

DAFTAR PUSTAKA

- [1] E. Hilmawan, I. Fitriana, A. Sugiyono, dan Adiarso, *Outlook Energi Indonesia 2021*. Jakarta: Badan Pengkajian dan Penerapan Teknologi, 2021.
- [2] I. P. S. Arsa, “Pembangkit Listrik Tenaga Surya, Energi Bersih dan Murah (Studi Kasus Rumah Pariwisata Di Bali),” dalam *Prosiding Seminar Nasional Teknik Elektro (FORTEI 2017)*, Oktober 2017, hlm. 4.
- [3] Kementerian Energi dan Sumber Daya Mineral, “Akselerasi Pengembangan Pembangkit Listrik Tenaga Surya Di Indonesia untuk Mencapai 6,5 GW pada Tahun 2025,” Jakarta, Oktober 2019.
- [4] Kementerian Energi dan Sumber Daya Mineral, *Implementasi Peraturan Menteri ESDM tentang PLTS Atap*, vol. 35.Pers/04/SJI/2022. 2022.
- [5] PT. PLN Persero, *Statistik PLN 2021*. Jakarta: Sekretariat Perusahaan PT PLN (Persero), 2022.
- [6] M. R. Aryanto, “Perancangan Solar Home System Tipe Terhubung Jaringan untuk Suatu Rumah Tinggal Skala Daya 2200 VA di Kota Yogyakarta,” Universitas Gadjah Mada, Yogyakarta, 2022.
- [7] H. Setiawan, “Implementasi PLTS Sebagai Pengganti Sumber Energi Listrik Utama Rumah Tangga 1300VA,” dalam *Seminar Nasional Hasil Penelitian dan Pengabdian Masyarakat*, Yogyakarta, 2021, hlm. 220–232.
- [8] D. Aprilia, “Perencanaan dan Pemasangan Pembangkit Listrik Tenaga Surya pada Rumah Tinggal Menggunakan Panel Surya Polycrystalline Berkapasitas 410 Wattpeak,” Universitas Gadjah Mada, Yogyakarta, 2021.
- [9] F. R. Suharjanto, “Perancangan dan Pemasangan Pembangkit Listrik Tenaga Surya Off-Grid di Atap Rumah Kontainer Menggunakan Panel Surya Polycrystalline dengan Kapasitas 820 Wattpeak,” Universitas Gadjah Mada, Yogyakarta, 2021.
- [10] S. Ahsan, K. Javed, A. S. Rana, dan M. Zeeshan, “Design and cost analysis of 1kW photovoltaic system based on actual performance in Indian scenario,” *Perspect. Sci.*, vol. 8, hlm. 642–644, Sep 2016, doi: 10.1016/j.pisc.2016.06.044.
- [11] S. Shaimaa R. dan K. Heba A., “Design Sizing and Performance Analysis of Stand-Alone PV System using PVSyst Software for a Location in Egypt,” *Int. Middle East Power Syst. Conf. MEPCON*, vol. 21, no. 19.
- [12] R. Rahman, “Analisis Perencanaan Pembangkit Listrik Tenaga Surya Offgrid Untuk Rumah Tinggal Di Kota Banjarbaru,” *Electr. Electron. Instrum. Control Telecommun.*, vol. 4, no. 1, 2021.
- [13] A. Ghafoor dan A. Munir, “Design and economics analysis of an off-grid PV system for household electrification,” *Renew. Sustain. Energy Rev.*, vol. 42, hlm. 496–502, Feb 2015, doi: 10.1016/j.rser.2014.10.012.
- [14] O. C. Akinsipe, D. Moya, dan P. Kaparaju, “Design and economic analysis of off-grid solar PV system in Jos-Nigeria,” *J. Clean. Prod.*, vol. 287, hlm. 125055, Mar 2021, doi: 10.1016/j.jclepro.2020.125055.
- [15] G. H. Sihotang, “Perencanaan Pembangkit Listrik Tenaga Surya Rooftop di Hotel Kini Pontianak,” *J. Tek. Elektro*, vol. 1, no. 1, 2019.



