



BEST GRID

Testing better practices

2nd edition: Lessons learned

NGOs and grid operators cooperate on the ground

Modernising the European electricity grid is an imperative building block to enable the transition of Europe's energy system from fossil fuel dependence towards renewable energy sources. However, planning and realising grid development projects is often difficult and time consuming due to complex permitting procedures, the challenges of minimising impacts on nature and host communities as well as resulting regional and local opposition. The BESTGRID project has attempted to tackle these problems by approaching current European grid development projects in innovative ways.

In the project, environmental non-governmental organisations (NGOs) and transmission system operators (TSOs) worked closely together to develop new approaches with two main aims: firstly, to improve the acceptability of new power lines and secondly, to speed up permitting procedures while maintaining high environmental protection standards. NGOs gave advice to TSOs for the development of specific actions during the different phases of the pilot projects in Belgium, the UK and Germany.

Pilot projects: joint strategy development, implementation and evaluation

The five pilot projects have been very different, but complementary at the same time. In three of the projects, both the two consortium partners Germanwatch and Bird-Life Europe and national and local NGOs advised TSOs when drafting an action plan for stakeholder engagement and communication measures and supported parts of their implementation in the following months. By the time the BESTGRID project period is over, these projects will be at the initial stages of their planning process.

The two other pilots focused on the evaluation of stakeholder engagement processes that were developed and implemented by the grid operators prior to the BESTGRID project. In these pilots, the focus was put on learning from past experience. NGOs provided feedback and actively engaged in the process, e.g. by conducting interviews with other stakeholders and helping to draw conclusions.



Pilot project Stevin

- TSO: Elia
- 380kV AC line, 12km new overhead line, 10km underground cable, 25km upgrade
- NGO involved via BESTGRID: BBL

BESTGRID activities

- Post-evaluation of stakeholder engagement and communication activities that Elia conducted between 2010 and 2015 in cooperation with BBL
- Interviews and workshops held by BBL with stakeholders that were engaged in these activities
- Recommendations drawn for the improvement of future grid development projects

Please note that the exact route for most of the projects has not yet been decided on, the illustrations simply depict a connection of the start and end points and does not reflect real proposals.

Lessons learned

- The 10-year network development plan is unknown to the stakeholders.
- Communication with stakeholders should be continuous and phases where nothing seems to happen should be avoided.
- Stakeholders see the grid project together with all other projects in the surroundings. This should be taken into account by e.g. joint fact finding and a website which centralises all projects in a region.



Pilot project Waterloo-Braine l'Alleud

- TSO: Elia
- 150kV AC underground cable, ~5km
- NGO involved via BESTGRID: IEW

BESTGRID activities

- Elia and IEW jointly developed a stakeholder mapping based on interviews conducted in the region
- Elia and IEW organised and moderated workshops targeting authorities and local stakeholders with the aim to initiate dialogue
- All information obtained and the lessons learned have been summarised in a report
- Project put on hold in 2014 because of change on demand side

Lessons learned

- The stakeholder mapping should be based on direct interaction with people as it was done via the interviews in this project.
- Jointly organised NGO-TSO workshops gave the process credibility.
- Ensuring respect, trust and transparency between partners is one of the key elements to success for this type of initiative.



Pilot project SuedLink

- TSOs: TenneT and TransnetBW
- 500kV DC line, 600/800km
- NGOs involved via BESTGRID: NABU Lower Saxony, DUH

BESTGRID activities

- Info markets in more than 40 locations along the proposed corridor addressing the overall population, which were partly moderated by the German NGO DUH
- The regional NGO NABU Lower Saxony and TenneT organised round tables and a field trip
- Cooperation with NABU Lower Saxony also on early consideration of opportunities to improve the biotope network via SuedLink

Lessons learned

- Before starting a dialogue, it is crucial to enable all stakeholders to properly engage by providing them with neutral information.
- Due to the early stage of the planning procedure, a lot of information (e.g. technical settings, underground cables) could not be provided in detail by TenneT. Therefore, external experts like technical planners and cabling companies were integrated in events.
- The wide majority of info markets attendees are well-educated older men, living in their own houses. TenneT is now trying to address younger and more female stakeholders.
- If communicating proposals for route corridors, it is necessary to explain the criteria and their weights very thoroughly.
- Traditional "lecture-style" formats with experts on a podium and the public below do not work. While personal dialogue on equal terms entails considerable resources, it is the only way acceptance can be gained locally.



