POSITION PAPER

CAN Europe Position Paper on Network Charges

Introduction

Network tariffs, often also known as network charges, are charges added to the final electricity bill to pay for the investments into the grid, alongside general maintenance, and operation. These are collected by both the system operators for the transmission system (TSO) and distribution system (DSO), where the calculation for how these revenues are collected is set by the national regulator.

Historically, network tariffs have been “flat”, meaning a household, business, or industrial actor pays a set price for each unit of electricity consumed, with the principle that the more you use the grid, the more you pay for it, with a slight incentive to reduce consumption to support energy savings. However, this is set to change across Europe, with good reason.

As more wind and solar is connected to the grid, we need to both invest in the expansion and modernisation of our electricity networks, while also efficiently using what we already have. Already we are seeing connection queues for new renewables and electrified demand (heat pumps, EVs, etc.) to come online, which risks slowing down the energy transition. Reforming network tariffs can ensure the money is available for grid expansion and modernisation, while also incentivising efficient use of our electricity networks, to keep costs down and the transition moving forward.

What is required is to move towards a more reactive energy system, one where electricity users can rapidly respond to the conditions of the grid, shifting consumption to periods of lower grid congestion, self-consuming at optimal times, using power when the grid is available, and injecting renewable power when the grid has space, so affordable renewable power can be accessed most efficiently.

Network tariffs should not be confused with the move towards more dynamic "electricity tariffs” which play a similar, and complimentary role. Whereas network tariffs focus on the health of the grid in a certain moment (i.e. is there space on the grid for electricity, or is it very congested?), dynamic electricity tariffs aim to capture the availability of low wholesale market prices, often a result of excess renewable power, and to encourage users to consume during periods of high winds or plentiful sun. Both systems working in tandem can allow for the operation of a highly renewable and efficient power system.

In order to encourage the shift to more reactive network tariffs, the European Commission published alongside its Electrification Action Plan the Proposal to Future-proof Electricity Bills in the EU, aimed to reform network charges. The European Commission also published guidelines for Member States.

What the EU Commission is proposing

In summary, the proposal amends the Electricity Market Design regulation, mandating that national regulators implement designs of network charges that include the following characteristics:

- Reflects the costs of the TSO and DSO, both in forms of investment (CAPEX) and operational costs (OPEX)
- Incentivises TSOs and DSOs to be more cost-efficient in their operation
- Reflects the costs of and incentivise in an efficient manner the withdrawal and injection of electricity from and to the network
- Provides locational investment signals
- Contains time-of-use elements
- Incentivises users to reduce peak load consumption
- Enables integration of renewable energy and non-fossil flexibility, such as storage and demand response, and also non-wire solutions

The proposal also notes the use of “special tariff regimes” where specific categories of users may receive different tariffs, listing energy intensive industry, data centres, and energy communities as examples.

Additionally, the proposal better clarifies that Member States can utilise state funds to help partially cover network costs.

Finally, national regulators must be more transparent in their setting of network tariffs, with public consultation, and ACER shall also provide further transparency, analysis, and recommendations in the future.

What CAN Europe proposes

General design principles: Incentivise flexible consumption and efficient grids

Network tariffs should be designed to both better incentivise TSOs and DSOs to efficiently invest in the expansion and modernisation of the electricity grid to support the deployment of renewable power and electrification in a rapid and efficient manner, while also utilising the benefits of energy storage, demand-side response, non-wired solutions, and grid-enhancing technologies. One method to help support this is via a TOTEX (Total Expenditure) approach, factoring in both capital and operational expenditure.

We should move towards a system where end consumers are incentivised to respond to the live status of the electricity grid, shifting their consumption to periods of lower congestion and flattening their peak loads. Users should be rewarded for providing flexibility, where benefits are clearly framed as a bonus or reward.

It is **essential that dynamic and time-of-use tariffs are introduced as optional** for household consumers, as the case should also be for electricity supply contracts. The case in Sweden should be noted, where the introduction of mandatory dynamic network charges was greeted with a backlash from consumers, leading to both politicians[1] and the flexibility industry[2] calling for optional tariffs.

It is essential that network tariff design encourages the efficient use of electricity networks while at the same time not penalising the deployment of renewable power, regardless of scale (large-utility, small-scale, or individual), of citizen-ownership (energy community, household), nor the deployment of non-fossil flexibility such as energy storage or demand-side flexibility, and electrification technologies such as heat pumps and EVs. Rather, network tariff design should support renewables, flexibility and electrification.

Network tariffs design should also leave room to innovation, to support the deployment of innovative renewable energy and new forms of energy storage.

Network tariffs design should also facilitate energy sharing on the distribution network.

Special tariff regimes: Ensuring fairness and grid-friendly behaviour

Special Tariff Regimes (STRs) are regulatory frameworks for specific actors that deviate from the standard network tariff design. These may be introduced to better reflect cost-effectiveness, support specific policy goals, or protect certain consumers.

However, the introduction of STRs if poorly designed do risk unfairly shifting the costs of paying for the electricity network from large industrial players and the tech industry towards household consumers, risking the exacerbation of energy poverty.

