

DAFTAR PUSTAKA

- [1] E. Kabalci, "Design and analysis of a hybrid renewable energy plant with solar and wind power," *Energy Convers. Manag.*, vol. 72, pp. 51–59, Aug. 2013, doi: 10.1016/j.enconman.2012.08.027.
- [2] KESDM, "Tambah 40.000 MW dalam 10 Tahun ke Depan, 52 Persen dari EBT," *ESDM*, 2021. <https://www.esdm.go.id/id/media-center/arsip-berita/tambah-40000-mw-dalam-10-tahun-ke-depan-52-persen-dari-ebt> (accessed Oct. 06, 2022).
- [3] UNFCCC, "The Paris Agreement," 2015. [Online]. Available: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
- [4] Direktorat Jenderal Ketenagalistrikan, "Sikronisasi Proses Perizinan Kabel Listrik Bawah Laut dengan Kepmen Kelautan dan Perikanan No 14 Tahun 2021," Jakarta, 2021.
- [5] L. Adrianto, F. Kurniawan, A. Romadhon, and D. G. Bengen, "Assessing social-ecological system carrying capacity for urban small island tourism: The case of Tidung Islands, Jakarta Capital Province, Indonesia," *Ocean Coast. Manag.*, vol. 212, p. 105844, Oct. 2021, doi: 10.1016/j.ocecoaman.2021.105844.
- [6] M. J. Mayer, "Effects of the meteorological data resolution and aggregation on the optimal design of photovoltaic power plants," *Energy Convers. Manag.*, vol. 241, p. 114313, Aug. 2021, doi: 10.1016/j.enconman.2021.114313.
- [7] H. Zsiborács, L. Zentkó, G. Pintér, A. Vincze, and N. H. Baranyai, "Assessing shading losses of photovoltaic power plants based on string data," *Energy Rep.*, vol. 7, pp. 3400–3409, Nov. 2021, doi: 10.1016/j.egyr.2021.05.038.
- [8] E. Bullich-Massagué *et al.*, "A review of energy storage technologies for large scale photovoltaic power plants," *Appl. Energy*, vol. 274, p. 115213, Sep. 2020, doi: 10.1016/j.apenergy.2020.115213.
- [9] S. Bentouba, M. Bourouis, N. Zioui, A. Pirashanthan, and D. Velauthapillai, "Performance assessment of a 20 MW photovoltaic power plant in a hot climate using real data and simulation tools," *Energy Rep.*, vol. 7, pp. 7297–7314, Nov. 2021, doi: 10.1016/j.egyr.2021.10.082.
- [10] M. Dehghan, S. Rahgozar, A. Pourrajabian, M. Aminy, and F.-S. Halek, "Techno-economic perspectives of the temperature management of photovoltaic (PV) power plants: A case-study in Iran," *Sustain. Energy Technol. Assess.*, vol. 45, p. 101133, Jun. 2021, doi: 10.1016/j.seta.2021.101133.
- [11] N. Ahmed *et al.*, "Techno-economic potential assessment of mega scale grid-connected PV power plant in five climate zones of Pakistan," *Energy Convers. Manag.*, vol. 237, p. 114097, Jun. 2021, doi: 10.1016/j.enconman.2021.114097.



