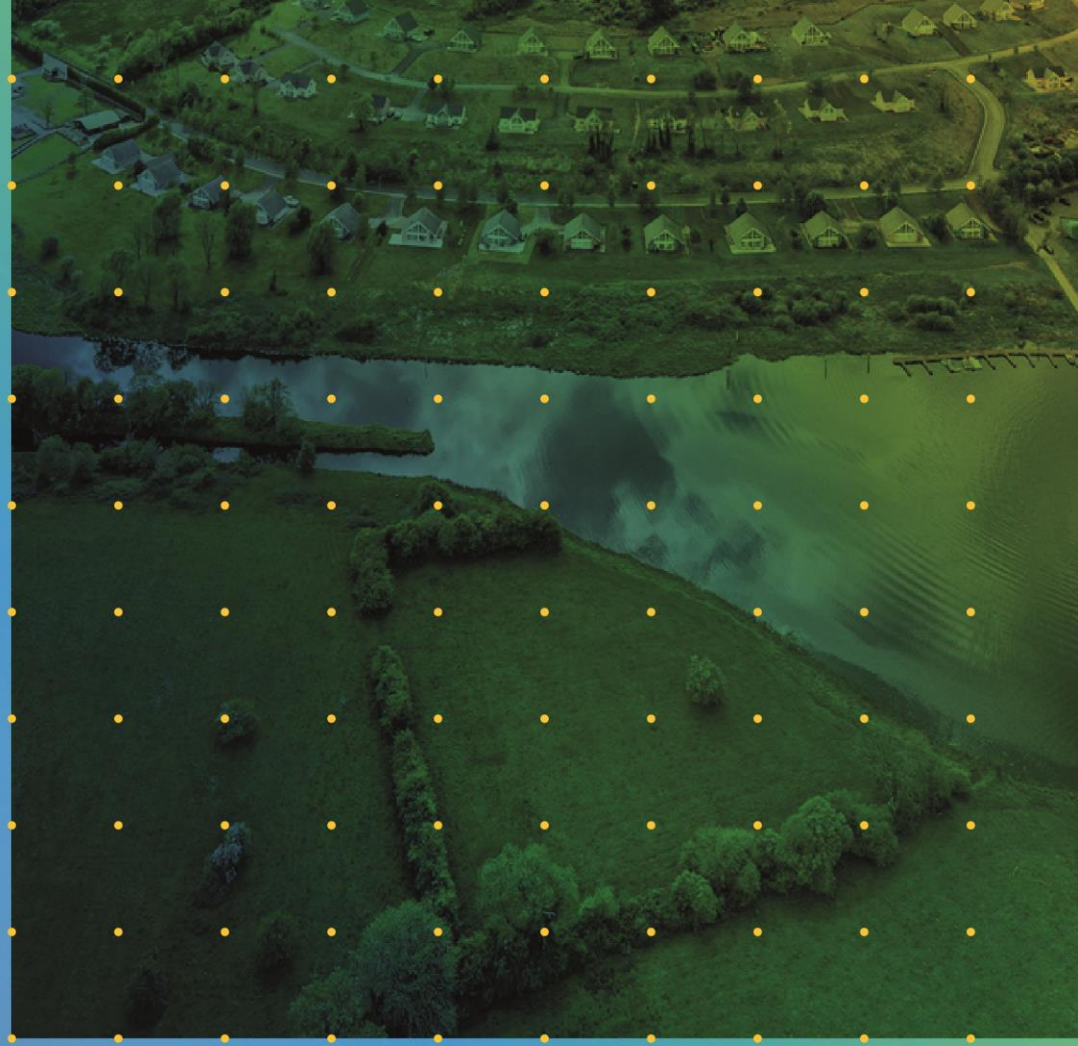
ESB NETWORKS

NATIONAL NETWORK LOCAL CONNECTIONS PROGRAMME

ADVISORY COUNCIL
MEETING 6 | DECEMBER 11TH, 2023



AGENDA -

Chair Designate: Alan Keegan

Agenda Item	Time	Owner	Speaker
Welcome & actions update	10.30 - 10.40 am	10 mins	Alan Keegan
Year in Review • Key developments in 2023	10.40 - 11.05 am	25 mins	Alan Keegan & Gerry Noone
Update on Storage	11.05 - 11.25 am	20 mins	Gerry Noone
Coffee break	11.25 - 11.40 am	15 mins	
Beat the Peak Business	11.40 - 11.50 am	10 mins	Carol Murphy
Blueprint for Flexible Demand in Markets	11.50 - 12.15 pm	25 mins	Dr. Ellen Diskin & Alan Keegan
AOB / Round table discussion	12.15 - 12.45 pm	30 mins	All

GENERAL HOUSE KEEPING

Transparency

- Minutes being recorded and will be published on the stakeholder forum and made available to general public
- Presentations will be published in the stakeholder forum and made available to general public

Stakeholder forum link : (Our Advisory Council (esbnetworks.ie))

Questions

If joining us virtually please raise your hand or drop questions into the chat function

Please note over the course of the year there may be open procurement processes so there may be aspects of the programme we will not be in a position to discuss.

Welcome

Advisory Council Meeting 5 Minutes & Actions Sign off

Meeting Minutes found here: Action Log: https://www.esbnetworks.ie/docs/default-source/publications/advisory-council-5_minutes.pdf?sfvrsn=57123ede_5

Item	Topic	Detail	Status	Progress
1	Pricing Approach	Analysis regarding the €444 figure to be shared (dependent on advice from procurement).	In Progress	NN,LC Programme to confirm whether the pricing analysis paper that was submitted to the CRU can be shared with members of the Advisory Council.
2	Bespoke workshops as part of call for input	Bespoke workshops to be scheduled re. call to input	In Progress	

Year In Review

Year In Review

Why are we here?

What's changing

What have we done?

What's next?

Year In Review

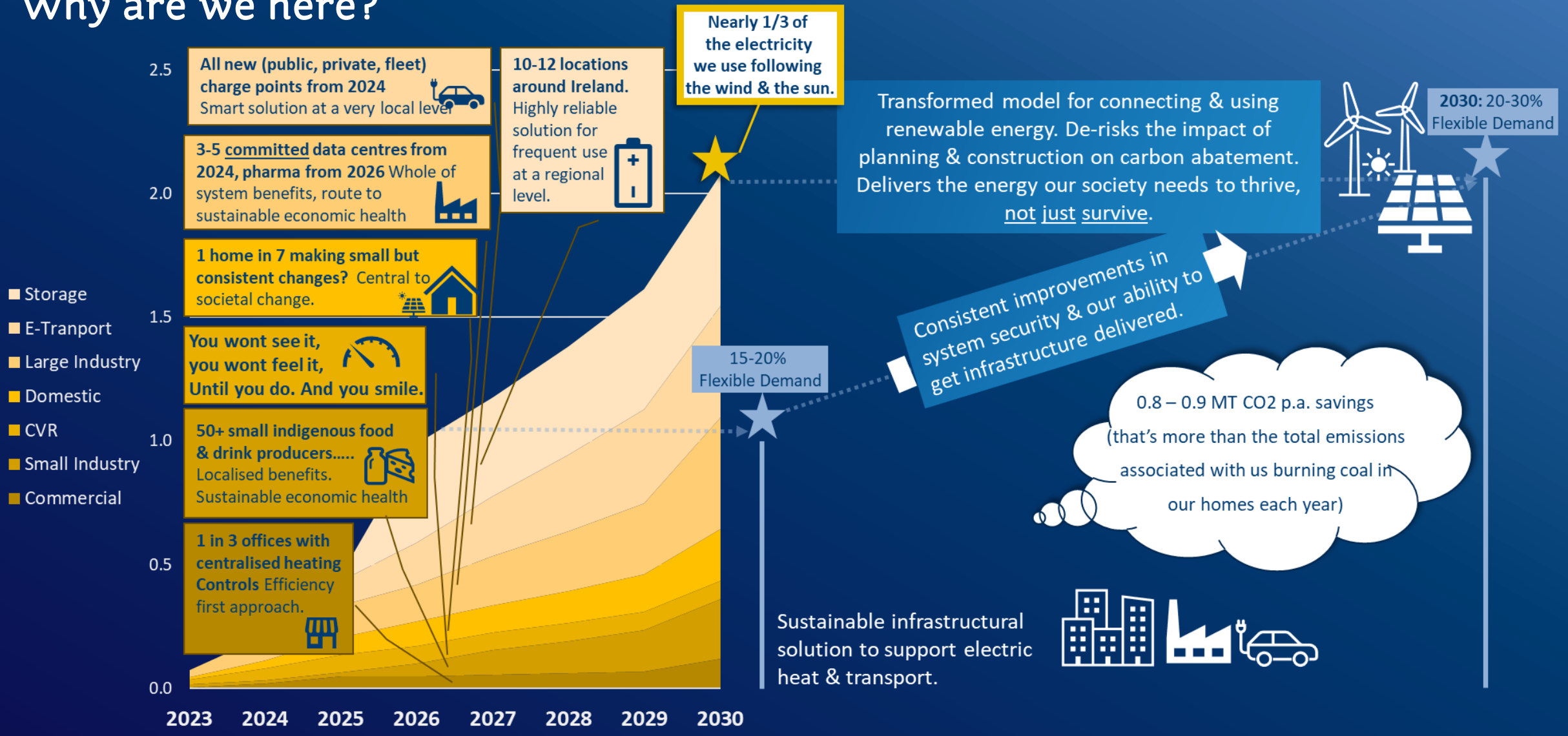
Why are we here?

