

DAFTAR PUSTAKA

- Adiansyah, J. S., Agusdinata, D. B., & Putra, A. P. (2025). Environmental impacts of solar PV energy systems for small-island communities in Indonesia: A life cycle assessment approach. *Energy for Sustainable Development*, 85. <https://doi.org/10.1016/j.esd.2025.101651>
- Ann Curran Hoboken, M., & Nuss, P. (2015). *Book Review Life Cycle Assessment Handbook: A Guide for Environmentally Sustainable Products*. <https://doi.org/10.1111/jiec.12217/abstract>
- Asirin, A., Siregar, H., Juanda, B., & Indraprahasta, G. S. (2023). Kemajuan Perencanaan dan Dampak Potensial Pembangunan Pembangkit Listrik Tenaga Surya Terapung Skala Utilitas di Waduk Cirata, Jawa Barat. *Jurnal Wilayah dan Lingkungan*, 11(2), 108–125. <https://doi.org/10.14710/jwl.11.2.108-125>
- Badan Standardisasi Nasional. (2016). *Standar Nasional Indonesia ISO 14040:2016: Manajemen Lingkungan-Penilaian Daur Hidup-Prinsip dan Kerangka Kerja*.
- Brata, A. K., Ismayana, A., & Yani, M. (2018). Life Cycle assessment of gasoline and gasoil on production process in Hydroskimming complex – Hydrocracking complex refinery field. *Jurnal Pengelolaan Sumberdaya Alam dan Lingkungan (Journal of Natural Resources and Environmental Management)*, 8(3), 406–413. <https://doi.org/10.29244/jpsl.8.3.406-413>
- Budi, I. D., Widodo, S., Sitohang, N. S., Sulisty, H. D., & Kaharudin, D. (2024). Comparative Life Cycle Assessment of Floating and Ground-Mounted Utility PV System in Cirata, Indonesia. *ICT-PEP 2024 - International Conference on Technology and Policy in Energy and Electric Power: Resilient Power Systems: Navigating the Clean Energy Transition, Proceedings*, 376–381. <https://doi.org/10.1109/ICT-PEP63827.2024.10732896>
- Cazzaniga, R., Cicu, M., Rosa-Clot, M., Rosa-Clot, P., Tina, G. M., & Ventura, C. (2018). Floating photovoltaic plants: Performance analysis and design solutions. *Renewable and Sustainable Energy Reviews*, 81, 1730–1741. <https://doi.org/https://doi.org/10.1016/j.rser.2017.05.269>
- Cromratie Clemons, S. K., Salloum, C. R., Herdegen, K. G., Kamens, R. M., & Gheewala, S. H. (2021). Life cycle assessment of a floating photovoltaic system and feasibility for application in Thailand. *Renewable Energy*, 168, 448–462. <https://doi.org/10.1016/j.renene.2020.12.082>
- Dirjen Energi Baru Terbarukan dan Konservasi Energi. (2020). *Panduan Pengelolaan Lingkungan Pembangkit Listrik Tenaga Surya (PLTS)*. Jakarta.



- Finnveden, G., Hauschild, M. Z., Ekvall, T., Guinée, J., Heijungs, R., Hellweg, S., Koehler, A., Pennington, D., & Suh, S. (2009). Recent developments in Life Cycle Assessment. Dalam *Journal of Environmental Management* (Vol. 91, Nomor 1, hlm. 1–21). Academic Press. <https://doi.org/10.1016/j.jenvman.2009.06.018>
- Fraunhofer ISE. (2019). *Fraunhofer Institute for Solar Energy Systems Annual Report 2019/2020*.
- Frischknecht, R., Jungbluth, N., Althaus, H., Doka, G., Dones, R., Heck, T., Hellweg, A., Hischier, R., Nemecek, T., Rebitzer, G., dan Spielmann, M. (2004). *The Ecoinvent Database: Overview and Methodological Framework. International Journal of Life Cycle Assessment*. 10(1) : 3-9.
- Frischknecht, R., & Rebitzer, G. (2005). The ecoinvent database system: A comprehensive web-based LCA database. *Journal of Cleaner Production*, 13(13–14), 1337–1343. <https://doi.org/10.1016/j.jclepro.2005.05.002>
- Frischknecht, R., Stolz, P., Heath, G., Raugei, M., Sinha, P., & de Wild-Scholten, M. (2020). *Methodology Guidelines on Life Cycle Assessment of Photovoltaic Electricity* (4th ed.). IEA PVPS Task 12, International Energy Agency Photovoltaic Power Systems Programme. ieapvps.org.
- Fthenakis, V. M., Hyung, C. K., & Alsema, E. (2008). Emissions from photovoltaic life cycles. *Environmental Science and Technology*, 42(6), 2168–2174. <https://doi.org/10.1021/es071763q>
- Fthenakis, V. M., & Kim, H. C. (2011). Photovoltaics: Life-cycle analyses. *Solar Energy*, 85(8), 1609–1628. <https://doi.org/10.1016/j.solener.2009.10.002>
- Guinee, J. (2001). Handbook on Life Cycle Assessment. An Operational Guide to the ISO Standards. *The International Journal of Life Cycle Assessment*, 7, 311–313. <https://doi.org/10.1007/BF02978897>
- Güven, D. (2025). Assessing the environmental and economic viability of floating PV-powered green hydrogen: A case study on inland ferry operations in Türkiye. *Applied Energy*, 377. <https://doi.org/10.1016/j.apenergy.2024.124768>
- Hauschild, M. Z. (2005). *Assessing Environmental Impacts in a Life-Cycle Perspective. Environmental Science & Technology*.
- Hauschild, M. Z., Rosenbaum, R. K., & Olsen, S. I. (2018). *Life Cycle Assessment*.
- Huawei. (2020). *Product Carbon Footprint Report*.
- Huijbregts, M. A. J., Steinmann, Z. J. N., Elshout, P. M. F., Stam, G., Verones, F., Vieira, M., Zijp, M., Hollander, A., & van Zelm, R. (2017). ReCiPe2016: a harmonised life cycle impact assessment method at midpoint and endpoint level. *International Journal of Life Cycle Assessment*, 22(2), 138–147. <https://doi.org/10.1007/s11367-016-1246-y>



