#### PLEASE NOTE THAT THIS WEBINAR WILL BE RECORDED





# **NETWORKS FOR NET ZERO**

Delivering the Electricity Network for Ireland's Clean Electric Future

Screening for EV Charging Infrastructure Connections

### Content

- 1. Why?
- 2. Networks for Net Zero Strategy
- 3. Connection Screening. How to Apply?
- 4. Stages of Development
- 5. Q&A <u>www.menti.com</u> code: **33756127**



### How will society change in the next decade?



An increase in the connections to the electricity networks (solar, wind, EVs etc)



Connecting Renewables to the Network is critical to decarbonise energy, heat and transport sector



Homes will become energy assets – EV, PV, Heating and storage



Businesses will increase their electricity demand, and their ability to produce electricity



There will be a fundamental shift to electric transport in all sectors



Society is becoming much more climate aware

ESB Networks must facilitate these societal shifts, ensuring that we Deliver an electricity network for Ireland's Clean Electric Future

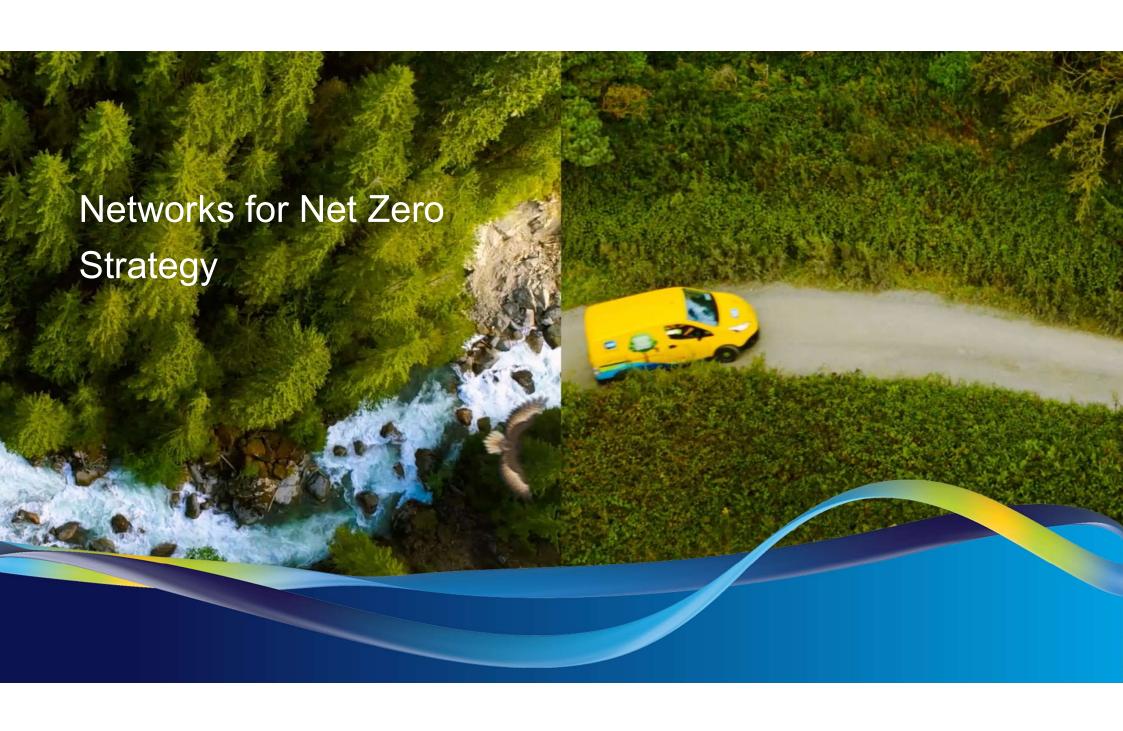


# CAP 23 – Delivering 2025, 2030 Targets

	Renewable Electricity Share	Onshore Wind	Solar	Offshore Wind	New Flexible Gas Plant	
2025	50%	6 GW	Up to 5 GW	N/A	N/A	
2030	80%	9 GW	8 GW	At Least 5 GW	At Least 2 GW	

