicated that they were not kept informed;
- Almost two thirds (64%) revealed that they were able to contact the right person in relation to the connection, whilst one third (32%) indicated that they were not able to.
- There was mixed feedback in relation to whether the work began on the agreed date. 48% reported that this was the case, whilst 49% stated that it did not commence as agreed;
- Respondents held similarly mixed opinions in relation to their satisfaction with the timescales from initial application to connection and the extent to which the connection was perceived as value for money.

Figure 1.2.11: Views of the connection process



1.3 Communications

Summary of findings

Consumers were asked to reflect on which communication channels they prefer for interaction with NIE.

- Businesses identified a clear preference for personal telephone contact in all interaction scenarios but particularly urgent matters. This is similar to the findings of the qualitative research with most non-domestic customers citing personal telephone contact as their preferred manner of contact;
- Non-domestic customers are more willing to use alternative modes of communication to receive follow-up information or at times of high call demand. In such instances, email is felt to be sufficient;
- There is strong demand for a service that allows non-domestic customers to register their contact details to allow NIE to update them on power outages and other issues.

This section details participants' views on customer service. Firstly we consider the qualitative findings from the in-depth interviews and then turn to the quantitative findings.

The survey covered the following questions in relation to preferred methods of communication:

- In the last 12 months which method of communication has your organisation used to obtain information or to communicate with businesses in general (see figure 1.3.1)
- Which methods of communication are acceptable to you for contact with NIE in the following circumstances:
  - An unplanned power cut, which is not due to extreme weather;
  - A power cut which is due to extreme weather and affects a lot of people;
  - For non urgent queries, such as new connections when there is no power cut (see table 1.3.1);
- Following initial contact with NIE to report an issue, acceptable methods for follow up communication (see figure 1.3.2 and table 1.3.2);
- The extent to which organisations would be willing to register their telephone number/email address to receive automated updates (see figure 1.3.3 and table 1.3.3).

1.3.1 Customer service and communications

Qualitative findings

What does good customer service mean to you?

Consistent with the stakeholder and focus group attendees, respondents were asked to summarise what good customer service means to them. Good customer contact procedures and communication were mentioned by all, as was the timely resolution of complaints. Non-domestic customers want to know who to contact when they have a query and want

straightforward communication, preferably with a knowledgeable customer service representative.

> *"I think there should be a direct line for core services. We have the same thing for BT where we can get directly through to a number. This is for services that are providing emergency and crisis support. If we lose power it really impacts on people's lives." (Voluntary/charity)*

> *"You have to give the best service possible so that customers will keep returning to you. If there are any problems, get them rectified quickly. Do everything you can to make the customer feel important to you. Service is actually more important than price." (Urban, medium manufacturing)*

While the benefits of personal service were mentioned by all, businesses consistently highlighted the need for key customer account managers as this is something they are used to when interacting with major suppliers. Large companies indicated that they sometimes have complex needs or queries and do not wish to 'chase' answers through various departments. When reflecting upon organisations deemed to be providing good customer service, several commented on those that provide an account manager who understands the business and can offer expedient solutions.

> *"I know a utility supplier is different to NIE, but each of our utility suppliers has a key account manager. A face we know and a name that we can go to with any issues, whether it be slow response times or any problems, we talk to them and get it sorted out." (Large healthcare)*

> *"Somebody that can help me and tell what is happening, with some description of when my issue will be resolved. So in other words, engaging with someone who knows what they are talking about." (Large utility)*

> *"*<name> *manage our mobile phone account; they are excellent. We have an assigned account manager and that one person is who you deal with. You don't have to go 'round the houses' because you have a relationship there. You are not left hanging and they always get back to you." (Urban, medium business services)*

Timely communication is also deemed important. Some organisations mentioned that if there is an issue with service they need to know as quickly as possible so they can make contingencies.

> *"I think there should be an account manager; a system that is more localised. Phone contact with an actual person. Even if they had a system of information updates because without it you are left wondering what is going on. For example, 'if you live in BT7 press 1' and it tells you that they are working on the line and it should come back on in four hours." (Voluntary/charity)*

> *"As soon as they are aware of an issue, we should know within 30 minutes." (Rural, large manufacturing)*

Preferred methods for contacting NIE

Across all non-domestic customer groups, respondents consistently cited personal contact as the preferred communication channel. Feedback revealed that speaking to someone directly

is the preferred manner in which to conduct business and as such, respondents feel that is how they should be able to contact NIE.

Key account managers were again mentioned as a good approach to personal communication, however, non-domestic customers were generally unconcerned with the method of communication provided that they knew they were speaking with a knowledgeable representative who could deal with the issues authoritatively.

> *"Again, and I keep harping on about it, if you had a key account manager they would build a relationship with you overtime and they would give you a call and say 'your site here is going to be off for a time'. Talking is the best form of communication. It doesn't have to be face-to-face, just picking up the phone will suffice." (Large healthcare)*

> *"I think you should have an account manager like BT. With NIE, you are sort of left hanging at present. That's what happened to us last time, we didn't have a clue what was going on." (Voluntary/charity)*

> *"I spoke to seven different people over a disconnection and I also had to go to NIE to fill a form in and pay a cheque…when you ask them if they can speed it up you are just told no, that's the system." (Urban, medium construction)*

Respondents working for larger businesses were accustomed to communicating through smartphones and were therefore open to the idea of communicating by text or smartphone apps. However, this was consistently caveated with the statement that they would expect to be communicating with an account manager.

> *"Email or text would be adequate with as much information as is available…3 points are essential – what's happened, where they are at in the repair phase and what is the expected risk in the next four to six hours." (Rural, large manufacturing)*

Automated telephone services are not viewed positively by smaller non-domestic customers, however, some mentioned that it is acceptable in the event of an outage provided it gives the right level of detail required (i.e. are NIE aware of the issue, when it will be resolved and what to do if it is not resolved). Those that have experienced the HVCA system personally thought that it was satisfactory, however stated that automated telephone systems would be undesirable for issues such as connections or queries regarding planned interruptions.

> *"I think if I was older, a pensioner and ringing up NIE and getting a recorded message I would be far from happy. I wouldn't think it was good customer service at all." (Rural, sports club)*

> *"If you rang up and said there was a fault or the electricity was off my opinion would be that they* [NIE] *would contact you rather than you talking to a machine." (Rural generation)*

Social media was mentioned by a couple of respondents but overall it is not viewed as a preferred contact method of non-domestic customers.

"I don't really do Facebook but everyone is on it and everyone knows everything really quickly via Facebook. Even if you don't have it someone will tell you." (Urban, medium manufacturing)

When probing respondents' contact preferences in different circumstances, non-domestic customers did not feel that the contact method should be any different across the range of scenarios tested (planned interruptions, unplanned interruptions, unplanned interruptions due to extreme weather, or new connections). As, in most cases non-domestic customers are commercial businesses, they feel that they should have the option to speak to someone at NIE directly, regardless of the situation.

"It doesn't matter what the circumstances are, at the end of the day we are the customer, we should be able to contact them by telephone and that's it." (Rural, sports club)

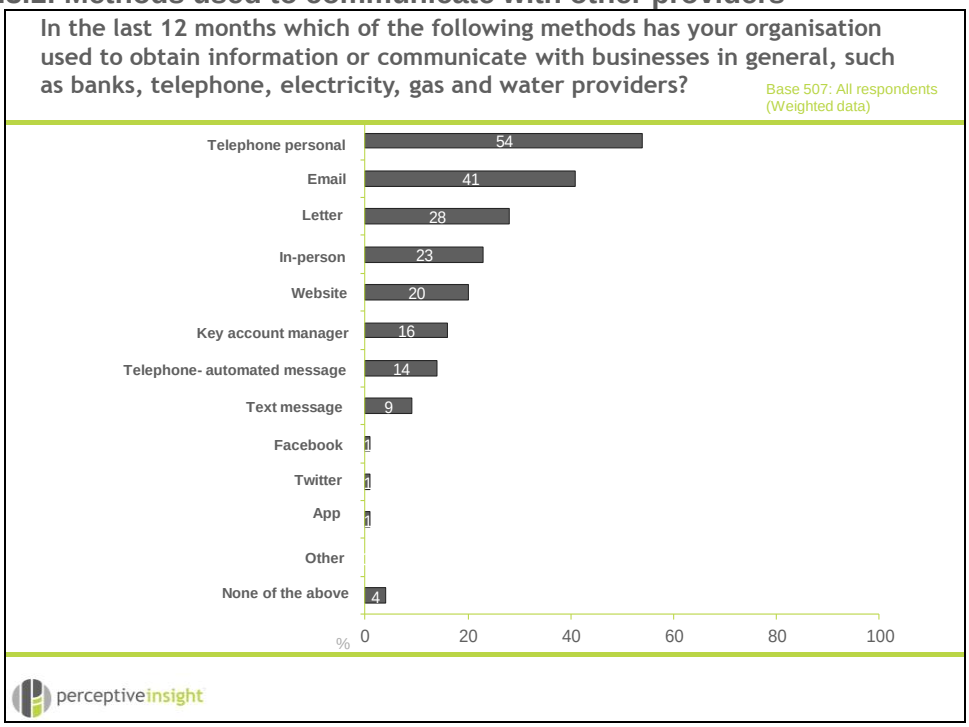
"Well that's the issue, no one contacts you to say when your power will go back on or how long you can expect to it to be off for. It would be nice to know, especially from a business point of view. Most businesses use electric, whether it be manufacturing or in farming where you have light and heat which require electricity. " (Rural generation)

Quantitative findings

Survey respondents were asked to identify readily used modes of communication and their preferred methods for contacting NIE.

