Renewables Grid Initiative

2024 ANNUAL REPORT

FOREWORD

DEAR READERS,

As we navigate an increasingly complex world, the need for a Nature- and People-Positive energy transition is more urgent than ever, though increasingly difficult. Climate change impacts are no longer distant threats; they are present realities. Biodiversity losses are mounting at a devastating rate, with implications across societies and sectors. Geopolitics and the ongoing deterioration of democratic values are reasons for despair. Still, we can deploy the many solutions already available to reverse ongoing disruption and foster peace and well-being. It is hard work, but it is possible. The collective will to build a resilient, inclusive, and sustainable energy system is still there. The political understanding of the essential value of healthy ecosystems, the oceans, and forestry is increasing, with renewed commitments to protect and restore nature. Without these, life on planet Earth may no longer be possible. However, commitments need to be translated into actions at a continental scale.

RGI's efforts in reconciling Energy, Nature, and Societies are an important contribution towards a solutions-driven energy transformation. These three dimensions are not exclusive alternatives but need and can be addressed in parallel.

At the heart of this energy transformation is the grid. The electricity grid enables direct electrification, the most efficient way to fuel our economies. Investing in electricity infrastructure that is resilient to climate impacts, secure against disruptions, and sensitive to ecosystems and local communities is essential. At the same time, we must ensure that energy and electricity remain affordable for consumers and secure. Balancing these imperatives is no small task. The main tendency is to prioritise energy over nature and often over local communities. This short-sighted and simplistic attitude contributes to increasing local conflicts, undermines fact-based solutions, and often results in measures that diminish the benefits of the transition and lead to strong opposition. We therefore need to improve our energy system planning, gain a much more granular understanding of the demand side and reflect it in the planning, and embed optimisation at the system level to deal with scarcity and reduce both impacts and costs.

I am writing this text on the day when the Spanish Government released its assessment of the blackout that occurred in April 2025. There is a fundamental message that I want to bring here: renewable energy sources were not the cause of the blackout. Many rushed to blame renewables and they were obviously wrong! While we continue to decarbonise, let's remember that we can do it. Running a system largely or completely based on renewable energy sources requires a lot of work, new approaches, and new market rules. But it is possible. Grid operators have a fundamental role to play in leading and shaping the transition. The learnings from the blackout will inform future decisions globally. Let's make sure that we do not forget that technical and market decisions, though essential, are only a minor part of a successful and timely transition.

> *"Running a system largely or completely based on renewable energy sources requires a lot of work, new approaches, and new market rules. But it is possible.*

It is about people, about communities that host new infrastructure. It is about communication and storytelling. It is about shaping the future rather than preserving a past that can never come back.

RGI's collaborative efforts to bring diverse interest groups together to discuss difficult topics are more important than ever. Multilateralism is one of the main pillars of democracy and fair progress. RGI's sound understanding of the energy sector, the biodiversity and climate crises, and societal forces gives our Members a privileged perspective, and together, the courage to move forward with bold, sound, and sustainable decisions.

This report is a summary of RGI's work in 2024. It is a reflection of our unwavering belief that the energy transition must be Nature- and People-Positive, and that only by working together, across borders, across sectors, and with all stakeholders, can we realise this vision.

Cordialmente,

Antonella Battaglini
CEO Renewables Grid Initiative

CONTENTS

GRIDS & ENERGY SYSTEMS

ONSHORE ENERGY & NATURE

OFFSHORE ENERGY & NATURE

GINGR

ENERGY & SOCIETY

ABOUT RGI

GRIDS & ENERGY SYSTEMS

UNDERSTANDING AND SUPPORTING DECARBONISED ENERGY SYSTEMS

As Europe moves towards net-zero, understanding how to plan and operate a decarbonised energy system is central to meeting the energy and climate targets, reaching climate neutrality and ensuring long-term resilience. Harvesting opportunities, identifying enablers and addressing challenges related to this transition necessitates cross-sectoral and multi-stakeholder collaboration, informed system planning, and forward-looking approaches. In 2024, the activities of RGI's 'technical team', under the umbrella of Grids & Energy Systems, brought all these elements together.

This year marked the successful conclusion of the second phase of the Paris Agreement Compatible (PAC) Scenario project. The updated PAC scenario informed our efforts to support the implementation of an optimised energy system, primarily through a series of expert workshops and exchanges to discuss energy modelling and system planning. In April 2024, we organised a Modellers' Exchange Workshop 'Charting Our Course to 2040', which contributed to the debate on the EU 2040 climate target and provided a strong scientific evidence that greenhouse gases emissions reduction between 90% and 95% in comparison to 1990 levels in Europe is possible.

We also deepened our focus on flexibility as a key element of energy system optimisation and grid stability. Building on the revised Electricity Market Design, we organised an expert workshop 'Flexing EU's pathway to net-zero' in July, to explore how flexibility can support the EU's 2030 climate and energy targets, and shape the pathway to 2040. To make these complex discussions more accessible, we distilled these insights into a capacity-building webinar: 'Balancing Connections: Introduction to flexibility in a renewables-based energy system'. We learned that the main driver for increased flexibility (doubling the current levels by 2030) comes primarily from overarching decarbonisation goals, especially increasing renewable generation. While there is still a lot to be done on technological and system operation side, developing flexibility measures will enable the energy transition in the most cost-efficient way, while maintaining system security.

ACCELERATING THE ENERGY TRANSITION THROUGH RESOURCE OPTIMISATION

Speeding up the expansion of renewables and electricity grid infrastructure is a prerequisite to ensure the EU's decarbonisation, competitiveness and affordability goals. Since this acceleration requires considerable resources, incorporating optimisation strategies can help address the scarcity challenges and enhance resilience.

In the past year, RGI's Energy&Space workstream expanded to address diverse topics related to spatial optimisation. Within the framework of the JustWind-4All project,[1] we organised a Modellers' Exchange Workshop that discussed the aspects of combining offshore grid planning with maritime spatial planning. We continued this discussion at the 2024 European Sustainable Energy Week (EUSEW) policy session, concluding that the success of Renewables Acceleration Areas (RAAs) depends on holistic implementation that balances trade-offs across sectors and scales and empowers local communities.

