

- A. Khan, Faizan, Pal, Nitai, H. Sheed, Syed, Y., & Ashiwani. (2022). Techno-economic and feasibility assessment of standalone solar photovoltaic/wind hybrid energy system for various storage techniques and different rural locations in India. *Energy Conversion and Management*, 270, 116217.
- Agajie, T. F., Fopah-Lele, A., Amoussou, I., Ali, A., Khan, B., & Tanyi, E. (2023). Optimal design and mathematical modeling of hybrid Solar PV–biogas generator with energy storage power generation system in multi-objective function cases. *Sustainability*, 15(10), 8264.
- Al-afifi, U. F. (2021). Analisa Aliran Daya pada Sistem Tenaga Listrik menggunakan ETAP 12.6. *SainETIn: Jurnal Sains, Energi, Teknologi, dan Industri*, 6(1), 16-22.
- ALLPOWERS. (2018). *ALLPOWERS 20A solar charger controller solar panel battery intelligent regulator with USB port display 12V/24V: Patio, lawn & garden*. Amazon.com.<https://www.amazon.com/ALLPOWERS-Charger-Controller-Intelligent-Regulator/dp/B01MU0WMGT>
- Anwar, F., & Rijanto, T. (2023). Analisis Perencanaan PLTS On Grid Menggunakan Helioscope. *JTEIN: Jurnal Teknik Elektro Indonesia*, 4(2), 724–737.
- Aprillia, B. S., & Rigoursyah, M. A. F. (2020). Design on-grid solar power system for 450 VA conventional housing using HOMER software. In *IOP Conference Series: Materials Science and Engineering*, 771(1), 012011. IOP Publishing. <https://doi.org/10.1088/1757-899X/771/1/012011>
- ASME. (2023). *PTC 22: Gas turbine performance test code*. The American Society of Mechanical Engineers.
- Atef, M., Khatib, T., Abdullah, M. F., & Romlie, M. F. (2020). Optimization of a hybrid Solar PV and gas turbine generator system using the loss of load probability index. *Clean Technologies*, 2(3), 16-28.
- Bana, S., & Saini, R. P. (2016). A mathematical modeling framework to evaluate the performance of single diode and double diode based SPV systems. *Energy Reports*, 2, 171–187. <https://doi.org/10.1016/j.egyr.2016.06.003>
- Borgnakke, C., & Sonntag, R. E. (2019). *Fundamentals of thermodynamics* (10th edition). Wiley.

- Boyce, M. P. (2012). *Gas Turbine Engineering Handbook* (4th Edition). Gulf Professional Publishing.
- Brealey, R. A., & Myers, S. C. (2020). *Principles of corporate finance* (13th edition). McGraw Hill Education.
- Butt, O. M., Saeed, T., Elahi, H., Masud, U., Ghafoor, U., Che, H. S., Nasrudin, A & Ahmad, M. S. (2021). A predictive approach to optimize a HHO generator coupled with Solar PV as a standalone system. *Sustainability*, 13(21), 12110.
- Costoya, X., DeCastro, M., Carvalho, D., Arguilé-Pérez, B., & Gómez-Gesteira, M. (2022). Combining offshore wind and solar photovoltaic energy to stabilize energy supply under climate change scenarios: A case study on the western Iberian Peninsula. *Renewable and Sustainable Energy Reviews*, 157, 112037.
- Damanik, A. J. (2009). *Perancangan Turbin Gas Penggerak Generator pada Instalasi PLTG dengan Putaran 3000 Rpm dan Daya Terpasang Generator 130 MW* [Doctoral dissertation] Universitas Sumatera Utara Repository.
- Diendorfer, C., Haider, M., & Lauermann, M. (2014). Performance analysis of offshore solar power plants. *Energy Procedia*, 49, 2462-2471
- Ditjen Ketenagalistrikan Kementerian ESDM. (2018). *Pedoman penghitungan dan pelaporan inventarisasi gas rumah kaca*. Jakarta: Kementerian Energi dan Sumber Daya Mineral.
- Direktorat Jenderal Energi Baru, Terbarukan dan Konservasi Energi. (2018). *Panduan studi kelayakan pembangkit listrik tenaga surya (PLTS) terpusat*. Indonesia Clean Energy Development II.
- Ejenavi, O. W., & Salisu, S. I. (2019). Energy Analysis of a Gas Turbine Generator (a Case Study of 3 × 2.5 MW Centaur 40). *International Journal of Scientific & Engineering Research*, 10(6), 1234–1241.
- Energy, S. (2020). *Solar Carports: Technical and Design Considerations while Designing Solar Carports*. Retrieved from Solar Edition website:<https://solaredition.com/solar-carports-technical-and-design-considerations-while-designing-solar-carports/>
- Gautamakarisma. (2013). PLTS: Daya dan Energi. *Belajar Menulis*. Diakses September 8, 2024, dari <https://gautamakarisma.wordpress.com/2013/11/27/plts-daya-dan-energi/>
- Global Solar Atlas. (2024). *Irradiation value from Global Solar Atlas*. Retrieved October 25, 2025, from <https://globalsolaratlas.info>.