As might be expected, personal telephone (54%) and email (41%) were the most commonly identified mode of communication for interacting with other businesses. 28% avail of letters, whilst one fifth (20%) use websites for 'business to business' communications. Personal contact was mentioned by 23% of respondents, while a further 16% tend to interact with businesses via a key account manager. Social media platforms, such as Facebook and Twitter, were less readily utilised communication channels.

Figure 1.3.1: Methods used to communicate with other providers



Respondents were asked a number of questions to ascertain acceptable methods for contacting NIE in certain situations, including:

- In the instance of an unplanned interruption not due to extreme weather;
- A power cut which is due to extreme weather; and
- For non urgent queries.

The vast majority want personal telephone access to NIE in the instance of a power outage, regardless of whether it is due to extreme weather or not. However, respondents were more likely to express tolerance for automated telephone contact and website provision in the instance of a severe weather event, perhaps indicating that they are mindful of the high volume of calls experienced by NIE in such circumstances.

Respondents were more accepting of other forms of contact in non-urgent cases, for example, when communicating with NIE in relation to new connections. Whilst personal telephone contact remains the preferred method of contact in this instance (as cited by 66% of respondents), nevertheless, many indicated tolerance for email (57%) and postal communication (27%). Interestingly, respondents were less accepting of automated telephone contact in this instance, compared with when there are interruptions to supply.

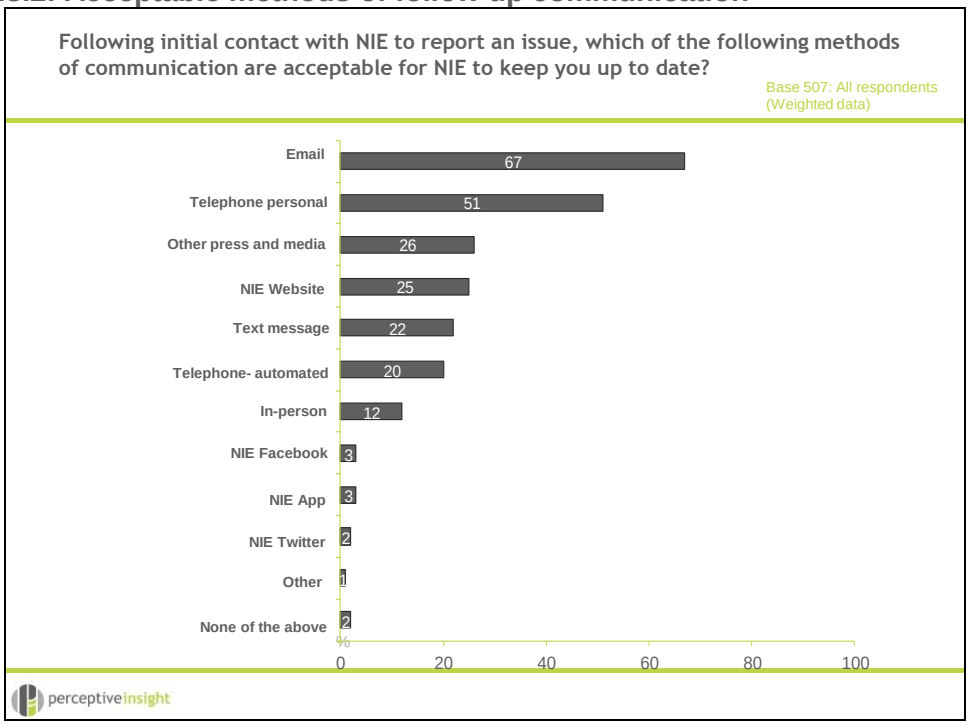
Overall, respondents indicated that they are much less likely to use more innovative methods such as social media or text message in any scenarios.

Table 1.3.1: Acceptable methods of communication

Unweighted base: 508 *Weighted base: 507*	An unplanned power cut, which is not due to extreme weather	A power cut, which is due to extreme weather (e.g. storms, flooding, snow & ice)	For non-urgent queries, such as new connections, when there is no power cut
Phone – personal	92%	90%	66%
Phone – automated	28%	35%	22%
Email	24%	27%	57%
NIE Website	8%	16%	20%
Text message	23%	26%	19%
Facebook	1%	3%	6%
Twitter	1%	2%	7%
Letter	-	-	27%
App	1%	2%	5%

Businesses appear to be more flexible in relation to their preferred mode of communication for follow-up contact. Two thirds indicated that they would like to be updated by email, while 51% stated that they would like to be kept informed via personal telephone contact.

Figure 1.3.2: Acceptable methods of follow up communication



As shown in table 1.3.2, further analysis reveals some difference in preference dependent on business sector and size. Three quarters (74%) of agricultural businesses indicated that they would like to receive updates by the means of personal telephone contact. Those from the

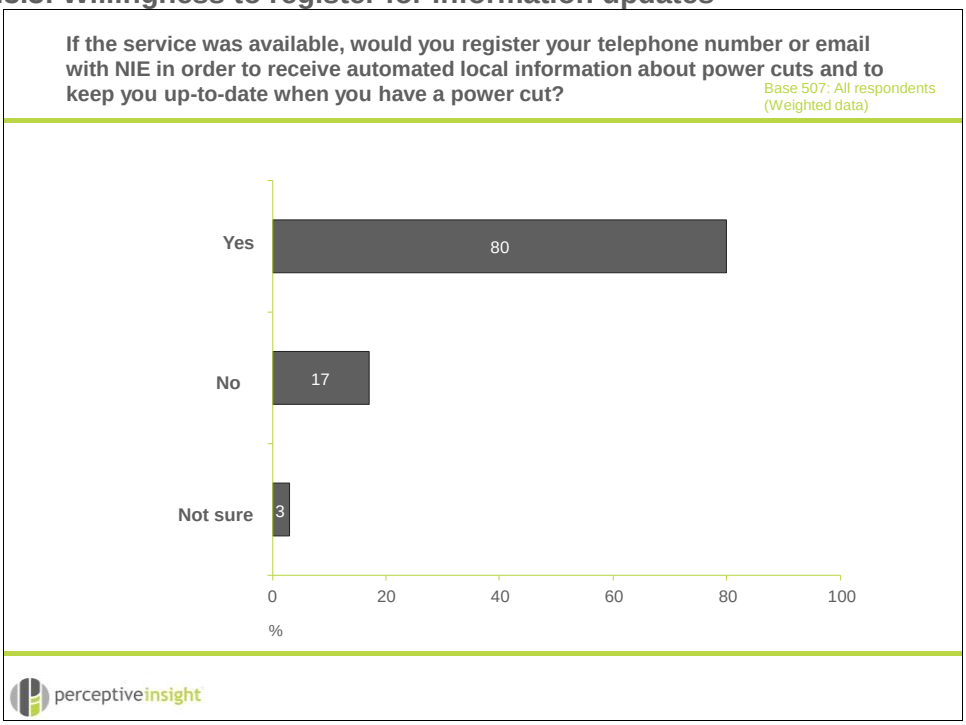
transport/services (22%) and public administrative trades (15%) were more likely to express a preference for updates in person. Large sized businesses also tended to prefer personal contact, either via telephone or in-person. It is plausible that this group are used to engaging with a key account manager, and therefore, have a predilection for personal communication.