15 Practices on extended reality were demonstrated at Immersive Power Conference and Experience Fair

Furthermore, in October 2024, in collaboration with TransnetBW, we hosted the Immersive Power Conference and Experience Fair, bringing together over 120 participants from industry, policymaking, academia and civil society. The event exhibited novel practices on extended reality, demonstrating that immersive technologies can support spatial planning, faster permitting and stakeholder engagement in RES and electricity grid development.

To address supply chain challenges that could risk the timely build-out of electricity grid and renewable energy projects, we launched the 'Wired for Circularity' workstream in 2024. This work promotes solutions in resource efficiency, circularity and sustainability. In June, in collaboration with PAC, we organised an expert workshop 'Closing the Circle' highlighting the importance of integrating supply chain and circularity constraints into energy system planning.

Moreover, we organised two webinars on this topic: building synergies with JustWind4All, we hosted the Best Practice Webinar 'Circular Wind' in June, showcasing how circularity can be implemented within the wind industry. Building on the expert workshop, in October, we organised a webinar 'Wired for Circularity', outlining why and how circularity can be integrated in electricity grids and informing a corresponding factsheet. With these activities we showed that circularity can alleviate resource and supply chain pressures by relevant strategies in product design, raw materials extraction, procurement, manufacturing, operation and end-of-life.

Amanda Schibline (RGI) at the EUSEW policy session

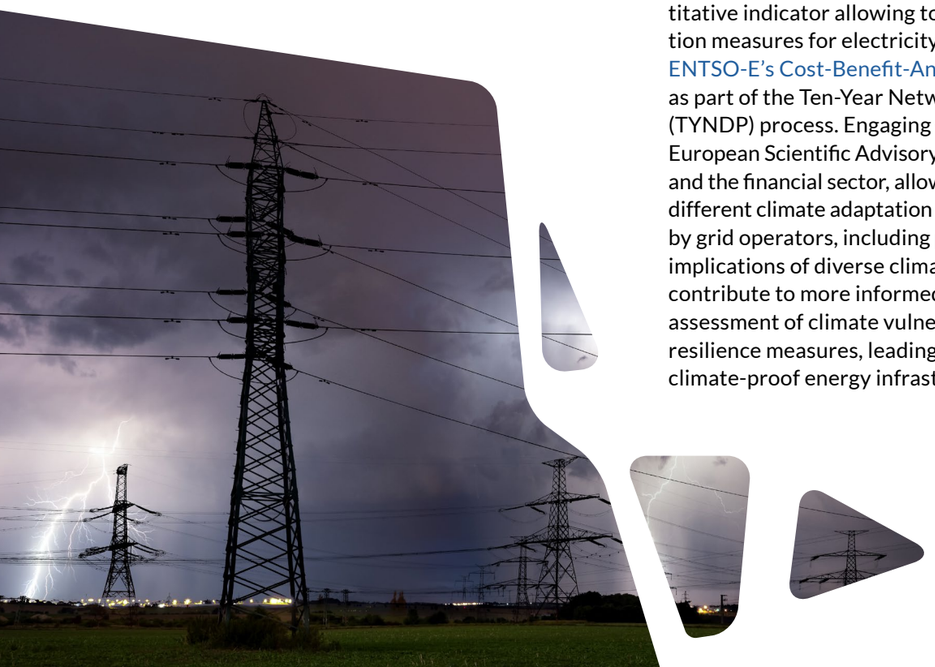
[1] JustWind4All is funded by the European Union under the Grant Agreement no. 101083936

CLIMATE-PROOFING THE ELECTRICITY GRID THROUGH CLIMATE-INCLUSIVE PLANNING

Europe's energy systems are increasingly exposed to climate change effects. Changing weather patterns impact energy generation and demand, whereas more extreme weather events like floods and wildfires increase the physical strain on infrastructure. In 2024, to raise awareness on this topic and enable knowledge transfer between different actors, we continued facilitating discussions between energy and climate modellers, system planners, researchers, policymakers, and civil society to explore methods and solutions for a climate-proof future energy system and reliable electricity supply across European countries.

We contributed to two complementary activities. First, as part of the European Commission's initiative, Destination Earth (DestinE), we led stakeholder engagement and communication activities within the Use Case Energy Systems, aiming to integrate weather and climate data into energy system modelling. In that context, we organised the User Perspectives Workshop in February 2024, combined with an online survey. In November, we hosted a public webinar that presented the project's results – proving the added value and feasibility of combining different meteorological datasets while considering many energy variables. High quality, high-resolution and fast-delivered information can support industry and policymakers in decisions about future investments and regulation, at the same time opening the door to further research of these processes using machine learning (ML) applications.

Second, in collaboration with ENTSO-E, we continued the work contributing to development of a new quantitative indicator allowing to assess climate adaptation measures for electricity infrastructure under the ENTSO-E's Cost-Benefit-Analysis (CBA) Methodology, as part of the Ten-Year Network Development Plan (TYNDP) process. Engaging with RGI Members, the European Scientific Advisory Board for Climate Change and the financial sector, allowed us to start collecting different climate adaptation practices implemented by grid operators, including physical and financial implications of diverse climate hazards. This work will contribute to more informed, accurate and effective assessment of climate vulnerabilities, adaptation and resilience measures, leading to better planning of climate-proof energy infrastructure.



EMBEDDING STAKEHOLDER ENGAGEMENT IN EVERY STAGE OF INFRASTRUCTURE DEVELOPMENT

Stakeholder engagement should be an intrinsic component of energy infrastructure development – from needs assessment and system planning to on-the-ground implementation. In 2024, we continued to promote early, regular and meaningful stakeholder engagement in RES and electricity grid infrastructure development.

