European Distribution System Operators for Smart Grids

Response to CEER public consultation on the future role of the DSO

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European Distribution System Operators for Smart Grids (EDSO) welcomes this new public consultation from the Council of European Energy Regulators (CEER). EDSO has in recent years openly favoured a review of the legal framework to better address the new challenges of distribution system operators (DSOs) and sees the growing interest of regulators and policy makers in these issues positively.

Where new pressures are placed on the grid, such as the connection of more renewables, network tariffs tend to rise, DSOs need more data to manage their grids, but also need to increase cooperation with other network operators, be they other DSOs or TSOs. This becomes pivotal for system security. Adjusting the current regulatory framework is necessary to ensure that quality of supply remains high for all customers and at an affordable price.

However, these common challenges across Europe do not call for an absolutely uniform regulation. As pointed out in the introduction of the CEER consultation paper, DSO activities vary significantly from one country to another and depend on geographical conditions, population density, and even climate. For these reasons, the answers here provided are not intended for use to draft a one-size-fits-all model.
1. Do you agree with these three core principles?

EDSO agrees with the three principles listed by CEER:

- The DSO must run its business in a way which reflects the reasonable expectations of network users and other stakeholders

DSOs must strive to deliver the best service to all consumers, and even more so than your average company. For electricity distribution, this translates into fewer and shorter outages, among other criteria. As shown in CEER’s “5th CEER Benchmarking Report on the Quality of Electricity Supply 2011” published in 2012, there is a general trend in the EU of increasing quality of services in recent years. DSOs continue to make efforts to further increase quality of service.
Regarding other main responsibilities towards users, for example related to connection and access, DSOs are also exploring new and innovative ways to improve current practice. They are also actively contributing to creating a real internal market by implementing new processes such as supplier switching in an increasingly timely manner.

- **The DSO must act as a neutral market facilitator in undertaking its core functions**

Neutral market facilitation is, already today, one of the main roles of the DSO. In its most basic form, DSOs are facilitating economic activity by channelling electricity to consumers and giving transparent and non-discriminatory connection, access and switching. In a more sophisticated way, they also collect metering data in order to enable suppliers to bill their customers. With smart meters, and their continued evolution, more data will be gathered that will not only allow DSOs to better manage their networks, by being made available also in a non-discriminatory manner to market players with the consumer’s consent, will allow new services and technologies to flourish. DSOs must guarantee that wherever there is competitive market activity that relies partly on the duty and functions of DSOs, a level playing field must be in place. To this end, full implementation of the Third Energy Package must be enforced where it has not.

- **The DSO must act in the public interest, taking into account of costs and benefits**

Already today, DSOs perform cost benefit analyses (CBAs) when developing their networks to ensure that the solutions chosen are the most cost-efficient. DSOs are willing to act in the public interest and must be supported in this role by a coherent and stable regulatory framework that allows more cost-efficient options to be developed and tested, and for the application of new solutions and models that prove economically and socially beneficial. This can mean fundamental changes to the way regulation allows grid development and management to be funded, for example a move from CAPEX to OPEX, but is also applicable to the models chosen for certain activities.

2. **What challenges would new forms of stakeholders (e.g community or municipal energy schemes and ESCOs) bring to DSOs and to existing approaches?**

Municipal energy schemes and ESCOs are an opportunity for DSOs to partner with other entities to act in the public interest by, for example, helping consumers to better manage their energy consumption and to become prosumers within the context of our European energy transition. In the case of municipal energy schemes, a close coordination between municipal administration and the DSO is needed. For instance, in cities deciding to deploy electric vehicles charging stations, advice from the DSO on where to build EV charging stations can result in avoiding the need to reinforce the grid, which means lower cost for the community and speedier implementation of the scheme. For municipal energy efficiency schemes, including smart city plans, the DSO’s knowledge of, for example, which urban areas consume significantly more energy than others, can help the municipality to allocate resources where they will be most efficient.

