

Five years after Fukushima: The nuclear phase-out in Germany

The status. The challenges. The conflicts.

Media workshop for international journalists

17 - 19 January 2015, Berlin - Gorleben - Asse - Berlin



In 2016, it will be 30 years since the fatal nuclear meltdown in Chernobyl and five years since the catastrophe at Fukushima. These events were crucial to the motivation and timing of Germany's decision to exit nuclear power once and for all. Today, the question is no longer whether Germany's future will be nuclear-free – or even when, since the government is committed to completing the phase-out by 2022. But the logistics of pulling the plug on what was until recently one of the country's primary sources of power are proving an immense challenge of the Energiewende. Legal hurdles, decommissioning technicalities, and above all the question where to store the radioactive waste and who will pay for it all, are the main issues at hand.

No other country has seen such a long and bitter conflict over nuclear energy. Germany's decision to phase out its fleet of nuclear reactors laid the very ground for its Energiewende, the sweeping transformation of an entire energy system.

The three-day media workshop will take stock of where the phase-out stands today: With on-site visits to key locations and meetings with policymakers, experts, citizens and utilities, we provide a comprehensive overview of the following issues:

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| The cost issue: | Who will pay for dismantling the reactors and for storing nuclear waste? How will the cost burden be shared between utilities and the taxpayer? What cost-sharing models are most likely to strike the balance between economic feasibility and obtaining political backing? |
| The waste problem: | What is the process for finding a final repository for nuclear waste? What makes it so difficult? What are the technical, financial and political hurdles that need to be overcome before the first tonne of waste can be stored away? |
| The engineering challenge: | How will the technical problems of safely dismantling the fleet of nuclear reactors be tackled? What experience has there been so far of turning nuclear power plants into "greenfield" sites? Is technical expertise in nuclear decommissioning a new German export industry in the making? |
| The German energy DNA: | How has the debate over nuclear energy shaped German politics? What are its implications for today's energy policy? Is there a German obsession with over nuclear energy? And if so, why? |

Content

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Control room at the former nuclear plant in Rheinsberg

The programme: Who? What? When?

Sunday, 17 January 2016

10.00 *Departure from Berlin Central Bus Terminal/ZOB, meeting point in front of the Hotel ibis Berlin Messe, Messedamm 10, 14057 Berlin and transfer to Gorleben.*

A

An introduction to the nuclear phase-out and Germany's Energiewende

Dagmar Dehmer, Senior Environmental Correspondent at Der Tagesspiegel
Expert guest on board the bus

13.00 **The societal conflict over nuclear energy in Germany: Civic protest and the Free Republic of Wendland**

B

Meeting anti-nuclear activists at Sonntagsspaziergang Gorleben and at Gorlebener Gebet

Location: site of the proposed final repository for nuclear waste

14.30 **The invention of "Citizen Green": What has happened since 1972?**

C

Meeting with Wolfgang Ehmke and other members of Bürgerinitiative Umweltschutz Lüchow-Dannenberg, one of the oldest and largest civic protest groups in Germany

Location: Gasthaus Wiese, Gedelitz 21, 29494 Trebel

16.30 **On forest ownership, ancestry and wind farms: The case of the von Bernstorff family**

D

Meeting with Andreas, Anna and Fried Graf von Bernstorff

Location: Schloss Gartow, Hauptstr. 6, 29471 Gartow

18.30 *Transfer to Hotel Hafen Hitzacker (Elbe), Am Weinberg 2, 29456 Hitzacker (Elbe)*

19.00 **Phasing out nuclear, phasing in renewables: Is the Energiewende unfolding as planned after Fukushima?**




E

Dinner session with Gerd Rosenkranz, Senior Associate Key Issues at Agora Energiewende






Schloss Gartow

Monday, 18 January 2016

- 7.30 *Departure from hotel and transfer to Wolfenbüttel-Remlingen*
- 10.00 **Managing nuclear waste in Germany: How does the Asse scandal fit into the bigger picture?**
 Meeting with Wolfram König, President of the Federal Office for Radiation Protection
Location: Infos Asse, Am Walde 1, 38319 Remlingen
- 12.00 **On instabilities, water inflows and radioactivity: Removing of nuclear waste from the former salt mine of Asse**
 Visit to the former deep geological repository for radioactive waste
Location: Info Asse, Am Walde 1, 38319 Remlingen
- 14.00 Lunch
- 15.00 *Transfer to Berlin*
- 18.30 *Arrival and check-in at Hotel Alexander Plaza, Rosenstr. 1, 10178 Berlin*
- 19.30 **Applying the “polluter-pays” principle or “milking the cow without slaughtering it”:
How should the costs of decommissioning Germany’s nuclear fleet be distributed?**
 Dinner session with Swantje Fiedler, Deputy Director of FÖS Green Budget Germany
Location: Hotel Alexander Plaza, Rosenstr. 1, 10178 Berlin

