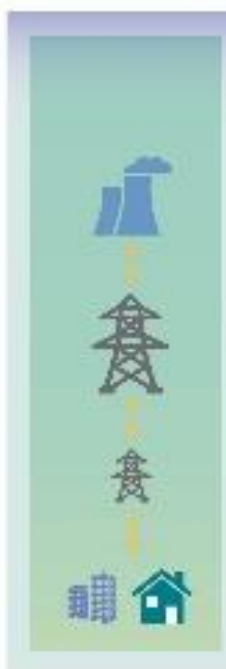


Targeted Charging Review and Access reform



Andrew Self
22 January 2019

Drivers

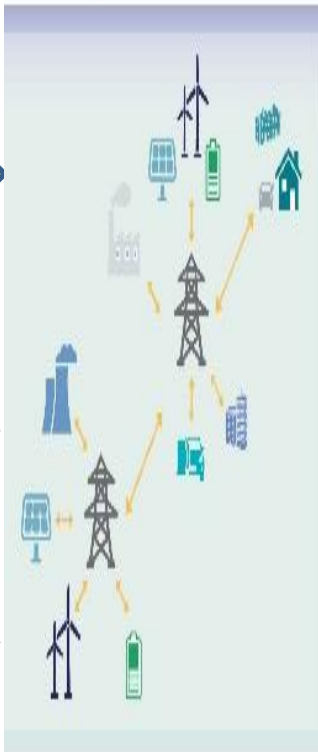


Decarbonisation

Technological Change

Digitisation and smart systems

Impact on the energy system



- Changes in the generation mix
 - Intermittent
 - Distributed
 - Less flexibility
 - More storage
- More active networks and demand side
- New large and uncertain loads
 - Heating
 - Electric vehicles
- Smart technologies

Impact on Regulation

Right incentives on market participants

Right incentives on network companies

Right framework for system operators

Right approach to monopoly cost recovery

Facilitating change in future energy systems is an important part of our forward work programme

Ofgem's work to deliver the energy transition

Phase 1 – established work-streams (pre - 2016)

- Gas Charging Review
- Embedded benefits
- Electricity distribution connections work
- Electricity system operator (SO) role and separation
- HH Settlement/smart meter roll out
- Flexibility call for evidence
- Extending competition in transmission
- Running RII01/RIIO audit

- Cost reflective pricing
- More independent decision-making
- Better price signals (and infrastructure to enable this)

Phase 2 – recently initiated (2016 - 2018)

- Smart systems and flexibility plan
- Targeted charging review (TCR)
- Innovation Link
- Drive SO to reform balancing products
- Assessing next round of interconnector projects
- Gas security of supply
- EU Clean Energy Directive

- More cost reflective pricing
- Removing barriers to market participants
- More effective ancillary markets

