

# ESB NETWORKS PR6 Evaluation

Customer and stakeholder research and  
stakeholder consultation  
September 2024

Prepared by:  
Niamh Doyle, Clare Kavanagh, Pooja Sankhe,  
Bianca Copeland and Jack Shakespeare

24-038415  
DOC-270225-IDV



# CONTENTS

<b>CUSTOMER AND STAKEHOLDER RESEARCH</b>	<b>4</b>
<b>1. Background and methodology</b>	<b>5</b>
<b>2. Executive Summary</b>	<b>6</b>
<b>3. Customers – consumer and business</b>	<b>7</b>
3.1 Qualitative research	7
3.2 Quantitative research	9
<b>4. Stakeholders</b>	<b>15</b>
4.1 County councils, representative bodies, business interest groups, and energy industry bodies & suppliers.	15
4.2 Contractors	15
<b>5. Customers – detailed qualitative findings</b>	<b>17</b>
5.1 Consumer Journey	17
5.2 Barriers to changing energy consumption	18
5.3 Future of Electricity	19
5.4 Key Strategic Pillars	20
5.5 Perceptions of ESB Networks	22
5.6 Pricing	22
5.7 Learnings	24
<b>STAKEHOLDER CONSULTATION</b>	<b>25</b>
<b>1. Introduction</b>	<b>26</b>
<b>2. Executive summary</b>	<b>26</b>
<b>3. Detailed findings</b>	<b>27</b>
3.1 Strategic Outlook and Strategic Development (Q1)	27
3.2 Resilience, Safety and Reliability of the Network (Q2)	29
3.3 Decarbonisation of Electricity and Flexible, Integrated Energy System Development (Q3)	30
3.4 Empowering and Supporting Customers (Q4)	31
3.5 Enabling Structures and Capabilities (Q5)	32
3.6 Other Considerations (Q6)	33

# CUSTOMER AND STAKEHOLDER RESEARCH

The background features a dark blue upper section. A diagonal line separates this from a light teal section below. In the bottom right, there is a teal section and a bright orange trapezoidal shape pointing towards the top right.

# 1. Background and methodology

ESB Networks, responsible for serving the entirety of Ireland's electricity customers, extends its reach to households, businesses, and communities across the nation. With a commitment to delivering secure and dependable electricity services to millions of customers, ESB Networks plays a crucial role in Ireland's journey towards a low-carbon future through the electrification and transformation of its infrastructure.

ESB Networks' operational endeavours are sustained through 'Use of System charges', which are integrated into customers' electricity bills by suppliers. The Commission for Regulation of Utilities (CRU) oversees these charges, determining the permissible collection of funds from electricity consumers and consequently prescribing the scope of network investment and maintenance activities.

Currently operating within the parameters of Price Review 5 (PR5) from 2021 to 2025, ESB Networks is simultaneously formulating strategic business plans for Price Review 6 (PR6), scheduled for the period from 2026 to 2030. These plans are set to be submitted to the CRU in Q4 2024, with the objective of ensuring that investment strategies for the 2026-2030 period resonate with the present and future needs and preferences of all customers and stakeholders.

To inform the development of these plans, ESB Networks commissioned Ipsos B&A to carry out Quantitative and Qualitative research to gather insights from a diverse range of customers and stakeholders.

	Customers		Stakeholders	
	Consumers	SME and large business	County councils, representative bodies, business interest groups, and energy industry bodies & suppliers	Contractors
<b>Qualitative Research</b> Fieldwork: May to July 2024	10 face-to-face focus groups - mix of genders, life stages, social grades, and locations	4 online focus groups -mix of business types, turnovers, employee numbers, and locations	8 online in-depth interviews	4 online in-depth interviews
<b>Quantitative Research</b> <b>Fieldwork:</b> 8th to 15th July 2024.	Questions included on IPSOS B&A online barometer which interviews a nationally representative sample of n=1,138 adults, 16+ years . Margin of error at 95% CL is +/-3.2%			

This comprehensive quantitative and qualitative approach aimed to capture a wide spectrum of perspectives, enabling ESB Networks to align its PR6 strategies with the expectations and requirements of its customer base and key partners in the electricity sector. The insights gleaned from this research will be instrumental in shaping ESB Networks' roadmap for the coming years, as it navigates the challenges and opportunities of the low-carbon transition while maintaining its commitment to reliable and affordable electricity supply.

## 2. Executive Summary

ESB Networks faces both opportunities and challenges in the transition to a net-zero future. While consumers and stakeholders generally support the direction, addressing concerns about cost, transparency, communication, and the impact of renewable energy infrastructure will be crucial for maintaining public trust and achieving PR6 objectives. ESB Networks needs to proactively engage with consumers and stakeholders, demonstrating progress and building a shared vision for a sustainable energy future.

- Eight in 10 consumers anticipate increased electricity consumption over the next 10 years. More than 4 in 5 of all adults believe that strengthening the network to support increased future usage should be a very high or high priority. A resilient reliable network is viewed as essential for economic growth, rural communities, and vulnerable customers. Proactive investment in grid infrastructure is expected.
- Approximately 70% of consumers are willing to pay something additional weekly for reliable supply, access to renewable energy and access to initiatives that will give better control of costs. However, consumers call for shared cost burdens. They believe ESB Networks, suppliers, large energy users, and the government should contribute more. Price increases must be clearly communicated and linked to demonstrable benefits.
- Rising energy costs are driving consumers to adopt energy-saving measures, but high upfront costs of technology, inconvenience, and ingrained habits pose barriers, especially for families and farmers. Targeted interventions, incentives, and education are needed to accelerate adoption. Ownership of energy-efficient equipment is modest, with future intent strongest for solar panels (30% of current non owners anticipate purchase in next 5 years) Perceived high upfront costs and perceived complexity of installation and maintenance hinder adoption.
- Consumers want transparent, accessible, and actionable information from ESB Networks on energy usage and potential savings. They desire personalised insights and recommendations, viewing ESB Networks as a trusted source for energy efficiency education.
- Consumers support decarbonising the electricity system but have concerns about the impact of large-scale renewable energy infrastructure (e.g., wind farms) on local communities. Addressing visual impact, noise pollution, and ecosystem effects is crucial.
- Consumers generally associate ESB Networks with reliability and trustworthiness but lack detailed understanding of its specific responsibilities beyond grid maintenance, outage management, and new connections. There's an opportunity for ESB Networks to position itself as a trusted partner in the transition to a net-zero future. ESB Networks needs to educate the public about grid investments and infrastructure upgrades.
- Consumers desire more personalised interactions with ESB Networks and greater clarity on electricity usage. Smart meters, while recognised, have negative associations. A campaign is needed to build trust and promote their benefits.

Some consumers are sceptical about ESB Networks' capacity for large-scale change, citing past project delays and cost overruns. Building trust requires credible targets, demonstrated progress, and clear communication of successes. Stakeholders such as County councils, representative bodies, business interest groups, and energy industry bodies & suppliers also view ESB Networks as a trusted organisation but have varied experiences. Some report bureaucracy and slow responses, while others praise communication and collaboration. Greater transparency, proactive communication, and a more collaborative approach are desired. Contractors appreciate ESB Networks' proactive communication regarding PR6 plans, particularly the transparency and detail provided. However, they highlight challenges such as skilled labour shortages, inflexible procurement processes, and reliance on traditional contracting methods.



## 3. Customers – consumer and business

### 3.1 Qualitative research

The qualitative research revealed several key insights into consumer perceptions, behaviours, and expectations related to ESB Networks and the broader electricity sector:

**1. ESB Networks:** While there is general awareness of ESB Networks' role in maintaining electricity infrastructure, consumers have limited detailed understanding of the organisation's specific responsibilities. ESB Networks is primarily associated with maintaining and upgrading the national grid, managing power outages, and handling new connections. Among consumers, the brand has strong associations with reliability, trustworthiness, and being an established player in the Irish electricity sector. However, there is scope for ESB Networks to build a deeper understanding and connection with consumers, positioning itself as a trusted partner in the transition to a net-zero future.

**2. Energy saving:** There is a growing trend of households adopting various energy-saving measures, ranging from small-scale habit changes to more significant home improvements. This shift in consumer behaviour is primarily driven by the escalating cost of energy, which has become a major concern for many households. However, a more energy-savvy cohort is also demonstrating an increased awareness of environmental issues and a desire to become "prosumers" - actively managing their energy production and consumption. Despite this positive trend, challenges such as the high upfront costs of energy-efficient technologies, the perceived inconvenience of changing established habits, and deeply ingrained behaviour patterns continue to pose barriers, particularly among families and the farming community. Addressing these barriers through targeted interventions, financial incentives, and educational campaigns will be essential to accelerate the adoption of energy-saving practices.

**3. Information:** Consumers expressed a strong desire for more transparent, easily accessible, and actionable information from ESB Networks regarding their energy usage and potential savings opportunities. There is a strong interest for clear, digestible data on individual household energy consumption patterns, along with personalised insights and recommendations on how to modify behaviour to achieve cost savings. Many consumers believe that ESB Networks, as a trusted and impartial entity, is well-positioned to take on a leading role in educating the public about energy efficiency and conservation. By providing credible, unbiased advice and practical tips on optimising energy consumption, ESB Networks can empower consumers to make informed decisions and actively contribute to the low-carbon transition.