786 Stakeholders engaged in JustWind4All's Wind Forum in 2024

Through the Engage4Energy project – the Public Engagement for Energy Infrastructure Task[2], we developed and launched an open-access, interactive tool to support policymakers, project developers and civil society in strengthening effective public engagement for energy infrastructure projects. This tool demonstrated that each actor, whether project promoters, policymakers, or NGOs, has an important role to play to make stakeholder engagement meaningful.

Within the BePart project, which explores public engagement in electricity grids, wind and solar energy in Germany, we conducted qualitative interviews with TSOs and municipal representatives located near electricity grid projects. This work will help generate quantitative data to assess the effectiveness of different engagement practices.

SRG
STAKEHOLDER REFERENCE GROUP
FOR THE TYNDP SCENARIOS

Moreover, through strengthened coordination in JustWind4All, we expanded the Wind Forum as a key engagement hub for just wind energy development.

Within our regional Wind Lab in the North Sea, we co-produced knowledge with diverse stakeholders, addressing technical, spatial, environmental, and societal aspects of offshore wind governance, demonstrating that leveraging Maritime Spatial Planning can guide societal transitions, enabling decision-makers to lead structured dialogues of the future of marine and coastal economies.

At the European level, we fostered a close collaboration with the European Commission (EC) and European Union Agency for the Cooperation of Energy Regulators (ACER) to support effective implementation of the EU's Pact for Engagement. We deepened our involvement in discussions to strengthen the regulatory recognition of public engagement activities in electricity grid development

Throughout 2024, the Grids&Energy Systems Team's knowledge and expertise gained across the activities also contributed to Ten-Year Network Development Plan (TYNDP) processes. As a co-convenor of the Stakeholder Reference Group (SRG), RGI provided expert guidance to the ENTSOs, alongside other SRG members, ensuring key stakeholder perspectives were effectively integrated into TYNDP scenario development and further long-term grid planning.

[2] Carried out under the UsersTCP - IEA Technology Collaboration Programme.

ONSHORE ENERGY & NATURE

IVM & BIRD PROTECTION

The need to jointly protect and restore nature while accelerating Europe's terrestrial energy transition seems to have arrived in mainstream political discourse. As developers and governments look for solutions, two of RGI's core topics present proven, efficient solutions:

- Bird protection – to reduce negative impacts of existing power lines on bird species and use data to plan new lines away from high-risk areas;
- Integrated vegetation management (IVM) – an approach to preventing vegetation interference with power transmission, while supporting biodiversity and creating socioeconomic benefits.

In 2024, our work on bird protection focused on research and capacity building. We launched a major research initiative to summarise science and practical experiences on the effectiveness of wire markers in reducing bird collisions with power lines. We have now published a brochure (in 5 EU languages), extended methodology report, table of >50 academic studies and more resources on our website. We held a workshop for Moroccan stakeholders to build capacity for bird-friendly electricity grids in this vast country which lies on a key migratory pathway. Furthermore, we laid the groundwork for new initiatives focussing on the standardisation and collation of mortality data.

Learn more about Avian-Power Line Collision

Participants at the IVM workshop in Portugal in November 2024, co-hosted with Portuguese TSO REN.

Our IVM working group is thriving, counting 38 organisations from 21 countries, many of whom met in Porto for a thrilling joint workshop with TSO, REN. We summarised the experiences of 14 grid operators with IVM implementation in an 'IVM Best practice report', which covers biodiversity, stakeholder engagement, regulation and finance. Future priority topics include biodiversity monitoring methodologies and sustainability reporting.

SAFELINES4BIRDS AND WINGSPAN 2024

Within the framework of the SafeLines4Birds project, RGI hosted the inaugural Wingspan conference in Brussels from 15 to 17 October, together with Elia Group and TB Raab. With 320 in-person and online attendees from 32 countries, the event brought together a diverse range of stakeholders – grid operators, NGOs, renewable energy developers, academics, and authorities – from across the globe to address the urgent need for a nature-friendly energy transition. The conference featured insightful panel discussions, scientific presentations, a workshop, a poster session, and a fair showcasing bird protection devices used along power lines and wind energy infrastructure.

On the second day, RGI hosted a parallel workshop to discuss the '7 principles for a Bird-friendly electricity grid in Europe'. This document emerged from the 2023 'Connecting Biodiversity' workshop in Berlin, where RGI convened environmental NGOs from 12 European countries. The principles were endorsed by 24 civil society organisations across 18 countries.

The 2024 workshop fostered strong collaboration among stakeholders to refine and advance these principles. Over 50 participants attended, including representatives from civil society, TSOs, DSOs, and European and national authorities from 17 countries. A summary of the discussions and proposed next steps was published in January 2025.

Furthermore, in October 2024, RGI launched the SafeLines4Birds scientific database to centralise all available studies and official guidelines on bird-grid interactions. The platform allows users to submit their research via an online form, fostering knowledge exchange among diverse stakeholders. The database is designed to be a reliable, up-to-date, and practical resource for those working to mitigate the impact of power lines on bird populations.

320 Participants to the Wingspan 2024 conference in Brussels

Participants of the Wingspan 2024 conference in Brussels.

OFFSHORE ENERGY & NATURE

OFFSHORE WIND AND GRIDS IN HARMONY WITH MARINE ECOSYTEMS AND PEOPLE

Offshore wind is set to play an increasingly important role in Europe's renewable energy expansion in the coming years, with most of the capacity to be developed in the North and Baltic Seas. As of 2024, 36.6 GW of offshore wind capacity was connected to the grid, supplying power to households and businesses across Europe. This capacity is expected to increase to 86–95 GW by 2030 and to 356–366 GW by 2050. Deploying this infrastructure in a way which does not harm ecosystems and supports citizen needs is vital, but nature-friendly pilot projects, mitigation measures, dedicated marine spatial planning, commitments from industry, and more are already demonstrating that nature can be protected, enhanced, and even restored in tandem with these efforts. In other European waters offshore wind development is still in its infancy, with innovative technology such as floating wind presenting new opportunities. Stakeholders in these areas are focusing on how to adapt lessons learned from their northern neighbours and apply them to their regional contexts.