In general, special regimes should support the development of grid-friendly consumption while generating and protecting social benefits, rather than a blanket subsidy to large consumers at the expenses of wider society.

STRs for energy-intensive industry

Special tariffs regimes (STR) for industry, both energy intensive and not, risk creating perverse incentives and unfair outcomes for consumers. If industry receives a STR in which they are required to pay zero or significantly reduced network tariffs, these costs will have to be recovered elsewhere. This would happen via the network tariffs on households, or through general taxation. This is effectively a subsidy to industry at the cost of the general public. When introducing a STR for industry, national regulators authorities should include the following:

[1] NyTeknik (2026): The Center wants to stop the energy charges
[2] NyTeknik (2026): "Introduce two power tariffs – one for passive electricity customers and one for active ones"

- The granting of the STR must clearly support the development of the electrification of industry
- Industry should be incentivised to provide some level of flexibility
- Industry should be incentivised to be energy efficient
- Industry should be incentivised to utilise renewable self-consumption
- Mechanisms to pay back the reduced network tariff at a later date should be considered

STRs for local energy sharing

Energy sharing allows for efficient exchange of renewable power on the local level, whether simply between neighbours, prosumers or within an energy community. However, network tariff design often disincentivises this unique activity, and therefore the setting up of a STR for energy sharing can allow for a fair cost-reflective tariff to be set. National regulators should consider the following when introducing STRs for energy sharing:

- Reflect the additional social and financial benefits of energy sharing and energy communities, which can be realised if given favourable network charges
- Reflect the sharing of energy on local, distribution networks, and the possible reduction of load on the transmission network
- Encourage grid-friendly behavior, to reduce peaks, shift loads, increase self-consumption, provide flexibility, or defer network reinforcement costs

STRs for **data centres** and **energy poverty** elaborated below.

Social elements: Protect against energy poverty, while allowing all to benefit from flexibility

While we need a rapid transition, it will require public support. This means that the introduction of new network tariff designs need to be clearly explained to the public, highlighting the benefits and risks to new market exposure. It should be optional for a consumer to have a more capacity-based, time-of-use tariff and dynamic tariff, with clear financial benefits for participating.

While fully dynamic, time-of-use, capacity-based network tariffs should be an option in every Member State, other options which allow for more gradual approaches to providing flexibility should also be available to support the introduction to consumers.

It should be noted that a review of 66 scientific studies found that dynamic pricing in general often increases risk of energy poverty. Consumers, in particular those on lower-incomes and those affected by energy poverty, who likely do not have many means of providing flexibility, should not be forced onto more dynamic, time-of-use tariffs which may poorly affect their financial conditions. At the same time, should not be excluded from the choice to provide flexibility, however this may require certain market protections. The introduction of a price shield or corridors, to “upside-only” designs, to protect consumers from sudden high spikes in grid costs, should be introduced.

STRs for energy poverty

In order to ensure those affected by or most at risk of energy poverty are not negatively affected by potential increases in network charges to cover necessary electricity network investments, national regulators should be encouraged to support STRs for these consumers, directly to households, and via Social Services of General Interest (SSGIs) including social security schemes (e.g. unemployment and disability schemes) and essential person-centred social services (e.g. social housing and homelessness services, debt management, family and child support, social (re)integration, etc.), and other supportive organisations and NGOs to reduce network charges and support lower prices. Pathways for these users to benefit from flexibility should also be provided.

Data centres: Mandate and incentivise essential load reduction

Data centres are highly-energy intensive, and to date highly inflexible, with governments across Europe pushing for expansive deployment. These conditions create a great risk that data centres may take precious grid capacity and resources, both existing and future, away from essential electrified demand (i.e. EVs, heat pumps, and industrial electrified processes).

General network tariff regimes should specially include a reference that **data centres should not produce an adverse or unfavourable price onto other consumers**. Data centres should be both mandated and encouraged to operate flexibly.

In general, data centres should not be given priority over other assets for grid connections and network tariff payments, rather projects that contribute to a fast and fair energy transition should be prioritised, such as batteries, heat pumps, and renewables. It should be noted that while new data centres may promise flexibility, very optimistic predictions foresee only an estimated little over 100 hours of flexibility annually[3], meaning these assets would likely still represent a large net burden on the grid. The Danish example is notable, where new renewables, heat pumps and electric vehicle charging points are given priority over data centres, which will have to prove a level of flexibility.

The risk data centres pose to electrification and energy security should also be a concern. ACER notes in its opinion of Portugal's national resource adequacy assessment (NRAA) that the country's data centre policy increases supply risks from 2028.

Due to the situation outlined above, all new data centres, and existing where appropriate, should be under a STR, as elaborated below.

[3] Agora Energiewende (2026): Value and enablers of data centre flexibility in Europe

STRs for data centres

The introduction of an STR for data centres which seeks to lower network charges would likely amount to further subsidising assets which are highly-energy intensive and to date are highly inflexible, shifting network costs to other consumers and potentially raising overall electricity prices. This would go against efforts to electrify our demand and against efforts to tackle energy poverty.

