

Imprint

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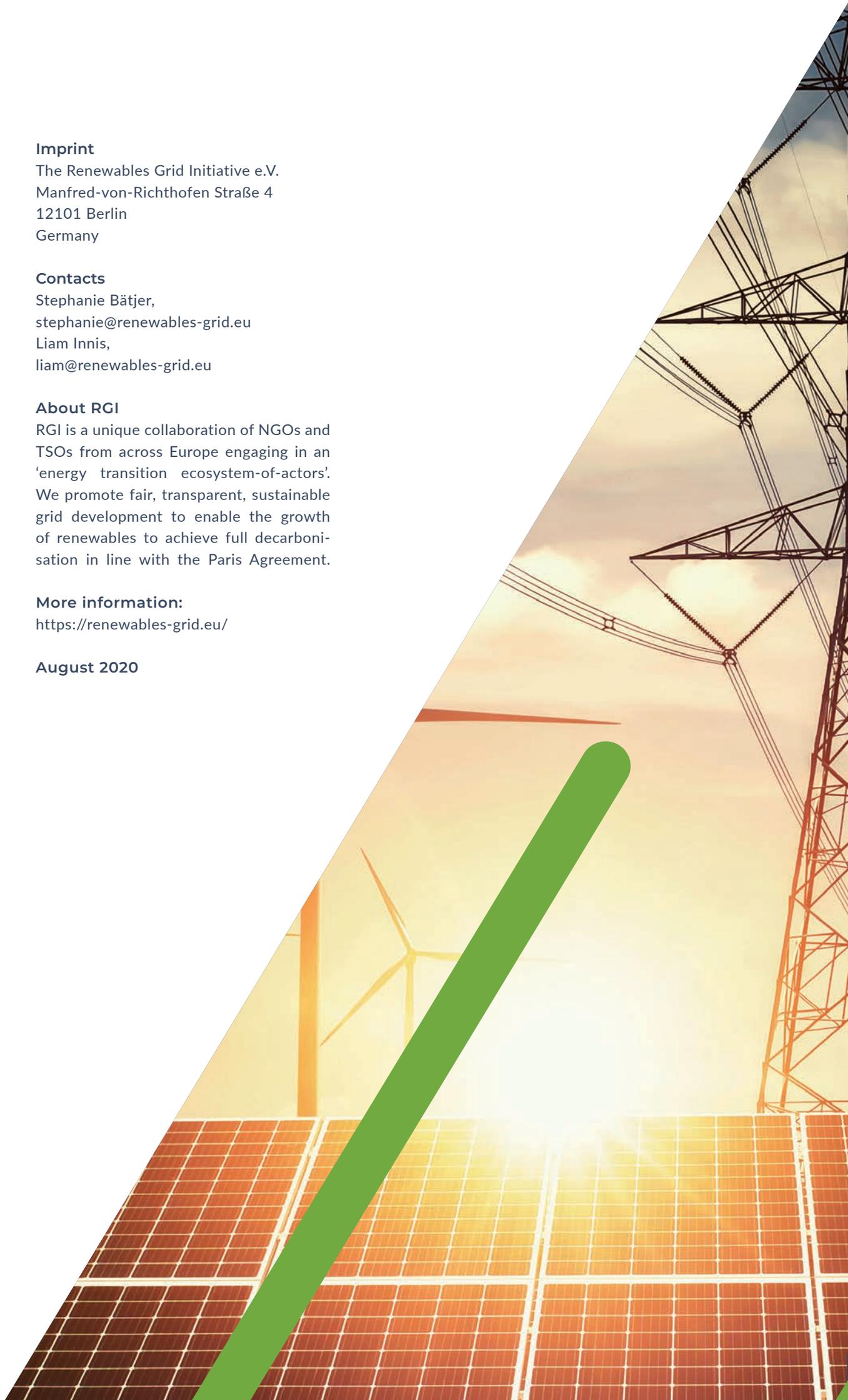
About RGI

RGI is a unique collaboration of NGOs and TSOs from across Europe engaging in an 'energy transition ecosystem-of-actors'. We promote fair, transparent, sustainable grid development to enable the growth of renewables to achieve full decarbonisation in line with the Paris Agreement.

More information:

<https://renewables-grid.eu/>

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10-YEAR ANNIVERSARY ISSUE

RGI
ANNUAL
REPORT
2019

Renewables 
Grid Initiative

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FOREWORD



Dear readers,

In contrast to the rest of this report, which gives an overview of the activities we have undertaken in the past year, in this foreword

I want to look to the future and reflect on what will be crucial in 2020 and beyond. The ongoing health crisis has already changed how we work and live. The resulting economic crises will be felt for years to come, with jobs lost across the globe and business models completely disrupted and potentially reinvented. Still, each crisis also brings new opportunities.

The huge amount of funds raised to support the economy should be carefully allocated so that, when we come out of this crisis, we are in a world fit for the future and not stuck in the frame of a past which no longer exists.

From my point of view, in Europe, there are three main areas that require dedicated effort:

1. Build up a strong Europe. The European project has been heavily questioned, with many doubting its value and others keen to see it fail. A stronger Europe in terms of geopolitics, economy and energy requires increased attention to social welfare,

fairness and the role of citizens and local communities in contributing to the European project. There can be no Europe without the hearts and the minds of European citizens, which means we need to work on bringing them on board.

- 2. Invest in the future and not in the past.** We need to resist the temptation to save jobs in industries that don't have a role to play in a sustainable and carbon neutral economy. The stimulus package is not only an economic instrument, but it also needs to be an environmental and social instrument that enables and fosters ecosystem protection and social fairness in every corner of the Union.
- 3. Speed up the race to carbon neutrality.** Climate change impacts, like pandemics, have cross-boundary implications. The COVID-19 pandemic is clearly showing humanity's inability to manage the complex spill-over effects. For this reason, we need to increase resilience to deal with climate change impacts and massively speed up RES deployment, electrification and related energy infrastructure, including power grids. We also need to define clear pathways for the production and utilisation of green gases to maintain a strong reliance on a secure and robust energy system able to sustain the European economies.



Of course, decarbonisation in Europe alone will not save us from climate change impacts, so we need to be active in sharing experiences and supporting implementation on a global level – with the same rigorous attention to environmental protection and citizens' rights, for which we strive in Europe.

