EREF European Renewable Energies Federation

EREF Input to the Targeted Consultation on Dedicated Grid Areas

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The upcoming publication of the Commission's guidance on dedicated grid areas represents a crucial step in supporting Member States with the effective implementation of Article 15(e) of the Renewable Energy Directive (RED). This targeted consultation on the guidance is essential to ensure that accelerated permitting of grid and storage infrastructure enables the achievement of the EU's 2030 and 2050 renewable energy targets. Moreover, the guidance forms a key component of the EU Grid Action Plan, aimed at streamlining processes for grid expansion and enhancing alignment with renewable energy deployment.

A robust framework for grid infrastructure is indispensable for integrating renewable energy sources and advancing the energy transition. Achieving this requires accelerating the development of renewable energy projects while addressing permitting barriers and fostering investments in grid expansion. As Florian Maringer (CEO of the Austrian Wind Energy Association, an EREF member) notes:

> "In order to achieve the EU's 2030 and 2050 renewable energy targets, it is necessary to think the energy transition comprehensively and actively promote both the expansion of renewable energy and grid expansion together but with a high pace. Standardised, stable framework conditions at national and European level bring investments as well as legal certainty and are long overdue."

EREF welcomes the Commission's initiative and underscores its critical role in the successful implementation of dedicated grid areas to support renewable energy integration. However, it is essential that these areas remain strictly reserved for renewable energy grid capacities and storage projects, as outlined in Art. 15(e) RED. Diverting these areas to support fossil fuels or other non-renewable energy production risks undermining the EU's climate neutrality objectives and delaying the energy transition.

To ensure effective implementation, EREF highlights several key priorities, including:

- Alignment with national plans: Grid areas must integrate seamlessly into existing renewable energy strategies and spatial planning.
- Full utilisation of grid capacity: These areas must remain reserved for renewable energy and storage, avoiding diversion to fossil fuels.
- Streamlined processes: Clear legal frameworks, time-bound targets, and harmonised permitting are essential to accelerate deployment.

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- Stakeholder engagement: Early collaboration between authorities, developers, and communities builds trust and enhances project success.
- Digitalisation and innovation: Centralised tools and shared grid connection points can optimise grid usage and efficiency.

Below, EREF provides its detailed responses to questions of the consultation:

What do you think should be the necessary steps for the timely and effective set-up and implementation of dedicated grid areas as set out in the revised Renewable Energy Directive?

The establishment of dedicated grid areas, as outlined in the revised Renewable Energy Directive, is a crucial step in accelerating the energy transition and integrating renewable energy into the electricity system. To achieve this effectively and in a timely manner, a structured and principles-based approach is essential.

Align Grid Areas with Development Plans

Firstly, dedicated grid areas must align closely with the development plans of grid operators to ensure that they support the achievement of the EU's 2030 and 2050 renewable energy targets. This alignment should fit seamlessly into existing national energy strategies, as outlined in the NECPs, and grid planning processes. Comprehensive mapping exercises, conducted in close collaboration with grid operators and public authorities, are vital to identify suitable areas. These exercises should consider connection points, grid capacity, technical characteristics, grid security and resilience, as well as the potential for grid expansion.

Full utilisation of existing grid capacity, with priority reservation for renewable energies

When deciding about grid expansion and dedicated areas, it is essential to account for underutilised capacity, which in return needs to be reserved for renewable energy development and connection to the grid. Existing capacities shall not be attributed for accommodating any other generation than from renewable energy sources.

Establish Clear Legal Frameworks

A clear and robust legal and regulatory framework must underpin the establishment of these grid areas. Acceleration areas for grids that connect and integrate renewable energies should be enshrined in national and federal legislation, with criteria, processes, and timelines for their designation clearly defined, as well as coordination with Renewable Energy Acceleration Areas (RAAs) secured. This is necessary to ensure legal certainty and procedural efficiency at all administrative levels.

Set Time-Bound Goals

To ensure procedural efficiency, timelines should guide the process of establishing dedicated grid areas. This could include, for example, that dedicated grid areas should be designated within six months, and environmental concerns and mitigation measures should be addressed and resolved promptly, ideally within three months. Time-bound targets will help maintain momentum and ensure that the necessary infrastructure is in place to support renewable energy deployment.