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2 Please see also answer to Question 5
This cooperation is already a reality in various cities across Europe, but is challenging to foster. According to the UK Association for Public Service Excellence (APSE), one of the biggest barriers to local authority involvement in municipal energy schemes is the lack of internal capacity or knowledge. An example of a principal obstacle for new stakeholders is the complexity of the energy market, its many rules, and the relationship of other stakeholders, including DSO, to this. As a result, new stakeholders can have expectations from grid operators, which are not realistic and based on incorrect assumptions.

The second challenge is technical. Beyond the need for shared knowledge about the technical constraints of electricity distribution networks, municipalities, ESCOs and DSOs have to exchange data. Helping new stakeholders to be aware of and compliant with existing data exchange rules and standard formats requires time and resources. Nonetheless, there are already good examples of stakeholders making regular use of data provided by DSOs in standard formats, and projects that seek standardised interfaces for service and information exchange, where possible, also connecting stakeholders and service providers, in order to facilitate the functioning of new markets, such as for flexibility services.

Last but not least, clear and transparent rules need to be defined and agreed for cases where there are conflicting objectives between municipal schemes, ESCO business plans and DSO plans. However, this issue is better addressed at local level and does not require European intervention.

3. Do you agree with the proposed logical framework? Are there other important questions which should be included in the framework?

EDSO commends the initiative to design a logical framework but believes more questions should be answered before deciding upon which activities fall within the scope of a DSO or not:

- “Does the activity influence significantly grid operations?”

Any activity having a clear influence on grid operation and the security of critical infrastructure should be carefully assessed to make sure it will be efficiently carried out by market parties, without negative effects on the quality of distribution services.

- “Is it in the public interest for the activity to be open to competition?”

The fact that an activity can be open to competition does not mean it will necessarily be in the public interest to do so. The deployment of smart meters is a case in point: it can be done by market parties, but it is much easier, and likely cost-efficient, to entrust this task to DSOs for reasons of interoperability and avoiding costs related to coordination with third parties.

- “How much regulation is needed for this new activity and how closely should it be monitored by the regulator?”

If a new activity requires additional regulation and calls for close monitoring by the regulator, then allocating this activity to a company which is already regulated may be more efficient.

3. APSE, « Barriers to local authority involvement in municipal energy schemes », December 2014
4. FLEXICIENCY, Horizon 2020, LCE-07-2014
In relation to the scheme, we consider that case II, in which for a new activity there is no potential to be opened to competition, instead of being classified as “allowed under conditions” it should be classified as “core activity”.

An ongoing FP7-funded project on the role of the DSO will continue to try to answer some of the key questions related to the current and potential future roles of the DSO.

4. **Do you agree with the proposed assessment of activities and are there any additional grey areas for DSOs other than those considered?**

We agree with several statements made by CEER, including:

- Data should always be handled by the DSO in order to maintain system security
- The settlement data should be handled by the DSO
- The DSO should not reach beyond the meter and provide in-home display or similar equipment.

We also agree with the description of several of the core DSO activities:

- **A2 (system security)**: today DSOs control voltage and manage reactive power by using transformers and capacitors, but it will very likely also be done with the help of active users in the near future and resources spread throughout the local networks. We encourage regulators to consider this, also, as a core activity.
- **A4 (technical data management)**: even if in a very limited number of member states DSOs do not control smart metering data directly, they will still need to use such data to fulfill new tasks stemming from the proliferation of distributed energy resources (DER), and an increase in DSO/TSO cooperation.

As well as with the description of the activities which should not be carried out by the DSO:

- **B1 (energy generation) and B2 (energy supply)**: we fully agree that energy generation and supply are not DSO activities.

However, EDSO does not agree that “ownership unbundling ensures the neutrality of the DSO” more than legal and functional unbundling, as stipulated in the Third Energy Package (TEP), and are not aware of evidence to support this. Neutrality is fulfilled by the proper enforcement by national governments of the Internal Market Directives of the TEP.

In addition, we question the decision to put all activities related to retail liberalisation in a “grey area”. Supplier switching, contact with suppliers to recover distribution network revenues, actions on consumers linked to a revenue protection reason, and data management activities, which are today all carried out by the majority of DSOs. Moreover, other “grey area” activities have already been developed by most DSOs. The current unbundling rules and the involvement of DSOs in some aspects of retail market liberalisation do not seem to have any adverse effect on retail competition.

