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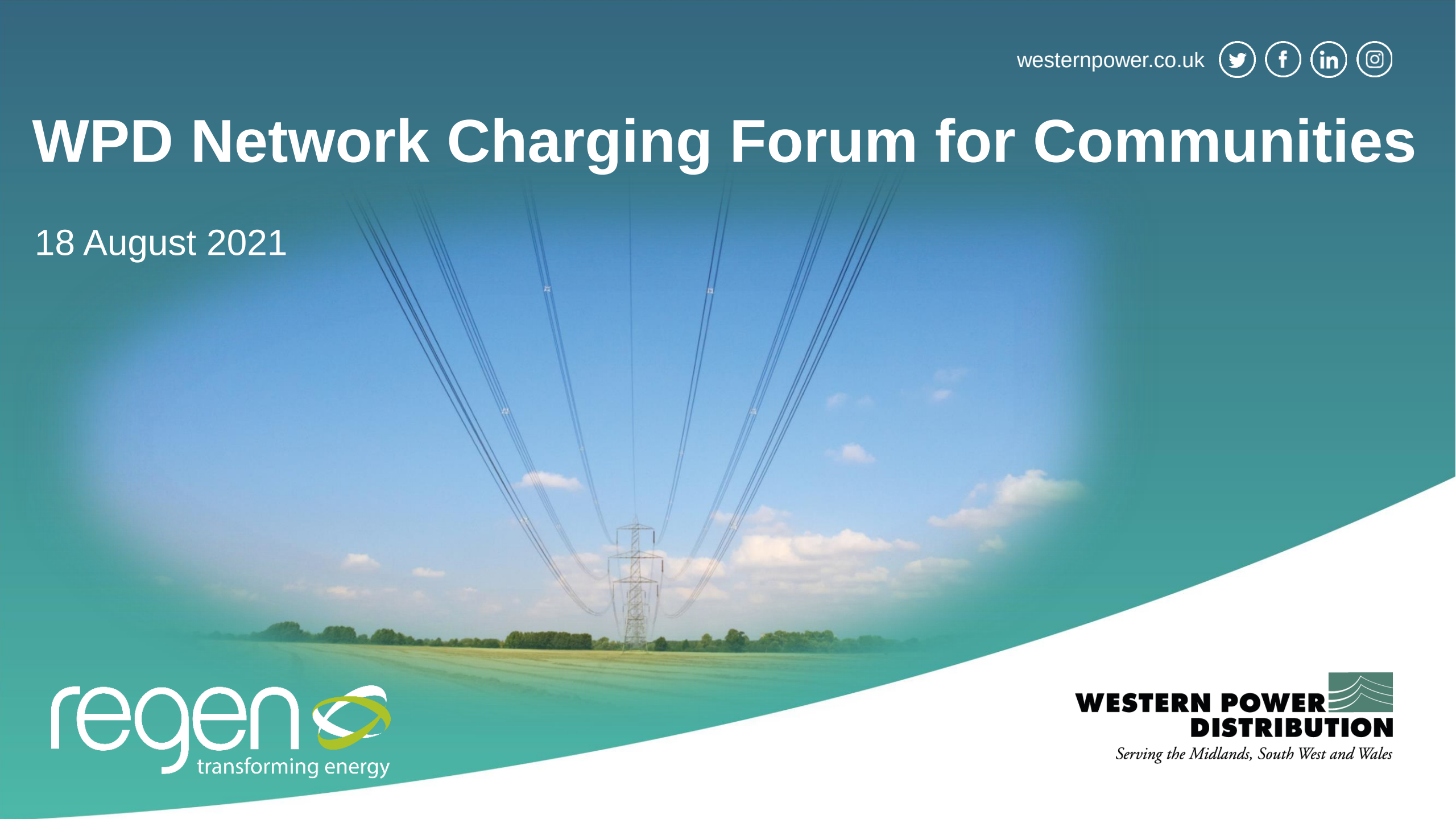
WPD Network Charging Forum for Communities