RGI founded OCEaN in 2020 to tackle the many challenges behind this continent-wide effort. OCEaN's two coalitions (North and Baltic Seas; Mediterranean and adjacent Atlantic waters) now represent over 50 organisations across 11 countries, with Members from civil society, TSOs, and wind industry. In 2024, we continued to spread our messages in key industry and political forums, expanded our reach to new countries, and further cemented ourselves as a leading voice and touchpoint for topics related to nature, offshore wind, and grids. RGI's offshore team, under the dimension of Grids&Nature, moderates and convenes OCEaN's coalitions alongside guiding all additional offshore-related activities within RGI.

Shedding light on challenges and solutions implemented in different EU sea basins, OCEaN and Med OCEaN increased their visibility in 2024 with public events, advocacy actions, communication products, and more. Highlights included RGI and OCEaN's presence at WindEurope's Annual Event in Bilbao in March 2024, the conference 'Strong Winds, Thriving Seas' in Brussels in October 2024, the OCEaN report on avoidance and mitigation measures, and a re-launch of the OCEaN website alongside two databases, one on mitigation measures and another on nature enhancement and restoration projects. These activities and publications solidify the commitment OCEaN Members have to advancing our shared vision and leading conversations across sectors and regions, both online and in-person.

Check out OCEaN's new website to learn more

ocean
Offshore Coalition for Energy and Nature

Within OCEaN – North & Baltic Seas, Members addressed crucial topics including ecological non-price criteria in offshore wind auctions, mitigation of environmental impacts, and coexistence between offshore wind and other users of the sea. In 2024, those discussions led to the development of common messages, including two OCEaN joint statements, which were presented in various events and meetings with key decisions-makers to support and influence policy actions. In tandem, OCEaN also produced multiple publications aiming to guide stakeholders on their quest to accelerate the development of offshore wind and grid infrastructure hand-in-hand with the protection and restoration of marine ecosystems. Examples of this include the OCEaN report on avoidance and minimisation of environmental impacts and an infographic on Nature Inclusive Design solutions.

OCEaN's recognition at the EU and international level also increased in the last year, leading to several organisations applying to become OCEaN Members and referencing OCEaN's work in their own outputs, such as in a report from the World Economic Forum on Nature-Positive offshore wind. RGI, on behalf of OCEaN, regularly contributes to key regional platforms, including the North Sea Energy Cooperation (NSEC), the OSPAR Commission (as an official observer), the EU Nature Restoration Regulation Expert Group convened by the DG Environment, and the EC Expert Group on Maritime Spatial Planning. Today, OCEaN is widely recognised among the main initiatives in Europe addressing the interface of offshore wind and grid connections with environmental protection. With 2030 climate and energy targets fast approaching, we recognise the importance of keeping nature and communities in the conversation and look forward to building on our advocacy efforts and creating impact with our Members and partners in the coming years.

Cristina Simioli (RGI) and Mattia Cecchinato (WindEurope) introducing a panel at the WindEurope Annual Event 2024 in Bilbao.

50+ Members of OCEaN – North & Baltic Seas and Med OCEaN

NATURE-FRIENDLY OFFSHORE WIND AND GRIDS REACH NEW SHORES

Outside of the North and Baltic Seas, RGI consolidated Med OCEaN and its four national level workshop groups (in Spain, France, Portugal, and Italy), strengthening the collaboration at the regional and Member State levels. RGI supported the involvement of 5 NGOs in this work in the Mediterranean and Atlantic basins, allowing them to take part in the discussions and activities of the coalition at the regional and national levels, and build constructive exchanges with the offshore wind industry.

In 2024, Med OCEaN's visibility at the EU and international level ramped-up. For instance, the Regional Activity Centre of the Mediterranean Action Plan (MAP) of United Nations Environment Programme (UNEP) referenced Med OCEaN in their policy brief 'Recommendations to enhance Offshore Wind Energy in the Mediterranean Sea' – demonstrating the relevance of our work for other bodies active in the region.

Offshore wind development in the Mediterranean basin and the adjacent Atlantic waters is still in early stages and faces specific national and regional challenges, such as the need for floating technology due to water depth. Med OCEaN therefore requires a different approach and structure compared to the coalition in the North and Baltic seas. Our Members are ready and motivated to address specific national barriers with new, collaborative activities at the national level in 2025.

Check out OCEaN's new database

Finally, with regards to the developments in the Black Sea, RGI and OCEaN Members are playing a supporting role in the project titled BLUECEE, which included stakeholders from Bulgaria, Romania, Poland, and Croatia. Through this project, the Black Sea Offshore Renewable Energy Coalition was officially established in 2023, following OCEaN's model. In 2024, RGI contributed to capacity building workshops in Poland, Bulgaria and Romania, joined a study tour in Denmark, and participated in the final event, where we presented the work of OCEaN to less developed markets of the Black Sea. Consortium partners in that project have repeatedly recognised RGI's contributions to their work, which can be seen in the Guidelines for Unlocking the Offshore Wind Energy Potential in Central and Eastern Europe.

RGI team members at the 'Strong Winds, Thriving Seas' conference

DEMONSTRATING NATURE-FRIENDLY OFFSHORE WIND AND GRID SOLUTIONS THROUGH INSPIRING EVENTS

RGI was the driving force behind two major OCEaN events in 2024. The first of these was in March 2024, when RGI led various activities at the WindEurope Annual Event in Bilbao, Spain, highlighting the protection and restoration of marine ecosystems to an industry audience.

25 external events on offshore topics where RGI contributed

Activities included:

- An OCEaN exhibition stand with a 'learning corner' showcasing practices by OCEaN Members;
- The workshop 'Achieving wind and biodiversity targets – opportunities and lessons learned in Europe's seas' with over 120 attendees and expert speakers from both coalitions, a policy panel, and case studies;
- Three presentations on energy and nature at OCEaN Member's stands attended by over 100 people;
- Support for participation of 30 NGOs at the conference and organisation of an OCEaN networking dinner.

