

Daftar Pustaka

- Abdullah, N., & Lim, A. (2023). The Incorporating Sustainable and Green IT Practices in Modern IT Service Operations for an Environmentally Conscious Future. *Journal of Sustainable Technologies and Infrastructure Planning*, 17-39.
- Abolhassan, F. (2017). *The Drivers of Digital Transformation, Why There's No Way Around the Cloud*. Saarbrücken: Springer.
- Adamowicz, M. (2022). Green Deal, Green Growth and Green Economy as a Means of Support for Attaining the Sustainable Development Goals. *Sustainability*, 14, 2-32.
- AIS Sawit. (2021). European Green Deal dan Implikasi bagi Industri Sawit. *Palm Oil Journal, Vol. II (No. 48)*, 582-584.
- Almeida, D. V., Kolinjivadi, V., Ferrando, T., Roy, B., Herrera, H., Gonçalves, M. V., & Hecken, G. V. (2023). The “Greening” of Empire: The European Green Deal as the EU first agenda. *Political Geography*, 1-9.
- Alojail, M., & Khan, S. B. (2023). Impact of Digital Transformation toward Sustainable Development. *MDPI*, 1-20.
- Asen, E. (2020, October 08). *Carbon Taxes in Europe*. Retrieved from Tax Foundation | EUROPE: <https://taxfoundation.org/data/all/eu/carbon-taxes-in-europe-2020/>
- Balodis, R., & Opmane, I. (2012). History of Data Centre Development. *Springer Berlin Heidelberg*, 180-203.
- Bangalore, S., Srivathsan, B., Bhan, A., Miglio, A. D., Sachdeva, P., Sarma, V., & Sharma, R. (2023, January 17). *Investing in the rising data center economy*. Retrieved from McKinsey & Company: <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/investing-in-the-rising-data-center-economy#/>

- Barus, E. B., & Wijaya, S. (2021). Penerapan Pajak Karbon di Swedia dan Finlandia serta Perbandingannya dengan Indonesia. *Jurnal Pajak Indonesia, Vol. 5*(No. 2), 256-279.
- Bose, R., & Luo, X. (. (2012). Green IT adoption: a process management approach. *International Journal of Accounting and Information Management Vol. 20 No.1*, 63-77.
- Brandt, K. (2022, November 01). *Accelerating climate action at Google and beyond*. Retrieved from Google: <https://blog.google/outreach-initiatives/sustainability/cop27-google-climate-action/>
- Brodie, P. (2023). Data infrastructure studies on an unequal planet. *Big Data & Society*, 1-14.
- Brown, R., Masanet, E., Nordman, B., Tschudi, B., Shehabi, A., Stanley, J., . . . Chan, P. (2007). *Report to Congress on Server and Data Center Energy Efficiency: Public Law 109-431*. Berkeley: ENVIRONMENTAL ENERGY TECHNOLOGIES DIVISION.
- Cammalleri, Naumann, Mentaschi, Formetta, Forzieri, Gosling, . . . Feyen. (2020). Global Warming and Drought Impacts in the EU. *JRC PESETA IV: Task 7*, 1-20.
- Chandola, V. (2015). Digital Transformation and Sustainability. *Study and analysis*, 76-92.
- Chen, L., & Wemhoff, A. P. (2022). Characterizing Data Center Cooling System Water Stress in the United States. *ASHRAE Transactions 128, no. 1*.
- Christensen, C. M., McDonald, R., Altman, E. J., & Palmer, J. E. (2018). Disruptive Innovation: An Intellectual History and Directions for Future Research. *Journal of management studies, 55 (7)*, 1043-1078.
- Ciot, M. G. (2021). On European Green Deal and Sustainable Development Policy (the Case of Romania). *Sustainability, 13 (21)*.
- Coface. (2023, September 22). *EU adopts ambitious Energy Efficiency Directive: a closer look at what's changed*. Retrieved from COFACE Families Europe:

<https://coface-eu.org/eu-adopts-ambitious-energy-efficiency-directive-a-closer-look-at-whats-changed/>

Colbertaldo, P., Agustin, S. B., Companari, S., & Brouwer, J. (2019). Impact of hydrogen energy storage on California electric power system: Towards 100% renewable electricity. *International Journal of Hydrogen Energy* Volume 44, Issue 19, 9558-9576.