18 August 2021



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Agenda

10:00	**Welcome and aims of the session**
	Jodie Giles, head of community and local energy, Regen
10:10	**Introduction to Ofgem's SCR**
	Poppy Maltby, head of cities and regions, Regen
10:20	**Network connection charging – changes for demand and generation**
	15-minute presentation followed by 35 minute facilitated roundtable discussion
11:10	**Tea break**
11:15	**Network access rights – current and future arrangements**
	5-minute presentation followed by 25 minute facilitated roundtable discussion
11:45	**Transmission charging – future direction of travel**
	10 minute facilitated roundtable discussion
11:55	**Summary and next steps**
12:00	**Close**

Aims of the session

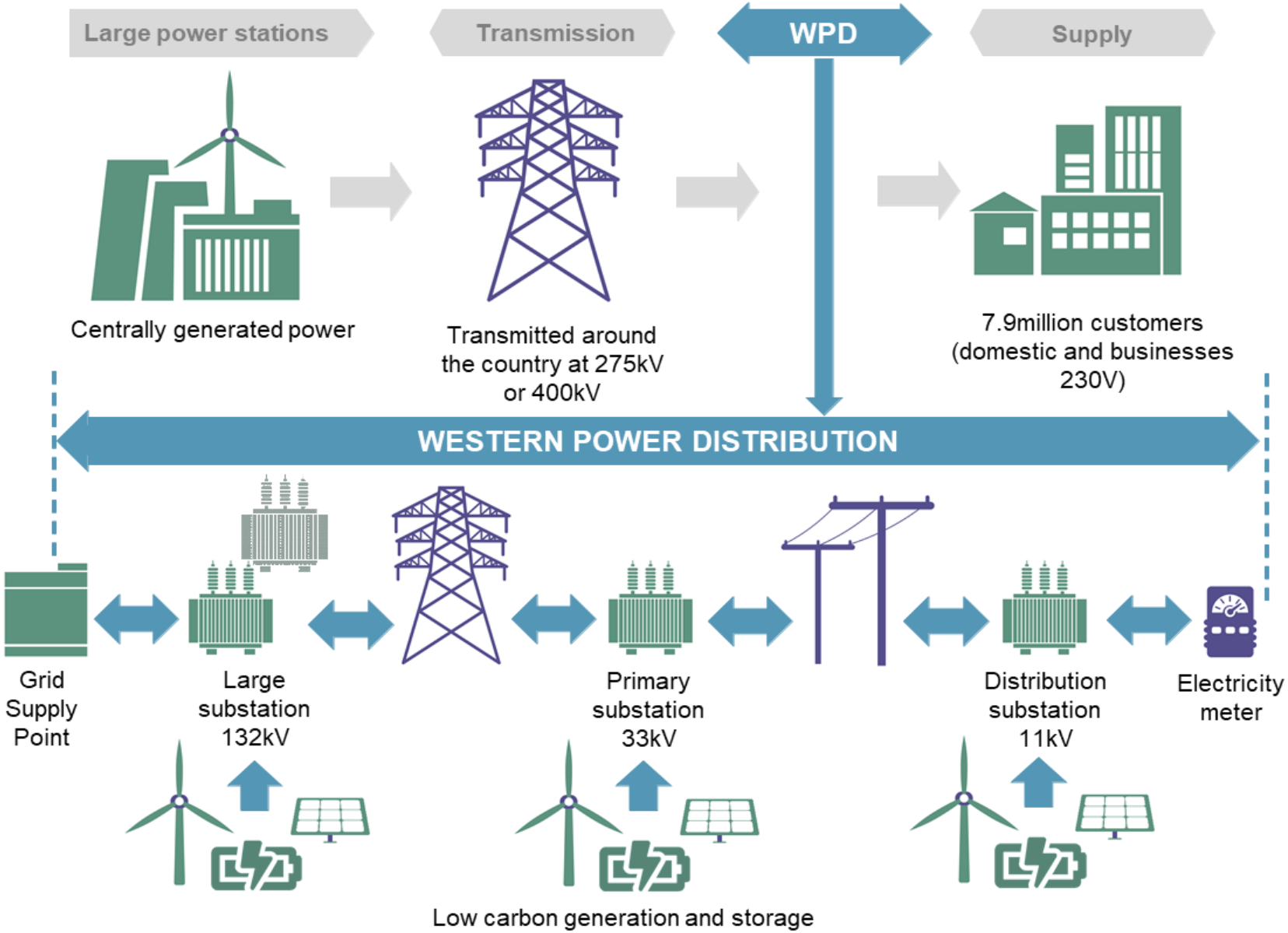
- This forum is for new and existing community energy and climate action organisations, to help you understand more about how the electricity network is paid for, and how that might be changing over the next few years, to help us transition to net zero.
- We'll be summarising changes Ofgem is proposing to the network charging system through the Access and Forward-looking Charges Significant Code Review, and potential impacts on the costs of community energy projects.
- At the end of this 2-hour session, you should feel better equipped to go and respond to Ofgem's consultation before next Wednesday, 25 August, to influence final decisions on how we pay for the network.