Overnight stay at Hotel Alexander Plaza, Rosenstr. 1, 10178 Berlin

Tuesday, 19 January 2016

- 8.30 *Checkout and departure from hotel*
- 9.00 **Managing the nuclear phase-out: Devising a strategy to meet the costs and resolve the final storage question**
 Meeting with State Secretary Jochen Flasbarth of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
Location: Clean Energy Wire, Rosenstraße 2, 10178 Berlin
- 10.30 **The cost of the nuclear phase-out: Legal implications for the public and the utilities**
 Meeting with Dr. Dörte Fouquet, Partner of BecknerBüttnerHeld advocates
Location: Clean Energy Wire, Rosenstraße 2, 10178 Berlin
- 12.00 Lunch
- 12.30 **The political fallout of the atomic age: How the clash over nuclear power changed German society forever**
 Meeting with Professor Dieter Rucht, sociologist at WZB Berlin Social Science Center and doyen of the research on new civic movements
Location: Clean Energy Wire, Rosenstraße 2, 10178 Berlin

14.00 *Transfer to Deutscher Bundestag*

14.30 **Public trust and political compromise: How the Final Storage Commission (“Kommission Lagerung hoch radioaktiver Abfallstoffe”) can find a way out of the quagmire surrounding the search for a storage site**



Meeting with Michael Müller, Chair of the Commission
Location: Deutscher Bundestag

16.00 *Break*

19.00 **Looking ahead: New markets, changing business models – the Energiewende and the utilities**



Dinner session with representatives of Eon SE/Uniper
Location: Restaurant Capt`n Schillow, Straße des 17. Juni 113, 10623 Berlin (tbc)

End of the official programme



"Nuclear energy: For a peaceful future",
calendar at former GDR nuclear power plant in Rheinsberg, Brandenburg

From A to M:

Background info on the programme items

A

Dagmar Dehmer began her career as an environmental journalist at the Badische Zeitung in Freiburg in 1993. Since 2001 she has been an editor at Berlin-based daily Der Tagesspiegel, working mostly on energy policy, climate policy and Africa. In 2010 she was awarded the German Environmental Reporting Award (Deutscher Umweltmedienpreis) by environmental NGO Deutsche Umwelthilfe.

- ➔ Euractiv report by Dagmar Dehmer on the cost of the nuclear phase-out, in English: <http://www.euractiv.com/sections/energy/auditors-find-german-nuclear-providers-can-afford-nuclear-phase-out-318425>

B

Gorleben is a municipality of 600 inhabitants in the district of Lüchow-Dannenberg in eastern Lower Saxony. It is the location of a former salt mine that was designated as a site for the central final storage of nuclear waste. As part of this project, a temporary storage site for used fuel elements opened in 1983.

Located in one of the most remote regions of (then) West Germany, surrounded in three directions by East Germany, Gorleben has become an iconic symbol of the anti-nuclear movement in Germany. Starting in the 1970, the Wendland region around Gorleben has seen huge demonstrations, massive clashes between protesters and the police, as well as staunch campaigns of civil disobedience by farmers and the local population. These protests against the planned nuclear facilities played a key role in the establishment of the Green Party as a key player in German politics. Today, there are four nuclear facilities around Gorleben:

- A surface-level storage site for nuclear transport containers (Transportbehälterlager) containing used fuel elements
 - A waste storage facility (Abfalllager Gorlegen) for low-level heat-generating radioactive waste from industry and nuclear power plants
 - A pilot conditioning facility (Pilot-Konditionierungsanlage) for preparing nuclear waste for final storage
 - An underground exploratory salt mine (Erkundungsbergwerk Gorleben) to be used as a possible final waste storage
- ➔ *Wikipedia* article on Gorleben and the nuclear facilities in the area, in English: <https://en.wikipedia.org/wiki/Gorleben>
 - ➔ Feature article in *Spiegel online* from 2010 reporting on a visit to the Gorleben salt mine, in English: <http://www.spiegel.de/international/germany/inside-gorleben-a-visit-to-germany-s-proposed-nuclear-waste-site-a-695473.html>

C

Bürgerinitiative Umweltschutz Lüchow-Dannenberg is one of the oldest civic anti-nuclear initiatives in Germany. The independent, non-party group was established in 1972 to protest against a planned nuclear power plant on the Elbe River in Langendorf. Later, along with Bäuerliche Notgemeinschaft – a farmers group – it became one of Germany’s major organisers of anti-nuclear protests. Today, it has some 1,000 members, some of whom are third-generation activists. Rebecca Harms, Chair of the Green Party group in the European Parliament, is a former board member of the Bürgerinitiative.

