

Application of FCP Charges

→ Locational FCP charges are applied to users connected directly to the GSP despite the DCUSA explicitly stating that those users are deemed not to use the shared network

Differences between LRIC and FCP

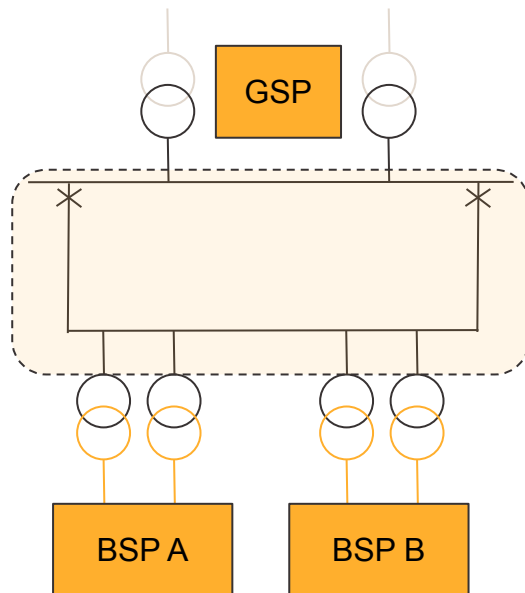
LRIC and FCP use different approaches to derive a forward-looking cost signal in respect of shared network assets

- The EHV Distribution Charging Methodology (EDCM) is intended to give users a locationally-varying forward-looking cost signal related to each user's impact on the network
- This is achieved differently in the Long Run Incremental Cost (LRIC) and Forward Cost Pricing (FCP) variants of the EDCM
- The FCP method uses the concept of "network groups"
 - All network assets at a given voltage level which are electrically connected under normal running conditions are assigned to the same network group
 - All users connected to a given network group face the same FCP charge/credit
- The LRIC method does not use the concept of network groups
 - All network assets are treated individually, with each user's impact on the network assessed based on the impact of incremental demand at their specific location
 - Users face an LRIC charge/credit only in respect of network assets which they directly influence
- Under both variants, "sole use assets" (defined as those in which only the behaviour of a single user impacts powerflow) are treated separately
 - Both the LRIC and FCP charges/credits only relate to shared networks assets, i.e. everything except sole use assets

Similarities between FCP and LRIC

This worked example shows the differences and similarities between LRIC and FCP

- The following example shows a small section of network with a GSP and two downstream Bulk Supply Points (BSPs)
- FCP:
 - The FCP network group for the 132kV network at this GSP would include all assets within the dotted line
 - A user connecting to any of the circuits within the dotted line would face the FCP charge/credit for the group

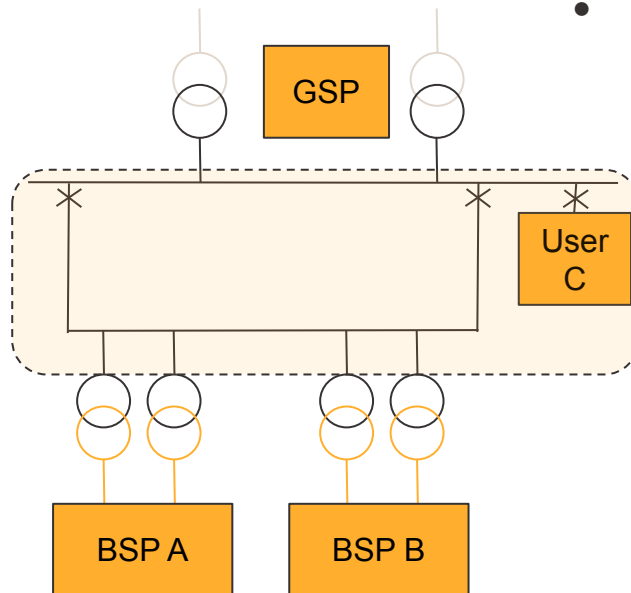


- LRIC:
 - A user connecting anywhere faces a charge/credit in respect of any assets on which incremental demand at their location causes change in powerflow
 - In this example, a user connecting to any of the circuits in the dotted line would impact all of those circuits, so LRIC and FCP would give a similar outcome

Issue with FCP grouping

This worked example shows the difference in treatment for a similar customer between LRIC and FCP, showing the GSP-connected customer facing a charge for network assets they do not use

- The addition of a new user connected directly to the GSP (User C), results in a bigger divergence between FCP and LRIC
- FCP:
 - User C is included within the 132kV network group
 - **It is exposed to the locational charge/credit for the whole network group**



- LRIC:
 - Incremental demand at User C's location does not impact powerflow any 132kV circuits
 - **It sees no locational charge/credit**

DCUSA explicitly states such customers do not use shared network assets

There are two instances in Section 15 of both Schedule 17 (FCP) and Schedule 18 (LRIC) where it is clearly stated that customers connected directly to a GSP do not use any shared network assets

- All customers charged under the EDCM are assigned a Point of Common Coupling (PoCC), identifying where their sole use assets connect to the shared network
- Separate charges are calculated in respect of sole use assets, reflecting that those assets are funded by the user in their connection charge. The charge under the EDCM for those assets only reflects the costs associated with operation and maintenance
- The PoCC is converted into a Customer Category, encoding the voltages at which a customer is deemed to use shared assets
- Customers whose sole use assets connect direct to the GSP (User C on previous slide) are assigned customer category 0000
- DCUSA explicitly states that assets with customer category 0000 do not use any shared network at paragraph 15.9 and 15.10:

15.9 The use of each network level by each [EDCM Connectee](#) is determined according to the rules set out in table 15.9.

