



## #NetzeJetzt: Minister Altmaier takes grid expansion into his own hands



As the energy transition cannot do without modern grids, Minister Altmaier is seeking to optimise the grids and accelerate its expansion. [Find out more](#)

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As the energy transition cannot do without modern grids, Minister Altmaier is seeking to optimise the grids and accelerate its expansion.



The energy transition will only succeed if power lines can be used more efficiently and if new ones are built much more quickly than has been the case so far. This is why Federal Minister for Economic Affairs and Energy Peter Altmaier has declared that he himself will take charge of this work. Says the Minister: “The electricity grids are essential for our electricity supply. Germany is, however, lagging behind as regards the expansion of the grids. I therefore propose measures that will enable us to finally get going, perceptibly accelerate the grid expansion and upgrade existing grids.”

The [Electricity Grid Action Plan \(German only\)](#) is part of a dual strategy: first of all, it is about using innovative technology and operating strategies to optimise the use and utilisation rates of existing grids. Second, it serves to improve internal auditing and simplify planning procedures.

### **The aim: to optimise existing power lines as a short-term fix and to forge ahead with the construction of new lines in the medium term**

So, what will be the impact of the Action Plan and the two strategies underpinning it?

Existing power lines can be optimised, for instance by fitting the pylons supporting overhead lines with better conductor wires to ensure that they can cope with higher temperatures and a greater flow of electricity. In addition to this, special transformers can be used to channel the electricity to those lines that are ready to take up more electricity at that precise moment. Digitising and automating electricity grids can also help improve the utilisation rate of grids whilst maintaining smooth operations. This frees up security reserves that can now be used for regular electricity transport.

With regard to improving the internal auditing of the grid expansion, it is important for all stakeholders involved to coordinate more closely. Grid operators, planning authorities, the federation, the Länder and the Bundesnetzagentur are called upon to work together so that any obstacles and risks are spotted and resolved at an early stage of planning. There are plans for exact target agreements to be included in the procedures themselves.

The Grid Expansion Acceleration Act is to be amended in order to simplify and speed up planning procedures. This could mean, for instance, that the complex authorisation process that has to be completed before power lines can be changed or new ones fitted to existing pylons could, in certain cases, be replaced with a much simpler notification procedure. In cases where power lines are being built in an existing route, the time-consuming proceedings conducted under Federal Sectoral Planning rules could become unnecessary. The new version of the Grid Expansion Acceleration Act could also come with another significant advantage: it would become possible for construction work on a new power line to start even at a stage where approval is still pending on the last few metres of the overall route. The legislative process on the draft legislation for the revised Grid Expansion Acceleration Act is due to begin within a few months' time.

### **Local citizens' dialogue events allow those concerned to discuss solutions**

The Electricity Grid Action Plan is one pillar of action. The other is just as important and it concerns broad-based public support for the expansion of the grid. For this reason, Minister Altmaier is holding meetings with citizens in the regions affected by the expansion of the grids, with their MPs, local councillors, with mayors and with representatives of project agencies and planning authorities. Back

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in August, the Minister undertook his first such visit to regions affected in North Rhine-Westphalia and Lower Saxony; a second one is planned for November (follow this on twitter [#NetzeJetzt](#)). Parallel to this, citizens' dialogue events are also being held as part of the [initiative for a public dialogue on grids](#), and citizens' bureaus have opened all across Germany. The Minister is also taking the Länder on board, as the grid expansion ultimately falls into their remit. The grid summit with the Länder ministers in the Federal Ministry for Economic Affairs and Energy on 20 September 2018 is to address the Electricity Grid Action Plan – and specifically the binding internal auditing and the statutory measures required to accelerate the approval procedures.

Minister Altmaier intends to use both the outcome of this meeting and the feedback from the visits to the grid expansion sites and other dialogue meetings as a basis for the further elaboration of the Electricity Grid Action Plan.

## **There is no alternative to expanding the grid**

The expansion of the power grid is crucial for the success of the energy transition. One key reason for this is that electricity from wind energy is mostly generated in the north and the east of Germany, where the wind is particularly strong. But the main electricity consumers – particularly the large industrial operations – are to be found in the south and west of the country. So the wind power generated in the north needs to be transported over large distances to the major centres of consumption in the south.

The optimisation of the existing power lines can only represent a first step towards reducing the existing grid congestion between north and south Germany by 2020 (find out more about grid congestion [here](#)). It is necessary to bring about a lasting improvement in the capacity of the grids. So there is no alternative to expanding the grid.

In total, more than 7,500 kilometres of transmission grid will need to be upgraded or newly constructed in the next few years. Of particular importance are the “electricity highways” from north to south Germany: SuedLink, SuedOstLink and A-Nord. These power lines are to come on stream in 2025 and to help make the energy transition a success.

