Prof. Andrew Blakers

Andrew Blakers is Professor of Engineering at the Australian National University. He founded the solar PV research group at ANU in 1991. In the 1980s and 1990s he was responsible for the design and fabrication of silicon solar cells with world record efficiencies of 18%, 19%, 20% and 22%. He was co-inventor of Sliver solar cell technology, the subject of a \$240 million commercialisation effort by Transform Solar. He was co-inventor of the PERC silicon solar cell, which has ³/₄ of the global solar market and cumulative module sales of US\$50 billion. PERC cell deployment is mitigating 0.6% of global Greenhouse gas emissions through displacement of coal. Prof Blakers engages in detailed hour-by-hour analysis of energy systems with 50-100% penetration by wind and photovoltaics for which he was co-winner of the 2018 Eureka Prize for Environmental Research. Prof Blakers' team developed a comprehensive global atlas of off-river pumped hydro energy storage sites.

Further Reading:

Home page: http://re100.eng.anu.edu.au/

A zero-carbon, reliable and affordable energy future in Australia", <u>http://arxiv.org/abs/2007.09586</u>

Pathway to 100% Renewable Electricity: https://ieeexplore.ieee.org/document/8836526

100% renewable electricity in Australia: http://www.sciencedirect.com/science/article/pii/S0360544217309568

Geographic information system algorithms to locate prospective sites for pumped hydro energy storage', <u>https://www.sciencedirect.com/science/article/pii/S0306261918305270</u>

WA analysis: https://www.sciencedirect.com/science/article/pii/S0360544217300774

Christian Breyer, PhD (Tech), Professor for Solar Economy

- Christian Breyer is Professor for Solar Economy at LUT University, Finland.
- His academic background is general business, physics and energy systems engineering and a PhD in electrical engineering.
- He communicates in Twitter @ChristianOnRE.



His major expertise is the integrated research of technological and economic characteristics of renewable energy systems specialising in energy system modeling for 100% renewable energy, on a local but also global scale. His team published the most studies on 100% renewable energy systems for countries or major regions globally. Energy system transition studies are carried out in full hourly and high geo-spatial resolution. Publications cover integrated sector analyses with power, heat, transport, desalination, industry and negative CO₂ emission options. Power-to-X investigations is a core research field for his team. He published more than 300 scientific papers, thereof more than 100 in scientific journals. He worked previously for Reiner Lemoine Institut, Berlin, and Q-Cells (now: Hanwha Q Cells). He is member of ETIP PV, IEA-PVPS, scientific committee of the EU PVSEC and IRES, scientific advisory board of CO₂ Value Europe, academic council of Global Alliance Powerfuels, chairman for renewable energy at the Energy Watch Group, reviewer for the IPCC and a co-founder of the Desertec Foundation.

Further reading:

- Perspectives on 100% renewables: https://www.sciencedirect.com/science/article/pii/S0360544219304967
- Debunking myths on 100% renewables: https://www.sciencedirect.com/science/article/pii/S1364032118303307
- Global-local power sector transition towards 100% renewables: <u>https://www.nature.com/articles/s41467-019-08855-1</u>
- Global transition towards 100% renewables: <u>http://energywatchgroup.org/wp-content/uploads/EWG LUT 100RE All Sectors Global Report 2019.pdf</u>
- 100% Renewables for Europe: <u>https://www.solarpowereurope.org/100-renewable-</u> europe/
- 100% Renewables transition for Energy and Industry: https://www.sciencedirect.com/science/article/pii/S0306261920316639
- Impact of 100% Renewables on jobs in the power sector: <u>https://www.sciencedirect.com/science/article/pii/S0040162518314112</u>
- Energy-water nexus for transition towards 100% renewable power: <u>https://www.nature.com/articles/s41560-019-0501-4</u>
- Role of CO2 direct air capture: <u>https://www.cell.com/joule/fulltext/S2542-4351(19)30413-1</u>
- Zero GHG emitting transport sector: <u>https://www.mdpi.com/1996-1073/12/20/3870</u>
- Fully sustainable global desalination sector: <u>https://www.sciencedirect.com/science/article/pii/S0360544220306149</u>
- Lithium supply for 100% renewables: <u>https://www.nature.com/articles/s41467-020-18402-y</u>
- Solar Photovoltaics in the Terawatt scale: https://science.sciencemag.org/content/364/6443/836
- Cost projections for solar PV and battery: https://onlinelibrary.wiley.com/doi/full/10.1002/pip.3189

