COVID 19 Impact on the energy system

ETIP SNET stakeholders’ statement

Over the past few weeks, the Covid-19 pandemic has caused an unprecedented global economic and social crisis. The pandemic has significantly affected all aspects of life and had also some effects on the energy sector and system.

ETIP SNET stakeholders collected some feedback showing in concrete what are the challenges and what are some mitigation measures that have been put in place.

ETIP SNET collected input and experience from DSO, TSO, Utilities, some feedback from the consumers point of view and also some impacts at Country’s level.

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Transmission and Distribution industry

The technology providers for Europe’s electricity networks, 1, are feeling the impact of the COVID-19 pandemic. The impacts and its severity vary from one country to another and depend, inter alia, on the spread of the virus as well as on the measures taken by respective governments.

While the transmission and distribution industry has been able to continue its essential operations to provide network operators with the necessary equipment and services, activity has been affected by a number of issues2, include:

- **Reduced Market demand :**
  - Reduced demand due to scaling back of TSO and DSO activities
  - Reduced activity due to halted civil construction works preventing the delivery and/or installation of T&D equipment
  - Reduced activity of industries
  - Global slowdown of investments (and delayed) due to current uncertainty

- **In industrial premises:**
  - Lack of sufficient personal protective equipment
  - Staff absence due to sickness
  - Staff absence due to school and child care closures
  - Reduced level of activity due reduced number of shifts (ensuring workers in different shifts do not cross each other)

- **Supply chain disruptions**

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1 Represented by T&D Europe
2 These issues have appeared in one or more countries in which T&D Europe members operate
In specific:

**A. Distribution System Operators**

From the Distribution System Operators 3 some Operational Impacts and some Economical Impacts have been identified:

1. **Operational impacts and mitigation measures taken:**

The challenge for the Distribution System Operators is to ensure continuity and maximisation of operations both for field and office activities. For ensuring these DSOs are putting in place ad-hoc mitigation measures. Please find some examples of these measures below:

- **Information sharing:**
  - Staff were briefed with internal press releases (including to contractors)
  - Information was given on how to deal with COVID-19 symptoms and in case of contact with Coronavirus positive people

- **Organisation:**
  - Activation of Agile/Smart Working for employees in all areas, except for essential activities linked to the functioning of power generation and distribution
  - Reduction to the minimum of operating and maintenance personnel
  - Shift modifications to avoid contact between squads and to be able to replace personnel in case of symptoms

- **Prevention:**
  - A suite of sanitary and hygienic measures have been activated to combat the spread of the virus
  - Measures to increase the sanitation and hygiene of vehicles. Car sharing is discouraged
  - Measures to increase the sanitation of offices and plant zones
  - Management of Personal Protective Equipment (PPE), in particular regarding the use of suitable face masks; personal sanitation PPEs have been distributed for specific use in shift change
  - Sanitisation systems for workers have been installed, such as distributors of sanitising detergents
  - Travel limitation rules have been set up.
  - In order to reduce the risk of contagion for the employees, O&M site personnel were reorganized into smaller teams and shifts were redesigned to increase special and temporal distance among people. Ad hoc safety instructions were

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3 Based on information also circulated to EURELECTRIC
issued and PPE availability was increased. Backup teams have been set-up to be
able to be employed quickly in the Operating Centers, in case of emergency.
With such working measures in place, essential services such as outage
management, remediation to unsafe situations of the network and urgent
connections are ensured.

2. Economic impact:

- Revenues are hardly hit.
- Electricity demand dropped by more than 10% in several European countries.
- Investments and Smart Meter deployment activities are postponed.
- Suppliers’ downstream retailing activities have also been influenced by the virus
  outbreak.
- Payments concerning electricity and gas bills have been suspended in some areas and/or
  for bad payers, Power and Gas supply cuts to B2C customers have been suspended.
- Further measures are under discussion and the situation and continuously evolving and
different from country to country.

B. Transmission System Operators

Covid19 is an unprecedented situation and represents a major challenge which is been managed
in accordance with TSOs planning procedures, processes and systems.

The Electricity Transmission System Operators are regularly coordinating their efforts to do the
utmost to limit the consequences of the Covid-19 pandemic on people, electricity supply and
the economy in Europe.

Today, System Operation remains safe in Europe and all power systems are in normal state.

Across Europe, due to extraordinary measures taken by Governments (e.g. restrictions on
mobility) have led to a decrease of electricity consumption and resulting in stable generation
unit availability. For the moment, there are no adequacy issues expected in short or medium
term.