- [12] L. Sens, U. Neuling, and M. Kaltschmitt, "Capital expenditure and levelized cost of electricity of photovoltaic plants and wind turbines – Development by 2050," *Renew. Energy*, vol. 185, pp. 525–537, Feb. 2022, doi: 10.1016/j.renene.2021.12.042.
- [13] G. Rediske, H. P. Burin, P. D. Rigo, C. B. Rosa, L. Michels, and J. C. M. Siluk, "Wind power plant site selection: A systematic review," *Renew. Sustain. Energy Rev.*, vol. 148, p. 111293, Sep. 2021, doi: 10.1016/j.rser.2021.111293.
- [14] A. B. Attya, J. L. Dominguez-Garcia, and O. Anaya-Lara, "A review on frequency support provision by wind power plants: Current and future challenges," *Renew. Sustain. Energy Rev.*, vol. 81, pp. 2071–2087, Jan. 2018, doi: 10.1016/j.rser.2017.06.016.
- [15] S. M. Shaahid, L. M. Alhems, and M. K. Rahman, "Potential of Development of Wind Farms in Turaif Saudi Arabia-A Case Study to Mitigate the Challenges of Fossil Fuel Depletion," *Int. J. Appl. Eng. Res.*, vol. 13, no. 3, pp. 1798–1804, 2018.
- [16] S. M. Shaahid, L. M. Al-Hadhrami, and M. K. Rahman, "Economic feasibility of development of wind power plants in coastal locations of Saudi Arabia – A review," *Renew. Sustain. Energy Rev.*, vol. 19, pp. 589–597, Mar. 2013, doi: 10.1016/j.rser.2012.11.058.
- [17] W. El-Osta and Y. Kalifa, "Prospects of wind power plants in Libya: a case study," *Renew. Energy*, p. 9, 2003.
- [18] R. Irawati, P. Ketenagalistrikan, J. C. R. Kav, and C. K. Lama, "Analisa Pembangkit Listrik Tenaga Hibrida untuk Pemenuhan Kebutuhan Energi Listrik di Pulau Pramuka," p. 13, 2012.
- [19] M. Jahangiri, A. Haghani, A. Mostafaeipour, A. Khosravi, and H. A. Raeisi, "Assessment of solar-wind power plants in Afghanistan: A review," *Renew. Sustain. Energy Rev.*, vol. 99, pp. 169–190, Jan. 2019, doi: 10.1016/j.rser.2018.10.003.
- [20] G. Vaičiūnas, G. Bureika, and L. Liudvinavičius, "Expedience of Applying Solar and Wind Hybrid Power-plants in Railway Infrastructure Objects," *Procedia Eng.*, vol. 134, pp. 9–13, 2016, doi: 10.1016/j.proeng.2016.01.030.
- [21] S. Saodah and R. Amalia, "Perancangan Pembangkit Hybrid Angin-Surya di Desa Parangtritis Yogyakarta," 2013.
- [22] W. Yu and X. Qian, "Design of 3KW Wind and Solar Hybrid Independent Power Supply System for 3G Base Station," in *2009 Second International Symposium on Knowledge Acquisition and Modeling*, Wuhan, China, 2009, pp. 289–292. doi: 10.1109/KAM.2009.114.



- [23] J. Chang and Shu-Yun Jia, "Modeling and application of wind-solar energy hybrid power generation system based on multi-agent technology," in *2009 International Conference on Machine Learning and Cybernetics*, Baoding, China, Jul. 2009, pp. 1754–1758. doi: 10.1109/ICMLC.2009.5212325.
- [24] F. Petrakopoulou, A. Robinson, and M. Loizidou, "Simulation and evaluation of a hybrid concentrating-solar and wind power plant for energy autonomy on islands," *Renew. Energy*, vol. 96, pp. 863–871, Oct. 2016, doi: 10.1016/j.renene.2016.05.030.
- [25] SteagEnergyServices, "EBSILONProfessional," 2012.
- [26] A. Couto and A. Estanqueiro, "Assessment of wind and solar PV local complementarity for the hybridization of the wind power plants installed in Portugal," *J. Clean. Prod.*, vol. 319, p. 128728, Oct. 2021, doi: 10.1016/j.jclepro.2021.128728.
- [27] A. Emrani, A. Berrada, and M. Bakhouya, "Optimal sizing and deployment of gravity energy storage system in hybrid PV-Wind power plant," *Renew. Energy*, vol. 183, pp. 12–27, Jan. 2022, doi: 10.1016/j.renene.2021.10.072.
- [28] D. Hidayanti and G. Dewangga, "Rancang Bangun Pembangkit Hybrid Tenaga Angin dan Surya dengan Penggerak Otomatis pada Panel Surya," *Eksergi*, vol. 15, no. 3, p. 93, Feb. 2020, doi: 10.32497/eksergi.v15i3.1784.
- [29] DEN, "Potensi Energi Baru Terbarukan (EBT) Indonesia," 2017.
- [30] IESR, "Energi Terbarukan: Energi untuk Kini dan Nanti," 2017. [Online]. Available: http://www.iesr.or.id/wp-content/uploads/2018/11/COMS-PUB-0001_Briefing-Paper-1_Energi-Terbarukan.pdf
- [31] ESDM, "Data Statistik Energi Terbarukan," 2016.
- [32] G. Bekele, "Study into the Potential and Feasibility of a Standalone Solar-Wind Electric Energy Supply System," KTH, 2009.
- [33] A. Cotar, M. Taylor, and A. K. Akella, "Photovoltaic Systems, Commissioning Party: IRENA - Istrian Regional Energy Agency," 2012.
- [34] T. Suhartanto, "Analisis Kinerja Sistem Pembangkit Listrik Tenaga Hibrid (Angin dan Surya) di Pantai Baru Pandansimo Bantul Yogyakarta," Thesis, Universitas Gadjah Mada, Yogyakarta, 2013.
- [35] A. Al-Shamma'a, "Analysis and Simulation of Hybrid Renewable Power Systems for Rural Electrification in KSA," 2013.
- [36] W. Byrd, *Solar Electric System Basics*. 2007. [Online]. Available: http://lacleantech.net/solar_electric_systems.pdf