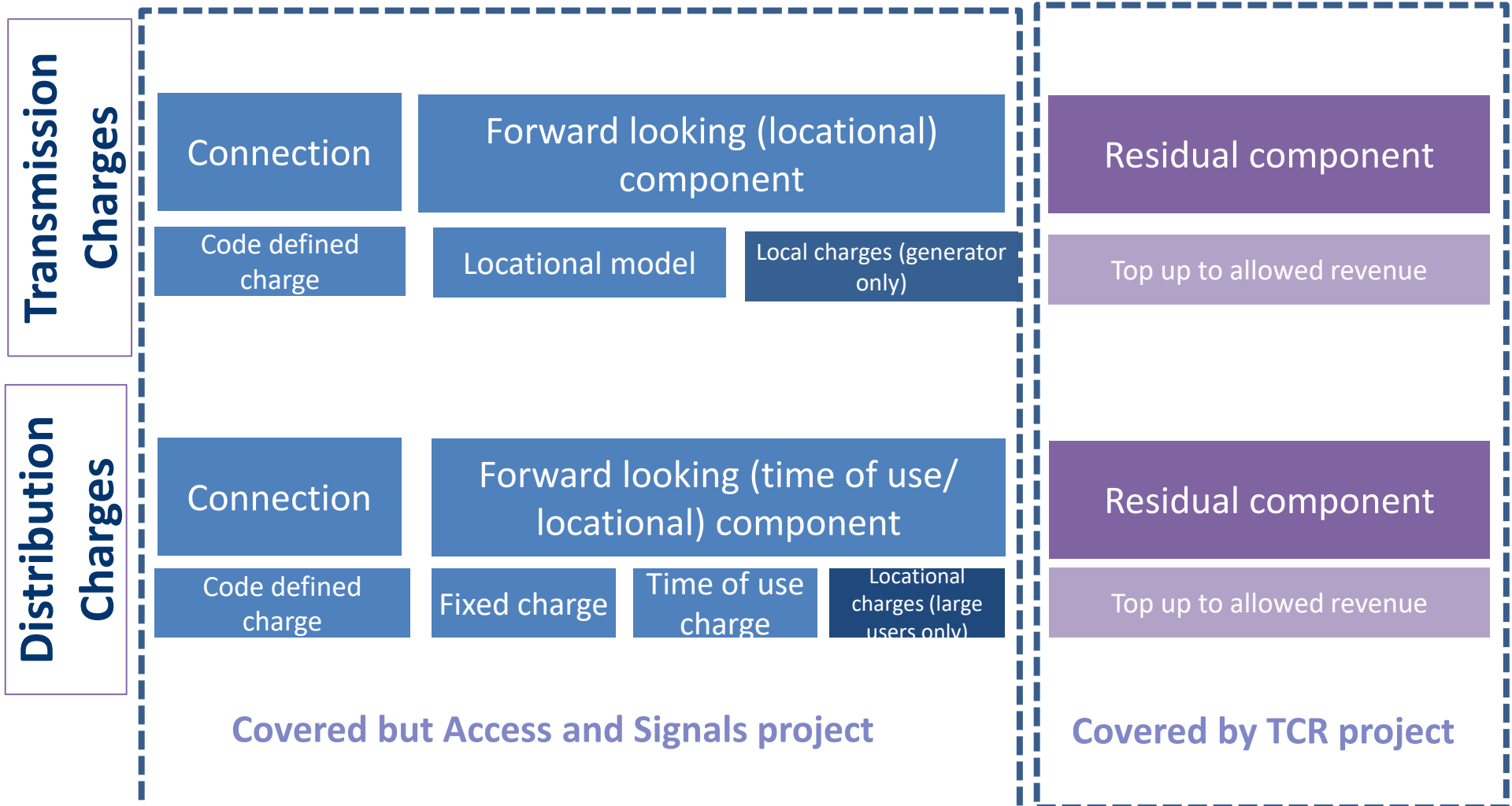
- Still more cost reflective pricing
- More effective retail markets
- Renewing price control framework

Phase 3 (2018 onwards)

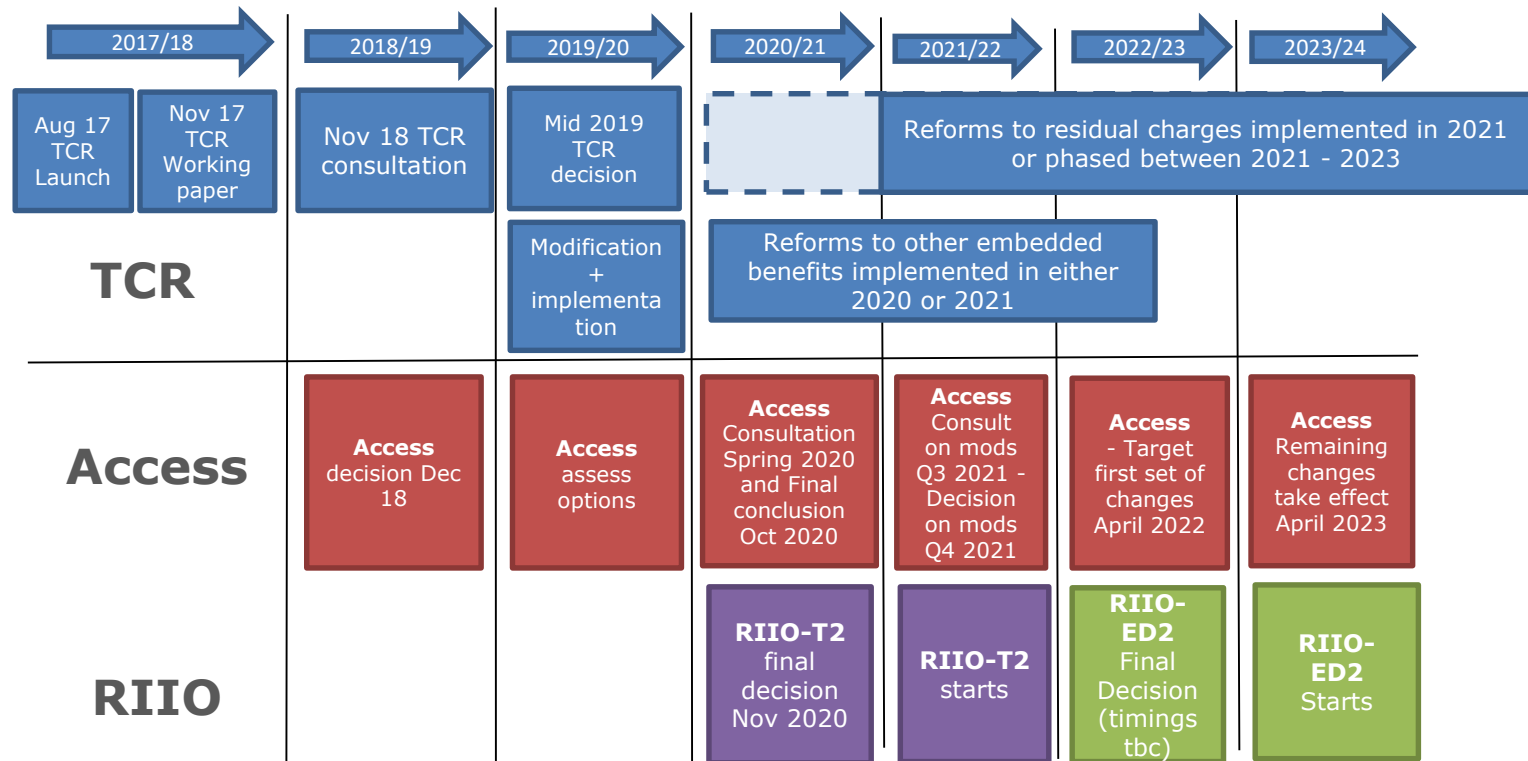
- Future Retail Regulation/Future Supply Market Arrangements
- Access reform and forward looking charging
- RII02 framework and Sector Specific Strategies
- Next wave or priority actions, with clear understanding of linkages/dependencies



