

# Toward a New Climate Network

Transatlantic Solutions for a Low Carbon Economy

Transatlantic Climate Policy Group



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# Tackling Climate Change

## The Role of Germany's States

**BÄRBEL HÖHN**  
**MEMBER OF PARLIAMENT AND VICE-CHAIR OF**  
**THE GREEN PARTY IN THE GERMAN BUNDESTAG**

**“In the fight against climate change, Germany’s Länder have a vital role to play. They must build on the progress made in reducing greenhouse gas emissions and be ready to face new challenges and opportunities in the areas of energy policy, efficiency, and transportation. Transatlantic cooperation at the state level can help identify the best policies to do so and build strong partnerships for the huge endeavor that lies before us.”**

Combating man-made climate change is an overarching challenge that requires political action at all political levels—at the federal level, at the state level (i.e., Germany’s 16 states aka *Länder*), and at the local government level. The role of the *Länder* in meeting this challenge is determined by the constitutional distribution of powers between the federal level and the states as well as by Germany’s integration in the European Union. The EU has formulated some of the most important policies with regard to climate change, notably the European Emissions Trading Scheme and the outlines of Europe’s Common Agricultural Policy. The federal level, for its part, has steered Germany’s energy policy—ranging from the country’s very successful legislation promoting renewable energy sources to the landmark decision to phase out nuclear power, not to mention the controversial policy to allow the construction of new coal-fired power plants without carbon capture and sequestration.

Given this division of responsibilities, what is the remaining role of Germany’s states in combating climate change? For one thing, the *Länder* are invested with the power to legislate on a number of matters that are relevant to this challenge, such as construction and housing, roads and public transport, forestry and agriculture, regional planning, and waste management. Moreover, German state administrations are responsible for executing and implementing the federal laws and policies,

giving them some say and leeway in the process. Last but not least, state governments can influence the public debate that calls for more ambitious climate goals and policies, they can create economic incentives for green technologies and environmentally friendly practices, and they can set an example through sustainable procurement policies.

## Evaluation

### Energy policy at the state level: North Rhine-Westphalia

By 2008, Germany had already reduced its greenhouse gas emissions by 23% below 1990 levels, making it one of the first countries to fulfill its obligations under the Kyoto Protocol. Climate policies at the state level deserve part of the credit for this success story.

One example is the remarkable expansion of renewable sources of energy in Germany: The share of renewable energy sources relative to all electricity produced grew from 6.6% in 2000 to 14.8% in 2008 through wind power, biomass power, and solar power, which increased 4-, 5-, and 50-fold respectively. The main factor for this boom was the federal Renewable Energy Sources Act of 2000 that established a system of feed-in tariffs guaranteeing investors a profitable fixed price for the electricity they generated from renewable sources. However, this federal law was predated and, after 2000, supplemented by various local and state programs.

In 1987, North Rhine-Westphalia, launched the REN program to promote the development, demonstration, and application of efficient and renewable energy technologies. Since then, the program has funded more than 50,000 projects and triggered investments of more than 3 billion

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euros, in particular with regard to solar power, biomass, and combined-heat-and-power generation. Annual emissions of two million metric tons of carbon dioxide have been reduced or avoided this way. In addition, a program to improve the efficiency of the thermal use of wood was launched in 1998. More than 1,700 advanced wood-fired heating systems were funded on the basis of this program up to 2005. Aside from renewable energy sources, the state government also promoted highly efficient combined cycle gas turbine power plants as a more climate-friendly alternative to North Rhine-Westphalia’s traditional reliance on hard coal and lignite.

With the aim to improve energy efficiency and encourage energy savings, North Rhine-Westphalia created a State Energy Agency in 1990 to provide energy-related advice to companies and municipalities. Special programs were launched to help small and medium enterprises identify and realize profitable investments in energy efficiency and conservation. More than 1,000 companies participated and carbon emissions reductions in the order of 400,000 metric tons were achieved. At the same time, state-funded energy counselors and consumer centers provided energy saving advice to private households. As well, North Rhine-Westphalia’s school curricula placed greater emphasis on climate protection and sustainability as topics, with energy-saving competitions between schools encouraging students to find ways to make their school more energy efficient.

