

## DAFTAR PUSTAKA

- Abed, A. N., Kasim, N. K., & Hussain, H. H. (2020). *Performance Improvement of CIGS PV Solar Grid Tied System Using Planer Concentrators, Case Study : Baghdad*.  
<https://doi.org/10.13140/RG.2.2.33172.73604>
- Ajie Aprilianto, R., & Ariefianto, R. M. (2021). *Peluang Dan Tantangan Menuju Net Zero Emission (NZE) Menggunakan Variable Renewable Energy (VRE) Pada Sistem Ketenagalistrikan Di Indonesia* (Vol. 2, Number 2).
- Aprilana, A., Alif, H. H., Cahyo, N., Winahyu DH, T., & Wulan, R. (2018). *KAJIAN POTENSI & DESAIN PLTS 2018*.
- Aryani, D. R., Khairurraziq, T. A., Ramadhan, G. R., Wardana, N. S., Husnayain, F., & Garniwa, I. (2019). Simulation of stand-alone floating photovoltaic and battery systems. *IOP Conference Series: Materials Science and Engineering*, 673(1).  
<https://doi.org/10.1088/1757-899X/673/1/012059>
- Bank Indonesia. (2025, November). *Indikator Moneter*.  
<https://www.bi.go.id/id/statistik/indikator/Default.aspx>
- Blank, L., & Tarquin, A. (2012). *ENGINEERING ECONOMY Seventh Edition* (Seventh Edition). McGraw-Hill.
- Comello, S., & Reichelstein, S. (2019). The emergence of cost effective battery storage. *Nature Communications*, 10(1). <https://doi.org/10.1038/s41467-019-09988-z>
- Cosgun, A. E., & Demir, H. (2024). Investigating the Effect of Albedo in Simulation-Based Floating Photovoltaic System: 1 MW Bifacial Floating Photovoltaic System Design. *Energies*, 17(4). <https://doi.org/10.3390/en17040959>
- Dufo-López, R., Cortés-Arcos, T., Artal-Sevil, J. S., & Bernal-Agustín, J. L. (2021). Comparison of lead-acid and li-ion batteries lifetime prediction models in stand-alone photovoltaic systems. *Applied Sciences (Switzerland)*, 11(3), 1–16.  
<https://doi.org/10.3390/app11031099>

- Freeman, J., Whitmore, J., Blair, N., & Dobos, A. P. (2014). *Validation of Multiple Tools for Flat Plate Photovoltaic Modeling Against Measured Data*.  
[www.nrel.gov/publications](http://www.nrel.gov/publications).
- Gagrica, O., Nguyen, P. H., Kling, W. L., & Uhl, T. (2015). Microinverter Curtailment Strategy for Increasing Photovoltaic Penetration in Low-Voltage Networks. *IEEE Transactions on Sustainable Energy*, 6(2), 369–379.  
<https://doi.org/10.1109/TSTE.2014.2379918>
- Hartopo, I., & Rosyadi, A. Y. (2025). Desain Sistem PLTS Hybrid dengan Pemodelan HOMER Pro dan PVSyst di Desa Semang, NTT, Indonesia. *JTERA (Jurnal Teknologi Rekayasa)*, 10(1), 113. <https://doi.org/10.31544/jtera.v10.i1.2025.113-122>
- Hassan, R., Tushar, M. S. H. K., Zaman, F., Hasan, M., Das, P., & Das, B. K. (2021). Techno-economic and environmental assessment of a hybrid renewable energy system using multi-objective genetic algorithm: A case study for remote Island in Bangladesh. *Energy Conversion and Management*, 230, 113823.  
<https://doi.org/10.1016/J.ENCONMAN.2020.113823>
- HOMER Pro. (n.d.). *Generator Lifetime*. Retrieved December 12, 2025, from [https://www.homerenergy.com/products/pro/docs/3.15/generator\\_lifetime.html](https://www.homerenergy.com/products/pro/docs/3.15/generator_lifetime.html)
- HOMER Pro. (2020). *Diesel O&M costs*.  
<https://homerenergy.my.site.com/supportcenter/s/article/diesel-om-costs>
- Indonesia.go.id. (2024, July 13). *Indonesia.go.id - Keindahan Tersembunyi Pulau Sabira: Wisata Alam dan Sejarah Mercusuar Noodwachter*.  
<https://indonesia.go.id/kategori/pariwisata/8377/keindahan-tersembunyi-pulau-sabira-wisata-alam-dan-sejarah-mercusuar-noodwachter?lang=1>
- IRENA. (2024). *RENEWABLE POWER GENERATION COSTS IN 2023*. [www.irena.org](http://www.irena.org)
- Kementerian ESDM. (2025). *Rencana Usaha Penyediaan Tenaga Listrik (RUPTL) PT PLN (Persero) 2025-2034*.
- Kittner, N., Lill, F., & Kammen, D. M. (2017). Energy storage deployment and innovation for the clean energy transition. *Nature Energy*, 2(9).  
<https://doi.org/10.1038/nenergy.2017.125>