	Demand Side Flexibility	EVs	Public EV Charging Capacity	Heat Pumps	Home Retrofits
2025	15-20%	196,000	165-215 MW*	215,000	120,000
2030	20-30%	1 million	800 -1000 MW*	680,000	500,000

<sup>\*</sup> Based on the Alternative Fuels Infrastructure Regulation proposal

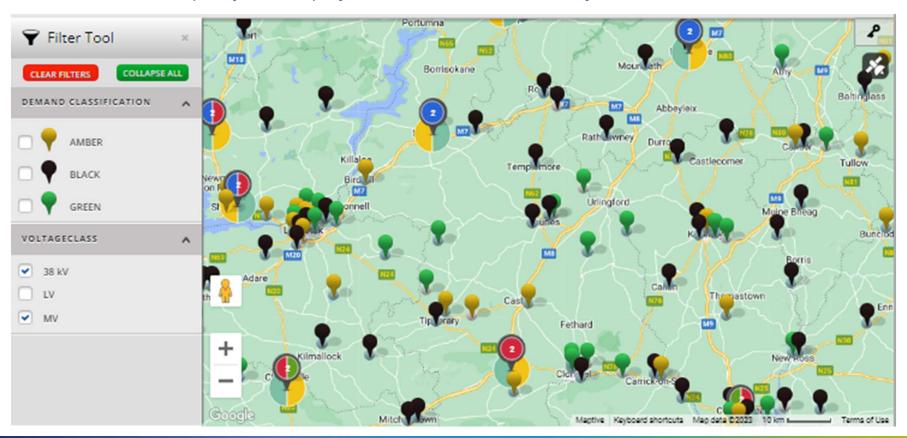


### Electricity Network in 2030 – impact & scale of mass electrification



### **Updates to Demand Capacity Heatmap**

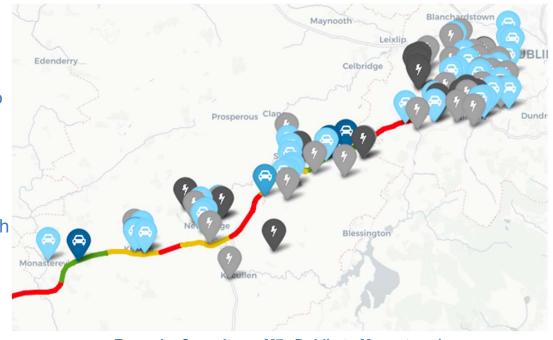
Update to our Demand Capacity Heatmap by the end of Q2 2023, and 2x/year thereafter





