Microsoft

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Response: "Ontwerp codebesluit prioriteringsruimte transportverzoeken" – issued 13th July 2023

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Comments of Microsoft

Microsoft ("Microsoft") appreciates the opportunity to offer these comments on the Public Consultation ("the Consultation") on proposed changes to the grid code to address the prioritization of transmission requests, issued by the Autoriteit Consument and Markt ("ACM") on July 13th, 2023. In the sections below, we provide the ACM with our perspectives on the proposed changes as a large corporate energy consumer.

Introduction

Microsoft acknowledges that there is a need for ACM to address transmission shortages and the current challenges regarding answering transmission requests and supporting the energy transition, while also enabling growth of new services and industries. We support the goal of ensuring that all parties that serve a public interest can receive transport capacity in a timely manner. We recognize the challenges that the Netherlands faces in developing renewable energy to meet its goal of 100% renewable energy by 2050 while also developing the grid to enable this transition and to meet growing demand. These are challenges not limited to the Netherlands. Across the EU, power generation capacity must double by 2030 to meet EU climate goals around energy and the electrification of transportation and heating. This will require large investments in upgrading and building electricity infrastructure across the EU[1]. Eurelectric estimated that a marginal ~8% additional grid investments versus business-as-usual must be realised and backed by sufficient revenues if a 55% greenhouse gas reduction is to be reached by 2030[2] in the EU. In the Netherlands, PWC estimates that investments equivalent to 100 billion euros will be needed in grid capacity up until 2050, 40 billion more than what is available now.

Innovative regulatory solutions can partially address the upstream congestion

Microsoft acknowledges that innovative regulatory solutions can be considered when established congestion management practices are exhausted. Any such reform should ensure long-term reliability for both priority and non-priority customers to have access to both transport and connection capacity. Ideally this should be coordinated at EU level to avoid regulatory fragmentation and ensure the same level playing field that the 'first come first served (FCFS)' principle has ensured to date.

Moreover, transport allocation cannot be considered in isolation vis-à-vis the processes of coordinating, planning and allocating network capacity. The overall grid planning, the connection and transport allocation, and the coordination between the TSO and the DSO all need to work together to make sure that priority customers are prioritized when the grid is constrained.

[1] Eurelectric Power Barometer, September 2023
[2] Connecting the Dots, Eurelectric, January 2021

We would recommend accounting for the following elements as a basis for prioritisation when planning and allocating network capacity:

- already contracted capacity: both priority and non-priority customers who have already secured a connection to the grid should be able to be prioritised when allocating transport capacity to ensure regulatory certainty and a favourable business investment environment;
- readiness of the project: a project that is on track with meeting its milestones should be prioritized over one that is of speculative nature or have cumulated unjustified delays, this can free the queues for projects that are essential for society;
- giving back to the grid: customers that can help the grid operators mitigate congestion in the grid via technological solutions either on site or off site should be prioritized;
- critical infrastructure or critical processes: customers that are providing critical processes or are essential for those critical processes to exist should also be prioritized;
- renewable power build out: generators and customers wanting to connect and who are contributing to the decarbonization of the energy mix of the Netherlands (via renewable procurement strategy or equivalent) should be given priority.

As demonstrated by similar regulatory discussions taking place in the UK[3], there are different ways to change the first come first served (FCFS) principle approach to transport and/or connection. Alongside the option proposed by ACM to set a list of priority customers based on qualitative criteria connected to the benefits that the customers bring to society, one can also consider giving priority to projects based on their 'readiness', meaning their ability to meet their pre-agreed milestones on time. This would clear the queues out of applications that are speculative in nature, doubled or cumulating unjustified delays, leaving more room for projects useful to society. Other energy regulators may be confronted in the future with similar dilemmas, therefore an EU coordinated approach is preferrable in particular if the reforms are based on qualitative criteria.

Enhancing grid investments and planning via new tools such as prioritizing investments in specific grid areas as indicated in the new EU Renewable Energy Directive or allowing private and public partnerships to be established in the interest of decongesting the grid can alleviate the issue and release more transport capacity upstream.

The conundrum of prioritisation at TSO and DSO level

We want to address the challenge in implementing prioritization for transport capacity when considering the interaction between the TSO and DSO levels. While the DSO can implement prioritization to individual customers, the TSO offers capacity in large tranches. It is unclear how non-priority customers will be positioned in the queue compared to priority TSO customers. Additionally, for customers that apply to connect to the TSO, the lead time for connections is much longer than that of connecting to the DSO's network. These customers need certainty around their large investments that they will be able to connect to the grid.

