Contribution ID: 5b306dcf-7087-418e-ab54-151f48507818
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European Grids Package

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Octav

* Surname

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* Organisation name

255 character(s) maximum

IOGP Europe

* Organisation size

- ○ Micro (1 to 9 employees)
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General questions

Secure supplies of clean and affordable energy are critical for European competitiveness, preparedness, security and the EU's decarbonisation efforts towards 2030 and 2050. Ensuring a well-integrated and optimised European energy grid is crucial to accelerating a cost-efficient clean energy transition. The mission letter to Commissioner Jørgensen calls to work for the production of "more clean energy" and "the upgrade of the grid infrastructure". Specifically, it is requested to "look at the legal framework on European grids with the aim to help upgrade and expand grids to support rapid electrification [and] speed up permitting" and highlights the need to "upgrade our grid infrastructure and develop a resilient, interconnected and secure energy system".

Q1: To what extent do you agree that existing EU legal framework for grids delivers on the following objectives?

	Strongly disagree	Slightly disagree	neutral	Slightly agree	Agree	Don't know
* Market integration	○	○	◉	○	○	○
* Interconnections	○	○	○	◉	○	○
* Competition / Affordability of energy prices	○	○	◉	○	○	○
* Energy security	○	○	○	◉	○	○

Please explain your reply providing, where possible, qualitative and quantitative evidence.

The existing EU framework for grids supports market integration and interconnection. However, deeper integration can further lower energy prices and enhance energy security. The EU should strike the right balance between promoting market integration and interconnection, while avoiding unnecessary interventions that could distort the market.

Q2: In your view, what are the main barriers to grid infrastructure development necessary for the energy transition to happen, and at sufficient pace? [rank them from 1 (most important) to 8 (least important)]:

	1 *(most important)*	2	3	4	5	6	7	8 (least important)	Don't know
* Suboptimal transmission network planning	○	○	○	○	○	○	○	○	◉
* Suboptimal distribution network planning	○	○	○	○	○	○	○	○	◉
* Lengthy permitting	◉	○	○	○	○	○	○	○	○
* Insufficient financing	○	◉	○	○	○	○	○	○	○

* Insufficient supply chains	○	○	◉	○	○	○	○	○	○
* Inefficient use of existing infrastructure	○	○	○	○	○	○	○	○	◉
* Regulatory uncertainty	○	○	◉	○	○	○	○	○	○
Other (please specify below)	◉	○	○	○	○	○	○	○	○

Please specify:

4000 character(s) maximum

- A key barrier to the development of hydrogen and CO_2 infrastructure is the lack of long-term certainty around volumes, stemming from unclear supply and demand signals. Infrastructure investors and developers require visibility for future flows to justify upfront capital-intensive investments. - The absence of a functional market for low-carbon products (such as low-carbon steel, synthetic fuels, or clean ammonia) prevents the emergence of scalable and reliable demand for clean molecules. Without robust demand-side measures or lead markets, it's difficult to build the commercial case for the infrastructure needed to transport these products.

Please explain your reply providing, where possible, qualitative and quantitative evidence.

EU Infrastructure planning

Requirements for planning of transmission network development on a national and European level are included in the internal market legislation (for electricity as well as hydrogen and decarbonised gases) and the TEN- E Regulation. They require the TSOs to put forward network development plans with at least a 10-year outlook for grid development biannually. At the European level, this is done through the Ten-year network development plan (TYNDP), currently developed by ENTSO-E and ENTSO-G.

* The following questions Q3 to Q6 apply to both electricity and hydrogen, please specify the sector you are referring to when answering these questions:

- ○ Electricity
- ◉ Hydrogen
- ○ Both

Q3: To what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know

* The current framework in relation to the TYNDP and national transmission development plans provides for integrated and coherent planning at national and EU level	○	○	○	◉	○	○
* The TYNDP identifies all cross-border infrastructure needs	○	○	◉	○	○	○
* The TYNDP identifies all relevant projects to match the actual infrastructure gaps	○	○	○	◉	○	○
* The TYNDP should have a more top-down European approach to identify cross-border infrastructure needs, meaning going beyond a project bottom-up approach and ensuring that the planning aligns with EU and Member States' climate and energy objectives	○	○	○	○	◉	○
* The TYNDP should have a more top-down European approach to better link identified needs and priority projects of European interest	○	○	○	○	◉	○
* Projects at national level should align and support priorities of European interest	○	◉	○	○	○	○

Please explain your reply providing, where possible, qualitative and quantitative evidence.