### Provision of Information - EV Charging Capacity Map

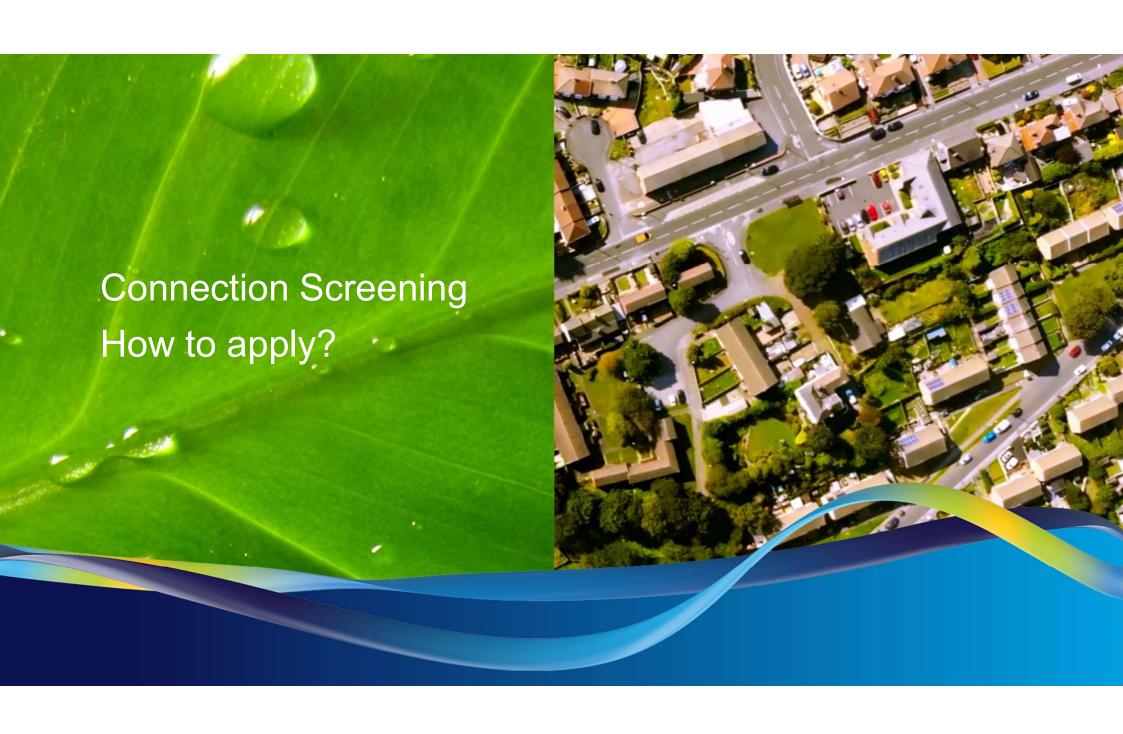
- Develop interactive map showing:
  - TEN-T Core Network
    - Coloured RAG by available charging capacity within 3km. To incorporate local HV substation capacity when available.
  - EV Chargers within 3 km
    - Locations and capacity mapped
    - Data from automated search with Google Maps API
  - ESB Networks HV Stations within
     5km
    - 38 kV to 400 kV shown
    - We will highlight available capacity and feed into RAG status (not currently implemented)



**Example: Capacity on M7 – Dublin to Monasterevin** 



ES3 NETWORKS



### **Option 1:** Screening **prior** to Connection Application



#### **Application for Screening prior to formal submission of New Connection Application**

The customer request support via

screening@esb.ie.

The customer receives the form to be filled in.

The customer submits the

form to

screening@esb.ie.

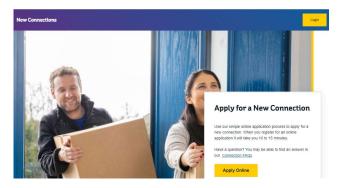
**Site** 

**Screening** 

**Process** 

ESB Networks
notifies the customer
with the outcome of
the Screening
Process

The customer evaluates their options and submits New Connection Application(s) for their chosen site(s)





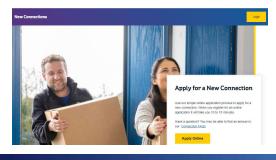
### Option 2: Connection Application combined with Screening



#### Formal application process for a New Connection

Online submission of New Connection Application combined with a notification for screening request

#### screening@esb.ie



Site Screening Process ESB Networks
notifies the customer
with the outcome of
the Screening
Process

The customer evaluates their options and informs ESB
Networks of its decision to either proceed with or withdraw their application from the New
Connection Application process, which then either continues in normal manner or ceases on instruction

## What information is to be provided for Option 1?

#### Electric Vehicle Charge Point Connection Screening Form

#### Instructions

Please fill in the form below and return to the email address screening@esb.ie



Customer Name	Customer A
Customer Contact Person	Joe Bloggs
Contact Person Email Address	JB@customerA.com
Contact Person Mobile Phone Number	0871234567

Questions related to all sites listed b	elow:
Do you require information about available capacity only?	Yes
Do you require indicative costs for any associated site development works?	No

Site for screening	Site Name	County	Address	Latitude	Longitude	Total Capacity (kVA)	Minimum Capacity (kVA) to start	Is there an existing ESB Networks Connection on site?	MPRN of existing connection
1	Site sample 1	Kildare	Newbridge	53.35	-6.26	1200	300	No	N/A
2									
3									

### Classification of sites by colour and steady state response time

Green	Likelihood that indicative capacity could be provided within 3 months from date of payment. Minor network reinforcement may be necessary.
Amber	Likelihood that indicative capacity could be provided within 3-6 months from date of payment. Some network reinforcement may be necessary.
Red	Likelihood that indicative capacity could be provided within 6-18 months from date of payment. Significant network reinforcement may be necessary.
Purple	Likelihood that indicative capacity could be provided greater than 18 months from date of payment. Major network reinforcement may be necessary.

