

AWARD



# GOOD PRACTICE OF THE YEAR

**Best cases from the 2014 competition**

Environmental Protection | Communication & Participation  
Technology & Design

Renewables   
Grid Initiative

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## Imprint

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The Renewables Grid Initiative (RGI) promotes the integration of 100% renewably-generated electricity into the European grid. TSOs and NGOs join forces in RGI to support the build-up of a sufficient grid infrastructure in Europe for both decentralised and large-scale renewable energy sources. This grid development should be efficient, sustainable, timely, environmentally friendly, and socially acceptable to all stakeholders.

For more information, visit our website: [www.renewables-grid.eu](http://www.renewables-grid.eu)

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## Foreword by ENTSO-E (European Network of Transmission System Operators for Electricity)

*There is broad political agreement Europe-wide that more electricity infrastructure is needed to reach all energy policy objectives: secure, affordable electricity supply while integrating renewable energy. ENTSOE's infrastructure plan (the 'TYNDP' – the Ten Year Network Development Plan) shows the need for a doubling of interconnection capacities until 2030, which saves consumers twice as much as it costs. However transmission system operators know that their processes for establishing the need for infrastructure and the routing of transmission corridors are now firmly in the public gaze. In this area RGI's tireless efforts in engaging interested parties, improving communication, transparency and understanding has helped build trust and raised awareness of best practices. RGI's work in these directions is very helpful to the goals and mandates ENTSO-E is pursuing.*

*This award for the 'Good Practice of the Year' is another example of RGI's initiative to keep the infrastructure issues in the public eye and to recognise progress in the way transmission system operators respond to citizens' need for better participation in planning processes. Our congratulations go to the finalists and to all those organisations that have put themselves forward for this award. It is pleasing to see so many examples of innovative thinking and commitment to the need for real engagement with the public, with outcomes that are beneficial for all.*

*However more has to be done; in ENTSO-E we are very aware of the surge of interest in how Europe will meet its energy needs and on the role of infrastructure in achieving energy security that is also affordable, cleaner and better integrated in the natural environment. We look forward to working with RGI and other stakeholders in helping to answer this challenge.*



Pierre Bornard  
Board Chairperson  
ENTSO-E



Bente Hagem  
Vice Chairperson of the Board  
ENTSO-E

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## Introduction



The “Good Practice of the Year” award was created to honour an outstanding practice in grid development: one that is innovative and, most importantly, an improvement to existing practices in its field - be it environmental protection, communication and participation or technology and design.

The intention of the award is to disseminate the many good practices out there and to inspire future action and innovative thinking. The competition builds upon a European-wide best practice exchange that the Renewables Grid Initiative (RGI) started in 2012. Since then, RGI has been collecting cases on how to make grid development more transparent, participative and increasingly environmentally sound, so as to contribute to social acceptability and the timely implementation of needed projects. It is our hope that through this award, we can make these good practices accessible to an even wider audience and give them the recognition they deserve.

The 4th European Grid Conference in January 2015 marked the first time that RGI awarded the “Good Practice of the Year”. Submissions for the award exceeded our expectations: TSOs, DSOs, authorities, NGOs and others reacted to the



call and submitted their favourite practices, many of which we share with you in this brochure.

All of the featured good practices adhere to the most important criteria set out by the competition: a recognisable connection to further integration of renewables into the system, a clear contribution to the advancement of existing good practices as well as the willingness to follow innovative approaches and cooperate with relevant stakeholders. In addition, our jury of experts (for an overview of the jury members see page 6) also took factors like impact and stakeholders' reactions into account.

Thanks to the excellent response that our competition received, we intend to continue the award on a yearly basis and hope to see many of you contribute with new and exciting ideas! A special thanks to our jury for contributing their time and expertise to this endeavour and to the international audit and advisory company MAZARS for accompanying the process and supporting the jury by conducting initial evaluations of all the submissions.