The TYNDP should also incorporate actual demand data from hydrogen projects to provide a comprehensive basis for identifying infrastructure development needs and provide certainty and predictability for producers.

* Q4: The needs identification at EU level should (you can choose more than one option):

- ☑ Cover cross-border projects within the EU
- ☑ Cover internal reinforcements in Member States necessary for cross-border projects
- ☑ Cover connections with third countries

- [ ] Cover non-infrastructure solutions (e.g. grid enhancing technologies)
- [x] Follow a cross-sectoral approach
- [ ] Other

* Q5: Do you agree with the following statement?

The frequency of the identification of system needs process (every 2-years) is fit for purpose.

- (•) Yes
- ( ) No

* Q6: Do you agree with the following statement?

The frequency of the scenarios building process (every 2-years) is fit for purpose.

- (•) Yes
- ( ) No

Please explain your reply providing, where possible, qualitative and quantitative evidence.

* Q7: Do you agree with the following statement?

The governance framework of the TYNDP, i.e. the role of all individual involved, should be revised.

- ( ) Yes
- (•) No

Q8: In your view, how can the needs for CO2 cross-border infrastructure in the EU be reflected in the PCI/PMI selection process under the TEN-E Regulation? Are there other ways the TEN-E Regulation could support the development of future CO2 cross-border infrastructure? Please explain

- While current PCI/PMI criteria rightly emphasize cross-border impact, they lack specific metrics to assess the accessibility of CO2 storage or the integration of diverse transport modes. Future project evaluations should consider how effectively infrastructure links industrial emitters to CO2 storage sites, accommodates pipelines alongside alternative modes such as shipping, and offers scalability to evolve into larger CO2 transport and storage hubs. - To unlock investment and accelerate deployment, Connecting Europe Facility (CEF) funding should be extended to cover early-stage activities such as CO2 storage site exploration and characterization. Introducing blended finance instruments, combining public support with private capital, would further incentivize participation. - EU infrastructure planning should actively incorporate strategic North Sea and EEA partnerships, especially with countries like Norway. Norway offers the most mature geological storage capacity in Europe, and connectivity to these storage sites should be prioritized through the identification and support of strategic CO2 corridors. These corridors should be recognized as PCIs/PMIs under the TEN-E framework to ensure integrated planning and accelerated development. Similarly, cooperation with the United Kingdom should be reflected in the project selection and corridor planning. - The German "WANDA" scheme presents a compelling model for addressing the intertemporal cost recovery challenge in hydrogen and potentially CO2 infrastructure development under the TEN-E Regulation. By introducing a uniform "ramp-up tariff" applied across the hydrogen core network, the mechanism enables the deferral of full cost recovery until 2055, thereby maintaining affordable tariffs during the early market ramp-up phase, avoiding penalization of early movers. Initial revenue shortfalls are tracked in a dedicated account and underwritten through liquidity support from KfW and federal guarantees covering up to 74% of costs. This approach secures financial viability and investor confidence despite low initial demand. Applying a similar intertemporal cost allocation mechanism to cross-border CO2 networks could help mitigate the “chicken-and-egg” investment dilemma by enabling affordable early access while ensuring long-term cost recovery. The TEN-E framework could support or mandate such tools, particularly for PCI/PMI with strategic long-term value but uncertain early-stage returns.

Please explain your reply providing, where possible, qualitative and quantitative evidence.

Electricity network planning at national level

At a national level, transmission and distribution grid operators are obliged to establish respective network development plans (“NDP”) at least on a biannual basis, pursuant to requirements of Articles 51 and 32 of the Directive (EU) 2019/944. Plans should set out planned investment, taking into account future development of supply and demand, including renewables generation, flexibility and electric vehicles (EVs) recharging points.

