

# Consultation Questionnaire on the Draft Framework Guideline on sector-specific rules for cybersecurity aspects of cross-border electricity flows

Fields marked with \* are mandatory.

## General introduction

The purpose of the non-binding Framework Guideline (FG) is to set high-level principles that should be further elaborated in the Network Code on sector-specific rules for cybersecurity aspects of cross-border electricity flows.

The role of the FG and of the following network code, is to supplement and further specialise existing cybersecurity and risk preparedness directives and regulations, introducing viable solutions to identified cybersecurity gaps and risks.

The objective of the network code, based on the draft FG principle, should be to solve, mitigate and prevent the potential high impact or materialization of cybersecurity risks, as well as to prevent those cybersecurity attacks or incidents that may impact real time operations (causing cascade effects).

ACER invites all concerned stakeholders to contribute to the public consultation, and therefore to define and shape the final Framework Guideline.

## Next steps:

- ACER will analyse the responses received in July 2021 and will deliver a final version of the FG to the European Commission.
- In July 2021, ACER will publish a summary of the consultation, including an evaluation of the responses.
- ACER will publish all responses received and the identity of their respective stakeholders (unless stated otherwise). For this reason, please indicate if your response may be publicly disclosed or not, and if you agree with the data protection policy.

All concerned stakeholders are invited to respond to the public consultation on the proposed Framework Guideline.

**The public consultation will run between 30 April 2021 to 29 June 2021 at 23:59 Ljubljana Time.**

ACER will only accept responses in electronic format, no other format will be accepted. **In case of technical problems with the submission of your responses please contact DFG-NC-CS@acer.europa.eu.**

ACER will organise a workshop to introduce and explain the content of the proposed Framework Guideline, in May 2021. More information will be circulated via ACER Infoflash closer to the date of the event.

\* First Name

\* Last Name

\* Company/Institution

\* Type of business

Address

\* Contact email

Phone

Country

I confirm that I have read the [data protection notice in this link and accepted.](#)

- Yes
- No

I authorise the disclosure of my identity together with my response

- Yes
- No (I want my response being completely anonymous)

## 1. Meeting the general objectives

**Question 1** - Does the Framework Guideline contribute to the following objectives?

	Yes	No
To further protect cross-border electricity flows, in particular critical processes, assets and operations from current and future cyber threats?	<input checked="" type="radio"/>	<input type="radio"/>

To promote a culture that aims to continuously improve the cybersecurity maturity and not to simply comply with the minimum level	<input checked="" type="radio"/>	<input type="radio"/>
To mitigate the impact of cyber incidents or attacks or to promote preparedness and resilience in case of cyber incidents or attacks?	<input checked="" type="radio"/>	<input type="radio"/>
To support the functioning of the European society and economy in a crisis situation caused by a cyber-incident or attack, with the potential of cascading effects?	<input checked="" type="radio"/>	<input type="radio"/>
To create and promote trust, transparency and coordination in the supply chain of systems and services used in the critical operations, processes and functions of the electricity sector?	<input checked="" type="radio"/>	<input type="radio"/>

Please, provide a short explanation justifying your assessment, if needed:

*600 character(s) maximum*

**Question 2** - Do you see any gaps concerning the cybersecurity of cross-border electricity flows which the draft FG proposal should address?

- Yes
- No

If yes, provide details

*600 character(s) maximum*

Electric vehicle (EV) charging is not covered sufficiently. EVs need to charge smartly in order to avoid peak loads on the electricity grids. Also, smart charging is important for aligning EV-charging and the production of renewable energy. This implies that recharging stations are connected to central systems and can be controlled by aggregators. Therefore, attention has to be paid to the cyber security of the EV-recharging stations and of the central systems they are connected to. The charge point operators have to be considered as aggregators.

## 2. Scope, applicability and exemptions.

**Question 3** - The draft FG suggests that the Network Code shall apply to public and private electricity undertakings including suppliers, DSOs, TSOs, producers, nominated electricity market operators, electricity market participants (aggregators, demand response and energy storage services), ENTSO-E, EU-DSO, ACER, Regional Coordination Centres and essential service suppliers (as defined in the FG). Does the FG applicability cover all entities that may have an impact on cross-border electricity flows, as a consequence of a cybersecurity incident/attack?

- Yes
- No

Please, explain who is missing and why

In the energy transition, new market roles appear which have to be assessed regarding their risk profile. E.g. the operators of EV-charging points, solar panels and heat pumps. Such devices are 'connected' to a back office or central system. Individually, the power of such a device is limited but on an aggregated level, the impact on the electricity grid is substantial. A security breach in a central system means a large load on the grid can be controlled by malicious persons. Therefore such devices and their central systems must be covered by the FG.

