

## DAFTAR PUSTAKA

### Referensi

- [0] <https://www.mckinsey.com/id/our-insights/how-to-power-indonesias-solar-pv-growth-opportunities>
- [1]. K. Vidyanandan, “An Overview of Factors Affecting the Performance of Solar PV
- [2]. M. M. Fouad, L. A. Shihata, and E. S. I. Morgan, “An integrated review of factors influencing the performance of photovoltaic panels,” *Renew. Sustain. Energy Rev.*, vol. 80, no. December, pp. 1499–1511, 2017.
- [3]. Imam Fajar Nur Diansyah\*) , Susatyo Handoko dan Jaka Windarta, “Implementasi Dan Evaluasi Performa Pembangkit Listrik Tenaga Surya (Plts) On Grid Studi Kasus Smp N 3 Purwodadi” TRANSIENT, VOL. 10, NO. 4, DESEMBER 2021, e-ISSN: 2685-0206
- [4]. I. K. A. Setiawan, I. N. S. Kumara, and I. W. Sukerayasa, “Analisis Unjuk Kerja Pembangkit Listrik Tenaga Surya (Plts) Satu MWP Terinterkoneksi Jaringan di Kayubih, Bangli,” *Maj. Ilm. Tek. Elektro*, vol. 13, no. 1, 2014.
- [5]. B. Shiva Kumar and K. Sudhakar, “Performance evaluation of 10 MW grid connected solar photovoltaic power plant in India,” *Energy Reports*, vol. 1, pp. 184– 192, 2015.
- [6]. S. Ekici and M. A. Kopru, “Investigation of PV system cable losses,” *Int. J. Renew. Energy Res.*, vol. 7, no. 2, pp. 807–815, 2017.
- [7]. G. Knežević, D. Topić, M. Žnidarec, B. Štumberger, M. Hadžiselimović, and S. Seme, “Comparison of the Shading Influence on PV Modules of Different Technologies,” no. June, pp. 203–214, 2017.
- [8]. A. A. N. B. B. Nathawibawa, I. N. S. Kumara, and W. G. Ariastina, “Analisis Produksi Energi dari Inverter pada Grid-connected PLTS 1 MWp di Desa Kayubih Kabupaten Bangli,” *Maj. Ilm. Teknol. Elektro*, vol. 16, no. 1, p. 131, 2016.
- [8]. Ramadhani B. Instalasi Pembangkit Listrik Tenaga Surya Dos & Don’ts. Jakarta: Energising Development (EnDev) Indonesia. 2018.
- [9]. SNI IEC. 62446-2016. Sistem fotovoltaik terhubung ke jaringan listrik - Persyaratan minimum untuk sistem dokumentasi, uji komisioning dan inspeksi. Jakarta. Badan Standar Nasional. 2016.
- [10]. SNI. 0225. Persyaratan Umum Instalasi Listrik 2011 (PUIL 2011). Jakarta. Badan Standar Nasional. 2011.
- [11]. Windarta J, Pratama A, Denis, dan Nugroho A. Testing of Solar Power Plant Components Off-Grid Systems and Engineering Economic Analysis at Cemara Island, Brebes Regency,

Indonesia. International Journal of Research Studies in Electrical and Electronics Engineering (IJRSEEE). 2019; 5(2): 9-17.

[12]. Solis Inverter, "PV monitoring." <https://m.ginlong.com/main.html>. Diakses: Nov. 01, 2021.

[13]. Permen ESDM Nomor 2 Tahun 2024\_PLTS Atap

[14]. Emmanuel Ayora, Mathew Munji, Keren Kaberere, Bundi Thomas " Performance analysis of 600 kWp grid-tied rooftop solar photovoltaic systems at strathmore university in Kenya". [www.sciencedirect.com/journal/results-in-engineering](http://www.sciencedirect.com/journal/results-in-engineering) 19 (2023) 101302.

[15] Nandi, A. (2021). "Potensi Radiasi Matahari di Jawa Barat untuk Pembangkit Listrik Tenaga Surya." Jurnal Energi Terbarukan, 10(2), 55-68

[16] Houghton, J., Ding, Y., Griggs, D., Noguer, M., van der Linden, P., Dai, X., & Maskell, K. (2001). Climate Change 2001: The Scientific Basis. Cambridge University Press.