Pilot project Nemo Link

- TSOs: National Grid and Elia
- DC subsea cable, ~120km
- NGOs involved via BESTGRID: RSPB

BESTGRID activities

- Post-evaluation of stakeholder engagement and communication activities by National Grid
- National Grid conducted interviews and held workshops with relevant Nemo Link stakeholders in both the UK and Belgium
- National Grid reviewed a number of other internal marine infrastructure projects to set benchmarks and provide concluding input

Lessons learned

- It is important that a project team knows AND understands its stakeholders.
- Understanding how and when to engage with stakeholders and adapting to their needs and motivation has an impact on the quality of engagement.
- Maintaining good quality records of meetings, timekeeping and preparation for engagement enable improved relationships, maximise the efficient use of time and resources.
- Research the availability of existing data and solutions to issues from similar projects, understand the different legal, structural and regulatory requirements that exist across boundaries (country, waters, legislative).
- Undertake effective handovers during all the project's transitional stages to ensure project-specific knowledge is maintained. Undertake regular lessons learned exercises and embed the process into the 'culture' of the project, sharing positive as well as negative experiences.



Pilot project Bertikow-Pasewalk

- TSO: 50Hertz
- Upgrade of existing 220kV AC line to 380kV, 30km
- NGOs involved via BESTGRID: NABU, DUH

BESTGRID activities

- Info-tour with mobile citizen office; stops at eleven different locations along proposed corridors for the new line
- Measurements of electric and magnetic fields at the existing 220kV line
- Four round table events, organised in cooperation with NABU Germany and DUH, targeting environmental stakeholders and representatives of local authorities and municipalities

Lessons learned

- Involving local authorities and NGOs at an early stage helps to identify critical points along the proposed corridors.
- Mobile citizen office was appreciated by local authorities for being a flexible tool, offering information and facilitating dialogue, thereby allowing the TSO to gain access to local knowledge; going to where the people are (small villages, markets) helps overcome barriers and attracts people who otherwise would not have been reached.
- Both internal staff and external experts (e.g. academia, public authorities, NGOs) give credibility to the format and help build trust.
- Smaller but long-lasting measures have proven to facilitate a continuous dialogue and relationship with relevant stakeholders – if implemented well, it is a chance for the TSO to be seen as a transparent and reliable partner in the long-term.

UK/Belgium Nemo Link project,

AC cable from 400kV Richborough substation in south-east England to DC converter station on the coast, DC undersea cable between DC converter stations on English and Belgian coasts, length: ~ 120km, AC cable from DC converter station on the Belgian coast to Zeebrugge substation (TSOs National Grid and Elia). Expected operational launch: 2018

Germany SuedLink project,

a 500kV DC transmission line from northern to southern Germany (TSOs TenneT and Transnet BW), length: 600/800km. Expected operational launch: 2022

Germany Project Bertikow-Pasewalk,

upgrade of an existing 220kV line by a new 380kV overhead power line in north-east Germany (TSO 50Hertz), length: 30km. Expected operational launch: 2019/20



Belgium 150kV AC underground cable project Waterloo-Braine-l'Alleud

in a densely populated area near Brussels (TSO Elia); length: 5km. Project put on hold in 2014

Belgium Stevin project,

380kV AC line/cable, length: 47km, of which 12km is new overhead line, 10km underground cable, 25km upgrade of existing 220kV line (TSO Elia). Expected operational launch: 2017

Good practice exchange and transferability of results

Lessons learned by the parties involved in BESTGRID are also beneficial to other project developers and stakeholders, in particular when implementing European 'projects of common' interest. To share insights throughout the project, five public workshops have been organised and other means of sharing our experiences have been tested. Terna has developed a list of possible exchange tools whose efficiency have been tested by the consortium and via a survey. Key factors to successfully implement the tools have been identified, such as a carefully selected target group, the number of participants as well as the participants' cooperation capacities.

