POSITION PAPER

Brussels, 14 May 2019

Response to CEER Consultation on "Dynamic Regulation to enable the digitalisation of the energy sector"

Orgalim welcomes the ongoing consultation of the Centre of European Energy Regulators (CEER) on "Dynamic Regulation to enable the Digitalisation of the Energy Sector" and has the following comments and substantiated responses to the stakeholder questionnaire:

1. Main messages

- Innovation is enabling change across sectors: in few areas are these changes as far-reaching as in the energy sector opening up for new sustainable growth opportunities. European tech is fuelling the '3-D' transformation of our energy system driven by digitalisation, decarbonisation and decentralisation, where digitalisation allows new services and business models to develop and to accelerate a clean energy transition to climate neutrality that is cost-efficient.
- Key benefits of digitalisation in the energy sector: Not only do digitally enabled technologies make the energy system ever more connected, intelligent, efficient, reliable and sustainable, they particularly help to manage the increased complexity of the future energy system and empower consumers so that they can self-produce, self-consume, aggregate, trade and sell energy. As so-called "prosumers" they can manage their own energy consumption, be efficient and optimise their overall carbon and environmental performance.
- Europe has an opportunity to lead in the race of digitalisation of the energy sector including on the proper management of arising new challenges. With the adoption of the Clean Energy Package the EU put in place a robust and ambitious energy and climate framework for 2030. Member States must now implement this framework in the most ambitious way.
- How to tap into the opportunities? Sufficiently dynamic regulation, innovative governance and co-regulation will be needed in this process. Concrete steps for creating value for citizens and business, as digitalisation breaks down traditional boundaries between demand and supply and fundamentally changes markets, businesses, employment and our society overall, include the following:
  First, the underlaying high tech infrastructures, such as 5G, fibre and smart grids need to be put in place.
  Secondly, in the implementation of the clean energy package:
  - Ensure that DSOs operate as neutral market facilitators and align network tariffs and DSO remuneration with the new situation to stir investment into smart grids, in particular at distribution level.

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- Give price signals reflecting actual scarcity and value flexibility at a fair price through well-designed dynamic retail tariffs.
- Increase trust and confidence by tackling data privacy and cybersecurity properly.
- In respect of EU data privacy rules, grant fair access to data for new market entrants.
- Encourage integrated system planning and operation.
- Ensuring interoperability and common standards.
- Substituting the most polluting energy carriers and opting for more electrification and alternative fuels deployment in the transport, buildings and industry sectors.

And in all of this, continuously building the necessary skills, attracting talent, train and upskill personnel are fundamental for success.

- To conclude, leading in this energy transition and the digital revolution offers Europe a unique opportunity: creating a fresh boost to jobs and growth in Europe and a win-win for all stakeholders - the planet, EU citizens and European industry.

2. Orgalim responses to the stakeholder questionnaire

Question 1: What impact do you consider that digitalisation will have on the energy system and which are the most important?

Digital technologies are developing at very high speed in sensors, communication, big data, artificial intelligence, IoT etc., and all these developments impact the energy system and the EU economy as a whole. As to the energy sector, several applications and pilots are under deployment at all levels, in generation plants, in distribution grids and at end use and smart energy systems; and they are progressively becoming realities.

Not only do digitally enabled technologies make the energy system ever more connected, intelligent, efficient, reliable and sustainable, they particularly help to manage the increased complexity of the future energy system and thereby support system stability and security of supply, especially through:

- more automation and control to better manage processes.
- more use of software and data analytics ("big data") to increase overall efficiencies and system stability, or
- through empowering consumers so that they can self-produce, self-consume, aggregate, trade and sell energy. As so-called "prosumers" they can manage their own energy consumption, be efficient and optimise their overall carbon and environmental performance.

As digitalisation breaks down traditional boundaries between demand and supply, it will change the roles of different actors in the energy chain and the way how these actors operate, communicate, cooperate and interact with each other. New platforms and market places are developing and ultimately allowing peer-to-peer trading and flexibility marketplaces.

As the energy system will be based on ever more variable, decentralised renewable energy sources, these impacts will be most prominent at the level of the distribution grid. Investments into smart grids at all levels but the distribution level in particular, will therefore be most important to tap the opportunities that digitalisation can bring on the energy system.

Finally, digitalisation will bring the potentials of interconnecting the main energy end-use sectors – buildings (heating and cooling), industry and transport – with the power sector ("sector coupling") to a new level.

Overall, digitalisation therefore offers new sustainable growth opportunities and supports the EU energy policy objectives of security of supply, competitiveness and environmental protection. It allows new services and business models to develop and to accelerate a clean energy transition to climate neutrality that is cost-efficient.

<u>Question 2</u>: What are your views on the changes for the energy system highlighted in chapter 2 of the consultation paper and are these the most relevant?

a. Increases the productivity of the existing system;

b. Enables new products and services that alter electricity demand; and

c. Brings new digital marketplaces that transform the way the sector transacts?

