## Reading List

# MOOC Energiewende

| Weeks | Title | Readings |
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| **Week 1** | **History and overview**<br><br>1) Craig Morris (IASS): What is the Energiewende?<br>2) Craig Morris (IASS): Milestones in the Energiewende<br>3) Sybille Röhrkasten (IASS): Setting the Energiewende in an international context<br>4) Sara Lingstädt (IASS): Why the energy transition?<br>5) Pia Buschmann: 100% renewable energy regions | **Readings Week 1**<br><br>- Chapter 4, "History of the Energiewende" at http://energytransition.de/<br>- *Energy democracy*, http://energiewendebook.de/<br>- Quitzow, R., Röhrkasten, S., Jänicke, M. (2016): The German Energy Transition in International Perspective. - IASS Study, March 2016. DOI: http://doi.org/10.2312/iass.2016.009<br>- Steinbacher, K., & Pahle, M. (2015). Leadership by diffusion and the German Energiewende. PIK Discussion paper<br><br>- The Energy of the Future: Fourth "Energy Transition" Monitoring Report — Summary (PDF). Berlin, Germany: Federal Ministry for Economic Affairs and Energy (BMWi). November 2015 |

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| **Week 2** | **Electricity**<br><br>1) Craig Morris (IASS): Reading Energy-Charts.de<br>2) Craig Morris (IASS): Why a German nuclear phaseout but not a coal phaseout?<br>3) Arne Jungjohann: Germany's coal conundrum<br>4) Dominik Schäuble (IASS): Efforts to reign in lignite<br>5) Daniela Setton (IASS): The politics of the coal clamp-down | **Readings Week 2**<br><br>- German coal conundrum<br>- Energy charts<br>- Agora Energiewende on coal debate<br><br>- Wronski, R., Schäuble, D., Setton, D., Fiedler, S. (2016): Finanzielle Vorsorge im Braunkohlebereich: Optionen zur Sicherung der Braunkohlerückstellungen und zur Umsetzung des Verursacherprinzips, Berlin / Potsdam : Forum Ökologisch-Soziale Marktwirtschaft e.V. / IASS Potsdam Institute for Advanced Sustainability Studies e.V., 80 p.<br><br>- Helgenberger, S. (2016): Consensus with Losers: Civic demand for rapid decarbonisation is revealing open lines of conflict in Germany's Energiewende http://blog.iass-potsdam.de/2016/05/consensus-with-losers/<br>- |
| **Week 3** | **Industry**<br><br>1) Philip Hiersemenzel (Younicos): Batteries, but different<br>2) Rainer Quitzow (IASS): Innovation | **Readings Week 3**<br><br>- Chapter 2, section on industry (pp. 72-74), and Chapter 3, solutions 2 & 8 of IRENA's REmap |

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| | 3) Craig Morris (IASS): Industry makes its own energy<br>4) Barbara Praetorius (Agora): "Flex efficiency" in industry | - "Solar Energy in Germany and China: Dynamics of a Policy-Driven Market," by Rainer Quitzow<br>- "How batteries can stabilize the grid"<br>- Flex efficiency<br>- Renewable energy patents boom in Germany |
| **Week 4** | **Buildings**<br><br>1) Janna Breitfeld (PHI): Passive House<br><br>2) Heiko Thomas (IASS): sector coupling and district heat<br><br>3) Stefan Vögele (Jülich): 6 theses for a heat transition | **Readings Week 4**<br><br>- http://www.passipedia.org/start<br>- The magic of efficiency revealed<br>- BMWi buildings website<br>- Energiewende and efficiency, Clean Energy Wire |
| **Week 5** | **Sustainable Mobility**<br><br>1) Andreas Knie (Innoz): Where there's an app, there's a way<br>2) Jürgen Resch (DUH): Dieselgate<br>3) Ellen Matthies (OVGU): 6 theses for electric vehicles<br>4) Gero Lücking (Lichtblick): A swarm of EVs for the grid | Readings Week 5<br>- Schill, W. P., & Gerbaulet, C. (2015). Power system impacts of electric vehicles in Germany: Charging with coal or renewables?. Applied Energy, 156, 185-196. |

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| | | - A swarm of EVs for the grid<br>- Solar makes EV battery support for the grid complicated financially<br>- The VW scandal is an opportunity for the Energiewende<br>- Reactions to government decision on e-car subsidies<br>- Why do they love electric cars in the Arctic Circle? |
| **Week 6** | **The future (roadmaps and scenarios)**<br><br>1) IWES: Reading the Kombikraftwerk II visualization<br>2) IWES: Kombikraftwerk II<br>3) DLR: Making scenarios and roadmaps<br>4) Franz Mauelshagen<br>5) Hartmut Kahl (Environmental and Energy Law Foundation): German and EU<br>6) Oliver Geden (SWP): Targets<br>7) Craig Morris and Sebastian Helgenberger (IASS): Future of community energy | **Readings Week 6**<br><br>- Helgenberger, S. (2016): Social benefits of renewable energies http://blog.iass-potsdam.de/2016/05/social-benefits-of-renewable-energies/<br><br>- The Combined Power Plant 2 Project: Renewable energy yielding results<br>- Kombikraftwerk II website<br>- Kombikraftwerk animation<br>- Series of articles on Kombikraftwerk II<br>- Greenpeace Energy (R)evolution<br>- Leitstudie Strommarkt, executive summary in English, pp. 1-5<br>- Modifying the 2°C Target |

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| | | - Ensuring the Quality of Scientific Climate Policy Advice<br>- An actionable climate target<br>- Abandon hype in climate models<br>- In defense of NIMBYism<br>- The benefits of community energy in Ontario and elsewhere |

## Additional readings

- **Scientific papers**
- Quitzow, L., Canzler, W., Grundmann, P., Leibenath, M., Moss, T., & Rave, T. (2016). The German Energiewende–What's Happening? Introducing the Special Issue. *Utilities Policy*.
- Holstenkamp, L., & Kahla, F. (2016). What are community energy companies trying to accomplish? An empirical investigation of investment motives in the German case. *Energy Policy*, *97*, 112-122.

- Strunz, S. (2014). The German energy transition as a regime shift. *Ecological Economics*, *100*, 150-158.
- Ohlhorst, D., Schreurs, M., & Gullberg, A. T. (2012). Norway–"Battery" for the German Energy Transition? Different National Interests in Energy Policies Norwegen–, Batterie "der deutschen Energiewende? Unterschiedliche Länderinteressen in der Energiepolitik. *GAIA-Ecological Perspectives for Science and Society*, *21*(4), 319-320.
- Beermann, J., & Tews, K. (2016). Decentralised laboratories in the German energy transition. Why local renewable energy initiatives must reinvent themselves. *Journal of Cleaner Production*.

- **Articles**:
- Kunzig, R. (2015): Germany Could Be a Model for How We'll Get Power in the Future http://ngm.nationalgeographic.com/2015/11/climate-change/germany-renewable-energy-revolution-text

Websites:
- https://www.cleanenergywire.org/
- http://strom-report.de/renewable-energy/

- Agentur für Erneuerbare Energien https://www.unendlich-viel-energie.de/media-library/background-papers
- Energiewende Who is Who (in German)
  https://www.bundesregierung.de/Content/Infomaterial/AA/EnergiewendeWhoisWho_710430.html