To cap off an impactful year, RGI, OCEaN and WindEurope held the conference 'Strong Winds, Thriving Seas – turning ambition into action for nature-friendly offshore wind and grids' on 30 October 2024. With 167 participants, including civil society organisations, wind industry representatives, grid operators, academics, and policymakers at the EU and Member State levels, RGI and OCEaN Members addressed the policy priorities for new EU policymakers, discussed key challenges, showcased solutions, and spotlighted new OCEaN publications. A common thread throughout the day – shared by attendees and speakers alike – was our message that we must work together to accelerate offshore wind and grids in a way which enhances, and even restores, fragile ecosystems at sea.

In the context of this event, we organised a Best Practice Fair 'Sailing through Solutions' to demonstrate that creative, impactful, and collaborative projects already exist and must be supported and scaled up. The fair included 20 projects tackling topics including Maritime Spatial Planning, environmental impacts, data and monitoring, Nature Inclusive Design, nature restoration, and multi-use of infrastructure. At the same time, RGI published the report on 'Avoidance & Minimisation of environmental impacts from offshore wind & Grid infrastructure – How to achieve a nature-friendly energy transition at sea' in collaboration with OCEaN Members. The report was accompanied by an online OCEaN Database on mitigation measures and two webinars on the topic are planned for 2025 to further spread the conclusions and recommendations. In addition, a new infographic on Nature Inclusive Design, created in partnership with OCEaN Members, was displayed at the event. All of these products can be found on the newly re-designed OCEaN website, which also featured the re-launched OCEaN Energy and Nature Database. With a fresher, intuitive and user-friendly look, as of 2024 this database features 14 nature enhancement and restoration projects and uses clearly defined criteria that were peer-reviewed by an environmental expert and approved by all OCEaN Members.

Beyond in-person events, RGI hosted two webinars on Member State-level regulatory landscapes for offshore wind and nature, with over 500 participants viewing the webinars, along with factsheets on national contexts for nature, wind, and grids.

Lastly, RGI participated as speaker and moderator in 25 relevant European events presenting the work of OCEaN, including the UN OCEAN DECADE conference, G20 Oceans Dialogue, NSEC workshops, and more. We were proud to work together with OCEaN Members to inspire and drive action towards a nature-friendly offshore energy future and are already looking ahead to 2025 with new events, webinars, and creative interactions with our network!

GINGR

SCALING UP GLOBAL ACTION FOR NATURE- AND PEOPLE-POSITIVE ENERGY

As the world races to expand renewable energy and electricity grids, the challenge is clear: this transition must be not only fast but also fair and Nature-Positive. That's why RGI, in partnership with IUCN, launched the Global Initiative for Nature, Grids, and Renewables (GINGR)—a global effort to ensure that renewable energy and grid expansion support both biodiversity and communities. Since its official launch at COP28 in Dubai, GINGR has gained momentum, establishing its Secretariat at RGI's offices in 2024 and building a strong foundation for international collaboration.

A major milestone this year was the creation of the International Advisory Board, which now includes 11 high-level experts from across sectors and regions, with a strong commitment to gender balance and multi-stakeholder representation. Chaired by Karsten Sach, a long-time climate negotiator and key figure in establishing IRENA, the Board provides strategic guidance to help shape the global framework for Nature- and People-Positive energy infrastructure.

GINGR is already delivering results. This year, three Technical Working Groups were established to develop robust assessment tools and fill critical research gaps. Focusing on Metrics, Offshore Wind, and Linear Infrastructure, these groups are laying the groundwork for standardised monitoring and reporting systems that track progress on biodiversity and community benefits. A fourth group, dedicated to People-Positive energy infrastructure, is now starting its work. These efforts will culminate in a draft global framework to be presented at COP30 in Brazil in 2025.

In addition to these working groups, GINGR published two key papers on Maritime Spatial Planning and Biodiversity Monitoring. These resources provide practical guidance for offshore wind developers, financiers, and policymakers, helping them integrate biodiversity safeguards and community engagement into every stage of project planning. Each paper includes a detailed Navigator checklist to support responsible decision-making in offshore wind development.

Antonella Battaglini, CEO of RGI, speaking at COP29 in Baku. Photo by REN21.

Beyond research, GINGR has also been highly active on the international stage. The initiative was showcased at New York Climate Week, the IUCN Leaders' Forum, and COP29 in Baku, where RGI and IUCN hosted three side events. A particularly impactful session in the SDG Pavilion focused on a People-Positive energy transition, engaging a diverse audience to explore how communities worldwide can be empowered in the shift to renewables. The takeaway was clear: without the full engagement and inclusion of local communities, the energy transition will not succeed.

To spread the word about this growing initiative, GINGR launched its own newsletter and LinkedIn page, offering regular updates on working groups, new publications, capacity-building workshops, and international events. As GINGR continues to evolve, it is setting a new standard for how grids and renewables can be developed in harmony with nature and people worldwide.

GINGR
Global Initiative for Nature, Grids and Renewables

Learn more at the GINGR website

ENERGY & SOCIETY

RGI GRID AWARDS: RECOGNISING INNOVATION AND COLLABORATION IN GRID AND RENEWABLES DEPLOYMENT

As Europe navigates ongoing challenges in energy security, affordability, and sustainability, cooperation and innovation remain key to accelerating the clean energy transition. The RGI Grid Awards, now in their 11th edition, continue to celebrate outstanding contributions to the sector. Known as the Good Practice of the Year Award, this honour highlights technological advancements, community engagement, and environmental stewardship—all essential pillars of a future-proof energy system.

RGI Grids Awards ceremony at the 5th PCI Energy Days.

At the 2024 RGI Grid Awards ceremony, held at the PCI Energy Days in Brussels, a diverse range of forward-thinking projects were recognised. With winners in Technological Innovation & System Integration, Communication & Engagement, and Environmental Protection, along with an Outstanding Achievement award, the ceremony showcased solutions that are shaping a more sustainable and resilient energy landscape.

