

## The Renewables-Grid-Initiative

### Constructing the Future Electricity Grid of the EU: 8 Key Issues to Be Included in the Infrastructure Package

The mission of the Renewables-Grid-Initiative (RGI) is to promote effective integration of 100% electricity produced from renewable energy sources. RGI was launched in July 2009 by a coalition of Transmission System Operators (TSOs) and Non-Governmental Organizations (NGOs). RGI's members originate from a variety of European countries, as it consists of TSOs from Belgium (Elia), UK (National Grid), France (RTE), Germany (50Hertz), Germany and the Netherlands (TenneT), and NGOs such as WWF International, Germanwatch and the Royal Society of the Protection of Birds (UK partner of Birdlife International). RGI activities are in support of national and EU authorities' efforts to realise an efficient, sustainable, clean and socially accepted development of the European network infrastructure for both decentralised and large-scale renewable energies.

RGI believes that it is essential to look for synergies in bundling infrastructure projects wherever appropriate to minimise the impact on landscape and people. However, RGI wishes to stress that discussing all infrastructure projects and needs under one heading, as in the most recent draft of the incoming Commission Communication on "Energy Infrastructure priorities for 2020 and 2030 – A Blueprint for an integrated European energy network", is risky and may even be counterproductive. There is a clear need to stress the importance of grid expansion for renewables' integration. This should be kept separate from issues related to CCS, oil and gas pipelines as they deal with fundamentally different infrastructures. Each of these issues requires a different and tailor-made approach. The integration of fast growing renewable electricity into the European grid and the achievement of ambitious energy security and climate protection goals of the European Union require an accelerated development of the grid network which should be reflected as a priority in the forthcoming European Infrastructure Package.

In order to develop the future European grid, a step-by-step smart approach needs to be developed. This should make sure that the restructuring of today's grid is carried out in a flexible way, that resources are efficiently allocated and that all developments provide the base for meeting future needs. The current common focus and cooperation among TSOs is important, but not sufficient. This has to be complemented by greater synergies and cooperation among governments for energy policy, and regulators for compatibility, eventually harmonisation and implementation of regulatory frameworks. Policy should provide the supportive regulatory framework to support the efforts of the TSOs to make efficient investments in the desired direction.

Furthermore, to demonstrate the environmental and social benefits of projects and in an effort to increase public acceptance, guidelines on improving communication between stakeholders and affected populations need to be developed.

For the development of the grid, a long-term stable, transparent, supportive political and harmonised regulatory framework is needed to guarantee that effective and necessary investments in transmission systems can actually be realised. The development and expansion of the European electricity infrastructure is urgent and necessary due to fuel shifts and must be complemented by the deployment of smart grid technologies, but most importantly it is required to reach the European renewable energy and

climate targets (and to further prepare for more ambitious integration targets. For instance, 20% renewable energy share in the total EU energy mix by 2020 requires about 35% of the electricity in Europe produced from renewables, which represents a substantive increase in the next 10 years for all Member States in the EU-27.

RGI proposes **eight areas of intervention**, which in our view should be considered and included in the infrastructure package.

## I. Integrated and anticipative planning of Europe's future transmission system

In recent months ENTSO-E has published a pilot non-binding Community wide ten-year network development plan (TYNDP). The TYNDP provides for the first time a methodologically sound and integrated basis for the further development of Europe's electricity highways. Although further improvements and a better harmonisation of planning tools will be needed, the TYNDP will become one of the key reference points for the political decisions making processes at European and national level.

All national development plans should be designed with a European perspective – especially in relation to cross-border infrastructure projects and interconnectors. All major national development plans should include a strong focus on, and be developed in accordance with, the required future European grid architecture.

Members of the RGI believe that the efforts for projections of new power infrastructure in Europe should be extended to, at least, a 15-20 year time horizon, thus providing the opportunity for more anticipative long-term planning. This would enable to start, for instance, spatial planning and consultation processes at an earlier stage than today. The longer time horizon would also allow for better integrated planning on a European scale and might even allow for an earlier kick-off of time consuming permitting procedures.

