

## References

- Abdullah, A., Gaya, I. F., & Wakil, Z. A. (2021). Barriers to solving environmental problems caused by building constructions in Nigeria: Trudgills's framework. *Global Journal of Earth and Environmental Science*, 6(2), 51–57. <https://doi.org/10.31248/gjees2021.097>
- Abuhelwa, M., Elnaggar, M., Salah, W. A., Nassar, Y. F., & Bashir, M. J. K. (2025). Exploring the prevalence of renewable energy practices and awareness levels in Palestine. *Energy Science & Engineering*. <https://doi.org/10.1002/ese3.2070>
- Addi, B., Cobbinah, P. B., Ayambire, R. A., & Takyi, S. A. (2024). Problematizing street vending: The uncanniness of a disembodied urban policy. *Journal of Urban Affairs*, 1–19. <https://doi.org/10.1080/07352166.2024.2413588>
- Aditya, I. A., Wijayanto, T., & Hakam, D. F. (2025). Advancing Renewable Energy in Indonesia: A comprehensive analysis of challenges, opportunities, and strategic solutions. *Sustainability*, 17(5), 2216. <https://doi.org/10.3390/su17052216>
- Aggarwal, S., & Usapein, P. (2023). Regulatory challenge of the license and permission for energy industry operation on renewable energy growth in Thailand. *Journal of Infrastructure Policy and Development*, 8(1). <https://doi.org/10.24294/jipd.v8i1.2620>
- Agora Energiewende, NewClimate Institute, & Energy Research Institute. (2024). *Electricity market designs in Southeast Asia: Harnessing opportunities for renewable energy growth in Indonesia, Thailand, Viet Nam and the Philippines*. Clean, Affordable and Secure Energy for Southeast Asia project.



- Agrawal, A. (2012). Risk mitigation Strategies for renewable energy project financing. *Strategic Planning for Energy and the Environment*, 32(2), 9–20.  
<https://doi.org/10.1080/10485236.2012.10554231>
- Aguiar-Hernandez, C., & Breetz, H. L. (2024). The adverse effects of political instability on innovation systems: The case of Mexico's wind and solar sector. *Technovation*, 136, 103083. <https://doi.org/10.1016/j.technovation.2024.103083>
- Albahnasawi, A., Eyvaz, M., Alazaiza, M. Y. D., Özdoğan, N., Gurbulak, E., Alhout, S., & Yuksel, E. (2024). Biomass Waste and Bioenergy Production: Challenges and Alternatives. In *Valorization of Biomass Wastes for Environmental Sustainability: Green Practices for the Rural Circular Economy* (pp. 51–67).  
[https://doi.org/10.1007/978-3-031-52485-1\\_3](https://doi.org/10.1007/978-3-031-52485-1_3)
- Alharbi, S. S., Mamun, M. A., Boubaker, S., & Rizvi, S. K. A. (2023). Green finance and renewable energy: A worldwide evidence. *Energy Economics*, 118, 106499.  
<https://doi.org/10.1016/j.eneco.2022.106499>
- Ali, H., Phoumin, H., Suryadi, B., Farooque, A. A., & Yaqub, R. (2022). Assessing ASEAN's liberalized electricity markets: the case of Singapore and the Philippines. *Sustainability*, 14(18), 11307. <https://doi.org/10.3390/su141811307>
- Alipour, F., Lak, S. Z., & Rahimpour, M. R. (2024). Economic challenges of moving beyond fossil fuels. In *Elsevier eBooks* (pp. 131–142).  
<https://doi.org/10.1016/b978-0-323-93940-9.00249-8>
- Almulhim, A. I. (2022). Understanding public awareness and attitudes toward renewable energy resources in Saudi Arabia. *Renewable Energy*, 192, 572–582.  
<https://doi.org/10.1016/j.renene.2022.04.122>

- Alolo, M., Azevedo, A., & Kalak, I. E. (2020). The effect of the feed-in-system policy on renewable energy investments: Evidence from the EU countries. *Energy Economics*, 92, 104998. <https://doi.org/10.1016/j.eneco.2020.104998>
- Alova, G. (2020). A global analysis of the progress and failure of electric utilities to adapt their portfolios of power-generation assets to the energy transition. *Nature Energy*, 5(11), 920–927. <https://doi.org/10.1038/s41560-020-00686-5>
- Al-Yamani, A. A., Bouzguenda, M., AlAqil, M. A., & Al-Omair, A. A. (2022). Comprehensive solutions to Dispatch and Control Renewables within the Saudi Electric Network. 2022 *IEEE 21st International Conference on Sciences and Techniques of Automatic Control and Computer Engineering (STA)*, 458–464. <https://doi.org/10.1109/sta56120.2022.10019083>
- Amdur, E. (2024, August 5). *Huge shortfall in solar workers is our own fault*. Forbes. <https://www.forbes.com/sites/eliamdur/2024/08/05/huge-shortfall-in-solar-workers-is-our-own-fault/>
- Amoah, A., Asiama, R. K., Korle, K., & Kwablah, E. (2022). Corruption: Is it a bane to renewable energy consumption in Africa? *Energy Policy*, 163, 112854. <https://doi.org/10.1016/j.enpol.2022.112854>
- Apriliyanti, I. D., & Nugraha, D. B. (2025). Burning coal in a cleaner way: Institutional fragmentation, power dynamics, and business influence in Indonesia’s biomass co-firing imaginaries. *Energy Research & Social Science*, 121, 103949. <https://doi.org/10.1016/j.erss.2025.103949>
- Apriliyanti, I. D., Nugraha, D. B., Kristiansen, S., & Overland, I. (2024). To reform or not reform? Competing energy transition perspectives on Indonesia’s monopoly electricity

- supplier Perusahaan Listrik Negara (PLN). *Energy Research & Social Science*, 118, 103797. <https://doi.org/10.1016/j.erss.2024.103797>
- Apriliyanti, I. D., Nugraha, D. B., & Overland, I. (2026). Explaining Indonesia's failed energy transition: Mapping power and support for decarbonization among government institutions and actors. *Energy Research & Social Science*, 135, 104675. <https://doi.org/10.1016/j.erss.2026.104675>
- Armah, M., Anarfo, E. B., Gyamfi, E. N., & Amewu, G. (2025). Does financial market stress matter in renewable energy investment? Empirical evidence from BRICS economies. *Energy Strategy Reviews*, 58, 101786. <https://doi.org/10.1016/j.esr.2025.101786>
- Asian Development Bank. (2018, February 5). *ADB loan for solar plant to support Thailand's renewable energy target*. <https://www.adb.org/news/adb-loan-solar-plant-support-thailands-renewable-energy-target>
- Assembayeva, M., Zhakiyev, N., & Akhmetbekov, Y. (2017). Impact of storage technologies on renewable energy integration in Kazakhstan. *Materials Today Proceedings*, 4(3), 4512–4523. <https://doi.org/10.1016/j.matpr.2017.04.024>
- Azhgaliyeva, D., Beirne, J., & Mishra, R. (2022). What matters for private investment in renewable energy? *Climate Policy*, 23(1), 71–87. <https://doi.org/10.1080/14693062.2022.2069664>
- Badamshina, S., Klovov, A., & Loktionov, E. (2023). Opportunities for economic efficiency increase in renewable energy powered Off-Grid systems. *2021 International Ural Conference on Electrical Power Engineering (UralCon)*, 583–588. <https://doi.org/10.1109/uralcon59258.2023.10291053>

- Barr, Z., Roberts, J., Peplinski, W., West, A., Kramer, S., & Jones, C. (2021). The Permitting, Licensing and Environmental Compliance Process: Lessons and Experiences within U.S. Marine Renewable Energy. *Energies*, 14(16), 5048. <https://doi.org/10.3390/en14165048>
- Baştürk, M. F. (2021). The role of banks in renewable energy finance. In *IGI Global eBooks* (pp. 1671–1690). <https://doi.org/10.4018/978-1-7998-9152-9.ch073>
- Beauson, J., Laurent, A., Rudolph, D., & Jensen, J. P. (2021). The complex end-of-life of wind turbine blades: A review of the European context. *Renewable and Sustainable Energy Reviews*, 155, 111847. <https://doi.org/10.1016/j.rser.2021.111847>
- Belgioioso, M., & Newman, E. (2024). Fossil fuel subsidy reform, distributive justice and civil unrest. *Energy Research & Social Science*, 119, 103868. <https://doi.org/10.1016/j.erss.2024.103868>
- Bidwell, D. (2016). The effects of information on public attitudes toward renewable energy. *Environment and Behavior*, 48(6), 743–768. <https://doi.org/10.1177/0013916514554696>
- Bößner, S., & Fauzi, D. (2022, December 14). *Five principles for Indonesia's just coal transition*. SEI. <https://www.sei.org/perspectives/five-principles-for-indonesias-just-coal-transition/>
- Boston Consulting Group. (2023). *Will a green skills gap of 7 million workers put climate goals at risk?* BCG Global. <https://www.bcg.com/publications/2023/will-a-green-skills-gap-put-climate-goals-at-risk>
- Bradner, E. (2021, February 18). *Texas Republicans criticized for misleading claims that renewable energy sources caused massive outages*. CNN. <https://edition.cnn.com/2021/02/18/politics/texas-power-outages-political-fallout>