Commision, E. (2022, February 2). *European Code of Conduct for Energy Efficiency in Data Centres*. Retrieved from EU Science Hub: https://joint-research-centre.ec.europa.eu/scientific-activities-z/energy-efficiency/energy-efficiency-products/code-conduct-ict/european-code-conduct-energy-efficiency-data-centres_en

Commision, E. (2023). *DIRECTIVE (EU) 2023/1791 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955 (recast)*. European Union: Official Journal of the European Union.

Cox, R. W. (1981). Social forces, states and world orders: beyond international relations theory. *Millennium*, 10(2), 126-155.

Crisanto, J. C., & Ehrentraud, J. (2021, May). *THE BIG TECH RISK IN FINANCE*. Retrieved from International Monetary Fund: <https://www.imf.org/external/pubs/ft/fandd/2021/05/big-tech-fintech-and-financial-regulation-crisanto-ehrentraud.htm>

Darmalaksana, W. (2020). Metode Penelitian Kualitatif Studi Pustaka dan Studi Lapangan. *Pre-Print Digital Library UIN Sunan Gunung Djati Bandung*, 1-6.

Edwards, D., Cooper, Z. G., & Hogan, M. (2024). The making of critical data center studies. *Convergence*, 1-14.

EESC. (2017, November 9). *Thunberg, G. "We are Fighting for Everybody's Future", says Climate Activist Greta Thunberg at the EESC*. Retrieved from European Economic and Social Committee:

<https://www.eesc.europa.eu/en/news-media/eesc-info/042019/articles/68006>

Enerdatix. (2022, November 28). *Corporate PPA: Microsoft signs its largest PPAs outside the US, agrees to off-take 900 MW of power in Ireland*. Retrieved from Enerdatix Energy-Data-Analytics: <https://enerdatix.com/blog/corporate-ppa-microsoft-signs-its-largest-ppas-outside-the-us-agrees-to-off-take-900-mw-of-power-in-ireland/>

ENERGY STAR. (2018, August 28). *ENERGY STAR Score for Data Centers*. Retrieved from ENERGY STAR : <https://www.energystar.gov/buildings/tools-and-resources/energy-star-score-data-centers>

EPA. (2021, June). *DATA CENTER CONSOLIDATION STRATEGIC PLAN*. Retrieved from EPA United States Environmental Protection Agency: <https://www.epa.gov/data/data-center-optimization-initiative>

EPA. (2021, June). *Data Center Optimization Initiative*. Retrieved from EPA United States Environmental Protection Agency: <https://www.epa.gov/data/data-center-optimization-initiative>

EPA. (2023, June 1). *How We Monitor Compliance*. Retrieved from EPA United States Environmental Protection Agency: <https://www.epa.gov/compliance/how-we-monitor-compliance>

EPA. (2023, June 5). *The Origins of EPA*. Retrieved from EPA History: <https://www.epa.gov/history/origins-epa>

European Commission. (2012). *Commission Regulation (EU) No 601/2012 of 21 June 2012 on the Monitoring and Reporting of Greenhouse Gas Emissions Pursuant to Directive 2003/87/EC of the European Parliament and the Council Text with EEA Relevance*. Retrieved from European Commission.