Hans-Josef Fell

- President Energy Watch Group
- Former Member of German Parliament (1998-2013)
- Co-author of the draft Renewable Energy Sources Act (EEG)



Hans-Josef Fell is President of the Energy Watch Group (EWG) and an internationally renowned energy and climate change advisor, author and speaker. Since the 1970s, Fell has been active in local politics, campaigned as part of anti-nuclear, climate protection and peace movements, and advocated for clean renewable technologies and materials. As member of the German Parliament for the Alliance 90/the Greens from 1998 to 2013, he co-authored the 2000 draft Renewable Energy Sources Act (EEG), the foundation for the technology developments of renewables in Germany and worldwide.

As founder and President of the Energy Watch Group, an independent, non-profit, non-partisan global network of scientists and parliamentarians, Hans-Josef Fell actively promotes the transition to 100% renewable energy worldwide and provides political advocacy to many parliaments and governments on the transition to an energy system based entirely on renewables as well as on climate protection. Together with his organisation, Hans-Josef Fell is analysing global energy developments and commissioning independent studies on energy, which have received much attention among media, politics and scientists worldwide.

During his time as a member of the German parliament, Hans-Josef Fell authored the draft Renewable Energy Sources Act (EEG), which was adopted in 2000 in the face of strong political opposition. The EEG is the foundation for the technology developments in photovoltaic, biogas, wind, geothermal and hydro power in Germany, which stimulated the global growth of renewables. The underlying principle of the EEG has since been replicated in almost hundred countries and regions around the world.

Hans-Josef Fell studied physics and sports and was a grammar school teacher from 1978 to 1998. In 1993, he introduced the world's first local feed-in tariff in his hometown Hammelburg and founded the first cooperative worldwide to produce solar electricity.

Selected publications:

- Hans-Josef Fell & Thure Traber. 2020. "<u>Key points of a legislative initiative for reliable and adequate renewable energy supply. Sector Coupling and Innovation Act for Renewable Energy (SCIA)</u>". Energy Watch Group. May 2020.
- Hans-Josef Fell & Thure Traber. 2019. "<u>Natural Gas Makes No Contribution to Climate</u>
 <u>Protection</u>". Natural Gas Study. Berlin. September 2019.
- Ram M., Bogdanov D., Aghahosseini A., Gulagi A., Oyewo A.S., Child M., Caldera U., Sadovskaia K., Farfan J., Barbosa LSNS., Fasihi M., Khalili S., Dalheimer B., Gruber G., Traber T., De Caluwe F., Fell H.-J., Breyer C. 2019. "<u>Global Energy System Based on 100% Renewables. Power, Heat,</u> <u>Transport and Desalination Sectors</u>". Study by LUT University & Energy Watch Group. Lappeenranta. Berlin. April 2019.
- Hans-Josef Fell. 2019. "<u>The shift from feed-in-tariffs to tenders is hindering the transformation of</u> <u>the global energy supply to renewable energies</u>". Energy Watch Group Policy Paper No. 1. March 2019.
- Hans-Josef Fell. 2013. "Global Cooling Strategies for climate protection" CRC Press 2012.



Prof. Mark Z. Jacobson

Mark Z. Jacobson is Director of the Atmosphere/Energy Program and Professor of Civil and Environmental Engineering at Stanford University. He is also a Senior Fellow of the Woods Institute for the Environment and of the Precourt Institute for Energy. He received a B.S. in Civil Engineering, an A.B. in Economics, and an M.S. in Environmental Engineering from Stanford in 1988. He received an M.S. and PhD in Atmospheric Sciences in 1991 and 1994, respectively, from UCLA and joined the faculty at Stanford in 1994. His career focuses on better understanding air pollution and global warming problems and developing large-scale clean, renewable energy solutions to them. He has published three textbooks and 170 peer-reviewed journal articles. The most recent book is 100% Clean, Renewable Energy and Storage for Everything. He received the 2005 American Meteorological Society Henry G. Houghton Award and the 2013 American Geophysical Union Ascent Award for his work on black carbon climate impacts and the 2013 Global Green Policy Design Award for developing state and country energy plans. In 2015, he received a Cozzarelli Prize from the Proceedings of the National Academy of Sciences for his work on the grid integration of 100% wind, water and solar energy systems. In 2018, he received the Judi Friedman Lifetime Achievement Award "For a distinguished career dedicated to finding solutions to large-scale air pollution and climate problems." In 2019, he was selected as "one of the world's 100 most influential people in climate policy" by Apolitical. He has served on an advisory committee to the U.S. Secretary of Energy, appeared in a TED talk, appeared on the David Letterman Show to discuss converting the world to clean, renewable energy, and cofounded The Solutions Project (www.thesolutionsproject.org). His work is the scientific basis of the energy portion of the U.S. Green New Deal and laws to go to 100% renewable energy in cities, states, and countries worldwide.

