

DAFTAR PUSTAKA

- [1] R. Romy and B. Trianto, "Energy Analysis of Diesel Engine With B30 at PLTD Selat Panjang," *J. Ocean. Mech. Aerosp. -science Eng.*, vol. 66, no. 2, pp. 63–67, 2022, doi: 10.36842/jomase.v66i2.282.
- [2] T. M. I. Riayatsyah, T. A. Geumpana, I. M. R. Fattah, and T. M. I. Mahlia, "Techno-Economic Analysis of Hybrid Diesel Generators and Renewable Energy for a Remote Island in the Indian Ocean Using HOMER Pro," *Sustain.*, vol. 14, no. 16, 2022, doi: 10.3390/su14169846.
- [3] I. A. Aditya, H. T. Paradongan, I. Prahastono, S. Kosasih, K. M. Banjar-Nahor, and N. I. Sinisuka, "Biomass power plant prospects in Indonesia's energy transition: IPP and PLN perspectives," *Heliyon*, vol. 10, no. 20, p. e38970, 2024, doi: 10.1016/j.heliyon.2024.e38970.
- [4] E. Widagdo, "Optimisasi Pola Pembebanan Daya Mesin Pembangkit Listrik Diesel SWD 16 TM410 Terhadap Efisiensi Konsumsi Bahan Bakar," *J. ELKHA*, vol. 5, no. 2, pp. 1–7, 2013.
- [5] A. Ilintamon *et al.*, "Analisis Unjuk Kerja Sistem Produksi Listrik Pada Pembangkit Listrik Tenaga Diesel Waena," *J. Tek. Elektro dan Komput.*, vol. 8, no. 3, pp. 133–142, 2019.
- [6] M. Ilham Amba and R. Dalimi, "Economic Analysis of Hybrid Power Plant (Solar-Diesel) on Kawaluso Island, North Sulawesi," *J. EECCIS (Electrics, Electron. Commun. Control. Informatics, Syst.)*, vol. 17, no. 1, pp. 13–21, 2023, doi: 10.21776/jeccis.v17i1.1633.
- [7] M. H. Imam Syaukani, Afrianto, "Simulasi Perancangan Pembangkit Hybrid (PLTS-PLTD) Menggunakan Homer di Pulau Bungin," *Impr. J. Teknol. dan Inf.*, vol. 4, no. 2, 2025.
- [8] M. A. Omar, "Techno-economic analysis of PV/diesel/battery hybrid system for rural community electrification: A case study in the Northern West Bank," *Energy*,

vol. 317, p. 134770, 2025.

- [9] A. B. A. Kusuma ST and R. Dalimi, “Analisa teknologi dan keekonomian de-dieselisasi PLTD Merawang menjadi Pembangkit Tenaga Angin / Tenaga Surya di Pulau Bangka, Bangka Belitung,” *J. Impresi Indones.*, vol. 4, no. 7, pp. 2576–2595, 2025, doi: 10.58344/jii.v4i7.6871.
- [10] T. W. Adi, E. Susanto, A. Caswito, R. S. Yuwono, T. Warsokusumo, and A. Y. Agung Nugroho, “Influence of Fossil Fuel Prices on Fossil and Renewable Electricity Consumptions, GDP, Inflation and Greenflation: A Case Study in the Asia Pacific Countries,” *Int. J. Energy Econ. Policy*, vol. 14, no. 4, pp. 48–56, 2024, doi: 10.32479/ijeep.15966.
- [11] C. Luerssen, O. Gandhi, T. Reindl, C. Sekhar, and D. Cheong, “Life cycle cost analysis (LCCA) of PV-powered cooling systems with thermal energy and battery storage for off-grid applications,” *Appl. Energy*, vol. 273, no. May, p. 115145, 2020, doi: 10.1016/j.apenergy.2020.115145.
- [12] X. Zhao, F. Gui, H. Chen, L. Fan, and P. Pan, “Life Cycle Cost Estimation and Analysis of Transformers Based on Failure Rate,” *Appl. Sci.*, vol. 14, no. 3, 2024, doi: 10.3390/app14031210.
- [13] M. L. WonJoon Oh, ChoongYeun Cho, “Life Cycle Cost Method for Safe and Effective Infrastructure Asset Management,” *Infrastructure, Eff. Manag. Asset*, 2023.
- [14] M. Riman Aprilah, Gunawan, and L. Pongsapan, “Analisis Pengaruh Konsumsi Bahan Bakar Terhadap Life Time to Overhaul Mesin Cummins Qsk 60 MCRS,” *J. Rekayasa Mesin dan Inov. Teknol.*, vol. 4, no. 2, pp. 2–6, 2023.
- [15] M. Altaf, W. S. Alaloul, M. A. Musarat, and A. H. Qureshi, “Life cycle cost analysis (LCCA) of construction projects: sustainability perspective,” *Environ. Dev. Sustain.*, vol. 25, no. 11, pp. 12071–12118, 2023.
- [16] G. Casella, L. Monferdini, B. Bigliardi, and E. Bottani, “Life cycle costing of a milling plant: a case study in Italy,” *Int. J. Interact. Des. Manuf.*, vol. 19, no. 10,

pp. 6885–6900, 2025, doi: 10.1007/s12008-025-02250-5.