Moreover, depending on the details of the implementation, changes to the FCFS principle approach to transport requests can create great uncertainty for the investments that both priority and non-priority customers have planned or are planning. For instance, it may take up to 12 years for a company to get a connection with the TSO, if a prioritisation system were to restart the clock and

[3] Connections Reform | ESO (nationalgrideso.com)

bring the project at the back of the queue automatically, this would translate in a wait of potentially other 12 years. For cases in which the priority framework is applied only for the time in which capacity is not available or where there is congestion, there should be clarity on the moment starting from which FCFS is applicable again, to ensure business certainty.

An anticipatory approach to the investments needed in the network

In addition to updating the prioritization for transport capacity, we believe that it will be impactful to focus on the Framework for Grid Investment Prioritization (FGIP) to ensure that upstream investments are made to provide grid infrastructure and transport capacity in areas with customers essential to society. The FGIP is an important framework to have in place to understand what the grid needs. It would benefit from transitioning further from an incremental approach (build as the requests to transport/connect are received) to an approach based on anticipatory investments and planning based on an overview of estimated future priority and non-priority customers' demand. Moreover, providing transparent information on grid availability and congestion as well as requested time for transport/connection to materialize would provide a great signal for customers to adapt further their investments to the reality of the network.

Datacenters as a building block of society

Datacenters host cloud services that enable digital transformation, innovation and remote work. Microsoft's cloud services help organizations in the Netherlands to innovate and deliver valuable services to their customers and the community. Microsoft serves more than 8,000 Dutch software companies that develop products and services, which will support 350,000 companies, organizations, and government institutions in their ambition to digitize.

In the Netherlands, this includes hospitals, financial institutions, energy companies (including those providing services for stabilizing the network by grid operators), drinking water companies, and also public safety parties organizations such as the police and cybersecurity services (i.e. the National Cyber Security Center from the Ministry of Justice and Security) or customers like Nationale Nederlanden and Noordwest Ziekenhuisgroep. It is worth noting that some of the abovementioned customers fall into the category (b) in ACM's prioritization and some of them – incl. ICT sector as a whole – are considered critical processes in the context of critical infrastructure protection[4]. Additionally, data centers themselves are considered critical processes and cloud computing and data center services are designated as critical infrastructure under the related EU legislation[5].

What datacenters can offer

Datacenters are positioned to offer additional sustainability and flexibility services to the grid, as mentioned in the description of category (a) priority customers. Microsoft has piloted grid interactive Uninterruptable Power Supply (UPS) batteries to provide frequency response to the grid and ensure that there is uninterrupted service on the grid when demand exceeds the supply generated elsewhere on the grid by renewables[6].

[4] Critical Infrastructure (protection) | National Coordinator for Security and Counterterrorism (nctv.nl)
[5] EU Directive 2022/2555, known as 'NIS2 Directive'
[6] Microsoft datacenter batteries to support growth of renewables on the power grid

We agree that customers that provide congestion relief should receive prioritization for grid capacity. However, it is essential that customers who provide a battery for grid use place that battery in the areas of highest grid congestion. For example, if a customer built a battery for grid usage in an area where the grid was not congested, the impact and necessity of the battery system would be low. Instead, large battery systems and other congestion relief technology should be installed at strategic points in the grid even if the customer is not located in a congested area. In practice this could be implemented with a system of points or 'vouchers'. Datacenters are positioned to provide both congestion management and flexibility services.

Microsoft is actively working to reduce the carbon footprint of its energy use: in fiscal year 2022, our business grew by 18 percent while our overall emissions were down 0.5 percent[7]. The company has committed to high sustainability targets that include sustainable datacenter operations. For example, by 2030 Microsoft will have 100% of our energy consumption, 100% of the time, matched by zero carbon energy purchases[8]. In fiscal year 2022, we signed new power purchase agreements around the globe, bringing our total portfolio of PPAs for carbon-free energy to over 13.5 GW, across 16 countries, including the Netherlands. Additionally, Microsoft has committed to become carbon negative by 2030[9]. Grid customers that contract for purchase agreements with sources of renewable energy will help the Netherlands to reach its sustainability goals and these customers should be included in the prioritization for transport capacity.

We welcome the opportunity to continue engaging in constructive discussions on how to improve the overall transmission allocation process. We want to continue collaborating with the ACM, as the resolutions require a coordinated long-term approach to address broad system needs.

[7] 2022 Environmental Sustainability Report (microsoft.com)
[8] 100/100/0 commitment
[9] Carbon negative 2030 goal