Papers on 100% clean, renewable wind-water-solar (WWS) energy

2005 U.S. transportation contar 1000/ MMMC studies
2005 U.S. transportation sector 100% WWS studies
https://web.stanford.edu/group/efmh/jacobson/Articles/I/SciencePubHyd.pdf
https://web.stanford.edu/group/efmh/jacobson/Articles/I/JPowerSources2005.pdf
2009 World all-sector 100% WWS by 2030 study (basis for Green New Deal)
https://web.stanford.edu/group/efmh/jacobson/Articles/I/susenergy2030.html
2011 World and US all-sector 100% WWS roadmap studies
https://web.stanford.edu/group/efmh/jacobson/Articles/I/JDEnPolicyPt1.pdf
https://web.stanford.edu/group/efmh/jacobson/Articles/I/DJEnPolicyPt2.pdf
2011 California electricity sector grid reliability study on up to 100% WWS
https://web.stanford.edu/group/efmh/jacobson/Articles/I/CombiningRenew/HartJacRenEnMar11.pdf
2012 California electricity sector grid reliability study on up to 100% WWS
https://web.stanford.edu/group/efmh/jacobson/Articles/I/CombiningRenew/HartEES12Online.pdf
2013 New York state all-sector 100% WWS roadmap study
http://web.stanford.edu/group/efmh/jacobson/Articles/I/NewYorkWWSEnPolicy.pdf
2014 California all-sector 100% WWS roadmap study
http://web.stanford.edu/group/efmh/jacobson/Articles/I/CaliforniaWWS.pdf
2014 U.S. electricity sector grid reliability study on up to 100% WWS
https://web.stanford.edu/group/efmh/jacobson/Articles/Others/BeckerEnergy14.pdf
2015 50 US states all-sector 100% WWS roadmap study
http://web.stanford.edu/group/efmh/jacobson/Articles/I/USStatesWWS.pdf
2015 48 contiguous US states all-sector 100% WWS grid reliability study
http://web.stanford.edu/group/efmh/jacobson/Articles/I/CombiningRenew/CONUSGridIntegration.pdf
2015 U.S. electricity sector grid reliability study on up to 100% WWS
https://web.stanford.edu/group/efmh/jacobson/Articles/Others/BeckerEnergy15.pdf
2016 Washington State all-sector 100% WWS roadmap study
http://web.stanford.edu/group/efmh/jacobson/Articles/I/WashStateWWS.pdf
2016 U.S. electricity sector up to 100% WWS grid reliability studies
https://web.stanford.edu/group/efmh/jacobson/Articles/Others/16-Frew-Energy.pdf
https://web.stanford.edu/group/efmh/jacobson/Articles/Others/16-Frew-Energy-B.pdf
2017 139-country all-sector 100% WWS roadmap study
http://web.stanford.edu/group/efmh/jacobson/Articles/I/CountriesWWS.pdf
2018 139-country all-sector 100% WWS grid reliability study
http://web.stanford.edu/group/efmh/jacobson/Articles/I/CombiningRenew/WorldGridIntegration.pdf
2018 53 towns and cities all-sector 100% WWS roadmap study
http://web.stanford.edu/group/efmh/jacobson/Articles/I/TownsCities.pdf
2019 143-country all-sector 100% WWS roadmap and grid reliability study
http://web.stanford.edu/group/efmh/jacobson/Articles/I/143WWSCountries.pdf
2020 74 megacity all-sector 100% WWS roadmap study
http://web.stanford.edu/group/efmh/jacobson/Articles/I/Megacities.pdf
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SHORT BIOGRAPHY

