ESB NETWORKS

NATIONAL NETWORK LOCAL CONNECTIONS PROGRAMME

ADVISORY COUNCIL
MEETING 2 | SEPT 14TH 2022

AGENDA
Chair: Ellen Diskin

Welcome Back	5 Mins	Gerry Noone / All
Sign off, Minutes from Meeting No. 1	10 Mins	Gerry Noone / All
Beat the Peak Overview	10 Mins	Ellen Diskin
• Domestic • Commercial • Commercial Pledged	30 Mins	Gerry Noone /Ellen Diskin
NN,LC Flexibility Multi-Year Plan Consultation	10 Mins	All
Round Table (Open Discussion on all agenda items)	10 Mins	All
Review and Agree items for Meeting No. 3	5 Mins	All

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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.

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Advisory Council Meeting 1 Minutes & Actions Sign off

Meeting Minutes found here: advisory-council-for-national-network_local-connections-minutes-29062022.pdf (esbnetworks.ie)

Action Log

Item	Details	Progress	Status (Proposed)
1.	NN,LC to re-engage on recruitment for Pilot 3.	NN,LC have performance a series of interviews through DRAI of it's members in Q3. Insights gained will shape our renewed recruitment approach. Milestone to go live for Pilot 3 H2 2023 still intact	Closed
2.	Revisit the topic of dynamic instruction sets at the upcoming Advisory Council meeting. Referencing NN,LC Pilot 2.	Workshop to be held with DRAI members on Pilot 2 to understand aggregators view on week-ahead detailed design	Ongoing
3.	Community Schemes for RESS 2 and future RESS 3, all members of advisory council to agree to work together to ensure funded projects are considered for relevant NNLC pilots. DPAI will have to be considered here.	Internal ESBN working group stood up to identify Community Projects early once RESS contract is awarded. Commitment given to SEAI to collaborate at the earliest possible opportunity to support the funding application process	Ongoing
4.	Domestic products and services to be added for the upcoming National Advisory meeting	Covered in Advisory Council Meeting 2. Agenda Item 3.	Closed
5.	Engagement email address to be included in follow up email	Engagement@esbnetworks.ie is the address for all correspondence relating to National Network, Local Connections Programme	Closed

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Beat the Peak

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Beat The Peak Overview | Background

There is a **substantial gap** in electricity generation for winter peak periods 2022/23-2024/25. To ensure customers' continued security of supply, and confidence as they engage **climate action**, we are committed to playing our part to help address this. **Leveraging the capability we have put in place** through activities within the National Network, Local Connections Programme, National Smart Metering Programme and the pipeline of activity in Retail Market Services, we have mobilised a range of **initiatives** to **deliver impact quickly** to mitigate risk beginning this winter period.

Reference gap: c. 500MW peak shortfall

250MW - 530MW estimated peak reduction: initiatives long list

150MW - 250MW estimated peak reduction: initiatives short list

2022 MVP Piloting:

15k- 30k customers in domestic pilot

~ 50 commercial in commercial pilot

~ 60 substations voltage reduction pilot

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Beat the Peak | Domestic

Beat the Peak | Domestic

Educate all customers on the **role they can play in managing their own energy** - they are in control. Give participants the tools and incentives required to help change their behaviour & change their consumption to non-peak hours.
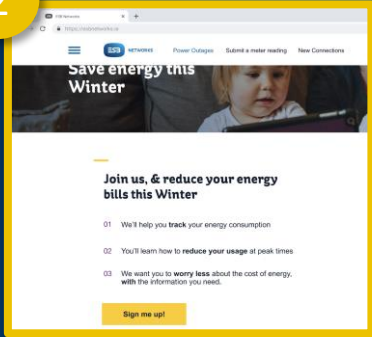
Images/text are for illustration purposes only

1

Awareness – Customers made aware of the pilot with a cross-channel campaign.

2

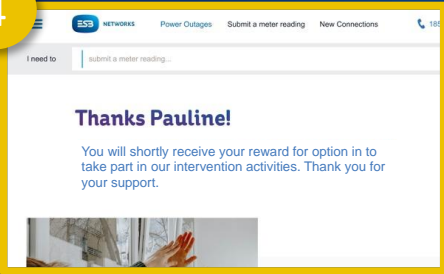**Sign up** – Customers will be encouraged to be part of the pilot scheme.