International Energy Agency (IEA). (2024, July). *Carbon Footprint Analysis of Floating PV Systems* (IEA PVPS Task 12 Report T12-29:2024). Paris: IEA-PVPS. iea-pvps.org.

IRENA. (2020). *Off-Grid Renewable Energy Statistics 2020*. www.irena.org

Jinkosolar. (2021). *Datasheet Bifacial Module With Dual Glass Higher Power Output Tiger Neo N-type 72HL4-BDV 550-570*. www.jinkosolar.com

Jolliet, P., Sbeih, M. S., Shaked, S., Jolliet, A., & Crettaz, P. (2016). *Environmental Life Cycle Assessment*. CRC Press.

Jolywood. (2023). *Environmental Product Declaration N-type Bifacial Double Glass Photovoltaic Modules JW-HD144N-182, JW-HD156N-182*. EPD International.

Liu, L., Sun, Q., Li, H., Yin, H., Ren, X., & Wennersten, R. (2019). Evaluating the benefits of Integrating Floating Photovoltaic and Pumped Storage Power System. *Energy Conversion and Management, 194*, 173–185. <https://doi.org/10.1016/j.enconman.2019.04.071>

Nallapaneni, M., Shauhrat, S., Pramod, R. (2018). *Chapter 12 Life Cycle Assessment and environmental impacts of solar PV System*.

Pimentel Da Silva, G. D., & Branco, D. A. C. (2018). Is floating photovoltaic better than conventional photovoltaic? Assessing environmental impacts. *Impact Assessment and Project Appraisal, 36*(5), 390–400. <https://doi.org/10.1080/14615517.2018.1477498>

PT PMSE. (2023). *As Built Drawing Detailed Mooring & Anchoring PLTS Terapung Cirata*. Laporan Internal Perusahaan.

PT PSME. (2023). *As Built Drawing of Floaters Assembly*.

PT PSME. (2023). *As Built Drawing of PV Module Assembly*.

PT PSME. (2023). Laporan Pelaksanaan RKL dan RPL Kegiatan PLTS Terapung 145 MWac Cirata Semester 2 – 2023.

PT PSME. (2024). Laporan Pelaksanaan RKL dan RPL Kegiatan PLTS Terapung 145 MWac Cirata Semester 2 – 2024.

Pusat Data dan Teknologi Informasi ESDM. (2020). *Laporan Inventarisasi Emisi GRK Bidang Energi*. Kementerian Energi dan Sumber Daya Mineral.

Reconsult. (2019). *Laporan Akhir Kajian Kelayakan PLTS Photovoltaic Terapung 145 MW AC di Reservoir Cirata*. PT Pembangkitan Jawa Bali.

Republik Indonesia. (2016). *Undang-Undang Nomor 16 Tahun 2016 tentang Pengesahan Paris Agreement to the United Nations Framework Convention on Climate Change*.



Republik Indonesia. (2017). *Undang-Undang Nomor 22 Tahun 2017 tentang Rencana Umum Energi Nasional*.

Samsurizal, Mauriraya, K. T., Fikri, M., Pasra, N., & Christianto. (2021). *Pengenalan Pembangkit Listrik Tenaga Surya (PLTS)*. Penerbit IT PLN.

SNI ISO 14040. (2016). *Manajemen Lingkungan - Penilaian Daur Hidup – Prinsip dan Kerangka Kerja*. Badan Standarisasi Nasional. Jakarta

SNI ISO 14044. (2017). *Manajemen Lingkungan - Penilaian Daur Hidup – Persyaratan dan Panduan*. Badan Standarisasi Nasional. Jakarta.

Sungrow. (2020). *Datasheet Inverter SG3125HV-30/SG3400HV-30 Outdoor Inverter for 1500Vdc System*.

Sungrow Power Supply Co., Ltd. (2024). *Environmental Product Declaration Central Power Inverter SG1100UD, SG2200UD, SG3300UD, SG4400UD*. EPD Italy.

Trapani, K., & Redón Santafé, M. (2014). A review of floating photovoltaic installations: 2007-2013. Dalam *Progress in Photovoltaics: Research and Applications* (Vol. 23, Nomor 4, hlm. 524–532). John Wiley and Sons Ltd. <https://doi.org/10.1002/pip.2466>

Zamagni, A., Pesonen, H. L., & Swarr, T. (2013). From LCA to Life Cycle Sustainability Assessment: Concept, practice and future directions. *International Journal of Life Cycle Assessment*, 18(9), 1637–1641. <https://doi.org/10.1007/s11367-013-0648-3>