**4. Solar panels:** Solar panels are widely perceived as an attractive option for households to generate their own renewable electricity, offering benefits such as reduced reliance on the grid, lower long-term energy costs, and a sense of environmental responsibility. However, the high upfront costs associated with purchasing and installing solar panels remain a significant barrier to widespread adoption. Many consumers also perceive the process of installing and maintaining solar panels as complex and time-consuming, which further deters them from making the investment. The concept of selling excess electricity back to the grid is seen as a highly appealing prospect, but a lack of understanding regarding the mechanics and financial implications of such arrangements indicates a need for clearer communication and education on the topic. By providing transparent, easily understandable information on the costs, benefits, and practicalities of solar panel adoption, ESB Networks can help consumers make informed decisions and accelerate the uptake of this promising technology.

**5. Future of electricity:** Consumers widely anticipate that the demand for electricity will grow significantly in the coming years, driven by factors such as population growth, the rapid adoption of electric vehicles, the proliferation of data centres, and the broader electrification of the economy. However, awareness of the potential impact of this increased demand on the electricity grid is limited. Only a minority of consumers demonstrated an understanding of the challenges that the grid may face, such as an increased risk of power outages and potential fluctuations in power quality. As the electricity system undergoes a transformative evolution to support the low-carbon transition, it will be critical for ESB Networks to proactively educate consumers about the implications of these changes. By fostering a greater understanding of the need for grid investments, infrastructure upgrades, and potential price increases, ESB Networks can help build public support and resilience in the face of the evolving energy landscape.

**6. Decarbonising electricity:** Consumers express strong support for ESB Networks' plans to decarbonise the electricity system by enabling more renewable generation, recognising the crucial role this plays in achieving energy independence and addressing pressing environmental concerns. The shift from fossil fuels to clean energy sources such as wind and solar is seen as a necessary and positive step towards a sustainable future. However, concerns regarding the potential impacts of large-scale renewable energy infrastructure, particularly wind farms, on local communities were raised by some consumers. Issues such as visual impact, noise pollution, and potential effects on local ecosystems will need to be carefully addressed to maintain public support.

**7. Resilient Network:** Consumers view strengthening the electricity network to prevent future power outages as demand grows as fundamental. While power outages are somewhat rare, they are increasingly seen as unacceptable as society's dependence on electricity continues to rise. A resilient network is considered essential for economic growth, supporting rural communities, and protecting vulnerable customers. Consumers overwhelmingly expect ESB Networks to take a proactive approach in investing in grid infrastructure to ensure resilience and minimise the risk of future outages.

**8. Empowered Customers:** ESB Networks is held in high regard for its effective handling of critical customer needs, such as power outage restoration and new connection installations. However, consumers desire greater personalisation in their interactions with ESB Networks and more clarity over their electricity usage. While awareness of smart meters is high, they are often associated with negative sentiment. A fresh, honest, and educational campaign is required to build trust in smart meters. Consumers express a strong desire for increased interaction and communication with ESB Networks, particularly in the areas of education, usage insights, cost-saving strategies, and transparency regarding price increases.

**9. Willingness to pay:** Consumers recognise the importance of ESB Networks' initiatives, but they are hesitant to bear the full cost burden. There is a strong belief that ESB Networks, electricity suppliers, large energy users, and the government should contribute more to these efforts, citing high profits and tax revenues as potential sources of funding. Any price increases need to be clearly communicated and linked to demonstrable benefits for the consumer.

**10. ESB Networks expectations:** While ESB Networks exudes confidence and trust, some consumers express scepticism about the organisation's ability to deliver the scale of change required for net-zero, given past examples of delayed and over-budget semi-state projects in Ireland. To build trust, ESB Networks will need to set credible interim targets and demonstrate progress through partnerships with technology providers and industry stakeholders. Clear communication of past success stories and the steps already taken towards achieving net-zero will be crucial in bringing consumers along on the journey. Consumers need to see ESB Networks as a proactive leader in the energy transition, not just a reactive organisation maintaining the status quo.



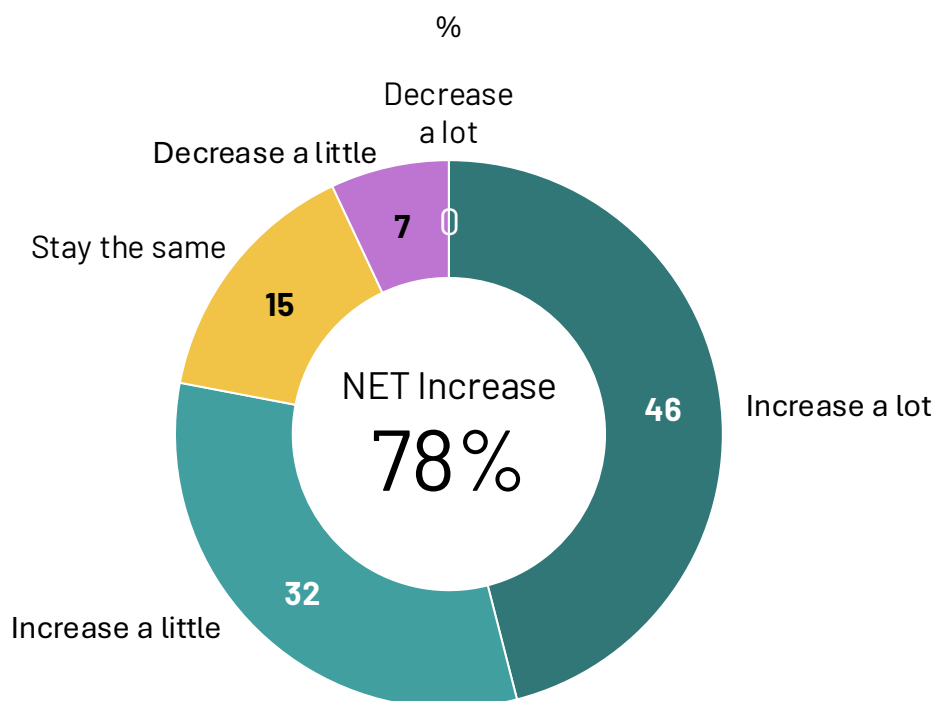
### 3.2 Quantitative research

Questions asked of a representative sample of n=1138 Irish residents aged 16+ allowed us to quantify some of the key attitudes and behaviours expressed in the qualitative.

#### Perceived dependence on electricity in the future:

As articulated in the qualitative research, a large proportion, nearly 8 in 10 consumers anticipate electricity consumption to increase over the next 10 years. Population growth, followed by the expansion of data centers, are identified as most common drivers.

## Dependence on Electricity next ten years



**(somewhat/very likely)**

Q.1 In your opinion will Ireland's dependence on electricity increase, decrease or stay the same in the next ten years?

Base: All Adults 16+; n=1138

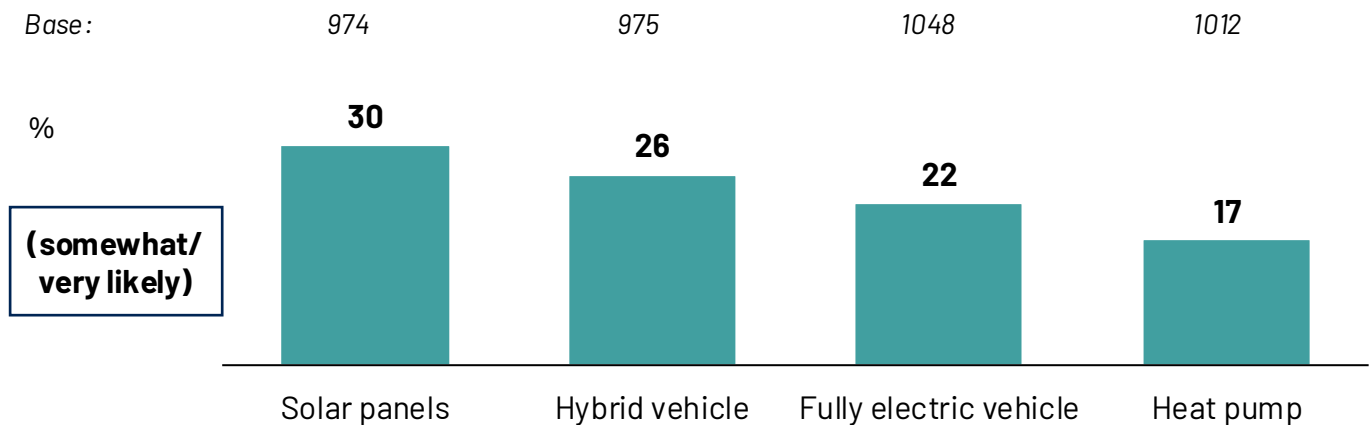
### Usage of energy efficient products:

Quantitative research confirmed that ownership levels of energy efficient equipment amongst consumers, are still relatively modest. Two in five, at this stage report ownership of, at least one of, solar panels, a hybrid vehicle, electric heat pumps, or EV.

Future intent is strongest for purchase of solar panels with thirty percent of current non-owners reporting they are very or somewhat likely to purchase solar panels in next five years.