- Brilian, V. A., Akbar, F. M., Majid, A. I., Khasani, N., & Mubarok, M. H. (2024). Preliminary study of integrated bottoming binary cycle and electrolysis unit to utilize separated brine at Ulubelu geothermal power plant for green hydrogen production. *AIP Conference Proceedings*, 2836, 100003. <https://doi.org/10.1063/5.0188311>
- Brown, P. (2013). *European Union wind and solar electricity Policies: Overview and considerations*. <https://www.fas.org/sgp/crs/row/R43176.pdf>
- Bryman, A. (2012). *Social research methods*. Oxford University Press, USA.
- Camacho, F. ". (2024, June 28). *Americans' support for renewable energy declines — survey*. E&E News by POLITICO. <https://www.eenews.net/articles/americans-support-for-renewable-energy-declines-survey/>
- Cao, D., Peng, C., Yang, G., & Zhang, W. (2022). How does the pressure of political promotion affect renewable energy technological innovation? Evidence from 30 Chinese provinces. *Energy*, 254, 124226. <https://doi.org/10.1016/j.energy.2022.124226>
- Caratù, M., Brescia, V., Pigliautile, I., & Biancone, P. (2023). Assessing Energy Communities' Awareness on Social Media with a Content and Sentiment Analysis. *Sustainability*, 15(8), 6976. <https://doi.org/10.3390/su15086976>
- Carroll, D. (2025, May 14). *Powertech warns skills shortage poses threat to energy transition*. Pv Magazine Australia. <https://www.pv-magazine-australia.com/2025/05/14/powertech-warns-skills-shortage-poses-threat-to-energy-transition/>



- Carvalho, A., Riquito, M., & Ferreira, V. (2022). Sociotechnical imaginaries of energy transition: The case of the Portuguese Roadmap for Carbon Neutrality 2050. *Energy Reports*, 8, 2413–2423. <https://doi.org/10.1016/j.egyr.2022.01.138>
- CASE Indonesia. (2023). *Study Report: De-Risking Facilities For The Development Of Indonesia's Renewable Power Sector*.
- CASE Indonesia. (2025). *Study For Indonesia Energy Transition Financing Framework and Financial Risk Management*.
- Cerah. (2025). *Perbankan Indonesia di Persimpangan Transisi Energi Terbarukan*. Yayasan Indonesia Cerah.
- Cerdá, E., López-Otero, X., Quiroga, S., & Soliño, M. (2024). Willingness to pay for renewables: Insights from a meta-analysis of choice experiments. *Energy Economics*, 130, 107301. <https://doi.org/10.1016/j.eneco.2024.107301>
- Chaney, M. A. (2021). So you want to write a narrative review article? *Journal of Cardiothoracic and Vascular Anesthesia*, 35(10), 3045–3049. <https://doi.org/10.1053/j.jvca.2021.06.017>
- Chowdhury, M. S., Rahman, K. S., Chowdhury, T., Nuthammachot, N., Techato, K., Akhtaruzzaman, M., Tiong, S. K., Sopian, K., & Amin, N. (2019). An overview of solar photovoltaic panels' end-of-life material recycling. *Energy Strategy Reviews*, 27, 100431. <https://doi.org/10.1016/j.esr.2019.100431>
- Christensen, T., & Lægreid, P. (2008). The challenge of coordination in central government organizations: the Norwegian case. *Public Organization Review*, 8(2), 97–116. <https://doi.org/10.1007/s11115-008-0058-3>



Christofaro, B. (2019, November 26). The Germans fighting wind farms close to home. *dw.com*.

<https://www.dw.com/en/the-germans-fighting-wind-farms-close-to-their-homes/a-514176>

53

Christou, M., & Carrara, S. (2022). *Our research reveals the scale of the EU's dependency on imports for critical minerals needed for the green transition. Here's how that can change.*

The

Conversation.

[https://theconversation.com/our-research-reveals-the-scale-of-the-eus-dependency-on-imports-for-critical-minerals-needed-for-the-green-transition-heres-how-that-can-change-23](https://theconversation.com/our-research-reveals-the-scale-of-the-eus-dependency-on-imports-for-critical-minerals-needed-for-the-green-transition-heres-how-that-can-change-230244)

0244

Climate Transparency. (2021). *SOUTH AFRICA CLIMATE TRANSPARENCY REPORT: COMPARING G20 CLIMATE ACTION TOWARDS NET ZERO 2021.*

Cook, T., & Elliott, D. (2025). Green skills gap—A way ahead. *Frontiers in Sociology*, 10.

<https://doi.org/10.3389/fsoc.2025.1577037>

Copping, A., Wood, D., Rumes, B., Ong, E. Z., Golmen, L., Mulholland, R., & Harrod, O.

(2025). Effects and management implications of emerging marine renewable energy technologies. *Ocean & Coastal Management*, 264, 107598.

<https://doi.org/10.1016/j.ocecoaman.2025.107598>

Corbett, T., O'Faircheallaigh, C., & Regan, A. (2017). 'Designated areas' and the regulation of artisanal and small-scale mining. *Land Use Policy*, 68, 393–401.

<https://doi.org/10.1016/j.landusepol.2017.08.004>

Crabtree, G., Misewich, J., Ambrosio, R., Clay, K., DeMartini, P., James, R., Lauby, M., Mohta,

V., Moura, J., Sauer, P., Slakey, F., Lieberman, J., Tai, H., Hafemeister, D., Kammen, D.,

- Levi, B. G., & Schwartz, P. (2011). Integrating renewable electricity on the grid. *AIP Conference Proceedings*, 387–405. <https://doi.org/10.1063/1.3653865>
- Craig, R. (2024, February 8). *The supply chain of supply chain talent is broken*. Forbes. <https://www.forbes.com/sites/ryancraig/2024/02/08/the-supply-chain-of-supply-chain-talent-is-broken/>
- Da Costa, T., Lopez, L. I. A., Perussello, C., Quinn, F., Crowley, Q. G., McMahon, H., & Holden, N. M. (2025). Addressing the demand for green skills: bridging the gap between university outcomes and industry requirements. *Sustainability*, 17(6), 2732. <https://doi.org/10.3390/su17062732>
- De Mello Santana, P. H. (2016). Cost-effectiveness as energy policy mechanisms: The paradox of technology-neutral and technology-specific policies in the short and long term. *Renewable and Sustainable Energy Reviews*, 58, 1216–1222. <https://doi.org/10.1016/j.rser.2015.12.300>
- De Winkel, E., Lukszo, Z., Neerinx, M., & Dobbe, R. (2025). Adapting to limited grid capacity: Perceptions of injustice emerging from grid congestion in the Netherlands. *Energy Research & Social Science*, 122, 103962. <https://doi.org/10.1016/j.erss.2025.103962>
- Devine-Wright, P., & Howes, Y. (2010). Disruption to place attachment and the protection of restorative environments: A wind energy case study. *Journal of Environmental Psychology*, 30(3), 271–280. <https://doi.org/10.1016/j.jenvp.2010.01.008>
- Di Foggia, G., Beccarello, M., & Jammeh, B. (2024). A global perspective on renewable energy implementation: Commitment requires action. *Energies*, 17(20), 5058. <https://doi.org/10.3390/en17205058>



Ditjen EBTKE. (2021). *Laporan Kinerja Direktorat Jenderal Energi Baru, Terbarukan, dan Konservasi Energi 2020*. Direktorat Jenderal Energi Baru, Terbarukan, dan Konservasi Energi.

<https://www.esdm.go.id/assets/media/content/content-laporan-kinerja-ditjen-ebtke-2020.pdf>

Ditjen EBTKE. (2023). *Laporan Kinerja Direktorat Jenderal Energi Baru, Terbarukan, dan Konservasi Energi 2022*. Direktorat Jenderal Energi Baru, Terbarukan, dan Konservasi Energi.