Number of Sites	Steady State Response in Working Days
Up to 5	15
6-10	20

Maximum of 10 sites can be submitted at a time for Screening, until the Screening response is issued to & received by the customer for all 10 sites.

This is to help control initial volumes & ensure we can respond to as many customers as possible.

We will be reviewing this during this implementation phase, working to develop our enduring solution.

### Customer A - Screening prior to Connection Application - Option 1

#### **INPUT:**

- Customer emails <u>screening@esb.ie</u> requesting screening for a number of different sites.
- Customer receives the form to be filled in.
- Information customer provides in the form:
  - 1. Requested capacity is 4,000 kVA. Minimum kVA to open the site is 1,200 kVA.
  - 2. Screening is for capacity only.
  - 3. Customer does not require indicative cost as part of the assessment.

# **OUTPUT** (for one specific site on the list):

- Minimum requested capacity of 1,200 kVA is not available at this point in time.
- For 4,000 kVA:
  - 1. PRAG status is **purple**. Current best estimate is 3 5 years.
  - 2. New HV substation is required.
- For 1,200 kVA:
  - 1. PRAG status is **purple**. Current best estimate is minimum 3-5 years.
  - 2. New HV substation is required.

### Customer B - Connection Application combined with Screening – Option 2

#### **INPUT:**

- Application is already submitted for 2,000 kVA for the site.
- Customer emails <u>screening@esb.ie</u> requesting screening for application quoting notification number.
- Additional information customer provides in their email:
  - 1. Minimum kVA to open the site is 500 kVA.
  - 2. Screening is not for capacity only.
  - 3. Customer requires indicative cost as part of the assessment.

Note: The indicative cost provided includes indication of MIC charge, standard network charges and HV network charge if applicable. It does not include trenching charge, exceptional charge or shared network charge.

#### **OUTPUT:**

- Estimated timeline to issue the connection offer is 4-6 months.
- Assessment based on currently available capacity:
  - 1. PRAG status for 2,000 kVA is green.
  - 2. MV connection to an existing circuit via approx. 0.5 km of 400 XLPE cable.
  - 3. High Level Cost €70,000 €80,000.
- Assessment based on all active applications ahead in the queue:
  - 1. PRAG status for 2,000 kVA is **purple.** Current best estimate is 3 5 years.
  - 2. Significant works required. Possible new 38 kV substation.
  - 3. Indicative Cost > €150,000.
  - 4. PRAG status for 500 kVA is **green**.



### Notes at the end of the response email

- This is a high-level screening assessment and details are subject to change as other customer may
  make other capacity applications at this location.
- This information is to assist you in deciding on sites to submit (or continue with) formal connection applications for your intended EV charging infrastructure.
- On receipt of a formal NC3 application a more detailed study will be completed to enable a formal connection offer to be issued.
- The screening information does not present any commitment in relation to the connection request as circumstances may change until you make your formal application.
- The "Estimated timeline to issue the connection offer" only applies to connection applications combined with screening.





### Stages of Connection Screening Process Development

Phase 1 starts on the 3<sup>rd</sup> of April 2023 for all EV charging infrastructure developers.

We welcome your feedback on the screening process through the <a href="mailto:screening@esb.ie">screening@esb.ie</a>.

Based on the volume of screening applications (either via Option 1 or via Option 2) and taking the feedback from the customers into account, we will adjust the process and make it an enduring one for all our demand customers from early 2024.

Please share with us your medium and long term EV charging rollout strategy through the <u>ESBNetworksStrategy@esb.ie</u>



### Q&A session on the Connection Screening Process

Panel: Danijela Klopotan, Joe Duignan and Emma Silke

Please ask your questions through <u>www.menti.com</u> code: 33756127

Questions that don't get answered during this session will be addressed in the following two weeks and sent to all participants of this webinar as a FAQ list via email.





Delivering the electricity network for the future to empower all electricity customers and make Ireland's net zero goal a reality