3

As a dishwasher owner now is a good time to pop on a wash as it is windy!

Turning off any extra lights now is a quick way to make a change. Plugging out any TV's not in use will have a bigger impact on usage.

Education – Customers will receive contextualised hints and tops to increase knowledge and encourage action

4
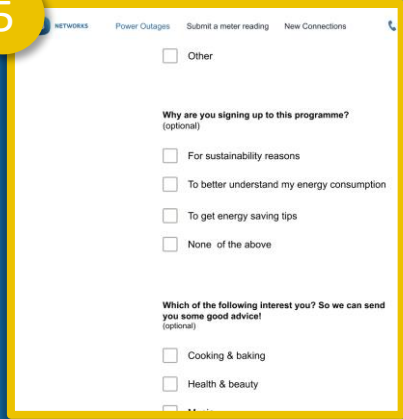
Customers can sign up to participate in peak events.

They will receive a reward (financial, pro-social, community), and asked for more information on their lifestyle & preferences.

During amber alerts they will be prompted to act.

5

Customers will be asked to provide feedback on their experience, and for those who received action requests to share if they were able to take part.

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Beat the Peak (Domestic) | Campaign Concept

*Ultimately we need to **change behaviour** and encourage people to stop and think.*

***It matters when** we choose to use electrical appliances and devices: timing is critical.*

*We want to the public to ask **"Is this a good time?"** whenever they're about to use an electrical appliance and help them to understand why time matters.*
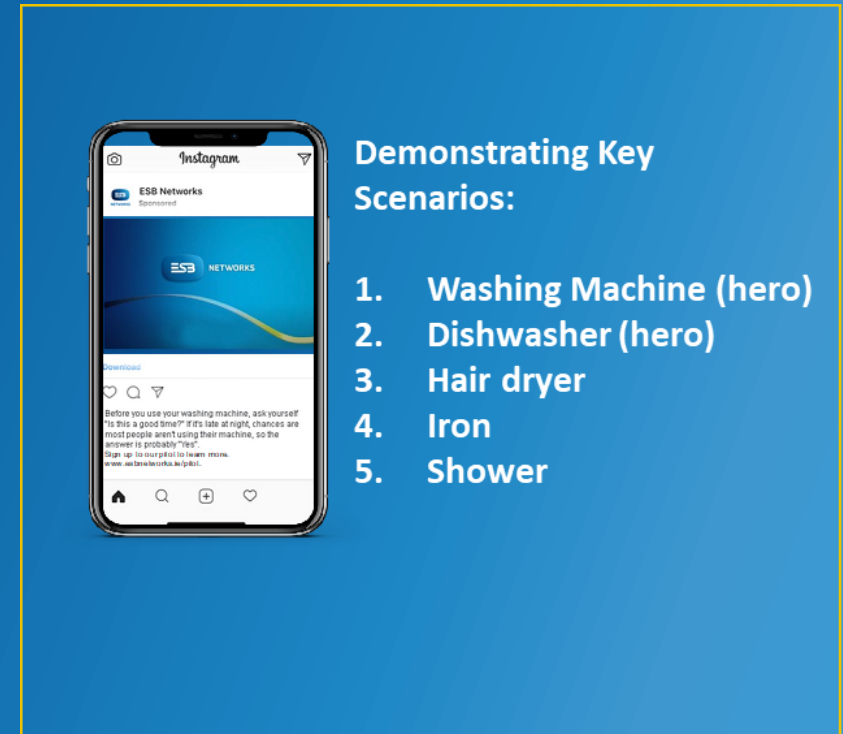
Demonstrating Key Scenarios:

1. **Washing Machine (hero)**
2. **Dishwasher (hero)**
3. **Hair dryer**
4. **Iron**
5. **Shower**

Developing meaningful long term insights

Pre-campaign

What is our base -line consumer understanding of key ideas and terms?

Effectively our control for understanding impact uplift.