## II. Permitting new lines in time

Lengthy licensing procedures have become the major bottleneck for the development of the transmission infrastructure. Under the current authorisation process, the grid cannot adapt in due time to a rapidly changing power generation landscape. The Commission's intention to simplify and accelerate permitting procedures is a welcome and vital step in the right direction, which needs to be followed-up with concrete measures and pay due respect to another required intervention of increasing public acceptance (see later).

RGI suggests that the need for projects of European interest should be stipulated by law and included in national legislations. In addition, a legal framework should be developed to ensure efficient authorization procedures within set period of times, especially for priority projects. These projects should be considered of "public interest" thus allowing for priority treatment in the permission procedure process. The idea of establishing a single point of contact, maybe administered at national level, would be an important step in the right direction.

Moreover, the upgrading or replacement of existing lines should be made possible through simplified and shorter procedures. A concept for priority treatment of key projects in European law should foresee procedural harmonization in order to allow for an easier realisation of cross border projects. The infrastructure package should consider the possibility of appointing "European coordinators" for projects of European interest with the task of helping resolve bottlenecks and possible significant delays in the

authorisation procedure. The Coordinator should also be actively involved in the operational communication and democratic consultation process from the early stages to the full realisation of project.

### III. Increasing public acceptance

Building new grid infrastructure needs political backing. The integration of large-scale renewables, which are geographically bound and most often located far away from consumption and storage sites, combined with the goal of market integration, requires grid infrastructure that is inclusive, long-distance and increasingly international. This means that the future electricity grid will not only be “small and decentralised” as the public might expect in some cases but also large-scale and cross-national. It will be a combination of Super and Smart: a SuperSmart Grid.

RGI considers that the appointment of “Mediators” is becoming increasingly necessary. Members of RGI are interested in promoting the creation of one or several “mediators training center” (MTC) with the support of the Commission and the national authorities to build up capacity and experience on how to best deal with public concerns and set up successful consultation processes.

Moreover, compensation schemes for mitigating local planning conflicts should also be considered. A compensation toolbox developed at European level, should be tested and adapted locally. The MTC could become a fundamental driver for developing and testing compensation packages. Compensation models, based on objective criteria (in order to have foreseeable costs ranges), should be used to compensate affected communities. Compensation costs should be included in the project costs and fully recognised in the national regulatory framework. The European Union should allocate funds to cover the costs of projects of European interest.

Finally, clarity should be created for all actors about available “state of the art” technologies and about infant technologies that still lack technical development or operational experience.

RGI believes that it is crucial to develop a common communication strategy and a clear and assertive communication approach (actively endorsed at European and national level) to explain to the public and interested stakeholders the role of grids in the development of renewable energy sources and in the transition to a decarbonised power sector. This is particularly important in the case of cross-border infrastructure projects, which are often perceived to have little local benefit. Citizens and local policy makers are generally not informed about (i) the necessity of new HV-lines, (ii) the relationship between production of RES and building of new lines, (iii) properties, advantages and drawbacks of the various technologies (HVDC, cables, and overhead lines).

A communication strategy should be developed and clarify the role of the different actors involved in the process. The strategy should spell out what is expected by, for example, the European Commission, the European Parliament, national governments, permitting Authorities, Regulators and TSOs. Additionally the role of NGOs in this debate should also be clarified and promoted. However, it is important to notice that RGI stresses that initiatives in the field of public acceptance should not dilute the responsibilities nor the interests of each actor involved in the process and each actor has to play his role according to its own mission.

Transparency on planning and permitting procedures should be enhanced and actively communicated to local authorities and citizens. Stakeholders need to be better informed about their rights to participate in the consultation process and the possibility of jointly developing solutions.