Table 1.3.2: Acceptable methods of follow up communication by sector, size and location

		Sector					Size			Location		
	Overall	Agriculture	Manufacturing, Construction, Motor trade	Wholesale, retail, hospitality	Transport, services	Public admin, health and education	10 or less employees	11 to 49 employees	50 or more employees	Urban	Rural	Both
Base unweighted weighted	*508/ 507*	*100/ 105*	*104/ 104*	*102/ 103*	*101/ 95*	*101/ 100*	*270/ 451*	*154/ 46*	*84/ 10*	*280/ 258*	*191/ 215*	*37/ 34*
NIE website	25%	26%	11%	41%	11%	36%	26%	21%	29%	22%	24%	55%
Other press and media	26%	59%	8%	23%	7%	31%	26%	25%	20%	16%	34%	48%
Text message	22%	26%	7%	32%	14%	30%	22%	21%	15%	19%	21%	48%
Email	67%	39%	83%	73%	68%	73%	66%	81%	82%	72%	59%	82%
Telephone – personal	51%	74%	14%	62%	45%	57%	49%	58%	71%	42%	56%	75%
Telephone – automated	20%	23%	8%	29%	9%	31%	20%	23%	23%	17%	19%	53%
NIE Facebook	3%	-	0%	10%	-	7%	4%	1%	1%	3%	1%	25%
NIE Twitter	2%	-	0%	5%	-	7%	3%	1%	1%	2%	-	25%
NIE app	3%	-	1%	7%	0%	5%	3%	2%	2%	1%	1%	25%
In person	12%	11%	3%	10%	22%	15%	10%	25%	44%	14%	9%	12%
Other	1%	0%	0%	2%	6%	0%	1%	-	7%	2%	1%	-
None of the above	2%	2%	5%	2%	2%	1%	2%	3%	-	4%	1%	1%

The vast majority (80%) expressed willingness to register their telephone number or email with NIE in order to receive automated updates in the instance of a power cut.

Figure 1.3.3: Willingness to register for information updates



Businesses in the agricultural and manufacturing trades were more likely to express interest in registering for information updates, as were large-sized companies, and those in a rural setting.

Table 1.3.3: Willingness to register for information updates by sector, size and location

		Sector					Size			Location		
Would you register to receive automated local information about power cuts and to keep you up-to-date when you have a power cut?	Overall	Agriculture	Manufacturing, Construction, Motor trade	Wholesale, retail, hospitality	Transport, services	Public admin, health and education	10 or less employees	11 to 49 employees	50 or more employees	Urban	Rural	Both
Base unweighted weighted	*508/ 507*	*100/ 105*	*104/ 104*	*102/ 103*	*101/ 95*	*101/ 100*	*270/ 451*	*154/ 46*	*84/ 10*	*280/ 258*	*191/ 215*	*37/ 34*
Yes	80%	93%	91%	76%	64%	74%	79%	89%	93%	74%	86%	84%
No	17%	3%	9%	19%	34%	21%	18%	10%	7%	22%	11%	11%
Not sure	3%	3%	-	5%	2%	5%	3%	1%	-	3%	2%	5%

1.4 Rating and prioritisation of service attributes

Summary of findings

Non-domestic customers were asked to rate which aspects of service they consider require improvement. These are presented under the headings of dealing with power cuts during normal weather conditions, strengthening the network to cope with extreme weather, and special investments for the future.

Dealing with power cuts during normal weather conditions

- Similarly to the qualitative research with non-domestic customers, limiting both the frequency and duration of power cuts are viewed as equally important improvements.
- Fewer non-domestic customers stated they would support an increase in the number of options for communicating with customers during power cuts.

Strengthening the network to cope with extreme weather

- The vast majority (81%) expressed high support for investment in this area, with 55% stating they would give this their full support.
- Support was particularly strong from organisations operating in the public admin, health and education sector, as well as those in the agricultural trade.

Special investments for the future

- Of the three areas assessed, non-domestic customers expressed lower levels of support for special investments for the future, particularly relating to undergrounding overhead lines.
  - 43% would give their full support to NIE trying out and testing new equipment that could support the rising levels of renewable technology connecting to the electricity network;
  - 38% cited that they would fully support investment in the undergrounding of overhead lines in tourist areas/areas of natural beauty;
  - Slightly fewer (34%) stated they would fully support undergrounding overhead lines in urban areas.

In this section we consider the various aspects of the services provided by NIE and prioritise those which non-domestic customers consider require most attention for improvement.

We believe there is merit in briefly summarising the approach taken to assess consumers' priorities.

- The quantitative survey assessed the extent to which respondents are supportive of investment in a variety of service attributes. Respondents answered on a scale of 1 – 5, where 1 was no support and 5 was full support

- The qualitative phase of research explored the service issues deemed to be most important to businesses. Participants were asked to assess each service attribute and score each area high (10), medium (5) and low (0) in terms of the investment in improving service provision.

This section assesses each attribute in turn, commencing with a discussion of the findings from the qualitative business depth interviews, followed by the findings from the quantitative survey. Feedback is structured as follows:

- In-depth interviewees' rating of 'dealing with power cuts' in terms of the investment in improving service provision (see table 1.4.1);
  - Qualitative discussion and rationale for importance rating;
- Survey findings – support for investment to deal with power cuts (see figure 1.4.1);
- In-depth interviewees' rating of 'network resilience to extreme weather in terms of the investment in improving service provision (see table 1.4.2);
  - Qualitative discussion and rationale for importance rating;
- Survey findings – support for investment to strengthen the network to cope with extreme weather (see figure 1.4.2);
- In-depth interviewees' rating of 'environmental impact of the network' in terms of the investment in improving service provision (see table 1.4.3)
  - Qualitative discussion and rationale for importance rating;
- Qualitative discussion relating to support for investment in future strategy;
- Survey findings – support for special investments in the future (see figure 1.4.3).

1.4.1 Dealing with power cuts during normal weather conditions

Respondents were asked which aspects of service relating to power cuts should be prioritised for improvement. This section commences with an overview of the themes arising from the qualitative stage of the research, then summarises the survey findings relating to this area of service.

Qualitative findings

The qualitative stage of the research provided participants with the opportunity to prioritise the areas relating to 'dealing with power cuts' for future investment. They were asked to score each area high (10), medium (5) and low (0) in terms of the investment in improving service provision.

Overall, non-domestic customers found it difficult to highlight one particular area for investment in terms of dealing with power cuts due to the perceived performance of NIE presently and the limited impact investment in any of these areas would have on their organisation. Table 1.4.1 shows that slightly more non-domestic customers think it is worthwhile to invest in reducing the number of power cuts overall. This was particularly the case amongst those from the manufacturing sector and business services.

Table 1.4.1: Investment on 'dealing with power cuts'

	Depth	Number of people experiencing power cuts	Average duration of power cuts due to faults on the network	Customers at higher risk of power cuts
1	Large manufacturing	0	5	10
2	Medium manufacturing	10	10	5
3	Small manufacturing	10	10	10
4	Large agriculture	10	10	5
5	Small agriculture/ generation	5	10	5
6	Large utility	5	0	10
7	Large healthcare	5	0	0
8	Semi-rural educational establishment	DK	DK	DK
9	Large retail	5	5	10
10	Large hospitality	5	0	10
11	Medium construction	0	0	0
12	Small personal service	10	10	0
13	Medium business service	10	10	5
14	Voluntary/Charity	10	10	10
15	Sports club	5	5	5
	Total	**90**	**85**	**85**

	Depth	Number of people experiencing power cuts	Average duration of power cuts due to faults on the network	Customers at higher risk of power cuts
	Average	6	6	6

In the following paragraphs we detail the rationale behind these scores.

Number of people experiencing power cuts due to faults on the network

As mentioned previously, most perceive that they are not experiencing power cuts that often. When they have, power has been restored relatively quickly so there have been limited impacts on operations. Overall, non-domestic customers (particularly industry) would like to see investment in any attribute that reduces the possibility of power cuts overall.

> [In terms of importance] *"I would say ten* [out of ten]. *Our businesses would be inconvenienced and we would lose out on money and couldn't function without power." (Urban, small personal service)*

> *"Electricity is fundamental to living, families, businesses and the elderly, you can't do without." (Urban, small manufacturing)*

> *"Investment here will help more people." (Urban, medium manufacturing)*

Average duration of power cuts due to faults on the network

Duration is very important to non-domestic customers, particularly commercial businesses as the knock-on effects can mean loss of customers, productivity and revenue. However, when presented with NIE's current performance, this was viewed positively and as such higher investment was not always deemed necessary. Non-domestic customers indicated that they would be satisfied as long as current performance is maintained, or improved slightly with medium investment.

> [Reducing the average duration of power cuts*] "I would probably rank that a two* [out of ten], *60 minutes without power is nothing really." (Urban, large hospitality)*

> *"If there was any trade-off I wouldn't necessarily prioritise reducing power cuts. The ability to get the power on after a cut would take priority over the other two." (Urban, small manufacturing)*

> *"The duration of the power cuts seems like it would be easier to fix than the actual amount of power cuts. There could be an awful lot of lines that would need upgraded and substations which may require a very high level of investment." (Rural generation)*

> *"I suppose you always want to be improving, but the current situation is ok, I would go for medium investment." (Rural, sports club)*

Customers at higher risk of power cuts

While non-domestic customers recognise that customers at a higher risk of experiencing power cuts are likely to face more frequent issues, they found it difficult to justify high investment in this area due to the small number of people it would impact.