- [16] Y. Kariongan, “Kajian Kinerja PLTS Komunal Sistem Off-Grid di Kampung Kalifam Distrik Waris Kabupaten Keerom,” *J. Ilm. Indones.*, vol. 7, no. 4, Apr 2022.
- [17] A. Taşcıoğlu, O. Taşkın, dan A. Vardar, “A Power Case Study for Monocrystalline and Polycrystalline Solar Panels in Bursa City, Turkey,” *Int. J. Photoenergy*, vol. 2016, hlm. 1–7, Jan 2016, doi: 10.1155/2016/7324138.
- [18] S. Sugianto, “Comparative Analysis of Solar Cell Efficiency between Monocrystalline and Polycrystalline,” *INTEK J. Penelit.*, vol. 7, hlm. 92, Des 2020, doi: 10.31963/intek.v7i2.2625.
- [19] R. Corkish, W. Lipinski, dan R. J. Patterson, “Introduction to Solar Energy,” dalam *Solar Energy*, vol. 2, Amerika Serikat: World Scientific Publishing Co. Pte. Ltd, 2016.
- [20] D. Yogi Goswami, *Principles of Solar Engineering*, Third Edition. New York: CRC Press, 2015.
- [21] H. R. Iskandar, Y. B. Zainal, dan S. Sambasri, “Study and Analysis of Shading Effects on Photovoltaic Application System,” dalam *MATEC Web of Conferences*, 2018, vol. 218.
- [22] “Shading - General.” [Online]. Tersedia pada: https://www.pvsyst.com/help/shadings_general.htm. [Diakses: 27 Juli 2022]
- [23] P. Bhati, R. Kalsotra, dan A. Kumarankandath, *Your Own Sun: A Manual on Solar Rooftop*. India: Centre for Science and Environment, 2017.
- [24] N. Manoj Kumar, M. Subathra, dan E. Moses, “On-Grid Solar Photovoltaic System: Components, Design Considerations, and Case Study,” dalam *Electrical Energy Systems*, Feb 2018.
- [25] C. A. Hossain, N. Chowdhury, M. Longo, dan W. Yaici, “System and Cost Analysis of Stand-Alone Solar Home System Applied to a Developing Country,” *Sustainability*, vol. 11, no. 1403, Mar 2019.
- [26] S. Islam dan M. Bhuyan, “Design and Analysis of A Rooftop Hybrid Solar PV System Using HOMER PRO and MATLAB Simulink,” *Seu J. Electr. Electron. Eng.*, vol. 2, hlm. 35–45, Jan 2022.
- [27] “Hybrid System – SolarTech Renewable Energy Pvt Ltd | Solar Panel Installation | Electric Bike | Wind Mills | Solar Inverter.” [Online]. Tersedia pada: <http://solartechind.com/services/hybrid-system/>. [Diakses: 16 November 2022]
- [28] Bergamo, *Technical Application Papers No.10 Photovoltaic Plants*. ABB Sace, 2014.
- [29] S. Gorjian dan A. Shukla, *Photovoltaic Solar Energy Conversion: Technologies, Applications and Environmental Impacts*. Academic Press, 2020.
- [30] “Types of solar panels: which one is the best choice?,” *Solar Reviews*. [Online]. Tersedia pada: <https://www.solarreviews.com/content/blog/pros-and-cons-of-monocrystalline-vs-polycrystalline-solar-panels>. [Diakses: 21 Oktober 2022]
- [31] R. Satpathy dan V. Pamuru, “Chapter 7 - Off-grid Solar Photovoltaic Systems,” dalam *Solar PV Power*, R. Satpathy dan V. Pamuru, Ed. Academic Press, 2021, hlm. 267–315.



- [32] R. A. Messenger dan J. Ventre, *Photovoltaic Systems Engineering*, Edisi Kedua. Amerika Serikat: CRC Press.
- [33] P. K. Singh, "Energy Storage Systems for Electric Vehicles," *ECNs Flip. Symp. 2020*, 2020.
- [34] T. Liu, *Coulombic Efficiency, Energy Efficiency and Effective Capacitance*. 2019.
- [35] D. A. J. Rand dan P. T. Moseley, "Chapter 13 - Energy Storage with Lead–Acid Batteries," dalam *Electrochemical Energy Storage for Renewable Sources and Grid Balancing*, P. T. Moseley dan J. Garche, Ed. Amsterdam: Elsevier, 2015, hlm. 201–222.
- [36] F. Yang, Y. Zhao, K.-L. Tsui, dan S. joo Bae, "A study of the relationship between coulombic efficiency and capacity degradation of commercial lithium-ion batteries," *Energy*, vol. 145, Apr 2018, doi: 10.1016/j.energy.2017.12.144.
- [37] W. Waag dan D. U. Sauer, "Secondary Batteries – Lead – Acid Systems | State-of-Charge/Health," dalam *Encyclopedia of Electrochemical Power Sources*, Amsterdam: Elsevier, 2009, hlm. 793–804.
- [38] P. Acharya dan S. Aithal, "A Comparative Study of MPPT and PWM Solar Charge Controllers and their Integrated System," *J. Phys. Conf. Ser.*, vol. 1712, hlm. 012023, Des 2020, doi: 10.1088/1742-6596/1712/1/012023.
- [39] T. Eswara dan Patrick I. Chapman, "Comparison of Photovoltaic Array Maximum Power Point Tracking Techniques," *IEEE Trans. Energy Convers.*, vol. 22, no. 2, 2007.
- [40] Yulis Septarangga, "Inverter Dengan Tegangan Masukan 12V DC Dan Tegangan Keluaran AC dengan Frekuensi Yang Dapat Diatur," Universitas Sanata Dharma, Yogyakarta, 2019.
- [41] Kenika, "User Manual EAF Series Off-Grid Solar Inverter: 500W/1000W/2000W/2500W/3000W." Kenika, 2020.
- [42] P. G. Ochnev dan Y. B. Shchemeleva, "Renewable Energy: Hybrid Inverter," *Int. Conf. Ind. Eng. Appl. Manuf. ICIEAM*, 2020.
- [43] C. K. Gan, Y. M. Lee, D. Pudjianto, dan G. Strbac, "Role of losses in design of DC cable for solar PV applications," dalam *2014 Australasian Universities Power Engineering Conference (AUPEC)*, Sep 2014, hlm. 1–5, doi: 10.1109/AUPEC.2014.6966594.
- [44] "CU/PVC NYAF Flexible Copper Conductor, PVC Insulated." PT KMI Wire and Cable Tbk, 2015.
- [45] H. Kuan, K. Chew, K. H. Chua, dan A. Rahman, "Behavioral studies of surge protection components," Feb 2021.
- [46] J. E. P. Nascimento, F. R. Pinto, D. B. de Alencar, dan G. de F. Lopes, "Electrical Surge Protection Device (SPD): An Alternative to Reduce Material Loss," *Int. J. Innov. Educ. Res.*, vol. 7, no. 11, 2019.
- [47] T. Khatib, I. A. Ibrahim, dan A. Mohamed, "A Review On Sizing Methodologies of Photovoltaic Array and Storage Battery in a Standalone Photovoltaic System," *Energy Convers. Manag.*, vol. 120, 2016.