These ideas will be the guideposts for RGI's work in 2020 and beyond: we will work on energy system transformation with a European scope – RGI has already adopted a system approach in all workstreams and I hope to see this reflected in our Membership soon. To complement this work, we will focus on active sharing of best practices and the creation of local value.

These are not new themes for RGI, as you can see from the activities described in this report, but we will broaden and deepen our efforts. In fact, let me give you a taste of what is coming up in our work.

We will continue our collaboration with Climate Action Network (CAN) Europe and the European Environmental Bureau (EEB) to develop and model an energy scenario for Europe which is compatible with the Paris Agreement and has the backing of the broad NGO community (read more on page 12). It is essential to model a variety of scenarios, including a 100% renewables-based one, to understand infrastructure requirements and discuss what is possible and what is not possible in a given timeframe – based on facts instead of ideology.

RGI will also be intensifying work on offshore questions. After the launch of the 'Marine Grid Declaration' in 2019 (see page 6) we have moved forward in establishing a cross-sector coalition with the ambition of finding solutions for balancing offshore activities and ecosystem protection. I expect this activity to grow and involve a large number of stakeholders to contribute to a voluntary integrated planning in which nature, people and economic drivers are all treated equally.

Related to our offshore work, but not exclusive to it, we will increasingly lead efforts related to spatial planning, with not only the 2030 targets in mind, but full climate neutrality by 2050 at the latest. The energy transformation requires massive, fast expansion of renewable energy sources and the build-up of necessary power lines. Europe is a highly populated area and space is becoming one of the most valuable elements in the energy transition.

Finally, local value creation needs to become a cross-cutting focus of all our activities. Apart from the involvement of our own Members and main stakeholders, this will increasingly require regular conversations with citizens, younger generations and thought leaders. We need to develop new approaches and solutions, including new financial schemes, that also support and stimulate local contributions to the energy transition by bringing revenues and sustainability to those communities where energy infrastructure is being developed. For this, RGI will also investigate how to embed circular economy principles in all grid related activities.

To conclude, I am proud of the work and role RGI has covered during its first 10 years and I am proud of the courage RGI Members and the RGI Secretariat are showing in embracing the future. To celebrate 10 years of RGI, we also take the opportunity to look back at some highlights from the last years in this report. On each page you will find a text bubble reminding you of a milestone that helped bring us to where we are today.

I hope you enjoy the read!



Antonella Battaglini,
CEO Renewables Grid Initiative

10 YEARS IN HIGHLIGHTS



“European Grid Declaration on Electricity Network Development and Nature Conservation in Europe”: The establishment of guidelines for sustainable grid development.



First joint publication: “Connected = Empowered” served to find a unifying language to explain why renewables need grids. Published in EN, DE, NL, FR, IT.

“BESTGRID”: 5 pilot projects in BE, DE and UK brought TSOs and NGOs together to put the principles of the “European Grid Declaration” into practice and improve local and public acceptance for grid development processes.

2013-2015

2011



First joint events: From the outset, forging unlikely partnerships at multi-stakeholder events was a key tenet of our work.

From 2010

The beginning:

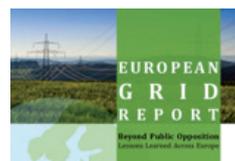
Antonella Battaglini brought a group of TSOs and NGOs, WWF, Germanwatch, Vattenfall (now 50Hertz) and Tennet Holding B.V. together in an unprecedented partnership. RGI was born.

2009

2012

Best Practice Projects:

The “European Grid Report” marked the first of many initiatives to gather and disseminate best practices for mutual learning.



“European Grid Declaration on Transparency and Public Participation”: The establishment of guidelines for an open and transparent grid development.





“Implementing RGI Declarations”:

Bespoke projects between national NGOs and TSOs in Germany to implement RGI principles. Since 2018, another project has been running in Italy.

2017

Marine Grid Declaration:

Members and other actors pledge to develop marine grid projects in line with nature protection and early stakeholder engagement practices.

Since 2019

2018

Future Scenario Exchange:

A series gathering diverse actors to develop a scenario “Enabling a renewables-based electricity system”, launched at the Energy Infrastructure Forum.

2016

Community

Payments Study:

A publication gathering case studies from across Europe to evaluate different compensation mechanisms.

Decentralisation Meta-Study:

A comparative study into assumptions and narratives of decentralisation, regionalisation and powerlines.

Since 2015

“Energy Regions in Transition”:

RGI regularly takes delegations of energy professionals on exchange tours beyond Europe to get inspired by new approaches.

Since 2014



“Good Practice of the Year”

award: Our annual award recognises and disseminates inspiring practices from across the energy world.



2020

PAC Project - “Paris Agreement Compatible Scenarios for Energy Infrastructure”:

Growing from the Future Scenario Exchange, this project is run with CAN Europe, EEB and REN21.



MARINE GRID DECLARATION

A new milestone in ensuring a sound development of electricity grids in the marine environment

By Dení Bellamy



Increasing shares of renewables need to be integrated into the European power system to achieve the EU climate and energy targets. It is envisaged that approximately one third of the needed future power grids, among them Projects of Common Interest (PCIs), could be built in the marine environment. In response to this, RGI has produced the “Marine Grid Declaration”.

The Marine Grid Declaration is an initiative which lays out a set of principles for the development of marine grids. It was developed in close collaboration with RGI’s Members and the European Commission (DG Mare, DG Environment and DG Energy) with the aim of committing to and further promoting adequate protection of the marine environment, a commitment to early and active stakeholder engagement as well as effective exchange of knowledge and best practices. In doing so, it supports the smooth deployment of the offshore grid infrastructure needed to integrate a growing amount of renewables and meet Europe’s climate and energy targets.

Specifically, the Declaration encourages best practice approaches for:

- Strategic and project-level planning and permitting activities – ensuring that an ecosystem-based approach is taken.
- Cross-sector and international cooperation – making sure all stakeholders are involved early on in any marine grid development.
- Knowledge generation and sharing – making available the necessary information, experiences and best-practices to help guide project developers.
- The provision of guidance – which can support realisation of the above approaches.

Remember...

The subsea cables report? In 2015, RGI commissioned NIRAS Consulting to undertake a review of key environmental issues associated with subsea cable deployment. It highlighted knowledge gaps and developed a set of recommendations for sound marine grid development moving forwards.