- ➔ Website of the organisation, in German only: <http://www.bi-luechow-dannenberg.de>
- ➔ Wikipedia article on the German anti-nuclear movement, in English: https://en.wikipedia.org/wiki/Anti-nuclear_movement_in_Germany

D

The **Bernstorffs** are an aristocratic family with property in today’s Denmark and Germany. Andreas Gottlieb von Bernstorff, who later became First Minister to the Elector of Hannover, the future King George I of Great Britain, bought Gartow manor in 1694. In a family statute from 1720, he obliged his heirs to keep the 5,700 hectares of land he owned in the region in the family and “not to seek immediate gain but the best for future generations”. The property includes part of the land designated for the final storage site, where the family has historic salt-mining privileges. In 1978, Andreas von Bernstorff refused to sell 600 hectares of land to the federal government at a price of 30 million German marks. Today, the family operates a forestry and agricultural estate and is also investing in renewable energy.

- ➔ Website of the Bernstorff family business, in German only: <http://www.bernstorff.de/>
- ➔ Feature story in Die Tageszeitung daily on Fried Graf von Bernstorff, in German: <http://www.taz.de/!5133157/>

E

Agora Energiewende is one the leading energy policy think tanks in Germany. Established in 2012 by the European Climate Foundation and Stiftung Mercator, it undertakes and commissions research on the Energiewende. Its council, under the chairmanship of former UNEP Director and former German Environment Minister Klaus Töpfer, brings together key stakeholders and decision makers to forge a broad consensus on the policy framework for the Energiewende. Agora Energiewende is a sister organisation of the Clean Energy Wire.

Gerd Rosenkranz is Senior Associate Key Issues at Agora Energiewende. He joined Agora in 2014, after heading the department of politics and public relations at the Berlin-based environmental NGO, Deutsche Umwelthilfe (German Environmental Aid), since 2004. Previously, he worked for more than 20 years as a journalist for national daily and weekly newspapers. From 1999 until 2004, he covered environment and energy policy as a staff correspondent for the news magazine Der Spiegel, having written for the Berlin daily taz since 1988. Dr. Rosenkranz holds a doctorate in materials science and graduate diploma in metallurgical engineering. He was a scientist at the Max Planck Institute for Materials Science in Stuttgart from 1975 to 1981 and earned a graduate communications and journalism degree from the University of Stuttgart-Hohenheim.

- ➔ Website of Agora Energiewende in in English and German: <http://www.agora-energiewende.de/en/>

F

The **Federal Office for Radiation Protection** (Bundesamt für Strahlenschutz – BfS) was established in November 1989 and is headquartered in Salzgitter. It has 708 employees (including 305 scientific staff) and an annual budget of around 305 million euros (2009). The BfS is supervised by the Federal Ministry for Environment, Nature Conservation and Nuclear Safety.

Wolfram König is President of the Federal Office for Radiation Protection. He took on the post in 1999 under the newly formed coalition government of the Social Democrats and the Green Party. An engineer of architecture and city planning by training, he served as State Secretary in the Ministry for the Environment in the state of Saxony-Anhalt from 1994 until 1998. During this term he supervised the closure of the former GDR nuclear waste deposit in Morsleben. Wolfram König is a member of the Green Party.

- Official website of the BfS, in English and German: http://www.bfs.de/EN/home/home_node.html
- Interview with Wolfram König in *Norddeutscher Rundfunk* public broadcaster, in German (audio file): <https://www.ndr.de/info/sendungen/talk/Wolfram-Koenig-im-Gespraech,sendung387064.html>

G

The **Asse** is a former salt mine in lower Saxony. From 1965 onwards, it served as a large-scale research facility to test the final storage of radioactive waste, despite warnings dating back to 1965 that the salt mine was not watertight or sufficiently stable. The facility was designated to store waste with low- and medium-level radiation and no heat generation, and was put into use between 1967 and 1978.