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5 evolvDSO, FP7, ENERGY-2013-7.1.1
6 We would however add “except for mandated sub-meters”.
As highlighted by ACER/CEER in their latest market monitoring report\(^7\), the main obstacle for retailers to operate in different countries stem from the wide differences and lack of clarity around licensing procedures, significantly different regulatory frameworks across the member states, unclear or non-availability of information in English. Technical difficulties or misbehaviour of DSOs, for example, are not highlighted as obstacles by retailers. You will find below detailed comments on various activities:

- **C1 (DSOs must have a relationship with retail suppliers):** DSOs, by definition, never have a competitive commercial relationship with any customer. Being a regulated entity, these arrangements are always of a regulated nature. Regarding contacts with retail suppliers, these exist and are normally limited to technical operations such as connections and incidents, recovering revenues, metering activities or forwarding consumption data.
- **C2 (revenue protection):** disconnecting of customers on behalf of suppliers in case of non-payment and reconnecting them is a core activity for DSOs today. We do not see a reason to list it as a “grey area”.
- **C3 (supplier switching):** DSOs being neutral and regulated entities facilitate supplier switching, reconciliation and settlement, hence fostering a real market. Clear common national data exchange processes / data formats and data content as well as connected timeframes for supplier switching create a level playing field for all suppliers. To our knowledge, this is already the case in most member states, and this activity should be considered as a core activity.
- **D1 (local dispatching of local resources):** enhanced observability and controllability of regional and local networks, as well as a close collaboration and interaction between DSOs and TSOs is of utmost importance, and we believe the Third Energy Package provides a robust set of regulations that can guarantee local dispatch is performed in a non-discriminatory way.
- **D2 (Storage):** In some exceptional cases DSOs could be allowed to build storage to solve local distribution problems (such as local congestion management, voltage regulation and black start) and use it as an asset management solution if the services cannot be provided by a competitive activity.
- **E2 (development of EV recharging points):** DSOs should cooperate on a non-discriminatory basis with any owners or operators of charging stations. If deemed necessary in certain countries to kick-off the EV market, DSOs could be allowed - as an extension of their market facilitation role - to solve the lack of market incentive to build charging points resulting from the current lack of EVs on the road (chicken and egg situation), while also supporting Member States to reach their EV targets.
- **G3 (Added services for energy efficiency):** Even agreeing that activities to be performed beyond the meter are outside of the scope of DSOs, non-discriminatory provision of energy consumption data is an important way to enable energy efficiency and engage customers in a real market environment.

5. **For activities falling in category II and III, under which regulatory conditions could DSO intervention be allowed?**

As mentioned above, most of the activities listed in the “grey area” are already undertaken by DSOs today (for instance, C1, C2, C3, C4, E2, G1, G2...). We thus encourage CEER to consult its members to

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\(^7\) ACER/CEER, « Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2013 », October 2014
understand how this is being carried out today by DSOs in the member states in a non-discriminatory way.

Economies of scale and scope should be taken into consideration when drawing the line between market and regulated activities. When assessing the activities that could be carried out by the DSO in the future, ECN and Ecorys used this criteria in their report\(^8\), which led them to consider that for data management, “in the data model where the data is retained by the DSO, both economies of scale and scope can be achieved”. This is an important criteria to ensure that the roles attributed to DSOs and market parties do not have a negative impact on consumer bills by leading to large investment when other solutions, less costly and disruptive for consumers, are at hand.

Another criteria to consider is the need to temporarily kick-start a market when the market does not take off by itself. Electric vehicle (EV) charging points can be an example for this.

### 6. Do you agree with the assessment of DSO access to data and data management?

EDSO believes CEER’s assessment should take into account the considerations detailed below.

- **Data is already managed by DSOs in most member states**

  Smart metering data represents a technological improvement which will help consumers to better manage their energy, but that can also give DSOs insight that allows them to more efficiently manage their grids. The DSO is already managing metering data in most countries and there are good reasons for it to continue to do so: it is already a regulated entity, it possesses the necessary know-how to do it, and it has no direct commercial interest in the data collected. Furthermore, direct access to this data allows for optimal system management.