What's changing?

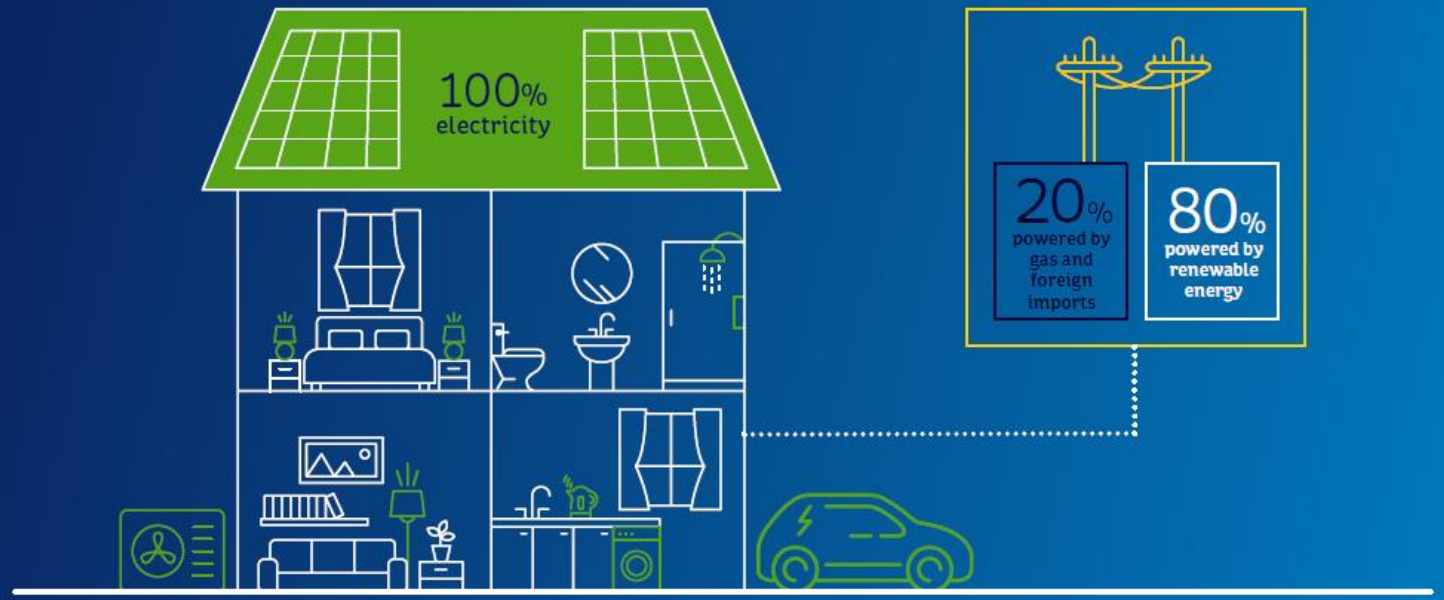
What have we done?

What's next?

Why are we here?



Why are we here?



10-12 TWh demand increase (+35%)
5-6 TWh heat & transport (c. 50%)
3-3.5 GW peak demand (+65%)

22-23 GW renewables (+300%)
7% oversupply limit (-40%)
3 MtCO2eq. p.a. (-75%)

Up to 10 TWh of flexibility
(1.4 – 2.4 GW)
0.86 MT CO_2 abatement p.a.

What’s changing?

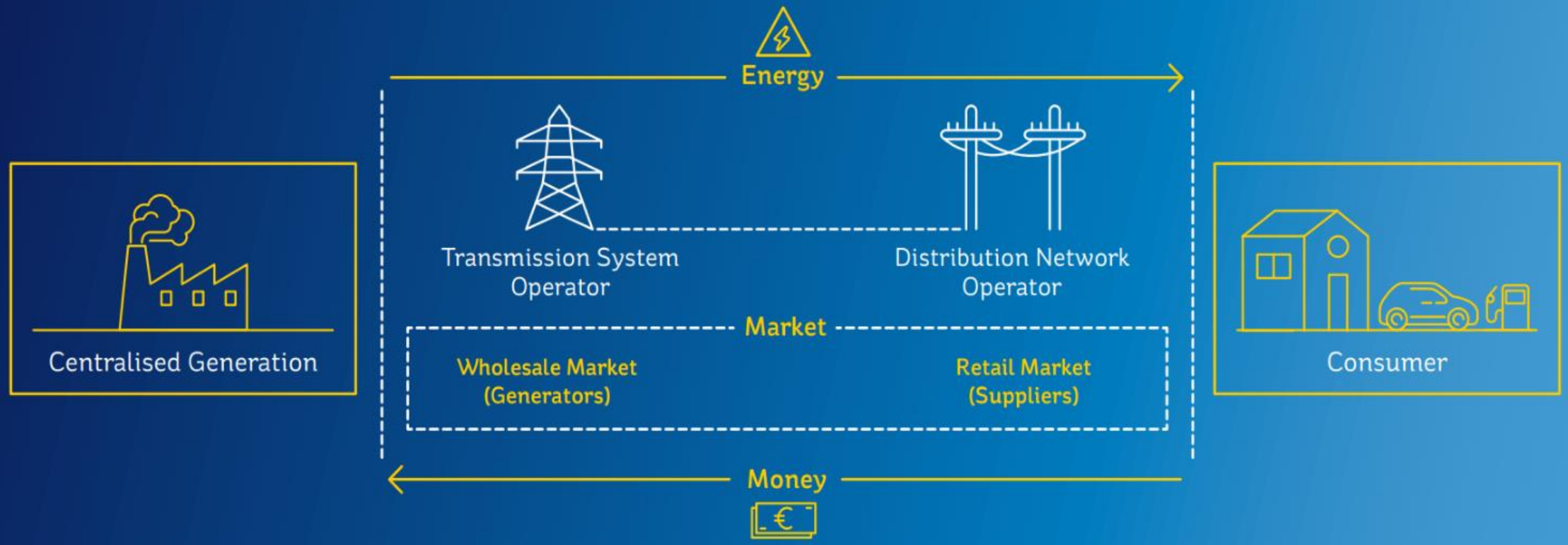
Why are we here?

What’s changing?