In all countries, the electricity market (balancing, cross-border exchanges in day ahead and
intraday) is functioning normally. Thus, currently there are no conditions to initiate market
suspension. This is as long as adequacy and security of supply is ensured.

In many cases, National Authorities have organised teleconferences with TSOs and stakeholders
of energy sector, to ensure their continued capability to provide core activities and services.
These discussions also there is sharing of measures and good coordination by the stakeholders concerned.

In accordance with procedures of TSOs, teleconferences have been arranged with relevant stakeholders (DSOs, generation units, market players, IT and Telecommunication providers) to maintain close cooperation to ensure continuity of services and discuss possible interventions, if needed.

1. Operational impacts and mitigation measures taken that could be expanded depending how the situation is evolving:

   - Where needed, a doubling up of staff in terms of staffing the National main Control Center and National backup Control Center and the Regional Control Centers
   - In some cases, grid maintenance works is being postponed or cancelled, due to travel restrictions without risking system operation in short or medium terms
   - Hygiene and sanitary measures, especially for operational staff: intensified cleaning, scan temperature, no hand-shake, keep distance.
   - Travel restriction or cancellation of arrangements, inside or outside the countries, to prevent virus contamination.

   Organisational stuff measures:
   - Restricted access to control rooms to people strictly needed for continuity of operation.
   - Partial confinement of operational staff in control room: people are required to stay at home when they are not in shift, with contacts limited to their families, and not to use public transportation.
   - Total confinement of operational staff in control room: for period of 7 days, operational staff (at least 3 teams for a 24 hours shift) stay inside the control room, without any contact outside.
   - Parallel work of 2 Control Rooms (main and back-up) + support/back-up offices (planning & balancing and IT support) + support/back-up from regional centres.
   - Operational staff is divided into separate teams with no mixing between the teams.
   - Clear and direct instruction to personnel on how to respect the new rules.
   - Teleworking for non-core activities.
Utilities Industry

EDF Group shared some highlights of the activities inside the group during this crisis, that covers multiple activities from production to consumption, through grids.

Operational and economic impacts:

- Production activities has seen a real slow down due to consumption reduction up to 15%. Consumption curves during the week looks like Saturday ones.
- Interventions on grids, production units etc. has been limited to the most necessary ones. At this time, there were no impact on production or grid operation.
- EDF has been able to organise the company in order to be able to provide the necessary service of energy for our consumer, with the mobilisation of all the people from the company who have a well known spirit of public service.
- EDF ordered quickly large amount of masks that allow the employees, with the other security measures to operate EDF assets safely for the employees.
- Home office is now the normal way to work for those who do not have operational activities, with the challenge of very high number of connexions to our internal IT network.

The next challenge will be the end of confinement, but no impact is expected on operational activities, as EDF were able to continue its activities during the pandemia.

European Federation of Renewable Energy Cooperatives, REScoop.eu⁴.

Over the coming weeks, EU leaders will be working on a plan to help rebuild the economy after the crisis brought about by the Corona virus. The current situation is putting our society to a vital test: Are we equipped to develop responses to this crisis that will ensure the long-term stability of our societies?

The answer can be yes. But this can only be the case if we ensure that the measures taken make our economies and societies more resilient in the long term. Whilst it is crucial to develop solutions that will revitalise our economy following this crisis in the short and medium.

One promising thing that has come out of the current situation is the evidence that it is possible for governments to allocate resources to solve urgent situations, where they were previously stuck in political disagreements.

The measures taken after the economic crisis in 2008 mainly bailed out the big financial institutions without tackling some of the underlying flaws of our economic system, namely

⁴ https://www.euractiv.com/section/energy/opinion/a-resilient-eu-economy-must-be-built-on-strong-local-communities/
consumerism and the environmental destruction that goes with it, wealth concentration, and lack of democratic control at the local level. It left many citizens disempowered at the time, and once again today, those suffering the most from the economic crisis ahead will likely be the small businesses in our neighbourhoods. The solutions proposed today need to safeguard the livelihoods of European citizens.

One very concrete way to move towards such a society will be to strengthen the growth of energy communities in Europe.

By investing in and operating clean energy technologies and measures, energy communities have been known to strengthen the social and economic welfare of their community whilst taking measures to reduce CO2 emissions and preserve the environment. They hence provide an economically sound model that tackles the exact challenges we need to solve to build a sustainable future for ourselves.