European Commission. (2012, October 25). *Energy efficiency directive*. Retrieved from Energy: https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-directive_en#the-2012-energy-efficiency-directive

- European Commission. (2019). *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS*. Retrieved from UER.Lex: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2019%3A640%3AFIN>
- European Commission. (2023, Juli 25). *European Green Deal: Energy Efficiency Directive adopted, helping make the EU 'Fit for 55'*. Energy. Retrieved from European Commission: https://energy.ec.europa.eu/news/european-green-deal-energy-efficiency-directive-adopted-helping-make-eu-fit-55-2023-07-25_en
- Evans, R., & Gao, J. (2016, July 20). *DeepMind AI Reduces Google Data Centre Cooling Bill by 40%*. Retrieved from Google DeepMind: <https://deepmind.google/discover/blog/deepmind-ai-reduces-google-data-centre-cooling-bill-by-40/>
- Falkner, R. (2016). The Paris Agreement and the new logic of international climate politics. *International Affairs*, 1107-1125.
- Farras, B. (2018, November 21). *Bangun Pusat Data di Denmark, Google Investasi Rp 10 T*. Retrieved from CNBC Indonesia: <https://www.cnbcindonesia.com/tech/20181121132804-37-43053/bangun-pusat-data-di-denmark-google-investasi-rp-10-t>
- Feldman, M. P. (2002). The Internet revolution and the. *International Social Science Journal*, 54(171), 47-56.
- Feroz, A. K., Zo, H., & Chiravuri, A. (2021). Digital Transformation and Environmental Sustainability: A Review and Research Agenda. *Sustainability*, 1-14.
- Fors, P., & Lennerfors, T. T. (2018). We Started Building Green IT Back in the 1970s”: Making Sense of Sustainable ICT through Organizational History. *Sustainability 10 (8)*, 2668, 1-14.
- Google. (2023). *Google Environmental Report*. Google.

- Guillot, L. (2022, May 2). *How US tech is using a data center pact to lobby Brussels*. Retrieved from POLITICO: <https://www.politico.eu/article/us-tech-climate-neutral-data-center-pact-eu-lobbying-carbon-footprint-environment/>
- Hanna, K. T. (2022, December). *DEFINITION ISO 27001*. Retrieved from TechTarget: <https://www.techtarget.com/whatis/definition/ISO-27001>
- Hatchwell, P. (2023, March 29). *Europe's renewable energy islands*. Retrieved from International Bar Association the global voice of the legal profession: <https://www.ibanet.org/Europe-renewable-energy-islands>
- Helble, M., & Majoe, A. (2020). Can Environmental Regulations Drive International Trade? Lessons for Asia from the European Union's Performance of Buildings Directive. *Journal of Economic Integration*, 70.
- Hogan, M. (2021). The data center industrial complex. *Saturation: An Elemental Politics*, 283-305.
- ICAEW. (2020, July 24). *Big tech and the move to net zero carbon*. Retrieved from ICAEW: <https://www.icaew.com/insights/viewpoints-on-the-news/2020/july-2020/big-tech-and-the-move-to-net-zero-carbon>
- ITA. (2024, January 20). *Denmark - Country Commercial Guide*. Retrieved from International Trade Administration: <https://www.trade.gov/country-commercial-guides/denmark-renewable-energy-products>
- Jin, X., Zhang, F., Vasilakos, A. V., & Liu, Z. (2016). Green Data Centers: A Survey, Perspectives, and Future Directions. *Arxiv*, 1-2.
- Johnson, A. (2019). Data centers as infrastructural in-betweens: Expanding connections and enduring marginalities in Iceland. *American Ethnologist* 46, no 1, 75-88.
- King, C. (2023, September 15). *Microsoft: Sustainability Strategy at Sustainability LIVE*. Retrieved from Sustainability: <https://sustainabilitymag.com/videos/microsoft-sustainability-strategy-at-sustainability-live>