On 19 March 2019, the signing ceremony for the Marine Grid Declaration took place at the European Commission's inaugural PCI Energy Days with the presence of Miguel Arias Cañete, former Commissioner for Climate Action and Energy. Thirty-one organisations signed the Declaration, including all RGI Members and key external stakeholders such as European Environmental Bureau, Greenpeace, Europacable, WindEurope and Bellona.

Signatories of the Marine Grid Declaration declare recognition of the urgent need to develop and apply best-practice approaches for work in the marine environment. They pledged to develop marine projects in line with principles of nature conservation and early stakeholder engagement.

BEST PRACTICE EXCHANGE

Shifting towards a system perspective with events and best practice exchanges

By Stephanie Bätjer



Exchanging best practices has been an integral part of RGI from its very beginning. Activities that were considered best practices have shaped the principles laid down in the “European Grid Declaration”. They have resulted in the “European Grid Report” and defined the way we organise events at RGI: they always include one or several best practice exchange formats – from world café sessions to “speed dating” and best practices fairs. This has been a constant over the last 10 years.

However, while for its first years RGI was very much focussed on grids needed for the integration of renewables as well as related environmental and social dimensions, we have now adopted a more holistic system perspective – looking at the entire energy system. This shift is very much reflected in our best practice work of 2019. Our best practice events have always been a means of bringing people together, from different industries, different types of organisations and across borders. In 2019, we have maintained this approach and combined it with our overarching goal to work towards achieving full decarbonisation in line with the Paris Agreement. To achieve this goal, we believe that we must look beyond grids, consider the entire energy system and collaborate with new sectors and actors to find ourselves as part of a competent and knowledgeable ecosystem of actors.

To this end, we have organised several small and big events that were partly or fully dedicated to work on offshore infrastructure development, an increasingly more important component of the energy transition, and the related protection of the marine environment. These events included a conference on “Leading Practices in RES integration: A global perspective” together with Red Eléctrica de España and a workshop in collaboration with RTE on “Permitting, consultation and environmental protection for offshore transmission grids”. Together with the Marine Grid Declaration (see page 6), these events help lay the groundwork for more activities in this area in 2020.

Remember...

The “European Grid Report”? It was the first time that RGI systematically collected best practices and ultimately led to the development of the “Good Practice of the Year” award.



2019's RGI events shone just as bright a spotlight on system flexibility and sector coupling/integration as they did on offshore topics. Both of these areas are essentially important when developing a sound energy system perspective. For this reason, RGI dedicated one full-day public workshop to the collection of related best practices and the exchange between representatives of the most relevant sectors to identify the need for additional legislation and new practices. As a result of RGI's engagement with other sectors, our ecosystem of actors has grown into many directions in 2019 and we intend for these new collaborations to intensify in the future.



This ecosystem has also grown when it comes to questions of regulatory recognition of best or better practices. RGI has started working closely with ACER on these questions (also see page 16) and organised a workshop on "Regulation and Innovation" together with the European agency in 2019.

While our events often serve to create momentum for the newer topics we are working on, we also have many smaller workshops throughout the year that support other on-going workstreams. All of our exchanges with our ecosystem of actors are also supported by best practice fairs and regular webinars that we use to stimulate current discussions and share new approaches. In 2019, these included closer looks at how we can find the optimal route for new power transmission lines using technology like Swissgrid and ETH Zürich's 3D Decision Support System, or a talk on the "Advantages of Electrification".



And finally, we always endeavour to get out of the classroom and experience best practices out in the world. In 2019, we organised the 4th edition of our “Energy Regions in Transition” tours, which took us to Canada this time. It turned out to be a fascinating place to visit: Mining and fossil fuels have traditionally played an important role in Canada, economically and socially. At the same time the country is one of the most advanced when it comes to forward-looking energy technology research. Seeing how they bridge this gap and meeting with the interesting organisations that have dedicated themselves to working towards a renewables future was as inspiring as we had hoped it would be.



In the same spirit, we have branched out a little more into the world of journalism in 2019. For the first time, RGI organised a journalist tour in collaboration with “Clean Energy Wire”, a not-for-profit information and media service which covers the German energy transition. The tour entitled “The role of grids in the energy transition” took place over three days in November and took us from Aachen, Germany to Brussels, Belgium. On our travels, we spoke with industry experts, policy makers and citizens and visited Elia’s National Control Centre as well as the ALEGrO interconnector construction site, a PCI project jointly developed by RGI Members Amprion and Elia Group. We were joined by 13 journalists from 12 European and Asian countries.

Remember...

RGI’s first “Good Practice of the Year” award in 2014? The trophy was still a bit smaller back then, but did not mean any less. Our first winners? TenneT Holding B.V.’s info-mart concept, Bystrup’s pylon design and BirdLife’s work on preventing the electrocution of endangered birds.

SPOTLIGHT: “Good Practice of the Year” award



Our award got a little makeover in 2019 to reflect RGI's commitment to taking the entire energy system into account. Our previous “Technology & Design” category was rethought and is now called “Technological Innovation & System Integration”. As the name suggests, it recognises practices that contribute to the creation of a smarter power grid and those which enable and scale renewable system integration.

Our 2019 award winners were:

Communication & Engagement

RTE France developed a Massive Open Online Course (MOOC) on electromagnetic fields (EMF) caused by power frequency. Our jury of experts picked it as the winner because “there is a great need for this type of community education and this project answers this need”.



Environmental Protection

nuventura developed an alternative insulation system for switchgears in which the commonly used SF₆, one of the most potent greenhouse gases, is replaced by dry air. “This project has the potential to be enormously impactful, greatly reducing the amounts of the most powerful greenhouse gas in the world in circulation and release. This is a major contribution to the fight against climate change”, our jury explains nuventura's win.



Technological Innovation & System Integration

The “Kriegers Flak - Combined Grid Solution” (KF CGS) is the world's first hybrid interconnector, connecting Germany and Denmark utilising the infrastructure of existing wind farms. Our jury congratulates 50Hertz and Energinet on their joint project: “It has the potential to be enormously consequential for the development of the North Sea and Baltic Sea resources, and its ambition of approaching 100% utilisation of the off-shore grid assets is very noteworthy.”