Effect of Advertising

What impact has the wider advertising had?
How well have the messages been understood and what has the consumer reaction been?

Driving Registrations

What channels were best at driving sign-ups?
How effective was the website experience at converting to registration?

The role of content

What types of content drove the most engagement and resonated most with which consumers, ultimately leading to behaviour changes?

The role of interventions

How did people react?
Relative impact of pre / post incentives
Comparing self reporting with measured response

Not exposed to campaign messaging

Exposed to campaign messaging

Visit webpage

Sign up to Pilot

Engage with Pilot comms

Opt-in to Interventions

Act on Interventions

Ongoing behaviour change

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Beat the Peak | Commercial Active

Beat the Peak | Commercial - Active

Scheme for commercial electricity loads who qualify, based on eligibility criteria, to participate in an operational demand side flexibility scheme with financial incentive

Beat the Peak
Commercial

Active

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1 **Awareness** – Customers receive notification from ESB Networks that they are eligible to participate

2 **Sign up** – Customers can sign up via an aggregator

3 **Baselining** – Customers' peak electricity demand will be baselined based on winter 2019 and winter 2021

4 **Event** – In case of amber alerts, ESBN will notify the aggregators, who are responsible for notifying individual customers. Customers reduce their demand.

5 **Settlement** – ESBN will measure performance relative to baseline demand, and provide aggregators (who provide to customers) performance statements and payment

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Beat the Peak | Working draft eligibility criteria

The proposed eligibility criteria for this aspect of the scheme are intended to maximise the effectiveness and value-for-money of the scheme, while respecting operational and administrative limits for the scheme operating in its first year:

#	Criteria	Rationale
1	**Loads which are not participating in a demand side unit (DSU) operating in the Capacity or DS3 markets**	Open to loads which are not currently participating in a demand side unit (DSU) operating in the Capacity or DS3 markets, on the basis that these loads are already counted when establishing the generation and demand available in the market / for system operational support. Note: 1. a customer who has some load participating in a DSU may still participate in this scheme using loads which are not currently committed within the DSU portfolio. 2. A customer participating in a local flexibility market (as of October 2022 go-lives, through the NN,LC programme) are eligible to participate subject to the BAU demand baseline adjustment mechanism set out earlier in this document
2	**Maximum Import Capacity (MIC) >250kVA**	Maximum import capacity is the maximum electricity demand level that can be drawn from the network at a customer's connection point. The 250kVA baseline figure is a useful indicator of small/medium commercial customers that have sufficient demand to enable reduction at peak times. This figure has also been used on previous schemes[2].
3	**Meter Configuration Code 10 - MCC10**	Meter Configuration Code is the code used to describe the type of meter (or its functionality) that measures the amount electricity that passes through the Connection Point. MCC10 measures consumption quarter hourly, MIC, and import consumption. Exported consumption is not included on this scheme to reduce potential double funding, and to ensure simplicity of scheme administration.
4	**Quarter hourly interval metering**	To enable robust monitoring of customers' response, and effectiveness of the incentive scheme.

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Beat the Peak | Commercial Pledged

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Beat the Peak | Commercial Pledged

Scheme for commercial electricity loads who qualify, based on eligibility criteria, to participate in an operational demand side flexibility scheme with financial incentive

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1 **Awareness** – Through a range of channels, we are seeking to reach
- Large Irish Employers
- Multi-national firms
- Public sector orgs
- Charities
- SMEs & start-ups.

2 **Sign up** – Customers receive content and materials to share with employees regarding energy usage and directing them to the pilot.

3 **Pledges** – participating organisations decide and communicate their pledge. ESBN provides information material on changes different types of organisation can take to move demand away from peak times.

4 **Action –** the organisations put in place their pledges, and in case of amber alerts, ESBN will communicate that an expected.

5 **Spotlight –** ESBN will provide a platform to promote the actions taken by organisations to support the national effort.

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Beat the Peak | Pledge – Target Participant Segments

Implementation challenge

Confidence in delivering

'Hero' Pledges
October 2022

High

Initial 3-4 large companies with a strong Irish presence engaging with ESBN to support the Beat the Peak initiative by signing up to the Pledge and taking action to lower their demand during peak times.