Technological Innovation & System Integration

First Grid-Forming 300 MVAr STATCOM by Amprion received the Good Practice of the Year in Technological Innovation & System Integration for its breakthrough solution to stabilising an increasingly renewables-powered grid. In collaboration with Hitachi Energy, Amprion introduced Germany's first grid-forming STATCOM (Static Synchronous Compensator), a technology that provides voltage and frequency stability even in the absence of conventional power plants, ensuring greater system resilience.

Communication & Engagement

Moonshot by ECHT regie in transitie was awarded the Good Practice of the Year in Communication & Engagement for its pioneering work in fostering circularity in the wind energy sector. By uniting policymakers, industry leaders, and researchers, the initiative successfully integrated sustainability principles into offshore wind farm tenders. The project also spurred the creation of a circular decommissioning consortium, ensuring long-term responsibility for wind infrastructure.

Environmental Protection

Nature-Inclusive Design for an Energy Island by Elia Transmission Belgium earned the Good Practice of the Year in Environmental Protection for its innovative approach to integrating biodiversity into offshore grid infrastructure. At Princess Elisabeth Island, Elia plans to implement six Nature-Inclusive Design (NID) measures, including breeding ledges for birds and oyster tables, to create marine habitats alongside electricity infrastructure. This initiative sets a new benchmark for environmentally conscious offshore development.

Outstanding Achievement

Open Energy Modelling Initiative by openmod was honoured with the Outstanding Achievement award for over a decade of leadership in open and transparent energy system modelling. By advocating for open-source tools and data-sharing, openmod empowers policymakers, researchers, and industry stakeholders to collaborate on informed energy transition strategies. Its commitment to accessibility and transparency strengthens the foundations of a data-driven, science-based energy future.

Through these winning projects, the RGI Grid Awards reaffirm the importance of innovation, cooperation, and environmental responsibility in grid development. We extend our congratulations to all winners and participants and look forward to continuing our work in advancing a sustainable, secure, and interconnected energy system.

Explore more practices in the award brochure

RGI Grid Awards winners at the 2024 PCI Energy Days in Brussels.

POWERING KNOWLEDGE WITH OUR 'CONNECTING ENERGIES' CIVIL SOCIETY TRAINING SERIES

The energy transition is complex, but understanding the nuts and bolts of the system should not be a barrier to engagement. That's why RGI continues to create spaces where people can ask questions, challenge assumptions, and connect with experts—all with the goal of building a fair, renewables-based energy future.

This year's 'Connecting Energies: Civil Society Training Series' built on the success of 2023, bringing together passionate individuals from across Europe for three interactive sessions. From the fundamentals of electricity grids to grid flexibility and consumer participation, each session made space for learning, discussion, and exchange—ensuring that civil society voices are heard in shaping the future of our energy systems.

The first session, 'Connecting Electrons', started with the fundamentals: What actually makes up the electricity grid? From substations and transformers to smart grids and digital technologies, we explored how these components work together to transport electricity and integrate more renewables. We also tackled some of the biggest challenges ahead, including modernising infrastructure and ensuring supply chains can keep up with the energy transition.

Next, 'Balancing Connections', took on one of the trickiest pieces of the energy transition puzzle: flexibility. With wind and solar playing a bigger role, how do we balance supply and demand in a way that keeps the lights on and emissions low? Participants explored storage solutions, demand-side management, and real-time grid monitoring, gaining insights into how we can maximise renewables while maintaining stability. We also introduced 24/7 Carbon-Free Energy (CFE)—an approach that ensures electricity consumption is matched with clean energy, every hour of every day.

The final session, 'Connecting Consumers', put people at the heart of the conversation. With the rise of smart meters and dynamic pricing, consumers have more opportunities than ever to engage with the energy system. Participants learned how real-time energy tracking and flexible pricing models can empower them to take control of their electricity use, while also helping grid operators manage demand in a way that supports a fairer, more decentralised system.

Through 'Connecting Energies 2024', RGI reaffirmed its commitment to making the energy transition accessible, engaging, and People-Positive. These conversations are not just about technical solutions—they are about shaping a system that works for everyone. As we continue this journey, we look forward to bringing even more voices into the discussion and driving real, systemic change together.

Watch the recordings of the training series

ENERGY & SOLIDARITY: PUTTING THE PLAN FOR GRIDS INTO ACTION

In April 2024, RGI marked its 15th anniversary with the conference 'Energy & Solidarity: Putting the Plan for Grids into Action' in Brussels. Decision-makers, grid operators, environmental organisations, and civil society came together to explore how Europe can expand its electricity grid in a timely, Nature-Positive, and People-Positive way. Recognising that no country can tackle the energy transition alone, discussions highlighted the importance of solidarity—between nations, communities, and ecosystems.

Panel discussion at the 2024 RGI Annual Conference.

Belgian Minister of Energy Tinne Van der Straeten emphasised that energy infrastructure is always built within natural environments and near communities, reinforcing the need for Nature-Positive planning and public engagement. Energy expert Gerard Reid underscored the urgency of modernising Europe's grid, warning that without the right technologies and faster permitting, the energy transition risks falling behind. Speakers emphasised that Europe's approach must be both competitive and just, ensuring energy affordability while delivering long-term benefits to communities and biodiversity.

Panel discussions explored how accelerating permitting, standardising processes, and integrating innovative solutions can align grid development with climate and biodiversity goals. Participants highlighted the role of market and technological innovation in making energy more affordable and accessible, with smarter infrastructure and digitalisation playing key roles. At the same time, People-Positive approaches were central to the debate, ensuring that local communities are active participants in the transition and that new projects create lasting social and economic benefits.

The conference also celebrated 15 years of RGI's work by bringing together environmental groups, transmission system operators, and civil society. Reflecting on the past decade and a half, participants reaffirmed the need to build the grids Europe needs while keeping nature and people at the centre of decision-making. The energy transition is more than a technical challenge—it is a social and environmental one, requiring ambition, cooperation, and a shared vision for the future. The conversations at this event will help shape how Europe moves forward, ensuring solidarity remains at the heart of grid development.