THE NEED FOR GRIDS

PAC: “Paris Agreement Compatible Scenarios for Energy Infrastructure”

By Antina Sander & Andrew Carryer

In 2019, the PAC project – “Paris Agreement Compatible Scenarios for Energy Infrastructure” – was established by RGI, the European Environment Bureau (EEB), Climate Action Network (CAN) Europe and REN21 with funding from the German Ministry for Economy and Energy (BMWi).

The project has four main objectives:

1. Develop a Paris Agreement Compatible energy scenario for Europe supported by civil-society
2. Review the TYNDP (Ten Year Network Development Plan) scenarios and assumptions
3. Work with energy modellers to share knowledge and improve capacity
4. Raise global awareness about the importance of grids and collaborative scenario development

In the second half of 2019, the PAC project held several workshops to gain clarity and consensus on how a PAC energy scenario should look. This was done by CAN Europe and the EEB together with their member networks. The PAC team has also been working closely with ENTSO-E (European Network of Transmission System Operators for Electricity) to understand how a scenario and its engagement process must be structured and presented in order to feed into the TYNDP process.

Once finalised in 2020, the PAC scenario shall guide European energy infrastructure planning, helping to ensure that we are building the infrastructure necessary for a future low-carbon, renewables-based energy system. Together with a more general political ‘Request to Adapt European Energy Planning Scenarios’, it shall become a policy tool to discuss with institutions like the

Remember...

RGI began organising events dedicated to PCIs a while ago. In 2016 they developed into the Future Scenario Exchange workshop series. These activities were the cradle from which the PAC project grew.



Commission, the Parliament, ACER, the ENTSOs or the Council. These discussions shall revolve around the uptake of a very high RES scenario to show us the energy path Europe must take in order to be Paris Agreement compatible and to help us halt climate change.

The PAC project has also been a capacity building opportunity for stakeholders who wish to expand their knowledge of developing and modelling energy scenarios. In this spirit, PAC will continue to facilitate discussions on pathways to reaching the 1.5°C Paris Agreement target amongst groups who usually do not associate with each other.



www.pac-scenarios.eu

CAPACITY BUILDING

Facilitating rich exchanges for a more aware engagement with grid-related topics and participatory methods

By Johanna Meier & Andrew Carryer

Participatory Leadership Training

In 2019, RGI held its first ever Participatory Leadership Training. The aim was to empower our Members and partners with techniques that allow for a more meaningful participation, within their organisations as well as towards external stakeholders.

To take account of this double intent, we targeted practitioners on the ground that regularly design stakeholder processes as well as leaders within their organisations who want to enhance their work environments by employing inclusive leadership techniques.

The training consisted of three consecutive days in which the participants learned the theory and methods of participatory leadership processes. A follow-up day was held several months later where participants could exchange on how they applied their learnings.

Innovative teaching styles, which allow participants to immediately try out their learnings, combined with new methods and ways of thinking make this type of training very valuable, not only to enhance the use of methods but also to become more creative in finding solutions. Trying to sum up on paper what Participatory Leadership means is difficult – you have to practise and experience it to capture its diversity of methods and potential of application. We therefore very much hope you will simply join us for the next training!



Remember...

RGI's first capacity building events? Content-rich, multi-stakeholder capacity building events have long since been RGI's specialty. Back in 2011, we kicked off a long series of exchanges on the European electricity grid with a focus on understanding the grid, grids and the environment and energy storage.



NGO Campaigner Training

NGO representatives often have to cover a much wider range of topics than industry or policy experts. This can make it challenging for NGO staff to stay on top of the latest relevant grid and network related developments. Our three-module NGO Campaigner Training, delivered throughout 2019, aimed at supporting NGOs to provide them with a better understanding of the role of grids in a renewables-based electricity sector and the different approaches to minimise environmental and societal impact of grid development.

The first training day focused on higher level questions, looking at who the key players in the electricity system are, the main challenges that the energy transition poses network operators and an introduction to what we are doing to overcome these challenges. Subsequent sessions focused on the impact and outlook for digitalisation on the electricity system and a review of the most recent assumptions of the recent TYNDP jointly developed by ENTSO-e and ENTSOG. Feedback from these sessions was very positive and we will continue to look for ways in which we can provide resources and knowledge to Member NGOs and other civil society groups on the role of the grid in the energy transition.



POLICY POSITIONS

Promoting a renewables-based energy system

By Johanna Meier & Cristina Simioli



2019 has been a pivotal year in European politics with elections taking place in May and the new Commission taking office in December. It was therefore also a pivotal moment for shaping the Union's new climate and energy policy. RGI used this momentum to engage with the new administration and share our key policy recommendations for an energy system of the future. These specifically focussed on system flexibility, sector integration/coupling and the better use of infrastructure.

Apart from these topics, RGI's engagement with policy revolved around questions of regulatory recognition and the TYNDP process.

Regulatory Recognition

Many of the infrastructure projects necessary to enable decarbonisation encounter delays in implementation, most frequently resulting from complex permitting procedures and public opposition. In particular, to address the reasons for public opposition, new, innovative approaches need to be developed. Whilst a strong legal framework is already in place to ensure nature protection, the framework covering participatory processes is at an early stage of development. Through the "Good Practice of the Year" award, RGI has shown that

implementing "Better Projects" with locally tailored, transparent and participatory planning, minimises impacts and reduces potential conflicts as well as risks of project failure.

Although meaningful stakeholder engagement and the possibility to develop "Better Projects" may result in higher initial capital expenditures, the same measures can also bring benefits as they can minimise the effects of the transmission infrastructure on both local communities and the environment, in turn saving time and money in the long-run.

In 2019, RGI along with ENTSO-E started working on a methodology to calculate the benefit of measures deployed to deliver "better" grid extension projects. It is

Remember...

The first recommendations, RGI Members agreed upon? They are still the basis of our work today and are written down in the "European Grid Declaration".



based on an adaptation of the ENTSO-E cost-benefit analysis (CBA) and entails a comparison between the “standard” project realisation and the “better” project implementation. This includes measures developed by many European TSOs, aiming at a constructive and transparent inclusion of stakeholders into the decision-making process or/and a timely realisation of projects.