Q9: Concerning the national transmission and distribution network development plans, do you agree with the following statements?

	Yes	No
* The existing legal framework for transmission network development plans is fit for purpose	○	◉
* There is a sufficient alignment between national transmission development plans between Member States	○	◉

* There is a need for better alignment between national transmission and distribution network development plans across the EU	○	◉

Q10: Concerning the distribution network development plans, to what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The existing legal framework for distribution network development plans is fit for purpose	○	○	○	○	○	◉
* The coverage of small distribution system operators (DSOs) in the network planning is sufficient under the existing legal framework	○	○	○	○	○	◉
* There is sufficient transparency of distribution network development plans	○	○	○	○	○	◉
* The implementation of the distribution network development plans is sufficient and their objectives met	○	○	○	○	○	◉
* Distribution grid operators are equipped with sufficient capacity to properly plan distribution grids	○	○	○	○	○	◉
* There should be a stronger coordination of distribution network planning at EU level	○	○	○	○	○	◉

Other:

- The EU should support a more diversified and technology-neutral energy system that will lead to a more efficient infrastructure deployment. - As part of the forthcoming EU Grids Package, the development of a dedicated Hydrogen Grid Strategy is essential. This strategy must adopt a forward-looking and fully integrated perspective on infrastructure planning and financing. - Building a truly multimodal energy system—linking electricity, natural gas, hydrogen, and CO_2 transport, distribution, and storage networks—will not only complement the expansion and modernisation of the power grid but also enhance the overall efficiency and resilience of energy transport and distribution across the Union.

Transparency on electricity grid hosting capacity

Article 31(3) of Directive 2019/944 (EU) requires that distribution grid operators provide system users with the information they need for efficient access to, and use of, the system, in particular on capacity available for new connections in their area of operation, information on connection requests as well as on how the available grid hosting capacity is calculated. The EU Action Plan for Grids further strives to enhance transparency by creating a common understanding on the grid hosting capacity calculation across Europe.

* Q11: Do you consider additional measures necessary to reduce grid connection lead times?
Should there be differentiated approaches for different types of uses (industry decarbonisation, residential heat, charging infrastructure)?

- ○ Yes
- ○ No
- ◉ Don't know

Permitting

Directive (EU) 2023/2413 (Renewable Energy Directive – RED III), Directive (EU) 2024/1788 (Directive on Gas and Hydrogen Markets), Regulation (EU) 2022/869 (TEN-E Regulation), and Regulation (EU) 2024/1735 (Net-Zero Industry Act) establish provisions for the acceleration of permitting procedures for renewable energy generation, storage and energy networks including CO2 assets. Whilst some RED III provisions have yet to be transposed by Member States due to upcoming deadlines, permitting procedures are perceived as one of the main cause of delays in project implementation.

Q12: In order to accelerate permitting for energy networks, storage and renewables and CO2 assets, to what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The permitting provisions of the TEN-E regulation are cleat and easy to implement	○	○	○	◉	○	○
* Permitting procedures should be fully digitalised	○	○	○	○	◉	○
* Availability and sharing environmental and geological data (and other technical data required) should be ensured	○	○	○	○	◉	○
* One-stop shops for network permitting should be introduced	○	○	○	○	◉	○

* Environmental assessments should be simplified and streamlined*	○	○	○	○	◉	○
* Legal deadlines for permitting procedures need to be shortened	○	○	○	○	◉	○
* Deadlines for the permitting of networks should be shortened or established where missing	○	○	○	○	◉	○
* Deadlines for the permitting of Projects of Common Interest and Project of Mutual Interest should be shortened and clarified to reflect the urgency in implementing these projects	○	○	○	○	◉	○
* The permitting procedures for storage should be simplified*	○	○	○	○	◉	○
* The permitting procedures for distribution network projects and small-scale renewable projects, as well as repurposing, refurbishment and repowering should be simplified*	○	○	○	○	○	◉
* The permitting procedures for hybrid projects (combining different technologies, including storage) and other innovative solutions should be simplified	○	○	○	○	◉	○