- Kirvan, P. (2023, June). *DEFINITION ISO 1400 and 14001*. Retrieved from Tech Target: <https://www.techtarget.com/whatis/definition/ISO-14000-and-14001>
- Koronen, C., Ahman, M., & Nilsson, L. J. (2020). Data centres in future European energy systems—energy efficiency, integration and policy. *Energy Efficiency*, 129.
- Kraemer, K. L., & Dedrick, J. (2002). Strategic use of the Internet and e-commerce: Cisco Systems. *The Journal of Strategic Information Systems* 11 (1), 5-29.
- Kwet, M. (2022). The Digital Tech Deal: a socialist framework for the twenty-first century. *Race & Class*, 63(3), 63-84.
- Larkin, B. (2013). The Politics and Poetics of Infrastructure. *Annual Review of Anthropology*, 42, 327-343.
- Leonard, M., Ferry, J. P., Shapiro, J., Tagliapietra, S., & Wolff, G. (2021, Februari 3). *The geopolitics of the European Green Deal*. Retrieved from European Council on Foreign Relations: <https://ecfr.eu/publication/the-geopolitics-of-the-european-green-deal/>
- Levy, M., & Raviv, D. (2018). An Overview of Data Center Metrics and a Novel Approach for a New Family of Metrics. *Advances in Science, Technology and Engineering Systems Journal Vol. 3, No. 2*, 238-251.
- Lindman, J., Makinen, J., & Kasanen, E. (2023). Big Tech's power, political corporate social responsibility and regulation. *Journal of Information Technology*, Vol. 38 (2) , 144-159.
- Liu, L., Wang, H., Liu, X., Jin, X., He, W. B., Wang, Q. B., & Chen, Y. (2009). GreenCloud: a new architecture for green data center. *Proceedings of the 6th international conference industry session on Autonomic computing and communications industry session* (pp. 29-38). ICAC-INDST'09.
- Liu, Y., Wei, X., Xiao, J., Liu, Z., Xu, Y., & Yuntian. (2020). Energy consumption and emission mitigation prediction based on data center traffic and PUE for global data centers. *Global Energy Interconnection*, 272.

- Maas, J. (2022). Data centers: the influence of big tech on urban planning in Sweden.
- Maguire, J., & Winthereik, B. R. (2019). Digitalizing the State: Data Centres and the Power of Exchange. *Ethnos Journal of Anthropology*, 1-17.
- Manganelli, M., Soldati, A., Martirano, L., & Ramakrishna, S. (2021). Strategies for Improving the Sustainability of Data Centers via Energy Mix, Energy Conservation, and Circular Energy. *Sustainability*, 13(11), 6114.
- Market Watch. (2023, Juni 2). *Denmark Data Center Market Investment Analysis 2023-2028 Featuring Key DC Investors Apple Cibicom Digital Realty Meta Global Connect Google Microsoft Penta Infra and Stack Infrastructure Research and Markets*. Retrieved from Market Watch: <https://www.marketwatch.com/press-release/denmark-data-center-market-investment-analysis-2023-2028-featuring-key-dc-investors-apple-cibicom-digital-realty-meta-globalconnect-google-microsoft-penta-infra-and-stack-infrastructure-researchandmarkets-com-231d>
- Ministry of Foreign Affairs of Denmark. (2020, November 2). *Google joined other Big Tech giants with a 4.5-billion-dollar data centre in Denmark*. Retrieved from Ministry of Foreign Affairs of Denmark: <https://investindk.com/cases/google-joined-other-big-tec>
- Ministry of Industry, B. a. (2018, 04 23). *Strategy for Denmark's digital growth*. Retrieved from Ministry of Industry, Bussines and Financial Affairs: <https://eng.em.dk/publications/2018/strategy-for-denmarks-digital-growth#:~:text=The%20Government's%20vision%20is%20for,potential%20offered%20by%20new%20technology>.
- Mirtsch, M., Kinne, J., & Blind, K. (2021). Exploring the Adoption of the International Information Security Management System Standard ISO/IEC 27001: A Web Mining-Based Analysis. *IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT, VOL. 68, NO. 1*, 87-100.