## Likelihood to buy in next 5 years

Base: Those who do not currently own item



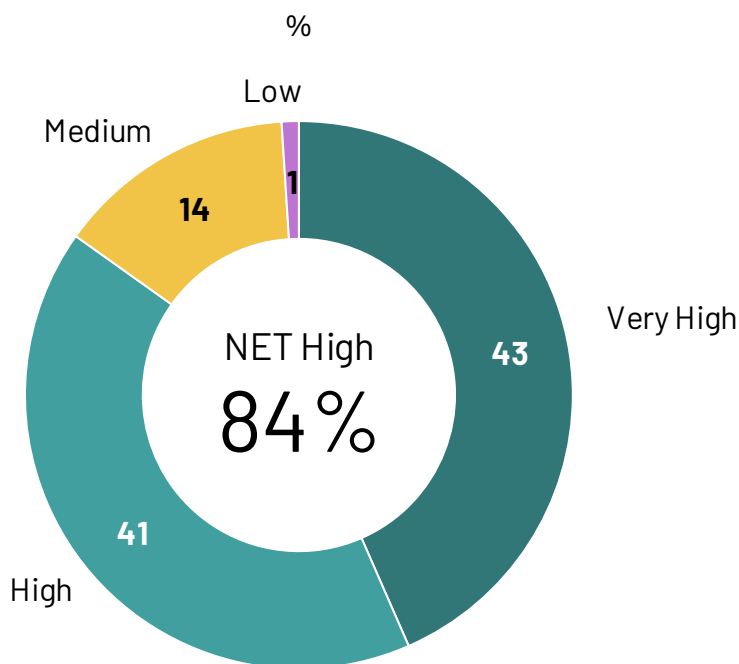
Q.2c How likely are you to purchase \_\_\_ in the next five years?

Base: All Adults 16+ who don't currently have \_\_\_

**Priority attached to strengthening the electricity network:**

More than 4 in 5 of all adults believe that strengthening the network to support increased future usage should be a very high or high priority.

Future intent is strongest for purchase of solar panels with thirty percent of current non-owners reporting they are very or somewhat likely to purchase solar panels in next five years.

**Priority for improving the electricity network to support future energy usage**

Q.3 ESB Networks is licensed by the government to build operate, maintain, and develop the electricity network in Ireland. Do you think improving the electricity network to allow for increased future usage should be very high, high, medium or low priority?

Base: All Adults 16+; n=1138

**Most important aspects of electricity provision:**

Reliability of supply is the most important aspect for consumers followed by access to renewable energy.

**Importance of aspects of electricity supply****Most Important**

%

Reliability of electricity supply and avoidance of power cuts



Moving from reliance on electricity produced from fossil fuels to electricity produced using renewable sources like wind and solar



Becoming a more active and empowered customer with the ability to embrace new technologies to help manage energy costs (e.g. selling home produced, solar or wind produced electricity back to the grid or being rewarded for being flexible in when you use electricity)



All are equally important



Q.10 Which is more important to you?

Base: All Adults 18+; n=1138

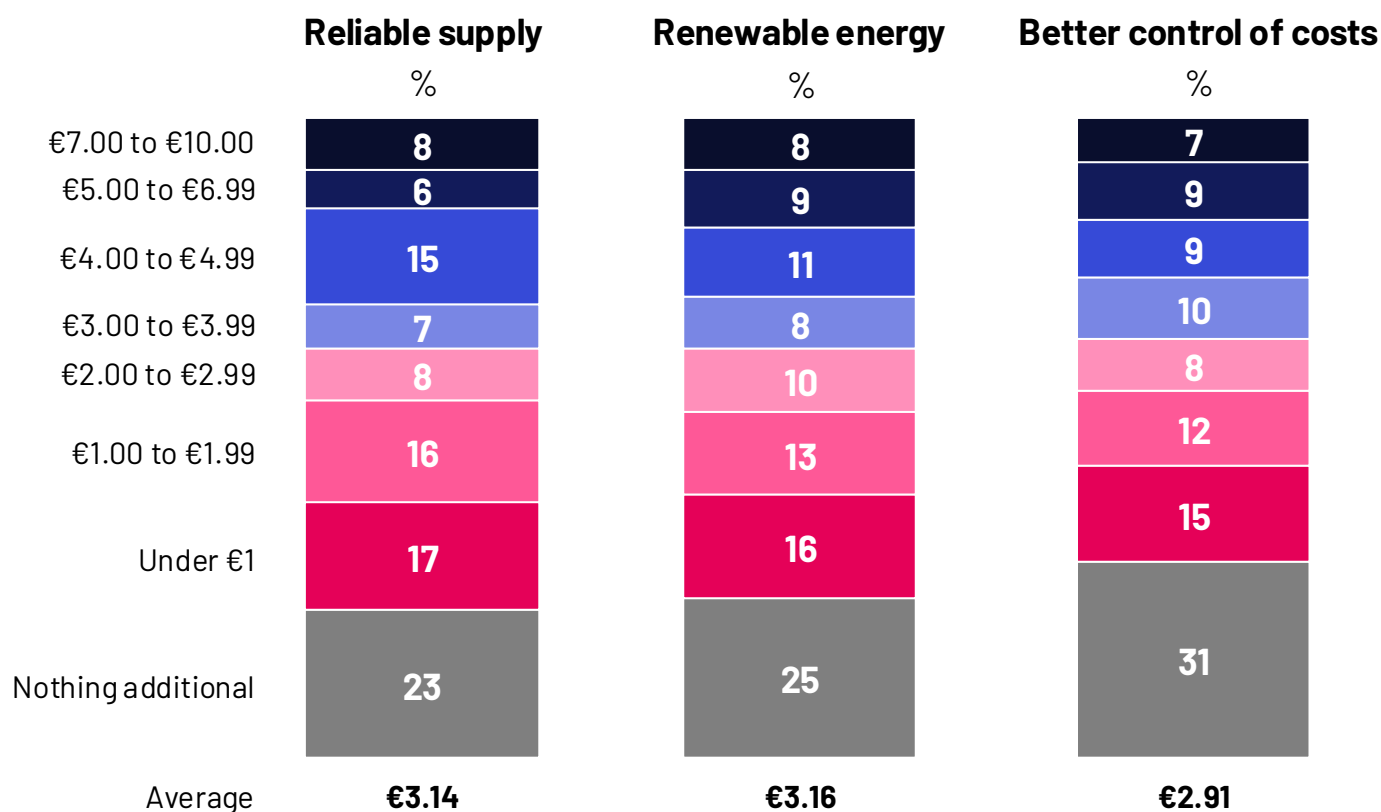
### Willingness to pay for benefits of a strengthened network:

A national representative sample of adults 16+(n=1,138 respondents), identified that three in five are aware that a proportion of their bill is directed to ESB Networks to enable them to operate, upgrade and develop the electricity network, however there is a great deal of uncertainty as to what the amount is.

*"I never knew about it, you don't see it on the bill. It seems fair enough for the work they do I suppose"*  
(Family, 30-35, Galway)

*"They're investing for the future, so they should have people buying into that they are doing"*  
(Young family Dublin)

## Additional fee willing to pay weekly – summary



There is a lot of variability across customers in the additional amount they are willing to pay for reliable supply, renewable energy, and better control of costs. In Ipsos B&A's survey, it was identified that 70% are willing to pay something additional for all the three benefits described.

On average, they are willing to pay:

- An additional weekly fee of €3.14 for reliable supply
- An additional weekly fee of €3.16 for renewable energy
- An additional weekly fee of €2.91 for better control of costs

In overview, 33% of people are willing to pay an additional weekly fee between 1cent and €1.99 for reliable supply, 29% for renewable energy and 27% for better control of costs.

30% of people are willing to pay an additional weekly fee between €2.00 and €4.99 for reliable supply, 29% for renewable energy and 27% for better control of costs.

A minority of people are willing to pay between €5.00 and €10.00 for the same benefits; 14% are willing to pay an additional weekly fee of between €5.00 and €10.00 for reliable supply, 17% are willing to pay that amount for renewable energy and 16% are willing to pay that amount for better control of costs.

It is important to note that a core group; one in four to 30% surveyed, selected a 0% increase, expressing the belief that the primary responsibility for this investment should fall on suppliers. There is a prevailing perception among consumers that they will ultimately bear the cost of this investment through increased bills from their suppliers.

*"It's a nice idea. But then again, are they targeting corporations in the same way?"  
(Vulnerable Customers)*

*"The suppliers have a record profit, made crazy profits, so shouldn't they foot the bill"  
(Family, 30-55, Galway)*

Consumers prioritise the reliability of energy supply and renewable energy as paramount considerations. In future communications regarding necessary network investments, it is crucial to emphasise these two key aspects.

Consumer willingness to accept price increases is directly correlated with the transparency and visibility of the impact of their investment. Regardless of the percentage increase, customers require clear evidence of how their financial contributions are being utilised. It is essential that any additional costs be progressively allocated and explicitly linked to demonstrable long-term savings and benefits.

To garner consumer support for price adjustments, there is a critical need for targeted awareness campaigns and educational initiatives in this specific area. These efforts will help consumers understand the necessity and value of their increased financial commitment to energy infrastructure improvements.



## 4. Stakeholders

### 4.1 County councils, representative bodies, business interest groups, and energy industry bodies & suppliers

These stakeholders perceive ESB Networks as a trusted and well-established organisation that plays a critical role in shaping Ireland's energy landscape. However, their experiences and perceptions of working with ESB Networks vary, highlighting the need for more consistent engagement and collaboration across different stakeholder groups.

Some stakeholders, particularly those with more transactional relationships, describe ESB Networks as bureaucratic and slow to respond to their needs. These stakeholders report challenges such as lengthy project delays, lack of transparency in planning and costs, and a general sense of frustration in their dealings with the organisation. These experiences can have a direct and negative impact on stakeholders' own projects and initiatives, hindering progress towards shared energy transition goals.

On the other hand, stakeholders who enjoy a more collaborative relationship with ESB Networks speak positively of the organisation's communication efforts and willingness to listen to their concerns. These stakeholders feel that they are "rowing in the same direction" as ESB Networks, which leads to more efficient and effective outcomes.