[17] <https://www.esdm.go.id/assets/media/content/content-outlook-energi-indonesia-2019-bahasa-indonesia.pdf>

[18] Kumar, R., & Kumar, V. (2020). Comparative Analysis of Monocrystalline and Polycrystalline Solar Panels. International Journal of Renewable Energy Research, 10(1), 1-12.

[19] Blaabjerg, F., Chen, Z., & Kjaer, S. B. (2004). Power Electronics as Efficient Interface in Dispersed Power Generation Systems. IEEE Transactions on Power Electronics, 19(5), 1184-1194. García, P., Mendoza-Araya, P. A., & Moran, L. (2013). Grid-Connected PV System Using a Three-Phase Inverter for Residential Applications. IEEE Transactions on Industrial Electronics, 60(4), 1536-1544.

[20] Kerekes, T., Teodorescu, R., Liserre, M., & Bessonov, V. (2011). High-Efficiency Transformerless PV Inverter for Renewable Energy Systems. IEEE Transactions on Industrial Electronics, 58(1), 294-301.

[21] Liu, G., Yang, D., Xu, Z., & Zhu, C. (2017). IoT-Based Smart PV Inverter for Photovoltaic Power System. IEEE Internet of Things Journal, 4(4), 1096-1106.

[22] Piegari, L., & Rizzo, R. (2010). Adaptive Perturb and Observe Algorithm for Photovoltaic Maximum Power Point Tracking. IET Renewable Power Generation, 4(4), 317-328.

[23] Timbus, A. V., Liserre, M., Teodorescu, R., & Rodriguez, P. (2009). Evaluation of Current Controllers for Distributed Power Generation Systems. IEEE Transactions on Power Electronics, 24(3), 654-664.

[24] Zhao, B., Zhang, X., Li, P., & Wang, K. (2017). Next-Generation Multi-Functional Modular Intelligent Inverter for Smart Grid Integration and Energy Storage. IEEE Transactions on Industrial Informatics, 13(4), 1455-1466

- [25] Green, M. A., Emery, K., Hishikawa, Y., Warta, W., & Amft, M. (2017). Solar Cell Efficiency Tables (Version 54). *Progress in Photovoltaics: Research and Applications*, 25(7), 668-676.
- [26] Kumar, R., & Kumar, V. (2020). Comparative Analysis of Monocrystalline and Polycrystalline Solar Panels. *International Journal of Renewable Energy Research*, 10(1), 1-12.
- [27] Rooftop Solar. (2021). Monocrystalline vs. Polycrystalline Solar Panels. Retrieved from <https://www.rooftopsolar.com/monocrystalline-vs-polycrystalline-solar-panels>
- [28] Chi-ming Lai, R.H. Chen, Novel heat dissipation design incorporating heat pipes for DC combiner boxes of a PV system, *Solar Energy*, Volume 85, Issue 9, 2011, Pages 2053-2060,
- [29] <https://etd.repository.ugm.ac.id/penelitian/detail/129151>
- [30] Saleheen Mohammed Zeehan, "Performance analysis, techno-economic assessment, and optimization of Grid Connected PV (GCPV) system for commercial building". Monash University Malaysia in 2020
- [31] Luiz Felipe de Oliveira Costa; Estellito Rangel; José Maria de Carvalho Filho; Rogério C. Barros IEEE Transactions on Industry Applications, "Differences and Similarities Between ANSI and IEC Cultures for MV Assemblies—The Brazilian Experience" 2014
- [32] Katherine A. Klise; Joshua S. Stein; Joseph Cunningham, "Application of IEC 61724 Standards to Analyze PV System Performance in Different Climates" IEEE Journal of Photovoltaics, Volume: 13, Issue: 5. 2017
- [33] A.M. Khalid, I. Mitra, W. Warmuth, V. Schacht. Performance ratio—Crucial parameter for grid connected PV plants. *Renewable and Sustainable Energy Reviews*. 65 (2016) 1139-58.
- [34] J. Leloux, L. Narvarte, D. Trebosc. Review of the performance of residential PV systems in Belgium. *Renewable and Sustainable Energy Reviews*. 16 (2012) 178-84.
- [35] F. Cherfa, A.H. Arab, R. Oussaid, K. Abdeladim, S. Bouchakour. Performance analysis of the mini-grid connected photovoltaic system at Algiers. *Energy Procedia*. 83 (2015) 226-36.
- [36] M. Hussin, A. Omar, Z. Zain, S. Shaari. Performance of grid-connected photovoltaic system in equatorial rainforest fully humid climate of Malaysia. *Int J Appl Power Eng(IJAPE)*. 2 (2013) 10514.
- [37] H.A.Kazem, M.T.Chaichan, A.H.Al-Waeli, K.Sopian. Evaluation of aging and performance of grid-connected photovoltaic system northern Oman: Sevenyears experimental study. *SolarEnergy*. 207(2020)1247-58.
- [38] R. Sharma, S. Goel. Performance analysis of a 11.2 kWp roof top grid-connected PV system in Eastern India. *Energy Reports*. 3 (2017) 76-84.