TYNDP Consultation

In the context of the joint development and launch of the TYNDP 2020 by the European Network of Transmission System Operators for electricity and gas (ENTSO-E & ENTSGO respectively), RGI sent an open letter to colleagues at the ENTSOs and the European Commission. The letter contains our congratulations on the positive strides taken under this round of the TYNDPs and acknowledges the willingness of the ENTSOs to bring the scenarios in line with the Paris Agreement and with the objectives of the European Green Deal. However, RGI recognised opportunities for further efforts to be made.

The full open letter can be accessed on our website, however here is a summarised version of the 5 key recommendations RGI made:

1. A higher share of the generation mix for solar PV and wind after 2030
2. Further electrification as the route to efficient decarbonisation
3. Focus on flexibility options including demand side flexibility
4. Gain a better understanding of the full costs of gas-based solutions
5. Gain a better understanding of biomass potential in light of multiple use cases and land-use constraints



DISCUSSION PAPERS

Diving deep into specialist grid topics

By Liam Innis

2019 was RGI's busiest year writing reports and discussion papers yet. Find out more about the topics they dove into here.

Partial Undergrounding



Today, in Europe, transmission system operators (TSOs) are increasingly complementing overhead lines with underground cable sections, primarily in densely populated areas, areas of important natural beauty, ecological value or when so defined by political decisions. Yet still relatively few extra-high voltage alternating current (AC) underground sections have been installed in transmission projects so far. In particular, the case of 380 kV AC underground cables in meshed electric system connections needs to be better understood. Within different national legal and regulatory frameworks, the decision-making process behind each extra-high voltage cable section weighs up several factors: primarily the requirements and restrictions of the electricity system, as well as environmental, social and cost considerations. Stakeholders have often raised questions as to the circumstances that make cables both feasible and suitable and have looked for a better understanding of the potential impacts of cables and how they differ from those of overhead lines.

With this objective, RGI produced a discussion paper to provide clarity by giving an overview of the current and common drivers, the risks, as well as potential mitigation solutions available in the deployment of extra-high voltage underground connections. It is based on the limited project experience, reports and research available, and on discussions with multidisciplinary experts. Although it is recognised that all projects are specific and require a case-by-case analysis, this is an attempt for the TSO and NGO communities to find common ground.

Storage

Energy storage has in the past played an important role in balancing supply and demand on electricity grid networks. In the future, it will play an increasingly important role. Safely integrating increasing shares of variable renewables requires a more flexible power system. Energy storage can provide this flexibility and is therefore a key enabler of the energy transition. Moving forward, it is crucial that the complexity and diversity of energy storage as a resource is grasped. This will better permit the design of adequate reward mechanisms for energy storage resources.

RGI Members have teamed up with the California ISO to develop the paper "Energy Storage - Perspectives from California and Europe" detailing key energy storage trends. This paper also provides a set of recommendations for decision makers, intended to support the continued deployment of energy storage resources.

Remember...

The "Community Payments" report? It was one of our first deep dives into a specific topic. It's just as relevant today and we updated our initial brochure with new cases and additional information in 2018.



Green Corridors

Scientific studies and examples from the field continue to show that, with proper management, the land under powerlines can become biodiversity hubs. Such management, known as “Integrated Vegetation Management” (IVM) can be used to create strategically planned networks of natural and semi-natural areas called “green corridors”. RGI worked together with the consulting firm Ecofirst to conduct a benchmarking exercise. The aim of this was to understand what the common roadblocks are, what tools could be needed to overcome these, and to propose some ways in which IVM policies can be better developed and implemented. From research and further discussions with TSOs, NGOs, landowners and other stakeholders, four main future priorities became clear:

- Build mapping tools – these must be developed for the identification of appropriate IVM sites.
- Test and share new governance approaches – vital in overcoming the obstacles in rolling out IVM (e.g. lack of resources, landowner opposition).
- Prove cost efficiency through Cost Benefit Analysis – a precondition in convincing TSOs and regulators of the financial value of IVM.
- Expand the scientific knowledge base – the effectiveness of different types of IVM intervention must be measured and quantifying biological indicators designed.



Bird Data Sharing and Transparency Report

In order to minimise bird mortality on planned or existing infrastructure, TSOs collect significant amounts of data on birds, however, whilst these data is used to guide decision making, they are seldom used outside of the context of a specific project. RGI saw the potential to improve our collective knowledge by finding ways to more effectively share study data on “bird grid interactions”. With a systematic collation of studies, meta-analyses could be done to better understand the drivers of bird collision/electrocution risk, the effectiveness of mitigation measures and ultimately provide science-based tools to guide route planning and mitigation measures.

In 2018, RGI teamed up with the British Trust for Ornithology (BTO) and the Royal Society for the Protection of Birds (RSPB) to understand which data TSOs are collecting, what TSOs and NGOs see as the opportunities of improved data sharing as well as how this could best be practically achieved. Data was collected through a questionnaire and a workshop session. The BTO and RSPB produced a report of their findings, which included conclusions and recommendations. Perhaps most importantly to begin with, a key result was the wide-recognition of the value of different types of data and information, and a positive attitude to working together across TSOs and NGOs.

IRD – IMPLEMENTING RGI DECLARATIONS

Building long-lasting partnerships at national level between grid developers and NGOs

By Antina Sander & Cristina Simioli

Between 2011 and 2012, RGI launched the European Grid Declaration – the first part focusing on grid development and nature protection, the second highlighting the importance of transparent planning and stakeholder engagement. From there, the challenge was: How do we “walk the talk”?

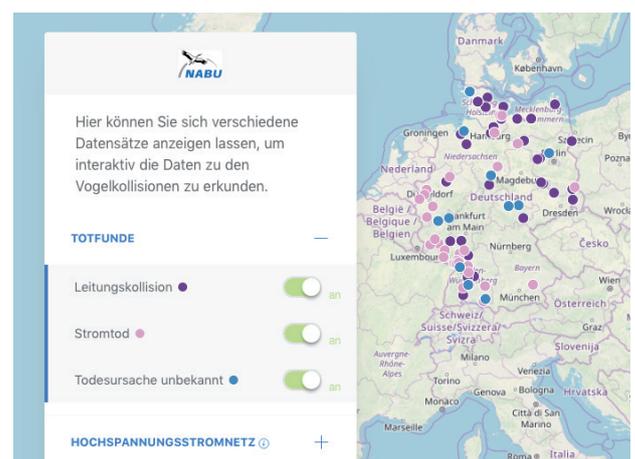
The first opportunity: the EU-financed BESTGRID project, with five European TSOs and three NGOs partnering up under RGI's lead to apply principles of good practice (which the European Grid Declaration promoted) to pilot projects in Germany, the UK, Belgium and Italy. BESTGRID ran from 2013 to 2015 and as soon as the funding period was over, RGI started to look for ways to continue this type of collaboration. Indeed, between 2017 and 2018, we initiated three RGI-led national NGO-TSO collaboration projects under the umbrella “Implementing RGI Declarations”.

