

EUROPEAN ENERGY REVIEW

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A complete monthly survey of our new publications

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PREMIUM
MEMBERS
ONLY**



NEW ADVENTURES IN ENERGY LAND

By Karel Beckman - editor-in-chief

One nice thing about an online medium is that you can follow exactly how many people visit your website and what articles they read. This can be encouraging sometimes, but also disappointing. Sometimes as editor you want to shout out to your readers: you should read this article, it is really good!

There were two articles in December that so far have not gotten the attention that I think they deserve, namely Alex Forbes's seminal article on what you may call his

"[Adventures in the European gas market](#)" and Rudolf ten Hoedt's fascinating account from Tokyo of "[Japan's Energy Adventures](#)" post-Fukushima.

They had the bad luck of being published the day before the Christmas holidays started, when I am sure people were very busy wrapping a lot of things up. So if you are one of those who missed these stories because you did not have enough time, now is your chance to give them another try.

For this month's top story, we have selected a different article, namely Paul Hockenos' report on the growing number of energy co-operatives in Germany and their increasing impact on energy policy. It's an important story, I believe, because it may well indicate a trend for Europe. Energy cooperatives have been around for some time, but they are rapidly becoming bigger and more professionalised. This could have major consequences for incumbent energy suppliers.

TOP STORY

Germany's Little Energy Co-ops
Make a Big Splash

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Germany's Little Energy Co-ops Make a Big Splash



When Germany's environment minister Peter Altmaier addressed the first-ever congress of energy cooperatives in Berlin on November 19, he knew he was looking out over one of the Energiewende's core constituencies. "If all Germans were as engaged as you," he said, "my job would be a lot easier. But we're not that far yet," he joked. Locally based co-ops have become hugely popular in recent years, their numbers tripling in size since 2010 to over 600. Every second day a new clean energy co-op is formed in Germany. Moreover, this tradition-imbued model is now entering a new phase, becoming professionalised as they grow in size, enter into onshore wind power production, and find adherents in big cities, including Berlin. From Germany's capital, Paul Hockenos reports.

| *By Paul Hockenos, Berlin*

The astounding success of Germany's energy co-ops, environment minister Peter Altmaier said to more than 400 co-op representatives in Berlin, is why he wants to extend the model beyond renewable energy to sectors such as transportation, heating, energy efficiency, and transmission grids. The co-operative model (Genossenschaft) in general and the modern-day clean energy co-ops specifically, Altmaier said, inspired his idea of involving citizens directly in the financing and planning of the country's grid expansion and modernization, a central and controversial element of the

Energiewende. "If people on the ground are involved like they are in the co-ops, they are more likely to accept it," he said, referring to local opposition to the planned high-tension cable system.

Energy co-operatives are a means for German citizens to engage directly in the *Energiewende*. The *Genossenschaft* model – dating from the 19th century – is unique in that it provides a vehicle for locally organized people who don't own property or have large capital to invest. The co-op enables them to bundle their assets together with other like-minded

“It’s an empowerment from below, something novel in the energy industry”

people and invest in a commercial business operation that in some way serves the public good. Initial investment in an energy co-op requires as little as 50 euros. Another unique characteristic: the minimum investment gives a member one vote in the decision-making process; this vote carries the same weight as that of someone who has invested much more. The co-op's members are involved in decision-making, planning, organization, and sometimes even the day-to-day operation of the enterprise.

"What's so important about the co-ops and their recent boom," says Patrick Graichen of the Berlin-based NGO Agora Energiewende, "is less the quantity of energy they generate, which up to now is just one percent of the total of renewables,

than the involvement of so many people. They're taking matters into their own hands rather than waiting for politicians to act. It's an empowerment from below, something novel in the energy industry."