Amplify the Beat The Peak Domestic *'is this a good time'* message to their staff.

Broader Pledges
November ++ 2022

High

Broader group of (10++) companies engaging with ESBN to support the Beat the Peak initiative by signing up to the Pledge and taking action to lower their demand during peak times. Amplify the Beat The Peak Domestic *'is this a good time'* message to their staff.

Suppliers
October 2022

High

Electricity suppliers (11) engaging with ESBN to support the Beat the Peak Pledge initiative and amplify the Beat The Peak Domestic *'is this a good time'* message to their customers & recruit participants into BTP|D.

3rd Party Suppliers
October 2022

Low

3rd party suppliers engaging with ESBN to support the Beat the Peak initiative and amplify the campaign message.

Industry & Public Organisations
October 2022

Low

Industry Leaders such as IBEC, Chamber of Commerce, DRAI, Wind Energy Ireland etc. engaging with ESBN to amplify the message of the Beat The Peak initiative.
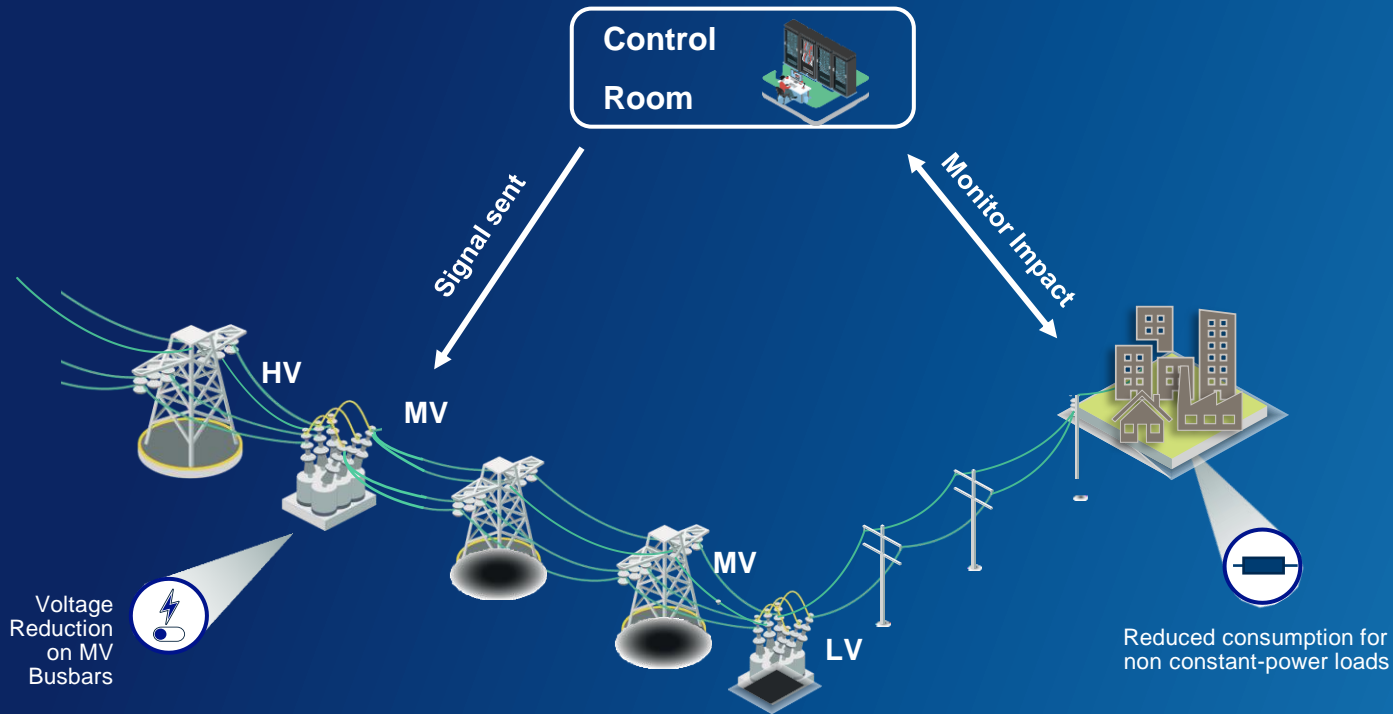
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CVR| Targeted Outcomes

