



DAFTAR PUSTAKA

- [1] S. Kumar and K. Rathore, “Renewable energy for sustainable development goal of clean and affordable energy,” International Journal of Materials Manufacturing and Sustainable Technologies, vol. 2, no. 1, pp. 1–15, Apr. 2023.
- [2] M. Gul, Y. Kotak, and T. Muneer, “Review on recent trend of solar photovoltaic technology,” Energy Exploration and Exploitation, vol. 34, no. 4, pp. 485–526, Jul. 2016.
- [3] A. Bala, M. B. Alao, A. O. Oyedun, O. O. Alabi, and M. Adamu, “Performance evaluation of a solar photovoltaic (pv) module at different solar irradiance,” International Journal of Engineering and Applied Sciences, vol. 16, no. 2, pp. 63–75, Jul. 2024.
- [4] T. Rahman et al., “Investigation of degradation of solar photovoltaics: A review of aging factors, impacts, and future directions toward sustainable energy management,” May 2023.
- [5] S. Wongrerkrdee, P. Kasemjit, S. Moungrijun, S. Sujinnapram, S. Krobthong, and S. Wongrerkrdee, “A simple improvement of an off-grid solar photovoltaic panel using an integrated reflector,” in Journal of Physics: Conference Series. IOP Publishing Ltd, Jan. 2022.
- [6] W. P. H. Siregar, M. Fawaid, H. Abizar, M. Nurtanto, Suhendar, and Suyitno, “Reflector and passive cooler for optimization of solar panel output,” in IOP Conference Series: Earth and Environmental Science. IOP Publishing Ltd, Apr. 2021.
- [7] J. S. Choi, B. G. Choi, J. H. Kim, S. T. Ryu, C. T. Rim, and Y. S. Kim, “New curved reflectors for significantly enhanced solar power generation in four seasons,” Energies (Basel), vol. 12, no. 23, Dec. 2019.
- [8] V. S. Hudîşteanu, N. C. Cherecheş, F. E. Ţurcanu, I. Hudîşteanu, and C. Romila, “Impact of temperature on the efficiency of monocrystalline and polycrystalline photovoltaic panels: A comprehensive experimental analysis for sustainable energy solutions,” Sustainability (Switzerland), vol. 16, no. 23, Dec. 2024.



- [9] S. M. Lee *et al.*, “Analysis of the output characteristics of a vertical photovoltaic system based on operational data: A case study in republic of korea,” *Energies (Basel)*, vol. 16, no. 19, Oct. 2023.
- [10] G. Badran and M. Dhimish, “Comprehensive study on the efficiency of vertical bifacial photovoltaic systems: a uk case study,” *Sci Rep*, vol. 14, no. 1, Dec. 2024.
- [11] W. O. A. Al-Rashidy and A. A. Azooz, “Efficiency of vertically installed solar pv panels,” *Applied Solar Energy (English translation of Geliotekhnika)*, vol. 60, no. 3, pp. 400–410, Jun. 2024.
- [12] M. I. Hussain and J. T. Kim, “Energy and economic potential of a concentrated photovoltaic/thermal (cpv/t) system for buildings in south korea,” *Journal of Asian Architecture and Building Engineering*, vol. 18, no. 2, pp. 142–147, Mar. 2019.
- [13] T. E. Putri *et al.*, “Support information performance characteristics of bifacial dye-sensitized solar cells with a v-shape low concentrating light system author information corresponding author,” <https://orcid.org/0000-0001-9687->, accessed: May 15, 2025.
- [14] J. Reagan, B. McKuin, and S. Kurtz, “Reflector candidates for a vertical bifacial solar canal,” in *Conference Record of the IEEE Photovoltaic Specialists Conference*. Institute of Electrical and Electronics Engineers Inc., 2023.
- [15] R. W. Andrews, A. Pollard, and J. M. Pearce, “Photovoltaic system performance enhancement with nontracking planar concentrators: Experimental results and bidirectional reflectance function (bdrf)-based modeling,” *IEEE J Photovolt*, vol. 5, no. 6, pp. 1626–1635, Oct. 2015.
- [16] Y. Yu, N. Liu, G. Li, and R. Tang, “Performance comparison of cpcs with and without exit angle restriction for concentrating radiation on solar cells,” *Appl Energy*, vol. 155, pp. 284–293, Oct. 2015.
- [17] C. Jin S., K. Ji H., and R. Chun T., “Incidence solar power analysis of pv panels with curved reflectors,” *IEEE*, vol. 18, 2017.
- [18] A. Shariah and E. Hasan, “Design of a new static solar concentrator with a high concentration ratio and a large acceptance angle based on bifacial solar cells,” *Clean Energy*, vol. 7, no. 3, pp. 509–518, Jun. 2023.