- Moore, T. (2023, August 31). *Examining Data Center Energy Consumption and Power Sources*. Retrieved from Enconnex: <https://blog.enconnex.com/data-center-energy-consumption-and-power-sources>
- Murugusen, S., & Gangadharan, G. (2012). HARNESING GREEN IT PRINCIPLES AND PRACTICES. In S. Murugusen, & G. Gangadharan, *Harnessing Green IT Principles and Practices* (pp. 1-19). Chichester: Wiley Online Library.
- Oakley, N. (2021, February 22). *The Evolution of Data Centers Tracing the centralizaation of data infrastructure back to the soure*. Retrieved from storymaps.arcgis.com:
<https://storymaps.arcgis.com/stories/a21d93abf29d4b6990370cfcba143cd9>
- Ohemeng, F. L., & Ofosu-Adarkawa, K. (2014). Overcoming the Digital Divide in Developing Countries: An Examination of Ghana's Strategies to Promote Universal Access to Information Communication Technologies (ICTs). *Journal of Developing Societies, 30* (03), 297-322.
- Oman, M., & Stearns, I. F. (2022, April 21). *24/7 Carbon-Free Energy: Powering up new clean energy projects across the globe*. Retrieved from Google Cloud: <https://cloud.google.com/blog/topics/sustainability/clean-energy-projects-begin-to-power-google-data-centers>
- Orbik, Z., & Zozulakova, V. (2019). CORPORATE SOCIAL AND DIGITAL RESPONSIBILITY. *Management Systems in Production Engineering, 2* (27), 79-83.
- Pamerdyatmaja. (2023). "Fridays for Future": Aksi Mogok Iklim di Freiburg. *Lembaran Antropologi, Vol. 2* (No. 1).
- Paolo, B., Maria, A., & Luca, C. (2017). Trends in Data Centre Energy Consumption under the European Code of Conduct for Data Centre Energy Efficiency. *Energies, 10*(1470), 2-18.
- Pflueger, J. (2010). *Understanding Data Center Energy Intensity*. DELL. Retrieved from <https://www.thegreengrid.org/en/about->

- Schiederig, T., Tietze, F., & Hersatt, C. (2012). Green innovation in technology and innovation management – an exploratory literature review. *Institute for Technology and Innovation Management*, 181.
- Schou, J., & Hjelholt, M. (2018). *Digitalization and Public Sector Transformations*. Palgrave Macmillan Cham.
- Sharma, R., Jabbour, A. L., Jain, V., & Shishodia, A. (2021). The role of digital technologies to unleash a green recovery: Pathways and pitfalls to achieve the European Green Deal. *Journal of Enterprise Information Vol. 35 No. 1, 2022*, 266-294.
- Shehabi, A., Smith, S. J., Masanet, E., & Koomey, J. (2018). Data center growth in the United States: decoupling the demand for services from electricity use. *Environmental Research Letters, 13 (12)*, 124030., 1-11.
- Shoucheng, Z. (2022). A study of the economic impact of data centres on the nation's growth and development. *Techno Xplore Jurnal Ilmu Komputer dan Teknologi Informasi* , Vol. 3, No. 4 , 21-28.
- Statista. (2023, September). *Data Center: market data & analysis*. Retrieved from Statista: <https://www.statista.com/outlook/tmo/data-center/worldwide>
- Sukma Raga, M. A., Sukmara, M. D., Hadiyantono, T. A., & Putra, V. V. (2023). KOMPARASI PDP KAWASAN ASEAN DENGAN KAWASAN LAIN. In P. S. Winanti, *KOMPARASI KEBIJAKAN DIGITAL* (pp. 12-26). Yogyakarta: Departemen Ilmu Hubungan Internasional Fakultas Ilmu Sosial dan Ilmu Politik Universitas Gadjah Mada.
- Surbiryala, J., & Rong, C. (2019). Cloud Computing: History and Overview. In *2019 IEEE Cloud Summit* (pp. 1-7). Washington, DC, USA: IEEE.
- Swedish Energy Agency. (2021, Juli 14). *An overview of Energy in Sweden 2021 now available*. Retrieved from <https://www.energimyndigheten.se/en/news/2021/an-overview-of-energy-in-sweden-2021-now-available/>
- Taylor, P. (2023, August 22). *Volume of data/information created, captured, copied, and consumed worldwide from 2010 to 2020, with forecasts from*