Despite these varied experiences, there is a shared desire among all stakeholders for greater transparency, proactive communication, and a more collaborative approach from ESB Networks. Stakeholders emphasise the importance of translating high-level strategic objectives into concrete actions and clear, accessible communication that resonates with the public. They caution that without tangible evidence of progress, there is a risk of scepticism and disengagement among stakeholders and the wider public.

### 4.2 Contractors

ESB Networks' proactive communication regarding its PR6 plans has been positively received by contractors, who appreciate the transparency and level of detail provided. This openness enables contractors to effectively plan their resources, make informed decisions, and align their efforts with ESB Networks' objectives. Contractors particularly value the insights into the significant volume of work anticipated across various areas, such as solar farms, network upgrades, EV chargers, and the smart meter program.

*"I thought it was refreshing first of all to be invited to such a meeting where it was very open and honest." (ESB Networks Contracting Partners, PR6 Workshop, 4th June 2024)*

The clear and detailed information shared by ESB Networks, including specific figures, numbers, and maps, instils confidence among contractors and demonstrates a refreshing approach to collaboration. This level of transparency is seen as a foundation for building trust and fostering a more cooperative relationship between ESB Networks and its contractors.

Contractors unanimously recognise ESB Networks' pivotal role in driving Ireland's transition to a net-zero energy future. They acknowledge that ESB Networks' responsibilities are expanding beyond the traditional focus on maintaining a reliable electricity network. Contractors understand that ESB Networks is now tasked with facilitating the connection of renewable energy sources, modernising the grid to handle increased demand, and empowering customers to become active participants in the energy system.

However, contractors also identify several challenges that could impact the successful delivery of ESB Networks' PR6 objectives. The most pressing concern is the potential shortage of skilled labour, particularly in specialised areas such as engineering and commissioning. This scarcity of qualified personnel makes it difficult for contractors to scale up their workforce to meet the anticipated volume of work. Contractors emphasise the need for collaborative efforts to attract and train talent, potentially looking beyond Ireland's borders to secure the necessary expertise.

*"I think the obvious one is probably resources. If you look at our country at the moment, we're practically at full employment and we see it not only in the power side of the business. We see it in the telecom side of the business. We see it in the construction side of our business, the civil side of our business. There's a shortage of skilled people across all areas."*

Another challenge highlighted by contractors is the perceived inflexibility and bureaucracy in ESB Networks' procurement processes. The heavy emphasis on price and the lack of flexibility in terms and conditions are seen as potential barriers to fostering innovation and collaboration. Contractors suggest that a more adaptable and partnership-oriented approach to procurement could attract a wider range of participants and encourage the development of creative solutions to meet the evolving needs of the energy transition.

Contractors also express concerns about the reliance on traditional contracting methods, such as mini-tenders and frameworks, which may not be suitable for the volume and complexity of work required to achieve PR6 objectives. These methods can be time-consuming and may not provide the agility needed to respond quickly to changing demands or unforeseen challenges.

To address these issues and strengthen the partnership between ESB Networks and its contractors, several suggestions are put forward. These include exploring alternative contracting methods that provide greater certainty and visibility, involving contractors earlier in the project lifecycle to leverage their expertise, and streamlining procurement processes to enable more efficient resource mobilisation.

Ultimately, contractors view themselves as essential partners in achieving ESB Networks' strategic objectives. They are eager to move beyond a purely transactional relationship and establish a more collaborative approach based on open communication, transparency, and trust. By harnessing the collective expertise and resources of its contractor network, ESB Networks can navigate the complexities of the energy transition and deliver on its PR6 commitments.

*"The resilience of the network is pretty key because with I suppose the move towards transport and that's being provided by electricity, the numbers I think it's a million EV's by 2030 and 600,000 heat pumps, there's a whole raft of upgrades that will be required to facilitate that."*

## 5. Customers – detailed qualitative findings

### 5.1 Consumer Journey

The consumer journey towards energy conservation and efficiency follows three key stages: awareness, action, and habit formation. In the awareness stage, consumers learn about energy conservation, specifically focusing on understanding their energy usage, identifying high-consumption devices, and exploring green energy options. This awareness is driven by various factors, including rising energy costs, environmental concerns, and exposure to information campaigns.

As consumers become more informed, they progress to the action stage, where they begin to implement changes based on their newfound knowledge. These actions can be categorised into two main types: behavioural changes and technology adoption. Behavioural changes include a wide range of energy-saving habits, such as shifting electricity usage to off-peak times, being more vigilant about turning off unused lights and devices, using appliances more efficiently, and teaching children to be more mindful of their energy consumption.

On the technology front, consumers may invest in energy-efficient appliances, LED lighting, smart plugs, and even solar panels. The extent of these actions varies based on factors such as life stage, financial capacity, and overall energy awareness. For instance, pre-family consumers and empty nesters tend to focus more on behavioural changes, while families with older children and higher disposable incomes are more likely to invest in significant home improvements and renewable technologies.

*“The bills have shot up in the last two years. I’ve been on at the children to cut the power showers down, because you do become conscious of it, and we’ve gone so far now that we’ve got solar panels fitted last week. I’ve become obsessed with the app. I’m watching what we’re producing and using. I think it’s come to the front of everybody, because the bills have gone up and that focuses the mind” (Family, 45-64, Galway)*

As these actions are repeatedly sustained over time, they become ingrained habits, leading to lasting lifestyle changes. This final stage of habit formation is crucial for achieving long-term energy conservation and efficiency goals.

The research reveals that most consumers, including future customers, are actively engaging in the awareness and action stages of the energy conservation journey. They are adopting a range of energy-saving measures, from simple habit changes like unplugging devices when not in use to more substantial investments like installing solar panels and purchasing electric vehicles.

However, the transition from action to habit formation can be challenging, particularly for certain consumer segments. Families with young children, for example, may find it more difficult to consistently enforce energy-saving behaviours due to competing priorities and the practical demands of family life. Similarly, farmers may face unique challenges in adopting new technologies or changing long-standing practices due to the specific requirements of their agricultural operations.

To facilitate the consumer journey towards energy conservation, it is essential for ESB Networks and other stakeholders to provide targeted support, education, and incentives. This could include personalised energy usage feedback, tailored recommendations for energy-saving actions, and financial incentives for adopting energy-efficient technologies. By understanding the unique needs and challenges faced by different consumer segments, ESB Networks can develop strategies to enable and accelerate the transition to a more energy-efficient and sustainable future.

## 5.2 Barriers to changing energy consumption

Despite growing awareness and willingness to adopt energy-saving measures, consumers face several barriers that hinder their ability to make significant changes in their energy consumption. These barriers can be broadly categorised into financial, informational, and behavioural factors.

Financial barriers are among the most significant obstacles to changing energy consumption patterns. The high upfront costs associated with purchasing and installing energy-efficient technologies, such as solar panels, heat pumps, and electric vehicles, can be prohibitive for many consumers. Even with available grants and incentives, the initial investment required can be a major deterrent, particularly for younger consumers who are already struggling with housing costs and other financial pressures. There are also concerns about the long-term financial benefits of these investments, with some consumers uncertain about the payback period and the overall cost-effectiveness of these measures.

*“I think a lot of people would prioritise the environment if the difference wasn’t huge. But because the initial cost is so big, it kind of, personally, anyway, it’s out of my scope.” (Empty Nester, Athlone)*

Informational barriers also play a significant role in limiting consumers’ ability to change their energy consumption. Many consumers have low awareness of the specific actions they can take to reduce their energy usage and the potential impact of these actions on their bills and carbon footprint. There is often a lack of clear, actionable information on the support and incentives available for adopting energy-efficient technologies. Moreover, consumers may find it challenging to navigate the complex landscape of energy tariffs, grants, and regulations, leading to confusion and inertia.

*“There’s not an awful lot of advertising, in terms of all this, none of that information is at hand for people, you have to go and search for it. I think that’s what makes it more difficult, because we’re not going to know where to go to. Whereas, if it was in our faces, in plain sight, you’d be like, ah Jesus, look at that.” (Pre family, 20-34, Dublin)*

Behavioural barriers, such as convenience, scepticism, and resistance to change, can also hinder the adoption of energy-saving measures. For many consumers, the perceived hassle and time investment required to research and implement changes in their energy consumption can be a significant deterrent. This is particularly true for busy families and those with established routines and habits. Some consumers may also be sceptical about the effectiveness of individual actions in the face of larger, global energy challenges, questioning whether their efforts will make a meaningful difference.

*“It is all very well but people are coming in from work in the evening and that is their dinner time, getting children ready for bed, showering and all this sort of thing. There is massive demand on it and how do you change that. They are still going to be coming in from work at the same time” (Farmers, Limerick)*

*“Data centres are pulling massive amounts of electricity off the grid. So that’s huge and that’s going to impact on everyone” (Pre family, 20-34, Dublin)*

Aesthetic concerns and space constraints can also act as barriers, particularly in the case of renewable energy technologies like solar panels and wind turbines.

### 5.3 Future of Electricity

Consumers anticipate that electricity usage will increase significantly in the coming years due to a combination of economic growth, population expansion, housing developments, the proliferation of data centres, and the transition to electric vehicles and heating systems. This expected surge in electricity demand is driven by both individual-level changes and broader societal shifts.