Control Room

Signal sent

Monitor Impact

HV

MV

MV

LV

Voltage Reduction on MV Busbars

Reduced consumption for non constant-power loads

Conservation Voltage Reduction: Average MW reduction

MW

160
140
120
100
80
60
40
20
0

W22   W23   W24
Time
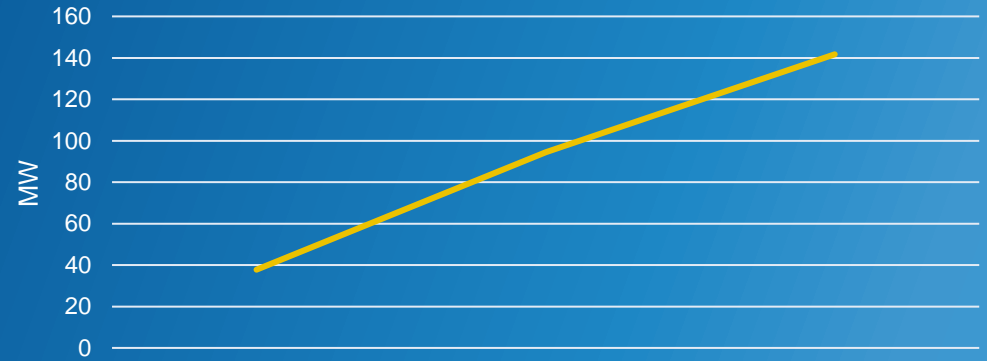
Magnitude of impact   Pace of impact   Economic   Ease of implementation   Low Carbon

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Flexibility Multi-Year Plan

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Flexibility Multi – Year Plan – Areas of Interest

As a programme, we hope to use this session to understand your feedback on the delivery plans below – the key parts of our flexibility multiyear plan.

Flexibility Pilot Roadmap

Flexibility Market Development Plan

2030 Flexibility Requirements

Signals & Data, Platforms & Dashboards

Operational System Roadmap

Consultation Framework

Flexibility Multi – Year Plan – Our Proposed Actions For 2023

Area	Plan for 2023	
Flexibility Pilot Roadmap	• **Pilot 1 (Commercial flexibility)** Year 1 learnings published	
	• **Pilot 2 (Commercial flexibility)** Wave 1 Go-live	
	• **Pilot 3a (Commercial flexibility)** Winter 1 learnings published	
	• **Pilot 3 (Commercial & Domestic flexibility)** Go-live	☆☆☆ **Domestic & Community Focus**
	• **Pilot 6 (Domestic Flexibility)** Wave 1 learnings published	
	• **Pilot 6 (Domestic Flexibility)** Wave 2 (Community / Local dashboards)	
	• **Pilot 7a (Active Management – CVR)** Wave 1 learnings published	
Flexibility Market Development Plan	• **Pilot 3 (Standard flexibility products & market design)** Wave 2 schemes go to tender	☆☆☆ **Domestic & Community Focus**
	• **Pilot 4A (New flexible connection products). With** no projects eligible and seeking to participate in Pilot 4a, consultation paper on next steps including alternative criteria and updated plan for pilot 4 in development	
	• **Standard industry reporting** – establishment of initial standard market and regulatory reporting on the procurement and dispatch of DSO flexibility and of TSO flexibility bids validated.	
2030 Power System Requirements	• **Future Products: System strength** (short circuit level) studies progressed	
	• **Future TSO/DSO Coordination: Dynamic stability** studies progressed	
Signals & Data, Platforms & Dashboards	• **SCADA Dispatch** – Improved automation of active & reactive power dispatch to pilot participants	
	• **Smart standards piloting & adoption –** next steps	☆☆☆ **Domestic & Community Focus**
	• **Platforms & dashboards –** next steps	
Operational System Roadmap	• **Core Control Technology (ADMS & DERMS_** Completion of the ADMS & DERMS procurement)	
	• **Market Management System (MMS)** Pilot of MMS solution	
Consultation Framework	• **Awareness of Flexibility Services** – 10% in 2023	☆☆☆ **Domestic & Community Focus**
	• **Community Energy Participation** - Develop tools and supports to enable	

AOB and Close Out

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Appendix

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Domestic Flexibility Initiatives

EVOLUTION - NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME

A Network for Net Zero & empowered customers

2030

100% electricity

20% powered by gas and foreign imports

80% powered by renewable energy

20 — 30%

The home of the future is using renewables energy when they want to/able to.