- [39] S. Mau, U. Jahn. Performance analysis of grid-connected PV systems. 21st EUPVSEC. (2006) 2676-80.
- [40] B.S. Kumar, K. Sudhakar. Performance evaluation of 10 MW grid connected solar photovoltaic power plant in India. Energy reports. 1 (2015) 184-92.
- [41] R. Srivastava, A. Tiwari, V. Giri. An overview on performance of PV plants commissioned at different places in the world. Energy for Sustainable Development. 54 (2020) 51-9.
- [42] H.A. Kazem, M.T. Chaichan, A.H. Al-Waeli, K. Sopian. Evaluation of aging and performance of grid-connected photovoltaic system northern Oman: Seven years' experimental study. Solar
- [43] R.H. Chaudhari, B.H. Chaudhari, P.D. Chavda, V.L. Aal. To study the temporal variation of capacity utilization factor (CUF) of PV based solar power plant with respect to climatic condition. Current World Environment. 11 (2016) 654.
- [44] S. Sreenath, K. Sudhakar, A. Yusop, E. Solomin, I. Kirpichnikova. Solar PV energy system in Malaysian airport: Glare analysis, general design and performance assessment. Energy Reports. 6 (2020) 698-712.
- [45] J.M. Xavier. Performance Analysis of a PV Grid-connected System at the Universidade Nacional Timor Lorosa'e. (2019).
- [46] Z. Corba, B. Popadic, D. Milicevic, B. Dumnic, V.A. Katic. A Long-Term Condition Monitoring and Performance Assessment of Grid Connected PV Power Plant with High Power Sizing Factor under Partial Shading Conditions. Energies. 13 (2020) 4810.
- [47] P. Ramanan, A. Karthick. Performance analysis and energy metrics of grid-connected photovoltaic systems. Energy for Sustainable Development. 52 (2019) 104-15.
- [48] K. Vidyanandan. An overview of factors affecting the performance of solar PV systems. Energy Scan. 27 (2017) 2-8.
- [49] L. Ayompe, A. Duffy, S. McCormack, M. Conlon. Measured performance of a 1.72 kW rooftop grid connected photovoltaic system in Ireland. Energy conversion and management. 52 (2011) 816-25.
- [50] S. Edalati, M. Ameri, M. Iranmanesh. Comparative performance investigation of mono- and poly-crystalline silicon photovoltaic modules for use in grid-connected photovoltaic systems in dry climates. Applied Energy. 160 (2015) 255-65.
- [51] F. Tahri, A. Tahri, T. Oozeki. Performance evaluation of grid-connected photovoltaic systems based on two photovoltaic module technologies under tropical climate conditions. Energy Conversion and Management. 165 (2018) 244-52.
- [52] L. Kamanja, V. Komarala, V. Dutta, S. Waita and K. Wachira, "Techno-Economic Analysis of a Rooftop Grid-connected Photovoltaic Solar System: A case study of Jomo

Kenyatta University of Agriculture and Technology (SAJOREC)," 2022 IEEE PES/IAS PowerAfrica, Kigali, Rwanda, 2022,