- [37] Solar Reviews, “Types of solar panels: which one is the best choice?,” *Solar Reviews*, 2021. <https://www.solarreviews.com/content/blog/pros-and-cons-of-monocrystalline-vs-polycrystalline-solar-panels> (accessed Aug. 02, 2022).
- [38] C. Wang, “Modeling and Control of Hybrid Wind/Photovoltaic/Fuel cell Distributed Generation Systems,” PhD Thesis, Montana State University, Bozeman, 2006.
- [39] ABB, *Technical Application Papers No.10 Photovoltaic Plants*.
- [40] Teacher Geek, *Types of Wind Turbines*. 2006. [Online]. Available: http://www.teachergeek.org/wind_turbine_types.pdf
- [41] Boston University Mechanical Engineering Department, *Wind Turbines*. 2010.
- [42] P. Jain, *Wind Energy Engineering*. McGraw-Hill, 2011.
- [43] H.-J. Wagner and J. Mathur, *Introduction to Wind Energy Systems: Basics, Technology, and Operation*. Springer, 2009.
- [44] M. R. Patel, *Wind and Solar Power Systems: Design, Analysis, and Operation*. CRC, 2005.
- [45] T. Ackermann, S. Diaf, and J. Mathur, *Wind Power in Power Systems*, vol. 140. Wiley Online Library, 2005.
- [46] S. Mathew, *Wind Energy: Fundamentals, Resource Analysis and Economics*. 2006.
- [47] D. Chiras, *Wind Power Basics: a Green Energy Guide*. New Society Publishers, 2010.
- [48] L. E. Weldemariam, “Gen-Set/Solar/Wind Hybrid Power System of Off-Grid Power Station for Rural Applications,” PhD Thesis, Delft University of Technology, Delft, Netherlands, 2010.
- [49] M. Stiebler, *Wind Energy Systems for Electric Power Generation*. Springer, 2008.
- [50] R. Pecen, M. Salim, and M. Timmerman, “A Hybrid Solar-Wind Power Generation System as an Instructional Resource for Industrial Technology Students,” *J. Ind. Technol.*, vol. 16, no. 3, pp. 1–7, 2008.
- [51] HOMER, “the Micro-Power Optimization Model; ver.2.68Beta.” NREL, 2009.
- [52] S. Nandi and H. Ghosh, “A Wind-PV-Battery Hybrid Power System at Sitakunda in Bangladesh,” *Energy Policy*, vol. 37, no. 9, pp. 3659–3664, 2009.