Chapter 2 of the consultation paper in our view provides a clear and concise description of the changes occurring in the energy system, including the increase of productivity of the existing system, the enabling of new products and services that alter electricity demand and the stimulation of new digital market places that transform the way the sector transacts. Productivity increases in our view represent short term, low hanging fruits in the traditional top down energy system that are being tapped. Enabling new products and services altering electricity demand and new digital marketplaces however will transform the existing market more fundamentally and more long term. Smart, connected, buildings as part of the energy system boosting demand side flexibility and energy management, sustainable mobility, smart charging of e-vehicles and sector coupling, new retail pricing models and products are all very important and future oriented use cases. Entries b and c of chapter 2 are therefore in our view most relevant to successfully implement the UN Sustainable Development Goals and Paris Agreement and in the light of a long-term forward-looking EU industrial policy agenda to the benefit of consumers and industry alike.

<u>Question 3</u>: In your view, what are the most important value propositions for consumers, which should be prioritised?

There is no one size fits all value proposition, as priorities, attitudes, mindset and living situation of individual citizens are different and all play a role in the consumer's decision whether or not to engage in the energy market. Value propositions for consumer can develop around cost savings through efficiencies, increasing well-being, comfort, convenience or choice or ultimately increasing energy independence from traditional supply routes. We see most promising potential in the following cases:

- Buildings: Energy management and demand side management (flexibility) solutions bring particular value for consumers as immediately translating into monetary savings and increased well-being and comfort. Besides, overall system costs are leveraged and import dependencies reduced, which all add on value for consumers indirectly (whether being active themselves or not). Coupled with dynamic tariffs consumers can generate further monetary savings. Ultimately, digitalisation enables peer-to-peer trading of self-generated electricity or peer-to-community platforms allowing consumers to engage directly in a shared economy to buy and sell their own services,
- Transport: Secondly, sector coupling of energy-transport-buildings bears most important value propositions, such as through vehicle to grid communication (demand side response) or through increased independence and reward for providing flexibility (vehicle batteries as storage facilities for excess electricity) or improved convenience (offering optimised travel routes). New platforms and marketplaces can indeed provide the data and connectivity for active prosumers, consumers who produce electricity from solar panels and potentially store it in batteries, to sell electricity and become active in balancing the supply and demand of electricity.

<u>Question 4</u>: In your view, will digitalisation lead to more consumer participation in energy markets? Please provide your reasoning.

Yes, Orgalim believes that digitalisation leads to more consumer participation in energy markets, in particular as soon as coupled with the right incentives. Digitalisation enables consumer participation in energy markets. It enables consumers to self-produce, self-consume, aggregate, trade and sell energy. As so-called "prosumers" they can manage their own energy consumption, be efficient and optimise their overall carbon and environmental performance, which is one driver for consumers to participate in the energy markets.

By giving a value to the flexibility offered to the grid, consumers will be truly incentivised to actively participate, either directly or via aggregation, in the energy market. Energy bills will be reduced stimulating further active participation. Therefore, Orgalim believes that digitalisation leads to more consumer participation in energy markets as soon as the flexibility the consumer provides to the system is appropriately valued and monetised. The proper implementation of the respective provisions of the clean energy package will be critical in this respect.

Question 5: What are the key enablers needed to unlock the benefits of digitalisation for consumers?

Sufficiently dynamic regulation, innovative governance and co-regulation will be needed. Concrete steps for creating value for citizens and business, thus for unlocking the benefits for (private and professional) customers, include the following:

First, the underlaying high tech infrastructures, such as 5G, fibre and smart grids need to be put in place

Secondly, in the implementation of the clean energy package:

- Ensure that DSOs operate as neutral market facilitators and align network tariffs and DSO remuneration with the new situation to stir investment into smart grids, in particular at distribution level
- Give price signals reflecting actual scarcity and value flexibility at a fair price through well-designed dynamic retail tariffs
- Increase trust and confidence by tackling data privacy and cybersecurity properly
- In respect of EU data privacy rules, grant fair access to data for new market entrants
- Encourage integrated system planning and operation
- Ensuring interoperability and common standards
- Substituting the most polluting energy carriers and opting for more electrification and alternative fuels deployment in the transport, buildings and industry sectors.

And in all of this, continuously building the necessary skills, attracting talent, train and upskill personnel are fundamental for success.

Question 6: What are the main risks for consumers arising from digitalisation of the energy sector?

Dynamic tariffs can entail more risks for consumers as consumers could at certain times be exposed to higher energy prices. Managing the risk for consumers will be an issue, such as through offering different dynamic tariff models allowing the consumer to choose the level of risk he/she is prepared to take. Proper information and warning systems when peak times occur can help manage the risk.

Issues around data privacy and data protection are a second area of possible risks for consumers. Here, compliance with the GDPR will is a precondition (data are the property of the consumer and they control how it is shared), while fair access of non-personal data for new entrants will be essential for the development of new services and business models. As regards the B2B area (which is outside this consultation howoever of critical importance for Europe's global leadership), the freedom of contract and free flow of non-personal data are essential.