130+ Attendees of the 2024 RGI Annual Conference

KEEPING GRIDS ON THE AGENDA: RGI CHAMPIONS CLIMATE-ALIGNED POLICY IN A CHANGING EU LANDSCAPE

2024 was no ordinary year for the European Union. With only six years remaining to meet 2030 climate and energy targets, the European elections reshaped the political landscape, bringing competitiveness, security, and affordability to the forefront of public debate. In this evolving context, RGI worked to ensure that the momentum for electricity grids is maintained - not only to meet these emerging priorities, but to keep the EU on course toward climate neutrality.

We outlined our vision in 'The power of European electricity grids: RGI's policy priorities for the EU 2024-2029 mandate', which presented action points for a future-proof, fully decarbonised energy system largely based on renewables, rooted in public trust and high standards for nature protection and restoration. Our priorities tackled the urgent need to jointly address the intertwined climate, energy, and biodiversity crises for the EU to ensure its long-term resilience.

At the same time, RGI contributed to shaping, and supported the implementation of key policy files. This included the designation of Grid and Renewable Acceleration Areas, the evaluation of the EU Governance Regulation, and the introduction of the 'Do No Significant Harm' (DNSH) Technical Guidance for the Social Climate Fund. We also delivered targeted recommendations on grid-related technologies under the Net-Zero Industry Act.

Building on the power of collaboration, we deepened our work with partners in the Electrification Alliance to ensure a robust EU framework that supports and enables renewables-based direct electrification: the most cost- and resource-efficient pathway to decarbonise our societies. Together, we co-signed letters and statements on the EU 2040 climate target, the Energy Taxation Directive, and the Council Strategic Agenda 2024–2029, among others. Our recommendations for an Electrification Action Plan were echoed in the Energy Commissioner's mission letter.

Beyond the EU, we continued our engagement in the IRENA Coalition for Action, actively contributing to its work programme and new task forces, and joined forces with other stakeholders to inform effective frameworks for climate and electricity between the EU and the UK.

In a year shaped by political shifts, we remained committed to bridging policy and practice. Moving forward, RGI, together with our TSO and NGO Members, remains dedicated to advancing the EU's path to net-zero, with Nature- and People-Positive electricity grids at the core of the energy transition.

Watch the #GridsEmpower campaign videos

#GRIDSEMPOWER: STRENGTHENING THE BACKBONE OF THE ENERGY TRANSITION

Electricity grids are the unsung heroes of the energy transition. They connect renewable energy to homes, businesses, and industries, ensuring that a clean, reliable power supply is possible for all. Yet, grids don't always get the attention they deserve. That's why RGI launched #GridsEmpower—a campaign designed to shift the conversation, highlight the vital role of electricity networks, and inspire action to build the grids Europe needs for a sustainable future.

Bringing together 15 partner organisations from across Europe, the campaign sparked a conversation on why grids matter for people, nature, and the economy. Through 18 videos, industry leaders, community voices, and environmental advocates explored how a strong, well-connected electricity system can deliver affordable, clean energy while protecting ecosystems and creating local benefits. The campaign reached over 250,000 people on social media, making the case for why investing in grids isn't just about wires and pylons—it's about empowering society.

Many of the videos featured executives from Europe's major transmission system operators and leading NGOs, all part of RGI's diverse network. Their messages were clear: electricity grids are fundamental to achieving energy security and decarbonisation goals, but Europe is not building them fast enough. They highlighted the need for accelerated permitting, smart digitalisation, and cross-border collaboration to ensure grids can support a growing share of renewables. Others stressed that grids must integrate biodiversity protection and community benefits into every stage of development.

The energy transition can only succeed if grids keep pace with renewables. Through collaboration and innovation, #GridsEmpower reinforced the idea that grids are not just infrastructure—they are the foundation of a decarbonised, Nature-Positive, and People-Positive future. The campaign laid the groundwork for continued action, reminding us that when grids are empowered, so are we.

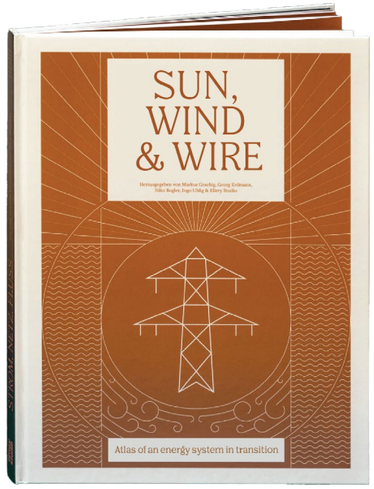
AMPLIFYING THE ENERGY TRANSITION ONLINE

RGI's digital engagement in 2024 continued to educate, inform, and inspire diverse audiences on the role of electricity grids in enabling a renewables-based energy future. Through targeted social media campaigns and engaging multimedia content, RGI fostered public dialogue on the necessity of grid expansion, energy security, and climate action.

One of the highlights of the year was the #SunWind-Wires campaign, which offered a visually compelling and informative journey into the workings of the electricity system. Through infographics and explainer posts, the campaign demystified key energy transition concepts, covering topics such as grid operations, renewable integration, and flexibility solutions. Based on the 'Sun, Wind Wires: Atlas of an Energy System in Transition' book created with German TSO 50Hertz and designers from Ellery Studio, the campaign reached a broad audience, accumulating over 100,000 impressions across platforms and providing an in-depth look at Europe's evolving energy landscape.

Complementing this effort, RGI's Need for Grids video series expanded in 2024 with two new videos, 'Energy & Space – Planning the Energy Transition' and 'Adaptation & Resilience – Climate-proofing the Grid,' which together have garnered nearly 160,000 views on YouTube. The first video explored how smart spatial planning can help integrate new grid infrastructure and renewable energy with minimal environmental impact, while the second highlighted the importance of climate-proofing electricity grids to withstand extreme weather and ensure long-term resilience.