Brian Vad Mathiesen, holds a PhD in fuel cells and electrolysers in future energy systems (2008) and became Professor in Energy Planning and Renewable Energy Systems at Aalborg University at the age of 35 in 2014. His research focuses on technological and socio-economic transitions to renewables, energy storage, large-scale renewable energy integration and the design of 100% renewable energy systems. He is one of the leading researchers behind the concepts of Smart Energy Systems and electrofuels. He is on the Clarivate, Web of Science Highly Cited list (2015-2020), thus among the top 1% most cited researchers globally. Among other positions, he is member of the EU Commission expert group on electricity interconnection targets in the EU and The newly founded Science Advice for Policy by European Academies (SAPEA) Expert Group on A Systemic Approach For the Energy Transition In Europe. He is the Research Coordinator of the Sustainable Energy Planning Research group, Principal Investigator (PI) of the <u>RE-INVEST</u> and sEEnergies projects, and Programme Director for the MSc in Sustainable Cities. He has been PI, work package leader and participant in more than 60 research projects as well as editorial board member of The Journal of Energy Storage (Elsevier) and The Journal of Sustainable Development of Energy, Water & Environment Systems; Associate Editor of Energy, Ecology and Environment (Springer) and Editor of the International Journal of Sustainable Energy Planning and Management. Recently he started the new Elsevier Journal Smart Energy. Furthermore, he is a member of The Danish Academy of Technical Sciences (ATV) and a board member at The Danish Energy Technology Development and Demonstration Program (EUDP). Furthermore, he is a member of The Danish Academy of Technical Sciences (ATV) and a board member at The Danish Energy Technology Development and Demonstration Program (EUDP).

PUBLICATIONS, CITATIONS & INTERNATIONAL RANKING

- **Thomson Reuters** ISI Highly Cited Researcher within Engineering from 2015 to 2020.
- WEB of Science/ResearcherID: 94/139 Articles and h-index = 48 (11.286 citations), Link
- Google Scholar: 289 publications indexed: 15.241 citations, h-index: 49, GoogleScholar
- SCOPUS: 95 publications indexed: 9.984 citations, h-index: 44, Scopus

SELECTED PUBLICATIONS

Smart Energy Systems for coherent 100% renewable energy and transport solutions. Mathiesen B V et.al.: Applied Energy 145: 139-154 [2015]. 10.1016/j.apenergy.2015.01.075

Smart Energy Europe: The technical and economic impact of one potential 100% renewable energy scenario for the European Union. Connolly, D, Lund, H, Mathiesen, B V: Renewable and Sustainable Energy Reviews 60: 1634-1653 [2016]. Full energy system transition towards 100% renewable energy in Germany in 2050. Hansen, K.; Mathiesen, B. V.; Skov, I. R.: Renewable & Sustainable Energy Reviews 102 [2019] 10.1016/j.rser.2018.11.038

Transitioning to a 100% renewable energy system in Denmark by 2050: assessing the impact from expanding the building stock at the same time. Drysdale, David; Mathiesen, Brian Vad; Paardekooper, Susana: Energy Efficiency: 1-19 [2019]. 10.1007/s12053-018-9649-1

Recent advances in solid oxide cell technology for electrolysis. Hauch, A., Küngas, R., Blennow, P., ...Mathiesen, B.V., Mogensen, M.B.: Science, 2020, 370(6513)

The role of electrification and hydrogen in breaking the biomass bottleneck of the renewable energy system – A study on the Danish energy system. Mortensen, A.W., Mathiesen, B.V., Hansen, A.B., ...Grandal, R.D., Wenzel, H.: Applied Energy, 2020, 275, 115331

The role of biogas and biogas-derived fuels in a 100% renewable energy system in Denmark. Korberg, A.D., Skov, I.R., Mathiesen, B.V.: Energy, 2020, 199, 117426

Energy vision strategies for the EU green new deal: A case study of european cities. Maya-Drysdale, D., Jensen, L.K., Mathiesen, B.V.: Energies, 2020, 13(9), 2194

Heat Roadmap Europe : Combining district heating with heat savings to decarbonise the EU energy system. Connolly, D. et.al. Energy Policy 65: 475-489 [2014]. 10.1016/j.enpol.2013.10.035.

100% Renewable energy systems, climate mitigation and economic growth Mathiesen BV et.al. Applied Energy 88[2]: 488-501 [2011]. 198; 10.1016/j.apenergy.2010.03.001

Energy system analysis of 100% renewable energy systems-The case of Denmark in years 2030 and 2050. Lund, H; Mathiesen, BV: Energy 34[5]: 524-531 [2009]. 356; 10.1016/j.energy.2008.04.003.