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## An independent jury of experts

**Based on the evaluation criteria and their personal expertise, our independent jury elected a winner in each of our three categories: Communication & Participation, Technology & Design and Environmental Protection. The jury members are experts in their respective fields that include grid development, energy policy and biodiversity. The following nine people make up the jury:**



**Gregg D. Ander, Vice President, Power Program at the Energy Foundation**

Gregg D. Ander is Vice President of Power Strategies at the Energy Foundation in San Francisco, where he oversees a portfolio of initiatives including energy efficiency, demand response, renewables, gas, coal, smart grid, and financing. He previously worked for Southern California Edison and the California Energy Commission and produced seven environmentally focused television programs.



**Ivana d'Alessandro, Secretary of the Bern Convention**

Ivana d'Alessandro holds a degree in international law and a Master in human rights; she has been working at the Council of Europe since 2004 and has integrated the Directorate of Democratic Governance, to serve in the Biodiversity Unit in 2009. In 2010 she was appointed Secretary of the Bern Convention and she is also heading the Biodiversity Unit since 2013.

**Maguelonne Dejeant-Pons, Executive Secretary of the European Landscape Convention**

Dr. Maguelonne Dejeant-Pons is Executive Secretary of the European Landscape Convention and Council of Europe Steering Committee on Culture, Heritage and Landscape as well as editor of the 'Futuroipa: for a new vision of landscape and territory' magazine. She has published several articles and books dealing with the territorial development, the protection of coastal and marine zones, biological and landscape diversity and the human right to the environment.



**Patrick Devine-Wright, Professor of Human Geography at the University of Exeter**

Professor Devine-Wright is an expert on public engagement with low-carbon energy technologies and associated infrastructure such as high voltage power lines. He has participated in, and led, several multi-disciplinary research consortia funded by the UK Research Councils and sits on the National Advisory Committee for the Irish power networks company EirGrid and the EU pilot project on public acceptance of electricity grids.



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## An independent jury of experts



**Marie Donnelly, Director for New and Renewable Sources of Energy, Energy Efficiency and Innovation at DG Energy, European Commission**

Within the Directorate General for Energy, Marie Donnelly is responsible for the development of policies and actions on energy efficiency and renewable energy, the coordination of research activities in the field of energy as well as actions aiming at supporting the achievement of the 20-20-20 targets. Previously, she worked with the European Commission, in the Employment and Social Affairs Directorate General as Director for Resources and Communication.



**Jo Leinen, MEP and member of the Party of European Socialists**

Since July 1999, Jo Leinen has been a Member of the European Parliament and between 2009 and 2011 he chaired the Committee on the Environment, Public Health and Food Safety, which he is still a member of. Before becoming an MEP, Jo Leinen was Minister for the Environment in the State Government of Saarland, Germany from 1985-1994.



**Gerd Leipold, former CEO of Greenpeace International**

Dr. Gerd Leipold led the international environmental organization Greenpeace as Executive Director between 2001 and 2009. Today he advises companies on sustainability, works with scientific institutions to improve their communication with stakeholders, investigates new ways to finance the modernization of the electricity grid and supports NGOs with strategy development and communication. He also serves on the advisory board of the Welthungerhilfe (aid agency).

**David Olsen, Board of Governors, California Independent System Operator CAISO**

Dave Olsen joined the Board of Governors of CAISO, manager of California's electrical grid, in 2012. He is the former President/CEO of Patagonia, Inc., a leader in corporate sustainability initiatives and one of the first corporations to get its electricity from renewable energy. Until 2010, he led California's Renewable Energy Transmission Initiative and organized collaborative planning for resource and transmission development.



**Catharina Sikow-Magny, Head of Unit B 1 at DG Energy, European Commission**

Catharina Sikow-Magny joined the European Commission in 1997. She is the head of unit in charge of "Internal market I: networks and regional initiatives" in the Directorate General of Energy. Before that, she has been in charge of the international transport relations team, and has been the desk officer responsible for the trans-European network policy, internalisation of external costs and strategic policy research.



## “Community dialogue for SuedLink” by TenneT



### Short description of the good practice

TenneT’s “Community dialogue for SuedLink” is a communication strategy encompassing local participation in the form of info-marts that allow for on-the-ground dialogue and involve citizens in the planning of SuedLink.

