

SOLUTIONS

... good collaboration

long-term perspective ...

lower risks ...

ADVANTAGES

... renewables and efficiency

... high priority

growing shares of wind and solar ...

... key to climate protection

RESPONSIBILITY

Motivations

Renewables: the key to climate protection and a necessary investment in the future

Climate change mitigation must be a priority. We must reduce the risk of the disastrous impact on nature and society to a minimum. Many studies² confirm that renewables and energy efficiency are essential to decarbonise the power sector in Europe, and to reduce the big risks and environmental damages linked to the use of conventional energy sources. The transition to high shares of renewables reduces Europe's dependency on energy imports, and supports economic development and the creation of jobs, both in manufacturing and at the local level. In the long term, renewables are the only path to meet our energy needs. Preserving the global ecosystems and precious finite resources for future generations is also an ethical imperative.

High potential for synergies

If Europe is to succeed in decarbonising its electricity system, Germany and Norway must play a key role.

Germany's Energiewende is a process of historic proportions and of global importance. In light of Germany's decision to phase out nuclear power, the strong growth of renewables is the only alternative to fossil fuels, which negatively impact the climate. Wind and solar are playing and will play a key role in Germany and other countries. Their variability requires more power system flexibility, which is a key challenge for the Energiewende. While several options exist and others are being developed, existing hydropower reservoirs can be a relevant part of the answer to the flexibility challenge. Compared to Norway, Germany's natural hydropower reservoir supply is very small.³

Thanks to its natural endowments and previous investments, Norway holds half of Europe's power storage capacity, and can further increase it without building new dams.⁴ Thus, Norway holds a key to integrating large amounts of wind and solar energy in other countries, namely by providing large-scale, cost-effective and emission-free indirect power storage. Thereby, Norway can directly contribute to substitute large amounts of fossil-fuel-generated electricity (once the necessary connection capacities are built). At the same time, energy efficiency efforts and the planned increase of renewable generation in Norway can also help reduce the high emissions generated by the offshore oil and gas industry, as well as by road transportation.

Environmental trade-offs

Every kind of energy production has an environmental impact and implies different degrees of risk, which should be minimised taking into account the energy system as a whole. All in all, renewables have a much lower impact than conventional energy sources, and their risks are substantially lower, too. We acknowledge and accept that the transition toward a renewable-based energy system implies a partial geographical redistribution of local impact on nature and people.

At the global level, most citizens and nature strongly benefit from the reduction of fossil and nuclear energy consumption that is made possible by increased energy efficiency efforts and more renewables in the energy mix. This must be considered when weighing the unavoidable local impact of renewable-generation facilities, of the increased use of existing storage reservoirs, and of new grid infrastructure. These impacts must be weighed in

mind of the aggregated local and global impacts as well as the risks of conventional energy sources, including extraction, transport, operation, waste disposal, and climate effects.

When considering the local impact of renewable facilities, one must also consider the impact of other equivalent measures elsewhere, including in other countries. One could, for example, compare the impact of large, new, pumped hydropower systems in densely populated areas to the impact of the increased oscillation of water levels in existing storage facilities.

Mutual economic advantage

Increased trade can benefit both sides. In times of high wind or solar production, Norway can import cheap electricity from Germany, thereby saving water in its reservoirs (indirect storage). In times of low wind production, Norway can use the stored water to export power at higher prices.

More interconnection capacities increase Norway's security of supply for dry years and Germany's security for times with low renewables production. Thus, the stability of the power system in the whole region is strengthened. Average prices for Norwegian consumers will not necessarily increase. But if they do, this will be counterbalanced by increased

revenues for Norwegian electricity producers. A socially fair redistribution can be organised, taking into account that most Norwegian producers are publicly owned.

As Scandinavian indirect storage has almost no energy losses (except moderate transport losses), it is more energy efficient than most other storage options. Therefore, Scandinavian storage is one effective option to balance large amounts of variable renewables in Germany and other parts of Europe, and it can contribute to reduce the costs of the Energiewende. This can only be a part of the solution; other flexibility options must be developed and deployed as well.

To enable this cooperation, a gradual growth of interconnection capacities is needed. This can be a good deal for citizens: the recent sub-sea cable between Norway and the Netherlands has paid off in less than three years and is now providing net income to the state-owned companies that operate it. We welcome and support the rapid implementation of the planned cross-border connections, and encourage policymakers to facilitate the realisation of more transmission cables, should they be needed to enable higher shares of renewables in Germany and other countries.