Acknowledging the contribution of sustainable forest management to combating climate change, North-Rhine Westphalia became the first state in Germany to have all public forests undergo sustainability certification by the independent Forest Stewardship Council. The state also promoted low carbon agricultural policies, organic farming, regional marketing, and sustainably produced biofuels.

With regard to regional planning, new policies were enacted to curb urban sprawl, e.g., through increased state subsidies for homebuilders in inner-city areas and reduced incentives for construction

activity outside the city limits. North Rhine-Westphalia also promoted dozens of energy-optimized “solar settlements,” the construction of “passive houses” that need no heating, and even “surplus energy houses” that produce more energy than their inhabitants consume. Investing heavily in the expansion of local and regional bus and train services, the state also supported programs to provide low-cost commuter or student passes to employees and students.

In the field of waste management, North Rhine-Westphalia markedly reduced methane emissions thanks to the discontinuation of dumping untreated municipal waste and the capturing of remaining landfill gas. This example inspired federal action, leading to a nationwide ban on the landfilling of untreated waste in 2005.

This brief summary shows how state action can make a difference when it comes to fighting climate change. Federal programs have often been built on the basis of existing state initiatives. And, Germany’s success in meeting its Kyoto targets ahead of time would not have been possible without the efforts of states such as North Rhine-Westphalia.

## Challenges

### Continuous green revolution: Transforming energy production and consumption

Given that roughly 40% of the Germany’s greenhouse gas emissions stem from the electricity sector, continuing the country’s green energy revolution will remain the single most important climate action in Germany. This is especially true for coal-rich North-Rhine Westphalia, where fossil power plants account for almost two-thirds of all greenhouse gas emissions. The challenge is two-fold:

First, we will have to continue the rapid growth of renewable energy sources, tripling their share of total electricity production to more than 40% by the year 2020. In this respect, the system of feed-in tariffs established by the federal Renewable Energy Sources Act already offers sufficient incentives to spur further massive investment in wind, solar, geothermal, and biomass power. However, a large-scale expansion of Germany’s power grid will be required, in particular to transport new wind power from the northern shore to urban centers in southern and western Germany. This is where the *Länder* will have an important role to play by speeding up the planning and approval process for the new grids, building public support, and mediating local conflicts.

Secondly, energy companies must be prevented from setting in stone a high carbon energy future by building the more than 20 new coal-fired power plants currently in planning. At present, federal law leaves the states no scope to ban new coal-fired power plants outright or to deny approval for them based on greenhouse gas emissions. This outdated legislation must be revised to give climate change considerations more weight in the approval process. In addition, a federal moratorium for new coal-fired power plants should be enacted, at least as long as carbon capture and storage technologies are not available, tested, and proven safe for society and the environment. In the meantime, state governments should use all the tools at their disposal to educate the public about the climate change threat posed by new coal-fired power plants and to discourage their construction. This struggle will be crucial for the credibility and attainability of Germany’s climate goals.

Increasing energy efficiency and reducing energy consumption are two other important challenges of climate policy. Here, the biggest potential for energy-saving measures lies in buildings. In Germany, roughly 75% of the energy demand of private homes is used for heating, and about 60% of that energy could be saved if existing buildings were improved to meet the energy efficiency standards prescribed by federal law for new buildings. Factors such as construction style, insulation, windows, lighting, and technical installations offer a great potential to save energy and money as well as to reduce greenhouse gas emissions. That is why both the states and the federal government are already investing considerable sums in programs to encourage the weatherization of buildings. But despite these efforts, the pace of progress is still much too slow. At the current speed, it would take up to 160 years until all existing buildings are weatherized. Therefore, additional efforts will

be necessary, through increased financial support, better information for homeowners and tenants, and an improved legal framework for energy contracting services. Also, special programs must be strengthened for low-income households, i.e., those who are most in need of energy cost relief but least able to invest in energy-saving measures.

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In the traffic sector, providing affordable high-quality public transport will remain at the top of the states' climate policy agenda. This will require investments in the modernization and expansion of regional railway tracks, new fuel-efficient trains and busses, and improved services. Fuel economy standards for cars are set at the European level, with a standard of approximately 53 mpg fully entering into effect in 2015. What state governments can do is to lead by example, for instance, by buying more efficient and electric cars for their own carpools. They should also continue to promote the production and use of sustainable biofuels, provided that producers adhere to strict environmental and social standards.