### Objectives of the good practice:

- Build an ‘equal-to-equal’ communication strategy in order to manage the high levels of opposition to the project
- Increase acceptability among local people
- Increase the participation of local people in the grid expansion
- Avoid crisis situations

### Geographic scope

Germany

### Time span

5 months (February 2014 to June 2014)

In order to find a corridor that is agreeable to a large portion of the people living near the planned SuedLink route, TenneT developed a concept for info-marts that were subsequently held in 22 towns along the planned line. They took place within a period of three months and involved 15 to 20 experts on the ground. The marts were designed as dialogue-based information and participation meeting points. Easy-to-understand overviews were presented on posters and experts were on hand to provide more in-depth explanations or technical details. People were given the opportunity to provide general feedback as

well as concrete proposals for corridor routes on dedicated feedback forms. All reasonable corridor alternatives were later included in the Federal Sectoral Planning application submitted to the Federal Network Agency.

Each info-mart attracted around 300 visitors and approximately 3,000 feedbacks were collected, most of which (around 63 per cent) came from individual actors or citizens.

The initial results from a poll conducted at the events

show that almost two-thirds of the info-mart visitors said that the event made SuedLink more transparent and understandable for them. 71 per cent said the info-marts provided an opportunity to actively participate.



### Additional information:

- The “SuedLink project” is the main wind power line project in Germany. With a total length of about 800 kilometres, it is the largest infrastructure project being constructed in the context of the German energy transition. With a transmission capacity of 4 GW, the power transmission line will create the urgently needed link between the renewable energy generated in the north and the consumer centres in the south of Germany.
- “Community Dialogue for SuedLink” has already won two awards at the IPRA Golden World Awards 2014 – for the “Best Crisis Communication” and the “Best Community Relations”.
- More information: [suedlink.tennet.eu/suedlink.html](http://suedlink.tennet.eu/suedlink.html)

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## **“BNetzA meets Science” by the German Federal Network Agency (BNetzA)**

### **Short description of the good practice**

**“BNetzA meets Science” is an interdisciplinary two-day dialogue event spurring collaboration, knowledge transfer and networking between different stakeholders for the research and development of current and future grids.**

### **Objectives of the good practice:**

- Shed light on the intricacies of grid planning
- Enrich the public participation process through interdisciplinary exchange
- Provide formal and informal exchanges, help share knowledge and develop networks

### **Geographic scope**

Germany (Bonn)

### **Time span**

2 days (yearly event since 2013)

“BNetzA meets science” is an open and interdisciplinary dialogue and networking event that also has an intergenerational component, linking young academics with their more experienced colleagues. Participants include researchers from universities, think tanks and NGOs and span from students to professors.

The core areas of “BNetzA meets Science” include Technology & Engineering, Communication Science, Economics and Landscape. Issues connected with these topics are discussed through informal exchanges as well as dedicated brainstorming sessions and subject-specific workshops. A panel discussion constitutes the final segment of the event.



During the two-day event, interested stakeholders who are not able to join in person have the opportunity to follow the discussion live via Twitter. The outcomes of “BNetzA meets Science” are also documented in detail on the BNetzA website and in a proceedings document.

Feedback from participants shows that they highly value the event. 95



per cent indicate that they would recommend the event and 95.5 per cent say that they left enriched with new aspects of the discussed issues.



### Additional information:

- The “Federal Network Agency” for Electricity, Gas, Telecommunications, Post and Railway promotes effective competition in the regulated areas and ensures non-discriminatory access to networks. It was established in 1998 and its headquarters are in Bonn. The Energy Act assigned the BNetzA with the task of regulating Germany's electricity and gas markets.
- The Participation Section of the BNetzA’s Grid Expansion Department organises the event. It regularly cooperates with other European regulators and the European Commission, but also with supranational institutions and organisations.
- Read more: [netzausbau.de/wissenschaftsdialog](https://netzausbau.de/wissenschaftsdialog)

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## **“HCCP Interactive Consultation” by National Grid**