<https://www.esdm.go.id/assets/media/content/content-laporan-kinerja-direktorat-jenderal-energi-baru-terbarukan-dan-konservasi-energi-tahun-2022.pdf>

Ditjen EBTKE. (2024). *Laporan Kinerja Direktorat Jenderal Energi Baru, Terbarukan, dan Konservasi Energi 2023*. Direktorat Jenderal Energi Baru, Terbarukan, dan Konservasi Energi.

<https://www.esdm.go.id/assets/media/content/content-laporan-kinerja-ditjen-ebtke-tahun-2023.pdf>

Ditjen EBTKE. (2025). *Laporan Kerja Ditjen EBTKE Tahun 2024*. Direktorat Jenderal Energi Baru, Terbarukan, dan Konservasi Energi Kementerian ESDM.

Dorbeck-Jung, B. R., Vrielink, M. J. O., Gosselt, J. F., Van Hoof, J. J., & De Jong, M. D. T. (2010). Contested hybridization of regulation: Failure of the Dutch regulatory system to protect minors from harmful media. *Regulation & Governance*, 4(2), 154–174.  
<https://doi.org/10.1111/j.1748-5991.2010.01079.x>

- Dumas, M., Rising, J., & Urpelainen, J. (2016). Political competition and renewable energy transitions over long time horizons: A dynamic approach. *Ecological Economics*, 124, 175–184. <https://doi.org/10.1016/j.ecolecon.2016.01.019>
- Eberhard, A., & Naude, R. (2016). The South African Renewable Energy Independent Power Producer Procurement Programme: A review and Lessons learned. *Journal of Energy in Southern Africa*, 27(4), 1. <https://doi.org/10.17159/2413-3051/2016/v27i4a1483>
- Edze, P. (2025). Local content requirements for the transfer of knowledge and skills in the solar photovoltaic industry in Ghana. *Energy Sustainable Development/Energy for Sustainable Development*, 85, 101682. <https://doi.org/10.1016/j.esd.2025.101682>
- Egli, F., Steffen, B., & Schmidt, T. S. (2018). A dynamic analysis of financing conditions for renewable energy technologies. *Nature Energy*, 3(12), 1084–1092. <https://doi.org/10.1038/s41560-018-0277-y>
- El-Hawary, M. E. (2014). The Smart Grid—State-of-the-art and future trends. *Electric Power Components and Systems*, 42(3–4), 239–250. <https://doi.org/10.1080/15325008.2013.868558>
- El-Karmi, F. Z., & Abu-Shikhah, N. M. (2013). The role of financial incentives in promoting renewable energy in Jordan. *Renewable Energy*, 57, 620–625. <https://doi.org/10.1016/j.renene.2013.02.034>
- Erdiwansyah, N., Gani, A., Mamat, R., Bahagia, N., Nizar, M., Yana, S., Yasin, M. H. M., Muhibbuddin, N., & Rosdi, S. (2024). Prospects for renewable energy sources from biomass waste in Indonesia. *Case Studies in Chemical and Environmental Engineering*, 10, 100880. <https://doi.org/10.1016/j.cscee.2024.100880>



- Eryilmaz, D., & Homans, F. R. (2016). How does uncertainty in renewable energy policy affect decisions to invest in wind energy? *The Electricity Journal*, 29(3), 64–71.  
<https://doi.org/10.1016/j.tej.2015.12.002>
- European Environment Agency. (2025). *Green bonds in Europe*.  
<https://www.eea.europa.eu/en/analysis/indicators/green-bonds-8th-eap#:~:text=Green%20bonds%20are%20used%20to,the%205.3%25%20noted%20in%202023.>
- Fathoni, H. S., Boer, R., & Sulistiyanti. (2021). Battle over the sun: Resistance, tension, and divergence in enabling rooftop solar adoption in Indonesia. *Global Environmental Change*, 71, 102371. <https://doi.org/10.1016/j.gloenvcha.2021.102371>
- Field, E. (2022, March 25). *Bald Hills Wind Farm ordered to stop emitting night-time noise, pay neighbours damages in landmark ruling*. ABC News.  
<https://www.abc.net.au/news/2022-03-25/bald-hills-wind-farm-to-pay-damages/100938656>
- Flazi, N. S., Stambouli, N. a. B., & Bouzid, N. M. (2017). Analysis of Power Generation and Transmission from Very Large-Scale Photovoltaic Systems in Algeria. *Renewable Energy and Power Quality Journal*, 14(8). <https://doi.org/10.24084/repqj14.554>
- Forman, J., Creswell, J. W., Damschroder, L., Kowalski, C. P., & Krein, S. L. (2008). Qualitative research methods: Key features and insights gained from use in infection prevention research. *American Journal of Infection Control*, 36(10), 764–771.  
<https://doi.org/10.1016/j.ajic.2008.03.010>
- Furst, B., Portman, M. E., & Teff-Seker, Y. (2023). Activism or egotism? A critical view of the NIMBY phenomenon in cases of energy infrastructure in Israel. *GeoJournal*, 88(5), 4921–4938. <https://doi.org/10.1007/s10708-023-10902-w>



- Gezmen, B. (2022). The role of environmental journalism in raising awareness on energy efficiency. In *Contributions to economics* (pp. 91–104).  
[https://doi.org/10.1007/978-3-031-13146-2\\_8](https://doi.org/10.1007/978-3-031-13146-2_8)
- Gonzalez, T., & Knox, J. (2024). Inn the Dark: The Scapegoating of Renewables After Grid Failures. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4888942>
- Gorman, W., Kemp, J. M., Rand, J., Seel, J., Wiser, R., Manderlink, N., Kahrl, F., Porter, K., & Cotton, W. (2024). Grid connection barriers to renewable energy deployment in the United States. *Joule*, 101791. <https://doi.org/10.1016/j.joule.2024.11.008>
- Granata, G., Altimari, P., Pagnanelli, F., & De Greef, J. (2022). Recycling of solar photovoltaic panels: Techno-economic assessment in waste management perspective. *Journal of Cleaner Production*, 363, 132384. <https://doi.org/10.1016/j.jclepro.2022.132384>
- Greenpeace Indonesia. (2023, October 17). *Aturan Surya Atap PLN Hambat Pengembangan Energi Terbarukan*. Greenpeace.  
<https://www.greenpeace.org/indonesia/siaran-pers/57294/aturan-surya-atap-pln-hambat-pengembangan-energi-terbarukan/>
- Greiner, C., & Klagge, B. (2024). The temporalities and externalities of ancillary infrastructure in large-scale renewable energy projects: Insights from the rural periphery. *Energy Policy*, 193, 114303. <https://doi.org/10.1016/j.enpol.2024.114303>
- Guild, J. (2020). The political and institutional constraints on green finance in Indonesia. *Journal of Sustainable Finance & Investment*, 10(2), 157–170.  
<https://doi.org/10.1080/20430795.2019.1706312>



- Hailemariam, A., Ivanovski, K., & Dzhumashev, R. (2022). Does R&D investment in renewable energy technologies reduce greenhouse gas emissions? *Applied Energy*, 327, 120056. <https://doi.org/10.1016/j.apenergy.2022.120056>
- Halimatussadiah, A., Kruger, W., Wagner, F., Afifi, F. a. R., Lufti, R. E. G., & Kitzing, L. (2024). The country of perpetual potential: Why is it so difficult to procure renewable energy in Indonesia? *Renewable and Sustainable Energy Reviews*, 201, 114627. <https://doi.org/10.1016/j.rser.2024.114627>
- Han, S., Peng, D., Guo, Y., Aslam, M. U., & Xu, R. (2025). Harnessing technological innovation and renewable energy and their impact on environmental pollution in G-20 countries. *Scientific Reports*, 15(1). <https://doi.org/10.1038/s41598-025-85182-0>
- Handayani, I. G. a. K. R., Yosiana, C., & Kongrawd, S. (2025). Reform of environmental approval policy for renewable energy in Indonesia. *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 3(2), 286–323. <https://doi.org/10.53955/jsderi.v3i2.101>
- Haw, L. C., Sopian, K., & Sulaiman, Y. (2009). Public response to residential building integrated photovoltaic system (BIPV) in Kuala Lumpur urban area. *4th IASME / WSEAS International Conference on ENERGY & ENVIRONMENT*, 212–219. <http://www.wseas.us/e-library/conferences/2009/cambridge/EE/EE30.pdf>
- Hochschild, J. L., & Einstein, K. L. (2015). “It Isn’t What We Don’t Know that Gives Us Trouble, It’s What We Know that Ain’t So:” Misinformation and Democratic Politics. *British Journal of Political Science*. <https://doi.org/10.1017/S000712341400043X>
- Hsu, S. (2018). Human capital in a Climate-Changed world. In *Climate change management* (pp. 251–268). [https://doi.org/10.1007/978-3-319-77544-9\\_15](https://doi.org/10.1007/978-3-319-77544-9_15)