Enhance Stakeholder Involvement

Early and efficient stakeholder involvement is a key factor of successful implementation. All relevant stakeholders, incl. public authorities, grid operators, developers, and local communities must be engaged from the outset to build trust and ensure alignment of interests in every stage of planning and implementation. Collaboration between federal and state governments as well as regional and local authorities is also critical to overcome potential political barriers to foster cohesive and effective action.

What type of guidance and support would be necessary in your jurisdiction for the successful designation of dedicated grid areas that are most effective in integrating renewable energy and enable specific infrastructure projects to benefit from significant permitting acceleration?

Policy and Regulatory Support

Clear and detailed Commission guidance is essential for the successful implementation of dedicated grid areas. This should include specific regulatory recommendations for better cooperation between developers and grid operators, particularly in capacity planning and project alignment. Across European countries, increasing grid saturation is restricting developers, who might be unable to choose the optimal location for renewable energy projects, due to limited sites with grid capacity availability. Also, developers are not sufficiently entitled to influence decision-making processes on expanding grid capacity and providing grid access, e.g. through the deployment of new substations that serve the general interest of increased renewable shares. Therefore, it is vital to foster direct cooperation among renewable project developers and grid operators, to optimise infrastructure development designed for the optimal location for renewable energies (e.g. in acceleration areas), strengthening their role as driving and systemic foundation of Europe's transformation to net-zero. The optimisation and expansion of grid infrastructures made for renewable energy deployment help avoid curtailment and prevent renewable sources from competing for existing grid capacity.

In this context, further regulatory support is needed to access real-time grid capacity data where feasible and sufficiently implemented digitalisation.

Shared Use of Grid Connection Points for Renewable Energy Plants

The current grid connection regime in many Member States often leads to underutilised grid capacity. Wind turbines and photovoltaic systems feed into the grid in a volatile manner, with relatively few full utilisation hours per year. However, grid connection requirements are typically based on the maximum capacity that can be fed into the grid simultaneously (i.e., the installed capacity of the systems). Situations where all systems generate at their nominal output at the same time are exceedingly rare. Consequently, large amounts of grid capacity—particularly in medium- and high-voltage grids—remain reserved but are barely used for most of the year.

To address this issue, the Commission should encourage Member States to establish legal provisions that guarantee the right of overbuilding. This would enable the shared use of existing grid connection points for the connection of additional renewable energy capacity without expanding the connected load. Moreover, Member States should introduce a corresponding right to access information regarding the feed-in capacity for additional renewable installations.

The Commission could further recommend the development of model contracts to standardise the process of shared grid connection use, providing clarity for all parties involved. As an example of best practice, the Commission might highlight the enabling regulations in Austrian Energy Laws, which demonstrate how such provisions can effectively optimise grid utilisation and facilitate the integration of renewable energy.

Zoning and Spatial Planning Assistance

Spatial planning tools and maps are indispensable for identifying suitable areas with high renewable potential and minimal environmental impacts. These tools should align grid area designations with broader land-use policies to prevent conflicts and ensure coherence with national and regional planning efforts. Clear zoning criteria are necessary to streamline the identification of effective grid areas.

Streamlining and Standardisation

Streamlined and standardised permitting processes for dedicated grid areas are crucial. This includes harmonising procedures for private grid developments (led by developers) and public grid initiatives (led by TSOs and DSOs) to ensure efficiency and reduce delays. Moreover, the Commission should encourage Member States to ensure that

swift conflict resolution mechanisms are put in place with arbitration guided by the principle to ensure priority access for renewables.

Capacity Building

Public authorities must have the resources and expertise to manage permitting processes effectively. Capacity-building programs should include training and tools to expedite administrative tasks and address bottlenecks in priority grid areas. Ensuring well-trained and adequately resourced staff is critical to ensure accelerated processes in designated grid areas.

Financial Mechanisms

Transparent financial mechanisms are necessary to clarify available funding for grid expansion and modernisation, including clear guidance on financial resources for infrastructure development, supporting timely implementation of renewable energy integration projects. This will enhance stakeholder confidence and ensure alignment with broader decarbonisation goals.

What do you consider the most appropriate criteria for establishing the sites for effective and meaningful dedicated grid areas?

Alignment with Climate and Energy Targets

Dedicated grid areas must be grounded in Member States' and the EU's climate and energy strategies, accommodating grid needs analysis aligned with 2030 and 2050 decarbonisation and energy targets. These areas should be identified with a forward-looking approach, ensuring they support both short- and long-term renewable energy integration goals.