### **Short description of the good practice**

**Taking the form of a comprehensive and transferable PC-to-PC 3D model, the “HCCP Interactive Consultation” is a communication tool that aims at effectively implementing new grid projects and achieving public acceptability.**

### **Objectives of the good practice:**

- Provide an effective, portable and user friendly communication tool
- Provide the public with accurate and comprehensive information
- Test the transferability of the technology into future projects

### **Geographic scope**

England (South-West)

### **Time span**

6 months (April 2013 to September 2013)

Triggered by the scale of the HinkleyC project and the inherent importance to provide an effective communication strategy that resulted in broader public acceptability, National Grid developed a unique 3D model as an interactive consultation tool that was used for the first time to model a new T-Pylon (high voltage-400 kV) segment of the Hinkley line. This new tool is highly detailed and interactive. Displaying a model of the planned grid line along the planned route, it allows users to switch between season and weather patterns, examine the difference in impact on the landscape with or without mitigation, measure

distances and switch between the existing and the proposed structure. The model covers an area of 2,000 km<sup>2</sup> and is accurate to 1.2 meters. To date, National Grid owns a series of video clips and a 3D library of assets and components that can be employed during consultations.

The added value of this interactive consultation tool is the possibility to plan more effective and inclusive stakeholder consultations that encourage feedback during all the

design stages of the project.

During the Hinkley C consultations, the full scale model was available on a series of laptops that were brought to the local communities, however, a fly-through version could also be downloaded to smart phones and tablets, allowing the project team to take advantage of ad-hoc meetings.




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### Additional information:

- The “Hinkley Point C Connection project” or HCCP is a complex linear infrastructure scheme in the South-West of England which will facilitate the connection of new low carbon electricity generators (including onshore and offshore wind power, CCGT gas power stations and a new nuclear power station) to the National Grid network by constructing a new 50 km high voltage (400kV) connection between Bridgwater in Somerset and Avonmouth near Bristol.
- More information: [www.hinkleyconnection.co.uk](http://www.hinkleyconnection.co.uk)

## “Eagle Pylon” by Bystrup



### Short description of the good practice

**Bystrup developed the Eagle Pylon, an innovative design for electricity pylons, which provides an alternative to classic lattice pylons.**

### Objectives of the good practice:

- Gain public acceptability and positively influence the image of pylons
- Create a pylon that addresses visual amenity concerns, is easy to produce, transport, install and maintain
- Create a family of pylons with an identical general appearance that build an unbroken structure in the landscape

### Geographic scope

Denmark (Kasso to Tjele)

### Time span

5 years (March 2009 to November 2014)

The Eagle Pylon is typically 35 metres tall – around 15 meters shorter than the equivalent 400 kV lattice tower – and is designed as a shaft with arms that reach out towards the sky. It represents an optimistic shape that sends a positive signal to its surroundings. The shaft and cross-arms are made of hot-dip galvanised steel, while the cross-arms are held in place by stainless steel wires.

However, the pylon was not only created as a visual alternative. It is an improvement to the lattice tower in all aspects: gaining public acceptability, creating a positive image, easing production and installation as well as reducing maintenance efforts. Consequently, the Eagle Pylon consists of as few elements as possible. It has a simple and effi-

cient monopile foundation structure and can be constructed by one team of five people in one day.

The Eagle Pylon design consists of a family of pylons (suspension, flying angle, tension and dead-end tension) with identical general shape so that the line will appear as a single unbroken structure in the landscape.

Due to strong public opposition to lattice towers, the Eagle Pylon was chosen to replace old pylons in a Danish transmission line that connects Germany and Norway, when the single circuit line was replaced with a double circuit 400 kV line. The 180 km Eagle line was completed in 2014 and is the backbone of the Danish transmission system.