- 2021 to 2025. Retrieved from Statista: <https://www.statista.com/statistics/871513/worldwide-data-created/>
- Taylor, P. (2023, July 17). *Value of the global green data center market 2020-2030, by region*. Retrieved from Statista: <https://www-statista-com.ezproxy.ugm.ac.id/statistics/1398123/global-green-data-center-market/>
- Taylor, P. (2023, July 17). *Value of the green data center market in North America 2020-2030, by region*. Retrieved from Statista: <https://www-statista-com/statistics/1398136/north-america-green-data-center-market/>
- Thein, T., Myo, M. M., Parvin, S., & Gawanmeh, A. (2020). Reinforcement learning based methodology for energy-efficient resource allocation in cloud data centers. *Journal of King Saud University-Computer and Information Sciences*, 32 (10), 1127-1139.
- Thelen, T., Vettters, L., & Beckmann, K. v. (2018). *Stategraphy: Toward a Relational Anthropology of the State*. Berghahn Books.
- Tugrul, D., Justice, J., Krampits, M., Letts, M., Subramanian, G., & Thirumalai, M. (2009). Data center metrics An energy efficiency model for information technology maanagers. *Emeraldinsight*, 717.
- Uddin, M., & Rahman, A. A. (2011). Techniques to implement in green data centres to achieve energy efficiency and reduce global warming effects. *International Journal of Global Warming Vol. 3, No. 4*, 372-389.
- Vonderau, A. (2017). Technologies of the Imagination: Locating the Cloud in Sweden's North. *Imaginations: Journal of Cross Cultural Studies*, 8((2).
- Walsh , P. P., Murphy, E., & Horan, D. (2020). The role of science, technology and innovation in the UN 2030 agenda. *Technological Forecasting and Social Change*, 154.
- Welsch, C. (2022, November 23). *As the world goes digital, datacenters that make the cloud work look to renewable energy sources*. Retrieved from Microsoft: <https://news.microsoft.com/europe/features/as-the-world-goes-digital-datacenters-that-make-the-cloud-work-look-to-renewable-energy-sources/>

- Whittaker, M. (2022, September 13). *Google has one of Big Tech's most aggressive sustainability plans. Here's its 3-step playbook for helping the planet.* Retrieved from FORTUNE: <https://fortune.com/2022/09/12/google-has-one-of-big-techs-most-aggressive-sustainability-plans-heres-its-3-step-playbook-for-helping-the-planet/>
- Winanti, P. S. (2023). Komparasi Kebijakan Digital. *DIHI STUDENT WORKING PAPERS*, 1-11.
- Winseck, D. (2019). Internet Infrastructure and the Persistent Myth of U.S. Hegemony. *Information, technology and control in a changing world: Understanding power structures in the 21st century* , 93–120.
- Wisnu. (2022, Februari 1). *Empat Negara Uni Eropa Tolak Gas sebagai Investasi Hijau.* Retrieved from Media Indonesia: <https://mediaindonesia.com/internasional/468549/empat-negara-uni-eropa-tolak-gas-sebagai-investasi-hijau>
- Zhang, M. (2024, January 23). *Underwater Data Centers: Servers Beneath the Surface.* Retrieved from Dgtk Infra: <https://dgtlinfra.com/underwater-data-centers-servers/>
- Zhu, Q., Sarkis, J., & Lai, K.-h. (2012). Institutional-based antecedents and performance outcomes of internal and external green supply chain management practices. *Journal of Purchasing and Supply Management*, 106-117.