### 3. Classifications of applicable entities and transitional measures

**Question 4** - The proposed FG prescribes a process to differentiate electricity undertakings based on their level of criticality/risk, and setting different obligations depending on their criticality/risk level. This will imply a transition period until the full system is established and will require the establishment of a proper governance to duly manage the entire risk assessment process. Do you think that the proposed transition is the most appropriate?

- Yes
- No

**Question 5** – The FG proposes that all small and micro-businesses, with the exception of those that, despite their size, are defined as important/essential electricity undertakings, shall be exempted from the obligations set in the NC (excluding the general requirements for cyber hygiene). Do you think this approach is consistent with the general idea to uplift and harmonise the cybersecurity level within the ecosystem in order to efficiently protect cross-border electricity flows?

- Yes
- No

### 4. Cybersecurity security governance

**Question 6** - Do you find that the proposed FG succeeds in establishing a sound governance for the overall process of ensuring the cybersecurity of cross-border electricity flows?

- Yes
- No

**Question 7** – The proposed FG describes the process and governance to determine the conditions to classify and distinguish electricity undertakings with different risk profiles for cross-border electricity flows. Is the decision on setting up the conditions assigned to the right decision group or should that decision be taken at a higher strategic level in respect to what is proposed in the draft, having in mind that this decision will be extremely sensitive?

- Yes, the decision is taken by the right decision group.
- No, the decision shall be taken at a higher strategic level.

Please, explain shortly by whom and your reasoning:

In this era of energy transition, market circumstances change quite rapidly. Also, new market roles appear and new devices come on the market. We need to identify and address new cyber risks within a reasonable time period, max. 1 year. If the decisions would be taken at a higher, strategic level, this would cost more time. Good security is easier and cheaper if it is integrated in the product design from the beginning. It is also in the interest of manufacturers that we respond quickly to new risks.

**Question 8** – Please, tell us which aspects of the proposed governance may better be developed further.

Per each line covering the governance aspects of each chapter, please select all statements that can fit.

	Roles are defined	Responsibilities are assigned	Authorities are defined	Accountability is clear	High level decisional processes are defined
General Governance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cross Border Risk Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Common Electricity Cybersecurity Level	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Essential information flows, Incident and Crisis Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Other aspects	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Please, add comments in case you may suggest changes to the attribution of roles, responsibilities, authorities, and to the envisaged processes, where described.

*600 character(s) maximum*

EV-charge point operators must be considered as aggregators since they:

- a. buy electricity from an energy supplier or other electricity undertaking, or from a (non-)household customer
- b. supply this electricity to the owners or users of the electric vehicles or their intermediates (e.g leasing companies);
- c. invoice the electricity supplied to the owners or users of the electric vehicles or their intermediates
- d. remotely monitor the operation of the recharging points;
- e. may adjust the charging speed as agreed with the customer or requested by the DSO (demand response)

## 5. Cross border risk management

**Question 9** – The draft FG proposes a high-level methodology for cross border risk assessment presented in chapter 3 and based on three consecutive levels. Is this high-level methodology adequate for assessing and managing risks of cross-border electricity flows?

- Yes
- No

**Question 10** - Do you think that the FG covers the risks that may derive by the supply chain?

- It covers too much.
- It covers fairly.
- It covers fairly, but the tools and means shall be clearer.
- It covers poorly.

## 5. Common Electricity Cybersecurity Level

**Question 11** - Considering the 'minimum cybersecurity requirements' (with regard to Table 2 of the FG), select just one option:

- They are applied to the right entities, they are proportional, and they fit with the purpose to protect cross-border electricity flows from cybersecurity threats.
- They are applied to the right entities, they are proportional, but they do not fully fit with the purpose to protect cross-border electricity flows from cybersecurity threats.
- They are applied to the right entities, but they are not proportional, and they partially fit with the purpose to protect cross-border electricity flows from cybersecurity threats.
- They are applied to the wrong categories.

**Question 12** - Considering the 'advanced cybersecurity requirements' (with regard to Table 2 of the FG), select just one option:

- They are applied to the right entities, they are proportional, and the fit with the purpose to protect cross-border electricity flows from cybersecurity threats.

- They are applied to the right entities, they are proportional, but they do not fully fit with the purpose to protect cross-border electricity flows from cybersecurity threats.
- They are applied to the right entities, but they are not proportional, and they partially fit with the purpose to protect cross-border electricity flows from cybersecurity threats.
- They are applied to the wrong category and entities.