Introduction to Ofgem's SCR

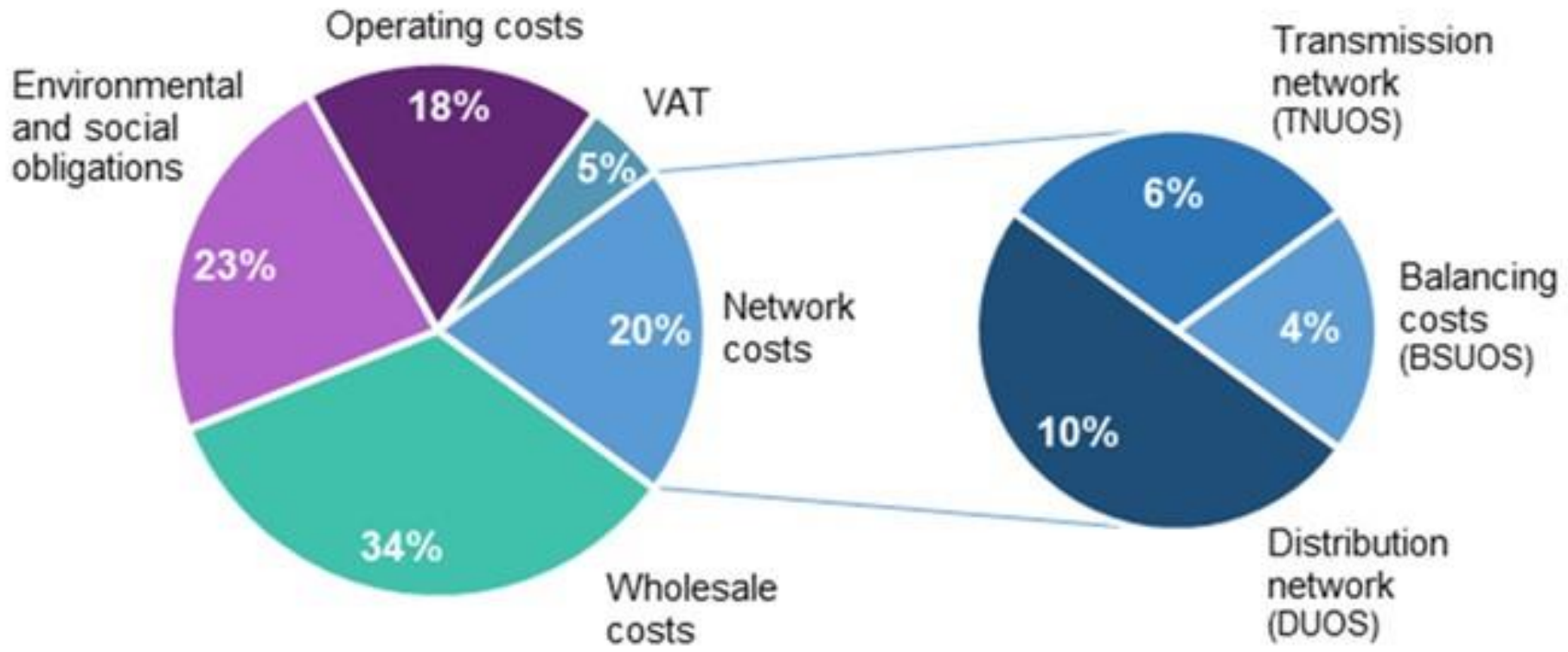
A significant review

Poppy Maltby, head of cities and regions,
Regen

The electricity system



A typical domestic bill



The Significant Code Reviews

Ofgem launched the Charging Futures[2] process in 2017 to review how the electricity networks in the UK are currently paid for.