A new challenge of increasing urgency is the creation of the infrastructure needed for electric cars, one or two million of which are projected to be on German roads by 2020. Powered by renewable energy sources, those cars can play an increasing role in bringing down traffic-related carbon emissions. States can contribute to this beneficial development by establishing pilot regions for electric mobility and investing in the necessary network of charging spots and battery exchange stations.

## Recommendations

### **U.S.–European leadership: Demonstrating the transition to a low carbon economy**

Climate change is a global challenge and a problem that can only be solved through global action. Climate science informs us that there is precious little time to act. According to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, global greenhouse gas emissions must reach their peak no later than between 2015 and 2020 and then be brought down dramatically in the years thereafter. That scientific assessment does not leave much room for trial and error. More than ever, it is urgent for us to learn from each other's experiences, to share our knowledge, and to identify best practices that can be adapted by other countries around the world.

That is why North Rhine-Westphalia was one of the founding members of nrg4SD (Network of Regional Governments for Sustainable Development) launched in 2002 at the World Summit on Sustainable Development in Johannesburg. North Rhine-Westphalia also gave its full support to Germany's participation in the new International Renewable Energy Agency (IRENA), in addition to welcoming the establishment of IRENA's new Center of Technology and Innovation in Bonn. As the former capital of Germany and seat of the secretariat of the United Nations Framework Convention on Climate Change, this North Rhine-Westphalian city has already become an international center for climate protection and clean energy, hosting important international conferences dedicated to those issues on a regular basis.

Climate policy cooperation between Germany and the United States in particular is assured to be mutually beneficial. Germans can learn a lot from the efforts of states such as California to stabilize power consumption and to promote efficient and zero emissions cars at the state level. U.S. states may also be interested to learn more about the success of German policies to create green jobs and generate renewable energy sources. In Europe and the United States, at the federal and state levels alike, valuable experiences are made with the implementation of green recovery plans

that promise to create new markets and opportunities for companies and workers on both sides of the Atlantic. Moreover, the lessons learned from the early stages of the European Emission Trading Scheme are sure to provide useful insights for the design of an American cap-and-trade system as well as for regional greenhouse gas initiatives

However, transatlantic cooperation on climate change must amount to more than a frank exchange of ideas, policies, and experiences. It must also serve to build a common commitment to act, a common purpose without which the crucial climate change negotiations in Copenhagen in December 2009 will not be successful. The world is looking to Europe and the United States for leadership on the issue of climate change. As major greenhouse gas emitters with high per-capita emissions, Germany and the United States have a special responsibility to act. And as prosperous industrialized nations that are global leaders in science, entrepreneurship, and innovation, our nations are uniquely suited to demonstrate that the transition to a low carbon economy is possible. If we work together to show that we can not only achieve sharp reductions in greenhouse gas emissions but also create new prosperity and economic opportunities, sustainable growth, and green jobs in the process, other countries will be quick to follow.

## Conclusion

In the fight against climate change, Germany's *Länder* have a vital role to play. They must build on the progress made in reducing greenhouse gas emissions and be ready to face new challenges and opportunities in the areas of energy policy, efficiency, and transportation. Transatlantic cooperation at the state level can help identify the best policies to do so and build strong partnerships for the huge endeavor that lies before us. By learning from each other, working together, and joining a common cause we can move the international fight against climate change forward, and hopefully reach the breakthrough that the world so desperately needs in Copenhagen.



### Bärbel Höhn

Member of Parliament and  
Vice-Chair of the Green Party in the German Bundestag

## Biography

Bärbel Höhn is Member of Parliament and Vice-Chair of the Green Party in the German Bundestag. In the regional government of North Rhine-Westphalia, Germany's biggest state, she was Minister of Environmental Protection, Agriculture and Consumer Protection from 2000 to 2005 and Minister of the Environment, Agriculture and Regional Planning from 1995 to 2000. In 1990, she entered the provincial legislature of North Rhine-Westphalia. Since 1985, Höhn is a member of the Green Party and served in several positions at the local and state level. She studied mathematics and economics at the University of Kiel and worked prior to her political career as a researcher at the University of Duisburg. Höhn lives with her family in the Ruhr region and has two children and two grandchildren.



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