- [17] G. O. Nwaorgu, D. T. Tamunodukobipi, and J. Theophilusk, “Service Lifespan Cost Analysis of a Marine Auxiliary Generator Using Manufacturer ’ s Manual,” vol. 2, no. 9, pp. 330–334, 2020, doi: 10.35629/5252-0209330334.
- [18] M. Michel *et al.*, “Optimizing Marine Diesel Engine Maintenance: a Proactive Cost-Efficiency Strategy,” *Int. Marit. Transp. Logist. Conf.*, vol. 13, no. Marlog 13, pp. 127–138, 2024.
- [19] A. Z. Albany and J. A. Saifuddin, “Analysis of the Effectiveness of Component Maintenance on PT.XYZ Water Pump Machines through the Life Cycle Cost (LCC) Approach,” *Adv. Sustain. Sci. Eng. Technol.*, vol. 7, no. 2, pp. 1–10, 2025, doi: 10.26877/asset.v7i2.856.
- [20] G. Casella, L. Monferdini, B. Bigliardi, and E. Bottani, “Life cycle costing of a milling plant: a case study in Italy,” *Int. J. Interact. Des. Manuf.*, pp. 1–16, 2025.
- [21] C. D. Rodríguez-Gallegos, O. Gandhi, M. Bieri, T. Reindl, and S. K. Panda, “A diesel replacement strategy for off-grid systems based on progressive introduction of PV and batteries: An Indonesian case study,” *Appl. Energy*, vol. 229, no. July, pp. 1218–1232, 2018, doi: 10.1016/j.apenergy.2018.08.019.
- [22] B. Ali and A. Nugroho, “Analisis Pemakaian Bahan Bakar High Speed Diesel dan Biodiesel (B30) terhadap Konsumsi Bahan Bakar dan Emisi Gas Buang Mesin Diesel PLTD 1.4 MW,” *Presisi*, vol. 18, no. 2, pp. 30–41, 2017.
- [23] A. Tripathi and M. Hari Prasad, “RCM based optimization of maintenance strategies for marine diesel engine using genetic algorithms,” *Int. J. Syst. Assur. Eng. Manag.*, vol. 15, no. 8, pp. 3757–3775, 2024.
- [24] L. Micheli, F. A. Sepúlveda-Vélez, and D. L. Talavera, “Impact of variable economic conditions on the cost of energy and the economic viability of floating photovoltaics,” *Heliyon*, vol. 10, no. 12, 2024, doi: 10.1016/j.heliyon.2024.e32354.

- [25] A. Sheth, D. Sarkar, and I. Mukhopadhyay, "Social benefit cost and life cycle cost analysis of sustainable biodiesel bus transport in India," *Int. J. Sustain. Eng.*, vol. 14, no. 2, pp. 123–136, 2021, doi: 10.1080/19397038.2020.1774818.
- [26] K. Jin, W. Jin, B. Liu, K. Wu, and Z. Wang, "Cost Calculation Model for Engineering Structures Based on a Life Cycle Perspective," *Buildings*, vol. 15, no. 16, pp. 1–31, 2025, doi: 10.3390/buildings15162923.
- [27] M. G. Danielson, "Tax Shields, the Weighted Average Cost of Capital, and the Appropriate Discount Rate for a Project with a Finite Useful Life," *J. Risk Financ. Manag.*, vol. 16, no. 9, 2023, doi: 10.3390/jrfm16090398.
- [28] A. B. S. Bahaj, M. Alam, and L. S. Blunden, "Management of environmental impacts of fossil fuel use in refugee camps through transition to renewable energy infrastructure: Case studies in Uganda and Bangladesh," *J. Environ. Manage.*, vol. 374, no. January, 2025, doi: 10.1016/j.jenvman.2025.124039.
- [29] S. Wieke, "Decision-making in major investment projects with a life cycle cost: improvement with sensitivity analysis and sustainability assessment," *Sci. Rev. Eng. Environ. Sci.*, vol. 33, no. 3, pp. 227–242, 2024, doi: 10.22630/srees.9824.
- [30] D. I. Pulau and G. Iyang, "Beban Kerja Pembangkit Listrik Tenaga Diesel," vol. 3, no. 1, pp. 171–179, 2025.
- [31] I. Susanto, W. Sunanda, and R. Kurniawan, "Analisis Pembangkit Tenaga Diesel Di Pulau Celagen," *Pros. Semin. Nas. Penelit. Pengabd. Pada Masy.*, pp. 122–126, 2020.
- [32] B. Karnanto, W. Winasis, and Y. Ramadhani, "Perancangan dan Analisis Tekno Ekonomi PLTH Diesel Generator-Photovoltaic Menggunakan Homer Di Pulau Sambu, Kepulauan Riau," *J. Pendidik. dan Teknol. Indones.*, vol. 3, no. 5, pp. 201–214, 2023, doi: 10.52436/1.jpti.289.
- [33] A. Padhil, A. Mail, and M. Jannah, "Analisis Pemeliharaan Mesin Swd 1 Menggunakan Metode Reliability Centered Maintenance Pada Pltd Tello," *J. Manaj. Rekayasa dan Inov. Bisnis*, vol. 2, no. 1, pp. 50–59, 2023.