“Shaping the Grid Debate” was set up in 2017 as a project of the NGO Germanwatch, and TSOs TenneT Holding B.V. and 50Hertz. The project seeks to ensure that the discourse around transmission grid developments between different industry and civil society actors and the public becomes more fact-based, that deadlocked fronts can be softened up and that a more reflected social interaction between the actors is possible.

The “Bird Portal” was kicked off in 2017 as a collaboration between NABU (German BirdLife), 50Hertz and TenneT Holding B.V., with TSOs Amprion and Transnet-BW joining shortly thereafter. As of 2020, the DSOs Westnetz and Netze-BW also form part of the project team. The portal collects data on bird-powerline incidents for the double purpose of identifying hotspots in urgent need of retrofitting and for a better data basis to assist in planning and routing.

“Working together to work better” brings together the Italian NGO Legambiente and TSO Terna. They work on improving stakeholder engagement in discussing national energy scenarios and on local planning and routing decisions. Furthermore, the project looks into how to integrate additional benefits for nature and people in the project Cost Benefit Analyses.

The Italian project is currently forecast to continue until 2021. Both German projects have been prolonged already, a solid reflection that involved partners believe in what they do. In light of this success, it goes without saying that we intend to establish similar projects in further European countries.



Remember...

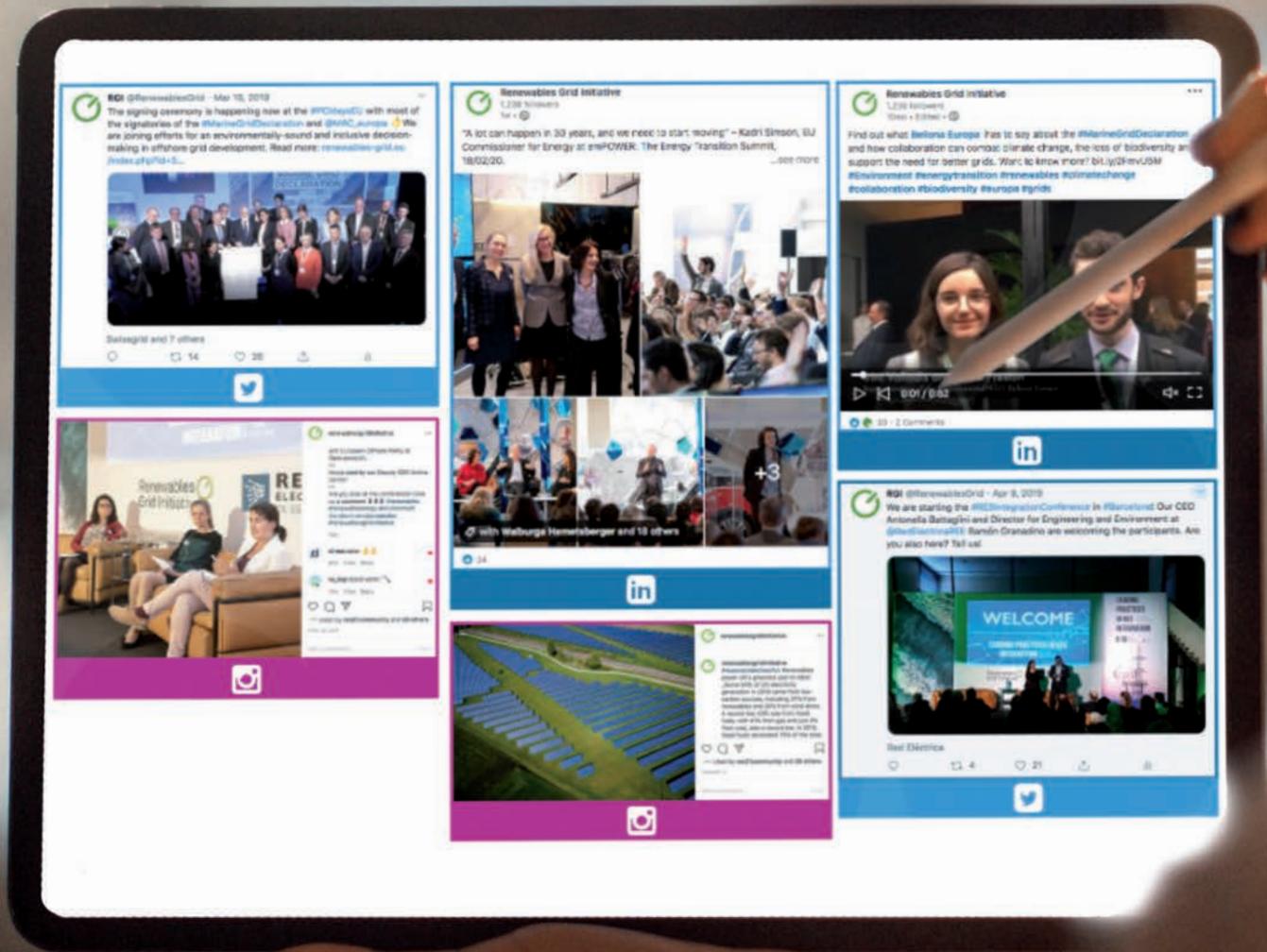
The “BESTGRID” project? It was the first time that RGI and its Members worked together in projects on the ground. You can still find out everything about the successful EU-funded project at <http://bestgrid.eu/>



SOCIAL MEDIA

RGI online

By Liam Innis



Social media is a multi-headed beast – for information exchange, event promotion, news updates and, increasingly, to keep abreast of political goings on as they happen, social media is for many a major point of contact. RGI has been engaging here for several years now and we are active across three platforms – Twitter, LinkedIn and Instagram. These platforms allow us to take innovative approaches to bolstering our best practice exchange, promoting events and publications and engaging Members and an ever broadening stakeholder-pool online. 2019 was a busy year in RGI’s online activity – we expanded our follower reach on Twitter by 36%, Instagram by 108% and on LinkedIn by almost 150%! This year on Instagram we continued sharing posts on the “People of RGI”, as well as experimenting with interactive grid quizzes and more. Above are some highlights.