Potpourri

Germany's 600 clean energy coops with 80,000 active members are a potpourri of self-organized enterprises, with anywhere from five to more than 4000 members investing in PV, hydro, bioenergy, local heating (*Nahwärme*), onshore wind, or power-heat cogeneration. A study conducted earlier this year by the German Cooperative and Raiffeisen Confederation, or DGRV, an umbrella organization for Germany's cooperatives, found that in 2011 co-ops invested a total of 260 million euros in energy-related projects. (At least 800 million euros since 2009.) The average energy co-op has 160 members; two-thirds of the energy co-ops have between 50 and 200 members. More than 90% of the members are private persons (and 3.5% farmers, 4% private sector players, 1.5% municipal actors.) The average initial investment is 714 euros,

while the average total investment for a member is 3,172.

The financial crisis, says Graichen, has contributed to the recent proliferation of co-ops. "A co-op is a good option for someone to invest a small amount of savings rather than putting it in a bank where interest rates are negligible. The whole financial system itself looks so unstable at the moment. With a co-op you can get a return of 4 or 5% and be involved in something hands-on and close to your own home."

Currently, the lion's share of the investments of energy co-ops goes into PV installations, the least expensive and technologically basic of the clean energy possibilities. The average total investment for an enterprise is 1.2 million and the average generation capacity is 440 kWp. "Photovoltaic co-ops enable people with limited financial contributions to participate in the generation of renewable energy in their locality," explains the DGRV report. "The enterprises are often initiated together with municipal actors,

public facilities, and regional banks. This way roof space can be used – for example of municipal buildings like kindergartens and schools – that private individuals would otherwise not have access to."

Suits and ties

A look around the participants of the energy co-op congress ("**Energiewende – dezentral und genossenschaftlich**"), and their name badges gives some indication of how disparate and heterogeneous the DIY projects are. Some of the 400 participants wore suits and ties, while others sported thick beards and blue jeans. The mixed bag came largely from villages, towns, and small cities across the republic: from the Jagst Valley in the Swabian Alb, Franconia in eastern-most Bavaria, the Mecklenburg lake region, the Frisian islands off the North Sea coast, to the Holstein border with Denmark, just to name a few.

Moreover, co-op members span the political spectrum. The Berlin congress, for example, was sponsored by the office of a Christian democratic MP from Bavaria,

Some of the 400 participants wore suits and ties, while others sported thick beards and blue jeans

Josef Göppel. "Co-operatives support the notion of personal responsibility," explains Göppel. "They strengthen the middle classes and keep economic power in the regions. These are all core themes of Christian democratic politics."

Many of the more successful co-ops are in the process of expanding their operations, a move with far-reaching implications for the co-op model as well potentially for the Energiewende. "A lot of those working in the co-ops do it in their free time," explains Benjamin Dannemann of the Renewable Energy Agency, an institute in Berlin promoting clean energy. "But as they get bigger and expand their offerings their structures are changing. They're becoming more professional and more hierarchical."

Stromrebellen

One co-op that went through this process years ago is the Elektrizitätswerke Schönau. Perhaps the most famous clean energy co-op in Germany, it is located on the southern rim of the Black Forest near the Swiss border. The Schönau *Stromrebellen*, as Germany has come to know them, bought the local grid from the incumbent utility in the 1990s. It began offering non-nuclear renewable energy – mostly hydropower – to 1,700 local customers. By 2001 it owned hydro, wind, and heat and power co-generation plants and had 15,000 customers nationwide. Today EW Schönau has 130,000 electricity customers as well as a gas works that serves 7000 people in Baden Württemberg, Bavaria, and Bremen. It's the third largest green electricity supplier in Germany.

"Of course we're not the little co-op that we once were," explains Ursula Sladek, EW Schönau's managing director, noting that the business now has nearly 100 full-time employees. "As a professional enterprise we've expanded what we offer

and have production facilities in different parts of the country. This minimizes the risk," she says, something the small pv co-ops don't have to worry about. But, underscores Sladek, the one-person, one-vote principle of the *Genossenschaft* and the co-op's decentralized structures haven't changed.