*“The data centers and the amount of electricity they use, which I think has to be addressed and it has to be addressed separately, you know, we all feel like we’re trying to do our bit, and then if any improvement we make is being used for data centers, what’s the point, and it does disillusion people, definitely disillusions me. And I know that’s not with the ESB remit, but they would have the power to influence decision and lobby on that, so I think they should be part of the discussion” (Family, 45-64, Galway)*

*“Even with new builds as well, it’s all electric pumps, and solar panels that’s going to new builds, so there’s going to be more demand for them” (Pre family, 20-34, Dublin)*

At the individual level, consumers foresee becoming more reliant on electricity as they invest in electric vehicles and witness an increase in technology usage within their homes. The rise of remote work, the growing number of household devices, and the adoption of smart appliances all contribute to higher residential electricity consumption. Energy-savvy consumers, who are further along in their sustainability journey, have already installed solar panels and batteries, and are eager to explore opportunities to sell excess power back to the grid, becoming active participants in the energy system.

*“Yesterday was a very cloudy day all day and my solar panels produce 7 kilowatts, almost covered all my usage for the day. Two days before, they produce 35 kilowatts. Three times more than I need. I sell it to grid and probably after half year, I will have no bill” (Family, 30-55, Galway)*

On a societal scale, consumers recognise that the increasing electrification of transportation, the expansion of data centres, ongoing housing initiatives, and steady population growth will place significant additional demands on the electricity network. The shift towards electric vehicles, in particular, is expected to have a substantial impact on electricity consumption patterns, as more people charge their cars at home and the charging infrastructure expands.

Renewable energy, especially wind and solar power, is widely seen as the future of electricity generation in Ireland. Consumers express strong support for the development of the country’s abundant renewable resources, recognising the multiple benefits such a transition would bring. Increasing Ireland’s energy independence, reducing reliance on imported fossil fuels, stabilising energy prices, and creating new employment opportunities in the clean energy sector are all seen as compelling reasons to embrace renewable energy.

However, amidst this optimism, there are also concerns about the readiness of the current electricity grid to handle the anticipated growth in demand. A minority of consumers have expressed doubts about the grid’s ability to cope with the increased load, fearing that it could lead to more frequent power outages and potential fluctuations in power quality. These concerns underscore the need for proactive investment in grid modernisation and reinforcement to ensure a reliable and resilient electricity supply in the face of the impending challenges.

As Ireland navigates this transformative journey towards a more sustainable and electrified future, the role of ESB Networks in managing the electricity infrastructure and engaging with consumers becomes increasingly critical. To foster public support and understanding, ESB Networks must prioritise proactive communication and education initiatives that help consumers grasp the implications of these changes for the electricity system.

Transparency about the need for grid investments, infrastructure upgrades, and potential price increases will be essential to build trust and secure public backing for the necessary changes. By providing clear, accessible information on the benefits of the energy transition, the steps being taken to ensure grid resilience, and the ways in which consumers can actively participate in the process, ESB Networks can cultivate a sense of shared ownership and responsibility for the journey towards a decarbonised future.

In conclusion, the future of electricity in Ireland is characterised by a significant anticipated increase in demand, driven by economic growth, technological advancements, and the imperative to decarbonise. Renewable energy, particularly wind and solar, is poised to play a central role in meeting this demand and shaping the electricity landscape of tomorrow. As the custodian of the nation's electricity infrastructure, ESB Networks bears a profound responsibility to proactively manage this transition, engage with consumers, and ensure a reliable, sustainable, and inclusive energy future for all.

## 5.4 Key Strategic Pillars

ESB Networks has identified three key strategic pillars that will guide its efforts during the PR6 period: Decarbonising Electricity, Resilient Infrastructure, and Empowered Customers. While consumers generally agree with the importance of these pillars, they express some reservations about the practicality and timeline of achieving the associated goals.

Decarbonising Electricity is recognised as a critical component of Ireland's transition to a low-carbon future. Consumers widely support the shift from fossil fuels to renewable energy sources, such as wind and solar, to reduce import dependence, enhance energy security, and meet climate obligations. However, there are concerns about the cost implications of this transition and how it will impact electricity prices for end-users. Consumers emphasise the need for transparency in how the costs of decarbonisation will be shared among different stakeholders, including households, businesses, and the government.

*"I think it's just not just about for us now, but for the future generations to be more sustainable protecting not just us, but for future people." (Future Customers, Dublin)*

*"We have all the resources around us, as in the wind, the waves, sometimes the sun, it's all there, if we could just move on ourselves and not rely on outside countries and it means that then there's more money to go around, because this is something that we're not spending on bringing the fuel in from other countries" (Family, 45-64, Galway)*

*"It needs to happen, realistically like, we've seen it with Ukraine last year. I think with everything that's going on globally, I think we need to, people need more independence with our own electricity. And with ESB, we're on an island where, we know what the weather's like, there's no reason that we can't, we can invest way more into the environment, wind technology, solar power, solar panels, we have space for it." (Pre family, 20-34, Dublin)*

Resilient Infrastructure is seen as a fundamental prerequisite for the successful implementation of the other strategic pillars. As electricity becomes increasingly critical for daily life and the economy, consumers have very little tolerance for power outages or supply disruptions. There is a clear expectation that ESB Networks must proactively invest in grid modernisation and reinforcement to withstand the impacts of climate change, extreme weather events, and the growing demand from electrification. While consumers accept that some planned outages may be necessary for maintenance and upgrades, they stress the importance of minimising disruption through effective communication and scheduling.



*“We need something that’s resilient, because it will stand up to, even the climate alone, how many storms have we had in the last few years, so we need something that’s going to withstand all that” (Family, 45-64 Galway)*

*“I remember when I moved to Oranmore first, you’d lose electricity, for an hour, and you’d survive, but it’s not ideal. But I think as society develops and the generation growing up, they are an instant society, and they rely totally on their phones and instant connection. If they lost connection for a minute, they’d be devastated.” (Family, 30-55 Galway)*

Empowered Customers is viewed as an enabler of the other two strategic pillars, and it is considered equally important. Consumers express a strong desire for more proactive education, guidance, and personalised recommendations from ESB Networks on energy-saving options, technologies, and potential revenue streams. They also highlight the need for accessible, transparent information on how electricity bills are calculated and where ESB Networks’ charges are allocated. Consumers are interested in becoming more active participants in the energy system, such as by becoming “prosumers” who generate and sell excess electricity back to the grid. However, they emphasise that the process and benefits of such engagement must be simple and clearly communicated to drive widespread adoption.

*“Well education is the first step in the process and then, support, enable and collaborate, that definitely has to be the way to get everybody on board, you know. It’s in everybody’s interest. (Empty Nester, Athlone)*

*“Clarity again. More information around it, like with solar panels. Like, how would you sell that back” (Family, 30-55, Galway)*

*“I don’t think there is enough information, but I don’t know the best way to get that information across, people don’t watch TV anymore, you know, maybe the radio a little bit, but as in, it’s all media platforms now, it’s all Spotify and you know Netflix and things, it is difficult to get that message across.” (Young family, Dublin)*

*“Educate before empower as they don’t know what to do with the choice” (SME)*

When asked to prioritise the strategic pillars, consumers generally ranked Resilient Infrastructure as the most critical, followed by Decarbonising Electricity and Empowered Customers. This prioritisation reflects the immediate and tangible impact that a reliable electricity supply has on consumers’ daily lives, whereas the benefits of decarbonisation and customer empowerment are perceived as more long-term and abstract.

To secure public support for its PR6 strategy, ESB Networks will need to demonstrate a strong commitment to cost transparency, fair cost allocation, and proactive stakeholder engagement. This includes providing clear and accessible information on investment plans, expected benefits, and the rationale behind any price increases. By fostering trust and demonstrating tangible progress towards its strategic objectives, ESB Networks can build the necessary public confidence to navigate the complex challenges of the energy transition.

## 5.5 Perceptions of ESB Networks

The qualitative research reveals that ESB Networks is a well-known and generally well-regarded organisation in the electricity sector. However, consumers' perceptions and depth of understanding vary, highlighting opportunities for ESB Networks to strengthen its relationship with the public and position itself as a trusted partner in the low-carbon transition.

On a positive note, ESB Networks is widely recognised for its role in maintaining and upgrading the national electricity infrastructure. Consumers associate the brand with attributes such as reliability, trustworthiness, and a long-standing presence in the Irish market. The organisation is particularly praised for its responsiveness in managing power outages and restoring supply during adverse events, with field staff often commended for their hard work and dedication.

However, beyond these core associations, consumers' understanding of ESB Networks' specific responsibilities and capabilities is somewhat limited. There is often confusion about the distinction between ESB Networks' role and that of electricity suppliers, with some consumers unaware that ESB Networks does not directly supply electricity to end-users. This lack of clarity can hinder consumers' ability to engage effectively with ESB Networks and understand its strategic priorities.

Moreover, while ESB Networks is seen as a reliable and established player in the electricity sector, it is less readily associated with innovation and agility. Some consumers express scepticism about the organisation's ability to lead the transformative changes required to achieve net-zero emissions, citing concerns about bureaucracy, resistance to change, and the perceived pace of progress in the past.