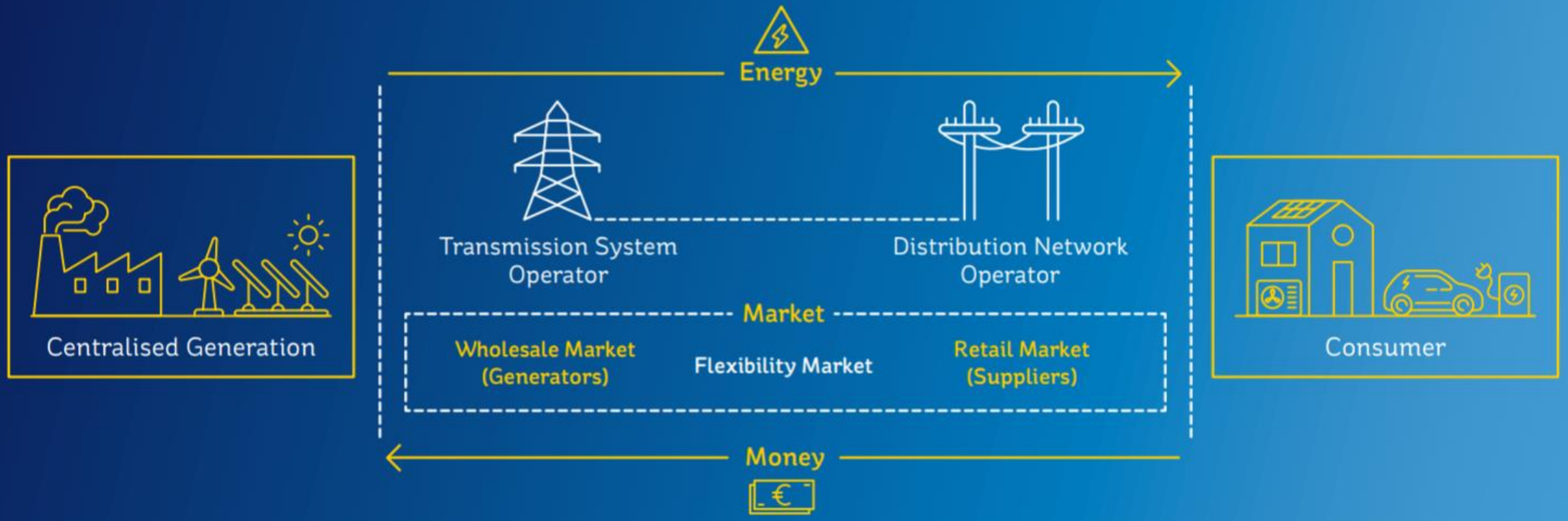
What have we done?

What’s next?

What's changing?



What's changing?



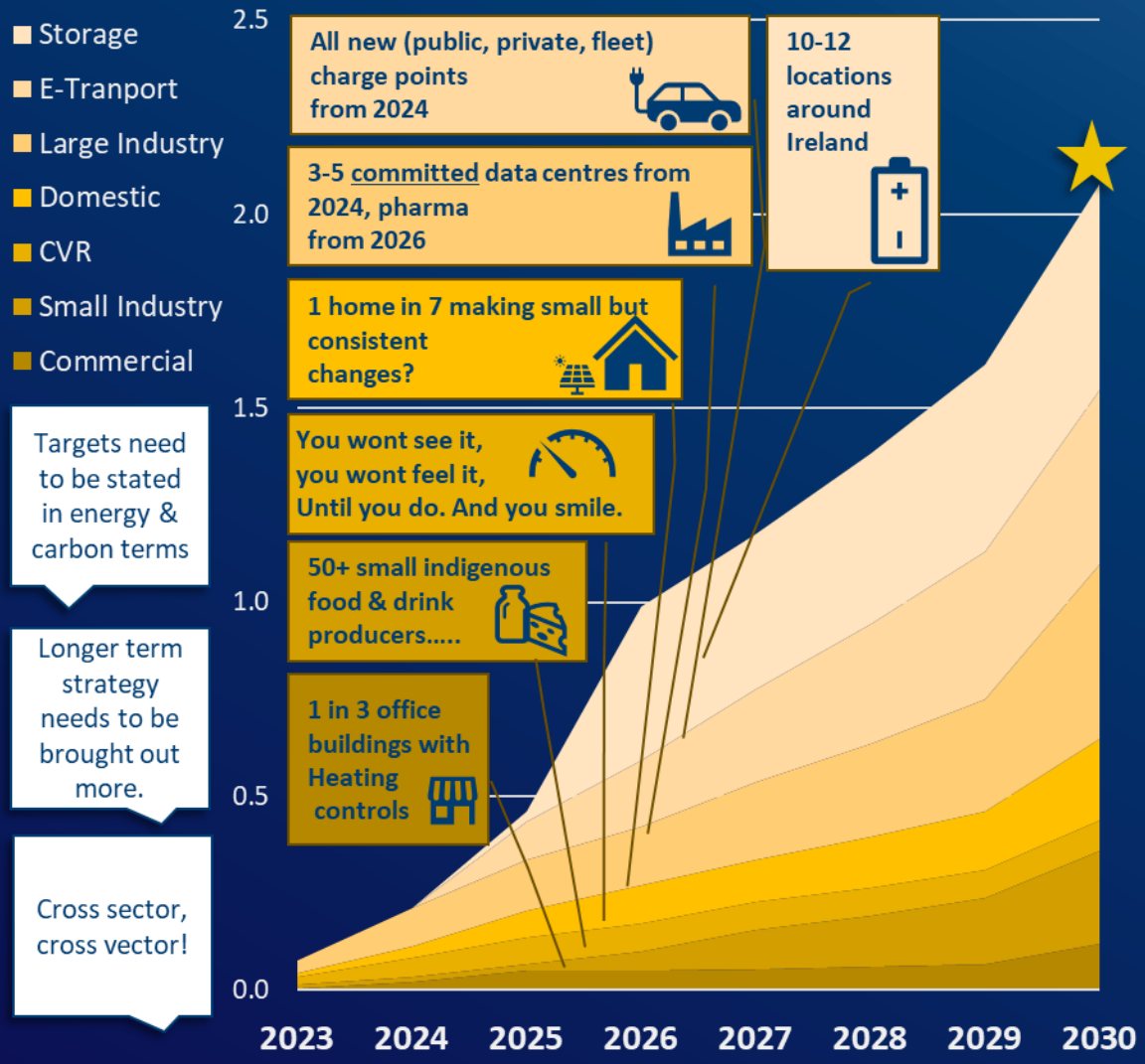
What have we done?

Why are we here?

What's changing?

What have we done?

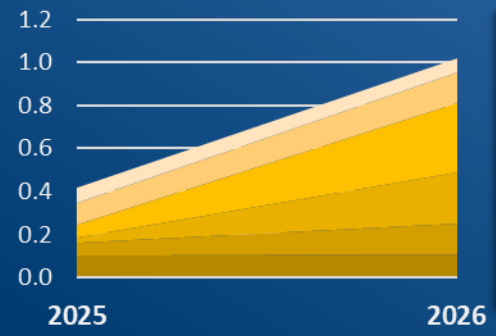
What's next?



Targets need to be stated in energy & carbon terms

Longer term strategy needs to be brought out more.

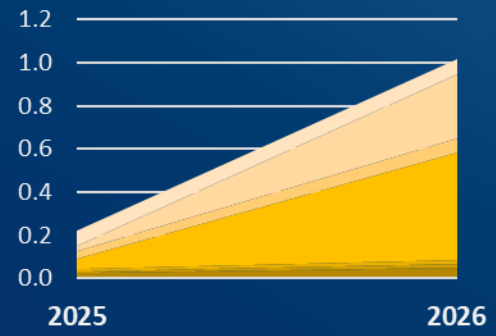
Cross sector, cross vector!



No storage scenario

This scenario remains possible, but

- *Lower probability due to progress on storage*
- *Lower impact due to increasing focus on heat*

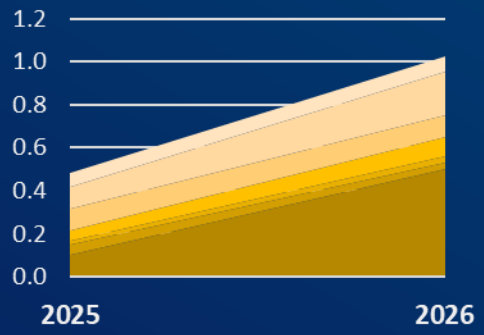


Industry led scenario

Less likely than anticipated pre-consultation.