In order to test the cross-country transferability of new methodologies implemented in the pilot projects, Terna, in collaboration with WWF Italy, has invited Italian stakeholders to discuss three selected BESTGRID activities: 1. info markets by TenneT; 2. EMF measurements and information by 50Hertz; 3. 50Hertz collaboration with the NGO NABU for nature protection. Terna technicians, representatives of Italian ministries and local authorities, environmental NGOs, and consumer associations have participated. The outcomes of the discussions include both hindering and facilitating factors for the implementation and dissemination of described actions in Italy and other countries.

NGO dissemination: round tables and two handbooks

BirdLife Europe organised a series of five workshops that helped build **capacity in NGOs** to engage in grid policy and planning. Three were in newer EU Member States in which 'projects of common interest' are being planned, namely Slovenia, Lithuania and Romania. At the workshops, developers, authorities and NGOs discussed lessons from PCI planning in their countries, and how to develop further cooperation. A third workshop brought together representatives of BirdLife Europe's national Partner organisations to jointly discuss with each other and TSOs the lessons from BESTGRID and how BirdLife can engage earlier and more effectively in national grid planning. The fifth involved representatives of Brussels-based European NGO networks such as Climate Action Network and

European Environment Bureau. Here the focus was laid on EU grid and energy policy and the ways in which NGOs can help make grid development do more to protect nature and prevent dangerous climate change.

Lessons learned in BESTGRID regarding public engagement and environmental protection were developed by the NGO partners Germanwatch and BirdLife Europe. Part 1 covers 'Public Participation and Transparency in Power Grid Planning' and part 2 addresses 'Protecting Wildlife and Nature in Power Grid Planning'. These easy-to-read **handbooks** provide information on how grids are planned, when and how stakeholders can get involved and what project developers and stakeholders can do to improve projects and public acceptance.

environmental NGOs, and opportunities to increase acceptance and reduce delays by taking additional steps to engage people and protect nature.

Scientific evaluation of results

In cooperation with Germanwatch and Bird-Life, IIASA developed recommendations for TSOs based on a review of existing historical cases. IIASA also developed a protocol for collecting data to map various BESTGRID actions into a common framework, which was necessary for the comparison of the different pilot projects.

The data was collected and analysed according to three research goals: to understand the major concerns of organised stakeholders and lay people, to understand the success factors of actions in addressing these concerns and to map these actions according to the level of participation. The data was collected with the help of in-depth stakeholder interviews, large-scale surveys with lay

people, side observations, feedback forms and content analysis of documents developed by project partners. The results showed that actions addressing the need of a new power line were most successful. This topic requires attention in the very early stages of every project and should be combined with high levels of transparency and information provision. Feedback also showed that stakeholders appreciated the improved quality of information materials, including visuals and detailed maps, as well as the opportunity to personally discuss and receive direct answers to their concerns.



Lessons learned

- Application of best practices requires adaptation to specific circumstances.
- Personal interaction and relationships are possibly the most important element of successful stakeholder engagement.
- Honest and trusted stakeholder engagement needs strong organisational backing.
- It may be too late to debate the need for a project with your stakeholders, but you always need to explain it.
- Changing legislation cannot resolve challenges, but can improve the process.
- It may take years to see the effect of actions taken.
- More systematic knowledge management and learning are needed.
- If you wish for meaningful stakeholder dialogue, the first step is mutual understanding and education.
- Involving professional NGOs in the design and delivery of stakeholder engagement and environmental protection procedures helps to improve projects and build trust.
- There is a benefit in engagement at the 'meta-level' as demonstrated in the BEST-GRID project consortium.



Please visit our website for more information and all documents published in the project: www.bestgrid.eu.

Project partners

Transmission system operators:



NGOs:



NGOs that cooperated in pilot projects:

Bond Beter Leefmilieu (BBL), Deutsche Umwelthilfe (DUH), Fédération Inter-Environnement Wallonie (IEW), Naturschutzbund Deutschland (NABU), NABU Lower Saxony, The Royal Society for the Protection of Birds (RSPB)

Research institute:



Project coordinator:



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