**Please, explain your reasoning for your answer to question 11 and 12, if necessary**

*600 character(s) maximum*

The requirements in the table are okay but in implementation we must focus on the role of undertakings in the electricity market. For example: an aggregator may in terms of head count and sales volume well be a small ICT-company in the category micro-enterprise. However it may control a substantial aggregated load which, when manipulated, may cause severe power quality problems on the electricity grid. Role, function and controllable load in the electricity system are therefore far more important than mere size of the undertaking.

**Question 13** - Please select the option(s) which in your view better represent how a common cybersecurity framework protecting cross-border electricity flows, should be established and enforced?

- Through common electricity cybersecurity level that shall be certifiable by a third party (e.g. by the application of ISO/IEC 27001 certification).
- The framework shall be based on a set of agreed requirements that shall be assessed, and their implementation shall be subject to governmental inspections.
- A peer accreditation process shall be established, where electricity undertakings evaluate each other against a set of agreed requirements set by governmental authorities.
- A combination of those above.
- Another better solution.

Please, briefly describe it:

*600 character(s) maximum*

Peer accreditation is valuable and easy to implement. However, on top of that, some auditing must be applied to make sure that the agreed security level as described in the FG is met. This check may be in the form of a sample carried out by an independent, certified auditor.

**Question 14** - The proposed FG extends the obligation of the cybersecurity measures and standards to “essential service suppliers” to which an entity may outsource essential services, operations of essential assets and services, or a full essential process, that has an impact on the cybersecurity of cross-border electricity flows. Do you think this approach is correct?

- Yes
- No

## 6. Essential information flows, Incident and Crisis Management

**Question 15** - The FG proposes the use of designated Electricity Undertaking Security Operation Centre (SOC) capabilities to enable information sharing and to smooth incident response flows from all electricity undertakings in order to:



- Provide agility to all electricity undertakings with respect to sharing and handling important cybersecurity information for cross-border cybersecurity electricity flows;
- Avoid interference and additional workload on the National CSIRTs and to their existing cooperation;
- Promote a responsible, autonomous, flexible, timely, coordinated and controlled approach to information sharing and incident handling, in line with current electricity practices and in line with the specific operational needs.

Considering the proposed approach, please select one option:

- The proposed approach is feasible, can foster trust and provide enough flexibility and reliability, which are essential for the cross-border electricity flows.
- The proposed approach is feasible and can foster trust but it is not ideal for meeting the requested flexibility and reliability level.
- The proposed approach is feasible, but can hardly foster trust and it is not ideal for meeting the requested flexibility and reliability level.
- The proposed approach is not feasible, therefore needs to be reviewed.

**Question 16** – The draft FG proposes the adoption of SOC to overcome other needs that go beyond the simple information sharing:

while it will offer the possibility to let the electricity sector to autonomously structure the information sharing infrastructure, ideally sharing resources and cooperating with the aim to reduce costs, offering high-end cybersecurity protection to cross border electricity flows, the same SOC may be delegated to other certain tasks for which a SOC is better placed in order to offer services (e.g. orchestrating cooperation with other CSIRTs, providing support in planning and execution of cybersecurity exercises, support and cooperate with critical and important electricity undertakings during crisis management situations and more);

Do you think that this secondary role is appropriate for the SOC?

- Yes
- No

**Question 17** - Do you believe a Cybersecurity Electricity Early Warning System as described in the proposed FG chapter 5.4 is necessary?

- Yes, it is necessary.
- No, it is not necessary.

**Question 18** - Concerning the obligation for essential electricity undertakings to take part to cybersecurity exercise as described in chapter 6 of the draft FG, please select one of the following options:

- It is in line with the objectives, and it contributes to the substantial improvement of the cybersecurity posture necessary for cross-border electricity flows.
- It is in line with the objectives, and it contributes to the substantial improvement of the cybersecurity posture necessary for cross-border electricity flows, but the applicability should be extended to all electricity undertakings.
- It is in line with the objectives, but it does not really contribute to the improvement of the cybersecurity posture necessary for cross-border electricity flows.
- It is not in the objectives, and it should be abandoned.

Please, briefly describe the reasoning behind your choice:

*600 character(s) maximum*

We continuously have to identify new market roles i.e. new categories of electricity undertakings which may cause risks for the stability of the electricity grid.