- [53] K. Kusakana and H. J. Vermaak, “Hybrid Diesel Generator/Renewable Energy System Performance Modelling,” *Renew. Energy*, vol. 67, 2014.
- [54] S. Phrakonkham, J.-Y. Le Chenadec, and D. Diallo, “Reviews on Micro-Grid Configuration and Dedicated Hybrid System Optimization Software Tools: Application to Laos,” *Eng. J.*, vol. 14, no. 3, pp. 15–34, 2010.
- [55] M. Wollny and M. Hermes, *Ac Coupled Hybrid Systems and Mini Grids*. ANZSES Solar, 2011.
- [56] M. Wollny and P. Mark, *Flexible Concept for Off Grid Electricity Supply: Current Trend for Village Solar Power Supply in Provinces of China*. SMA Technology AB, 2011.
- [57] A. Graillot, *Hybrid Micro Grids for Rural Electrification: Developing Appropriate Technology*. Trama Tecnoambiental, 2009.
- [58] D. Gielen, *Electricity Storage and Renewables for Island Power, a Guide for Decision Makers*. IRENA, 2012.
- [59] A. Kaabeche, M. Belhamel, and R. Ibtouen, “Optimal Sizing Method for Standalone Hybrid PV/Wind Power Generation System,” *Renew. Energy*, pp. 205–213, 2010.
- [60] S. Diaf, D. Diaf, and M. Belhamel, “A Methodology for Optimal Sizing of Autonomous Hybrid PV/Wind System,” *Energy Policy*, vol. 35, no. 11, pp. 5708–5718, 2007.
- [61] D. Kumar Lal, S. Diaf, and D. Diaf, “Optimization of PV/wind/Micro-Hydro/Diesel Hybrid Power System in HOMER,” *Electr. Eng. Inform.*, vol. 3, no. 3, pp. 307–325, 2011.
- [62] L. K. Gan, J. K. H. Shek, and M. A. Mueller, “Hybrid wind–photovoltaic–diesel–battery system sizing tool development using empirical approach, life-cycle cost and performance analysis: A case study in Scotland,” *Energy Convers. Manag.*, vol. 106, pp. 479–494, Dec. 2015, doi: 10.1016/j.enconman.2015.09.029.
- [63] Pemprov DKI Jakarta, “Keputusan Gubernur DKI Jakarta Nomor 1395 Tahun 2021 tentang UMP DKI Jakarta 2022.” 2021.
- [64] PEIMAR, “Peimar SG310MBF Datasheet.”
- [65] Canadian Solar, “CS6K - 300MS Datasheet.”
- [66] LONGi, “LR6-60-290 Datasheet.”
- [67] KESTREL, “Kestrel e400i Datasheet.”
- [68] Eocycle, “EO20 Datasheet.”



- [69] Eocycle, “EO10 Datasheet.”
- [70] EnerSys, “SBS PowerSafe Datasheet.”
- [71] STUDER, “Studer AJ 1300-24 Datasheet.”
- [72] A. Setiawan and E. Adhi Setiawan, “Optimization of a Photovoltaic Power Plant in Indonesia with Proper Tilt Angle and Photovoltaic Type using a System Advisor Model,” *Int. J. Technol.*, vol. 8, no. 3, p. 539, Apr. 2017, doi: 10.14716/ijtech.v8i3.8076.
- [73] R. Darussalam, A. Rajani, K. Kusnadi, and T. D. Atmaja, “Pengaturan Arah Azimuth dan Sudut Tilt Panel Photovoltaic untuk Optimalisasi Radiasi Matahari, Studi Kasus: Bandung - Jawa Barat,” in *Prosiding Seminar Nasional Fisika (E-Journal)*, 2016, pp. SNF2016-ERE-31-SNF2016-ERE-36. doi: 10.21009/0305020606.
- [74] The World Bank, “Indonesia | Data.” <https://data.worldbank.org/country/ID> (accessed Sep. 05, 2022).
- [75] BPS Kabupaten Administrasi Kepulauan Seribu, “Kepulauan Seribu Selatan dalam Angka 2021.” 2021.
- [76] C. O. P. Marpaung, U. Siahaan, S. A. Saputra, S. H. Munthe, and R. Sibarani, “Laporan Pengabdian Kepada Masyarakat,” p. 42, 2021.