The addition of wind turbines to an energy co-op's portfolio is the next logical step, explains Andreas Wieg of the DGRV. Within the last year, co-ops in Oldenwald (Hesse), Starkenburg (Hesse), Ingersheim (Baden Württemberg), and Tauberfranken (Franconia) have installed wind power. One of the strongest motives for expanding, explains Wieg, referring to the DGRV study, is the desire to contribute value to the region (*regionale Wertschöpfung*). In the study, adding regional value ranked equal with the promotion of renewable energy and environmental concerns as the prime motivation of energy co-op founders.

"Wind power is a lot more complicated and expensive," says Wieg, adding that

many of the PV co-ops find it challenging to make the jump. "There's an investment of tens of thousands of euros before one even knows whether the project will be approved by the locality," he says.

Berlin's transmission grid

Minister Altmaier's idea to bring co-op-like structures and engagement to Germany's expansion of Germany's transmission grid is not entirely new. The first move EW Schönau made was to buy the local grid. Other localities have bought their grids or simply constructed their own, like in the village of Feldheim in rural Brandenburg, another best practice co-op.

Currently, a co-op by the name of BürgerEnergie Berlin has much bigger plans, namely to win the concession to operate Berlin's transmission grid as of 2015. In contrast to Schönau's population of 2,400, Berlin supplies over 3.5 million people with electricity. The grid itself, which the current operator Vattenfall owns, encompasses 37,000 kilometers of cable and 80 transformer stations. In order to buy a 51 percent share, the co-op

requires at least 200 million euros. Its 500 members have so far raised just 3 million euros.

But the initiative has momentum: All of the major political parties in Berlin's city-state legislature are now working together with BürgerEnergie Berlin. The co-op is also getting expert coaching from the founders of EW Schönau. A single share costs 100 euros, although the co-op strongly encourages interested individuals to buy at least five shares. The co-op founders say their aim is to put the grid back in the hands of Berliners, provide cheaper and more 'intelligent' grid services, and with the revenue invest in projects that further the cause of the Energiewende.

Engaged burghers

Wieg warns though that not every collective effort qualifies as a co-op. *Genossenschaften* are companies with engaged citizen participation, not capital funds. "There's more to a co-op than just investing money and collecting interest," he says, referring to some proposals

to invest in grids or energy efficiency measures. "There has to be a palpable local interest and engagement."

Likewise Wieg is cautious about Altmaier's proposal to use the co-op model to win acceptance for the country's new transmission cables. This could work, he says, only if it pertained to local elements of the grid that had a direct impact on the people living there. The construction of a smart grid that links energy use and energy production, for example, "would be an excellent fit" for a co-op, he says, while big transmission corridors probably wouldn't qualify. But Wieg notes that the environment ministry has yet to make a concrete proposal on the matter.

Moreover, as inspiring as the picture of engaged burghers participating in their own energy production may be, there are obvious limits to what co-ops can accomplish. Big offshore wind parks, for example, says Graichen, are out of co-ops' reach. "And these are an essential part of the *Energiewende*, too," he says.

Nevertheless, Germany's co-ops haven't stopped reaching – and no one knows how far they will be able to reach in the end, and what their impact will be on the established market. One of the four big German suppliers, EnBW, has already made a defensive move by involving co-ops in the ownership of some of its new solar parks in southwest Germany. It's a model that the others may be forced to follow.

file

National markets

Our top story this month in our section National Markets is a report from our Berlin correspondent Paul Hockenos about the unprecedented growth in energy cooperatives in Germany.

But there was other important national news as well, especially from the UK. The UK government announced in December that it would vigorously support the role of gas in the energy mix – and that it would allow “fracking” again, as one of the few European countries.