[Customers at higher risk of power cuts] *"Maintain existing investment because NIE shouldn't be spending money on a lower percentage of people…the investment should be proportional to the overall need." (Large healthcare)*

"Again, there doesn't seem to be much difference between the [impacts] *of the medium and high investments. Medium investment would reduce it to 4,000 but high would only reduce it by another 1,000. I think medium investment is what I would be calling for." (Rural, sports club)*

"The difference between high and medium investment isn't that great." (Urban, medium manufacturing)

However, some thought that high investment in this area is necessary as they perceive that it indicates specific and ultimately fixable issues with the network.

"I think you would focus on reducing that down to 3,000, in terms of people who are having multiple power cuts all the time and seeing what's wrong with that network…the reason why they are having power cuts is probably due to the network overall being stretched in those areas" (Large utility)

"High investment – 10. If NIE know where there are high risk businesses, this should be supported as a priority compared to the other two investment areas." (Rural, large manufacturing)

Quantitative findings

Prioritisation of service areas

Whilst planning for the quantitative stage of the research, the decision was made to use slightly different attributes than those included at Phase 1, based on the qualitative research findings. It was recognised that there was a degree of correlation between the overall number of people experiencing power cuts and the average duration of power cuts due to faults on the network. Therefore, it was decided to focus on those customers at higher risk of power cuts, with an emphasis on reducing the number of customers per year who are affected by power cuts over 10 hours in duration (about 5,000 customers per year) and those repeatedly affected by power cuts (about 12,000 customers who experience 6 or more power cuts in 18 months).

A further question relating to communication methods during power cuts was also included at this stage.

Summary of findings

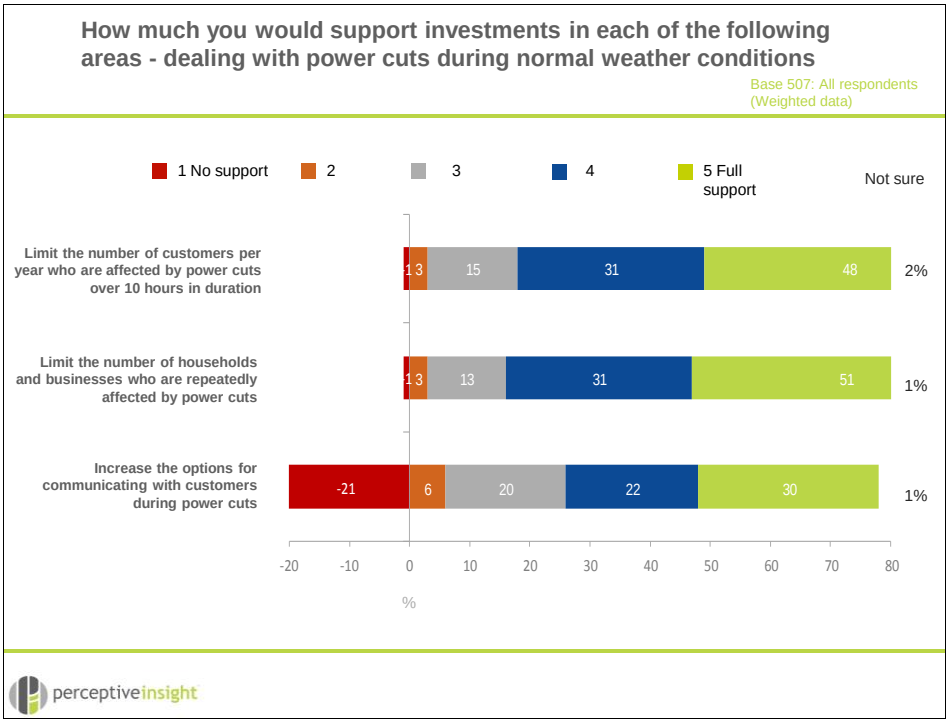
A similar proportion of respondents expressed support for investment in 'limiting the number of customers who are repeatedly affected by power cuts' and 'limiting the number who are affected by power cuts over 10 hours in duration' (81% and 79% respectively cited high support for investment).

Whilst there was general support to increase communication options during power cuts, on the whole, this area was deemed in lesser need for investment than the other aspects of service.

Further analysis was conducted by various sub-groups which revealed the following:

- Organisations situated in an urban area were more likely to be supportive of improvements to reduce the number of customers repeatedly affected by power cuts, and those affected by power cuts over ten hours in duration.
- Those who have made contact with NIE in the instance of a power outage were more likely to express support for increasing the options for communicating with customers during power cuts, compared with those who did not contact NIE.

Figure 1.4.1: Dealing with power cuts



1.4.2 Strengthening the network to cope with extreme weather

In this section we consider prioritisations for improving service in extreme weather. Again, we commence with an overview of the qualitative feedback, then turn to the survey findings.

Qualitative findings

Perceived impact and frequency of severe weather

Non-domestic customers agreed that there have been more extreme weather events over the last number of years but some questioned whether this indicates a longer term trend or just a 'phase' of particularly bad weather. The recent snow and ice events of 2013 and 2010 were mentioned along with localised flooding issues. High winds are not generally 'top of mind' but recognised as an issue affecting the electricity network.

> *"We are situated in the city centre and our electricity was affected by the snow. I just don't think that we can cope with severe weather in general in Northern Ireland. It rarely happens but when it does it's like it has never happened before." (Voluntary/charity)*

> *"Being within our type of industry with sites all over the place, on a wet and windy night I'm expecting to be talking to NIE at some point." (Large utility)*

> *"Northern Ireland isn't that big so when it happens it affects a large area. It's been maybe 10 or 12 years since there was a major problem where electric was off for three days." (Rural generation)*

Very few non-domestic customers have experienced issues relating to extreme weather and its impact on the electricity network.

> *"No real impact on our business recently. NIE has done well in dealing with this, I'm not aware of any power loss due to extreme weather." (Rural, large manufacturing)*

Perceptions of an acceptable time to be without power in a severe weather event

Consistent with stakeholders and domestic customers, there was a degree of acceptance that NIE faces a number of difficulties when trying to repair network faults during extreme weather. However, most still think that power should be restored within two to three hours, or at most, within 24 hours. Businesses highlighted that regardless of weather, they still have a job to do and as such they expect NIE to take cognisance of this fact. Some argued that the weather forecasting should also allow NIE time to make plans and put contingencies in place.

> *"An acceptable length of time? It is still 2-3 hours in this area, they have no excuse for anything longer. We have our work to do regardless of the weather so NIE should do theirs too." (Rural, large agriculture)*

> *"If it was really extreme weather I think two to three hours is acceptable without power but again that depends on where you live. If you are close to shops or neighbours that can help you out that's ok. Over three hours you would start to worry." (Rural, sports club)*

"Probably half a day without power is acceptable during extreme weather." (Large hospitality)

"Again, I would be quite tight on that [acceptable length of time for a power outage during extreme weather]*. You should be back on again within 24 hours because of lot of these things are predictable and you can have people on standby." (Large utility)*

Prioritisation of service areas

Again, respondents were asked to score each service area as high (10), medium (5) and low (0) in terms of the investment in improving service provision.

Table 1.4.2 shows that non-domestic customers were more inclined to prioritise investment in flood prevention, followed by high winds. Ice accretion is viewed as less of a priority, however on average it received the same investment score as high winds.

Table 1.4.2: Investment on 'network resilience to extreme weather'

	Depth	Ice accretion	Flooding	High winds
1	Large manufacturing	0	0	0
2	Medium manufacturing	5	10	10
3	Small manufacturing	10	10	0
4	Large agriculture	5	10	5
5	Small agriculture/ generation	5	10	10
6	Large utility	0	0	0
7	Large healthcare	0	5	5
8	Semi-rural educational establishment	10	0	5
9	Large retail	5	10	0
10	Large hospitality	10	10	10
11	Medium construction	0	10	10
12	Small personal service	10	10	10
13	Medium business service	5	5	5
14	Voluntary/Charity	5	5	5
15	Sports club	5	5	5
	Total	**75**	**100**	**80**
	Average	**5**	**7**	**5**

Overall, network resilience is viewed as an important area of investment given that it would impact on power outages and therefore business continuity.

Ice accretion

Familiarity with the specifics of ice accretion is low, as is knowledge of its impact on the electricity network. Non-domestic customers were aware that the winters of 2010 and 2013 had resulted in power outages but there was very limited awareness of how snow and ice affects the network.