- The energy system is going through a radical transformation.
- These changes could create challenges and opportunities for our electricity networks.
- We have two major projects addressing how electricity network access and charging should be reformed to address these changes and existing issues:
 - The **Targeted Charging Review** (TCR). This seeks to remove those distortions not covered by our work on embedded benefits and to allocate fairly the long term fixed costs of the network infrastructure being there for when people may want to use it. We have a Significant Code Review (SCR) to address these issues. We are consulting on our proposed direction to the industry.
 - **Access and forward looking charging reform.** We want to ensure that electricity networks can be used more efficiently and flexibly –so that users can have the access needed, and benefit from new technologies and services, whilst avoiding unnecessary costs. We have just launched an SCR.

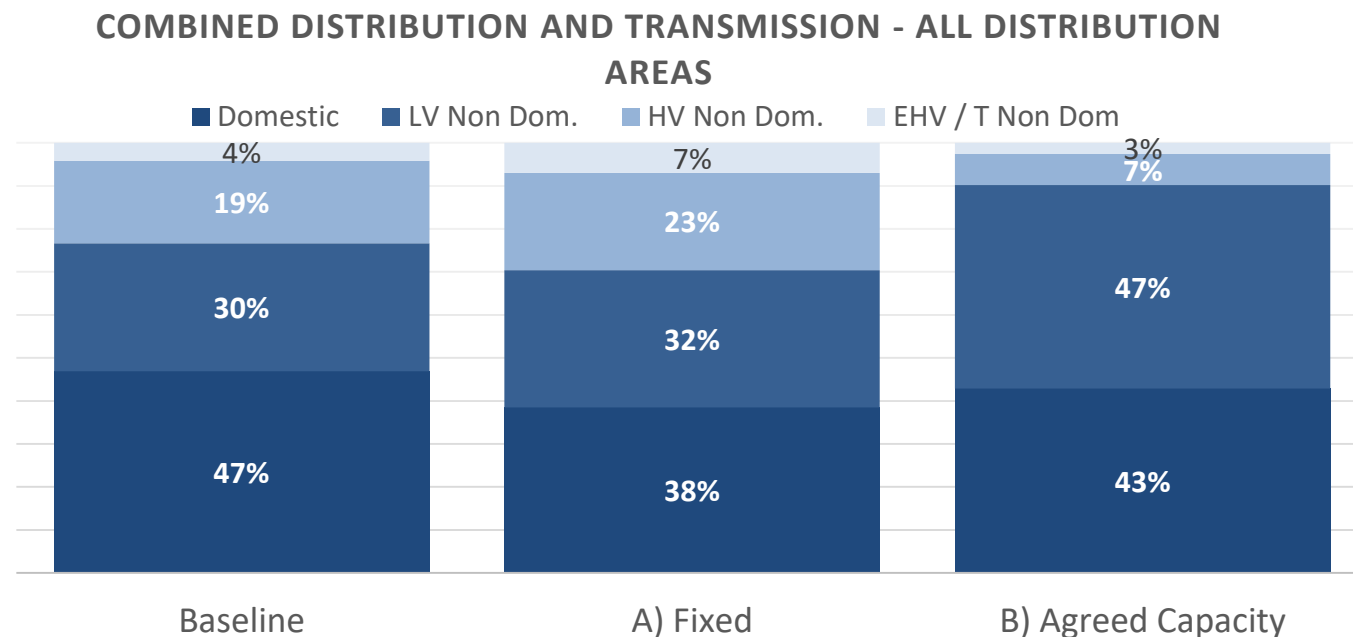


We are reviewing the charging framework holistically; working closely with the Electricity Network Access and RIIO project teams to ensure a consistent approach is taken to the different reforms underway across the energy system.

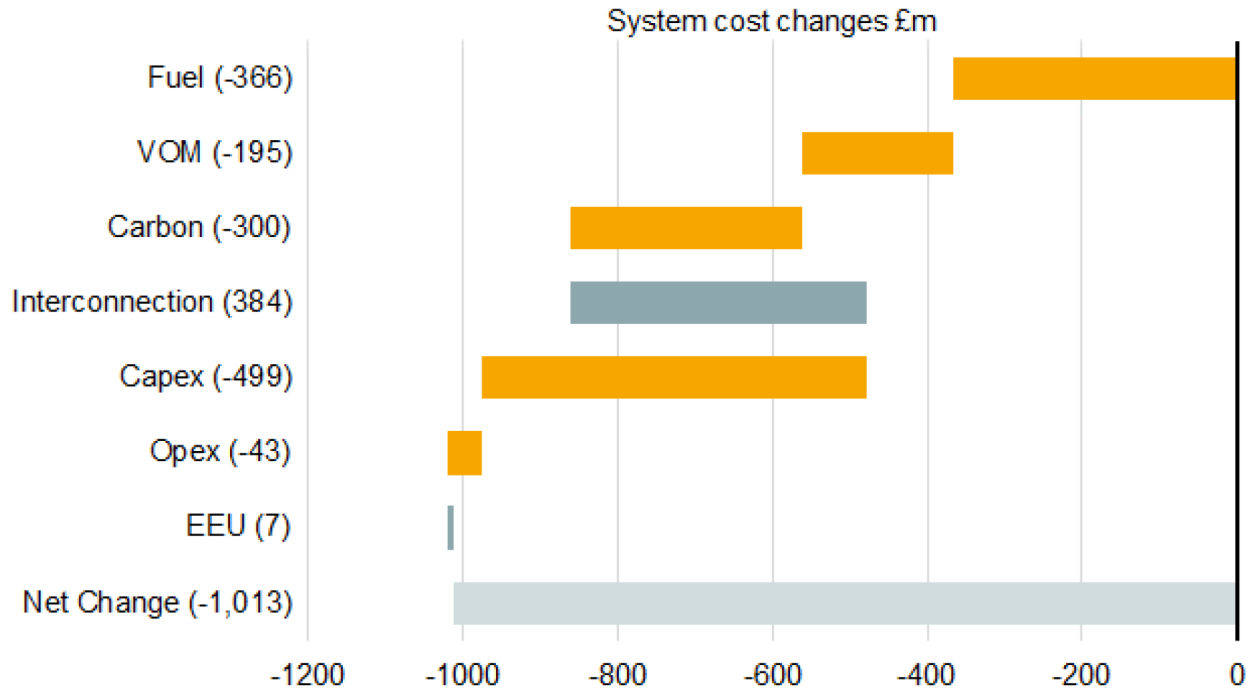


TCR

- We have been open about different ways of achieving the objective of the review
- Large users have expressed particular concerns about gross volumetric charges
- We are consulting on two lead options –
 - Fixed charges, on different segments of consumer based on an existing industry mechanism
 - Agreed capacity charges, based on contractual capacity or assumed levels
- We are also consulting on changing some of the other remaining embedded benefits (including balancing services charges and transmission generator residuals).
- We're consulting on extension to Small Generator Discount while the review is ongoing



- **Fixed charges** allocate more to non-domestic segments, **less** to domestic. Domestic charges for lowest consumers of electricity increase by around £20, and fall for other categories. Users currently managing their residual exposure currently will see increases. All users within a user class will pay same charge.
- **Agreed Capacity** charging allocates **less transmission** and slightly **more distribution to domestics**, driven by assumption of domestic capacity. This moderately **increases charges for LV users. HV, EHV and T contributions all fall.** Domestic charges for the lowest consumers increase by around £20, and fall for other domestic groups. Users currently managing their residual exposure currently will see increases. Larger users pay higher charges.