We reported on this in our newsletters of 10 December and 17 December. Specifically, the UK Department of Energy & Climate Change (DECC) announced that “barriers to investment in new gas will be addressed as the Government confirmed the major role gas will continue to play in supporting significant decarbonisation of the power sector by 2030”. DECC said that up to 26 GW of new gas-generating capacity “could be required” by 2030, the bulk of which will be used to “replace retiring coal, nuclear and older gas capacity”. DECC also confirmed “the Government’s commitment to supporting the development and commercialisation of carbon capture and storage (CCS)”.

The new gas generation strategy followed just weeks after the government introduced the Energy Bill to the House of Commons, which includes the government’s Electricity Market Reform initiative. We will have more on this for you in January.

17/12 Germany’s little energy co-ops make a big splash
See page 2 of this Monthly

RELATED ARTICLES

At EER we have followed the German Energiewende closely, that goes without saying. Here are some of our major articles about this key policy arena in the European energy market:

- [What Germany can learn from the Nordic Energiewende](#)
- [German government backtracks on the Energy Transition](#)
- [Free to choose, can German consumers remake their energy sector from below?](#)
- [How Germany’s powerful renewables advocacy coalition is transforming the German \(and European\) energy market](#)

file

Future of fossil fuels

20/12

Why policy failures are opening up gas opportunities in Europe
Gas is dead. Long live gas!

Europe's natural gas industry is going through dark times, writes specialised energy reporter Alex Forbes. Policy failures in the EU have combined with unexpected developments elsewhere to create a business environment hostile to gas. But Alex does not believe that things will go on like this. Sooner or later, he writes, Europe's policy-makers will have to wake up to some inconvenient truths:

- that gas is being elbowed out of the energy mix by coal and subsidised renewables;
- that greenhouse gas emissions are falling much more slowly than expected
- that the US now has a competitive advantage over Europe because of its cheap energy
- and that political opposition to shale gas in Europe is preventing countries from exploiting their own unconventional resources.

In other words, they will have to take action to offer the gas sector a more promising future. This is an important article that should be read by anyone active in the European energy market or in energy policy.

[Read the full story →](#)

RELATED ARTICLES

And don't miss these articles about key developments in the international gas market, all written by Alex Forbes over the past year:

- The US LNG export stampede: another gas revolution in the making
- Shell's Pearl proves its worth, but it's early days yet for gas-to-liquids
- Golden age of gas comes at a price
- The exciting future of LNG – and how it will transform the global gas market

10/12

Why Bulgaria, Romania and the Czech Republic have turned against shale gas
The big fracking chill in Eastern Europe

To the surprise of many observers, Bulgaria, Romania and the Czech Republic in 2012 fairly suddenly joined the group of "shale gas sceptics". For various reasons they decided to ban fracking for the time being. Tomasz Daborowski and Jakub Groszkowski of the Centre for Eastern Studies (OSW) in Warsaw explain why they did so and what lessons can be drawn from this for other countries. Their main conclusion: policymakers and energy companies failed to win the hearts and minds of the public. [Read the full story →](#)

RELATED ARTICLES

Here are some of the highlights of 2012 in our continuing shale gas coverage:

- The US unconventional oil revolution: are we at the beginning of a new era for US oil?
- Golden Age of Gas comes at a price
- To shale or not to shale: that is not the (only) question
- Geology Professor Jan de Jager (ex-Shell) puts West European shale gas prospects in perspective: 'Unconventionals are easy to find but hard to get'

file

Nuclear Energy

There is today not one single “story” about nuclear energy in the world, but rather a number of different ones. There is a European story (about which we will have more to say in January in EER), there is a story of nuclear power in China, India and the Middle East, there is a US story, and there is a Japanese story. None of these stories are in any way black-or-white, least of all the one from Japan. We will continue to follow them all: consider the story on post-Fukushima Japan, which we published in December, the first in a series.