*"I think they give a very good service, when there's storms and things like that. They're very brave, they go out and repair in the most awful conditions. So, I've great admiration for the workers." (Empty Nester, Athlone)*

*"They're part of the infrastructure of Irish life but I wouldn't call them cutting edge." (Family, Galway)*

*"I think you just realise the value of them when things go wrong, rather than things go right, when you get online and go and see where the outages are, it could be very quick out, or they're dealing with very difficult situations where there's a storm and they're still out there" (Family, Galway)*

*"What they are looking at for 2030, that's six years away, what are we going to do in 6 years. Everybody's not going to be able to cut back that much on fossil fuels and, I'm not going to be getting rid of my open fire in the next 6 years, or putting in solar panels in a couple of years, it's not happening in the next year or two, you know. So, I don't understand how they expect this to be done, and where the money's going to come from." (Family, 30-55, Galway)*

## 5.6 Pricing

The topic of pricing in relation to ESB Networks' plans for the future electricity system emerged as a critical and complex issue throughout the qualitative research. Consumers expressed a range of views and concerns regarding their willingness to pay more on their electricity bills to fund the necessary investments in green infrastructure, renewable energy subsidies, and grid modernisation.

One of the key findings was that awareness of the specific breakdown of electricity bills, particularly the percentage that goes towards ESB Networks' charges, is remarkably low among consumers. This lack of transparency and understanding creates a significant barrier to engaging consumers in discussions about potential price increases. Many participants emphasised the need for clearer communication and education from ESB Networks regarding the composition of their bills and the rationale behind any proposed price changes.

When presented with the prospect of paying more to support the transition to a low-carbon electricity system, consumers exhibited limited willingness to accept increases without clear benefits and assurances. The prevailing sentiment was that any additional costs should be progressively apportioned and explicitly linked to demonstrable long-term savings, improved service quality, and tangible environmental outcomes.

In the Qualitative research, the majority of consumers indicated that they would be willing to accept a modest increase of between 5% and 10% in their electricity bills, provided that they could see the direct impact and benefits of their investment. A smaller segment of consumers, typically those who were more engaged and informed about energy issues, expressed a willingness to accept slightly higher increases, in the range of 15% to 20%. However, all participants emphasised the importance of transparency and regular feedback from ESB Networks on the progress and outcomes of the investments funded through these price increases. A more detailed Quantitative Analysis with a representative sample on the amount consumers were willing to pay followed the Qualitative Research and the results of this are contained in Section 3.2 of this report

A proportion of respondents, however, selected a 0% increase, arguing that the primary responsibility for funding the necessary investments should lie with electricity suppliers and other stakeholders, rather than being passed on to consumers. These participants expressed concerns that they would ultimately bear the cost of the energy transition through increased bills from their suppliers, regardless of ESB Networks' specific charges.

This sentiment highlights the need for a more comprehensive and collaborative approach to funding the energy transition, involving a fair distribution of costs among consumers, suppliers, government bodies, and other key stakeholders. Consumers emphasised that their willingness to contribute to the costs of the transition would be greatly enhanced by evidence of a concerted effort across all sectors to share the financial burden equitably.

The research also revealed that consumers' trust in ESB Networks and their confidence in the organisation's ability to deliver on its promises play a crucial role in shaping attitudes towards pricing. Many participants stressed the importance of regular progress updates, clear milestones, and transparent reporting on the use of funds collected through any price increases. Building and maintaining trust through open, proactive communication and demonstrable results will be essential to secure ongoing public support for the necessary investments.

Moreover, consumers highlighted the need for a range of supporting measures to mitigate the impact of potential price increases and to incentivise the adoption of clean energy technologies. These included calls for more targeted financial supports, streamlined grant application processes, and innovative financing mechanisms to help households and businesses invest in solar panels, energy storage systems, and energy efficiency upgrades.

In conclusion, the issue of pricing in the context of the energy transition is a complex and sensitive one, requiring a delicate balance between the need for investment and the concerns of consumers. ESB Networks must prioritise transparency, equity, and engagement to build trust and secure public support for the necessary changes. By working collaboratively with stakeholders across the sector and demonstrating tangible benefits to consumers, ESB Networks can foster a more constructive dialogue on pricing and create a shared sense of ownership in the journey towards a sustainable energy future.

*"If they can clearly state this will go towards building half of the wind turbine and you know where your money's goes, when there's transparency on where the money goes, and we knew it was going into what it says its going into, then yes." (Vulnerable Customers)*

*"Could the electricity companies with their massive profit not give them a bit more, instead of charging the customer more, just the electricity companies maybe, up the percentage. Out of the amount we pay, so we get a 2 grand, maybe 20% goes to the ESB, that would be a massive jump, so maybe 17% to the ESB, not 14%, but we don't pay anymore" (Pre family, 20-34, Dublin)*

*"Well, before the conversation, I wouldn't, but after saying all that about hospitals, I mean, we just told everyone these things, what we need to do. €100 a year, I would happily pay for something that's quite serious in that regard. I think there should be better education around it. And the realisation that this is the reality of the world that we're in. it's not like we're screwing you over, it's like we are in trouble, we need to like" (Pre family, 20-34, Dublin)*

## 5.7 Learnings

The qualitative research offers valuable insights into consumer perceptions, expectations, and concerns regarding ESB Networks and the wider energy transition. Based on these findings, several key recommendations emerge to help ESB Networks build trust, foster engagement, and secure public support for its PR6 strategy.

Firstly, ESB Networks should prioritise proactive, transparent, and accessible communication with consumers. This includes providing clear and easily understandable information on the organisation's role, responsibilities, and strategic objectives. Particular emphasis should be placed on educating the public, especially younger generations, about the importance of energy efficiency, renewable energy, and the net-zero transition.

To effectively reach and engage diverse consumer segments, ESB Networks must utilise a wide range of communication channels and touchpoints. While traditional media such as radio and print remain important, there is a growing need to leverage digital platforms, particularly social media, to connect with younger audiences. The development of engaging, informative, and easily shareable content, such as short videos, infographics, and interactive tools, can help to demystify complex energy topics and make the net-zero transition more relatable and compelling for consumers.

Secondly, ESB Networks should prioritise transparency and clarity in its pricing and investment strategies. Consumers want to understand how their electricity bills are calculated and where ESB Networks' portion of the charges is allocated. Providing clear and accessible breakdowns of costs, along with explanations of how investments in infrastructure, renewable energy, and customer empowerment initiatives benefit consumers, can help to build trust and justify any necessary price increases.

ESB Networks should also explore innovative ways to communicate the value and impact of its investments, such as contextualising costs in terms of tangible benefits or comparing them to everyday expenses. By helping consumers understand the long-term savings and environmental benefits associated with the energy transition, ESB Networks can foster a greater willingness to support and participate in the journey towards net-zero.

Thirdly, ESB Networks should focus on empowering consumers through personalised data, actionable insights, and targeted support. The roll-out of smart meters and the development of user-friendly online portals present significant opportunities to engage consumers and drive behaviour change. However, to maximise the impact of these tools, ESB Networks must prioritise clear communication, easy access, and ongoing support to help consumers make the most of these resources.

Providing consumers with personalised energy usage data, benchmarked against similar households, can be a powerful motivator for behaviour change. ESB Networks should also consider partnering with energy suppliers, technology providers, and community organisations to develop targeted initiatives that make energy-efficient technologies and practices more accessible and affordable for consumers.

Finally, ESB Networks must demonstrate its commitment to delivering a just, reliable, and affordable energy transition. This involves working closely with government and industry to ensure that the costs and benefits of the transition are fairly distributed and that no consumer groups are left behind. Regularly communicating progress, setbacks, and lessons learned transparently can help to build public confidence in ESB Networks' ability to navigate the complex challenges ahead.

By acting on these recommendations, ESB Networks can strengthen its relationship with consumers, foster a sense of shared ownership and responsibility for the energy transition, and ultimately build the trust and support needed to deliver on its ambitious PR6 objectives.

# STAKEHOLDER CONSULTATION

The background features a dark blue upper section. A diagonal line separates this from a light teal section below. In the bottom right corner, there is a teal section and a bright orange trapezoidal shape pointing towards the top right.

## 1. Introduction

A total of 26 responses were received as part of consultation for the proposed investment approach for [ESB Networks Investment Plan Approach for Price Review 6 \(PR6\)](#). These respondents comprised public sector bodies, business representative groups, local authorities, semi state agencies and others.

Included in **Section 3** are the detailed findings from these responses for each of the six questions that were asked of in the PR6 public consultation. **Section 2** contains an executive summary of the detailed findings in **Section 3**.

## 2. Executive summary

Respondents broadly support ESB Networks' PR6 Investment Plan for its alignment with policy objectives, emphasising rapid infrastructure deployment, stakeholder engagement, and anticipatory investment to achieve renewable energy targets. Concerns were raised about aligning with updated housing targets, incorporating industrial demand growth and addressing past challenges like planning procedures and smart meter uptake. Recommendations included considering the implications of the upcoming EU Energy Performance of Buildings Directive, future work practices, and community-level energy solutions to ensure a resilient grid infrastructure.

There is a strong showing of support by respondents for the PR6 plan's focus on improving the electricity network's resilience, safety, and reliability through strategic infrastructure investments, asset enhancements, and advanced technologies. However, respondents also highlight the need for prioritised grid infrastructure investments, particularly in underdeveloped regions, and advocate for innovative approaches to enhance grid resilience and security. Sustainability and climate action are emphasised as core principles, with recommendations for integrating hydrogen energy and extending wind farm planning permissions to align with national and global sustainability goals.

There is wide support among respondents for proposals on decarbonising electricity and developing a flexible energy system aligned with Ireland's climate goals, with particular interest in smart EV charging infrastructure and Vehicle-to-Grid systems. Respondents recommend accelerated grid infrastructure development, transparency in grid development plans, and robust risk management strategies to ensure effective implementation and stakeholder confidence. Additionally, respondents advocate for strategic investment in offshore wind energy and grid resilience measures to maximise economic opportunities and energy stability.