Table 15.9 Use of each network level by each [EDCM Connectee](#)

EDCM Customers in category	Level 1	Level 2	Level 3	Level 4	Level 5
Category 0000	Zero	Zero	Zero	Zero	Zero
Category 1000	Capacity kVA	Zero	Zero	Zero	Zero

15.10 Category 0000 [Connectee](#) are deemed not to use any network assets other than sole use assets.

The defect

Users connected directly to a GSP, identified by allocation of Customer Category 0000, are incorrectly and non-cost-reflectively exposed to the locational charge/credit for the shared network in the network group associated with the network voltage downstream of the relevant GSP, despite explicit statements in DCUSA that such users are deemed not to use any network assets other than sole use assets

The solution

A simple change to Schedule 17 would remove this inconsistency by disapplying the FCP charge and credit for users with Customer Category 0000

- A relatively straightforward DCUSA change would resolve this
- It could be addressed in multiple ways. As an example, paragraphs 6.2 and 6.3 could be amended as below
- All other elements of the calculation would be unaltered, so GSP-connected customers would continue to make a cost-reflective contribution to Transmission Exit Charges (Section 10)

6.2 *The import charges for the application of charge 1 is given by the formulas:*

For Connectees with Customer Category 0000:

[p/kWh super-red rate] = 0

[p/kVA/day capacity charge] = 0

For other Connectees with zero average kW/kVA:

...

6.3

...

The super-red generation rate is not applied to Connectees with zero Chargeable Export Capacity nor to Connectees with Customer Category 0000

A mod is likely to impact only a small number of users

Only customers directly connected to a GSP with a non-zero FCP charge will be impacted

- The impact will be restricted to a very small number of users – only those:
 - Directly connected to a GSP (Customer Category 0000)
AND
 - In a DNO region using the FCP method
AND
 - At a GSP with non-zero FCP charge
- We understand from NGED that 11 EDCM customers (from a total ~600) have Customer Category 0000 across their two licence areas using FCP – but many of those 11 may be in locations with zero FCP charge, so will not be impacted
- Within DNO licensees using FCP, only 15% of GSPs have non-zero charge

DNO	FCP Network Groups Directly Connected to GSP	Of which have non-zero FCP charge	Proportion with non-zero FCP Charge
East Midlands	18	6	33.3%
West Midlands	32	8	25.0%
Manweb	15	0	0.0%
South Scotland	232	35	15.1%
Southern	28	7	25.0%
North Scotland	63	3	4.8%
GB-wide	388	59	15.2%

But a mod would have a material impact on some users

Users directly connected to a GSP with a non-zero FCP charge would see charges reduce and credits removed

- Demand users in locations with non-zero FCP charge would see their import capacity charges decrease
 - Import capacity charge would not go to zero. The locational FCP element would be removed but other elements remain, for example a contribution to Exit Charges which those users should rightly make (they use the GSP)
- Generation users in those locations who have super-red credits removed. There would be no other impacts on generation charges
 - Only generators deemed to contribute to security of supply are eligible for credits
 - There appears to be a discrepancy in treatment with some DNOs treating all controllable generation eligible for credits and others being more selective
- The impact on some users is very marked. Field have one asset which is facing a non-cost-reflective FCP charge of ~£18/kVA/year, rendering the project unviable

A mod would interact with other work, but not materially

The mod represents a correction to an oversight in DCUSA, rather than fundamental rethink of locational signals

- **Surplus residuals** have required derogations from publishing charges in line with the DCUSA. Some DNOs using FCP have held FCP charges at the level of previous years to avoid excessive volatility driven by surplus residuals
 - A modification would not directly interact with ongoing work on surplus residual issues, but may slightly reduce FCP-related revenues, so slightly reduce surplus residuals
- The **DUoS SCR** may at some point make broader changes to the EDCM, but there appears to be no prospect of change in the medium term
 - A small correction which can be made quickly should not be delayed by the prospect of broader reform in the future. We understand Ofgem has previously indicated it is supportive of this approach
- **REMA** may fundamentally change the context of locational signals. Users may face locational operational signals under a zonal wholesale market, or face sharper locational signals through network charges (primarily TNUoS) under a reformed national market
 - It is very unclear how REMA will impact DUoS. Hence corrections such as this proposed mod should continue to be made in the meantime
- **Clean Power 30** sets out the mix of technologies needed to achieve a decarbonised power system by 2030
 - Incorrectly applied locational signals could be a barrier to developing projects which are CP30 aligned, so should be corrected

Questions and feedback

We think a modification would represent an important correction to the DCUSA to ensure the objectives are achieved for users directly connected to GSPs, enabling CP30-aligned projects to proceed

- We welcome feedback on the proposed modification, ahead of taking forward through the formal process as a matter of urgency