Other:

(*) Please specify:

- While TEN-E Regulation aims to streamline permitting, some of its procedural requirements and interdependencies cause delays rather than accelerate project delivery. - We support the availability and sharing of environmental and geological data, provided this refers to raw geological data only. Further interpretation or elaboration should remain proprietary to protect developers' commercial interests. - On permitting deadlines, we support shorter legal timeframes to improve efficiency, particularly by increasing the responsiveness and accountability of permitting authorities. Solutions should focus on streamlining permitting from the perspective of public administration (e.g. faster response times, digitalization, coordinated procedures), rather than placing additional burdens on the development of low carbon projects. The goal must be a permitting system that is faster, more predictable and developer-friendly, without introducing tighter obligations on project proponents. - We strongly agree that permitting procedures for storage should be

simplified, if applicable to CO2 storage. This would be particularly relevant to support the compliance of the 50 Mtpa CO2 injection capacity target established under the NZIA.

Facilitating investments in grid infrastructure

Article 16 of the TEN-E Regulation facilitates investments with cross-border impact through a cross-border cost allocation (CBCA) framework where the relevant national regulatory authorities (NRAs) jointly agree on CBCA decision. Where there is no agreement among the NRAs, they may jointly request ACER to decide on the investment request including the CBCA.

Q13: To what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The current cross-border cost allocation (CBCA) framework is fit for purpose	○	◉	○	○	○	○
* An investment request within the CBCA framework could also cover several projects ('bundling') to facilitate cost sharing amongst more Member States beneficiaries	○	○	○	◉	○	○
* The CBCA framework should be developed further to facilitate that investment costs are shared amongst countries, beyond hosting Member States, in proportion to the expected benefits	○	○	○	◉	○	○
* The role of involved actors (Member States, NRAs, ACER, TSOs) should be revised to facilitate the process*	○	○	◉	○	○	○

Other:

(*) Please specify:

Q14: To what extent other instruments or tools (beyond CBCA) should be considered or modified to facilitate financing of cross-border infrastructure?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* Inter-Transmission System Operator Compensation (ITC) mechanism	○	○	○	◉	○	○
* Sharing of congestion income	○	○	◉	○	○	○
* Common/regional regulated asset base (RAB)	○	○	○	◉	○	○
* Ex post conditionalities	○	○	◉	○	○	○

Other:

- Funding the necessary grid reinforcements and adaptations will require mobilisation of significant financial resources. Grid operators, both at the transmission and distribution levels, are faced with an unprecedented increase in the volume of capital expenditure possibly affecting credit rating and access to capital. - Intertemporal Cost Allocation mechanism (either via separate national schemes or as a joint instrument for CB infrastructure) can play a role in complementing CBCA

Funding the necessary grid reinforcements and adaptations will require mobilisation of significant financial resources. Grid operators, both at the transmission and distribution levels, are faced with an unprecedented increase in the volume of capital expenditure possibly affecting credit rating and access to capital.

Q15: In your view, which financial obstacles are most relevant for investments in infrastructure projects?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* Access to debt	○	○	○	○	○	◉
* Access to equity	○	○	○	○	○	◉
* Access to counter-guarantees	○	○	○	○	○	◉
* Regulatory risk	○	○	○	○	○	◉
* Access to public funding (EU/national)	○	○	○	○	○	◉

Other:

- The development of hydrogen and CO2 infrastructure in the EU is currently hindered by the lack of long-term visibility on volumes, driven by persistent uncertainty on both supply and demand. This investment risk can be mitigated by establishing an enabling, technology-neutral regulatory framework that provides the clarity and certainty needed to unlock sufficient volumes and underpin confidence in developing the required grid infrastructure. - Furthermore, the Grids Action Plan estimates the need for electricity grid investments to reach 584 bn EUR by 2030, and a recent report from the European Commission (Investment needs of European energy infrastructure to enable a decarbonised economy) estimates 1202 bn EUR at the 2040 horizon. In comparison, the investment needs for the repurposing of gas and development of hydrogen infrastructure in EU27 reach only 170 billion for distribution and transmission pipelines at the 2040 horizon (400 bn when including electrolysers, storage, and terminals). The development of a pan-European hydrogen network in a multi-energy model over the 2030-2050 timeframe could save as much as 330 bn EUR compared with a more isolated approach.