- [53] M. T. Patel, R. Asadpour, M. Woodhouse, C. Deline and M. A. Alam, "LCOE\*: Re-thinking LCOE for Photovoltaic Systems," 2019 IEEE 46th Photovoltaic Specialists Conference (PVSC), Chicago, IL, USA, 2019, pp. 1711-1713
- [54] I Kadek Adi Febriana Putra, Ida Ayu Dwi Giriantari, I Wayan Sukerayasa. "ANALISIS PENGHEMATAN BIAYA LISTRIK DI KANTOR DINAS KETENAGAKERJAAN DAN ESDM PROVINSI BALI PASCA TERPASANG PLTS ATAP 40 KWP" Jurnal SPEKTRUM Vol. 9, No. 2 Juni 2022
- [55] Laila Febrina, Dedy Wahyudi, Refsiela Dwi Harki "KAJIAN EMISI CO<sub>2</sub> BERDASARKAN JEJAK KARBON SEKUNDER DI LINGKUNGAN UNIVERSITAS SAHID JAKARTA" sustainable Environmental and optimizing industry jurnal , Vol 3, No 1 (2021)
- [56] Fthenakis, V., & Kim, H. C. (2011). Photovoltaics: Life-cycle analyses. Solar Energy, 85(8), 1609-1628.
- [57] Duffie, J.A., & Beckman, W.A. (2013). Solar Engineering of Thermal Processes (4th Edition). John Wiley & Sons
- [58] Muneer, T., Asif, M., & Munawwar, S. (2005). Sustainable production of solar electricity with particular reference to the Indian economy. Renewable and Sustainable Energy Reviews, 9(5), 444-473.
- [59] L.D. Mensah, J.O. Yamoah, M.S. Adaramola. Performance evaluation of a utility-scale gridtied solar photovoltaic (PV) installation in Ghana. Energy for sustainable development. 48 (2019) 82-7.
- [60] V. Sharma, S. Chandel. Performance analysis of a 190 kWp grid interactive solar photovoltaic power plant in India. Energy. 55 (2013) 476-85.
- [61] Branker, K., Pathak, M. J. M., & Pearce, J. M. (2011). A review of solar photovoltaic levelized cost of electricity. Renewable and Sustainable Energy Reviews, 15(9), 4470-4482. DOI: 10.1016/j.rser.2011.07.104
- [62] [https://voi.id/en/economy/417429#google\\_vignette](https://voi.id/en/economy/417429#google_vignette)
- [63] <https://www.bi.go.id/en/statistik/indikator/data-inflasi.aspx>
- [64]<https://setkab.go.id/pemerintah-terbitkan-aturan-terbaru-plts-atap-kapasitas-pemasangan-tidak-dibatasi/>
- [65] Model of Operation-and-Maintenance Costs for Photovoltaic Systems Andy Walker,<sup>1</sup> Eric Lockhart,<sup>1</sup> Jal Desai,<sup>1</sup> Kristen Ardani, <sup>1</sup> Geoff Klise,<sup>2</sup> Olga Lavrova,<sup>2</sup> Tom Tansy,<sup>3</sup> Jessie Deot,<sup>3</sup> Bob Fox,<sup>3</sup> and Anil Pochiraju<sup>3</sup>, National Renewable Energy Laboratory (NREL)2020. <https://www.nrel.gov/docs/fy20osti/74840.pdf>