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### Additional information:

- Bystrup is a Danish company of designers and engineers that specialises in the design of power pylons. They worked together with the Danish transmission system operator Energinet.dk to develop the Eagle Pylon aimed at overcoming strong opposition towards the replacement of the 400 kV line between Kassø and Tjele. After first proposing the Sky Pylon, discussions with the public showed that they favoured the Eagle Pylon.
- More information: [powerpylons.com](http://powerpylons.com)



## “MeRegio - Minimum Emission Region” by EnBW



### Short description of the good practice

In the MeRegio project a smart grid provides a transparent and flexible tariff system for optimised renewable energy integration into the grid. The solution was developed in cooperation with ABB, SAP, IBM, Systemplan and the Karlsruhe Institute of Technology (KIT).

### Objectives of the good practice:

- Provide transparency to optimise the link between generation and the use of renewable energy
- Encourage flexible consumption by introducing price signals
- Deliver real data to analyse and improve the systems

### Geographic scope

Germany (Baden-Württemberg)

### Time span

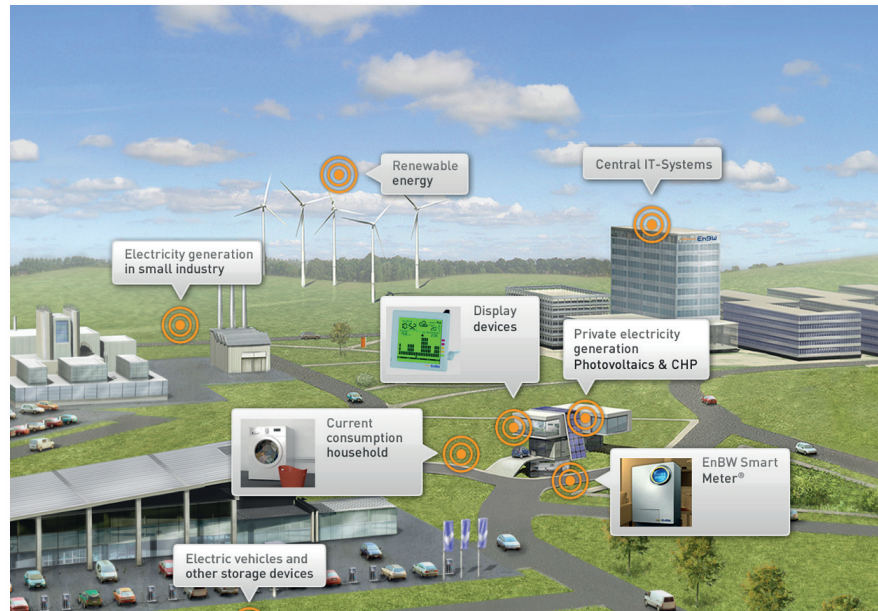
38 months (October 2008 to November 2012)

In order to better integrate renewables into the grid, EnBW developed a dynamic tariff that allowed for flexibility in the participating customers' consumption behaviour. Customers were provided with traffic light-based dynamic price signals, whose order changed on a daily basis. While a green signal stood for the availability of electricity at a low price, a red light signalled that electricity generation was low and was therefore more expensive. The households had the possibility to control their energy consumption and energy data via different technological devices (computer, mobile).



The smart meter continuously relayed the consumption data of the pilot customers directly to EnBW's central billing system. The billing system then sent energy consumption evaluations via the internet to the MeRegio cockpit on the PC of each participant.

An evaluation of the project showed that consumption flexibility of up to 25 per cent and an average value of 10 per cent could be achieved.



The practice has also been selected by the German Federal Ministry for Economic Affairs and Energy's "E-Energy – Smart Energy Made in Germany" subsidies programme.

### Additional information:

- EnBW (Energie Baden-Württemberg AG) is ranked among the largest energy supply companies in Germany and in Europe. With a workforce of around 20,000 employees, EnBW supplies electricity, gas, water and energy-related products and services to 5.5 million customers.
- A smart grid is an electricity network based on digital technology that is used to supply electricity to consumers combined with bidirectional digital communication. This system allows for monitoring, analysis, control and communication within the supply chain to help improve efficiency, reduce energy consumption and cost, and maximize the transparency and reliability of the energy supply chain.

## “DER Integration System” by Enel



### Short description of the good practice

The “DER Integration system” is a system that, combining various technological measures, increases hosting capacity for distributed generation and ensures operation security, allowing for voltage and power flow control in a smart grid architecture.