Technical and Grid Connectivity

Prioritising sites near renewable energy production sites and projects is important to minimise transmission losses and ensure efficient grid utilisation. Early consideration of signals from demand sectors, such as transport and industry, can better align grid development with projected needs. The designation of sites should ensure they have adequate grid capacity or cost-effective upgrade potential while accounting for grid resilience, interconnection needs, and technical features that go beyond renewable acceleration areas.

Updating Processes

Dedicated grid areas should include a process for regular updates, aligned with grid development plans from TSOs and DSOs. This ensures that designations remain relevant and adaptable to evolving energy and infrastructure demands.

Environmental Considerations

Areas must avoid ecologically sensitive zones and minimise overall environmental impacts. Where possible, priority should be given to previously disturbed or degraded lands, such as brownfields, ensuring alignment with sustainability goals and reducing conflicts with biodiversity conservation and land use.

What aspects should be taken into account in such designation as regards environmental impacts, broader spatial planning considerations, land use regulations, stakeholder engagement and public participation? What other areas do you consider relevant to be taken into consideration and how?

In addition to the criteria outlined in the previous question, the following aspects should also be considered:

- Clear Guidelines on Viable Alternatives: Establish transparent and robust methodologies for demonstrating the absence of viable alternatives during site selection processes.
- Standardising Mitigation Methodologies: Define and standardise mitigation measures to address environmental impacts when avoidance is not feasible, ensuring a consistent and efficient process.

What are possible additional tools and good practices that could facilitate effective and rapid designation of dedicated grid areas consistently across the EU?

Digitalisation and Harmonisation

The process for designating dedicated grid areas should be fully digitalised, allowing for regular updates to reflect current realities. This includes the development of centralised, standardised mapping tools and databases accessible to all stakeholders. Harmonisation of procedures between entities is essential to address current gaps in coordination, ensuring consistent and effective implementation.

Sharing Best Practices

Member States should actively share successful approaches from EU projects to foster learning and efficiency. The use of digital tools, maps, and databases for identifying suitable areas should be encouraged to streamline the designation process.

Capacity Building

Local authorities must have the expertise and resources necessary to effectively manage spatial planning and permitting processes. This requires tailored training programs and clear guidelines to navigate the complexities of grid area designation. Equipping authorities with the right tool kits and knowledge will accelerate implementation while ensuring procedural integrity.

Financial Mechanisms

Transparent financial support mechanisms are critical for facilitating grid infrastructure projects. Guidance on funding options for grid expansion and modernisation must be clear and accessible. Such mechanisms should support timely implementation while aligning with Member States' renewable energy targets.

How should zonal or spatial planning or mapping of the territory in your jurisdiction take into account space necessary for energy infrastructure development (e.g. maritime spatial planning)?

Integration with Land Classification and Planning

Energy infrastructure zones, including renewable energy acceleration areas and dedicated grid zones, should be automatically embedded into regional and municipal land-use planning to avoid conflicts and delays. Ensuring alignment with national energy strategies and land classification systems is essential for streamlined development.

Enhancing Data Accuracy and Timeliness

Spatial planning efforts must rely on up-to-date and accurate data to avoid unnecessary delays and ensure effective decision-making. Member States should prioritise maintaining comprehensive and timely spatial data records, ensuring that planning and permitting processes remain aligned with current realities.

How Should Other Uses of Land or Maritime Space Accommodate or Co-exist with Energy Infrastructure Development?

The urgency which is required to achieve climate and energy targets stipulates that renewable energy development must take precedence in spatial planning and land-use decisions. An efficient approach that prioritises energy infrastructure while integrating other land and maritime uses is essential.

Align with Energy Development Priorities

Spatial planning processes must align with national and EU renewable energy targets, grid expansion plans, and future energy demand projections. This includes integrating emerging technologies such as energy storage and supporting electrification trends.

Dedicated energy corridors for transmission lines, substations, and grid infrastructure must be strategically identified and preserved to avoid future conflicts with land development.

Promote Multi-functional Land Use

Wherever feasible, Member States should promote energy infrastructure to co-exist with other land uses through multi-functional designs. For example, integrating renewable energy installations with agricultural activities (agrivoltaics) or existing industrial zones can maximise land efficiency while supporting local economies. Similarly, co-locating energy infrastructure along transportation corridors, such as highways and railways, can reduce land-use conflicts and improve spatial efficiency.

Conduct Cumulative Impact Assessments

A holistic spatial planning approach must consider the cumulative impacts of energy infrastructure and other land uses on ecosystems and landscapes. Comprehensive impact assessments will ensure that spatial planning minimises ecological disruptions while prioritising climate and energy objectives.