The Network of the future is delivering for Net Zero and supporting Ireland's Climate Action Targets.

The Customer of the future is empowered and has the tools to control their energy consumption.
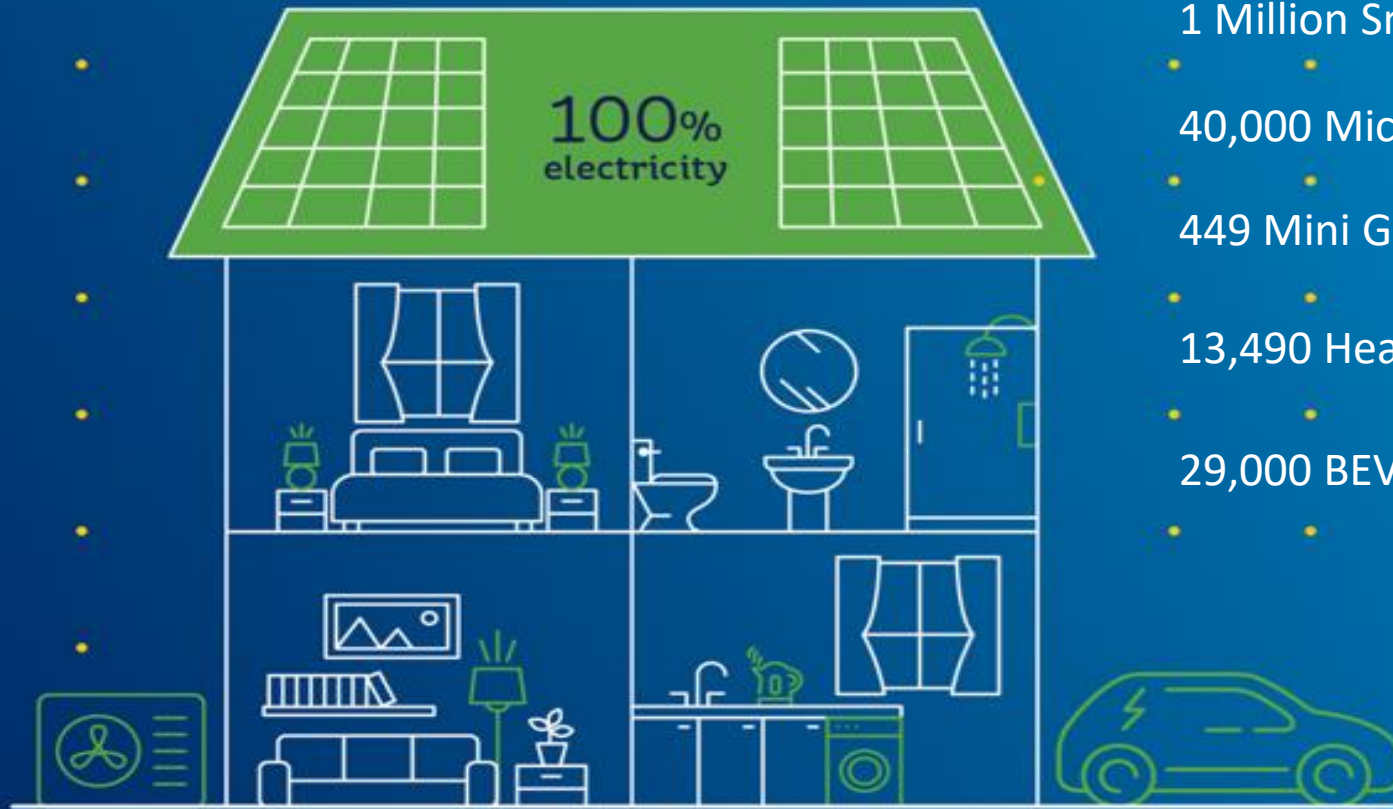
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Domestic Flexibility Products and Services