- [67] Benchmarking Utility-Scale PV Operational Expenses and Project Lifetimes: Results from a Survey of U.S. Solar Industry Professionals Ryan Wiser, Mark Bolinger, and Joachim Seel, Lawrence Berkeley National Laboratory, 2020 [https://eta-publications.lbl.gov/sites/default/files/solar\\_life\\_and\\_opex\\_report.pdf](https://eta-publications.lbl.gov/sites/default/files/solar_life_and_opex_report.pdf)
- [68] Cherfa F, Hadj Arab A, Oussaid R, Abdeladim K, Bouchakour S. Performance analysis of the mini-grid connected photovoltaic system at Algiers. Energy Procedia 2015;83:226–36. <https://doi.org/10.1016/j.egypro.2015.12.177>
- [69] El Banany, Cheikh, Sidi, Elhadj, Lamine, Ndiaye Mamadou, Menny, El Bah, Abdulkarim, Mbodji, Ababacar, Ndiaye, & Alioune, Ndiaye Papa (2016). Performance analysis of the first large-scale (15 MWp) grid-connected photovoltaic plant in Mauritania. Energy Conversion and Management, 119,411–421. <https://doi.org/10.1016/j.enconman.2016.04.070>.
- [70] AL-Rasheedi, Majed, Gueymard, Christian A., Al-Khayat, Mohammad, Ismail, Alaa, Lee, Jared A., & Al-Duaj, Hamad (2020). Performance evaluation of a utility-scale dual-technology photovoltaic power plant at the Shagaya Renewable Energy Park in Kuwait. Renewable and Sustainable Energy Reviews. <https://doi.org/10.1016/j.rser.2020.110139>.
- [71] Alshare, Aiman, Tashtoush, Bourhan, Altarazi, Safwan, & El-khalil, Hossam(2020). Energy and economic analysis of a 5 MW photovoltaic system in Northern Jordan. Case Studies in Thermal Engineering. <https://doi.org/10.1016/j.csite.2020.100722>.
- [72] Martín-Martínez, S., Cañas-Carretón, M., Honrubia-Escribano, A., & Gómez-Lázaro, E. (2019). Performance evaluation of large solar photovoltaic power plants in Spain. Energy Conversion and Management, 183,515–528. <https://doi.org/10.1016/j.enconman.2018.12.116>.
- [73] Lena, D. Mensah, Yamoah, John O., & Adaramola, Muyiwa S. (2019). Performance evaluation of a utility-scale grid-tied solar photovoltaic (PV) installation in Ghana. Energy for Sustainable Development, 48,82–87. <https://doi.org/10.1016/j.esd.2018.11.003>.
- [74] Cubukcu, Mete, & Gumus, Harun (2020). Performance analysis of a grid-connected photovoltaic plant in eastern Turkey. Sustainable Energy Technologies and Assessments. <https://doi.org/10.1016/j.seta.2020.100724>.
- [75] Salas et al. (2006) Review of the maximum power point tracking algorithms for stand-alone photovoltaic systems. Solar Energy Materials and Solar Cells. 2. Esram et al. (2007) Comparison of photovoltaic array maximum power point tracking techniques. IEEE Transactions on Energy Conversion.
- [76] Esram, T., & Chapman, P. L. (2007). Comparison of photovoltaic array maximum power point tracking techniques. IEEE Transactions on Energy Conversion.
- [77] Walker, G. (2001). Evaluating MPPT converter topologies using a MATLAB PV model. Journal of Electrical & Electronics Engineering, 21(1), 49-56. <https://doi.org/10.1049/iee-rpg:20010700>

- [78] Yakobus Kariongan1, Joni2 "Evaluasi Kinerja Pembangkit Listrik Tenaga Surya Terpusat 20 KWP di Kampung Ampas Distrik Waris Kabupaten Keerom" ISSN: 2614-3097(online) Jurusan Teknik Elektro, Fakultas Teknik, Universitas Cenderawasih Halaman 3591-3598 Volume 6 Nomor 1 Tahun 2022
- [79] Eka Meilia Suryanti11, Rosmaliati21,Ida Bagus Fery Citarsa31 "Photovoltaic System Performance Analysis On-Grid On Solar Power Plant (PLTS) Gili Trawangan" Dielektrika, ISSN 2086-9487 Vol. 1, No. 2 : 82 - 95, Agustus 2014
- [80]. S. M. A. Solar and T. Ag, "Performance ratio-Quality factor for the PV plant," Sma, pp. 1–9, 2016.
- [81] Adrian Mansur "Analisa Kinerja Plts On Grid 50 Kwp Akibat Efek Bayangan Menggunakan Software Pvsys" Transmisi, 23, (1), Januari 2021, p-ISSN 1411-0814 e-ISSN 2407-642
- [82] T. Aziz, N. Ketjoy and C. Sirisamphanwong, "Determination of PV module power output degradation after long term operation," *2014 International Conference and Utility Exhibition on Green Energy for Sustainable Development (ICUE)*, Pattaya, Thailand, 2014, pp. 1-6.
- [83] A. S. Kumar, Sreeranganayakulu, B. L. Prasanna, G. Kavya, G. D. Reddy and S. K. Mohiddin, "Reliability Assessment of PV Inverter Considering Degradation Rate and Panel Oversizing," 2024 Fourth International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT), Bhilai, India, 2024, pp. 1-5, doi: 10.1109/ICAECT60202.2024.10469089.
- [84] Jordan, D.C. & Kurtz, S.R. (2013). Photovoltaic Degradation Rates—An Analytical Review. *Progress in Photovoltaics: Research and Applications*.
- [85] IEC 60891: Procedures for temperature and irradiance corrections to measured I-V characteristics of crystalline silicon photovoltaic devices.
- [86] Fthenakis, V. M., & Kim, H. C. (2011). Photovoltaics: Life-cycle analyses. *Solar Energy*, 85(8), 1609-1628.
- [87] International Renewable Energy Agency (IRENA), "Renewable Energy Technologies: Life Cycle Greenhouse Gas Emissions".