CAN Europe **strongly recommends against lowering network charges for data centres at the cost of other consumers.**

CAN Europe recommends the introduction of STRs that do not seek a blanket lowering of network costs for data centres, but rather lead to essential load reductions, incorporating three elements: mandatory load reduction, incentivised load reduction, and a ban on fossil-fuel flexibility.

Mandatory load reduction: Data centres must reduce loads during periods of very high grid congestion, to allow for renewable power to cover essential demand, such as households and industry. Rather than just operating by a financial penalty system for compliance, which could risk abuse, system operators should be able to reduce data centre grid connection capacity during high congestion periods to ensure the safe and efficient operation of the grid.

Incentivised load reduction: Data centres should be incentivised to reduce loads during periods of moderate grid congestion, via time-of-use and dynamic tariffs, which reflect higher grid tariff prices during periods of congestion. It is important that these incentives do not lead to a lowering of network charges during periods of low grid congestion, as data centres will primarily be running at maximum power and therefore would unlikely respond to these signals. Benefits of lower grid congestion should be passed onto the dynamic and time-of-use tariffs of other actors, such as consumers, to incentivise flexible, electrified consumption.

Ban on fossil-based flexibility and power: Data centres should be forbidden to use either onsite, behind-the-meter, or local fossil-fuel production (gas turbines, diesel generators, etc) from providing power and flexibility during either mandatory or incentivised load reduction. Data centre load reduction may only be provided via a reduction in compute activity or the use of onsite non-fossil flexibility, such as a battery. Additionally, data centres should not be approved access to the gas network.

Tariffs on renewable generation: Caution needed to protect business case and keep electricity affordable

An efficient electricity network is not only dependent on shifting demand effectively, but also ensuring timely injection from renewable sources and energy storage. During periods of high grid congestion, it may be efficient in certain situations for renewable sources to not inject into the grid, and to rather store this electricity for later use.

However, penalising the injection of renewable electricity risks raising the cost of electricity production, with these costs being passed down to consumers. This could also negatively affect the business case for renewables, both at utility-level and for rooftop solar and energy communities. This would go against the goal of renewable deployment and electrification. This may also be true for energy storage units injecting power into the grid.

Tariffs on injection have had negative consequences in Wallonia and Sweden. In Sweden, the solar industry has warned that new tariffs on injection are too broad, and would put costs on prices during periods which might not benefit the grid.[4] In Wallonia, the injection cost was seen by some citizens as a tax on rooftop solar, and a risk to the business case.

Any network tariff on injection must:

- Not be overly burdensome to
    - Negatively affect the business case for renewable deployment
    - Negatively affect the business case and operation of energy storage
    - Raise the price of renewable electricity
- Not incentivise the use of fossil gas-based electricity
- Allow for efficient operation of the electricity grid

System operator incentives: Introduce new incentive schemes to manage the grid efficiently

The move towards a TOTEX approach for system operators is a positive one, and it is correct that this should be reflected in network charges.

Going further than the European Commission proposal, TSOs and DSOs should be subject to incentive-based KPIs to meet relevant objectives of efficient grid expansion, modernisation, and operation, and support the integration of renewable power, non-fossil flexibility and electrified demand. System operators should be able to earn revenues, based on network charges, subject to meeting these KPIs. These KPIs should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound).

KPIs should include, but are not limited to:

- The procurement and connection of non-fossil flexibility
- The procurement of fossil-free synthetic inertia
- The deployment of smart meters/metering systems
- The use of grid-enhancing technologies
- The connection of essential electrified demand (EVs, Heat pumps, industrial electrification)
- The meeting of interconnection targets
- Nature-based initiatives (e.g. Integrated Vegetation Management, protecting wildlife)
- Innovation
- Number of prosumers/energy communities connected
- Social impacts, such as reducing energy poverty

[4] ETC EL (2026): Homeowners may receive a new fee for sold solar electricity

Explanation of terms

Locational signals - This means to provide a signal for investment based on the state of the grid. An example would be a higher grid tariff in an area of high congestion, to incentivise the development of industry towards a location with better-resourced grid.

Peak load - This is the period with the highest consumption of a connected asset or an area.

Volumetric-based - Network cost is determined solely by how many units of electricity consumed.

Capacity-based - Network costs are determined by the maximum load being consumed, i.e. the peak load. Factoring in this helps to incentivise the lowering of peak loads, and better management of the grid.

Time-of-use - This means to set different prices depending on the time of day, reflecting the different status of the grid. This could mean having a different cost to pay for the grid during the day versus the night, during different periods (e.g. morning versus midday versus evening), or having a different price every hour.

Dynamic - This means that the setting of prices is no longer set in advance (e.g. a consumer knows months in advance the network cost for consuming power during the evening in the summer) but rather the price is determined based on the live, existing status of the grid, to give the most precise and efficient signal.

Special Tariff Regime (STR) - This means a regulatory framework for a specific actor that deviates from the standard network tariff design. These may be introduced to better reflect cost-effectiveness, support specific policy goals, or protect certain consumers.

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