Follow us:

-  Twitter: @RenewablesGrid
-  Instagram: renewables_grid_initiative
-  LinkedIn: Renewables Grid Initiative

OUTLOOK: NEW PROJECTS

A sneak peek at our upcoming projects

By Johanna Meier, Andrzej Ceglarz & Liam Innis



SENTINEL – Sustainable Energy Transitions Laboratory

The EU's commitment under the Paris Agreement, the Energy Union strategy and the upcoming European Green Deal all aim at accelerating the elimination of energy sector greenhouse gas emissions and all point towards a significant increase of variable renewable energy sources. To better understand the different options and pathways available, we need to develop a new set of energy modelling tools. However, the already existing ones are insufficient for guiding this transition, as they do not capture enough of the technological, geographic, and societal details, important for designing an energy system around renewable energy sources.

In order to face this challenge, RGI joined forces with eleven partners across Europe and, in June 2019, launched the Sustainable Energy Transitions Laboratory (SENTINEL) project, funded by the European Union's Horizon 2020 research and innovation programme. This project aims at developing an energy system modelling framework for the energy transition.

Modular in its structure, the SENTINEL framework will enable separate models to go into a great deal of detail about specific aspects of the energy transition, while making sure individual models can be linked. Decarbonisation, decentralisation, a large-scale expansion of renewables, flexibility, sector-coupling and the impacts of different market designs on the behaviour of energy sector actors can be better described through this. SENTINEL will also investigate and identify the crucial needs of energy model users as well as users of energy models' results.

The first months of the project have been dedicated to conceptual and operational work related to the scope of primary research. 2020 will concentrate on extensive collaboration with energy industry, policy-making, civil society, TSOs and scientific community stakeholders, with the aim of informing the development and refinement of the SENTINEL framework. This will be achieved through direct interaction during expert interviews and through three participatory case studies in different geographical settings: at national (Greece), regional (Nordic) and European levels.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837089.



BMW “Practical Guidelines” project

Since the second half of 2019, RGI has been working together in a consortium consisting of the consultancy Navigant, project managers ILF and law firm Dammert&Steinforth on a project funded by the German Ministry for Economy and Energy (BMW) with the name of “Practical Guidelines for Grid Expansion”. The project aims to identify critical challenges delaying the German grid expansion and seeks to find innovative solutions and best practices to overcome these challenges. This includes research, consultations and workshops with stakeholders from permitting authorities, TSOs, project developers as well as the NGO community. The output will be a practical guideline document to be released at the end of 2020.

Coalition for balancing the development of offshore wind energy and securing future marine ecosystems

After the successful signing of the Marine Grid Declaration, in 2020 we are looking to take our marine work further. Together with wind developers, TSOs and NGOs, RGI will be starting a working group to plan for the deployment of offshore wind capacity while respecting ecosystems and protecting biodiversity. The forum will provide the space for honest dialogue

on topics including data availability and accessibility, maritime spatial planning, nature inclusive design and circular economy principles, and is looking to exchange with academia, policy makers and marine stakeholders.

Youth engagement

As we take stock of global affairs at the end of 2019, climate change finally seems to have found its place as one of the most present topics on the agendas of civil society, policy and industry. Countless factors contribute hereto, however the unprecedented level of active engagement in the realms of civil society – led by decentralised youth organisations such as Fridays for Future and Extinction Rebellion - has undoubtedly played a key role in accelerating climate action.

For our work driving forward the energy transition, these shifts in public consciousness have great consequences and the potential to be hugely beneficial to our mutual mission. Those driving the changes must clearly be identified as key stakeholders in the deliverance of the energy transition. In this spirit, RGI began in late 2019 to explore options to support and work together with more loosely organised civil society-based climate organisations, such as Fridays for Future. We are eagerly looking forward to what the next year will hold in this regard.

OUR MEMBERS





Friends of the Earth Ireland are a not for profit campaigning and advocacy organisation based in Ireland. Their vision is for a just world where people and nature thrive. They campaign for climate justice and sustainability and believe in environmental limits and fair shares. In relation to climate and energy policy their objective is to promote a rapid and just transition to a community centred, zero-carbon energy system for Ireland.



Founded in 1899, NABU (Nature And Biodiversity Conservation Union), is one of the oldest and largest environment associations in Germany. The association encompasses more than 700,000 members and sponsors, who commit themselves to the conservation of threatened habitats, flora and fauna, to climate protection and energy policy. NABU's main objectives are the preservation of habitats and biodiversity, the promotion of sustainability in agriculture, forest management and water supply and distribution, as well as to enhance the significance of nature conservation in our society.

TRĀNSNET BW

TransnetBW GmbH operates the transmission network in the German state of Baden-Württemberg. Its legal task is to guarantee system security at all times. TransnetBW monitors and continually operates the electricity flows within Baden-Württemberg as well as the electricity exchange with neighbouring distribution and transmission network operators.

Kate Ruddock, Policy and Campaigns Manager, FotE Ireland



Our climate is in crisis, and the health of our world is at risk. Transitioning our energy system out of fossil fuels to climate safe renewable technologies is essential. The scale of transformation required will only be possible with the co-operation of communities, citizens, governments and businesses working together and sharing in the benefits that renewable energy generation and distribution can bring. Friends of the Earth welcome this partnership in RGI with grid operators and NGOs working together to achieve the goal of a renewably powered Europe while protecting people and nature.



Sebastian Scholz, Head of Energy and Climate Policy at NABU



The frequency of extreme weather events is increasing dramatically around the world due to global heating. To tackle the climate crisis we have to lower greenhouse gas emissions substantially. We need a shift from fossil fuels to 100% renewable energy - produced in a nature-friendly way. The power grid is key in this transformation: It needs to adapt to the changes in power generation and consumption. It is our obligation to develop our power grids - in harmony with nature - on the path to a fossil-free society. Ultimately, it's the necessary step to preserve our environment, our ecosystems and biodiversity.