- *Strong XLEU, representative body & other stakeholder concerns*
- *Mis-allignment with business models?*

=> Focus to shift to exploring new tech solutions



Consumer led scenario

Less likely than anticipated pre-consultation.

- *Low / no stakeholder focus*

=> Urgent need to develop industry blueprint

What have we done about it in 2023?

Vision: To meet Ireland's climate action and net zero targets

Mission Drive climate action by cultivating customer participation and flexible, whole-of-energy-system solutions

Power System

Localised energy forecasts

Scenario analysis to underpin national targets

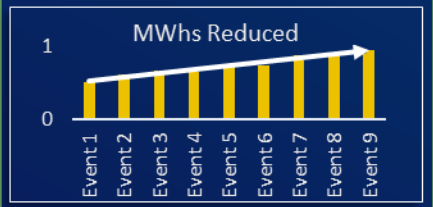
Locational value of storage

Flexibility Market

First local flex markets live 2022.

Now operational in 10 locations.

+35 locations at registration stage.



Persistent increases in demand reduction event on event

Retail Hospitality Manufacturing Pharma

Customers primarily across **4 industries**

Retail Market

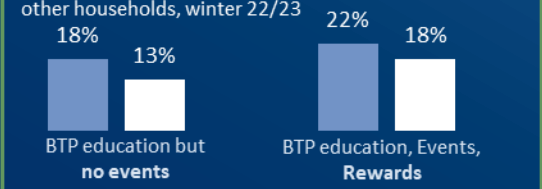
700 daily customer switches to smart tariffs and insights

71k customers moved on to smart microgen

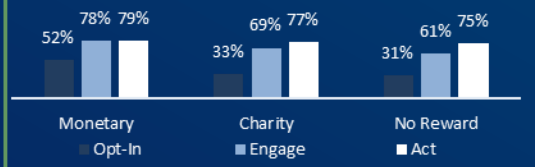
57k customers paid using smart data

Customer

We helped **18.5k customers** feel **18-22% more in control** & **put 13-18% more effort** into their **energy demand** than other households, winter 22/23



+9k signups for new BTP products, to develop new leading insights on **adopting new behaviours.**



Partnership with **SEAI Behavioural Unit**

2 years' behavioural & motivational **insights**

70+
50-65
40-50
30-40
20-30

Smart Metering

1.46 million smart meters installed

97% of smart meters consistently connecting

357 million nightly reads 2023 year to date

+1.3 million meters sending ½ hourly meter data customers can access in the Customer Portal, live Q4 022

Behind-the-Meter

Flex-ready standards for BTM technologies **specified and bench tested.**

SEAI Partnership for supply chain engagement.

Submission to CRU for **adoption Q4 2023.**

Smart meters used to identify **15k** customers exporting electricity but not yet signed up to microgeneration

What’s next?

Why are we here?

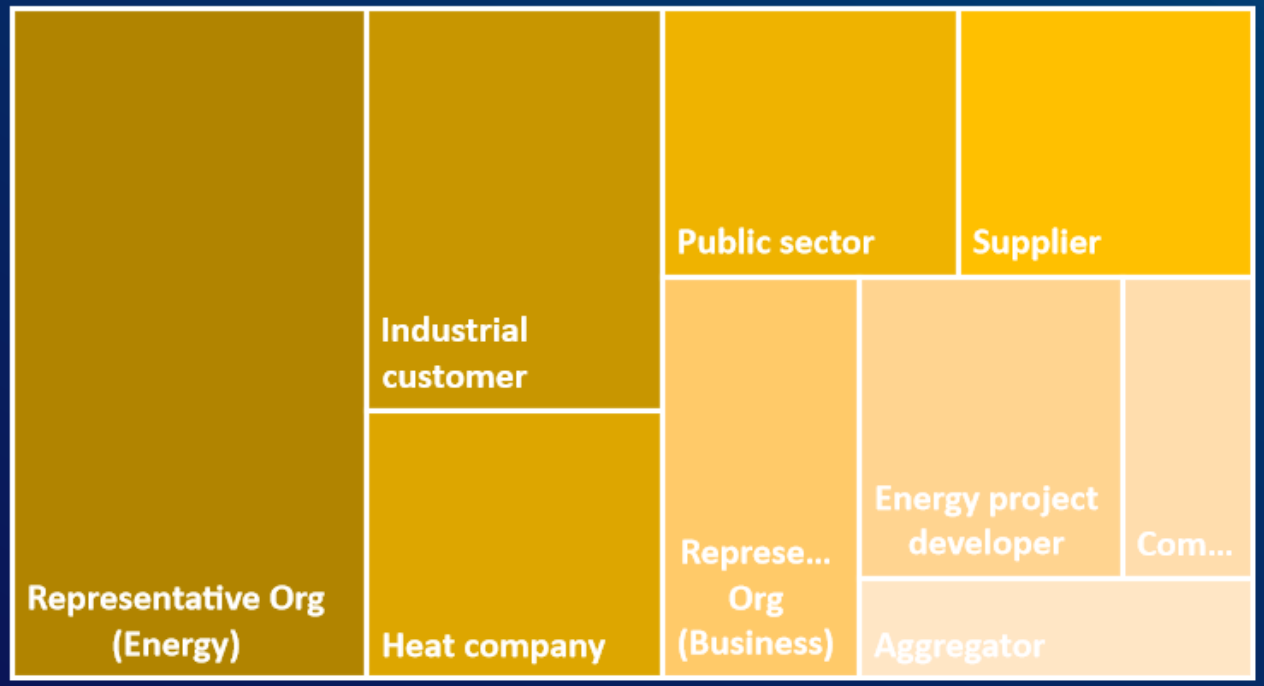
What’s changing?

What have we done?

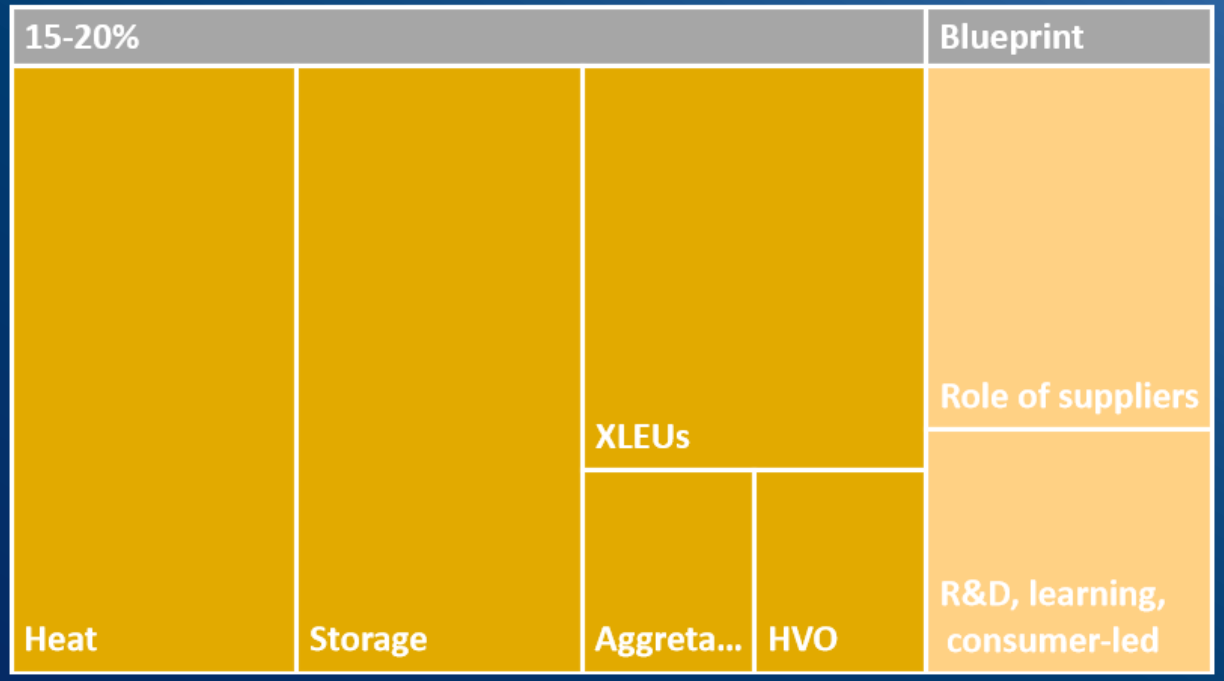
What’s next?