> *"There tends to be an over-reaction to these things, there is no need to panic. Extreme winters will happen." (Large healthcare)*

> *"It doesn't effect this business, there would just be issues with water." (Urban, small personal service."*

> *"I just don't think commercially it makes sense*" [investing in preventing ice accretion] (*Rural, large manufacturing)*

Some non-domestic customers, despite not thinking ice accretion is a priority, still think some level of investment is necessary due to the impact it has when it occurs.

> *"Medium investment, it's a low percentage of customers and you don't know or can't predict the weather." (Urban, medium business services)*

> *"The ice is maybe a yearly event but investment should be made so, when it does happen, everything doesn't grind to a halt." (Voluntary/charity)*

Flooding

Flooding was viewed as the greatest weather related threat to the electricity network and so non-domestic customers tended to say this required high investment.

> *"I would say ten. Flooding is a big problem and causes problems in this area. We are near a river and a substation here." (Small, urban personal service)"*

> *"Ten. The danger of mixing electricity and water…also a lot of people would be affected." (Rural, large agriculture)*

> *"It depends on the substation, if it will affect a large number of people, it should be protected. The investment should be proportional." (Large healthcare)*

> *"It's high risk and needs immediate attention." (Urban, small manufacturing)*

> *"High investment. NIE know where it is and should spend to prevent the problem." (Rural, generation)*

However, similar to ice accretion, there was some scepticism regarding the potential risk versus the actual level of occurrence.

> *"Is it because of the phase of bad weather we are going through? Take flooding, it says 50,000 people are at risk but how many will actually be affected?" (Large utility)*

High winds

Most non-domestic customers mentioned that high winds are the most likely extreme weather event to be experienced in Northern Ireland. This may explain why it was not necessarily mentioned 'top of mind' due to its regular occurrence.

> [High winds] *"I think a medium investment that gives an improvement of 20% is good value." (Rural, sports club)*
>
> *"High winds will happen every year, therefore investment is necessary." (Rural generation)*
>
> *"You can get high winds in all seasons, while with ice accretion that's just the winter." (Urban, medium manufacturing)*

Larger users of electricity were less concerned about high winds as they thought that investment in this area would not necessarily impact their business.

> *"High winds are not bringing down 33kv lines which supply large businesses. 11kv lines are easier to fix, it is probably a quick fix." (Rural, large manufacturing)*

Quantitative findings

While the qualitative stage comprehensively explored different weather types, the survey assessed support for strengthening the network to cope with extreme weather conditions overall.

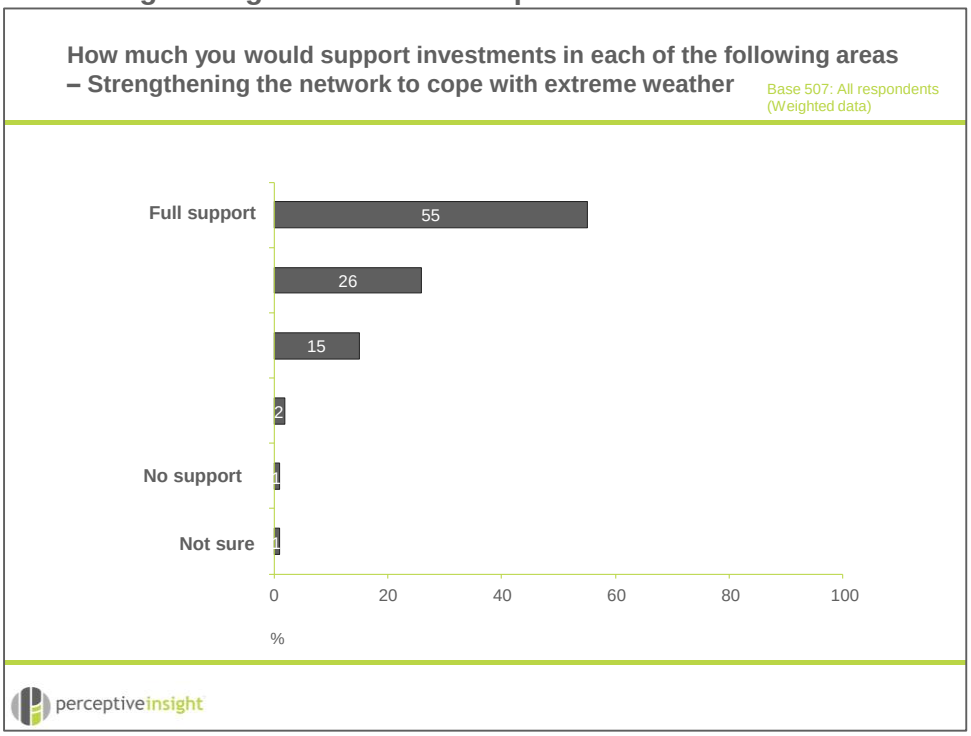
The majority (81%) expressed high support for investment in this area. 55% indicated that they were in full support of reducing the likelihood of power cuts during severe weather.

Further analysis showed the following:

- Organisations operating in the public admin, health and education sector, as well as those in the agricultural trade, were more likely to support investment in this area.

- Interestingly, location appears to have little bearing on response. A similar percentage of urban (82%) and rural (80%) organisations expressed high levels of support to strengthen the network against extreme weather.

Figure 1.4.2: Strengthening the network to cope with extreme weather



1.4.3 Special investments for the future

Qualitative findings

The third area for consideration was in relation to special investments for the future. It should be noted that the qualitative stage of research explored this aspect in two ways; it firstly assessed support for investment in environmental attributes, and then in future strategy.

Prioritisation of service areas – environmental attributes

Again, respondents were asked to score each service area in terms of high (10), medium (5) and low (0) investment in improving the environmental impact of the network.

Overall, table 1.4.3 illustrates that non-domestic customers are less likely to think that investment in the environmental impact of the network is as important as reducing power cuts or resilience to extreme weather. With a score of 80, reducing NIE's energy consumption is the area non-domestic customers would most like to see investment. This is followed by the undergrounding of overhead lines in AONB/tourism sites (65). Undergrounding lines in urban areas and resolving bird fouling issues have similar total scores and are generally seen as a lower priority (45 and 40 respectively).

Table 1.4.3: Investment on 'environmental impact of network'

	Depth	Reducing NIE's energy consumption	Underground overhead lines in AONB/ tourism sites	Underground-overhead lines in urban areas	Resolving bird fouling issues
1	Large manufacturing	0	0	0	0
2	Medium manufacturing	10	10	0	0
3	Small manufacturing	5	5	0	0
4	Large agriculture	5	0	0	0
5	Small agriculture/ generation	5	0	0	0
6	Large utility	5	0	0	5
7	Large healthcare	5	0	5	0
8	Semi-rural educational establishment	10	5	5	5
9	Large retail	0	10	10	10
10	Large hospitality	5	10	10	10
11	Medium construction	0	0	0	0
12	Small personal service	10	0	0	0
13	Medium business service	5	10	0	5
14	Voluntary/Charity	10	10	10	5
15	Sports club	5	5	5	0
	Total	**80**	**65**	**45**	**40**
	Average	**5**	**4**	**3**	**3**

Reduce NIE's energy consumption footprint

Large organisations have their own corporate responsibility and sustainability initiatives and therefore believe that NIE should be doing the same. The term 'zero-carbon' was used as large businesses are facing increased customer demand for products produced in efficient, sustainable and low carbon ways.

> *"They do need to reduce their overall carbon footprint. We are all doing it and are being forced to do it. By doing that themselves they would ensure there is more capacity on the grid." (Large utility)*

Other non-domestic customers believe that savings made will result in reduced costs or 'free-up' money to be invested elsewhere.

> *"Invest to save? Absolutely – costs will come down." (Large healthcare)*

> *"1%* [of £615 million] *would save a good bit of money." (Urban, medium construction)*

However, one large manufacturer thought NIE's targets of 0.5% reduction in consumption for a medium investment and a 1% reduction for a high investment were quite low, hinting that NIE is already operating efficiently.

> *"Half a percent on 4GWh in five years is an extremely low target, they must have a very high efficiency performance ratio already…that's a low priority." (Rural, large manufacturing)*

Undergrounding overhead lines

Very few non-domestic customers took a strong view regarding undergrounding lines. While some stated that it may be more aesthetically pleasing, the costs versus potential benefits to the organisations, which most felt were nil, were perceived not to be worth investment

> *"It's just aesthetics. Undergrounding should be done to prevent power cuts, not improve beautiful areas." (Large healthcare)*

> *"I'm not fussed. There are more important things than tourism." (Large utility)*

> *"It's not a high priority. They* [overhead lines] *are necessary for electricity, you are never going to get away from them." (Rural generation)*

Similar to domestic customers, some noted benefits additional to the visual impact of undergrounding overhead lines. They suggested that this would reduce network faults and bird fouling incidents.