- [34] S. P. Kanugrahan, D. F. Hakam, and H. Nugraha, “Techno-Economic Analysis of Indonesia Power Generation Expansion to Achieve Economic Sustainability and Net Zero Carbon 2050,” *Sustain.*, vol. 14, no. 15, 2022, doi: 10.3390/su14159038.
- [35] X. Ren, H. Jing, and Y. Zhang, “Construction of digital transformation capability of manufacturing enterprises: Qualitative meta-analysis based on current research,” *Sustainability*, vol. 15, no. 19, p. 14168, 2023.
- [36] F. Conte, F. D’Agostino, G. Mosaico, F. Silvestro, and S. Grillo, “An efficiency-based power management strategy for an isolated microgrid project,” in *2022 IEEE Power & Energy Society General Meeting (PESGM)*, IEEE, 2022, pp. 1–5.
- [37] A. Sugiyono, B. Wirjodirdjo, and E. Hilmawan, “The Potential of Renewable Energy to Replace Diesel Power Plants in Supporting Energy Transition in Indonesia,” *Key Eng. Mater.*, vol. 974, pp. 155–163, 2024.
- [38] S. Arif Dwi Santoso, “LIFE CYCLE COSTING DAN EKSTERNALITAS BIODIESEL DARI MINYAK SAWIT DAN MINYAK ALGA DI INDONESIA (Life Cycle Costing and Externities of Palm and Algal Biodiesel in Indonesia),” *J. People Environ.*, vol. 21, no. 2, pp. 162–169, 2014.
- [39] R. N. Rofiq Salam and E. Widodo, “Periodic Maintenance Analysis of Diesel Motor Generator Set 900 kVA Power as Backup Energy,” 2024. doi: 10.21070/pels.v7i0.1597.
- [40] E. Prastiyo, R. Stighfarrinata, and A. P. Farahdiansari, “Optimizing the Power Supply Planned Maintenance System With The Reliability Centered Maintenance (RCM) Method at PT. Pertamina EP Asset 4 Sukowati A Field JOSSE,” *JOSSE J. Soc. Sci. Econ.*, vol. 1, no. 1, pp. 119–130, 2022.
- [41] W. Hayatullah, S. P. Pratama, F. M. Yakut, and M. Rachman, “Analisis Performa Generator Set Diesel PLTD Terhadap Perubahan Beban di Pusat Pengembangan Sumber Daya Manusia Minyak dan Gas Bumi,” pp. 15–27, 2021.
- [42] Y. Witanto, I. Amsah, D. Zukri, A. Nuramal, and M. K. A. Rosa, “PERFORMANCE ANALYSIS OF DUAL FUEL DIESEL GENERATOR WITH

VARIATIONS IN LPG FLOW RATE AND AIR HOLE DIAMETER,” vol. 17, no. 2, pp. 102–112, 2023, doi: 10.24853/sintek.17.2.102-112.

- [43] A. Jaya, “Optimasi Biaya Bahan Bakar Pembangkit Listrik Tenaga Diesel Menggunakan Metode Pendekatan Simplex Optimization of Fuel Costs for Diesel Power Generation Using the Simplex Approach Case,” vol. 2, no. 2, pp. 112–118, 2021.
- [44] D. D. I. P. Lemukutan, “Studi teknis dan ekonomis sistem energi hibrida diesel-surya-angin di pulau lemukutan kabupaten bengkayang”.
- [45] V. Kartikasari, A. Y. Asmoro, A. Fajar, and P. Putra, “Penentuan Harga Tenaga Listrik pada Pembangkit Listrik Tenaga Surya dengan Metode Life Cycle Cost dan LCOE,” vol. 06, pp. 65–76, 2024.