Respondents express strong support for ESB Networks' commitment to customer empowerment, highlighting the importance of advanced digital solutions, enhanced communication channels, and vulnerable customer support. They call for a more detailed framework for community engagement, a review of smart meter adoption barriers among customers and standardised timelines for connection processes to improve service delivery. Additionally, respondents highlight the need for transparency, customer protection from rising costs, and clarity on data ownership to ensure effective implementation of these initiatives.

There is broad support by respondents for the proposals to strengthen ESB Networks' internal capabilities, stressing that workforce development, digital transformation, and sustainability are critical to managing Ireland's energy transition. They advocate for continuous innovation, smart charging, and microgrid implementation, alongside a robust resource scaling strategy to address skills shortages and supply chain challenges. Collaborative innovation projects such as HGV electrification and Vehicle-to-Grid charging are proposed to accelerate EV infrastructure rollout, supported by data sharing and analytics to enhance infrastructure efficiency.

Respondents commend the detailed planning in ESB Networks' proposal, outlining the necessity of government support and funding to achieve the plan's goals amid a competitive capital and infrastructure investment landscape. They stress ongoing collaboration with public and private stakeholders and highlight the need for clear governance on data ownership. Additional recommendations include diversifying energy sources, promoting hybrid grid connections, and ensuring competent management of the expanding high-voltage network.



## 3. Detailed findings

### 3.1 Strategic Outlook and Strategic Development (Q1)

Respondents believe ESB Networks' strategic outlook for the PR6 Investment Plan aligns well with national, EU and stakeholder policy objectives, particularly in its focus on:

- **Prioritising rapid infrastructure deployment:** Respondents recognise the urgency of grid modernisation, urging ESB Networks to prioritise investment in areas and sectors that can accelerate the energy transition. Key investment areas highlighted include transport, ICT, EV infrastructure, construction and housing.
- **Emphasising stakeholder involvement:** Respondents stress the importance of continuous collaboration and engagement with industry stakeholders to ensure alignment between grid development plans and industry demands, both current and future. This approach is seen as crucial for maximising efficiency and achieving renewable energy targets.
- **Encouraging anticipatory investment:** Stakeholders support ESB Networks' commitment to anticipatory investment to meet Ireland's 2050 Net Zero target. Respondents believe this approach will ensure the grid can accommodate future demand, contribute to long-term affordability and a decarbonised electricity grid.
- **Exploring energy storage integration and flexible demand:** Stakeholders recognise the importance of these opportunity areas in addressing supply constraints (spatial and sectoral) and enhancing grid resilience. They encourage ESB Networks to invest in solutions and technologies that promote a more flexible and responsive energy system.

Additionally, respondents outlined key concerns and recommendations for consideration by ESB Networks. These include:

- **Alignment with Housing Targets:** Some stakeholders highlight a discrepancy between the plan's target of connecting 33,000 new homes annually and the Housing Commission's recommended target of 50,000 units. They recommend ESB Networks update the PR6 plan to reflect the finalised targets which will be outlined in the revised National Planning Framework and any other government updates on housing targets. Ongoing coordination between ESB Networks, local authorities, government departments and private developers is deemed crucial for estimating and meeting these targets effectively.
- **Incorporating Industrial Demand Growth:** While acknowledging the inclusion of residential energy demand growth, many respondents emphasise the importance of incorporating industrial demand growth, particularly for sectors such as transport, ICT, construction and housing. Facilitating the electrification needs of these sectors is considered crucial in the coming decade.
- **Balanced Investment Approach:** Stakeholders advocate for a balanced investment approach across the national grid. While highlighting the need to address constraints in areas like Dublin, they encourage investment in enhancing the network within regions outside of the Greater Dublin Area and the State's five cities. This is seen to reduce demand issues in these constrained areas, support national policy, unlock renewable energy potential across the State and ensure resiliency within the national grid.
- **Addressing Past Challenges:** While outlining support for PR6's strategic objectives, respondents also advocate for addressing past challenges, such as issues with planning procedures and limited customer uptake of smart meters. Continuous review of these areas can ensure the strategy's successful implementation.

- **Implications of the EU Energy Performance of Buildings Directive (EPBD):** Stakeholders recommend incorporating the implementation of the upcoming EPBD into ESB Networks' policy objectives. The EPBD is seen to have significant impact on ESB Networks' operations once enacted in 2026. Topics such as renewable installations on buildings, EV charging infrastructure, smart building technologies, and heat electrification are mentioned outright as potential constraints on the national grid if they are not considered by ESB Networks in the PR6 plan. Considering the EPBD's implications is seen as crucial for comprehensive forward planning to 2030 and beyond.
- **Impact of Future Work Practices:** Stakeholders acknowledge the plan's recognition of changing work practices but emphasise the need for a greater focus on the implications of future work practices, particularly the growth of AI and its impact on data storage requirements nationally. They anticipate a surge in data centre demand due to AI-driven job creation in R&D and IT, necessitating a robust and adaptable grid infrastructure.
- **Community Empowerment:** Community-level energy solutions, such as local generation, storage, and demand management, are recommended as specific areas of focus. Respondents outline how facilitating these installations and systems will require ESB Networks systems to make interconnection applications simple and understandable with associated supporting systems.

### 3.2 Resilience, Safety and Reliability of the Network (Q2)

Respondents express strong support for the proposals aimed at improving the resilience, safety, and reliability of the electricity network. Respondents recognise the importance of these investments considering Ireland's economic growth and increasing reliance on low-carbon technologies.

Specifically, respondents support the plan's focus on:

- **Increased infrastructure capacity:** The adoption of a 'Build Once for 2040' approach to meet future demands is widely supported by respondents.
- **Strategic asset replacement and enhancement:** Proactively addressing aging infrastructure to enhance reliability across all voltage levels on the national grid is commended by respondents.
- **Advanced technologies:** Incorporating digital and cyber technologies to improve network efficiency, resilience and improve the safeguarding of infrastructure is recognised and supported by respondents.
- **Renewable generation connection:** Supporting Ireland's climate goals and creating a more resilient network is seen as crucial by respondents and they commend ESB Networks for its inclusion in the PR6 plan.
- **Enhanced network safety:** Mitigating climate change impact through targeted asset management and innovative technologies is also widely supported by respondents.

While acknowledging the importance of resilience, safety, and reliability in Ireland's energy network, respondents outline several areas for consideration by ESB Networks. These areas include:

- **Prioritised grid infrastructure investment:** Certain respondents outline how historical uneven investment has left certain regions lagging, such as the Northern and Western region. This phenomenon is also seen to have knock-on effects on the regional electricity grid, with outdated infrastructure under threat of overloading by increasing offshore wind generation. A particular concern of respondents is the lack of 440kV lines within the national grid and the need for new 440kV lines in the Midlands for future development projects. Respondents also believe that new 220kV lines should be deployed alongside new 440kV lines. This is seen to be impacting businesses and hindering overall growth. Respondents stress the urgency of addressing this deficit to support population growth, attract business investment and ensure resiliency across the national grid and across regions. Other respondents suggest using a Cost Benefit Analysis to identify and prioritise projects over the next decade and out to 2040.
- **Adopting an innovative approach for increasing grid resilience and security:** Respondents highlight opportunities for ESB Networks and the State to explore innovative approaches for improving grid resilience, security and efficiency. A particular opportunity is exploring the use of the national grid as a 'testbed' for innovative technologies. Additionally, taking inspiration from existing innovation programmes by Ofgem in UK, such as the Low Carbon Technology Fund, Low Carbon Networks Fund, Strategic Innovation Fund and Network Innovation Allowance, can provide a best practice framework for fostering innovation and knowledge share in Ireland, providing the potential to reduce capital and operational expenditure for network upgrades across the national grid. The electricity price ratio in comparison to fossil fuels in this regard is also seen as important.
- **Keeping sustainability and climate action at the core:** Sustainability as a core principle for future investment is outlined as paramount by respondents. This will ensure infrastructure development is aligned with broader sustainability goals nationally and globally. In particular, respondents recommend extending existing planning permissions for wind farms and exploring the integration of hydrogen energy to meet future energy demands and to mitigate wind energy curtailment in line with the delivery of the National Hydrogen Strategy. More broadly, respondents recommend ESB Networks to review their upcoming publication of the National Climate Change Risk Assessment to inform the PR6 plan and its approach to infrastructure adaptation and resilience.

### 3.3 Decarbonisation of Electricity and Flexible, Integrated Energy System Development (Q3)

Respondents welcome the proposals for decarbonising electricity and developing a more flexible and integrated energy system. Respondents recognise the alignment of these proposals with Ireland's climate goals and future energy needs. Specific support is highlighted for:

- **Electrical Vehicle Charging Infrastructure:** There is a clear interest among certain respondents in engaging with ESB Networks on initiatives related to flexible demand, smart EV charging infrastructure, and the expansion of renewable generation capacity, including potentially participating in future technologies like Vehicle-to-Grid (V2G) systems.