> *"Undergrounding is important. Lines spoil the visuals of these areas. It would resolve the bird fouling problem too" (Urban, large retail)*

Resolving bird fouling issues

Non-domestic customers had very little to say regarding bird fouling issues. While two respondents had experienced bird fouling at their own personal properties, no interviewee believed it was an issue impacting their organisations. As such, investment in resolving this was not viewed as a high priority, or indeed a priority at all.

> [Bird fouling] *"I think 100 complaints in the last 3 years is low, 33 complaints on average per year? Over the whole network and the number of customers they have, that would be a very small percentage. I would be happy to run with things as is." (Rural, sports club)*

> *"100 complaints in the last 3 years? It's not really very many complaints…if people want to do it they can pay for it themselves." (Urban, medium manufacturing)*

Consideration of environmental attributes for phase 2 of the research

Although, interviewees tended to place most investment to reduce NIE's energy consumption footprint, it was noted that there was apathy towards the environmental impacts as a whole. Subsequent feedback suggested that participants prioritised this area in absence of interest of other areas. One or two noted that the environmental impacts of the network are something that they have rarely considered, and as such, struggled to assess the need for improvement.

"Overall, I have to say I don't give it [environmental impact of the network] *a lot of thought. I suppose conscientiously it should be taken into consideration." (Urban, small manufacturing)*

"I don't really have a view, I've never given it any real thought." (Urban, large retail)

Furthermore, it was evident that bird fouling was not an issue affecting any organisation spoken to.

Given this, it was decided that 'reducing NIE's energy consumption footprint' and 'bird fouling' would not be included in the domestic or non-domestic surveys.

Prioritisation of service areas – future strategy

The final stage of the qualitative research explored views relating to future strategy. Discussions relating to this area of service did not involve ranking of priorities. Rather, respondents were asked a series of questions relating to each area of service and the discussions recorded.

The depth interviews revealed that future strategy is important to non-domestic customers as they feel that it could mitigate some of the issues they are currently experiencing, such as difficulties with connections. Forward planning, for businesses, is deemed essential and as such they believe that NIE should be preparing the network for the future.

"It's a form of forward investing. NIE should be moving forward with new technological advances. They should be embracing them and be part of them in order to provide businesses with a cleaner and more cost effective network." (Urban, small manufacturing)

"They need to be supplying more network connections at better cost. The current system is unfair." (Rural, large agriculture)

"I have two CHPs on this site and I would like to spill-out onto the grid, who do I phone? I don't know but given my role I should know…NIE should be talking to their big energy users." (Large healthcare)

"The way I see it is that there isn't the capacity for any more connections apart from a few small areas where there is capacity for more lines for renewable energy. I was in a meeting with NIE in February for Project 40. They are only looking to sell electric, they aren't really looking to buy it. They aren't willing to spend money to facilitate everyone." (Rural generation)

Areas of service

At the qualitative stage, there were two areas under consideration specific to future strategy:

- Sustainability;
- Investing in stronger infrastructure to support the growth of the NI economy.

Sustainability

Sustainability is viewed as important, due to the current drive to encourage low carbon technologies. Respondents suggested that forward investing in the network to support this and to make it more sustainable, would ensure NIE is keeping up with changes in business that are already happening.

"NIE need to look at ways to reduce their impact and cut costs." (Urban, large retail)

"Smart technologies have to be invested in or they will lag behind other industries." (Rural, large agriculture)

"They need to come up with better ways to manage the network." (Large healthcare)

"They need to get their IT systems up to speed, assess the demand so they can deliver on time and have sensible lead-in times for new technologies." (Urban, medium construction)

Sustainability was also mentioned spontaneously as something NIE have to consider in their future planning as demand increases in line with government targets.

"When you have government targets at 40% renewables, NIE need to be prepared for this." (Large utility)

"They need to limit PV and windmill schemes to areas that can handle it. Policy has been a failure to this point. Some areas can't cope…they need to invest in storage." (Rural, large manufacturing)

As generation increases through wind turbines and PV panels, some non-domestic customers also believe that this should factor into NIE's future planning. However, there is a degree of scepticism amongst some respondents as to how much NIE wants to receive electricity onto the network.

"NIE aren't fussed on the idea of renewable energy because if we produce renewable electricity they can't sell everyone's electricity. They can't produce more energy that way. They aren't too excited about having people put up wind turbines. The situation around here is that a lot of farmers have planning permission to put up wind turbines but we can't do anything about it because the electricity line won't support any industry at all." (Rural generation)

Investing in stronger infrastructure to support the NI economy

Most non-domestic customers thought that NIE should be investing in the electricity network to support the NI economy but this is viewed as a burden not for NIE exclusively. Respondents were of the opinion that any investment to support the economy should be supported by government, given that the economic policy and goals are set by the NI Executive.

"Invest NI, they do a lot for business and this is the main way electricity is supplied, it is important." (Urban, small personal service)

"I would expect that this kind of assistance would come from regional government, Westminster or Europe because the EU strategy is to have the smartest possible grid in the shortest possible time to move energy around Europe." (Rural, large manufacturing)

"You want people to come here and invest and set-up companies and if you can't provide them with electricity they are not going to come." (Urban, medium manufacturing)

"If the government is throwing out incentives to develop, NIE needs to have the network to facilitate that or it's pointless. In the future, when we move to CFDs [Contracts for Difference] *after 2015, if they continue to be available in NI you will be*

bidding against the UK in general for those CFDs. If we don't have the grid then people here won't be able to invest in that type of technology." (Large utility)

"I think the government could be providing the funding initially up-front and then NIE have to pay it back to them over a period of time. Even if it was for big business, again they pay for it up-front and NIE pay them back." (Rural, sports club)

Regardless of how this investment should be funded, a number of respondents think it is vital to keep the local economy competitive, although they suggested that bill increases would be the least favoured avenue to fund this investment.

[Who should fund future strategy] "I suppose the obvious answer would be everyone through bills and therefore we are all investing in this. I think there should probably be more of a push on government support for public funding, but we are not going to get that." (Urban, small manufacturing)

"NI Plc is at a disadvantage anyway. If you go across the border you will be paying less for power. Bill increases are now driven by pass through charges and environmental taxes so I think adding on a charge to pay for a smart grid is not the way to go" (Urban, large manufacturing)

"I mean you can only put so much on the people's bills depending on the reason. You could put £100 on everyone's bills for power parks but is it worth doing it? I don't think it's anything that has been done a lot so far. There's a lot of things with the grid that need sorting out first." (Rural generation)

"I know in the South they have taken the decision to put more on domestic customer's bills than we have. You know, domestic customers pay more while big companies that are bringing jobs in pay less to ease the burden on them." (Large utility)

Based on the above feedback, and the sentiment expressed by participants that this is not an area for NIE to prioritise 'in situ', it was decided that 'investing in stronger infrastructure to support the NI economy' would not be included within the service attributes reviewed in the quantitative surveys.

Quantitative findings

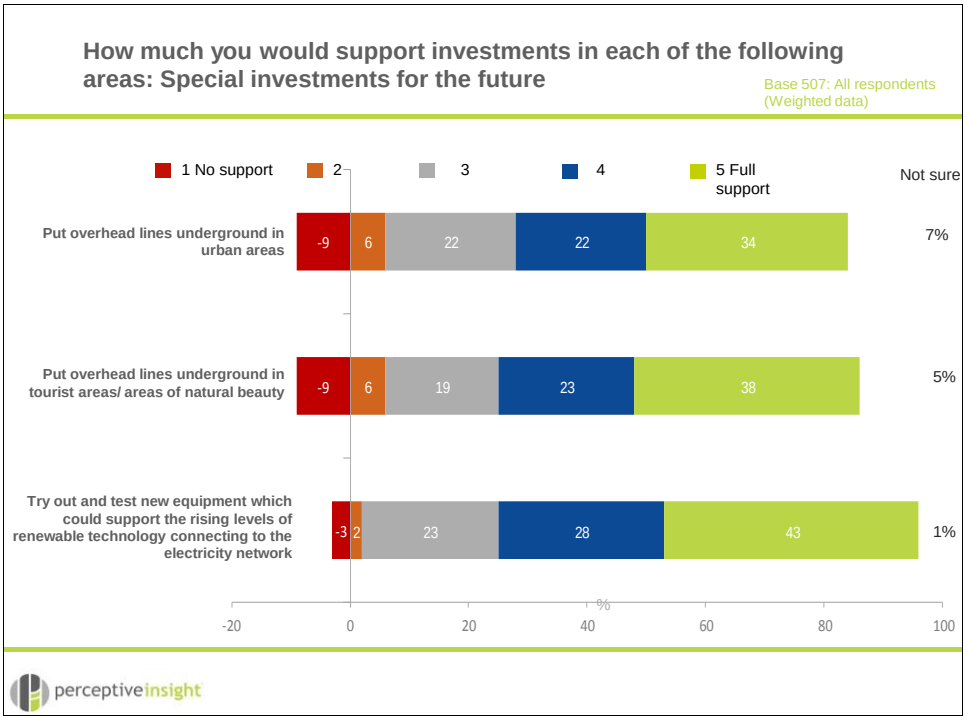
Therefore, the quantitative stage of the research relating to 'special investments for the future' focused on undergrounding overhead lines and sustainability.