What's next? | Who cares and what do they care about?

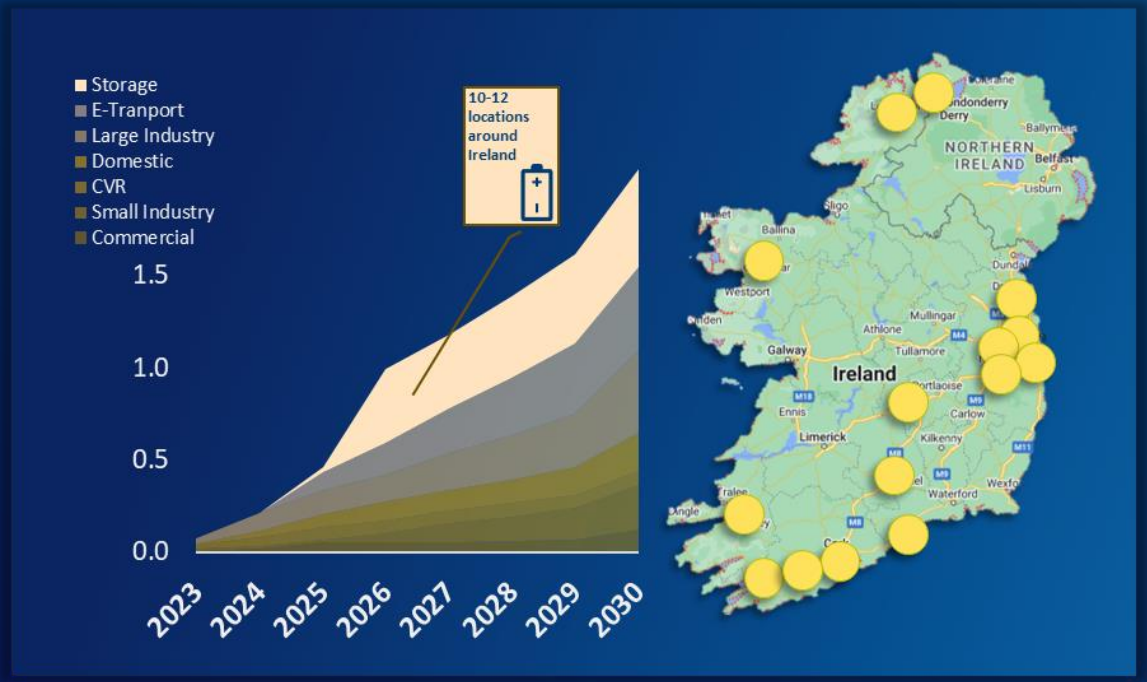
Who responded?