Comparative analyses of seven technologies to facilitate the integration of fluctuating renewable energy sources. Mathiesen, BV; Lund, H: IET Renewable Power Generation 3[2]: 190-204 [2009]. 10.1049/iet-rpg:20080049

Integrated transport and renewable energy systems. Mathiesen, BV. et.al: Utilities Policy 16[2]: 107-116 [2008]. 10.1016/j.jup.2007.11.007. The role of Carbon Capture and Storage in a future sustainable energy system. Lund, H; Mathiesen, BV. Energy 44[1] 469-476 [2012]. 10.1016/j.energy.2012.06.002

Limiting biomass consumption for heating in 100% renewable energy systems. Mathiesen BV et.al. Energy 48 [1]: 160-168 [2012]. 10.1016/j.energy.2012.07.063

Tony Seba

Tony Seba is a world-renowned thought leader, author, speaker, educator, angel investor and Silicon Valley entrepreneur. He is the author of the #1 Amazon best-selling book "Clean Disruption of Energy and Transportation", "Solar Trillions" and "Winners Take All", and co-author of "Rethinking Transportation 2020-2030", "Rethinking Food and Agriculture 2020-2030", "Rethinking Humanity: Five Foundational Sector Disruptions, the Lifecycle of Civilizations, and the Coming Age of Freedom" and "Rethinking Energy 2020-2030: 100% Solar, Wind and Batteries Is Just the Beginning". He has been featured in several movies and documentaries including Bloomberg's Forward Thinking: A Sustainable World, 2040, and SunGanges. He is recipient of many awards including the Savvy Award (2019), Solar Future Today's Visionary Influencer Award (2018), and Clean Energy Action's 2017 Sunshine Award. He is the creator of the Seba Technology Disruption Framework™. His work focuses on technology disruption, the convergence of technologies, business model innovation, and product innovation that is leading to the disruption of the world's major industries. He has been a keynote speaker at hundreds of global events and organizations including Google, the European Commission, Davos, COP21, CLSA, J.P. Morgan, Nomura, National Governors Association, Conference on World Affairs, the Global Leaders Forum, Intersolar and China EV100. He has taught thousands of entrepreneurs and corporate leaders at Stanford Continuing Studies. He has a Stanford MBA and an MIT degree in Computer Science and Engineering.

PUBLICATIONS / BIBLIOGRAPHY — TONY SEBA

BOOKS / REPORTS

Winners Take All (2006) https://www.amazon.com/gp/product/B003Y74H1E/ref=dbs a def rwt hsch vapi tkin p1 i1

Solar Trillions: 7 Market and Investment Opportunities in the Emerging Clean-Energy Economy (2010) https://www.amazon.com/Solar-Trillions-Investment-Opportunities-Clean-Energy/dp/0615335616/ref=tmm_pap_swatch_0? encoding=UTF8&qid=&sr=

Clean Disruption of Energy and Transportation: How Silicon Valley Will Make Oil, Nuclear, Natural Gas, Coal, Electric Utilities and Conventional Cars Obsolete by 2030 (2014) <u>https://www.amazon.com/Clean-Disruption-Energy-Transportation-</u> <u>Conventional/dp/0692210539/ref=tmm_pap_swatch_0?_encoding=UTF8&qid=&sr=</u>

Rethinking Transportation 2020-2030 — The Disruption of Transportation and the Collapse of the Internal-Combustion Vehicle and Oil Industries (2017) https://tonyseba.com/wp-content/uploads/2020/10/RethinkingTransportation May FINAL-LRR.pdf

Rethinking Food and Agriculture 2020-2030 — The Second Domestication of Plants and Animals, the Disruption of the Cow, and the Collapse of Industrial Livestock Farming (2019) https://tonyseba.com/wp-content/uploads/2020/09/RethinkXFoodandAgricultureReport.pdf

Rethinking Humanity — Five Foundational Sector Disruptions, the Lifecycle of Civilizations, and the Coming Age of Freedom (2020)

https://tonyseba.com/wp-content/uploads/2020/09/RethinkXHumanityReport.pdf

Rethinking Energy 2020-2030 — 100% Solar, Wind, and Batteries is Just the Beginning (2020) https://tonyseba.com/wp-content/uploads/2020/11/RethinkingEnergy2020-2030-LRR.pdf

OPEDs

FastCompany: "We are approaching the fastest, deepest, most consequential technological disruption in history" (Oct 5th, 2020)

https://www.fastcompany.com/90559711/we-are-approaching-the-fastest-deepest-most-consequentialtechnological-disruption-in-history