- Kompas. (2025, December 1). *Harga BBM Pertamina Dex Desember 2025: Cek Seluruh Provinsi Indonesia*. <https://money.kompas.com/read/2025/12/01/143030326/harga-bbm-pertamina-dex-desember-2025-cek-seluruh-provinsi-indonesia>
- Lo Franco, F., Morandi, A., Raboni, P., & Grandi, G. (2021). Efficiency comparison of DC and AC coupling solutions for large-scale PV+BESS power plants. *Energies, 14*(16). <https://doi.org/10.3390/en14164823>
- Lockhart, E., Li, X., Booth, S., Salasovich, J., Olis, D., Elsworth, J., & Lisell, L. (2019). *COMPARATIVE STUDY OF TECHNO-ECONOMICS OF LITHIUM-ION AND LEAD-ACID BATTERIES IN MICRO-GRIDS IN SUB-SAHARAN AFRICA*. [www.nrel.gov/publications](http://www.nrel.gov/publications).
- Marsh, J. (2023, January 9). *Monocrystalline vs. Polycrystalline Solar Panels* | *EnergySage*. <https://www.energysage.com/solar/monocrystalline-vs-polycrystalline-solar/>
- Maulana, R. (n.d.). Pra-Studi Kelayakan Sistem Hibrida PV-Baterai-PLTD di Daerah Pedesaan Wilayah Maluku. *Jurnal Sistem Kelistrikan, 11*(2).
- Migliari, L., Cocco, D., & Petrollese, M. (2025). Levelized Cost of Storage (LCOS) of Battery Energy Storage Systems (BESS) Deployed for Photovoltaic Curtailment Mitigation. *Energies, 18*(14). <https://doi.org/10.3390/en18143602>
- Milosavljević, D. D., Kevkić, T. S., & Jovanović, S. J. (2022). Review and validation of photovoltaic solar simulation tools/software based on case study. In *Open Physics* (Vol. 20, Number 1, pp. 431–451). De Gruyter Open Ltd. <https://doi.org/10.1515/phys-2022-0042>
- Mishra, P. R., Rathore, S., & Jain, V. (2024). PVSyst enabled real time evaluation of grid connected solar photovoltaic system. *International Journal of Information Technology (Singapore), 16*(2), 745–752. <https://doi.org/10.1007/s41870-023-01677-x>
- Muhammad Ridho Rohman Zuhri, Abdullah Umar, & Faiz Husnayain. (2025). Hybrid Power System Optimization for Cost and Emission Reduction: A Case Study from Indonesia. *International Journal of Electrical, Energy and Power System Engineering, 8*(2), 190–207. <https://doi.org/10.31258/ijeepse.8.2.190-207>

- Nurdiana, E., Subiyanto, I., Indarto, A., Riza, Wibisono, G., & Hudaya, C. (2020). Performance analysis and evaluation of a 10.6 kWp grid-connected photovoltaic system in Serpong. *IOP Conference Series: Materials Science and Engineering*, 909(1). <https://doi.org/10.1088/1757-899X/909/1/012019>
- Prabawa, S. W., & Sidqi, M. A. (2025). KAJIAN KELAYAKAN TEKNIK DAN FINANSIAL PROYEK PLTS DI PULAU PADANG TIKAR KABUPATEN KUBU RAYA. *Integrative Perspectives of Social and Science Journal (IPSSJ)*.
- Prakash, K., Ali, M., Siddique, M. N. I., Chand, A. A., Kumar, N. M., Dong, D., & Pota, H. R. (2022). A review of battery energy storage systems for ancillary services in distribution grids: Current status, challenges and future directions. In *Frontiers in Energy Research* (Vol. 10). Frontiers Media S.A. <https://doi.org/10.3389/fenrg.2022.971704>
- PVsyst. (n.d.). *Array Thermal losses - PVsyst documentation*. Retrieved December 11, 2025, from <https://www.pvsyst.com/help/project-design/array-and-system-losses/array-thermal-losses/index.html#default-and-proposed-values>
- Ramasamy, V., & Margolis, R. (2021). *Floating Photovoltaic System Cost Benchmark: Q1 2021 Installations on Artificial Water Bodies*. <https://www.nrel.gov/docs/fy22osti/80695.pdf>
- Saleh Aziz, A., Faridun Naim bin Tajuddin, M., Rafi bin Adzman, M., & M Ramli, M. A. (2018). *Feasibility Analysis of PV/Diesel/Battery Hybrid Energy System Using Multi-year Module* (Vol. 8, Number 4).
- Sisdwinugraha, A. P., & Riyandi, N. (2024). *Peta Jalan Nusa Penida 100% Energi Terbarukan*. [www.iesr.or.id](http://www.iesr.or.id)
- Suryanto, A. (2022). DESAIN PEMANFAATAN SISTEM PEMBANGKIT HYBRID DIESEL GENERATOR-PV INTERAKTIF GRID (STUDI KASUS PADA GEDUNG DEKANAT FAKULTAS TEKNIK UNIVERSITAS NEGERI SEMARANG). In *JTE UNIBA* (Vol. 6, Number 2).
- Suyanto, H., Erlina, Diantari, R. A., & Al Rasyid, H. (2021). Study on Optimization of System Management Battery for Lithium Batteries and Lead Acid Batteries at the

New and Renewable Energy Research Center IT PLN. *2021 IEEE 5th International Conference on Information Technology, Information Systems and Electrical Engineering (ICITISEE)*, 213–218.

<https://doi.org/10.1109/ICITISEE53823.2021.9655905>