



# How we plan for new grid infrastructure



The current. The future.

**We are SONI – the electricity System Operator for Northern Ireland.**

We plan and operate the electricity system, and the wholesale market. We also manage flows of electricity on interconnectors with our neighbours.

We work to meet the needs of all electricity users. We are an independent entity, with no vested interest in the generation or selling of electricity. We don't own the grid infrastructure, and so have no self-interest in adding to it.

We ensure that electricity is always available when and where it's needed, every second of every day, and for decades to come - at the most economic price. We do this in the most cost-effective way possible, and in the interests of all electricity users.

We're preparing the grid for a future where more electricity is used for more purposes – and most of it comes from renewable sources. Our work will ensure that your children, and their children, can rely on clean, carbon-free electricity.





# Why do we need to improve the grid - and how can you influence our plans?

SONI

SONI is responsible for planning and operating high-capacity electricity grid infrastructure. This includes overhead wires and underground cables that transmit power, and the pylons and poles that carry these wires. Grid infrastructure also includes substations. These convert power so it can be distributed to homes, farms, and small businesses.

NIE Networks builds and owns the grid infrastructure, while SONI plans for new additions to the grid. This means we are responsible for seeking the views of local communities when new infrastructure is needed. We also lead the process of seeking planning consent from the relevant authorities.

We plan for the future of the transmission grid to ensure that it works well. This can be categorised into two kinds of project – maintaining or upgrading the grid.

Electricity grid infrastructure is a long-term, large-scale investment in the future. Each piece of equipment can last for over 30 years. As the grid is a network, we have to think of the entire grid when making changes at local level.

We plan for the future of the grid in order to;

- replace or upgrade old infrastructure;
- respond to changes to the demand for electricity;
- connect with electricity grids in other countries;
- accommodate new ways to generate electricity; or
- respond to new locations for generation.

Electricity from renewable sources - such as wind and solar power - will play a vital role in the global response to the climate crisis. The move in heating and transport from carbon-emitting fuels to electricity and other sources of clean energy is now underway.

This means that the grid will carry more power, and in time, most of it will be generated from renewable sources - which vary in output. SONI will need to make sure the grid is made stronger and more flexible to cope with this significant change.

This booklet explains the process we use when we plan new infrastructure, and how you can make your views known to help shape these plans. We use a three part process: the earlier you get involved, the more influence you can have.

## Part 1

Identify the best solution and define the likely region for a project

SONI will only plan for a new grid infrastructure project where we believe it to be absolutely necessary. This happens when we forecast a specific need with existing grid infrastructure. We will first look for ways to resolve this issue using existing assets, or with minimal upgrades. If these approaches are not suitable, we will then start the process of exploring how best to improve the grid to meet a particular need.

This process begins at part 1. During this part, we explore which technology will best resolve the specific need. In doing so, we will also learn more about the broad area where we are likely to locate new infrastructure.





SONI

## Part 1

Identify the best solution and define the likely region for a project

---

### What happens during this part?

In this part, we consider the kinds of solution that will best address the particular needs of a project. These solutions could include a new overhead wire or underground cable, a new station or substation, or an upgrade to existing assets.

We then narrow down our list of potential solutions based on several fact-based, objective criteria. We assess the viability of the technology, how practical it is to deliver, and how much it costs.

Each potential solution has a likely “footprint” within a geographic area. Knowing this, we also consider the potential for each solution to impact the people who live and work in the area where we may locate the project.

When we have investigated all these factors, we will make a decision on the most appropriate kind of grid infrastructure for a project.

Our goal is to identify a specific technology that performs the best across the widest range of criteria that we use to assess our options.

### How can you influence this part?

Your opinions and feedback are important to us. We always consider how new projects may impact individuals and communities, and we work hard to minimise this, where possible.

During part 1, there will be opportunities for you to tell us your views on our plans. We will consider your feedback, and will respond with changes where practical and possible.

### What have we decided at the end of this part?

We will have decided which technology we are going to use - such as an overhead line or an underground cable. We will also have determined the general area where we may locate this new infrastructure.

## Part 2

Identify exactly where the project will be built

---

Now that we have narrowed our technology options to a specific option, we can decide exactly where to locate this new infrastructure. To do this, we carry out another series of investigations based on factual assessments of specific issues. This may first lead to a short-list of potential locations, before we finally select one that performs best in our assessment process.





## Part 2

Identify exactly where the project will be built

---

### What happens during this part?

We now consider all the possible locations within the general area where we need to site the project. This sees us examine the agreed technical specifications of the project in greater detail.

Based on these specifications, we then consider how the physical landscape will affect how we can deliver the technology, and at what cost. We also consider the potential for impact on landowners, local communities and on the natural environment. We also listen to your feedback to gain valuable local knowledge and insights about potential project locations.

Based on a factual assessment of these topics, we then narrow our choices down to a location or locations that performs best across all criteria.

### How can you influence this part?

As with part 1, we will give you the chance to take part in this process, and to tell us what you think. We want to hear from anybody who has a concern about a project, or who has local knowledge that has a bearing on our decision. Working in partnership with the public is key to this process, and we always aim to respond to your concerns where possible and practical.

### What have we decided at the end of this part?

The final location for the project.

## Part 3

Make a planning application  
then handover to NIE  
Networks for construction

---

SONI is subject to the same laws as any other planner. We must prepare and submit a project to the planning authorities before it can start. This ensures our proposals for new infrastructure are independently reviewed before work begins. The planning process also gives you another chance to influence a proposed project. If we are granted planning consent, SONI then hands the project over to NIE Networks, who build and own electricity infrastructure.







SONI

## Part 3

Make a planning application  
then handover to NIE  
Networks for construction

---

### What happens during this part?

We start by preparing and submitting a detailed planning application to the relevant authority. This will consider and respond to concerns raised in the previous parts. The planning authorities will look for written submissions from anyone with an interest in on the project.

The planning authority will then make a legally binding decision on the project.

This may grant full planning permission, grant permission on the basis that we make changes, or refuse permission.

If we receive a positive decision from the planning authority, we will hand the project over to NIE Networks. They will then construct and energise the new infrastructure. During construction, the SONI team will remain in contact with those who we engaged with in the project planning process.

### How can you influence this part?

You can make a submission to the planning authorities, and ask them to make changes to our plans, or to refuse permission for our plans.

Throughout the planning process, we will update people who are directly affected by our plans, and their local communities. This will ensure you have every opportunity to make your views known, and to influence the decision of the planning authorities.

### What has been decided at the end of this part?

The planning authorities will make the legal decision to go ahead with the project, or to change our plans. We will then handover the project to NIE Networks so they can construct the infrastructure based on details of planning consent.

## Get involved - let us know what you think

The best way to influence a project that you have concerns about is to engage as early as possible with SONI. We welcome any contact that offers constructive and helpful feedback on our plans, and we will do all we can in response.

When we're planning a new project, our goal is to have good working relationships with the people who may be affected by our work. We want to include you in this process and to build honest and strong relationships from the start.

However, on large infrastructure projects like ours, there are always going to be different and strongly held views. Even if you disagree with us, or with the final decision of the planning authorities, we hope you agree that we progressed our plans in a fair and open way.

For that reason, we welcome any feedback you can give us about how we engaged with you during a project planning process. If you have views on how we can improve our consultation, we welcome them and will aim to act on them.





Castlereagh House, 12 Manse Road, Belfast BT6 9RT  
Telephone: 028 907 94336 • [www.soni.ltd.uk](http://www.soni.ltd.uk)