The potential of local communities has already been recognised by EU leaders in the Clean Energy Package through the concepts of citizen and renewable energy communities.

As the EU works on developing follow-up legislation in the coming years, it must ensure to truly empower local communities. This can be done for instance by facilitating access to larger funding sources such as the EFSI investment tool and other EIB tools (such as ELENA or guarantees).

In conclusion, the request for the European Commission by stakeholders active in the Energy sector for the energy transition⁵ is to take the following measures as part of the recovery plan for Europe:

1. Boost current commitments
   - Support and implement the establishment of Green Recovery Investment Packages acting as accelerators of the transition towards climate neutrality and healthy ecosystems.
   - Fully integrate the proposed economic stimulus packages and the European Green Deal in the EU and national exit and recovery strategies
   - Closely link the European Investment Bank lending policy for infrastructure to the Clean energy package objectives and the EU long-term decarbonisation strategy
   - Track investments in transmission and distribution networks as part of the annual State of the Energy Union;

2. Ensure Grid quality & resilience (to be able to manage fluctuation in consumption and production, and deal with cyber-attacks)

⁵ T&D Europe members request
- Bring forward the necessary investments in Europe’s electricity networks as a cost-effective no-regret option for rapid recovery, and ensure network stability.
- Give the demonstrated importance of maintaining resilient infrastructures, prioritise infrastructure investment in modernizing and future-proofing Europe’s electricity networks, inter alia, through the inclusion in the National Energy and Climate Plan of clear investment and development plans for the electricity network.

3. **Change the rules and secure investment planification**
- Review the investment framework for network operators by removing the current regulatory CAPEX bias and transition to a TOTEX approach, to incentivise the uptake of green technologies and solutions, which contributes to a cost-efficient operation of the network;
- Provide system operators regulatory certainty that investments can be recovered via the network tariff and that the remuneration will remain at a predictable and market-based level;
- Adopting EU or international rules for ownership, protection, liability and transfer of all data types (not just smart meter) in energy markets and grid operation.
- Encouraging an education environment that promotes the training of high-skilled workforce in the field of electrical engineering and green technologies related sectors;

4. **Speed up the global electrification of other sectors**
- Modernise the energy taxation regime to accelerate the shift towards decarbonizing electricity consumption and the increased uptake of clean electricity in end-use sectors, inter alia, in heating, electric vehicles and shore-side electrification;
- Swift and correct implementation and enforcement of the Clean Energy Package in Member States, by increasing transparency through the provisions of the EU Electricity Directive on assessing, monitoring and future-proofing the electricity grid;
- Analyse and implement the best way to transform demonstration projects in large-scale industrial investment and deployment, thereby enabling Europe to turn innovation into employment and leadership;
- Strengthen market surveillance enforcement to ensure that all grid technology on the EU market complies with the mandatory circular economy and energy efficiency criteria;
- Mainstream clean and direct electrification in the heating & cooling and transport sectors, as the most cost-effective and energy efficient strategy to address climate change and enhance the quality of life of all Europeans. Deploy without delay the technologies that are already available to decarbonise industrial processes, transport and the heating & cooling sector;

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First assessment of the influence of COVID-19 on Austria’s energy economy
Suppliers **sustain from shutdowns of customers’ supply who are late in payment**. This is based on a voluntary agreement that enables unbureaucratic and fast help. Moreover, some suppliers also offer subsidies to electricity costs.

The **electricity demand** in Austria is -13% compared to the same period last year. The **day-ahead spot prices** are 25.6% below the prices of the previous year. The total demand profile of the customers has changed a lot, being flatter in the morning and much higher during noon.

The **security of supply** and the health of the employees is ensured by taking a lot of contact limiting and hygienic measures by the grid operators and the suppliers. An interesting fact is that the largest municipality, Wien Energie, has ordered the self-isolation of 53 employees for four weeks on plant sites to ensure electricity supply of Vienna also in case of a massive COVID-19 wave.

The suppliers expect effects on the **financial results**. Employees are reducing their overtime and holidays. Some suppliers check the possibility to apply for short-term work.

Despite COVID-19 Pandemic, some suppliers and the transmission system operator plan large **investments** in 2020. Wien Energie plans to invest around 200 million euros. At the beginning of April, Salzburg AG has published the decision to continue its investment plans of 166.4 million euros. **Construction activities** of the transmission system operator were stopped due to Corona, having a large impact on other companies. Now the activities will be continued under security conditions.