Gunardi, Y., & Amir, A. (2024). Studi Perencanaan PLTS Di Atap Rumah Tinggal Dengan Menggunakan Software Helioscope. *Jurnal Teknik Elektro Universitas Mercu Buana*, 15(3), 176–183.

Hariyati, R., Qosim, M. N., & Hasanah, A. W. (2019). Konsep Fotovoltaik Terintegrasi On Grid dengan Gedung STT-PLN. *Energi dan Kelistrikan*, 11(1), 17-26.

Harun, N. (2011). *Bahan Ajar Perancangan Pembangkit tenaga Listrik*. Makassar: Jurusan Teknik Elektro, Fakultas Teknik, Universitas Hasanuddin.

Henri, W., Hounkpatina. (2023). Techno-economic and environmental feasibility study of a hybrid photovoltaic electrification system in back-up mode: A case report. *International Journal of Renewable Energy Development*, 12(2), 396–408.

HOMER Energy LLC. (2020). *HOMER Pro Software*. Retrieved from <https://www.homerenergy.com>.

Ipung, M. S. A., & Thamrin, S. (2023). Pemanfaatan pembangkit listrik tenaga surya sebagai alternatif energi masa depan. *Jurnal Pengabdian kepada Masyarakat Nusantara*, 4(3), 2427-2435.

Iskandar, H. R. (2020). *Praktis Belajar Pembangkit Listrik Tenaga Surya*. Deepublish.

Lal, N. K., & Mubeen, S. E. (2014). A review on load flow analysis. *International Journal of Innovative Research and Development*, 3(11), 337-341.

Nasional, D. E. (2022). *Evaluasi capaian bauran energi nasional tahun 2022*. Jakarta: Penulis. Diunduh dari <https://den.go.id/publikasi/Bauran-Energi-Nasional#>

Newnan, D. G. (2012). *Engineering Economic Analysis* (11th Edition). Oxford University Press. New York 10016. <http://www.oup.com>

Noor, V. P., Jufri, F. H., Naradhipa, A. M., & Utomo, A. R. (2020). Optimization and comparative analysis for a stand-alone hybrid model of PV, wind turbine, and natural gas generator system in remote area—A case study in Belu. In *IOP Conference Series: Earth and Environmental Science*, 599(1), 012028. IOP Publishing. <https://doi.org/10.1088/1755-1315/599/1/012028>

Nordin, Adzuiien & A. Majid, M., Amin. (2013). Analysis of carbon dioxide emission of gas fuelled cogeneration plant. *IOP Conference Series: Materials Science and Engineering*, 50, 012054. <https://doi.org/10.1088/1757-899X/50/1/012054>

Nugroho, A. A., & Isyanto, H. (2024). Analisa Perbandingan Kinerja Panel Surya Jenis Monocrystalline dan Thin Film 100 WP. *RESISTOR (Elektronika Kendali Telekomunikasi Tenaga Listrik Komputer)*, 7(1), 51-58.