On the whole, non-domestic organisations expressed lower levels of support for investment in this area, compared with network resilience to extreme weather and dealing with power cuts. For example, almost one in ten (9%) indicated that they had no support for investment to underground overhead lines in urban areas or areas of natural beauty.

- Further analysis of demographic subgroups revealed that businesses operating in the agricultural trades, and from rural settings, were least likely to support investment in these areas.

Contrastingly, respondents were more supportive of investment in sustainability; 71% expressed moderate to high levels of support for investment in this area. Over half of those in the agricultural (59%) and public administrative fields (59%) cited full support for investment in renewable technologies.

Figure 1.4.3: Special investments for the future



1.5 Overall priorities and willingness to pay

Summary of findings

Having outlined their views of various services provided by NIE, respondents were asked to evaluate the importance for investment of each area as a whole. This section summarises the overall prioritisations of non-domestic consumers and reviews their willingness to pay for any service improvements.

Prioritisation of service areas

- Upon reviewing all aspects of service as a whole, respondents to the non-domestic survey were most likely to prioritise areas regarding power outages (either frequency or duration) in both normal and extreme weather conditions. Over half prioritised investment in the following areas:
  - Reduce the likelihood of power cuts in extreme weather (58%);
  - Limit the number of households and businesses repeatedly affected by power cuts (55%) and;
  - Limit the number of customers per year who are affected by power cuts over ten hours in duration (53%);
- There are some interesting differences across various sub-groups:
  - Public admin and larger organisations were more likely to prioritise the number of customers repeatedly affected by power cuts, and those having power cuts in excess of 10 hours duration;
  - Network resilience to extreme weather was more likely to be rated among the top three areas for rural businesses and those working in agriculture.

Willingness to pay

- At least two thirds stated that they would not be prepared to pay any extra to make improvements to any of NIE's services;
- 75% of non-domestic customers said they would not be willing to pay any extra to fund customer service improvements;
- 74% indicated unwillingness to pay any extra towards future strategy and sustainability, while 71% would be unwilling to pay anything extra that would result in reducing the environmental impact of the network;
- Smaller businesses and those in the agricultural and wholesale, retail, hospitality trades were less inclined to express willingness to pay extra to fund all types of service improvements.

- The vast majority (84%) stated that they would not be willing to accept a lower standard of service from NIE, even if it meant that their annual electricity bill was reduced.

- This section commences with a summary of qualitative feedback in relation to overall priorities across each service area. During the depth interviews, respondents were asked

to consider all service attributes and prioritise each, in terms of the need for improvement (see table 1.5.1)

- The quantitative survey asked respondents to identify the top three service attributes which require most improvement (see table 1.5.2);

- The quantitative survey also assessed customers' willingness to pay extra for improvements for the following:
  - Dealing with power cuts;
  - Network resilience to extreme weather;
  - Environmental impact of the network;
  - To improve the customer service experience;
  - Future strategy, with a focus on sustainability.

  (see figure 1.5.1)
- The final section of the quantitative survey explored whether respondents would be willing to accept a lower standard of service from NIE, if they were to receive a reduction in their annual bill (see figure 1.5.2 and table 1.5.3)

1.5.1 Prioritisation of service areas

Qualitative findings

To conclude the depth interviews, respondents were asked to consider all service attributes and provide a final ranking for each, in terms of the extent to which they believe each requires additional action/attention from NIE. The final rankings are illustrated in table 1.5.1. If the same ranking score was provided by the interviewee across different attributes, this has been highlighted in the table, and denoted with an '=' sign.

Table 1.5.1: Overall prioritisation of service aspects

	Depth	Dealing with power cuts	Network resilience to extreme weather	Environ-mental impact of the network	Customer service	Future strategy
1	Large manufacturing	2	3=	5	3=	1
2	Medium manufacturing	2=	2=	5	1	4
3	Small manufacturing	1	4	3	2	5
4	Large agriculture	1	4	3	5	2
5	Small agriculture/ generation	1	2	4=	4=	3
6	Large utility	3	4	5	2	1
7	Large healthcare	3=	3=	3=	1	2
8	Semi-rural educational establishment	5	3=	1=	1=	3=
9	Large retail	3	2	5	1	4

	Depth	Dealing with power cuts	Network resilience to extreme weather	Environ-mental impact of the network	Customer service	Future strategy
10	Large hospitality	3	2	4	1	5
11	Medium construction	2	3	4	1	5
12	Small personal service	2	3	5	1	4
13	Medium business service	1	2	3	4	5
14	Voluntary/Charity	5	4	2	3	1
15	Sports club	1	4	5	3	2
	Total	**35**	**45**	**57**	**33**	**47**
	Average	**2**	**3**	**4**	**2**	**3**

Non-domestic customers recognised that dealing with power cuts would likely impact on other service areas and so it was consistently ranked highly, despite performance in this area already being viewed as good.

"Number one – power cuts; without electricity I don't have a business" (Urban, small manufacturing)

Customer service received equally high rankings on average. Comments made in relation to this area reflect the two key points arising from the discussions around NIE's customer service.

- A lack of 'key customer' or 'account' managers for businesses at NIE; and
- The experience of customers requiring a network connection.

"I would put it [customer service] *first, it feeds into the rest and positively affects the rest." (Urban, medium manufacturing)*

"Based on our own experience of NIE's customer service, it needs an overhaul. They have lost the personal touch." (Urban, large retail)

Future strategy is on average ranked third. This illustrates that while investment in this area is deemed important, non-domestic customers are either unsure that it is entirely NIE's responsibility or that it is less important than issues that directly affect them, such as customer service and power cuts.

There is also an interesting difference between large and small/medium sized organisations. Large companies are much more likely to rank future strategy highly compared to other areas, possibly reflecting their more detailed knowledge of the issues currently facing the network.

"Future strategy has to be the key aspect, the key deliverable from a cost mitigation and improved efficiency perspective. We have so much more potential from wind than is

presently used. Curtailment is a big issue. We need to be able to use and store it." (Rural, large manufacturing)

Environmental impacts was the aspect of the network that respondents were generally unaware of. Moreover, they did not feel that this is something which directly impacts their organisation and therefore it tended to be ranked as a lower priority overall.

"Thinking about the wider picture, we're down in the West here and there was the new road to be built and it has been stalled by environmental issues, whereas I'm thinking why don't we get the road done? I would be the same regarding electric; you were talking about the environmental impact of the network on tourist areas but ultimately we still need electric, that's what people expect." (Rural, sports club)

Quantitative findings

Taking into account dealing with power cuts, network resilience, environment, future strategy, and customer service issues, survey respondents were asked which three in their opinion require most improvement. Table 1.5.2 shows the prioritisation that respondents gave analysed by key demographics.

The research revealed three distinct areas highlighted as most in need of improvement, with over half prioritising the following:

- Reduce the likelihood of power cuts in extreme weather (58%);
- Limit the number of households and businesses repeatedly affected by power cuts (55%); and
- Limit the number of customers per year who are affected by power cuts over 10 hours in duration (53%).

Areas cited as lesser priorities (mentioned by <20% of respondents) included undergrounding overhead lines in urban areas and increasing the options for communicating with customers during power cuts.

Analysis by various sub-groups shows some differences in the aspects that were rated as important:

- Those in public admin, and larger sized businesses, were more likely to prioritise the number of customers repeatedly affected by power cuts, and those being affected by power cuts over 10 hours in duration;

- For rural businesses, and those from an agricultural background, network resilience to extreme weather was more likely to be rated among their top three areas for improvement;

    - This group were also more likely to rank sustainability highly. It is possible that their experience of connections may have influenced their opinion.