² Öko-Institut and Wuppertal Institute (2012): Power sector decarbonisation: metastudy

³ The recent study "The significance of international hydropower storage for the energy transition" published by the World Energy Council (2012) has estimated that, if Germany reaches 80% renewable electricity by 2050, the economic potential for new interconnectors between Germany and Scandinavia is between 7 GW and 12 GW over the next 40 years, of which 2 GW are already in construction (NO-DK), or in advanced planning (NO-DE). This is a more realistic estimation than the 46 to 76 GW assumed in one scenario under deliberately extreme assumptions in a study published in 2010 by the German Advisory Council for the Environment. Those extreme figures have often been quoted out of their purely hypothetical context, raising concerns in both countries. The present Joint Declaration does not take a specific position on the potentially needed interconnection capacities.

⁴ Eivind Solvang, Atle Harby, and Ånund Killingveit (2012), "Increasing Balance Power Capacity in Norwegian Hydroelectric Power Stations: A Preliminary Study of Specific Cases in Southern Norway," SINTEF TR A7195; NVE (2011), Økt installasjon i eksisterende vannkraftverk, Potensial og kostnader, NVE report 10-2011.

Joint Norwegian-German Declaration

For a long-term collaboration to promote renewables and climate protection

We see a great opportunity in strengthened collaboration between Norway and Germany in the area of renewable electricity as a concrete means to facilitate climate protection.

We are a broad coalition of NGOs, business associations, trade unions, and development organisations and other civil society actors from Norway and Germany.

In advance of the 2013 national elections in both countries, we call upon politicians to:

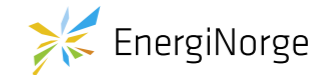
- > Confirm the existing commitments and strengthen our countries' engagement for climate protection, energy efficiency, and renewable energy deployment;¹
- > Continue their good collaboration, and establish a common, ambitious, long-term perspective in the area of renewable electricity, making good use of the synergies in the mutual interest of both countries, and in a spirit of good collaboration with neighbours and European partners;
- > Maintain a balanced view on the trade-offs between local nature conservation, biodiversity, and climate protection, including attention to the local impacts of proposed projects (e.g. onshore or offshore wind farms, biomass, small-hydro, inland or cross-border cables, the increased oscillation of water levels in existing reservoirs) but also the local and global risks and impacts of non-action and of equivalent alternative measures elsewhere, in the same country or in other countries;
- > Pursue solutions that fulfil these aims at a minimum long-term cost for society and nature, maintaining high levels of power system stability and increasing the long-term security of supply; establish effective means to fairly distribute among citizens the economic benefits of increased electricity trade between Scandinavia with high hydro-power production and storage capacities, and Germany and other countries with growing shares of wind and solar electricity production.

Therefore,

- > We call upon German politicians to continue their efforts to implement the Energiewende, and give high priority to rapidly increasing the shares of renewables and reducing coal consumption in order to cut greenhouse gas emissions in line with Germany's ambitious climate targets;
- > We call upon Norwegian politicians to make use of the historic opportunity Norway has to become a pillar of the European renewable electricity supply by increasing its energy efficiency, its renewable energy production, and by making its existing hydro-power reservoirs available to balance growing amounts of wind and solar in other countries;
- > We call upon both countries' politicians to demonstrate their leadership and show in practice they will take responsibility for climate justice and future generations together with many citizens and stakeholders willing to support them on this.

¹ Germany's official 2050 goal is to reduce its greenhouse gas emissions by 80 to 95%, compared to 1990, and to increase the renewables share of its electricity consumption to 80% by 2050 at the latest. Norway has committed to increase its renewable share of the overall energy consumption (excluding energy use in the oil and gas sector) to 67.5% by 2020 and has pledged to become a carbon neutral society between 2030 and 2050, depending on the outcomes of the international climate negotiations.

Our countries are among the richest in the world.
If we don't act, who will?



Energy Norway's endorsement is limited to the Joint Declaration on present page.

List of signatories ...

Norway:

Energy Norway, Future in our hands, Greenpeace Norway, NORWEA, Norwegian Climate Network, Spire, Young Friends of the Earth Norway, WWF Norway, YS - Confederation of Vocational Unions, ZERO - Zero Emissions Resource Organisation

Germany:

Agora Energiewende, Bread for the World – Protestant Development Service, German Environmental Aid, German Renewable Energy Federation, Germanwatch, Naturfreunde Germany, TeneT, WWF Germany, Young Friends of the Earth Germany, 100 Prozent erneuerbar stiftung, 50Hertz

Initiated by the Smart Energy for Europe Platform

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2013

JOINT NORWEGIAN-GERMAN DECLARATION

For a long-term collaboration to promote renewables and climate protection