The mine's publicly owned operating company applied to officially close the facility in 2007. After media reports of radioactive salt-water leakages, the operator was accused of misinforming the supervising authorities, a claim that was later confirmed officially. Since 2009, the Federal Office for Radiation Protection (BfS, Bundesamt für Strahlenschutz) has operated the site, which means the Asse mine is no longer supervised by the Federal Research Ministry but by the Federal Ministry for Environment and Nuclear Safety. In 2010 the BfS began an inventory to take stock of the radioactive waste stored in the Asse mine, finding 14,800 containers with undeclared content. The number of containers with medium-level radioactive waste had to be revised upwards from 1,300 to 16,100 and the total quantity of plutonium from 6 to 28 kilograms.

In 2010, the BfS proposed several options to safely retrieve all waste stored in the Asse mine.

- Official website of the BfS Federal Office for Radiation Protection, in English and German: http://www.bfs.de/EN/home/home_node.html
- Feature story in *Spiegel online* describing "Germany's Homemade Nuclear Waste Disaster", in English: <http://www.spiegel.de/international/germany/germany-weighs-options-for-handling-nuclear-waste-in-asse-mine-a-884523.html>

H

Swantje Fiedler is Deputy CEO and Head of Energy Policy at FÖS Forum Ökologisch-Soziale Marktwirtschaft (Green Budget Germany). She is an economist by training and her research and policy papers focus on the external costs of various energy sources.

FÖS Green Budget Germany was established in 1994 to promote ecological tax reform in Germany. The key idea of this reform is to incorporate the external costs such as pollution into

economic activities via taxation (“taxing bads instead of goods”). The Berlin-based organisation works both as a think tank and an advocacy group.

- Website of the organisation, in English and German: <http://www.foes.de/home/?lang=en>
- Statement by Swantje Fiedler for BIZZ Energy Today journal on financing the nuclear phase-out, in German: http://bizzenergytoday.com/ein_entscheidender_vorteil

I

The **Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety** (BMU) was established in 1986 in the aftermath of the nuclear disaster in Chernobyl, under Helmut Kohl’s government. Today, its competencies also include climate policy.

Jochen Flasbarth has been State Secretary in the ministry since 2013. From 2009 until 2013 he was President of the German Federal Environment Agency (Umweltbundesamt). Between 1994 and 2003 he served as President of Naturschutzbund Deutschland NABU, the German affiliate of Birdlife International.

- Official website of the ministry, in English and German: <http://www.bmub.bund.de/en/>

J

BeckerBüttnerHeld (BBH) is one of the leading German law firms in the field of energy law, representing some 250 lawyers. The law firm was established following a landmark case in 1992, shortly after German reunification: In the so-called „Stromstreit” case, 146 East German municipalities claimed that the whole-sale privatisation of the East German power sector in the wake of German reunification violated their constitutional right to communal autonomy. The dispute was finally brought before the German Constitutional Court and was ended with a settlement in which the municipalities were given the right to establish their own utilities.

In a recent legal expertise for the German Ministry for Economic Affairs and Energy on the financial implications of the nuclear phase-out, BBH suggested that a public trust fund be established in order to secure the provisions made by the nuclear power operators for the cost of the phase-out.

Dr. Dörte Fouquet studied law in Marburg and Hamburg. She is a partner of BBH and is the Head of the BBH Brussels office. Prior to that, she was working with Kuhbier advocates, focussing on German and European energy, environmental and competition law.

- Website of Becker Büttner Held, in English and German: <http://www.beckerbuettnnerheld.de/en/>
- Article in Handelsblatt daily featuring a proposal by Eon and RWE on nuclear provisions (in English): <https://global.handelsblatt.com/edition/307/ressort/politics/article/energy-companies-go-on-the-offensive>

K

Professor **Dieter Rucht** is a German sociologist and one of the leading academic experts on the history of German civic movements and the anti-nuclear protests. He is Chairman of the Board of the Association for the Protest and Social Movement Studies. Until his retirement in 2011, he co-headed the Civil Society, Citizenship and Political Mobilisation research unit at WZB Berlin Social Science Center (Wissenschaftszentrum Berlin). His first book on the anti-nuclear movement, “Von Wyhl nach Gorleben” was published in 1980. From 1998 to 2000, he was Professor of Sociology at the University of Kent.