- Hu, Y., & Jin, Y. (2023). Unraveling the influence of green bonds on environmental sustainability and paving the way for sustainable energy projects in green finance. *Environmental Science and Pollution Research*, 30(52), 113039–113054. <https://doi.org/10.1007/s11356-023-30454-3>
- IESR. (2019). *Levelized Cost of Electricity in Indonesia*. Institute for Essential Services Reform (IESR).
- International Energy Agency. (2022). *An Energy Sector Roadmap to Net Zero Emissions in Indonesia*. IEA Publications.
- International Energy Agency. (2025). *Tax incentives for renewable energy*. <https://www.iea.org/policies/6008-tax-incentives-for-renewable-energy>
- International Institute for Sustainable Development [IISD]. (2014). *Fossil fuel subsidies prevent transition to renewable energy sources finds new IISD report*. International Institute for Sustainable Development. <https://www.iisd.org/articles/press-release/fossil-fuel-subsidies-prevent-transition-renewable-energy-sources-finds-new>
- IRENA. (2025). *Renewable power generation costs in 2024*. International Renewable Energy Agency.
- Jakob, M., Flachslan, C., Steckel, J. C., & Urpelainen, J. (2020). Actors, objectives, context: A framework of the political economy of energy and climate policy applied to India, Indonesia, and Vietnam. *Energy Research & Social Science*, 70, 101775. <https://doi.org/10.1016/j.erss.2020.101775>

- JETP. (2025). *Unlocking Clean Energy Finance and Investment in Indonesia: The Role of Guarantees and Insurance*. Just Energy Transition Partnership Indonesia.
- Jones, B., & Cardinale, R. (2023). Social and political opposition to energy pricing reforms. *Climate and Development*, 15(10), 817–828.  
<https://doi.org/10.1080/17565529.2023.2165875>
- Joshi, S., Sharma, M., Kumar, A., Joshi, T., Johri, A., & Alfehaid, M. (2025). Sustainable energy transition towards decarbonization among developing countries: a systematic literature review. *Frontiers in Sustainability*, 6. <https://doi.org/10.3389/frsus.2025.1641299>
- Junsheng, H., Akhtar, R., Masud, M. M., Rana, M. S., & Banna, H. (2019). The role of mass media in communicating climate science: An empirical evidence. *Journal of Cleaner Production*, 238, 117934. <https://doi.org/10.1016/j.jclepro.2019.117934>
- Juntunen, M., & Lehenkari, M. (2019). A narrative literature review process for an academic business research thesis. *Studies in Higher Education*, 46(2), 330–342.  
<https://doi.org/10.1080/03075079.2019.1630813>
- Kangaji, L. M., Raji, A., & Orumwense, E. (2025). Cutting-edge progress in offshore wind and tidal stream power technology—State-of-the-Art. *AIMS Energy*, 13(1), 188–230.  
<https://doi.org/10.3934/energy.2025007>
- Kardooni, R., Yusoff, S. B., & Kari, F. B. (2015). Barriers to renewable energy development: Five fuel policy in Malaysia. *Energy & Environment*, 26(8), 1353–1361.  
<https://doi.org/10.1260/0958-305x.26.8.1353>
- Karytsas, S., & Theodoropoulou, H. (2014). Socioeconomic and demographic factors that influence publics' awareness on the different forms of renewable energy sources. *Renewable Energy*, 71, 480–485. <https://doi.org/10.1016/j.renene.2014.05.059>



- Kaur, R., & Watson, J. A. (2024). A scoping review of Postharvest losses, Supply chain Management, and Technology: Implications for produce quality in Developing countries. *Journal of the ASABE*, 67(5), 1103–1131. <https://doi.org/10.13031/ja.15660>
- Kementerian ESDM. (2019). *Laporan Kinerja Kementerian Energi dan Sumber Daya Mineral 2018*. Kementerian Energi dan Sumber Daya Mineral. <https://www.esdm.go.id/assets/media/content/content-laporan-kinerja-kementerian-esdm-tahun-2018.pdf>
- Kementerian ESDM. (2020). *Laporan Kinerja Kementerian Energi dan Sumber Daya Mineral 2019*. Kementerian Energi dan Sumber Daya Mineral. <https://www.esdm.go.id/assets/media/content/content-laporan-kinerja-kementerian-esdm-2019.pdf>
- Kementerian ESDM. (2021a). *A Brief Summary of Good Practices and Challenges on Renewable Energy Development in Afghanistan, Indonesia, Madagascar and Nepal*. Kementerian Energi dan Sumber Daya Mineral.
- Kementerian ESDM. (2021b, December 21). *Pemerintah Dorong Kebijakan Pemanfaatan Mineral dan Batubara untuk Jaga Ketahanan Energi Domestik* [Press release]. <https://www.esdm.go.id/id/media-center/arsip-berita/pemerintah-dorong-kebijakan-pemanfaatan-mineral-dan-batubara-untuk-jaga-ketahanan-energi-domestik>
- Kementerian ESDM. (2022). *Laporan Kinerja Kementerian Energi dan Sumber Daya Mineral 2021*. Kementerian Energi dan Sumber Daya Mineral. <https://www.esdm.go.id/assets/media/content/content-laporan-kinerja-kementerian-esdm-2021.pdf>

- Kempa, K., Moslener, U., & Schenker, O. (2021). The cost of debt of renewable and non-renewable energy firms. *Nature Energy*, 6(2), 135–142. <https://doi.org/10.1038/s41560-020-00745-x>
- Keshavadasu, S. R. (2023). Regulatory and policy risks: Analyzing the uncertainties related to changes in government policies, regulations, and incentives affecting solar power project development and operations in Kenya. *Energy Policy*, 182, 113760. <https://doi.org/10.1016/j.enpol.2023.113760>
- Khan, M., & Chaudhry, M. N. (2021). Role of and challenges to environmental impact assessment proponents in Pakistan. *Environmental Impact Assessment Review*, 90, 106606. <https://doi.org/10.1016/j.eiar.2021.106606>
- Kim, Y., & Oh, K. (2017). Public and private partnerships for renewable energy enhancement in developing countries: a case of the Solar Rooftop project in Gujarat, India. In *Emerald Publishing Limited eBooks* (pp. 537–557). <https://doi.org/10.1108/978-1-78714-493-420171020>
- Kolaczkowski, M., & Haichun, K. G. (2025). *China is driving the world's advanced energy solutions deployments. Here's how.* World Economic Forum. <https://www.weforum.org/stories/2025/01/china-driving-advanced-energy-solutions-deployments/>
- Komendantova, N., Zobeidi, T., & Yazdanpanah, M. (2024). How do Instagram messages affect the use of renewable energy? -- Application of an extended information adoption model. *Journal of Environmental Informatics*. <https://doi.org/10.3808/jei.202400515>
- Kou, G., Pamucar, D., Dinçer, H., & Yüksel, S. (2023). From risks to rewards: A comprehensive guide to sustainable investment decisions in renewable energy using a hybrid facial

- expression-based fuzzy decision-making approach. *Applied Soft Computing*, 142, 110365. <https://doi.org/10.1016/j.asoc.2023.110365>
- KPMG. (2013). *Taxes and incentives for renewable energy*.
- Krarroubi, A. M., Rouabhia, A., Krarroubi, C. M., & Othmanai, M. (2023). The Degradation of the Electrical Performance of Photovoltaic Panels in the South Algeria (Adrar). 2023 14th International Renewable Energy Congress, IREC 2023, 1–5. <https://doi.org/10.1109/irec59750.2023.10389364>
- Kruger, S. (2024, November). *Jobs of the future: South Africa has major gaps in skills needed to shape the green economy*. The Conversation. <https://theconversation.com/jobs-of-the-future-south-africa-has-major-gaps-in-skills-needed-to-shape-the-green-economy-241608>
- Kumparan Bisnis. (2024, September 9). Target RUPTL Tak Tercapai, PLN Masih Utang 8,2 GW Pembangkit Listrik EBT. *Kumparan Bisnis*. <https://kumparan.com/kumparanbisnis/target-ruptl-tak-tercapai-pln-masih-utang-8-2-gw-pembangkit-listrik-ebt-23UUB5gUuxg/2>
- Leifringhausen, C. (2021). Service Train & Pit Stop Service Streamlining offshore service - 1 team, 1 turbine, 1 day. In *WindEurope Electric City 2021 - WindEurope's Annual On- and Offshore Wind Energy Event*.
- Li, H., Khattak, S., Lu, X., & Khan, A. (2023). Greening the Way Forward: A qualitative assessment of green technology integration and prospects in a Chinese technical and vocational institute. *Sustainability*, 15(6), 5187. <https://doi.org/10.3390/su15065187>