Stefan Zeltner, Head of Regulatory Affairs and Energy Policy



The integration of renewables is key for reaching our ambitious climate and energy policy targets. If we can't build the necessary infrastructure, and foremost the electricity grid, we will fail - with tremendous consequences for Europe and its citizens. This we cannot allow to happen. The necessary grid extension involves many stakeholders, amongst them various civil society groups. They play a pivotal role in the dialogue that we see necessary when planning and building the transmission grid.



THE SECRETARIAT

The faces behind the work



Antonella Battaglini, CEO
is the founder and creative mind behind RGI.



Stephanie Bätjer, Senior Manager Communication
is responsible for leading the successful coordination of RGI's communication activities, including the implementation of the "Good Practice of the Year" award, events and policy matters.



Dení Bellamy, Manager Fundraising
is responsible for RGI's fundraising strategies, as well as project reporting and development.



Andrew Carryer, Manager Environment
was responsible for RGI's environmental protection, nature conservation work as well as external training and exchange events, for example through the PAC project.



Andrzej Ceglaz, Research Advisor
works with RGI on issues combining aspects of social and political realities with the functioning of the energy system.



Matilde Doni, Personal Assistant to our CEO
assists Antonella on her everyday business and supports the team in organising events and the "Energy Regions in Transition", as well as working on RGI's advocacy activities and social media.

Thank you



At the end of 2019, we look back on years of working alongside diverse and talented colleagues. This year, we said goodbye to three colleagues who each brought different characters and expertise to the Secretariat, and we wish them all the best for the future.

Andrew Carryer joined RGI in 2014 and worked for 5 years on various projects under the umbrella of environment and nature protection. His hard work, great ideas and good humour will be greatly missed.

Michael Hickin was with RGI from 2018 and his work on marine grids was a valuable and important contribution. We thank him for the many good moments we shared over this time.

Karolina Doruchowska was with RGI as legal advisor throughout 2019, and with her expertise she supported the team in all the legal nitty-gritty of RGI's activities. Thank you, Karolina!



Karolina Doruchowska, Legal Advisor

joined RGI in 2019 and supported the team with her expertise on legal matters and policy.



Michael Hickin, Manager Marine Environment

managed RGI's marine work programme, while contributing to RGI's work on grid tariffs and energy storage.



Liam Innis, Junior Communication Manager

joined RGI in 2019 and works on RGI's communication, events and youth engagement.



Matthew Keehan, Manager Finance

joined RGI in September 2018 to take care of our annual budget and the financial reporting to funders.



Sylvia Kessler, Office Administrator

supports the team in all administrative matters – most importantly, she is the good soul of the office.



Holger Loew, Senior Manager Energy Systems

joined RGI in 2019 and works primarily on the question of how to decarbonise the European energy system, for example through the PAC project.



Johanna Meier, Manager Communication

works on RGI's external communications, events and advocacy work, as well as leading RGI's participatory leadership training and many other initiatives within RGI.



Antina Sander, Deputy CEO

supervises a number of processes including RGI's strategic and organisational planning and is directly responsible for national TSO-NGO collaboration projects.



Cristina Simioli, Manager Italy

manages the Italian IRD project "Working together to work better". She is also responsible for the regulatory recognition of stakeholder engagement initiative as well as coordinating our work on undergrounding and working on the participatory leadership training.

MEET OUR BOARD

Steering RGI forward



Jasón Besga (Red Eléctrica de España) Head of the Institutional Relations and European Affairs Dep.

Jasón currently heads the EU and International Affairs Department of Red Eléctrica where he started as head of the Brussels Office. Before joining Red Eléctrica, Jasón held different positions at Kreab Gavin Anderson, a strategic management and public affairs consultancy, where he advised clients on EU affairs including on implementation and compliance matters concerning EU legislation in policy areas such as environment, energy and climate. He studied Economics and Business Administration at the Universidad de Navarra (Pamplona, Spain).



Alan Croes (TenneT Holding B.V.) Corporate Asset Owner

At the end of 2019, RGI Members elected Alan Croes from TenneT Holding B.V. (NL) to become the newest Member of the Board. Alan currently heads the Corporate Asset Owner Department of TenneT Holding B.V. after several roles in System Operation, Interconnectors, Asset Management, onshore and offshore. Before joining TenneT Holding B.V., Alan has been active in different roles in local and regional distribution companies. He studied electrical engineering at the Technical University of Eindhoven (Netherlands) and a Master of Business in Energy System from the University of Delft (Netherlands).



Olivier Feix (50Hertz) Head of Nature Protection and Permitting, Co-Chairman of the RGI Board

Olivier is the Head of Nature Protection and Permitting at 50Hertz. Before joining the company in 2007, Olivier Feix was an international analyst for Österreichische Elektrizitätswerke AG. He has worked in Heidelberg, Berlin and Brussels for the European association UCTE. He attended the Linz and Hagen universities to study Mechatronics, Business Administration and Economics.



Eva Schmid (Germanwatch) Team Leader German and European Climate Policy

Eva Schmid works on bringing forward the fact-based discourse on how to achieve a systemic energy transition in Germany and Europe with a particular focus on the needed power grid architecture. Eva Schmid joined Germanwatch in 2017 as a Senior Advisor for Power Grids and Low Carbon Policy. She has been a member of the ENTSO-E Advisory council since 2017. Eva completed her PhD thesis on the exploration of German mitigation scenarios.



Stephan Singer (CAN International) Senior Advisor Global Energy Policy, Co-Chairman of the RGI Board

Stephan is CAN International's Senior Advisor on Renewable Energy working on clean energy policy that is based on 100% renewables and aims to foster the 1.5 C objective. Before joining CAN, Stephan worked for WWF for 23 years. He is a regularly invited peer-reviewer of the annual IEA World Energy Outlook and a regular CSO reviewer of some of the IPCC work (WG III, mitigation). Stephan has a PhD in soil physics on carbon and nitrogen dynamics in impoverished Indian soils.



Edoardo Zanchini (Legambiente) Vice-President

Edoardo is the Vice President of Legambiente. His work on issues related to energy and sustainability has been published in many books and journals and he has taught urban planning and urban ecology at the Universities of Rome and Pescara. He holds a PhD in Urban Planning, a postgraduate specialisation and a master's degree in Architecture from La Sapienza, University of Rome. Edoardo Zanchini leads the energy, transport and urban planning national office for the Italian environmental NGO Legambiente.