Given this, several areas of interest are outlined by respondents for inclusion within the PR6 Plan, such as:

- **Accelerated Grid Infrastructure Delivery:** While welcoming the ambition to connect 22GW of renewable energy by 2030, respondents stressed the need for a significant acceleration in grid infrastructure development. This sentiment underscores the importance of ensuring the network can handle the increased capacity from renewable sources. Delays in grid infrastructure could exacerbate existing constraints, potentially leading to increased costs for both energy developers and consumers. One example is the need for an upgraded 10kV distribution network within Dublin Port to help meet their expected 50MW power demand by 2030. Exploring the development of local community district heating systems powered by renewable energy sources was especially highlighted in relation to this. This approach could provide a means to utilise excess renewable energy, provide a more flexible energy system and can reduce reliance on fossil fuels.
- **Implementation Plan, Impact Assessment, and Risk Management:** To enhance the effectiveness of the proposed initiatives, respondents recommended the development of a detailed implementation plan for developing new infrastructure, supported by clear milestones and timelines. Conducting community and business impact assessments would also be essential in addressing potential disruptions and maximising benefits for all stakeholders. Respondents also emphasise the importance of robust technological and market risk management strategies to navigate the uncertainties associated with technology adoption and potential market fluctuations.
- **Transparency and Developer Confidence:** To mitigate potential risks and encourage investment in renewable energy projects, respondents highlighted the need for greater transparency regarding grid development plans. Providing stakeholders such as private developers with clear and definitive information on grid development locations would reduce uncertainty, strengthen investment cases, and ultimately contribute to a more cost-effective energy transition. This proactive approach to information sharing would foster greater trust and collaboration within the industry.
- **New Electricity Generation Connection Policy:** The proposal to develop a new electricity generation connection policy was met with positive feedback. Respondents encouraged ESB Networks to engage in close consultation with industry stakeholders throughout the policy development process. This collaborative approach will be crucial to ensuring that the new connection agreements are fit for purpose, effectively addressing the diverse needs of market participants and facilitating the rapid and efficient connection of new renewable energy projects.
- **Offshore Wind Energy and Grid Resilience:** Respondents expressed concern over the slow pace of emissions reduction in Ireland despite progress in renewable energy deployment. Significant economic opportunities are presented by offshore wind energy, particularly for the western seaboard. Specifically, respondents advocated for strategic investment in suitable ports and supporting infrastructure to position Ireland as a leader in offshore wind energy. Additionally, respondents stressed the importance of grid resilience in accommodating the intermittent nature of renewable energy sources. Several respondents recommend investing in battery storage solutions at generation sites to enhance grid stability and maximise the utilisation of renewable energy.

### 3.4 Empowering and Supporting Customers (Q4)

Respondents expressed strong support for ESB Networks' commitment to customer empowerment and a best-in-class service experience. Respondents commend the focus on:

- **Advanced digital solutions:** Enhancing customer engagement and service delivery.
- **Enhanced communication channels:** Providing customers with timely and relevant information.
- **Vulnerable customer support:** Implementing dedicated support measures and communication methods.

To further strengthen this approach, respondents suggest:

- **Establishing a clear framework for evaluating the effectiveness of customer engagement measures:** Respondents find the consultation lacking in detail about how ESB Networks plans to integrate communities into the evolving energy landscape. They call for a more concrete framework for community engagement, particularly vulnerable customers.
- **Review of smart meter customer adoption:** Respondents highlight the low customer uptake of smart meters and related initiatives despite its potential in achieving decarbonisation goals. They recommend a comprehensive review to understand the reasons behind the limited consumer adoption of smart metering technology and tariffs. Addressing these barriers is crucial to leveraging smart metering's full potential.
- **Standardised timelines for connection applications:** While respondents commend ESB Networks' commitment to streamlining services for all customers, particularly the focus on enhancing the design and planning process to expedite business connection throughput and ensure cost transparency. They identify the lengthy grid connection application process as a major bottleneck for charging infrastructure expansion and welcome ESB Networks' efforts to address this challenge. They recommend adopting ChargeUp Europe's guidelines, aiming for power requests below 100kW to be processed within 12 weeks and requests between 100kW to 350kW within 6 months.
- **Transparency and communication throughout the application process:** Providing applicants with readily accessible status updates and maintaining regular communication is deemed crucial for strengthening the plan, its implementation and improving overall customer service. Respondents suggest adopting a quarterly reporting process similar to EirGrid's Network Delivery Portfolio reporting. This reporting would include project-level details, accountability, and the impact of any delays.
- **Ensuring customer protection is a priority:** Respondents emphasise the need to protect customers from rising energy costs, particularly businesses facing inflationary pressures. They urge ESB Networks to ensure that grid investments translate into a more stable and affordable electricity supply for all customers.
- **Data Ownership:** Respondents identify the lack of clarity regarding data ownership, particularly at the community level, as a critical oversight. They urge ESB Networks to address this issue transparently.

### 3.5 Enabling Structures and Capabilities (Q5)

Respondents agree with the proposals to strengthen internal capabilities within ESB Networks. Investing in workforce development, skills retention, and knowledge transfer is seen as crucial for ensuring the long-term success of Ireland's energy transition. A highly skilled and adaptable workforce will also be essential for managing the complexities of a net-zero energy system. Respondents highlight the need for:

- **Effective Digital Transformation:** Utilising data and AI to improve network management, integrate renewable energy, and enhance operational efficiency. Respondents suggest developing specific metrics to track the success of any digital initiatives proposed or piloted.
- **Robust Resource Scaling:** Investing in workforce training, sustainable recruitment, and adaptable resource management is seen by respondents as an approach to overcome the challenges in delivering initiatives and infrastructure. As seen in Q3, respondents recommend a detailed risk management strategy, including contingency plans. Addressing potential risks associated with scaling resources, addressing skills/labour shortages and managing supply chains will ensure a more resilient delivery plan. Regarding ESB Networks' proposed 'market making' role, respondents suggest exploring the use of a third-party market maker to assume this role. This would be to maintain ESB Networks' operational and commercial neutrality as the Distribution Network Operator.
- **Continuous Innovation:** Cultivating a culture of innovation through collaboration, agile methodologies, and a strong governance framework. They suggest incorporating a clear mechanism for stakeholder engagement and feedback integration.
- **Integrated Sustainability:** As seen in Q2, respondents recommend embedding sustainability in core operations, with ambitious targets for carbon reduction, energy efficiency, biodiversity, and sustainable procurement. They recommend producing detailed plans for measuring and reporting on these initiatives.
- **Smart charging:** Respondents suggest implementing pilot programmes to test and deploy smart charging solutions, such as dynamic pricing mechanisms, to optimise energy usage and mitigate grid strain during peak hours. Respondents also emphasise the need for ESB Networks to allocate sufficient resources to participate in government task forces and stakeholder engagement initiatives related to decarbonisation and electrification.
- **Microgrid Implementation:** Several respondents advocate for the inclusion of microgrids as a key element in enhancing grid resilience within the PR6 plan. They believe that enabling communities to leverage local generation, storage, and demand management through microgrids will be crucial in supporting the transition.

Respondents also acknowledge ESB Networks' commitment to innovation and sustainability through industry collaboration and expresses their willingness to work together to accelerate EV rollout in Ireland. They propose several potential collaborative innovation projects, including:

- **HGV electrification:** Respondents suggest pursuing government funding for HGV electrification demonstrator projects, like the UK's initiative, to develop best practices and models for decarbonising the heavy-duty vehicle sector.
- **Vehicle-to-grid charging:** Respondents emphasise the importance of continuous engagement and dialogue with industry partners to stay abreast of rapid technological advancements in EV charging. They offer their expertise to collaborate on developing and implementing advanced trials and pilot programmes.
- **Data sharing and analytics:** Respondents propose establishing data-sharing agreements to facilitate collaboration and develop analytics tools to enhance the efficiency and reliability of the EV charging network. These data insights can inform infrastructure planning and policy decisions related to electrification.



### 3.6 Other Considerations (Q6)

While not all respondents provided a response to this question, many reiterate their overall support for the plan and commend ESB Networks on the details outlined within the plan. Several respondents provided additional feedback and recommendations within their responses to Q6, such as:

- **Government support and funding:** Respondents highlight how further support by government and continued funding/financial resources are needed to realise the ambition of the plan and to achieve its initiatives, particularly considering upcoming government restructuring. They urge the regulatory framework to reflect the current investment context, characterised by higher prices and increased competition for capital, to ensure that ESB Networks can access sufficient funding given the scale of capital investment needed to deliver the PR6 plan's objectives and outcomes.
- **Ongoing collaboration and relationship-building:** A specific need for continued collaboration and engagement with all relevant stakeholders is outlined by respondents. Maintaining strong relationships with representative bodies is needed to ensure the success of the PR6 plan.
- **Data Ownership and Governance Statement:** Certain respondents highlight the need for a clear statement on data ownership and governance, especially concerning data generated by advanced network infrastructure.
- **Compensation for Network Outages:** Several respondents call for the introduction of a compensation mechanism for wind farms affected by ESB Networks' maintenance-related outages.

Respondents also recommend several additional considerations for ESB Networks' Investment Plan:

- **Diversification of Energy Sources:** Actively investigate and invest in energy sources with currently limited market share in Ireland, such as pumped hydro, nascent nuclear SMRs, and increased research collaboration with European bodies like Fusion for Energy. Respondents point out the immense further potential, seen across industrial heat, as well as transport, public and private.
- **Hybrid Grid Connections:** Promote and expand the use of hybrid grid connections to leverage the synergy between conventional and renewable energy generation, providing a near-term solution for increasing grid capacity. This is particularly relevant for regions with legacy challenges regarding regional grid capacity, such as the Northern and Western region. A tailored approach is needed to address the specific issues and challenges associated with each region.
- **High-Voltage System Management:** Address the potential risks associated with the expanding high-voltage network by ensuring competent professionals manage and operate these systems, particularly with the emergence of new players like renewable energy generators and data centres.