- Li, X., Liu, P., Feng, M., Jordaan, S. M., Cheng, L., Ming, B., Chen, J., Xie, K., & Liu, W. (2023). Energy transition paradox: Solar and wind growth can hinder decarbonization. *Renewable and Sustainable Energy Reviews*, 192, 114220. <https://doi.org/10.1016/j.rser.2023.114220>
- Lim, W. M. (2024). What is qualitative research? An overview and guidelines. *Australasian Marketing Journal (AMJ)*. <https://doi.org/10.1177/14413582241264619>
- Lin, B., & Xie, Y. (2024). How feed-in-tariff subsidies affect renewable energy investments in China? New evidence from firm-level data. *Energy*, 294, 130853. <https://doi.org/10.1016/j.energy.2024.130853>
- Lisin, E., Kurdiukova, G., Okley, P., & Chernova, V. (2019). Efficient Methods of Market Pricing in Power Industry within the Context of System Integration of Renewable Energy Sources. *Energies*, 12(17), 3250. <https://doi.org/10.3390/en12173250>
- Liu, L., Bouman, T., Perlaviciute, G., & Steg, L. (2020). Public participation in decision making, perceived procedural fairness and public acceptability of renewable energy projects. *Energy and Climate Change*, 1, 100013. <https://doi.org/10.1016/j.egycc.2020.100013>
- Longe, O. M., Myeni, L., & Ouahada, K. (2019). Renewable energy solution for electricity access in rural South Africa. *2022 IEEE International Smart Cities Conference (ISC2)*. <https://doi.org/10.1109/isc246665.2019.9071693>
- Lorenc, S., Podobińska-Staniec, M., Wiktor-Sułkowska, A., & Kustra, A. J. (2024). VALUE CHAINS IN THE RAW MATERIALS INDUSTRY – THE EXAMPLE OF THE COBALT VALUE CHAIN. *Mineral Resources Management*, 5–24. <https://doi.org/10.24425/gsm.2024.149302>

- Lucas, H., Carbajo, R., Machiba, T., Zhukov, E., & Cabeza, L. F. (2021). Improving Public Attitude towards Renewable Energy. *Energies*, 14(15), 4521. <https://doi.org/10.3390/en14154521>
- Mabee, W. E., Mannion, J., & Carpenter, T. (2011). Comparing the feed-in tariff incentives for renewable electricity in Ontario and Germany. *Energy Policy*, 40, 480–489. <https://doi.org/10.1016/j.enpol.2011.10.052>
- Marquardt, J. (2017). Central-local relations and renewable energy policy implementation in a developing country. *Environmental Policy and Governance*, 27(3), 229–243. <https://doi.org/10.1002/eet.1756>
- Martin, S. (2021). *Australia commits to 2050 net zero emissions plan but with no detail and no modelling.* The Guardian. <https://www.theguardian.com/australia-news/2021/oct/26/scott-morrison-says-australia-2050-net-zero-emissions-plan-based-on-choices-not-mandates>
- Masaud, T. M., Lee, K., & Sen, P. (2010). An overview of energy storage technologies in electric power systems: What is the future? *North American Power Symposium*, 1–6. <https://doi.org/10.1109/naps.2010.5619595>
- Massagony, A., Pandit, R., & White, B. (2025). Political economy of energy policy in Indonesia towards net zero emissions by 2060. *Energy Sustainable Development/Energy for Sustainable Development*, 88, 101757. <https://doi.org/10.1016/j.esd.2025.101757>
- Mast, H. S. (2022). Conflicting sociotechnical imaginaries of the future built environment: An analysis of current discourses on timber construction in France and Germany. *GAIA - Ecological Perspectives for Science and Society*, 31(3), 151–157. <https://doi.org/10.14512/gaia.31.3.5>



- Matthäus, D., & Mehling, M. (2020). De-risking renewable energy investments in developing countries: a multilateral guarantee mechanism. *Joule*, 4(12), 2627–2645. <https://doi.org/10.1016/j.joule.2020.10.011>
- Medrilzam, M. (2022). *Indonesia's Country Experience: Net-Zero Emission (NZE) Roadmap of Indonesia* [Slide show]. <https://www.unescap.org/sites/default/d8files/event-documents/1-1%20Indonesia%20-%20BAPPENAS.pdf>
- MENTARI. (2022). *New Paradigm Thematic Paper – Renewable Energy Procurement in Indonesia*.
- Mercer, N., Sabau, G., & Klinke, A. (2017). “Wind energy is not an issue for government”: Barriers to wind energy development in Newfoundland and Labrador, Canada. *Energy Policy*, 108, 673–683. <https://doi.org/10.1016/j.enpol.2017.06.022>
- Merle-Beral, E., & Gassner, K. (2015). Permitting and licensing regimes for renewable energy projects. In *World Bank, Washington, DC eBooks*. <https://doi.org/10.1596/22113>
- Mirza, Z. T., Anderson, T., Seadon, J., & Brent, A. (2024). A thematic analysis of the factors that influence the development of a renewable energy policy. *Renewable Energy Focus*, 49, 100562. <https://doi.org/10.1016/j.ref.2024.100562>
- Mitrović, M., & Rossi, B. (2011). Sharing learnings from carbon capture and storage demonstration projects in Canada. *Energy Procedia*, 4, 6384–6390. <https://doi.org/10.1016/j.egypro.2011.02.656>



- Mohamed, M. A., Eltamaly, A. M., Farh, H. M., & Alolah, A. I. (2015). Energy management and renewable energy integration in smart grid system. *International Conference on Smart Energy Grid Engineering 2015*, 1–6. <https://doi.org/10.1109/sege.2015.7324621>
- Molepo, P. M., Aboalez, K., & Mathaba, T. N. D. (2025). Analysis of Barriers to South Africa's Energy Transition: Perspectives from industry experts. *Energy Sustainable Development/Energy for Sustainable Development*, 88, 101777. <https://doi.org/10.1016/j.esd.2025.101777>
- Molepo, P., Mathaba, T. N. D., & Aboalez, K. (2026). Barriers to the adoption of solar and wind energy technologies: a systematic literature review. *International Journal of Energy Sector Management*, 1–28. <https://doi.org/10.1108/ijesm-12-2024-0001>
- Morfea, C. (2025). The Norwegian Transparency Act, Renewable Energy and Extractive Industries: Towards a just transition for the Indigenous Sámi people. *Business and Human Rights Journal*, 10(1), 267–273. <https://doi.org/10.1017/bhj.2025.2>
- Mukwekwe, L., Venugopal, C., & Davidson, I. E. (2017). A review of the impacts and mitigation strategies of high PV penetration in low voltage networks. *IEEE PES PowerAfrica*. <https://doi.org/10.1109/powerafrica.2017.7991236>
- Mulongo, N. Y., Kholopane, P. A., & Aigbavboa, C. (Eds.). (2018). *A comparative analysis of the potential South African renewable energy sources using Analytical Hierarchy Process*. Proceedings of the International Conference on Industrial Engineering and Operations Management.
- Mustapha, R. A., Devidas, A. R., & Sharma, A. (2025). Navigating the energy transition: insights from a systematic scoping review of challenges and pathways in developing

nations. *Energy Research & Social Science*, 125, 104098.