20/12 Fallout of Fukushima: an energy giant awakens

The disaster in Fukushima will probably not lead to the end of nuclear power in Japan after all. With the victory of Shinzo Abe’s Liberal-Democratic Party in the elections on 16 December, the prospect of a German-type Energiewende in Japan have faded. Nevertheless, reports our correspondent Rudolf ten Hoedt from Tokyo, Fukushima will prove to be a turning point in Japan’s energy history: old monopolistic structures are being broken up, new players are entering the market, the renewable energy market is growing, Japanese companies are increasingly active in gas production around the world and Japan may even become a gas trading hub for East-Asia. The energy market of Japan, which has been stagnant for so long, is finally set to be shaken out of its slumbers. [Read the full story →](#)

RELATED ARTICLES

Here some of our earlier coverage of the consequences of the Fukushima disaster:

- Japan’s “Nuclear Village”: too big to fail?
- Nuclear energy one year after Fukushima: no retraction of nuclear power outside Europe and Japan
- Lessons learned from Japan Tsunami & Meltdown at Fukushima: rethink nuclear power

file

Market Dynamics and Trade

This month we had two important additions to this file, centering on two key questions: where are international carbon markets headed, and where is Gazprom headed.

13/12 Energy expert Joan MacNaughton on why it is vital to prevent the Clean Development Mechanism – and the EU Emission Trading Scheme – from collapsing

Save the carbon markets!

If the battle cry of Greenpeace once was "Save the whales", the battle cry of Joan MacNaughton, President of the Energy Institute in the UK, senior advisor to the World Energy Council and former Chair of the Governing Board of the International Energy Agency (IEA), might well be: "Save the Carbon Markets!" As Vice-Chair of an independent, high-level panel set up by the United Nations to take a good hard look at the Kyoto Protocol's Clean Development Mechanism (CDM), MacNaughton has come to the conclusion that carbon markets, and the CDM that ties them together, are far too valuable to let go to waste – despite all the troubles that they face. She says that "the CDM and carbon markets are essential tools to generate investment in emission reduction projects at the scale that is needed." EER spoke with the woman who for many years was the top energy civil servant in the UK and who is still on a mission to save the world from climate and energy disaster.

[Read the full story →](#)

RELATED ARTICLES

You can read more about the pros and cons of emission trading in these articles:

- "Replace emission trading scheme with a carbon tax"
- Time to reform the EU Emission Trading Scheme

- The EU Emission Trading Scheme: designed by committee
- Carbon trading: pro and con
- The prospects for carbon trading post-Copenhagen: Down, but not out

29/11 Why South Stream is the beginning of the end of Gazprom's dominance
A Tale of Two Gazproms

Gazprom has done it: with the final decision to build South Stream, the Russians have the won battle against the EU for the Southern Corridor. Surely a severe geopolitical defeat for the EU and South and Eastern Europe in particular. On a global scale, however, Moscow's move to stitch up the European market through an uneconomic pipeline is a monumental mistake, argues energy security specialist Matthew Hulbert. In one of his characteristically sharp analyses, Matthew concludes that Vladimir Putin and his friend Alexei Miller appear to blind to all parts of the gas market that really matter: LNG, unconventional gas, hub trading and Asia. In that respect, the European Commission's anti-trust probe into Gazprom is a waste of resources, he says: Gazprom's market power is likely to collapse by its own.

[Read the full story →](#)

RELATED ARTICLES

- Resetting Gazprom in the Golden Age of Gas
- For Italy it's TAP or being left out in the cold
- Azerbaijan: Knock, knock, knocking on Europe's door

file

EU Energy Policy

If it's your business to follow EU energy policy, don't forget to check out our [European Energy Blog](#), which contains many interesting news items from our Brussels correspondent Sonja van Renssen, plus a great many video-interviews of EU policymakers, which are shared with us by our friends at [Vieuws](#), the EU Policy Broadcaster.

And of course don't forget to check out the in-depth interview we had with Philip Lowe, the Director-General for Energy at the European Commission, who explains in some detail where EU energy policy is headed the coming years.