Building on these initiatives, RGI made great strides in enhancing its social media presence throughout the year. In a strategic move, we chose to close our Twitter/X account in December to focus on platforms that align more closely with our long-term goals. We launched our Bluesky account in February, quickly attracting 500 followers and fostering conversations around the future of electricity grids and ways to achieve a Nature- and People-Positive energy transition. Our LinkedIn community grew by 17% compared to 2023, reflecting the increasing interest in our work. Across all platforms, we published over 1,150 posts, driving engagement and sparking dialogue around our core topics. Through 30 impactful campaigns with 37 partners, we continued to reinforce our message of a more resilient, interconnected energy future—one that is not only efficient but also aligned with nature and the needs of local communities.



1,150+ Posts published in 2024

OUR MEMBERS

Supporting Members

OUR BOARD

Jasón Besga
Head of Institutional & International Affairs
Red Eléctrica

Ariel Brunner
Regional Director
BirdLife Europe & Central Asia

Bernard De Clercq
Group Head EU Affairs
Elia Group

Francisco Ferreira
President
ZERO

Seda Orhan
Renewable Energy Program Manager
CAN Europe

Francisco Parada
Head of Quality, Environment, Safety and Performance Department
REN

OUR SECRETARIAT

as of July 2025

Antonella Battaglini
Chief Executive Officer

Sylvia Kessler
Office Manager

Himakshi Gurnani
Manager
Finance

Marie Delair
Manager
Fundraising

Cristina Simioli
Director
Offshore Energy & Nature

Dení Aguilar Bellamy
Coordinator
Offshore Energy & Nature

Ana Miljanović Rusan
Manager
Offshore Energy & Nature

Anna Barbanti
Marine Manager
Offshore Energy & Nature

Natali Machado Souza
Personal Assistant
to the CEO

Sabrina Rahman
Assistant
Finance

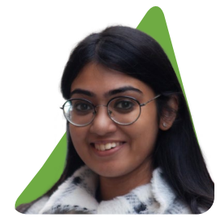
Tolga Dizer
Assistant
Finance

Abida Mohammadi
Intern
Finance

Matilde Doni
Manager
Offshore Energy & Nature

Liam Innis
Senior Manager
Energy Ecosystems

Manon Thiel
Manager
Energy and Nature



Oyeshi Ganguly
Junior Manager
Onshore Energy & Nature

Stephanie Bätjer
Director
Communication

Mara Zainea
Manager
Communication

Eston McKeague
Manager
Communication

Charlotte Mueller
Manager
Communication

Achille Pedespan
Junior Manager
Onshore Energy & Nature

Dr. Andrzej Ceglarz
Director
Energy Systems

Alexandros Fakas Kakouris
Senior Manager
Energy & Policy Systems

Amanda Schibline
Manager
Socio-Energy Systems

Nathália Pimentel
Manager
Communication

Wilm Lindenblatt
Junior Manager
Communication

Annika Lilliestam
Coordinator
GINGR

Adrián Maté
Evironmental Coordinator

Ira Shefer
Manager
Energy Systems

Morjana Moreira dos Anjos
Manager
Socio-Energy Systems

Anaïs Picart
Junior Manager
Socio-Energy Systems

TSCHÜSS!

Madlie Le Bihan
Senior Manager
Offshore Energy & Nature

RGI would like to express our appreciation for Madlie Le Bihan, who joined our team as Manager in 2021 and advanced to the role of Senior Manager, Offshore Energy and Nature, before leaving in April 2025. Madlie played a central role in the growth of the Offshore Coalition for Energy and Nature (OCEaN), leading several Task Forces focused on the sustainable deployment of offshore wind and grid infrastructure, including Maritime Spatial Planning, Restoration, and Fisheries.

We are grateful for Madlie's outstanding work and principled perspective, which brought depth and insight to our work. Her ability to combine analytical thinking with a genuine interest in our mission made her a valuable member of our team.

We wish Madlie every success and happiness in the new opportunities and adventures that await her.

RGI would also like to thank Jessica Higgins, who joined our team as Junior Manager – Onshore Energy and Nature in November 2023 and contributed to our work until July 2025. Jessica played an instrumental role in our work on bird protection and integrated vegetation management (IVM), helping to promote biodiversity-friendly practices in the energy sector.

During her time with RGI, she supported the IVM Working Group and co-authored a guide on biodiversity-positive vegetation management, as well as a research overview into the effectiveness of wire markers in preventing avian-power line collision. Furthermore, her hard work was instrumental to the success of the Wingspan Conference in 2024.

We are grateful for Jessica's dedication, scientific integrity, and collaborative approach, which added real value to our work. We wish her every success and fulfilment in the opportunities ahead.

Jessica Higgins
Junior Manager
Energy & Nature

Anna Maldryk
Executive Assistant
to the CEO

RGI warmly thanks Anna Maldryk, who served as Executive Assistant to the CEO from September 2022 to August 2024. During her time with us, Anna was the organisational heartbeat of the office, ensuring the smooth running of daily operations and supporting the entire team with care, precision, and professionalism.

From managing calendars and travel logistics for senior leadership, to maintaining order in the office and assisting with events, Anna's attention to detail and steady support were invaluable. Her behind-the-scenes work made a significant difference in keeping our team connected, informed, and running efficiently.

We are truly grateful for Anna's commitment, reliability, and warmth, which made her a beloved and trusted colleague. We wish her all the very best for her next chapter.

IMPRINT

2024 ANNUAL REPORT

Renewables Grid Initiative, e.V.
Manfred-von-Richthofen Strasse 4
12101 Berlin, Germany

CEO: Antonella Battaglini

Team Lead: Stephanie Bätjer
Editor: Eston McKeague
Project Lead and Design: Wilm Lindenblatt

Contact: communication@renewables-grid.eu

Printed with care on 100% recycled paper from the Berlin-Brandenburg region

Renewables Grid Initiative

ABOUT RGI

The Renewables Grid Initiative is a unique group of transmission system operators (TSOs) and environmental and climate NGOs collaborating on a nature-friendly renewables grid for the energy transition. Our aim is to speed up the transition towards a renewables-based energy system

RGI GRATEFULLY ACKNOWLEDGES THE EU LIFE FUNDING SUPPORT

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the LIFE Programme. Neither the European Union nor the granting authority can be held responsible for them

renewables-grid.eu