<https://doi.org/10.1016/j.erss.2025.104098>

Najeeb, N. S., Soori, P. K., & Kumar, T. R. (2018). A Low-Cost and Energy-Efficient Smart Dust Cleaning Technique for Solar Panel System. *2018 International Conference on Smart Grid and Clean Energy Technologies, ICSGCE 2018*, 125–129.  
<https://doi.org/10.1109/icsgce.2018.8556806>

Nam, T., DO, & Burke, P. J. (2024). Phasing out coal power in two major Southeast Asian thermal coal economies: Indonesia and Vietnam. *Energy Sustainable Development/Energy for Sustainable Development*, 80, 101451.  
<https://doi.org/10.1016/j.esd.2024.101451>

Napathorn, C. (2021). The development of green skills across firms in the institutional context of Thailand. *Asia-Pacific Journal of Business Administration*, 14(4), 539–572.  
<https://doi.org/10.1108/apjba-10-2020-0370>

Nicolini, M., & Tavoni, M. (2017). Are renewable energy subsidies effective? Evidence from Europe. *Renewable and Sustainable Energy Reviews*, 74, 412–423.  
<https://doi.org/10.1016/j.rser.2016.12.032>

Niculescu, N., & Rusu, V. (2017). ROI (return on investment) - Analysis indicator of the entity's financial performance. In *Proceedings of the 29th International Business Information Management Association Conference - Education Excellence and Innovation Management through Vision 2020: From Regional Development Sustainability to Global Economic Growth*.



- Noseleit, F. (2017). Renewable energy innovations and sustainability transition: How relevant are spatial spillovers? *Journal of Regional Science*, 58(1), 259–275.  
<https://doi.org/10.1111/jors.12340>
- Nurhidayah, L., Alam, S., Utomo, N. A., & Suntoro, A. (2024). Indonesia's Just Energy Transition: The societal implications of policy and legislation on renewable energy. *Climate Law*, 14(1), 36–66. <https://doi.org/10.1163/18786561-bja10047>
- Nweke, B., & Al-Habaibeh, A. (2024). Challenges And Opportunities of the Implementation of NetZero Strategy: Analysis of Key Issues that Affect the Adoption of Domestic Renewable Energy in the UK from Consumers' Perspective. *Energy Proceedings*.  
<https://doi.org/10.46855/energy-proceedings-10986>
- Nyiwul, L., Hu, Z., Koirala, N. P., & Wasson, H. (2025). Economic uncertainty and renewable energy investment. *International Economics and Economic Policy*, 22(3).  
<https://doi.org/10.1007/s10368-025-00675-7>
- Ohanu, C. P., Rufai, S. A., & Oluchi, U. C. (2024). A comprehensive review of recent developments in smart grid through renewable energy resources integration. *Heliyon*, 10(3), e25705. <https://doi.org/10.1016/j.heliyon.2024.e25705>
- Ordonez, J. A., Jakob, M., Steckel, J. C., & Fünfgeld, A. (2021). Coal, power and coal-powered politics in Indonesia. *Environmental Science & Policy*, 123, 44–57.  
<https://doi.org/10.1016/j.envsci.2021.05.007>
- Oteng, D., Zuo, J., & Sharifi, E. (2022). An expert-based evaluation on end-of-life solar photovoltaic management: An application of Fuzzy Delphi Technique. *Sustainable Horizons*, 4, 100036. <https://doi.org/10.1016/j.horiz.2022.100036>



- Othman, K., & Khallaf, R. (2023). Renewable energy public-private partnership projects in Egypt: Perception of the barriers and key success factors by sector. *Alexandria Engineering Journal*, 75, 513–530. <https://doi.org/10.1016/j.aej.2023.06.009>
- Ozturk, I., Aslan, A., Ozsolak, B., Polat, M. A., & Turan, Z. (2022). Impact of fossil fuels and renewable energy consumption on economic growth in Paris Club Countries. *Journal of Renewable and Sustainable Energy*, 14(4). <https://doi.org/10.1063/5.0086752>
- Paddison, L. (2023). *Wind energy has a massive waste problem. New technologies may be a step closer to solving it.* CNN. <https://edition.cnn.com/2023/05/28/world/wind-turbine-recycling-climate-intl>
- Palomo, E., Colmenar-Santos, A., & Rosales-Asensio, E. (2022). Measures to remove geothermal energy barriers in the European Union. In *Green energy and technology* (pp. 9–45). [https://doi.org/10.1007/978-3-030-95626-4\\_2](https://doi.org/10.1007/978-3-030-95626-4_2)
- Pandu, P. (2023, October 24). Pendanaan Politik dari Industri Kotor. *kompas.id*. <https://www.kompas.id/baca/humaniora/2023/10/24/masih-ada-ruang-pendanaan-politik-dari-industri-kotor>
- Perdana, A. P. (2024, August 12). Relaksasi penggunaan produk domestik Bakal Ungkit Jumlah proyek energi terbarukan. *Kompas.id*. <https://www.kompas.id/artikel/pemerintah-sebut-relaksasi-dorong-optimalisasi-tkdn>
- Pereira, S., Silva, C., & Ferreira, L. M. D. (2025). Barriers to energy transition: Comparing developing with developed countries. *Energy Sustainable Development/Energy for Sustainable Development*, 87, 101753. <https://doi.org/10.1016/j.esd.2025.101753>

- Peters, B. G. (2018). The challenge of policy coordination. *Policy Design and Practice*, 1(1), 1–11. <https://doi.org/10.1080/25741292.2018.1437946>
- Pierce, L., & Snyder, J. A. (2012). Discretion and Manipulation by Experts: Evidence from a Vehicle Emissions Policy Change. *The B E Journal of Economic Analysis & Policy*, 13(3). <https://doi.org/10.1515/1935-1682.3246>
- Pieriegud, J. (2015). Designing FMCG and retail supply chains in Russia. In *Springer eBooks* (pp. 177–202). [https://doi.org/10.1007/978-3-319-05765-1\\_7](https://doi.org/10.1007/978-3-319-05765-1_7)
- Piper, J. (2001). Barriers to implementation of cumulative effects assessment. *Journal of Environmental Assessment Policy and Management*, 3(4), 465–481. [https://doi.org/10.1016/s1464-3332\(01\)00081-9](https://doi.org/10.1016/s1464-3332(01)00081-9)
- Planasari, S. (2013, May 28). Izin Tambang di Kalimantan Timur Terus Bertambah. *Tempo*. <https://www.tempo.co/arsip/izin-tambang-di-kalimantan-timur-terus-bertambah-1606705>
- PricewaterhouseCoopers. (2024). *Is investing in renewable energy a power move?* PwC. <https://www.pwc.com/ph/en/tax/tax-publications/taxwise-or-otherwise/2024/is-investing-in-renewable-energy-a-power-move.html>
- Prihandono, I., & Widiati, E. P. (2023). Regulatory capture in energy sector: evidence from Indonesia. *The Theory and Practice of Legislation*, 11(3), 207–231. <https://doi.org/10.1080/20508840.2023.2248837>
- Putri, C. A. (2022, January 3). Titah Jokowi: Pasokan Batu Bara untuk Dalam Negeri Itu Mutlak. *CNBC Indonesia*. <https://www.cnbcindonesia.com/news/20220103200402-4-304283/titah-jokowi-pasokan-batu-bara-untuk-dalam-negeri-itu-mutlak>



Purnamasari, D. D. (2025, October 9). *Dana Transfer Daerah Dipangkas, Mendagri: Efisiensi*

*Belanja*

*Birokrasi.*

Kompas.id.

<https://www.kompas.id/artikel/dana-transfer-daerah-dipangkas-mendagri-efisiensi-belanja-birokrasi>

Queensland Government. (2025). *Grants for renewable energy research and development (R&D).*

<https://www.business.qld.gov.au/industries/mining-energy-water/energy/renewable/project-development/grants-support/research>

Rahman, T., Lipu, H., Shovon, M. M. A., Alsaduni, I., Karim, T. F., & Ansari, S. (2025).

Unveiling the impacts of climate change on the resilience of renewable energy and power systems: Factors, technological advancements, policies, challenges, and solutions.

*Journal of Cleaner Production*, 493, 144933.

<https://doi.org/10.1016/j.jclepro.2025.144933>

Rather, K. N., & Mahalik, M. K. (2023). Investigating the assumption of perfect displacement

for global energy transition: panel evidence from 73 economies. *Clean Technologies and Environmental Policy*, 26(8), 2739–2752. <https://doi.org/10.1007/s10098-023-02689-8>

Rementeria, S. (2023). The evolving sociotechnical futures of outer space. *Futures*, 152, 103220.

<https://doi.org/10.1016/j.futures.2023.103220>

Renshaw, J., Scheyder, E., & Mason, J. (2025). *Global alarm as China's critical mineral export*

*curbs*

*take*

*hold.*

Reuters.