- [48] N. N. Lathif, “Simulasi Dan Analisis Sistem Pembangkit Listrik Tenaga Surya Atap Terhubung Jaringan Untuk Suplai Kebutuhan Listrik Rumah Tangga 900 VA Di Kota Yogyakarta,” Universitas Gadjah Mada, Yogyakarta, 2022.
- [49] A. Al-Shamani, “Design & Sizing of Stand-alone Solar Power Systems A house Iraq,” Apr 2015.
- [50] J. Väisänen, A. Kosonen, J. Ahola, T. Sallinen, dan T. Hannula, “Optimal sizing ratio of a solar PV inverter for minimizing the levelized cost of electricity in Finnish irradiation conditions,” *Sol. Energy*, vol. 185, hlm. 350–362, Jun 2019, doi: 10.1016/j.solener.2019.04.064.
- [51] B. Ramadhani, *Instalasi Pembangunan Listrik Tenaga Surya : Do's & Don't*, 1 ed. Jakarta: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), 2018.
- [52] PVSyst, “General Description of the PVSyst Software,” *General Description*. [Online]. Tersedia pada: https://www.pvsyst.com/help/general_descr.htm. [Diakses: 7 Juni 2022]
- [53] PVSyst, “Features,” *Features*. [Online]. Tersedia pada: <https://www.pvsyst.com/features/>. [Diakses: 7 Juni 2022]
- [54] R. C. Mendoza, P. A. M. Castillo, J. M. R. Hernandez, F. J. R. Martinez, dan G. G. Palomino, “PV Energy Performance in a Sustainable Campus,” *MDPI*, vol. 9, no. 1874, 2020.
- [55] PVSyst, “Simulation variables: Stand alone system,” *Simulation variables: Stand alone system*. [Online]. Tersedia pada: https://www.pvsyst.com/help/simulation_variables_standalone.htm. [Diakses: 27 September 2022]
- [56] Javed, H. Ashfaq, Singh, S. Hussain, dan T. S. Ustun, “Design and Performance Analysis of a Stand-alone PV System with Hybrid Energy Storage for Rural India,” *Electronics*, vol. 8, hlm. 952, Agu 2019, doi: 10.3390/electronics8090952.
- [57] M. Ponnusamy, H. Rajaguru, dan R. Singaravelu, “An Overview of Batteries for Photovoltaic (PV) Systems,” *Int. J. Comput. Appl.*, vol. 82, hlm. 28–32, Nov 2013, doi: 10.5120/14170-2299.
- [58] W.-Y. Chang, “The State of Charge Estimating Methods for Battery: A Review,” *Int. Sch. Res. Not.*, vol. 2013, hlm. e953792, Jul 2013, doi: 10.1155/2013/953792.
- [59] A. Pradip dan P. Saymote, “Google Sketch up: A Powerful Tool for 3d Mapping and Modeling,” vol. 5, hlm. 377–382, Jul 2016.
- [60] “PVGIS user manual.” [Online]. Tersedia pada: https://joint-research-centre.ec.europa.eu/pvgis-online-tool/getting-started-pvgis/pvgis-user-manual_en. [Diakses: 17 Januari 2023]
- [61] “Google Earth Pro,” Google Inc., United States, 202M.
- [62] A. Rachmi, B. Prakoso, H. Berchmans, I. Agustina, I. D. Sara, dan Winne, *Panduan Perencanaan dan Pemanfaatan PLTS Atap di Indonesia*. Tetra Tech ES., Inc., 2020.
- [63] “Badan Pusat Statistik,” *Bank 2022*, 2022. [Online]. Tersedia pada: <https://www.bps.go.id/indicator/13/383/1/suku-bunga-kredit-rupiah-menurut-kelompok-bank.html>. [Diakses: 23 September 2022]