The intention was to ensure that the **charging structure supports efficient and flexible use of the network while supporting the UK's transition to net zero carbon at least cost.**

Network charging is determined by different methodologies outlined in charging 'codes' – hence a significant code review.

Access and Forward looking charges	Costs **you can change** by behaving differently	Access and Forward Looking charges (Access SCR)
Residual charges	Costs you can't change	Targeted Charging Review

Explainer – access and connection boundary

Shallow connection charges	Shallow-ish connection charges
A shallow connection boundary means the customer pays only for 'sole use assets' to connect to the network. This means that if the electricity being generated by a new wind farm causes an issue on the existing network, they don't directly contribute to the cost of the investment to improve the network to support them. The costs of that work are shared among all network customers. **This the current arrangement on the transmission network.**	A shallow-ish connection boundary means that a new customer pays for the sole use assets to connect to the distribution, as well as a proportion of the reinforcement or upgrades to the network to support their new renewable generation or new Electric Vehicle (EV) charger for example. In particular a project in a constrained area could pay: • a proportion of the cost of reinforcement to shared network assets at the voltage of connection • a proportion of the cost of reinforcement to shared network assets at the voltage level above the point of connection. **This is the current arrangement for both generation and demand customers on the distribution network**.

The minded-to decision

- Ofgem felt that the ‘shallow-ish’ connection boundary, created a barrier to investment for new projects on the distribution network.

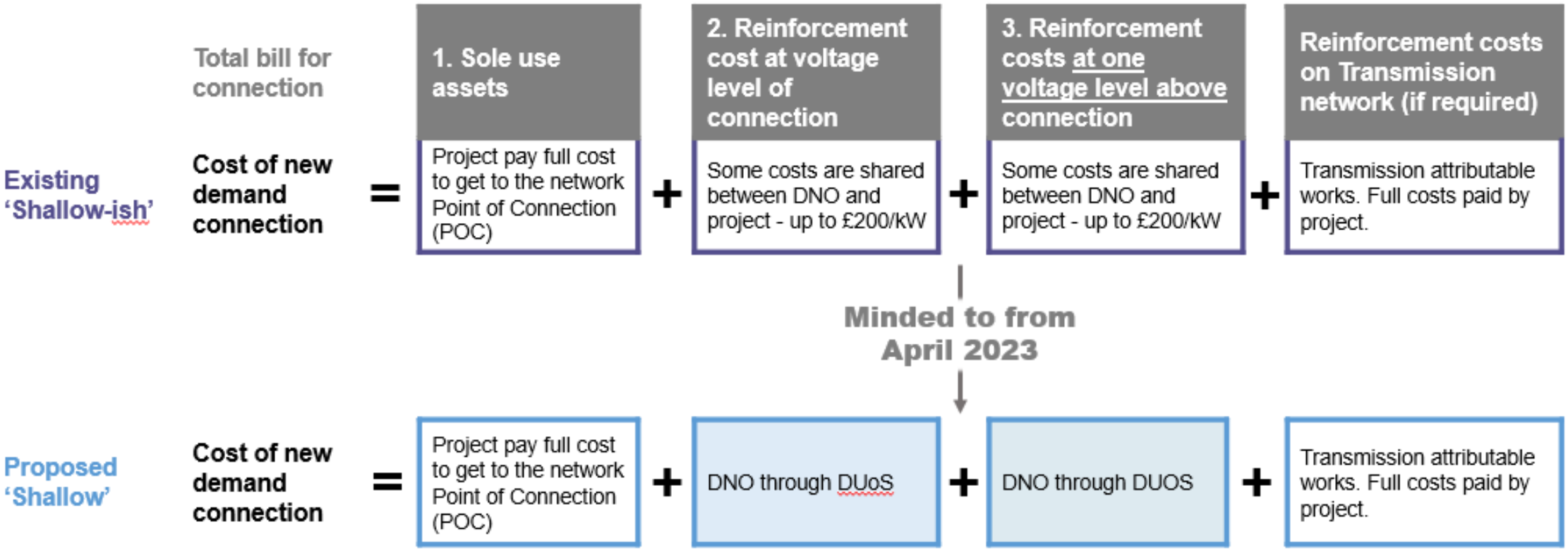
- Customers connecting in certain areas would need to pay large costs towards reinforcement but customers connecting before or after them would not face the same charges.