#### **IV. Financing new infrastructure through adequate returns**

An adequate rate of return is pivotal to raising the substantial amount of funds needed to build Europe's future transmission system. The European Commission should take the lead in safeguarding sufficient incentives to capital markets. This is particularly important for unbundled TSOs that have no direct access to large sources of equity. The envisaged network code on tariff harmonization should be designed such to provide suitable and necessary regulatory conditions for this purpose.

Public funding for projects, that are essential to the realisation of the European energy-climate objectives, might be considered to hedge part of the investment's risk. However, it should be noted that public funding cannot replace a much needed and comprehensive regulatory framework that would allow appropriate fund raisings. RGI therefore urges the EU to agree on a harmonized European legal and regulatory system, along with the development of new financing tools for projects with particularly high-risk profile. More specifically, public European funding should be primarily allocated to projects of European relevance and to pilot projects testing new technologies or using non-conventional technologies which allow a better environmental integration but which may be more expensive and, most importantly, multi-stakeholders communication activities accompanying the permitting and realisation of projects. Fund allocation discussions within the European Commission (e.g. DG Budget and DG Regional Policy) should fully acknowledge the needs of public co-funding in the areas described above.

#### **V. The Baltic & North Sea as part of an integrated EU electricity grid**

The installation of submarine cables becomes increasingly significant with respect to market integration and offshore wind development. RGI welcomes the North Seas Grid Initiative and the developments in the Baltic Sea. It is important to note, however, that developing the future European transmission system requires a holistic approach. Offshore grids should not end on the beach. From a short-term socio-economic perspective, it makes sense to connect wind farms to the closest available grid. In the short-term, wind-connectors (HVDC and AC interconnectors that facilitate connection of wind farms to the cable) can serve this purpose.

However, national regulatory frameworks and support schemes may cause market players to sub-optimize their investments and build connections, which are not sufficient to realise the future SuperSmart Grid. The EU has to play a role in financing these types of projects, since the benefit is for European citizens as a whole and less for an individual country. The EU might be better placed to coordinate efforts in cross-border projects, which have a European dimension. For this and similar cases, cost allocation models are urgently required. In the future the introduction of a European Access Tariff should also be considered for overcoming the nationally bound regulatory system.

#### **VI. Bringing clarity in smart grids development**

Important steps have been made in the fields of smart grids and their expected contribution to the integration of distributed generation and to an extensive use of demand management. However, RGI believes that the concept of "smart grids" needs to be clarified for all users, and clear policy targets defined in order to bring clarity and further support for the full integration of distributed generation into the grid. The transition towards smart grids and meters, a vital prerequisite for the integration of large-scale and decentralised generation of renewable energy, is currently lagging behind. A successful transition towards smart grid technology requires a holistic, coordinated approach at EU level to investments, standardisation, interoperability, consumer issues and skills development. All these elements should be clearly considered in the infrastructure package and other related activities of the Commission.

### **VII. Streamlining grid related research & development efforts**

We believe that the transmission system of the future requires enormous efforts not only in terms of investments in new lines, but also in strengthening and optimizing existing infrastructure and technologies. The European electricity grid initiative (EEGI) as part of the SET-Plan can provide, for example, the basis for a new policy pilot project with new funding and regulatory regime. This could become a template for further developments projects. Additionally, the regulatory regimes should include a provision for recovering R&D and demonstration costs as part of the TSOs asset base, as it is common practise for other industries.

### **VIII. Better coordination of renewables support schemes**

Although the Commission would welcome a convergence of national renewable energy support schemes over the longer term, it has conceded that an agreement over a unified model is not achievable in the short-or medium term. RGI believes that harmonisation is possible at least on two issues 1) Article 16 - "prioritised and guaranteed" grid access to renewables energies and 2) Environmental Impact Assessments for infrastructure development. The harmonisation of these two issues will further support the mainstreaming of procedures, adequately address public concerns while preparing the ground for further steps.