<https://www.reuters.com/business/autos-transportation/global-alarms-rise-chinas-critical-mineral-export-ban-takes-hold-2025-06-03/>

- Resosudarmo, B. P., Rezki, J. F., & Effendi, Y. (2023). Prospects of energy transition in Indonesia. *Bulletin of Indonesian Economic Studies*, 59(2), 149–177.  
<https://doi.org/10.1080/00074918.2023.2238336>
- Reuters. (2023). *Trump administration will end \$7 billion solar energy grant program*.  
<https://www.reuters.com/legal/litigation/trump-administration-will-end-7-billion-solar-energy-grant-program-2025-08-07/>
- Reuters. (2025, February 26). Indonesia will keep state utility's monopoly on electricity, president's aide says. *Reuters*.  
<https://www.reuters.com/business/energy/indonesia-will-keep-state-utility-monopoly-electricity-presidents-aide-says-2025-02-26/>
- Riana, A. D., Hunsnayain, F., Pramana, E. A., Song, H., Setyo, P. Y. D., Zulfia, A., & Hudaya, C. (2018). Implementation of talis and dc house system for rural areas in indonesia. *MATEC Web of Conferences*, 218, 01006. <https://doi.org/10.1051/matecconf/201821801006>
- Richards, G., Noble, B., & Belcher, K. (2012). Barriers to renewable energy development: A case study of large-scale wind energy in Saskatchewan, Canada. *Energy Policy*, 42, 691–698. <https://doi.org/10.1016/j.enpol.2011.12.049>
- Ritchie, H. (2025, January 27). *How much in subsidies do fossil fuels receive?* Our World in Data. <https://ourworldindata.org/how-much-subsidies-fossil-fuels>
- Rodrigues, N., & Das, D. (2025). *Navigating risks to unlock 500 GW of renewables by 2030*. Ember.

- Ruostetsaari, I. (2010). Citizens, Politicians and Experts in Energy Policy-Making: The case of Finland. *Energy & Environment*, 21(3), 203–222.  
<https://doi.org/10.1260/0958-305x.21.3.203>
- Sabatier, P., & Mazmanian, D. (1980). THE IMPLEMENTATION OF PUBLIC POLICY: A FRAMEWORK OF ANALYSIS\*. *Policy Studies Journal*, 8(4), 538–560.  
<https://doi.org/10.1111/j.1541-0072.1980.tb01266.x>
- Sambodo, M. T., Yuliana, C. I., Hidayat, S., Novandra, R., Handoyo, F. W., Farandy, A. R., Inayah, I., & Yuniarti, P. I. (2022). Breaking barriers to low-carbon development in Indonesia: deployment of renewable energy. *Heliyon*, 8(4), e09304.  
<https://doi.org/10.1016/j.heliyon.2022.e09304>
- Schmidt, T. S. (2014). Low-carbon investment risks and de-risking. *Nature Climate Change*, 4(4), 237–239. <https://doi.org/10.1038/nclimate2112>
- Schwenkenbecher, A. (2017). What is Wrong with Nimbys? Renewable Energy, Landscape Impacts and Incommensurable Values. *Environmental Values*, 26(6), 711–731.  
<https://doi.org/10.3197/096327117x15046905490353>
- Selman, P. (2004). Community participation in the planning and management of cultural landscapes. *Journal of Environmental Planning and Management*, 47(3), 365–392.  
<https://doi.org/10.1080/0964056042000216519>
- Setyowati, A. B., & Quist, J. (2022). Contested transition? Exploring the politics and process of regional energy planning in Indonesia. *Energy Policy*, 165, 112980.  
<https://doi.org/10.1016/j.enpol.2022.112980>



Shareef, M. A., Dwivedi, Y. K., Kumar, V., Mahmud, R., Hughes, D. L., Rana, N. P., & Kizgin,

H. (2019). The inherent tensions within sustainable supply chains: a case study from Bangladesh. *Production Planning & Control*, 31(11–12), 932–949.  
<https://doi.org/10.1080/09537287.2019.1695917>

Shihundu, D., & Morrall, J. (2011). Oversize/overweight vehicles: An investigation into the safety and space requirements for alternative energy projects. In *2011 Conference and Exhibition of the Transportation Association of Canada - Transportation Successes: Let's Build on Them, TAC/ATC 2011*.

Shortall, O. (2019). Cows eat grass, don't they? Contrasting sociotechnical imaginaries of the role of grazing in the UK and Irish dairy sectors. *Journal of Rural Studies*, 72, 45–57.  
<https://doi.org/10.1016/j.jrurstud.2019.10.004>

Si, G., Xia, T., Li, Y., Wang, D., Chen, Z., Pan, E., & Xi, L. (2023). Resource allocation and maintenance scheduling for distributed multi-center renewable energy systems considering dynamic scope division. *Renewable Energy*, 217, 119219.  
<https://doi.org/10.1016/j.renene.2023.119219>

Silva, R. G. (2025). Prior consultation Challenges in Latin American renewable energy projects: A comparative analysis of Colombia, Mexico, Chile, Panama, Brazil, and Honduras. *Revista De Direito Econômico E Socioambiental*, 16(1), e292.  
<https://doi.org/10.7213/rev.dir.econ.soc.v16i1.31904>

Simas, T., O'Hagan, A. M., O'Callaghan, J., Hamawi, S., Magagna, D., Bailey, I., Greaves, D., Saulnier, J., Marina, D., Bald, J., Huertas, C., & Sundberg, J. (2014). Review of consenting processes for ocean energy in selected European Union Member States.

*International Journal of Marine Energy*, 9, 41–59.

<https://doi.org/10.1016/j.ijome.2014.12.001>

Simister, J., Syrrakos, D., Day, F., & Whittle, R. (2014). Many hamsters: how the EU can enable private firms to provide renewable energy. *International Journal of Green Economics*, 8(2), 158. <https://doi.org/10.1504/ijge.2014.065853>

Singih, V. (2022, February 13). *Unearthing Indonesia's 10 Biggest Coal Oligarchs*. Project Multatuli. <https://projectmultatuli.org/en/unearthing-indonesias-10-biggest-coal-oligarchs/>

Singh, A., & Chowdary, M. S. (2020). A framework for renewable energy policy modeling. In *Routledge eBooks* (pp. 146–170). <https://doi.org/10.4324/9781003141020-11>

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>

Southeast Asia ETP. (2023). *Grid and Financing Challenges for Energy Transition in Indonesia*. Southeast Asia Energy Transition Partnership.

Sovacool, B. K. (2021). Clean, low-carbon but corrupt? Examining corruption risks and solutions for the renewable energy sector in Mexico, Malaysia, Kenya and South Africa. *Energy Strategy Reviews*, 38, 100723. <https://doi.org/10.1016/j.esr.2021.100723>

Sovacool, B. K., Mullard, S., & Ceballos, J. C. (2024). “Made for corruption?” Private sector actors, renewable energy, and corruption risks for wind power in Mexico and solar electricity in Kenya. *The Electricity Journal*, 37(7–10), 107448. <https://doi.org/10.1016/j.tej.2024.107448>



- Staffell, I., Scamman, D., Abad, A. V., Balcombe, P., Dodds, P. E., Ekins, P., Shah, N., & Ward, K. R. (2018). The role of hydrogen and fuel cells in the global energy system. *Energy & Environmental Science*, 12(2), 463–491. <https://doi.org/10.1039/c8ee01157e>
- Steffen, B. (2020). Estimating the cost of capital for renewable energy projects. *Energy Economics*, 88, 104783. <https://doi.org/10.1016/j.eneco.2020.104783>
- Stott, M. (2023). *Brazil minister says oil and green ambitions are not contradictory*. Financial Times. <https://www.ft.com/content/f13aef43-ca58-49d6-b825-891e54670910>
- Sunanda, W., Setyonegoro, M. I. B., Hadi, S. P., & Sarjiya. (2025). Advancing the carbon pricing framework in Indonesia: A systematic review of policies, challenges, and global lessons. *Results in Engineering*, 28, 107155. <https://doi.org/10.1016/j.rineng.2025.107155>
- Talaja, A., & Golem, S. (2024). Adoption of Green Skills: Examining the Role of Higher Education in Addressing Change Readiness and Resistance. In *Lifelong Learning for Green Skills and Sustainable Development: Southern European Perspectives* (pp. 101–110). [https://doi.org/10.1007/978-3-031-66947-7\\_9](https://doi.org/10.1007/978-3-031-66947-7_9)
- Tambunan, H. B., Hakam, D. F., Prahastono, I., Pharmatrisanti, A., Purnomoadi, A. P., Aisyah, S., Wicaksono, Y., & Sandy, I. G. R. (2020). The challenges and opportunities of renewable Energy source (RES) penetration in Indonesia: case study of Java-Bali Power System. *Energies*, 13(22), 5903. <https://doi.org/10.3390/en13225903>
- Tan, A. (2023, June 5). Poor image of logistics among the young in Singapore worsens talent crunch. *The Straits Times*. <https://www.straitstimes.com/business/supply-chain-talent-shortage-in-singapore-as-big-data-sustainability-come-into-play>