Table 1.5.2: Areas requiring most improvement by sector, size, location

		Sector					Size			Location		
In your opinion, which three areas require most improvement?	Overall	Agriculture	Manufacturing, Construction, Motor trade	Wholesale, retail, hospitality	Transport, services	Public admin, health and education	10 or less employees	11 to 49 employees	50 or more employees	Urban	Rural	Both
Base unweighted / weighted	*508/ 507*	*100/ 105*	*104/ 104*	*102/ 103*	*101/ 95*	*101/ 100*	*270/ 451*	*154/ 46*	*84/ 10*	*280/ 258*	*191/ 215*	*37/ 34*
Reduce the likelihood of power cuts during severe weather	58%	81%	39%	49%	55%	63%	56%	69%	77%	55%	60%	66%
Limit the number of households and businesses repeatedly affected by power cuts	55%	39%	41%	62%	61%	75%	54%	63%	63%	65%	43%	66%
Limit the number of customers per year who are affected by power cuts over 10 hours in duration	53%	37%	22%	75%	58%	74%	54%	46%	45%	63%	37%	75%
Try out and test new equipment which could support the rising levels of renewable technology connecting to the network	34%	79%	21%	15%	26%	29%	33%	44%	46%	22%	51%	24%
Underground overhead lines in tourist areas/areas of natural beauty	27%	41%	30%	21%	26%	15%	27%	23%	29%	20%	35%	22%
Underground overhead lines in urban areas	16%	4%	25%	17%	24%	9%	16%	15%	15%	18%	15%	6%
Increase the options for communicating with customers during power cuts	12%	2%	21%	15%	12%	9%	12%	10%	5%	15%	9%	6%
None of these	2%	2%	5%	2%	-	-	2%	-	-	1%	3%	-
Not sure	1%	2%	-	-	2%	-	1%	1%	-	1%	1%	-

1.5.2 Willingness to pay extra for improvements

Quantitative findings

Respondents were asked the extent to which they would be willing to pay extra to improve service across each of the attribute areas. Specifically, they were asked whether they would be willing to pay:

- A lot (approximately 7% increase in annual bill);
- Quite a bit (approximately 2% increase);
- A little bit (approximately 0.2% increase);
- Nothing at all.

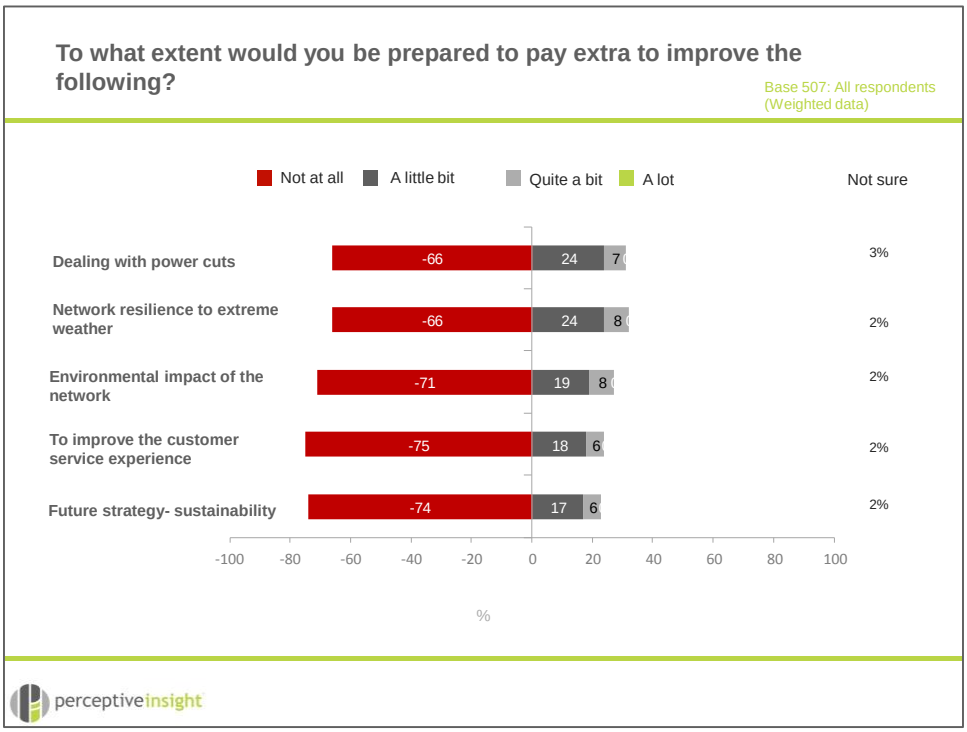
On the whole, the majority of non-domestic customers reported they would not be prepared to pay any extra to make improvements to NIE's services. At least two thirds stated that they would not pay extra to improve service in any of the areas, while none indicated that they would pay 'a lot' for service improvements.

Nonetheless, consistent with the overall priorities for improvement, respondents were more likely to report willingness to pay 'a bit' towards network resilience and to reduce the frequency and duration of power cuts.

Sub-group analysis revealed that smaller businesses and those in the agricultural and wholesale, retail, hospitality trades were consistently less likely to express willingness to pay extra in any of the service areas. Contrastingly, public administrative organisations were more likely to be willing pay towards improvements.

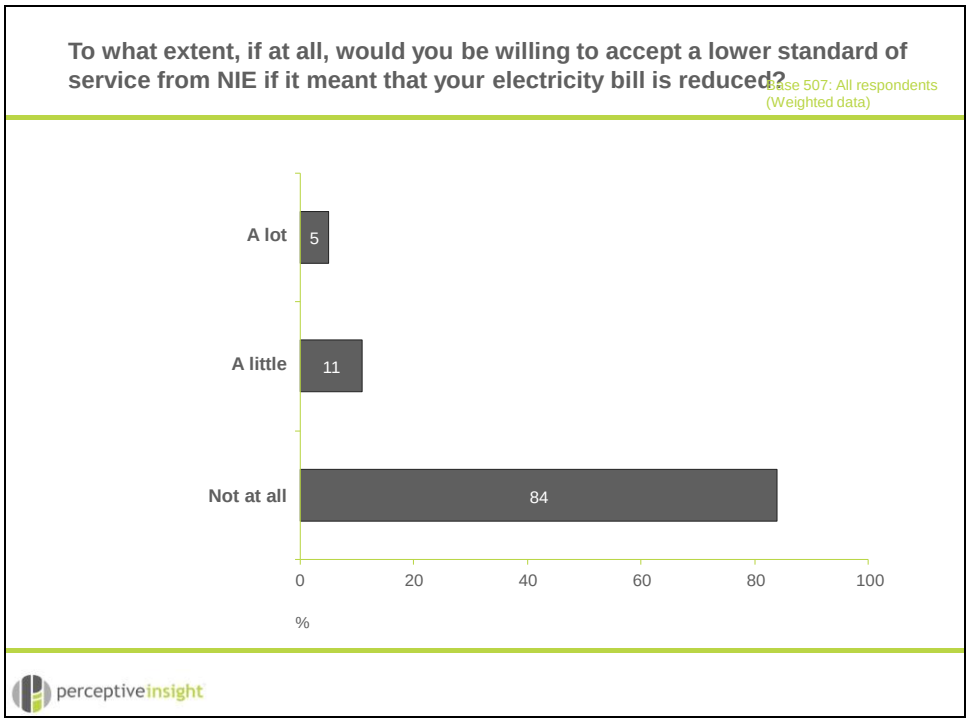
Perhaps not surprisingly, organisations with a larger annual bill (in excess of £50,000) were less likely to be willing to pay extra for service improvements. They expressed particular disinclination to pay extra towards improving the environmental impact of the network.

Figure 1.5.1: Willingness to pay extra for improvements



Respondents were asked whether they would be willing to accept a lower standard of service from NIE, if it meant that their electricity bill was reduced. The vast majority (84%) indicated that they would not be willing to accept a lower standard of service.

Figure 1.5.2: Willingness to accept lower standard of service from NIE provided a reduction in bill



Respondents from the wholesale, retail and hospitality trades were significantly more likely to express willingness to accept a lower standard of service if it meant their bill was reduced.

In contrast no respondent from the agricultural trade was willing to accept a lower standard of service. Mid to large sized businesses, and those from a rural setting, were also less likely to accept a deterioration in service.

Interestingly, the annual bill appears to have little bearing on respondents' willingness to accept lower service; those with the largest bills (in excess of £50,000) were least likely to tolerate a reduction in the standard of service, even if it meant a decrease in their annual bill.

Table 1.5.3: Willingness to accept lower standard of service by sector, size, location

		Sector					Size			Location		
Would you be willing to accept a lower standard of service from NIE if it meant that your electricity bill is reduced?	Overall	Agriculture	Manufacturing, Construction, Motor trade	Wholesale, retail, hospitality	Transport, services	Public admin, health and education	10 or less employees	11 to 49 employees	50 or more employees	Urban	Rural	Both
Base unweighted weighted	*508/ 507*	*100/ 105*	*104/ 104*	*102/ 103*	*101/ 95*	*101/ 100*	*270/ 451*	*154/ 46*	*84/ 10*	*280/ 258*	*191/ 215*	*37/ 34*
A lot	5%	-	2%	15%	4%	7%	6%	-	-	5%	3%	20%
A little	11%	-	9%	24%	6%	17%	12%	5%	4%	13%	6%	27%
Not at all	84%	100%	89%	62%	91%	77%	82%	95%	96%	82%	91%	53%