## 7. Protection of information exchanged in the context of this data processing

**Question 19** - The proposed FG provides for rules to protect all information exchanged in the context of the data processing concerning the network code.

Considering the proposed rules and principles, please select one of the following options:

- The proposed rules and principles are appropriate and cover all aspects needed to secure the information exchanges in the context of the network code.
- The proposed rules and principles are appropriate but miss some additional aspects needed to secure the information exchanges in the context of the network code.
- The proposed rules and principles are not appropriate and miss many additional aspects needed to secure the information exchanges in the context of the network code.
- The proposed rules are excessive, and a relaxation of rules and principles is suggested.

Please, describe the reasoning behind your choice:

*600 character(s) maximum*

Data processing includes steering signals for demand response. This may be in the form of remotely managing many small devices owned by customers of electricity undertakings. When aggregated, these small devices represent a large load on the grid. A security breach somewhere in the data processing chain may cause grid instability.

Therefore, we must make sure that all information exchanged in the entire chain is protected by the rules proposed in the FG.

## 8. Monitoring, benchmarking and reporting under the network code on sector-specific rules for cybersecurity aspects of cross-border electricity flows

**Question 20** - The proposed FG suggest monitoring obligations to verify the effectiveness in the implementation of the NC. In this respect, do you think they are appropriate?

- The proposed monitoring obligations are appropriate and they cover all aspects needed to carefully monitor the implementation of the network code.
- The proposed monitoring obligations are appropriate but they do not cover all aspects needed to carefully monitor the implementation of the network code.
- The proposed monitoring obligations are not appropriate and they do not cover all aspects needed to monitor the implementation of the network code.
- The proposed monitoring obligations are excessive, and a major revision of the principles is suggested.

**Question 21** - The proposed FG suggests benchmarking obligations to control the efficiency and prudence in cybersecurity expenditure, resulting from the implementation of the NC. Moreover, benchmarking,

together with the identification of cybersecurity maturity levels of electricity undertakings, may constitute the grounds to further incentivise cybersecurity culture for cybersecurity electricity flows in the future.

In this respect, do you think that the benchmarking obligations are appropriate?

- The proposed benchmarking obligations are appropriate and cover all aspects needed to monitor the efficiency and prudence in cybersecurity expenditure during the implementation of the network code.
- The proposed benchmarking obligations are appropriate but they do not cover all aspects needed to monitor the efficiency and prudence in cybersecurity expenditure during the implementation of the network code.
- The proposed benchmarking obligations are not appropriate and they do not cover all aspects needed to monitor the efficiency and prudence in cybersecurity expenditure during the implementation of the network code.
- The proposed benchmarking obligations are excessive, and a major revision of the principles is suggested.

**Question 22** - The proposed FG suggests reporting obligations: the aim of the reporting obligations is to facilitate informed high-level decisions on the revision of the network code.

Considering the proposed reporting obligations, please select one of the following options:

- The proposed reporting obligations are appropriate and cover all aspects needed to monitor the achievement of the objectives of the network code.
- The proposed reporting obligations are appropriate but they do not cover all aspects needed to monitor the achievement of the objectives of the network code.
- The proposed reporting obligations are not appropriate and they do not cover all aspects needed to monitor the achievement of the objectives of the network code.
- The proposed reporting obligations are excessive, and a major revision of the principles is suggested.
- The proposed reporting obligations are very limited, and a major revision of the principles is suggested.

**Question 23** - Do you think the proposed FG sufficiently cover cybersecurity aspects of:

	Partially covered	Fairly covered	Substantially Covered	Fully covered
Real-time requirements of energy infrastructure components.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk of cascading effects.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mix of legacy and state-of-the-art technology.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Question 24** - Do you have any other comment you want to share and that are not included in the previous questions, with regard to the rest of the content of the draft FG ?

*1000 character(s) maximum*

We must also pay attention to Home Energy Management Systems. These are usually connected to a central system of the manufacturer. Such company can control energy flows to many households and must therefore be considered to be an aggregator.

Also cascading effects are important. Manipulation or malfunctioning of certain systems may cause strong effects on (other parts of) the electricity grid. For example: when a large number of solar panels are suddenly switched off, grid voltage will go down. EVs which are charging at that moment, will try to keep the same power level by increasing the current. This may result in overloading of cables and other components in the LV-grid as well as overloading the MV/LV-transformer.

It is very important that the FG focuses on processes and electricity flows rather than only on assets owned by electricity undertakings. Customer assets may be controlled by market parties which are currently not clearly defined as electricity undertakings.

## **Contact**

[Contact Form](#)