- Tarigan, E. (2025). Role of Solar Photovoltaic Energy in GHG Emission Reduction within Indonesia's Long-Term Strategy for Low Carbon and Climate Resilience 2050. *International Journal of Energy Economics and Policy*, 15(2), 421–428. <https://doi.org/10.32479/ijeep.18352>
- Timilsina, G. R., & Sebsibie, S. (2025). How can a carbon tax be designed to benefit the poor? An investigation for Ethiopia. *Renewable and Sustainable Energy Reviews*, 213, 115441. <https://doi.org/10.1016/j.rser.2025.115441>
- Todd, I., & McCauley, D. (2021). Assessing policy barriers to the energy transition in South Africa. *Energy Policy*, 158, 112529. <https://doi.org/10.1016/j.enpol.2021.112529>
- Torro, S., Rusdi, R., Manda, D., Saleh, S., Akib, H., Darmayanti, D. P., & Ardin, H. (2024). Assessing Public Awareness and Stakeholder Influence in Renewable Energy Implementation: A Case Study from Sulawesi, Indonesia. *Journal of Asian Energy Studies*, 8, 95–109. <https://doi.org/10.24112/jaes.080007>
- Trudgill, S. (1990). *Barriers to a Better Environment; What stops us solving environmental problems?* Belhaven Press.
- UMBRA. (2023). *Policy updates on Presidential Regulation (PR) No. 112 Year 2022 The Acceleration of Renewable Energy Development for Electricity Generation*. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.
- Vargas, C., & Chesney, M. (2020). End of life decommissioning and recycling of solar panels in the United States. A real options analysis. *Journal of Sustainable Finance & Investment*, 11(1), 82–102. <https://doi.org/10.1080/20430795.2019.1700723>



- Wadhwa, V. K., Saini, A. K., & Kumar, S. S. (2020). Enhancing quality of regulations to prevent financial frauds. *International Journal of Scientific and Technology Research*, 09(02), 2679–2681.
- Wang, J., Feng, G., & Chang, C. (2024). How does political instability affect renewable energy innovation? *Renewable Energy*, 230, 120800. <https://doi.org/10.1016/j.renene.2024.120800>
- Wang, Z., Wu, X., Fang, Z., Xia, L., & Li, L. (2023). Research the Optimization Dispatch Method of New Power Systems with Wind-Solar-Hydro Storage. *2023 3rd International Conference on Energy, Power and Electrical Engineering*, 1242–1246. <https://doi.org/10.1109/epee59859.2023.10351998>
- Whig, P., Sharma, S., Jain, A., Bhatia, A. B., & Batra, I. (2025). Renewable Energy Revolution: Advancements in Solar and Wind Technologies. In *Cutting-Edge Solutions for Advancing Sustainable Development: Exploring Technological Horizons for Sustainability* (pp. 119–134). Bentham Science Publishers.
- Wilson, J. D., O’Boyle, M., & Lehr, R. (2020). Monopsony behavior in the power generation market. *The Electricity Journal*, 33(7), 106804. <https://doi.org/10.1016/j.tej.2020.106804>
- Wolsink, M. (1994). Entanglement of Interests and Motives: Assumptions behind the NIMBY-theory on Facility Siting. *Urban Studies*, 31(6), 851–866. <https://doi.org/10.1080/00420989420080711>
- World Bank. (2023). *Indonesia Country Climate and Development Report*. The World Bank Group.

- Xu, R. (2025). How does control of corruption determine the structure of energy consumption? New empirical insights from ASEAN countries. *Journal of Environmental Management*, 390, 126373. <https://doi.org/10.1016/j.jenvman.2025.126373>
- Yan, L., Yongning, C., Haiyan, T., Xinshou, T., Zhankui, Z., & Jianqing, J. (2019). Common Focus and New Requirement on Technical Standards of Renewable Energy Grid Integration. In *2019 Chinese Automation Congress* (pp. 3719–3723). <https://doi.org/10.1109/cac48633.2019.8996943>
- Yang, X., He, L., Xia, Y., & Chen, Y. (2019). Effect of government subsidies on renewable energy investments: The threshold effect. *Energy Policy*, 132, 156–166. <https://doi.org/10.1016/j.enpol.2019.05.039>
- Yelmanchli, G. (2018). Smart solutions and opportunities for key challenges in renewables integration and electric vehicles integration to a conventional grid. In *Lecture notes in electrical engineering* (pp. 237–249). [https://doi.org/10.1007/978-981-10-8249-8\\_21](https://doi.org/10.1007/978-981-10-8249-8_21)
- Ying, W., & Leontyeva, Y. V. (2024). The impact of tax incentives on the financial performance of wind power generation in China: Short-Term and Long-Term Effects. *Journal of Tax Reform*, 10(3), 459–474. <https://doi.org/10.15826/jtr.2024.10.3.178>
- Yudha, S. W., Tjahjono, B., & Longhurst, P. (2021). Stakeholders' recount on the dynamics of Indonesia's renewable energy sector. *Energies*, 14(10), 2762. <https://doi.org/10.3390/en14102762>
- Yustika, M. (2024). *Unlocking Indonesia's Renewable Energy Investment Potential*. Institute for Energy Economics and Financial Analysis. <https://ieefa.org/sites/default/files/2024-07/IEEFA%20Report%20-%20Unlocking%20Indonesia%27s%20renewable%20energy%20investment%20potential%20July2024.pdf>



- Zainal, I., Zain, A., & Mappangile, A. S. (2025). Risk Management Analysis in the Construction of Solar Power Plants (PLTS) at Ibu Kota Nusantara, Indonesia. *IOP Conference Series Earth and Environmental Science*, 1525(1), 012029. <https://doi.org/10.1088/1755-1315/1525/1/012029>
- Zapata, S., Uriona-Maldonado, M., & Herrera, M. M. (2024). The Role of Renewable Energy Policy and R&D in Renewables Diffusion. *Electricity*, 5(3), 526–545. <https://doi.org/10.3390/electricity5030026>
- Zhang, W., Nishikizawa, S., Murayama, T., Suwanteep, K., & Liu, K. (2025). Community Responses to Changes in Perceptions and Annoyance with Noise and Shadow Flickering: A Longitudinal Study. *Renewable Energy Focus*, 100701. <https://doi.org/10.1016/j.ref.2025.100701>
- Zhao, X., Sun, C., Zhong, Z., Liu, S., & Yang, Z. (2023). Effect of market structure on renewable energy Development—A simulation study of a regional electricity market in China. *Renewable Energy*, 215, 118911. <https://doi.org/10.1016/j.renene.2023.118911>
- Zhu, Z., Hunjra, A. I., Alharbi, S. S., & Zhao, S. (2025). Global energy transition under geopolitical risks: An empirical investigation. *Energy Economics*, 108495. <https://doi.org/10.1016/j.eneco.2025.108495>
- Zobeidi, T., Komendantova, N., & Yazdanpanah, M. (2021). Social media as a driver of the use of renewable energy: The perceptions of instagram users in Iran. *Energy Policy*, 161, 112721. <https://doi.org/10.1016/j.enpol.2021.112721>
- Żywiołek, J., Wolniak, R., Grebski, W. W., Tiwari, S., Matuszewski, M., & Koliński, A. (2025). Unlocking renewable energy potential: Overcoming knowledge sharing hurdles in rural



UNIVERSITAS  
GADJAH MADA

**Barriers to Implementation of Renewable Energy Policy: A Study of Presidential Regulation No. 112/2022 on the Acceleration of Renewable Energy Development for Electricity Supply**

Dimas Dianando Raynard Putra Rumopa, Dr. Yuli Isnadi, S.I.P., MPA.

Universitas Gadjah Mada, 2026 | Diunduh dari <http://etd.repository.ugm.ac.id/>

EU regions on example of poland, sweden and france. *PLoS ONE*, 20(4), e0320965.

<https://doi.org/10.1371/journal.pone.0320965>