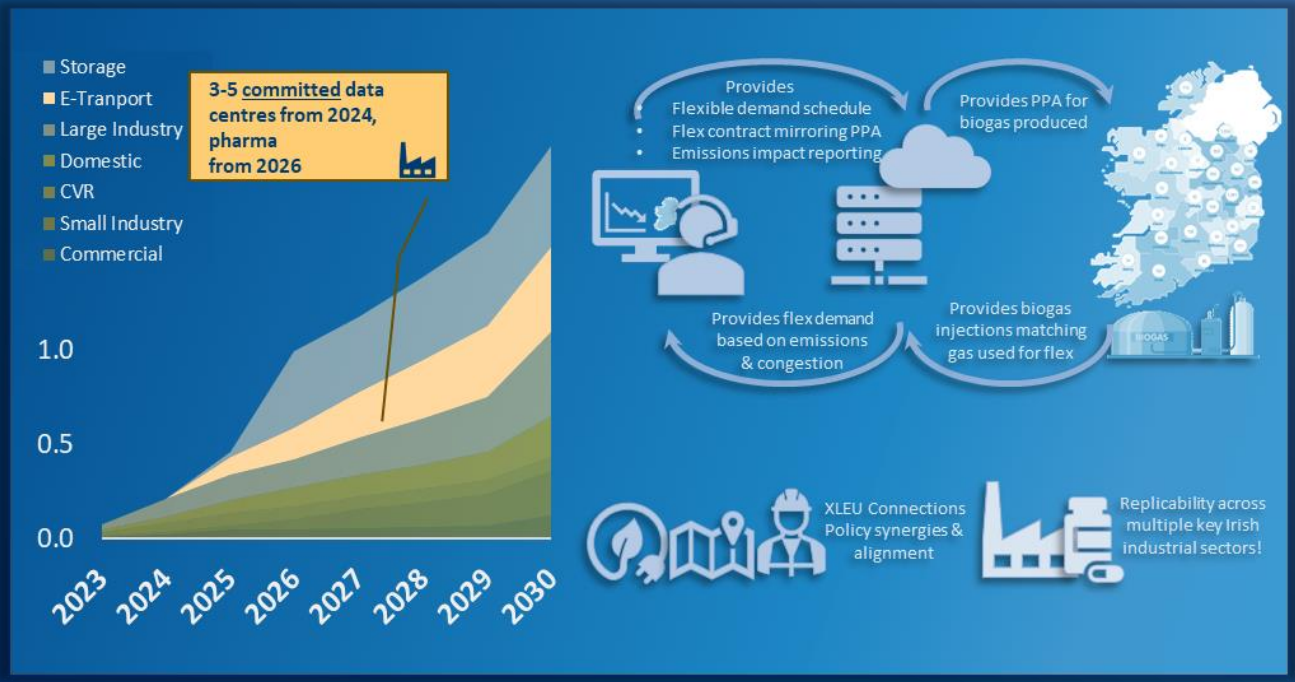


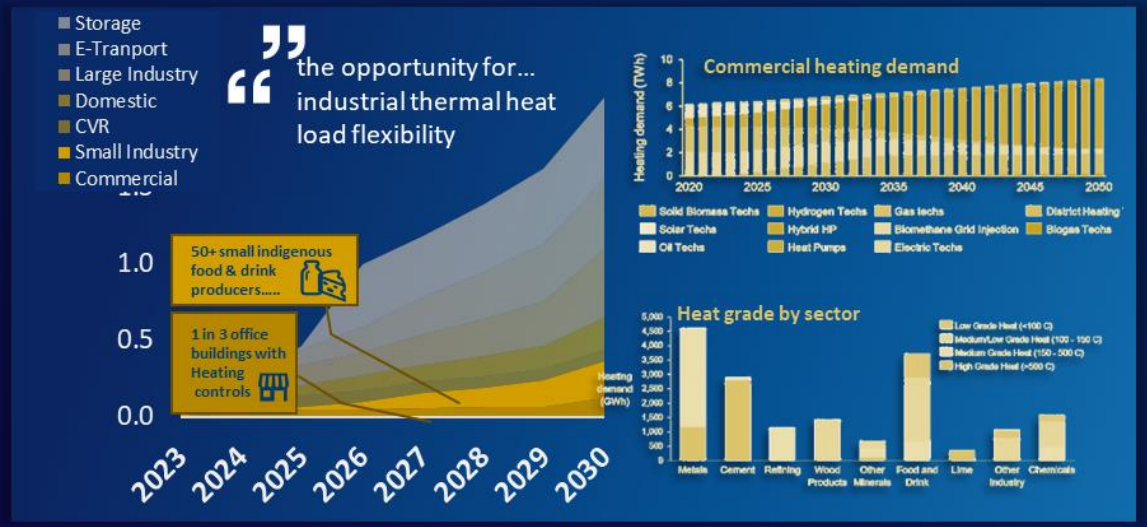
Summary of responses

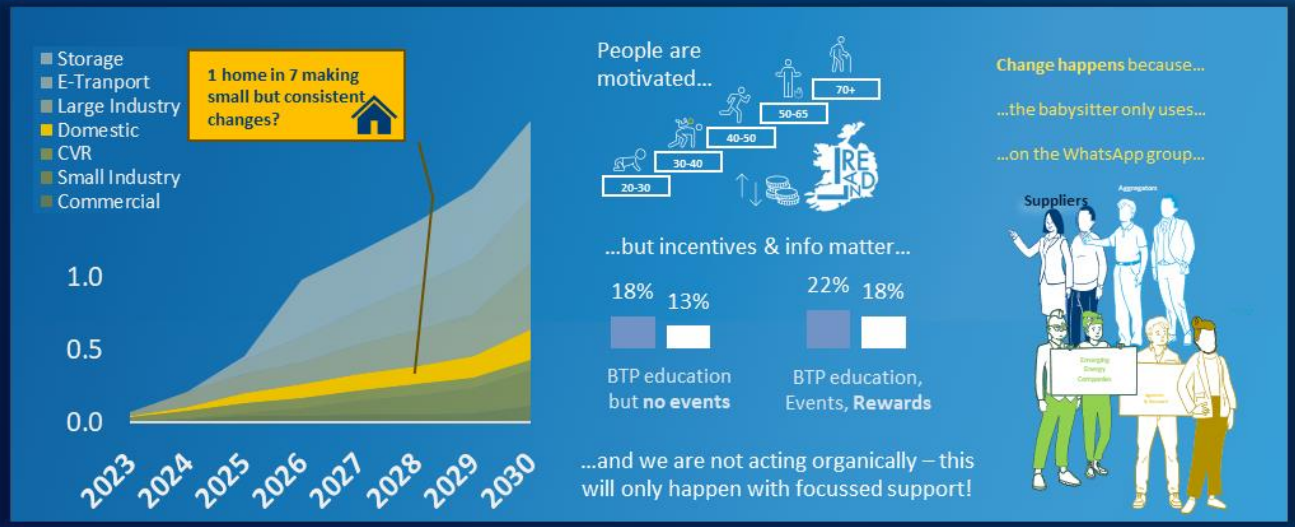


What's next? | Spotlight on storage, XLEUs, heat and households.



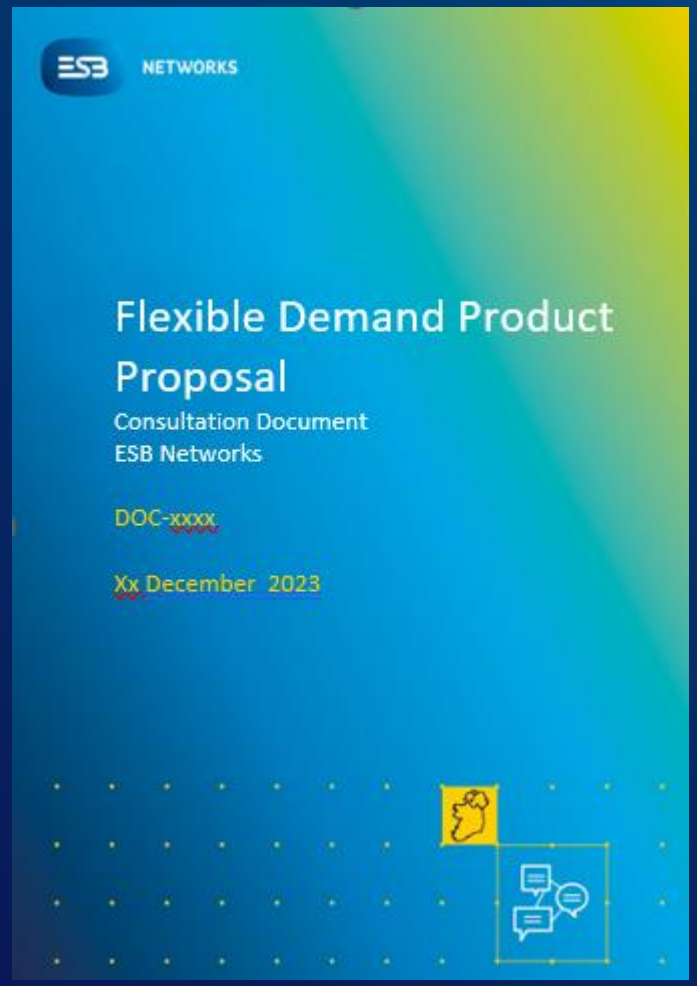






Next Steps | Pending Energy Demand Strategy & Regulatory Target Setting Process

15-20% Next Steps *(short term)*	**Launch product for** locational medium duration flexibility (**storage**) Q1 2024	**Launch product targeting XLEU carbon abatement**, with initial focus on **gas / green gas solution** H1 2024	**Launch product targeting commercial & industrial electric heat** H1 2024	**Flexible demand connections** and **flex-ready** technical standards H1-H2 2024
Blueprint Next Steps *(longer term)*	Develop "Blueprint" with market participants, agencies and CRU H1-H2 2024	**DSO-led to Industry-led** transition plan H1-H2 2024	Develop initial **sector coupling proposals** with gas, transport, water & heat H1-H2 2024	**DSO, TSO, industry engagement on stacking** & coordination model Q4 2023 – Q1 2024



2023 Year Milestones

- Energy Demand Strategy Publication
- Extensive Industry Engagement
- Collaborative Design Phase
- Consultation period opens soon

2024 Through to Energisation Targets

- Briefing to Advisory Council Members

Storage

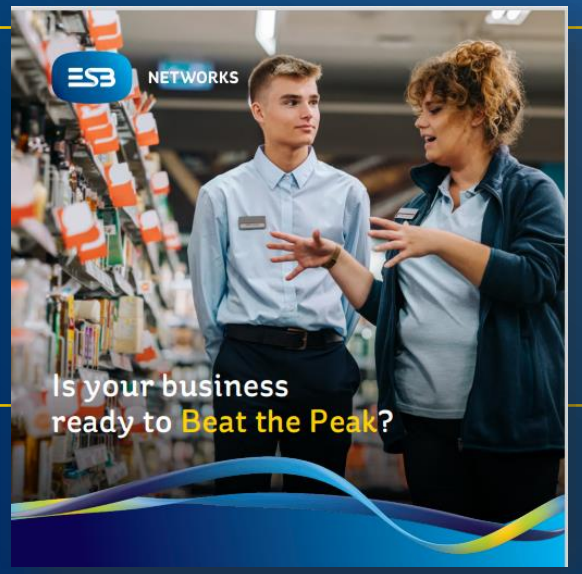
Security of Supply Products - Update

Beat the Peak | Update

We are live across our Domestic & Commercial Campaigns

BTP Business

- Build on pilot & actively **engage commercial electricity users** in demand reduction



Our Ask

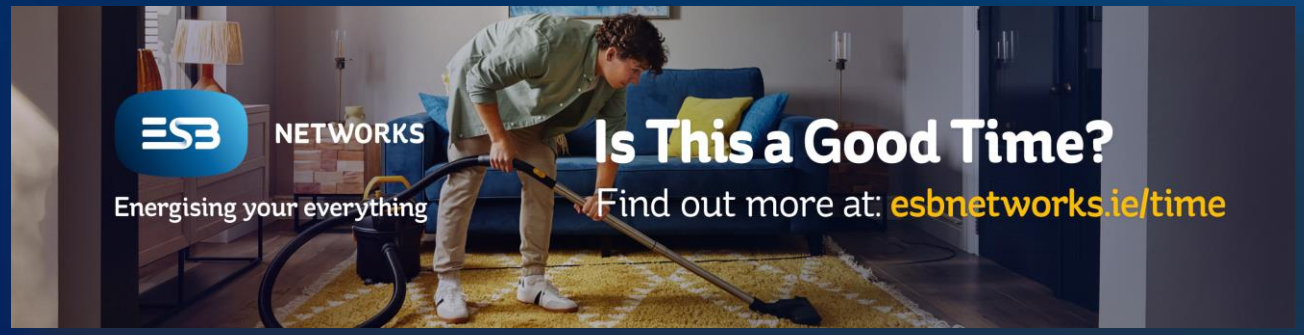
Business : Support us in promoting scheme to commercial users

(application via e-tenders)

Domestic : Support Sign Ups and promote via your organisation or teams to encourage others to sign up

Is This A Good Time?