Q16: If needed, what financial measures could be considered to further support transmission infrastructure? Please specify.

Intertemporal Cost Allocation mechanism (ICA)

Q17: If needed, what financial measures could be considered to further support distribution infrastructure? Please specify.

Q18: If needed, what financial measures could be considered to further support hydrogen infrastructure? Please specify.

Designated hydrogen infrastructure is particularly capital-intensive, high-risk, and therefore needs tailored financing and de-risking tools. The forthcoming EU Grids Package should: o Strengthen existing instruments like the Connecting Europe Facility (CEF) and the Innovation Fund to better support hydrogen infrastructure. o Support the comprehensive development of the hydrogen market; it is crucial that European Union-level funding for infrastructure is spread across the various hydrogen corridors currently under development. o New risk sharing mechanisms should also be considered, including the blending of public and private capital (e.g. via the European Investment Bank, or other EU wide financing tools - like the Industrial Decarbonization Bank, Competitiveness fund - for Union-relevant critical energy infrastructure), and promote the use of de-risking mechanisms such as intertemporal cost allocation to fairly distribute costs between early adopters and future users of the network.

Q19: If needed, what financial measures could be considered to further support CO2 infrastructure? Please specify.

- To further support CO_2 infrastructure, public-private partnerships (PPPs) should be considered, with a particular focus on public financing of transportation infrastructure. This is especially important in the early stages of the value chain development, where infrastructure often needs to be built ahead of demand. Public support can de-risk investments and enable pipeline networks to be dimensioned for future growth rather than limited to short-term CO_2 volumes. - Intertemporal cost allocation mechanism (ICA) could also be considered to de-risk the construction of CO2 grid infrastructure. - Additionally, EU-level guarantee funds, co-financed by the

Member States benefiting from the infrastructure, should also be envisaged. These funds would be designed to mitigate volume risk and counterparty risk associated with CO2 transport and storage infrastructure. By offering a targeted risk mitigation facility, EU-level guarantees could significantly improve the bankability of cross-border projects, unlock private capital, and accelerate deployment of strategically important infrastructure.

Supply chains

Constrained supply chains and a lack of skilled workforce are being cited the major hurdles hindering grid development. The 2023 Action Plan for Grids included concrete action to address the often fragmented technical requirements for grid components through a common specifications workstream, as well as the need for greater visibility on future investments planned. The Union of Skills package adopted on 5 March 2025 targets the identified gap in skills - particularly those needed for the energy transition, investing in people for competitiveness, reinforcing the Competitiveness Compass and the Clean Industrial Deal.

Q20: To what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The current network development plans at EU and national level provide sufficient visibility for the supply chain for the purpose of investment planning	○	○	◉	○	○	○
* There is a need for better visibility to ensure sufficient investment in the supply chains	○	○	○	◉	○	○

* Please specify:

-

Q21: To what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* There is a need for further harmonisation of equipment requirements within the EU, for the purpose of scaling up supply chains and their repair capacities	○	○	○	○	○	◉

Other:

* Q22: Is there a need for additional EU action to address supply chain bottlenecks in the energy sector, following recent initiatives?

- ○ Strongly disagree
- ○ Slightly disagree
- ◉ Neutral
- ○ Slightly agree
- ○ Strongly agree
- ○ Don't know

* Q23: Is there a need for additional EU action in the field of skills for the energy sector, following recent initiatives, such as the Union of Skills?