6/12

Interview Philip Lowe, Director-General for Energy at the European Commission
 “If there's one area where the European dimension makes economic sense, it's energy”

Philip Lowe, the top civil servant in Brussels responsible for the energy market, takes an upbeat view of the progress that has been made to date in the internal energy market in Europe and of the prospects for the decarbonisation of the European power sector. In an interview with EER, he says that the internal energy market has already led to more choice, more competition, more liquid and transparent wholesale markets, and more secure energy supplies. He is also convinced that decarbonisation targets can be met, in spite of current setbacks. “There's no reason to believe that indigenous sources of energy, i.e. renewables, could not provide competitive energy to Europe by 2020.” Sonja van Renssen and Karel Beckman report from Brussels. [Read the full story →](#)

RELATED ARTICLES

EER has reported extensively on the EU internal energy market, with all of its many aspects and ramifications, including the integration of the electricity and gas markets. Here are some of the interviews we did with key participants in this monumental European project:

- Interview - EU Energy Commissioner Günther Oettinger on renewable energy targets and emission trading: “Four instruments may be too much”
- Interview - Philip Lowe, DG Energy: ‘The energy sector is still in the dark ages’
- Interview Bert den Ouden, CEO APX-Endex: “The integration of the European electricity market will transform the European economy”
- Interview Fulvio Conti, CEO Enel and President Eurelectric: ‘We are ahead of the pack and we will try to stay ahead’

And here a selection of some of the key thematic articles on the internal energy market that you can find on our website:

- On the Emission Trading Scheme: How to find a cure for the Emission Trading Scheme without killing it
- On the infrastructure package: Brussels: energy projects of “common interest” should get special treatment
- On security of supply: External energy policy: Brussels takes charge
- On the integration of the electricity market: Impressions from the Eurelectric conference in Stockholm - An industry plagued by uncertainty, waiting for political leadership
- On the integration of the gas market: The birth of a European gas infrastructure market

file

Renewable energy

Interestingly, in the traditional oil and gas producing countries in the Middle East and North Africa (MENA), enthusiasm for renewable energy is growing. Algeria, for example, took out a full-page ad in the Financial Times (on 22 November) which proclaimed in a large headline that Algeria is “CREATING THE PATH BEYOND OIL” and presenting the country’s “AMBITIOUS NEW RENEWABLE ENERGY PROGRAM”. It would seem that this offers chances for Europe’s renewable energy sector – and especially for the famous vision of Desertec, but things are not quite that simple, as our Berlin correspondent Paul Hockenos found out when he took stock recently of where the Desertec project stands at the moment. He came back with a fascinating story:

29/11 Will Desertec ever move from Power Point to Power Plant?

Is Desertec in crisis? At its annual conference in November in Berlin, the Desertec Industrial Initiative (DII) had hoped to announce the signing of a ground-breaking agreement between Germany, Morocco, France, Italy and Spain that would open the way for a first “Reference Project” in Morocco. But at the last moment Spain baulked. And there has been more bad news as Bosch and Siemens, two of DII’s biggest-name supporters, pulled out of the project. Yet many other private and public backers remain supportive. Moreover, countries in the Middle East and North Africa (MENA) are increasingly enthusiastic about renewable energy. Indeed, Desertec’s biggest hurdle may well be Europe’s fragmented energy policies. “What worries me is not the political situation in MENA”, said one shareholder, “but rather that in Europe.” And there’s the success of the Energiewende in Desertec’s “home country” Germany, which makes people wonder whether power from the desert is necessary at all. Paul Hockenos reports from Berlin. [Read the full story →](#)

RELATED ARTICLES

EER has followed Desertec for many years now. If you want to know more about it, you can start by checking out these articles:

- [Desert Powered Progress](#)
- [Desertec sees positive side to political change](#)
- [Desertec is slowly becoming really big](#)

Colophon

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