- **Difficult distinction between technical and commercial data**

  CEER tries to differentiate clearly “technical data” that could be used by the DSO for managing the grid, and “commercial data” that could be used by market parties. However, most “commercial data”, such as individual consumption data are also indispensable for network operation, demand and generation forecast (which DSOs are currently developing across Europe) or grid maintenance. Furthermore, it is not clearly understandable how such a differentiation, if really needed, would be established.

In countries where DSOs have to bill network charges to retailers, the “commercial” data is needed too. This argument can be linked to the activity C1 described previously, and which should be considered as a core activity. Moreover, meter readings are valuable to track network losses, which can help DSOs to reduce them and to fight fraud.

In addition, having access to individual data can also help to fix outages more quickly. Smart meters can act as a sensor to help signal faults in the network, and if a customer calls the DSO to signal an

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\(^8\) ECN/Ecorys, “The role of DSOs in a Smart Grid environment”, April 2014
outage, having access to individual data enables the DSO to understand if the problem concerns a
district, a few customers, or even only one customer and to dispatch a repair team accordingly.

- Data privacy and neutral market facilitation can be (and is) delivered by DSOs today

An overwhelming majority of DSOs (already serving well more than 100,000 customers) are compliant
with the unbundling rules set in the Third Energy Package. Independence and market confidence can
be achieved with the existing regulatory framework. We thus do not agree with CEER’s statement that
only ownership unbundling can guarantee fair and transparent retail market competition.

7. Do you agree that the risk of DSOs participating in some of the “grey areas” (particularly
flexibility and DSR) decreases the more separated a DSO’s operational activities are from
other competitive activities carried out by other companies within the same vertically
integrated group?

Unbundling for DSOs as described in the Third Energy Package, if properly implemented, ensures
robust processes and neutrality. This is evidenced by the fact that many of CEER’s examples of “grey
area” activities are undertaken today by DSOs under the current unbundling regime, without market
distortions or other negative effects.

8. Do you agree with first considerations on the de-minimis threshold?

Current EDSO members are all above the de-minimis threshold and do not have, at present, a position
on this matter.

9. Do you consider all the activities and topics described in this Chapter as relevant to further
defining a regulatory framework for DSO-TSO relationship and responsibilities? Are any
activities or topics missing in the DSO-TSO relationship discussion?

The activities listed in this chapter are all relevant for further defining a regulatory framework for DSO-
TSO relationships. More cooperation is needed at all stages: forecasting and network planning, system
operations, balancing, emergency and restoration.

10. Do you agree with the description of the activities and topics in this Chapter? If not, what is
your view on your specific activity or topic that is relevant for the DSO-TSO relationship?

We do agree with the description of activities and topics in this chapter, although it is worth stressing
that all these activities ultimately have to lead to a high level of security of supply and system integrity
across both networks. To ensure this on the DSO network is the core task of the DSO.

We also agree with the idea of a stronger integration of distributed energy resources (DER) into system
operation, although letting the TSO act directly on generators connected to the distribution grid is not
a viable or efficient principle. This creates a risk of interference with the ability of DSOs to deliver on their core responsibilities.

EDSO supports the statement that a more transparent grid planning process is able to avoid inefficiencies caused by reinforcement of one system operator, which could be replaced by a more cost-efficient solution of another system operator. From our point of view, efficiency gains are caused by transparency and stronger coordination between TSO and DSOs. In contrast, we do not see the need for the definition of standardised planning rules for TSOs as well as DSOs. DSOs vary significantly with regards to voltage level operated, topology (city or rural area, sandy or rocky grounds) and historically grown technical specificities. EDSO does not see the introduction of general planning rules as a more efficient approach, the opposite in fact result.

With the on-going digitalisation of the energy sector, special attention should also be paid to the topic of cyber security.

Last but not least, voltage services from network users are useful for the distribution network for connection purposes. Such capacities cannot be used for both distribution network connection and potential TSO needs. The latter should be dealt with in coordination with the DSO at the TSO-DSO connection node.