- The goal is to build on pilot & continue to **educate** customers and drive **behaviour change** around domestic demand side **flexibility**
- **Test and learn concepts, content and rewards approach for highest engagement**



Beat the Peak Business | Overview of Scheme

Registration for our scheme targeted at all commercial users is now live on etenders

PURPOSE

The purpose of the scheme is to shift demand during peak evening periods to alleviate potential tightness on the network and mitigate System Alerts.

Scheme is open to all commercial electricity users who met eligibility criteria *(QH meter, TSO or DSO connected, & pass Network Safety Checks)*

SERVICE DETAILS

During the scheme, commercial electricity users will be asked to reduce demand daily between 4.30 – 7.00pm, Monday – Friday (excluding public holidays) and for Peak Events called by ESB Networks.

FINANCIAL INCENTIVE

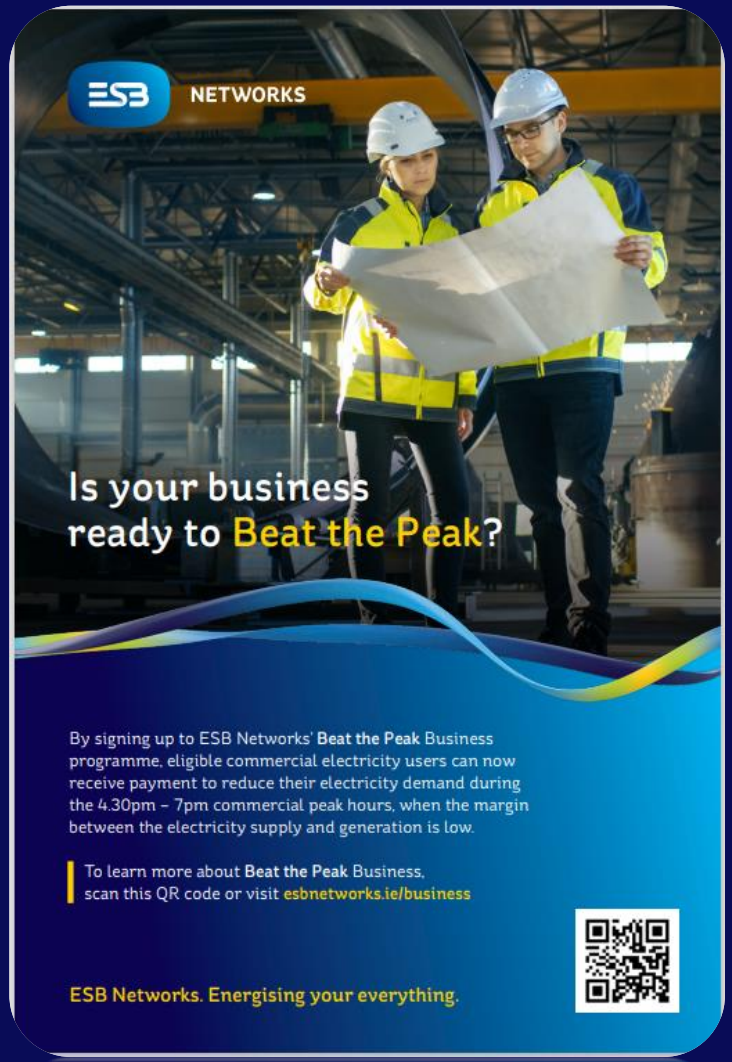
For Daily Events: Flexible Service Assets will receive a payment of €680 per MWh

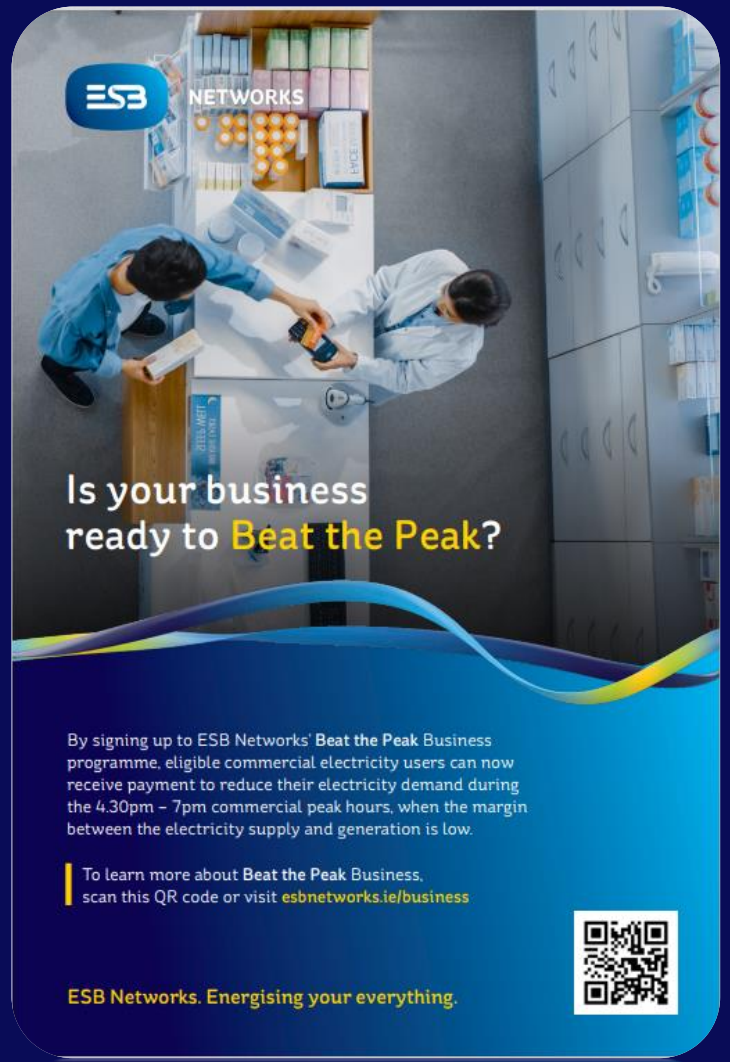
For Peak Events, Flexible Service Assets will receive a payment of €820 per MWh reduced

Flexible Service Providers will receive a payment for each Flexible Service Asset recruited and will receive a payment calculated as 50% of the total sum of their Flexible Service Asset's payment where they have 2 or more Flexible Service Assets signed up to the scheme

Based on feedback we are offering longer duration contracts, with scheme running until March 2025, with option to extend to September 2025

Beat the Peak Business | Challenge …. Recruitment





Beat the Peak Business | More Information

If you are interested in learning more or applying for the scheme, or know of organisation that might be interested in applying then please see links below or reach out to our team at btp@esb.ie