### Objectives of the good practice:

- Solve the main problems arising in active grids including hosting capacity, risk of islanding, voltage violations and network security
- Develop a new broadband communication infrastructure
- Improve current grid operation standards

### Geographic scope

Italy

### Time span

3 years (2011 to 2014)

DER stands for “Distributed Energy Resources”, which are small power plants connected to distribution networks that aggregated contribute to provide the power necessary to meet regular demand. As the electricity grid continues to modernise, DER as well as energy storage systems and advanced renewable technologies can help facilitate the transition to a smarter grid. Enel’s “DER Integration System” is a complete (hardware/software), broadband-communication-based solution for real-time control of distributed generation in medium voltage networks.

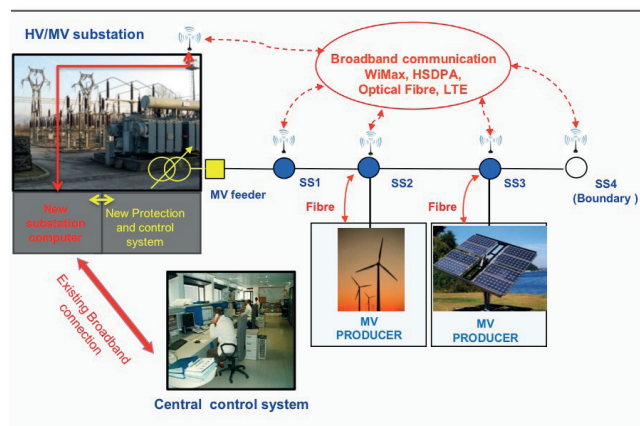
Benefits of the system include increased network hosting capac-



ity, improved operational security (anti-islanding, production forecasting), reduction in the duration and number of interruptions, voltage and power flow control as well as the capability to dispatch renewable-based power plants.

The system has been tested in the field in the pilot projects “POI-P3” in the south of Italy and in Isernia (center of Italy). By now the developments have been completed and the solution has been found to be

scalable and in principle applicable to diverse types of networks. However, it is also expensive and only standardisation and wide deployment can reduce the costs. As a consequence, Enel is applying the system on a larger scale (200 primary substations, 8000 secondary substations, 100 producers) in the project “Puglia Active Network”.



### Additional information:

- Enel Distribuzione S.p.A. is a Distribution System Operator (DSO) and a subsidiary of the ENEL Group, Italy's largest power company and ranked the second largest utility in Europe by installed capacity. The company provides power distribution services to households and business consumers and also runs research and development activities with the aim to improve supply services to consumers.
- For more information visit: [www.enel.com](http://www.enel.com)

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## “T-pylon” by National Grid

### Short description of the good practice

**Development of an innovative design concept for electrical pylons in order to provide an alternative to classic lattice pylons.**

### Objectives of the good practice:

- Create a pylon that addresses visual amenity concerns
- Create a family of pylons in order to cover the range of classic lattice pylons
- Meet the technical safety and reliability requirements

### Geographic scope

England and Wales

### Time span

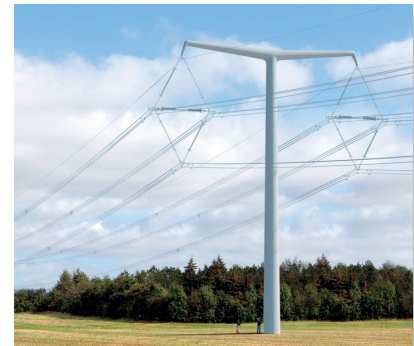
24 months (June 2012 to June 2014  
– Completion expected in April 2015)

The T-ylon concept (created by Bystrup) was the winning design in a competition for alternative pylons organised by the UK's Department of Energy and Climate (DECC), the Royal Institute of British Architects (RIBA) and National Grid. It has been developed into a fully engineered solution in cooperation with structural engineers, insulator suppliers and UK universities.