- The arrangements on the distribution network were also inconsistent with the arrangements at transmission.

In publishing the minded to decision, Ofgem concluded that the current system did not support efficient investment:

“t*he current arrangements…. contribute to DNOs taking an incremental and reactive approach to reinforcement as the means of facilitating new connections, rather than investing in light of anticipated wider network needs*.”[4]

Minded-to make demand connection 'shallow'



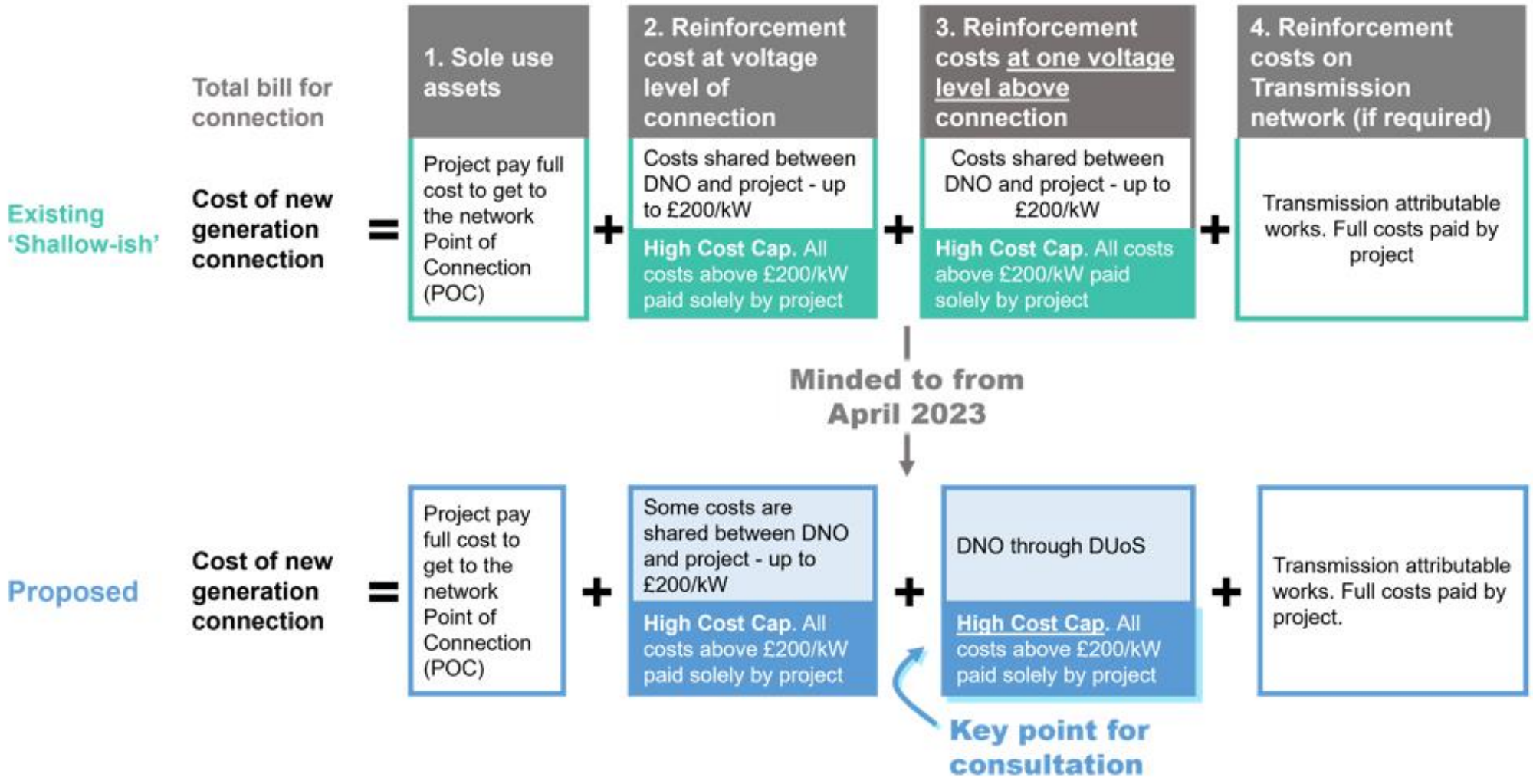
WPD examples of demand with reinforcement