11. Do you agree with the statement that further regulatory guidelines may be required (in addition to the current Network Codes) and if so, which regulatory guidelines do you consider to be necessary?

We would like to draw the attention of regulators to the fact that the TSO-DSO relations as drafted in the electricity network codes is not always aligned with the description made by CEER in this public consultation, nor the views of EDSO.

The network codes, as currently drafted, give power to TSOs to gather extensive data on distributed generation and consumers, although still fail to make clear whether DSOs directly receive the same information. If DSOs do not get sufficient data in a timely manner, there will be no active management of the distribution grid and no development of local grid services. The draft network codes also enable TSOs to give direct orders to distribution grid users, thus hampering the DSO’s ability to actively manage and monitor its grids, potentially putting quality of service at risk. The TSOs have also proposed stringent (and costly) requirements regarding reactive power exchange instead of coordinating network development with DSOs. These are the main concerns expressed by DSOs over the Demand Connection code (DCC) and the Operational Security code (OS).

As another example, in its current state, the Emergency and Restoration (ER) code only requires the TSO to consult other stakeholders (including the DSO) when preparing emergency and defence schemes: real cooperation is not mentioned in the text, even if not forbidden.

We expect the actual level of cooperation between DSOs and TSOs to vary from one country to another, depending on past relationship history, the types of networks and networks users (i.e. penetration of distributed generation), and the regulator’s interpretation of the network codes. Improved and real cooperation should nonetheless be the aim.
High-level principles or recommendations on DSO-TSO coordination could be useful for ensuring that, when being implemented at National level, European network codes are interpreted in a way that is conducive to the best possible cooperation between TSOs and DSOs.

12. What, if any, are the particular or incremental risks to innovative and non-conventional investments? Do these warrant special recognition by NRA? To which extent, if any, is this incremental risk borne by DSOs?

Non-conventional investments are often related to higher technical risk, which corresponds to ACER’s definition of “risk of cost overruns”9. Particularly higher penetration of information technology (IT) will lead to shorter and less predictable lifetimes of assets compared to the conventional investment. The amortisation period is generally defined by the regulator and should take into account this higher risk.

The incremental risk associated with such a development are borne by DSOs today in a couple of ways:

- Inappropriate depreciation times lead to too long flow back times for the invested funds that are causing “gaps” between the balance sheet and regulatory bookkeeping. If some technologies actually fail or are withdrawn from the market rather quickly, DSOs will either have to invest again or will have to support more than one technology at the same time. Furthermore, if any technology “fails”, the DSO will have to “write-down” the relevant assets, i.e. it will incur a loss if the regulatory regimes do not allow it to recuperate such write-downs via its regulated revenue e.g. in systems that are TOTEX-orientated and do not include any mechanism for CAPEX adjustments within the regulatory period. In addition both effects will cause any particular DSO to appear less efficient than a DSO that deferred the investment decision longer or invested in more traditional technologies.

- If the risk associated with the investment is not reflected in the regulated interest rates, DSOs have a harder time attracting capital. Any investment in innovative and non-conventional technologies still faces uncertainty regarding the exact specification of the respective regulatory framework for these investments. This cannot be avoided as the regulation for new solutions has to be developed over time. However, the additional risk incurred has to be compensated as otherwise innovative technologies will only be deployed in a few isolated cases.

A thorough discussion on recognition of “smarter” investments by NRAs without leading to technology micromanagement by the regulator is needed. Micromanagement and central decision taking on technologies would be a mistake as the advantages of decentralised gathering of information, testing and decision making would be lost.

Additionally, externalities enabled by DSO investments, generating benefits for external stakeholders (e.g. society, environment, etc.) should be appropriately recognised and incentivised.

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9 ACER Recommendation n°3/2014
13. Does the conventional focus on rate of return regulation on capital expenditure, and in some cases limited pass through of OPEX, have an effect of discouraging certain smart grid investments? What alternative approaches help incentivize DSOs to adopt smart grids?