- ○ Strongly disagree
- ○ Slightly disagree
- ◉ Neutral
- ○ Slightly agree
- ○ Strongly agree
- ○ Don't know

Digitalisation and resilience

Digitalised and resilient grids are essential from a security of supply perspective. Actions were put forward also as part of the Action Plan for Grids adopted in 2023. By the end of 2025, a common Technopedia Platform operated by the ENTSO-E and the EU DSO entity should materialize, providing an overview of existing grid enhancing technologies. Enhancing the security and resilience of cross-border energy infrastructure projects is crucial for ensuring a reliable supply of energy. It is also a key priority of the current Commission mandate, especially in the context of emerging risks such as climate change impacts and malicious attacks on critical energy infrastructure.

Digitalisation

* Q24: Do you agree that there is a need for additional EU action concerning visibility and quantified benefits of innovative, digital and grid enhancing technologies?

- ○ Strongly disagree
- ○ Slightly disagree
- ○ Neutral

- ○ Slightly agree
- ○ Strongly agree
- ◉ Don't know

* Q25: In your view, should there be further measures to increase the efficiency of the existing grid?

- ○ Yes
- ◉ No

Security and resilience

Q26: To what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The current EU legal framework, beyond the TEN-E Regulation, sufficiently addresses resilience and security criteria for cross-border infrastructure projects including recent and emerging risks such as climate change impacts	○	◉	○	○	○	○
* Projects of common interest (PCIs) and Projects of mutual interest (PMIs) should be subject to additional security criteria to reduce exposure and/ or enhance readiness against physical and cyber risks	○	○	◉	○	○	○
* The existing EU legal framework for grids, beyond the TEN-E Regulation, allows to avoid non-trusted actors' participation in critical cross-border infrastructure projects	○	○	◉	○	○	○

Other (please specfy):

Flexibility

Pursuant to the existing EU regulatory framework, distribution network development plans shall provide transparency on the medium and long-term flexibility services needed and consider alternatives to grid development (such as flexibility, demand response or innovative grid technologies). There is also ongoing work between TSOs, DSOs, ACER and the Commission following up on the most recent revision of the Regulation (EU) 2019/943 on the internal market for electricity in 2024, mandating the regulatory authorities or dedicated authorities to conduct biannual assessment of flexibility needs. The relevant methodology, explaining inter alia the link to the network planning should be adopted in Q3 2025.

* Q27: In this context, do you agree that the existing framework is sufficient for considering flexibility needs in network planning and development

- ○ Strongly disagree
- ○ Slightly disagree
- ◉ Neutral
- ○ Slightly agree
- ○ Strongly agree
- ○ Don't know

Simplification

Q28: In view of simplifying the PCI/PMI selection process, to what extent do you agree with the following statements?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* The current frequency of the PCI /PMI selection process (every 2 years) should be decreased e.g. every 3 years	◉	○	○	○	○	○
* Project with PCI/PMI status should not be required to reapply for each PCI/PMI process, provided certain conditions are met (e.g. sufficient maturity, progress)	○	○	○	○	◉	○
* The application process should be further simplified	○	○	○	○	◉	○

Please specify your reply providing, where possible, qualitative and quantitative evidence.

Projects qualified as PCI/PMI but ending without securing funding from the TEN-E framework should be considered eligible for other relevant funding instruments. However, this eligibility should be accompanied by a streamlined selection process that ensures continued alignment with the specific objectives and strategic goals of the alternative funding schemes. While simplifying the process can expedite financing and help address funding gaps, it is crucial that projects still meet the criteria and policy priorities of each funding instrument to avoid undermining the strategic impact of the EU's broader funding landscape.

Q29: In view of additional simplification measures, to what extent, do you agree that there is potential for simplification in the following areas?

	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree	Don't know
* TYNDP process: Scenario building	○	○	○	○	○	◉
* TYNDP process: infrastructure gap identification	○	○	○	○	○	◉
* TYNDP process: Project assessment	○	○	○	○	○	◉
* Offshore network development planning process	○	○	○	○	○	◉
* PCI/PMI project monitoring and reporting	○	○	◉	○	○	○

Please specify your reply providing, where possible, qualitative and quantitative evidence.

Contact

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