The T-shaped pylon supports two innovative diamond-shaped insulators to electrically separate the conductors. Current lattice pylons use phase-to-earth insulation in a vertical formation, whereas the T-ylon utilises phase-to-phase insulation leading to a compact novel design. The pylon is typically 35 metres tall, which is around 15 metres shorter than the equivalent 400 kV lattice

tower - a key factor in the context of gaining public acceptability. The design also enables simple and rapid construction as it only has ten main components (plus bolts). It is scalable to fit lower voltage lines and uses materials that are common but not usually employed in the construction of pylons – mainly fabricated steel tube plus steel and iron castings. The nominal design life is 80 years with minimal maintenance.

To meet all operational needs as an alternative for new transmission routes, a whole family of T-pylons have been designed, including pylons that enable the line to deviate or terminate at a substation or cable connection point.



### Additional information:

- National Grid is an international electricity and gas company based in the UK and the Northeastern US. National Grid owns and maintains the high-voltage electricity transmission network in England and Wales balancing supply with demand on a minute-by-minute basis.
- National Grid is building an 8 structure test line at Eakring and proposes the use of the new T-pylon design for the first major project at Hinkley.
- Read more: [hinkleyconnection.co.uk/pylon-design.aspx](http://hinkleyconnection.co.uk/pylon-design.aspx)

## “CHP accumulator system” by Fernwärme Ulm (FUG)



### Short description of the good practice

The practice used a water-based system as a heat accumulator – and essentially, also an electricity accumulator – in order to respond to heat consumption peaks and increase the general efficiency of the region’s combined heat and power (CHP) plant. The heat accumulator used in the project is a steel tank containing 2.400 m<sup>3</sup> of water.

### Objectives of the good practice:

- Find a simple solution to the challenges of both heat and electricity consumption management
- Adapt the solution to make it environmentally (reduced CO<sub>2</sub> emissions) and economically efficient
- Reduce the necessity of relying on fossil energy

### Geographic scope

Germany (Ulm, Baden-Württemberg)

### Time span

3 years (January 2011 to May 2014)

In order to increase the sustainability of its production, FUG decided to combine two technologies: CHP (combined heat and power) and accumulation technologies, using a water-based heat accumulator.

The basis of the practice constitutes a heat accumulator that is connected to FUG’s waste-fuelled power plant. A thermal store allows for a time delay between heat production and consumption, storing the energy produced by the combustion of waste and residues at low consumption times and using it at peak times, thus reducing the use of fossil energy during peak load times.

Additionally, the heat accumulator responds to renewables-based electricity generation. When sufficient electricity is produced by renewable energy sources, the waste combustion system feeds less electricity into the grid and loads the accumulator instead. When renewable energy production decreases during less sunny or windy times, the waste combustion system feeds the maximum possible amount of electricity into the grid, and the heat accumulator supplies the missing district heating instead. In this way, the accumulator essentially takes on the additional role of an electricity accumulator.

### Technical facts:

The loaded accumulator contains 2,500,000 litres of water at a temperature of 130°C. Unloaded, it contains 2,500,000 litres of water at a temperature of 70°. Because of the difference of temperature, the water undergoes a volume difference of 125 to 135 thousand litres. Therefore, an expansion tank is directly linked to the structure in order to support that volume difference.



### Additional information:

The “Fernwärme Ulm GmbH” or “FUG” is one of the principal district heating suppliers in Ulm (Baden-Württemberg). Thanks to its district heating network and its generating facilities in three locations, FUG is able to respond to 46% of the city’s heating needs. FUG also invests in and develops technologies in order to reach the sustainability goals of the German energy transition concept, especially focusing on the production of renewable energy and on the reduction of CO<sub>2</sub> emissions.