If an incremental smart grid investment is indeed accompanied by rising OPEX (e.g. if ICT services are to be contracted) and/or leads to more CAPEX short term (as more innovative technology might be more expensive), the DSO might be disincentivised to undertake such investments due to the negative effect on its profits. This might be the case especially if the investment needs to be undertaken within the regulatory period, i.e. if the time gap is long before costs and revenue can be aligned.

The major effect to be addressed, however, is a shift from CAPEX to OPEX as compared to a conventional extension of the grid. In order to incentivise the DSO to realise the savings from opting for an innovative solution, the Averch-Johnson-Effect has to be taken into account. One possibility may be to enable the regulated companies to realise a return on TOTEX instead of CAPEX only.

The UK is an example where the regulator has tackled this risk in a successful way, as the TOTEX approach has eliminated the risks and trade-offs between CAPEX and OPEX. The regulator establishes how much TOTEX a company should deliver and what part of it should be capitalised. This approach can give DSOs more flexibility in managing their expenditure, and diminish risks. TOTEX benchmarking may, therefore, be a promising solution for some regulatory regimes. However, national specificities should be appropriately assessed, as this may not be the best option for all Member States.

The implementation of an efficiency carry-over may also help to strengthen incentives, for instance, by allowing the moving of investments to the next regulatory period. Still, an appropriate and achievable rate of return must be the backbone of regulation for enabling investments. Last but not least, a shorter depreciation rate and higher interest rates for innovative investments might help to deploy smart grid solutions.

14. CEER would welcome views from stakeholders on the pros and cons of output based incentives. Please also define which regulatory incentives might be appropriate.

Output oriented regulation is interesting as it leaves the full responsibility for the operation of the grid to the DSO, which has to make its own trade-offs and is liable for wrong decisions. It allows for clear identification of the objectives, linked to a pre-defined reward/penalty scheme. Outputs may be related to reliability, safety, customer satisfaction, environment, connections, social obligations, etc. Outputs may ensure that companies provide value for money for current and future consumers while playing a full role in developing a sustainable energy sector.

However, the success and easiness of implementation of an output-based regulation depends on how comparable companies within a given country are. In countries with DSOs of very different sizes, serving urbanised or rural areas, defining the appropriate indicators and the suitable performance objectives is a more complex task for the regulatory authority.

In addition, output-based regulation only leaves limited space for exceptions and can only work with concrete performance indicators, while more abstract outputs such as “innovation” remain immeasurable. The risk for wrong incentives is high and it would be hard to choose parameters that give technology-neutral incentives, for example smart grid investments versus investments in copper.
Furthermore, a shift from an input to an output driven regulation may lead to wrong incentives among the DSOs in order to optimise their position.

In the case of smart grids, the investments of the DSOs generate positive externalities on the overall system, combining the objectives of integrating RES and decarbonising the transportation sector. For instance, output-based incentives are a valid solution to allow DSOs to monetise such positive externalities when they are measurable (e.g. DSOs should share the benefits of the reduction of dispatching costs).

At national level, DSO regulation should incentivise smart grid investments, taking into account their benefits at system level and the higher level of risk that DSOs bear.

Pilot programmes/projects should also be remunerated through specific experimental key performance indicator (KPI) development and measurement. This provides an opportunity to acquire experience not only on technological smart grid solutions but also on new KPIs.

15. Do you agree that to allow timely recovery of DSO revenues, assumptions on consumption patterns in tariff models could be updated within price control periods?

As recommended in the study on distribution network tariffs created by the Mercados consultancy, as commissioned by the European Commission’s DG Energy, EDSO believes that as regulated business, DSOs should not be exposed to risks related to events that are not under their control. This implies, in particular, that DSOs should not be exposed to volume risk (less electricity consumption that forecasted, leading to less revenues) and to the risk of under-recovery in case an investment proves to be less beneficial than anticipated. In this respect, a shorter price period would indeed be helpful where the price period exceeds one year. The regulatory period, however, should not be shortened.