In case of areas identified in Natura 2000 sites and in areas designated under national protection schemes for nature and biodiversity conservation, how have you determined that there are no proportionate alternatives for their deployment, taking into account the objectives of the site?

Strategic Environmental Impact Assessment Process

Proportionate alternatives are systematically reviewed as part of the Strategic Environmental Impact Assessment process. This ensures that all potential deployment options are evaluated comprehensively, considering their compatibility with the site's conservation objectives and the broader energy and climate goals.

Cost and Environmental Considerations

Cost considerations are a key factor when determining the feasibility of alternatives; however, these must be carefully balanced with efforts to preserve the ecological integrity of protected areas. Where possible, innovative solutions should be sought to minimise environmental impacts while enabling the deployment of renewable energy infrastructure that supports EU climate and energy goals.

What type of areas do you consider should be prioritised for developing energy infrastructure?

EREF broadly supports the principles outlined in Article 15(e) of the revised Renewable Energy Directive, emphasising that areas should be prioritised based on their strategic value for renewable energy deployment while maintaining alignment with sustainability goals. The following principles offer a balanced framework for site selection across all forms of renewable energy:

Maximise Renewable Energy Potential: Prioritise areas with high renewable energy resource potential, including wind, solar, bioenergy, biogases, hydropower, and geothermal, to optimise energy production and ensure cost-effective deployment.

Leverage Existing Infrastructure: Focus on locations near existing grid lines, substations, transportation corridors, and industrial zones to minimise costs, reduce environmental disruption, and streamline connectivity to the energy system.

Promote Dual-Use Land Opportunities: Encourage projects that integrate renewable energy with continued land use, such as agrivoltaics on low-value agricultural land or the co-location of energy infrastructure in industrial and peri-urban zones.

Support Community Engagement: Emphasise participatory planning processes to incorporate local input, ensuring public acceptance, fostering collaboration, and maximising societal benefits.

Proximity to Demand Centres: Prioritise urban, peri-urban, and industrial areas to minimise transmission losses and directly serve regions with high energy demand.

Efficient Use of Degraded or Previously Used Lands: Focus on utilising degraded, previously developed, or repurposed areas such as brownfields, abandoned industrial sites, or areas with limited current utility for other purposes. This approach avoids competition with high-value agricultural or ecologically sensitive areas while supporting efficient land use.

How has the public been involved in the designation of dedicated infrastructure areas or zonal planning for energy infrastructure in your jurisdiction? Is public participation/stakeholders' engagement an issue? Please describe your experience.

Public participation plays a critical role in the approval processes for energy infrastructure projects, influencing both their pace and outcomes. While engagement mechanisms are essential for transparency and trust-building, they can also present challenges:

Effective Public Involvement in Approval Procedures

Public reactions often shape approval processes. This can often be in a very supportive and constructive way and thus helpful to finetune and adapt the project during the approval process. Albeit there is often strong opposition emerging in sensitive cases, such as developing wind energy projects in forested areas. This highlights the need to effectively balance energy infrastructure development with local community concerns.

Challenges with Political Dynamics

Public participation processes are sometimes abused for electoral or party-political purposes, leading to delays or politicisation of otherwise technical projects. This abuse can hinder progress, especially when objections are leveraged as tools for political gains rather than genuine community concerns.

Mitigating Delays through Early Engagement

To address these challenges, early and structured public involvement is crucial. Engaging stakeholders at the earliest stages of planning helps anticipate objections, build trust, and align project goals with public interests. Timely involvement can significantly reduce delays and foster broader acceptance of projects critical to achieving renewable energy and climate goals.

Additional Input: Ensuring Dedicated Grid Areas Exclusively Support Renewable Energy Integration

To achieve the EU's climate and renewable energy targets, it is essential that the dedicated grid areas and the related infrastructure per Art. 15(e) RED remain strictly reserved for grid capacities and storage projects necessary to integrate renewable energy sources. These areas must not be diverted for use by fossil fuel-based or other non-renewable energy production. Allowing such non-renewable uses would undermine the purpose of these zones, delay the renewable energy transition, and jeopardise its purpose for achieving the EU's climate neutrality objectives. Clear legal safeguards and robust monitoring mechanisms should be established to prevent the misuse or "hijacking" of these critical infrastructure areas by non-renewable energy interests.

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