## **“Preventing electrocution of endangered birds” by BirdLife International / Bulgarian Society for the Protection of Birds**



### **Short description of the good practice**

**Cooperation between NGOs, industry and governments to prevent electrocution of endangered birds on distribution power lines in Bulgaria and Sudan, led by the Bulgarian Society for the Protection of Birds (BSPB) and the BirdLife International – UNDP/GEF Migratory Soaring Birds Project.**

### **Objectives of the good practice:**

- Identify power lines that are a threat to bird species
- Replace or improve energy infrastructures to prevent bird electrocutions
- Develop best practices guidance material and a sensitivity tool for bird protection
- Protect two endangered species and manage their habitats

### **Geographic scope**

Bulgaria and Sudan

### **Time span**

Since 2011 (due to the success of the project, this work has been continued since)

Electrocution by electricity pylons poses one of the greatest dangers facing the birds in the Sakar Special Protection Area, home to nearly half of Bulgaria's eastern imperial eagle population. Between 2009 and 2013, 67 percent of the Imperial Eagles that had been tagged with satellite transmitters died through electrocution. With support from the EU LIFE programme, the Bulgarian Society for the Protection of Birds (BSPB) cooperated with the power company EVN AG to insulate 595 hazardous electricity poles along a total length of 59 km.

Experts from BSPB identified electrocution threat zones for birds and mapped the most dangerous poles.



As a result, special plastic insulators were added to these poles, thus removing any threat of electrocution. Since then no electrocuted eagles have been found in areas with insulated poles, contributing to an observed increase of 25 per cent in the number of breeding pairs.

In addition, efforts to protect the Egyptian vulture in Bulgaria led to the identification of a power line in

the Sudan that was also threatening this species. Thanks to efforts from BirdLife International, the Sudanese Wildlife Society and the Sudanese Transmission Electricity Company the line has been decommissioned and replaced by a new fully insulated line.

For its work in preserving the Imperial Eagle, BSPB has since received the Natura 2000 award for conservation.

### Additional information:

- BirdLife International is the world's largest nature conservation Partnership. Through their unique local-to-global approach, they deliver high impact and long-term conservation for the benefit of nature and people.
- BirdLife is the global Red List authority on the threat status of birds. The association knows which species are most at risk of extinction and which conservation actions could save them. BirdLife's Preventing Extinctions Program has taken action for over 500 (40 per cent) of the world's threatened bird species since 2008.
- Further information: [www.migratorysoaringbirds.undp.birdlife.org](http://www.migratorysoaringbirds.undp.birdlife.org)



## “Wildlife protection along the LitPol Link route” by Litgrid



### Short description of the good practice

“Wildlife protection along the LitPol Link route” is a campaign intent on protecting wildlife habitats along the route of the Lithuania-Poland power link, LitPol Link.

### Objectives of the good practice:

- Ensure an ecologically worthwhile way of protecting any rare wildlife species that may be inhabiting the route
- Minimise the environmental impact of the LitPol Link project
- Collaborate with environmental consultants and the local community in order to improve the monitoring of wildlife habitats

### Geographic scope

Lithuania-Poland

### Time span

Since May 2014 (the project is planned to last until December 2015)

Construction of the LitPol Link power line connecting Lithuania and Poland began in mid 2014 and is scheduled to be completed in December 2015. Before the construction period, scientists from the Environmental Research Centre and the Lithuanian Fund for Nature conducted a detailed field examination to identify and analyse risk zones for flora and fauna and summarised their findings in a study. The requirements to ensure wildlife protection were subsequently included in the project’s environmental impact assessment study and technical specifications.

The study found that the better part of the corridor consists of ploughed fields and pastures and also identified some areas that were in need



of special protection in order to reduce environmental impacts. The early marsh orchid (*Dactylorhiza incarnata*) for example, which is on the Red List of threatened species in Lithuania, was found in the planned construction area and thus, relocated to other areas that could provide the plants the preferred wet, base-rich soil that it needs. This reloca-

tion happened in collaboration with a Regional Environmental Protection Department.

Additionally, wildlife monitoring occurred before and during each stage of the power line construction and will continue for the remainder of the construction period.

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### Additional information:

- The new Lithuania-Poland power interconnection will be the first power interconnector for Lithuania and other Baltic States to Poland and the Continental European grid. It should also strengthen the power independence of both countries, contribute to the development of an integrated EU electricity market and ensure higher energy supply security.
- More information: <http://www.litpol-link.com/>