- [19] M. M. Tawhid and M. Ali, "Efficiency enhancement of solar cell using mirror concentrator," BIBECHANA, vol. 21, no. 2, pp. 142–149, Jun. 2024.
- [20] A. F. Machado da Costa, R. A. Marques Lameirinhas, C. Pinho Correia Valério Bernardo, J. P. Neto Torres, and M. Santos, "The modeling of concentrators for solar photovoltaic systems," Energies, vol. 17, no. 13, Jul. 2024.
- [21] D. S. Kumar, G. M. Yagli, M. Kashyap, and D. Srinivasan, "Solar irradiance resource and forecasting: a comprehensive review," Jul. 2020.
- [22] "Global solar atlas," <https://globalsolaratlas.info/map>, accessed: May 15, 2025.
- [23] M. A. Green, K. Emery, Y. Hishikawa, W. Warta, and E. D. Dunlop, "Solar cell efficiency tables (version 45)," Progress in Photovoltaics: Research and Applications, vol. 23, no. 1, pp. 1–9, Jan. 2015.
- [24] A. C. LazaroIU, M. G. Osman, C. V. Strejoiu, and G. LazaroIU, "A comprehensive overview of photovoltaic technologies and their efficiency for climate neutrality," Dec. 2023.
- [25] M. A. Green and S. P. Bremner, "Energy conversion approaches and materials for high-efficiency photovoltaics," Nat Mater, vol. 16, no. 1, pp. 23–34, Dec. 2016.
- [26] M. Laurensia and L. Halim, "Optimizing solar panel efficiency utilizing reflectors and water treatment techniques," Journal of Energy Systems, vol. 8, no. 2, pp. 116–129, Jun. 2024.
- [27] A. S. Al-Ezzi and M. N. M. Ansari, "Photovoltaic solar cells: A review," Aug. 2022.
- [28] I. Putri and R. E. Putri, Rancang Bangun Mini Greenhouse Dengan Sumber Tenaga Listrik dari Panel Surya. Uwais Inspirasi Indonesia, 2023.
- [29] J. P. L. G. Barrios et al., "The use of convex lens as primary concentrator for multi-junction solar cells," Emergent Scientist, vol. 2, p. 5, 2018.
- [30] P. Maithili and K. Kanakaraj, "A charge controller techniques for solar pv system," Int J Eng Adv Technol, vol. 8, no. 6 Special Issue 3, pp. 2015–2017, Sep. 2019.
- [31] A. S. Putra, H. Afianti, and R. Watiasih, "Comparative analysis of solar charge controller performance between mppt and pwm on solar panels," JEECS (Journal of Electrical Engineering and Computer Sciences), vol. 7, no. 1, pp. 1197–1202, Jan. 2023.



- [32] A. Mengal, M. A. Uqaili, K. Harijan, and A. G. Memon, “Competitiveness of wind power with the conventional thermal power plants using oil and natural gas as fuel in pakistan,” in Energy Procedia, vol. 52. Elsevier Ltd, 2014, pp. 59–67.
- [33] “Suncalc - sunrise, sunset, shadow length, solar eclipse, sun position, sun phase, sun height, sun calculator, sun movement, map, sunlight phases, elevation, photovoltaic system, photovoltaic.”