At the same time, it is clear that the currently planned grid expansion projects are not the end of the story. In order to attain the major objective of the energy transition – 80% of electricity generated from renewables by 2050 – other new power lines will be needed. The optimisations of the electricity grid which are to be undertaken now will help to keep this need as small as possible.

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### FURTHER INFORMATION

[\[→ BMWi press release: "The Electricity Grid Action Plan can help deliver a secure and affordable energy transition"](#)

[\[→ An electricity grid for the energy transition](#)

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# Why exactly do we need to expand the grid?

Under the hashtag #NetzeJetzt, Minister Peter Altmaier has declared that he himself will take charge of this work. But why isn't the existing grid sufficient - and what does this have to do with electric cars? You can find the answers in this video (German only).



The energy transition can only succeed if Germany has a modern electricity grid and new power lines. This is because the expansion of renewable energy makes higher demands of the grid.

The electricity grid is the backbone of Germany's electricity supply. The growing proportion of electricity generated from renewable forms of energy like the wind and the sun places particularly great demands on the electricity grid. Instead of a few large power plants, more and more distributed wind and solar installations are generating electricity. It is already impossible to transport the wind energy from the north and east of the country to the major centres of consumption in the south and west at times when the grid is at risk of being overloaded. So we need to upgrade our electricity grid if we are to make a success of the energy transition. This video shows you what exactly we need to do.

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## FURTHER INFORMATION

[\[> An electricity grid for the energy transition](#)

[\[> Public dialogue on the electricity grid: interactive map showing all expansion projects](#)

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# A mixed picture regarding global investments in energy

2017 saw a fall of overall global investment in the energy sector. Coal and lignite, nuclear energy and hydropower were affected the most. By contrast, solar and wind energy saw an increase in investments. These are findings by the International Energy Agency (IEA).



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Last year saw an overall fall in global investments in the energy sector. In fact, investments in energy systems across the world fell to 1.8 billion dollars, a figure that corresponds to a 2% decrease year-on-year. These are findings published by the International Energy Agency (IEA) in its report entitled 'World Energy Investment 2018', which was presented to the public this summer.

## Only solar and on-shore wind energy see rise in investment

The main reason for the decrease is to be found in the electricity sector. Here, investment in coal and lignite-fired power plants and nuclear plants, in particular, has fallen. At the same time, investments in renewables also saw a marked decrease of approx. 7% in 2017, following strong growth in the preceding years. Much of this decrease can be attributed to hydropower and offshore wind power. By contrast, investment in solar energy and onshore wind power is at a new record high.

## Level of investment too low to protect the climate

Executive Director Fatih Birol of the IEA says he is disappointed by the fall in global investments in renewables. He says more clean energy investments are needed for the targets on climate protection, clean air and energy security to be met. Global investments in fossil energies, by contrast, have risen – albeit by a small margin. The main driver here has been the oil and gas sector, and in particular the growing shale gas market in the U.S.

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## Positive trend in eMobility and energy efficiency

The report highlights the role of China. The People's Republic accounts for around a fifth of the global investment volume, with most of this investment being used to decarbonise the electricity sector and boost energy efficiency. In contrast to this, the second-largest investor, the United States, continues to heavily rely on oil and gas.

There is positive news on electric mobility. It is true that electric cars account for only a small share in the overall market, but it is also true that almost half of the global growth in the automotive sector can be attributed to them. This development is driven largely by subsidies and public-sector premiums.

With regard to energy efficiency, the picture is also fairly positive. Public-sector programmes, in particular, drove a small increase in investments in energy efficiency in buildings, transport and industry last year. Global public and private-sector investment in this field totalled approx. 236 billion dollars.

Last, but not least, it is also important to highlight the record in investment in solar energy. Given that implementation costs for PV projects have fallen by almost 15%, the increase in investments shows that solar energy really is conquering the global energy markets.

## Report serves as guidance for policy-makers and energy industry

'World Energy Investment 2018' is the third report of this series. It provides detailed information on annual investments in fossil and renewable energy. For this reason, it can serve as guidance for decision-makers in the political sphere and in the energy and financial sectors. They can use this information to drive the global energy transition and ensure that the agreed climate targets are met in time.

The Federal Ministry for Economic Affairs and Energy will soon publish recent and detailed information on investment and turnover in the German renewable energy sector. This newsletter will also cover this information.

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### FURTHER INFORMATION

[\[→ Information by the IEA on 'World Energy Investment 2018'\]](#)

[\[→ Information about renewable energy\]](#)

[\[→ Ready for the next phase of the energy transition\]](#)

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## Quote of the week



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“We have a whole series of excellent economic opportunities for making the energy transition a success; these include new business models, startups, digital services and the industrial sector.”

**Thomas Bareiß, Parliamentary State Secretary at the Federal Ministry for Economic Affairs and Energy**

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