Source: Frontier/LCP

- Overall our modelling shows that there is a **system cost saving** due to reduced fuel usage, CO₂ emissions, opex and capex spend.
- The fuel and carbon savings are significant and stem from the change in the technology mix that results from the scenario considered.
- Under Full Reform CCGT generation and Interconnector imports displace on-site gas reciprocating engines and gas CHP which no longer clear in the CM.

We have considered two reform options for these Embedded Benefits:

- a) TGR & partial BSUoS reform:** TGR reform and removing the ability of smaller distributed generators to receive payments from reducing suppliers' contributions to BSUoS charges.
- b) TGR & full BSUoS reform:** TGR reform, removing the BSUoS payments, and requiring smaller embedded generators to pay BSUoS charges.

Depending upon the outcome of our consultation, we propose to make the following reforms:

- Charge suppliers BSUoS using gross demand at GSP, having the effect of removing the BSUoS Embedded Benefit. Implemented in either April 2020 or April 2021.
- Charge BSUoS charges to smaller distributed generation, implemented in either April 2020 or April 2021. We propose to direct the ESO to raise the relevant CUSC modification. This will be dependent on the TGR & Full BSUoS reform continuing to be our preferred option.
- Set the Transmission Generation Residual to zero, subject to maintaining compliance with EU regulation (838/2010).
- Launch a Statutory Consultation to extend the Small Generator Discount from the current end date of 31 March 2019 to a revised end date of 31 March 2021, with the intention that this will be set to zero once the changes set out above are implemented.

Access reform

Context: The energy system is changing (growth of electric vehicles, distributed generation and battery storage). These changes could create challenges and opportunities for our electricity networks.

Objective of the Access Project: We want to ensure electricity networks are used efficiently and flexibly, reflecting users' needs and allowing consumers to benefit from new technologies and services while avoiding unnecessary costs on energy bills in general

Our Electricity Network Access project is seeking to reform electricity network access and forward-looking charge arrangements* to achieve this objective -

- **Access arrangements** – the nature of users' access to the electricity networks (for example, when users can import/export electricity and how much) and how these rights are allocated.
- **Forward-looking charges** – the type of ongoing electricity network charges which signal to users how their actions can either increase or decrease network costs in the future.

The case for change

Increasing constraints caused by both generation and demand at distribution level, yet also increasing opportunity to mitigate these through flexibility (Imperial College suggests potential savings of up to £4-15bn cumulatively to 2050 from reducing electricity network reinforcement).

Substantially different approach across transmission/distribution and generation/demand boundaries means increasing risk of distorting investment and operational decisions

*This is different to the residual element of network charges that are 'top up' charges set to ensure that the network's efficient costs can be covered, after other charges have been levied.

Included in the SCR – Ofgem-led

- Review of the definition and choice of transmission and distribution access rights
- Wide-ranging review of Distribution Use of System (DUoS) network charges
- Review of distribution connection charging boundary
- Focussed review of Transmission Network Use of System (TNUoS) charges

Areas led by industry outside the SCR

- Review of balancing services charges (BSUoS)
- Access right allocation

Excluded from the SCR and wider industry review

- Introducing fixed duration long-term access rights
- Introducing geographically exclusive local access rights which do not allow access to the rest of the system
- Wider changes to transmission network charges
- The transmission connection charging boundary

- **Targeted Charging Review.** Our consultation period is now open and we invite you to respond to our minded to position consultation by 4 February. If you have any future queries please contact TCR@ofgem.gov.uk.

- **Access Review:**

We are committed to undertaking the SCR in a transparent and open manner. There will be ongoing role for the Charging Delivery Body and Charging Futures Forum.

In addition, we intend to introduce and chair a new Challenge Group and Delivery Group:

- **Challenge Group** – will provide ongoing wider stakeholder input into the SCR. This will
- provide a challenge function and ensure that policy development takes into account a wide range of perspectives and is sufficiently ambitious.
- **Delivery Group** - will comprise network companies, the Electricity System Operator and relevant code administrators. This group will help us develop and assess options, drawing on their expertise and knowledge of how the networks are planned and operated. May commission and coordinate smaller working groups to complete some activities.

There are lots of opportunities to stay up to date and get involved by:

- Attending the Charging Futures Forum and using Charging Futures resources (eg webinars, podcasts)
- Observing Delivery Group meetings
- Getting involved with the wider industry work on balancing services charges (National Grid ESO) and allocation of access (ENA).