- Website of the Institute of Protest and Social Movement Studies, in English and German: <http://protestinstitut.eu/information-in-english/>

- Campaigns, skirmishes and battles: anti-nuclear movements in the USA, France and West Germany, journal article by Dieter Rucht in *Organization & Environment*: <http://oae.sagepub.com/content/4/3/193.abstract>

L

The **Commission on the Storage of Highly Radioactive Waste Materials** (Kommission Lagerung hoch radioaktiver Abfallstoffe) was jointly established by the Bundestag and the federal states, based on a clause in the Federal Law for the Selection of a Nuclear Waste Storage Site (Standortauswahlgesetz). Its task is to advise the Bundestag and the Bundesrat (the states chamber) on all aspects of finding a suitable storage site. It has a special emphasis on designing a suitable, transparent process to involve the public. The Commission has 26 members, including MPs, representatives of the federal states, scientists, and stakeholders from NGOs, the corporate sector, trade unions and the churches.

Michael Müller is the co-chair of the Commission. Müller was a member of the Bundestag from 1983 to 2009 for the Social Democratic Party (SPD). From 2005 to 2009, he served as Parliamentary State Secretary in the Federal Ministry of the Environment and Nuclear Safety. He is the chair of NaturFreunde Deutschlands, a green NGO closely linked to the labour movement.

- Official website of the Storage Commission, in German only: <http://www.bundestag.de/endlager/>
- Michael Müller: Interview with *HAZ* daily on the process of finding a storage site, in German: <http://www.haz.de/Nachrichten/Der-Norden/Uebersicht/Interview-zur-Atom-Endlagersuche-mit-Michael-Mueller>

M

E.ON SE is the largest electricity producer in Germany. E.ON operates in over 30 countries and serves over 33 million customers. The E.ON group will be split into 2 independent companies following an announcement in 2014. The E.ON brand will continue to service the downstream business including retail and distribution, as well as the Climate and Renewables business; with the Upstream business, to be branded Uniper, containing all conventional power generation and current Energy Trading activities. E.ON is or was operating the nuclear power plants Würgassen (being decommissioned), Stade (being decommissioned), Brunsbüttel (out of service), Krümmel (out of service), Unterweser (out of service), Isar 1 and 2 (unit 1 out of service), Brokdorf, Grafenrheinfeld, Grohnde, Gundremmingen (unit A being decommissioned), Emsland. E.ON employed some 57,000 staff (2015) and had a total turnover of 111 bn Euros (2014).

- Official website of E.on, in English and German: <http://www.eon.com/de.html>
- Clean Energy Wire dossier on the German utilities and the Energiewende (in English): world-<https://www.cleanenergywire.org/dossiers/utilities-and-energy-transition>

Organisational details

Who can take part?

The media workshop is open to international journalists with a background in energy and environmental policy.

How to apply

A maximum of 18 journalists can take part in the media workshop, owing to safety restrictions at the sites we will be visiting.

To apply, please use the template on our website at:

<https://www.cleanenergywire.org/workshops/phasing-out-nuclear-energy-germany-cost-obstacles-unanswered-questions>

Please apply by 10 December at the latest.

We will inform you by 14 December whether your application has been successful.

What are the costs?

Participation in the media workshop is free of charge. All expenses during the workshop including food, accommodation and transport will be covered by the organisers (including participation in the optional visit to the Greifswald-Lubmin former nuclear power plant).

Please note participants must cover their own expenses for travel to and from Berlin (where the media workshop will begin and end).

What languages will be spoken?

Presentations during the workshop will be either in English or in German. English-German simultaneous translations will be provided.

What about travel arrangements?

Travel during the workshop will be organised by the Clean Energy Wire. Participants are kindly asked to organise their own travel to and from Berlin. In specific cases and upon application we can provide funding support for travel to and from Berlin.

For more information, please contact:

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About the **organiser**

Clean Energy Wire

The transforming of the energy system of the world's fourth largest economy has entered a new phase. Rapid growth of renewable energy and the broad consensus to phase out nuclear power have opened up new opportunities, added fresh challenges and increased the project's complexity. The country's so-called Energiewende not only changes markets and business models but reaches deep into society and well beyond Germany's borders.

The Clean Energy Wire provides well-researched, fact-based and unbiased information as well as support for international journalists reporting on the energy transition. We are convinced that quality journalism plays a key role in productive domestic and international debates, which are essential for the successful transition to a low-carbon economy.

The Clean Energy Wire is committed to the highest standards in journalism. Our charter sets out the principles that govern our own work.

As an independent non-profit and non-partisan organisation, the Clean Energy Wire can offer its services free of charge thanks to its funders, Stiftung Mercator (stiftung-mercator.de) and the European Climate Foundation (europeanclimate.org).

www.cleanenergywire.org