CONNECTION VOLTAGE	SCHEME (Generic) Brief Description	OFFER COST - NOW	OFFER COST - POST SCR	Reduction (%)
LV	Connect 10 new supplies off of an existing PMT	£27k	£21k	**-22%**
LV	600kVA LV MCCB metered supply with new GMT and 11kV circuit reinforcements	£90k	£59k	**-34%**
HV	650kVA HV metered car charger connection	£100k	£10k	**-90%**
HV	HV Metered EV Car Chargers at Transport Hub	£900k	£200k	**-78%**
EHV	20MW demand with EHV PoC and EHV Reinforcement	£2.0m	£0.5m	**-75%**
132kV	40MW Demand with a 132kV PoC and 132kV reinforcement	£2.9m	£1.7m	**-41%**

Most have significant reductions.

Average of the examples chosen by WPD was just over 50% lower cost.

Minded-to make **generation** connection 'shallower'



WPD examples of generation with reinforcement

CONNECTION VOLTAGE	SCHEME (Generic) Brief Description	OFFER COST - NOW	OFFER COST - POST SCR	Reduction (%)
LV	To allow connection of a 29kW PV array	£9k	£4k	**-56%**
LV	To allow connection of 10kW PV	£7k	£0.6k	**-91%**
HV	2MW of PV with new connection	£121k	£121k	**0%**
HV	7MW Gas generation facility	£522k	£387k	**-26%**
EHV	30MW of PV and battery storage with an EHV PoC and upstream ECCR charge (132kV)	£0.79m	£0.17m	**-78%**
132kV	30MW PV connection with a 132kV PoC that necessitates transmission reinforcement	£6.0m	£6.0m	**0%**

Some have significant falls – others have no change.

Assumes high cost cap was removed for voltage level above.

Key consultation questions – connection boundary

- **Question 3a: Do you agree with our proposals to remove the contribution to reinforcement for demand connections and reduce it for generation?** Do you think there are any arguments for going further for generation under the current DUoS arrangements? Please explain why.

- **Question 3c: What are your views on the effectiveness of the current arrangements in facilitating the efficient development and investment in distribution networks?** How might this change under our proposals where network companies are required to fund more of this work?

- **Question 3e: What are your views on whether we should retain the High Cost Cap?** Is there a case for reviewing its interaction with the voltage rule if customers no longer contribute to reinforcement at the voltage level above the point of connection?

Tea break

New ways of accessing the network

Current options

- Firm connection – you can access the network whenever you want
- Active Network Management – your access to the network can be constrained if the network needs it. Generally open-ended.

New options

- Level of firmness with compensation if restricted more than expected
- Time-profiled access (e.g. on and off peak)