LEARN MORE & SIGN-UP VIA

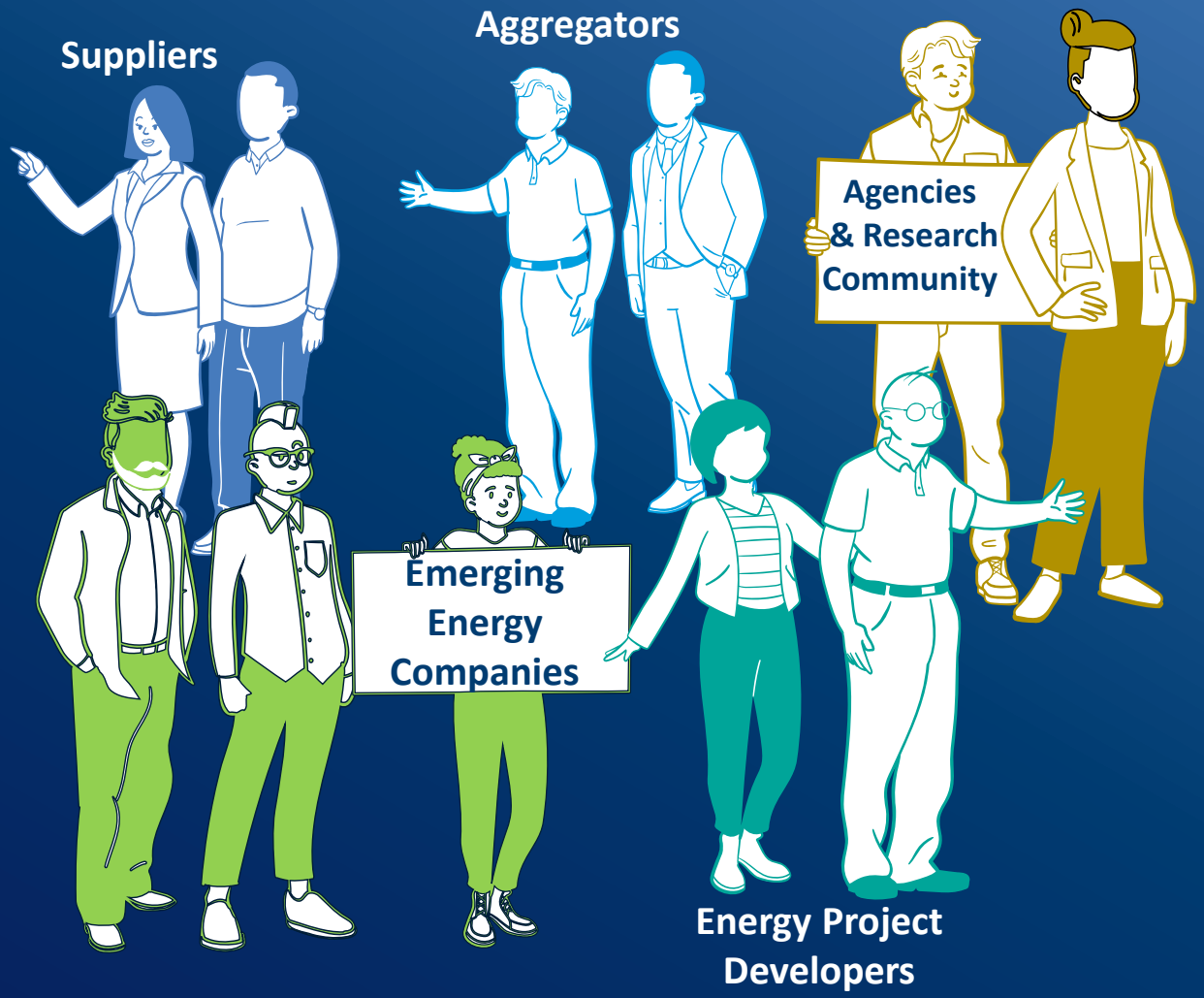
- ESB Networks: **https://www.esbnetworks.ie/who-we-are/beat-the-peak/overview/beat-the-peak-business**
- E-Tenders: **Public RFT - Beat the Peak Business (eu-supply.com)**
  - To apply for Beat the Peak Business please log in to etenders and search for RFT 243565, where you will find instructions on how to apply, and all the contract terms and tariffs

Blueprint for Flexible Demand in Markets

Blueprint: What's it all about?

Customer adoption depends on…

To secure this, we need **collaboration across a diverse industry.**



It's 2035. What does Irish society look like?

(What energy infrastructure does it need?)

What rights and obligations need to be met?

These come from:

- *Clean Energy Package*
- *Fit for 55 package*
- *Utilities Directive*

Are these

- *Clear, well defined?*
- *Concepts & intent, but fuzzily defined*

What do we know?

To drive change in the short term, we target:

- *Storage*
- *XLEUs*
- *C&E heat*
- *Flex ready transport*
- *Flexible connections*

..."climate action" products (carbon, congestion).

We also know that

- *the "ENA" (local security) products need adaptation to be useful & relevant;*
- *"beat the peak" is simple but meets a transitional need.*

What do we need to explore?

- *Consumer behavioral patterns, characteristics and responses*
- *C&I sectoral patterns, characteristics & responses*
- *New business models in the market*
- *New technologies (control, automation, signaling,, etc)*
- *Supplier / energy co. responses to market opportunities*
- *What definition would be used and useful for customers & industry??*

Retail or Flex Market

Flex Market

Sandbox

Phased Implementation Plan

What will we have, when, in what market? 2024 – 2025, 2026-2028, 2028-2030, 2030+

How, when and why does a give market solution move from sandbox to flex to retail market?

Retail and/or Flex Market

e.g.
- Sub-metering
- OJEU or.....

We will provide an inventory.

Key question: which items are clear, and which are fuzzy?

Flex Market

e.g.
- Targeted products
- Layered contracts

We will provide proposals

*Key question: are there other "**near market ready**" things to target?*

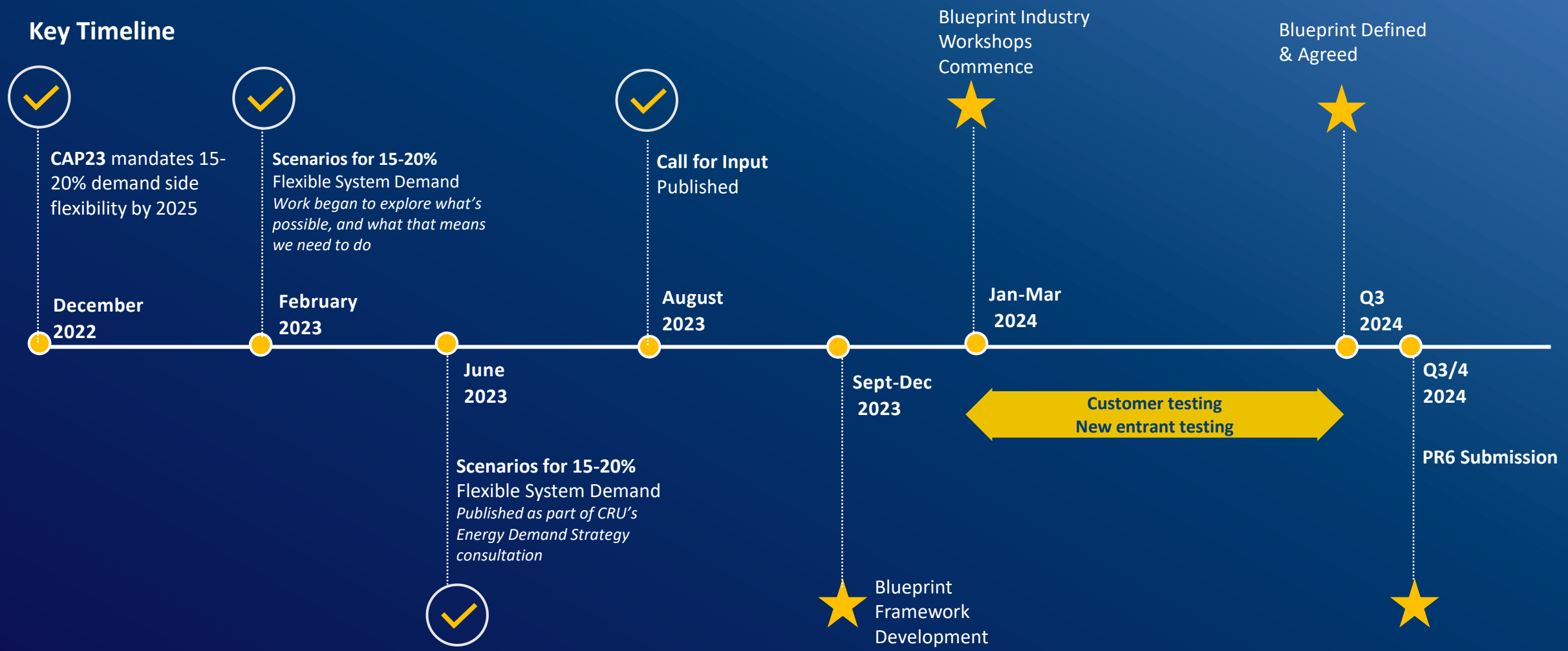
Sandbox

e.g.
- Energy sharing concepts
- Aggregation control models
- Energy optimization
- Lifestyle applications

We will provide suggestions

Key questions:
- *Industry **priorities?***
- ***New entrant un-blockers?***
- ***Customer appetite??***

Blueprint Development Timeline



TSO/DSO future operating model – industry engagement approach

AOB / Round table discussion

Thank You!
engagement@esbnetworks.ie
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