Question 7: What would a "whole energy system" approach look like – would this unlock more benefits of the digitalisation of the energy system?

The sustainable growth potentials of digitalisation should tapped throughout the entire energy value chain, thus from generation to transmission, distribution and end use.

Question 8: Do you agree with the analysis presented here on the key areas in which energy regulators should focus?

CEER's analysis tackles important aspects and is pointing in the right direction. The focus on a timely, complete and ambitious implementation of the clean energy package should in our view be strengthened.

The next decade is critical and the implementation of the 2030 clean energy package through its transposition by member states as critical vehicle to accelerate digital technology deployment and reap its benefits.
The success of the 2030 package transposition will in our view depend on adapting member states regulations to the irreversible trends of Digitisation, Decarbonisation and Decentralisation arising for the period 2020-2030, and especially in the following respects:

- Preparing Europe for successfully managing the coexistence of centralised and decentralised energy production.
- Enabling Europeans to manage energy according to real time information with prosumers at the core and resolves pending questions regarding data handling and data processing.
- Organising an ecosystem with the necessary flexibility to allow this modernisation to happen in Europe.

Specific attention, gap analysis and potential adaptations should be made as follows:
<u>As far as demand side transition toward active prosumers is concerned</u>:

- Dynamic tariffs with significant spread (not just on energy part only)
- Self-consumption (including collective-community self consumption) should be authorised and not made complicated or costly through unnecessary burdening regulations
- Generation surplus (including locally stored one) should be allowed to be traded under fair conditions
- Demand side flexibility should be allowed to be traded in all electricity markets and in a fair way to generation flexibility

<u>As far as the distribution grid transition is concerned:</u>

- The DSO role and responsibility has to be aligned as a market facilitator for renewable integration and flexibility orchestrator
- Network tariffs and DSO remuneration should be aligned with the new situation, which requires rebalancing CAPEX–OPEX remuneration, taking into account IT investments needed and rebalancing Energy versus Capacity in tariffs
- Integrated Planning and Operation new approach shall be encouraged

<u>As far as data management and platforms are concerned:</u>

- Increase trust and confidence by tackling data privacy and cybersecurity properly
- Need for interoperability and common standards
- Need for skills (new skills and competency to be built

<u>Question 9</u>: Which of the specific draft proposals should regulators pursue? Which should they not undertake? In both cases, please explain the reasoning for your answer. Bearing in mind that resources will not allow progress on all actions by regulators simultaneously, please indicate your top 5 priorities for action by regulators in the near term.
Among the draft proposals suggested by CEER, Orgalim recommends prioritising the following five, since facilitating the development of new services and business models enabled by digitalisation and suporting a fair level playing field and fair coexistence of centralised and decentralised energy system:

- Draft proposal 2: Where new entrants (whether distributed resources or new retail business models) are at a competitive disadvantage through lack of access to industry data, consider how to level the playing field. For example, if it is difficult for storage to know where best to connect, or the extent to which revenues may be available in future from providing constraint management solutions, so DSOs should consider providing interactive maps and/or network data and models, without endangering security and avoiding any misuse potential. If it is difficult for new entrants to develop products due to lacking consumer data that incumbents already have for their customers, consider provision of aggregated or anonymised data, ensuring compliance with the GDPR and protection of commercially data of third parties.

- Draft proposal 7: As part of their regular processes, NRAs to review network tariffs to ensure they are fit for the future. Active customers who utilise new technology must receive cost-reflective signals reflecting the costs and benefits they bring to the network. All consumers, including those who are unable or choose not to engage, should pay a fair contribution towards the fixed costs of the system.
- Draft proposal 9: As part of their regular processes, NRAs to review network tariff regulation to remove capex bias and encourage the use of flexibility services where economic. CEER to monitor progress in implementing the recommendations of the Conclusions paper and collate best practices.
- Draft proposal 10: DSOs to explore market-based procurement for flexibility services, considering use of a flexibility marketplace where efficient and reviewing whether network tariffs send the right signals for network users.
- Draft proposal 14: Regulators develop best practice approaches to enable trials of new products and business models ("sandboxes"). CEER to provide a forum for exchange of learning from both EU-funded and national trials and studies and to feed back into the parameters for new trials.

However, to maximise benefits from digitalisation of the energy sector for consumers and industry, more would be needed. Our concrete additional suggestions are outlined in our response to question 8.

Question 10: Do you have any other general observations to make on the topic of this consultation paper?

Accelerating digitalisation is a prerequisite for achieving the climate goals: it allows new services and business models to develop and a clean energy transition to climate neutrality that is cost-efficient. Furthermore, Europe has an opportunity to lead in the race of digitalisation of the business-to-business sector, including on the proper management of arising new challenges, such as cybersecurity or data management. We invite European energy regulators to tap into these opportunities.

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