16. How can ToU network tariffs be coordinated with system energy prices?

Time of use tariffs are being studied in various European projects, be it tariffs with pre-defined time intervals (set in advance) or dynamic tariffs (close to or real-time). Whichever model considered, it is possible that network tariffs and energy prices could contradict each other, for instance, if low energy prices incentivise higher consumption, triggering the dynamic tariff to rise and cancel out the lower price of the energy. In such situations, the customer would not be incentivised to change its behaviors in one way or another. In the worst case scenario, such energy price incentives could actively act against the ability of the DSO to maintain a stable grid. While actors such as suppliers and aggregators should be free to offer interesting products for consumers, clear rules/regulations, ensuring the DSO is always informed and able to override signals from suppliers or aggregators, in state of emergency situations, would guarantee against this.

Nonetheless, ToU network tariffs are complex to implement, even if the congestion of the grid is modelled adequately. A simpler solution than ToU network tariffs, and which also leaves room for allocating flexibility to the market, are separate incentives provided by the DSO to specific customers in a non-discriminatory way, with a clearly defined right to use demand flexibility at reasonably short notice, possibly based on a rate set in advance. At the level of a residential customer, flexibility could be operated by the customer’s energy supplier or demand response operator such as aggregators, and at the signal of the DSO. The energy supplier is responsible for the balancing.
17. Are there any circumstances under which suppliers should be required to pass through the distribution tariff signals to customers? If so, should there be regulation to ensure this happens?

In most countries, suppliers have to pay distribution tariffs on behalf of their customers. Therefore, they should incorporate its cost in their offers, although this does not necessarily mean that there will be a straight pass through of the price signals. The overall cost will be passed through, but if a customer does not want a TOU tariff it should not be imposed. Therefore, the pass through of the distribution tariff signals to customers should remain an option.

18. Do you agree with the above assessment (in Table 2) of different cases when DSOs or other parties should have contracts or agreements with consumers and distributed generators?

We consider that Table 2, Section 3.5, and Annex 6 on Demand Side Response (DSR), are confusing. They mix network tariffs, retail tariffs and additional DSR contracts. EDSO agrees that DSOs should have the possibility to procure DSR in various ways depending on the system needs and the nature of its grid users. As Table 2 leaves a large number of options open, as long as the DSO is well-regulated, EDSO does not oppose it, apart from the limitation imposed on DSOs in terms of data management.

However, we do not understand why direct DSR contracts would be forbidden in this case. The Third Energy Package can already guarantee the neutrality requested by regulators. DSOs should be able to have direct contracts with customers and small generators if this would be a more cost-efficient solution than using a market or an intermediary.

For DSOs, any DSR potential needs to have a certain “firmness” in order to be usable, i.e. to be relevant enough to defer any investment in the expectation that any bottleneck will be manageable by using the DSR potential contracted. Such need for firmness implies that DSOs will be interested in contracting loads for longer timeframes, i.e. one or two years at least and their focus is probably on larger loads (e.g. heat pumps, electric cars, night storage heaters etc.) than on smaller loads (e.g. washing machines and fridges etc.). All forms of procurement should be acceptable and the DSO should be allowed to make a non-discriminatory choice from these, i.e. compensation, upfront premiums, network fee reductions. In any case, it is important that DSO expenditures are covered by the regulatory regime.

In addition, local “markets” for DSR will probably be narrow, for example, if there is only one household/installation on a single feeder that is technically able to provide the system flexibility service needed by the DSO to overcome an existing or imminent congestion. In such cases, the market power of the service provider will be very high. Fixing a maximum price per kW of flexibility might be helpful in order not to pass the (theoretical) social surplus of not investing over to a single consumer or a small group of consumers. Such developments need to be avoided, potentially through regulated prices for contracting flexibility by the DSO, as otherwise the network service would not be “cheaper” than a traditional network reinforcement.
19. What type of regulatory controls should be adopted by NRAs for DSOs, in case of contractual arrangements falling under category II and III

Protection of consumers and regulatory supervision of DSOs are needed. EDSO, however, believes that regulatory micromanagement and definition of standard contracts would stiffen innovation and be detrimental to the development of demand side response. The Third Energy Package and the energy efficiency directive are already setting a clear framework in which new contracts could be developed.
EDSO for Smart Grids is a European association gathering leading electricity distribution system operators (DSOs), cooperating to bring smart grids from vision to reality.

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