Fast Company: "We're very close to disrupting the cow" (Oct 30th, 2019) https://www.fastcompany.com/90421659/were-very-close-to-disrupting-the-cow

Boston Globe: "Disrupting the Cow" (Nov 29th, 2019) https://www.bostonglobe.com/2019/11/29/opinion/disrupting-cow/

Detroit News: How Auto Can Survive Disruption (May 31st, 2017) https://www.detroitnews.com/story/opinion/2017/05/31/column-auto-can-survive-disruption/102371868/

SF Chronicle: "Are We Ready for the End of Individual Car Ownership" (July 10, 2017) http://www.sfchronicle.com/opinion/openforum/article/Are-we-ready-for-the-end-of-individual-car-11278535.php

SF Chronicle: "Clean Solar Leads Drive Away from Dirty Oil" (May 23, 2010) http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2010/05/22/INED1DGRAU.DTL



Professor Eicke R. Weber is co-Chairman of the European Solar Manufacturing Council ESMC. He has been Director/CEO of the Berkeley Education Alliance for Research in Singapore. From 2006 - 2016, he served as Director of the Fraunhofer Institute for Solar Energy Systems ISE in Freiburg, Germany and Professor for Physics/Solar Energy at the Faculty of Mathematics and Physics and at the Faculty of Engineering of the Albert-Ludwigs-University of Freiburg, Germany.

The focus of Prof. Weber's own research is the materials science of Si and compound semiconductors, for applications in microelectronics and photovoltaics (PV). Since the 1990s he is actively involved in finding solutions for the impeding climate catastrophe. Already in 2000 he organized in Berkeley a Seminar for the Alexander von Humboldt Association of America on: 'The Future of our Planet', with keynote presentations by Prof. H.J. Schellnhuber (PIK Potsdam) and Nobel Laureate J.E. Rawlings (Stanford) who discovered the detrimental effects of ozone in our atmosphere..

In 1983 he joined the faculty of the Department of Materials Science and Engineering of the University of California, Berkeley, where he worked till 2006, since 1991 as Professor of Materials Science and Faculty Investigator of Lawrence Berkeley National Laboratory. 2001-2003 he served as president of the Alexander von Humboldt Association of America (AvHAA). In 2008, Prof. Weber helped to establish the InterSolar North America (NA) conference and trade show in San Francisco. From 2012-2016, he served as founding president of the German Energy Storage Association (BVES), Berlin. From 2015 to 2017 he served as President of the Association of European Renewable Energy Research Centers EUREC, and 2015-19 as Vice President of the International Solar Energy Society ISES.

In 1994 Prof. Weber received the Alexander von Humboldt Senior Scientist Award. In 2002 he was elected fellow of the American Physical Society, in 2006 he received the Award of Merit (Bundesverdienstkreuz am Bande) of the German President. Since 2010 Prof. Weber is Member of acatech - the German Academy of Science and Engineering, Berlin. 2013 Prof. Weber was honoured with the Einstein Award presented by SolarWorld. In January 2014 Prof. Weber received the highly-endowed Zayed Future Energy Prize in Abu Dhabi (\$ 1.5 M) for his institute, Fraunhofer ISE, from the crown prince of the United Arab Emirates.

Suggested links:

Fraunhofer ISE Study 2015: What will the Energy Transformation Cost? https://www.ise.fraunhofer.de/content/dam/ise/en/documents/publications/studies/What-will-theenergy-transformation-cost.pdf Opening Statement, First World Cleantech eConvention, March 2020: https://www.youtube.com/watch?v=5C4lz8YCj2M&list=PLc2pWuy4oqbkw1d_1JkHbe_YIE7ezNnP 4&index=2 Presentation for FFF Gobal - Action Network July 4, 2020: https://actionnetwork.org/events/join-the-saturday-july-4-online-fff-talk-by-prof-eicke-weber/ Presentation in Berlin March 2, 2020: Was Fehlt noch für die Energiewende? https://youtu.be/G3KjkeYhO-U Presentation in Nürnberg 8. Dezember 2019: Klimawandel - Fakt oder Fake? https://youtu.be/8ilmj8k2Czc Presentation in Karlsruhe, March 15, 2015: PV als zentrale Säule unseres künftigen, erneuerbaren Energiesystems

https://www.youtube.com/watch?v=h_QkQQzIgdU