Future Network Topography
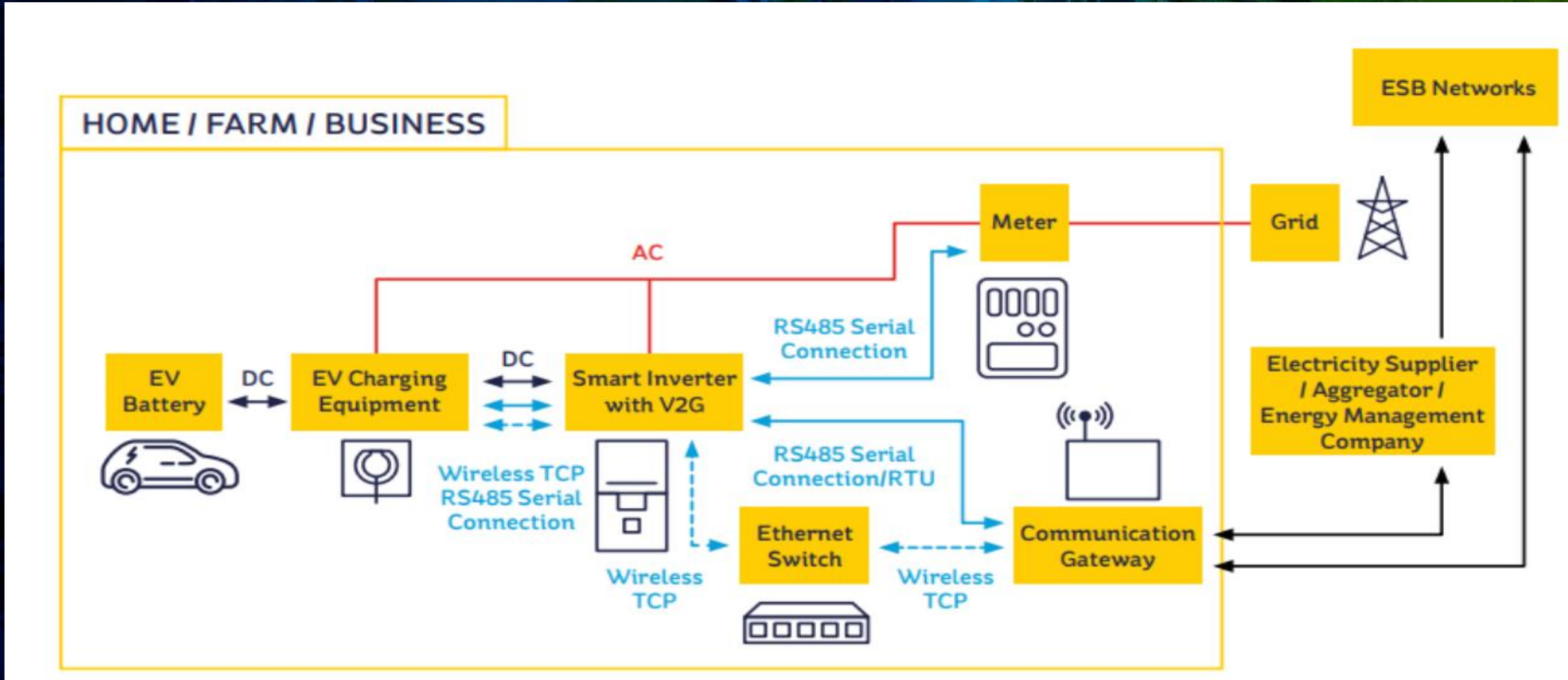
Progress

1 Million Smart Meters by Nov 2022

40,000 Micro Gen Application to Connect

449 Mini Gen Applications to Connect (15MW)

13,490 Heat Pumps installed

29,000 BEVs & 19,000 PHEVs since 2015