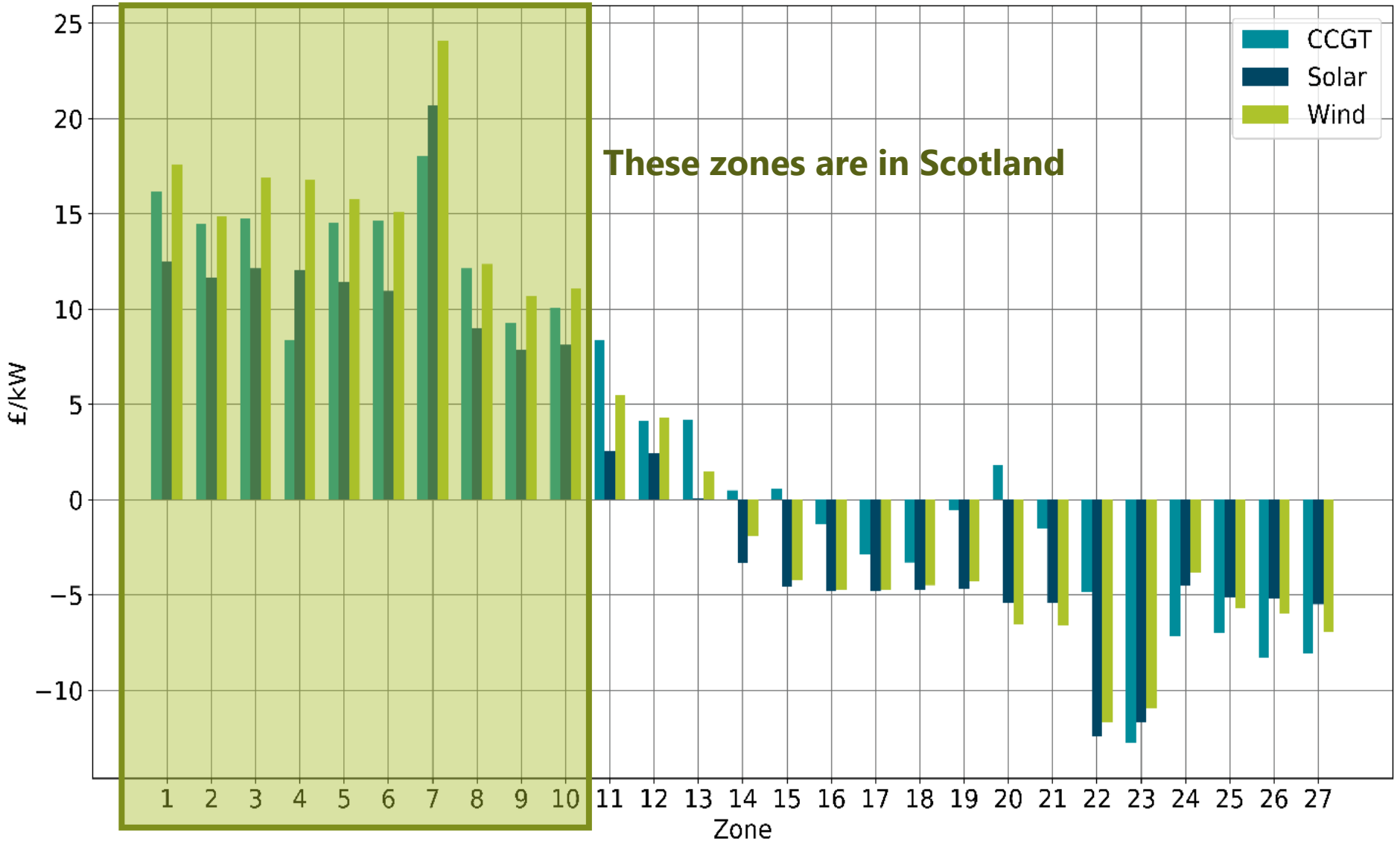
Not taken forward

- Shared Access – sharing access with other users e.g. complementary technologies

Key consultation questions – access choices

- **Question 4a: Do you agree with our proposal to introduce better defined non-firm access choices at distribution?** Do you have comments on their proposed design?
- **Question 4b: Do you agree with our proposal to introduce new time-profiled access choices at distribution?** Do you have any comments on their proposed design?
- **Question 4c: Can you identify any benefits to shared access rights,** which would indicate we have underestimated the likely take-up?

Transmission charging for small generation



Key consultation questions – SDG paying TNUOS

- **Question 5a: Do you have any evidence that SDG does not contribute to flows in the same way as large generation and, therefore, should not be charged on a consistent basis?**

- **Question 5b: Do you agree with our threshold for applying TNUoS generation charges of 1MW? If not, what would be a better threshold and why?**

Next steps

- Ofgem's consultation on its 'minded-to' decision is open until next Wednesday, 25 August.
- You can read and respond to the consultation here: https://www.ofgem.gov.uk/publications/access-and-forward-looking-charges-significant-code-review-consultation-minded-positions
- You don't have to answer all of the questions, you can respond to whichever are relevant to your projects.
- If you have any questions, you can get in touch with Ofgem directly, FutureChargingandAccess@ofgem.gov.uk, 020 7901 7000.
- Or feel free to follow up with the Regen team.
- If you want to find out more, you can read Western Power Distribution's guide to Ofgem's proposals for changes to network charging for communities.
- Please give us your feedback on the forum and keep an eye out for future events.

Thank you for joining!

Please get in touch with any feedback