- Pasangpanelsurya. (2021). *Perbedaan Sel, Modul, String, dan Larik Fotovoltaik*. Diambil dari <https://pasangpanelsurya.com/perbedaan-sel-modul-string-larik-fotovoltaik/>
- Pemerintah Indonesia. (2022). *Enhanced Nationally Determined Contribution (ENDC) Indonesia 2022*. Kementerian Lingkungan Hidup dan Kehutanan.
- Pemerintah Indonesia. (2022). *Peraturan Presiden Republik Indonesia Nomor 112 Tahun 2022 tentang Percepatan Pengembangan Energi Terbarukan untuk Penyediaan Tenaga Listrik*. Diakses dari <https://peraturan.bpk.go.id/Home/Details/234156/perpres-no-112-tahun-2022>
- Prayoga, T. (2016). *Analisis investasi pengadaan alat gali-muat dan alat angkut untuk pengupasan overburden dengan metode NPV, IRR, dan NAL di lokasi Pit Lingkar 2 PT. Pama Persada Nusantara Distrik Mtbu Job Site Tanjung Enim, Sumatera Selatan*. Universitas Negeri Padang, Teknik Pertambangan.
- Quizlet.com. (2022). *AP Environmental Science 6.8 Solar Energy*. Retrieved from <https://quizlet.com/> website: <https://quizlet.com/690654853/ap-environmental-science-68-solar-energy-flash-cards/>
- Ramadhana, R. R., Iqbal, M., Hafid, A., & Adriani, A. (2022). Analisis PLTS On Grid. *Vertex Elektro*, 14(1), 12-25.
- Rashid, M., H. (2014). *Alternative energy in power electronics*. Butterworth-Heinemann.
- Sadewo, R. A., Kurniawan, E., & Adam, K. B. (2017). Perancangan dan implementasi pengisian baterai lead acid menggunakan solar cell dengan menggunakan metode three steps charging. *eProceedings of Engineering*, 4(1).
- Schwab, B., & Lusztig, P. (1969). A comparative analysis of the net present value and the benefit-cost ratio as measures of the economic desirability of investments. *The Journal of Finance*, 24(3), 507-516. <https://doi.org/10.1111/j.1540-6261.1969.tb00336.x>
- Shifaat Ur Rehman, T. A., Kamal, R., & Ilyas, M. (2019). *Optimization of off Grid Solar-Gas Generator Hybrid Power System for Rural Area of District Karak, Pakistan*.
- Siagian, S., Simamora, Y., & Sinaga, D. J. (2024). *Operasi Sistem Tenaga Listrik Menggunakan Electrical Transient Analyzer Program (ETAP)*. Wawasan Ilmu.
- Sianturi, Y. (2021). Pengukuran dan Analisa Data Radiasi Matahari di Stasiun Klimatologi Muaro Jambi. *Megasains*, 12(1), 40-47.
- Solar Turbines. (2021). *Gas Turbine Products and Packages*. Retrieved from https://www.solarturbines.com/en_US/products.html

- Sugiono, F. A. F., Larasati, P. D., & Karuniawan, E. A. (2022). Pengaruh sudut kemiringan panel surya terhadap potensi pemanfaatan plts rooftop di bengkel teknik mesin, Politeknik Negeri Semarang. *Jurnal Rekayasa Energi*, 1(1), 1-8.
- Supriyono, T. (2017). Optimum disain plts hybrid 10 mw dengan turbin gas. In *Seminar Nasional Mesin dan Industri (SNMI XI)* (Vol. 11, No. 1, pp. 36-46).
- Trading Economics (2025) *Natural Gas Price*. Diakses di: <https://tradingeconomics.com/commodity/natural-gas>
- Usman, U., Lukman, M. P., & Achmad, A. (2020). Pemodelan Photovoltaic Dengan Pendekatan Satu Dioda dan Dua Dioda. In *Seminar Nasional Hasil Penelitian & Pengabdian Kepada Masyarakat (SNP2M)* (Vol. 5, pp. 7-12).
- Wikipedia. (2024). *Gas Rumah Kaca*. Diakses dari https://id.wikipedia.org/wiki/Gas_rumah_kaca
- Wong, I. L., Eames, P. C., & Perera, R. S. (2007). A review of transparent insulation systems and the evaluation of payback period for building applications. *Solar Energy*, 81(9), 1058-1071. <https://doi.org/10.1016/j.solener.2006.10.002>