



DAFTAR PUSTAKA

- Agbejule, A., Shamsuzzoha, A., Lotchi, K., & Rutledge, K. (2021). Application of multi-criteria decision-making process to select waste-to-energy technology in developing countries: The case of ghana. *Sustainability (Switzerland)*, 13(22). <https://doi.org/10.3390/su132212863>
- Ali, Y., Aslam, Z., Dar, H. S., & Mumtaz, U. U. (2018). A multi-criteria decision analysis of solid waste treatment options in Pakistan: Lahore City—a case in point. *Environment Systems and Decisions*, 38(4), 528–543. <https://doi.org/10.1007/s10669-018-9672-y>
- Anggoro, B., Aprilian, A., & Halimi, B. (2017). Potency of waste to energy - Bandung City case study. *International Conference on High Voltage Engineering and Power Systems, ICHVEPS 2017 - Proceeding, 2017-January*. <https://doi.org/10.1109/ICHVEPS.2017.8225929>
- Ardolino, F., Parrillo, F., & Arena, U. (2018). Biowaste-to-biomethane or biowaste-to-energy? An LCA study on *anaerobic digestion* of organic waste. *Journal of Cleaner Production*, 174, 462–476. <https://doi.org/10.1016/j.jclepro.2017.10.320>
- Azis, M. M., Kristanto, J., & Purnomo, C. W. (2021). A techno-economic evaluation of municipal solid waste (Msw) conversion to energy in indonesia. *Sustainability (Switzerland)*, 13(13). <https://doi.org/10.3390/su13137232>
- Azmi, M. (2014). *ANALISIS TEKNIK DAN EKONOMI PEMANFAATAN BIOMASSA SEBAGAI PEMBANGKIT ENERGI LISTRIK DI SURABAYA*.
- Basu, P. (2013a). *Biomass Gasification, Pyrolysis and Torrefaction*.
- Basu, P. (2013b). Gasification Theory. In *Biomass Gasification, Pyrolysis and Torrefaction* (pp. 199–248). Elsevier. <https://doi.org/10.1016/b978-0-12-396488-5.00007-1>
- Basu, P. (2013c). Pyrolysis. In *Biomass Gasification, Pyrolysis and Torrefaction* (pp. 147–176). Elsevier. <https://doi.org/10.1016/B978-0-12-396488-5.00005-8>
- BPSDM. (2018a). *Modul Teknologi WtE Termal Non-Insinerasi (Gasifikasi)*.
- BPSDM. (2018b). *Modul Teknologi WtE Termal Non-Insinerasi (Pirolisis)*.
- Broun, R., & Sattler, M. (2016). A comparison of greenhouse gas emissions and potential electricity recovery from conventional and bioreactor landfills. *Journal of Cleaner Production*, 112, 2664–2673. <https://doi.org/10.1016/j.jclepro.2015.10.010>
- Caiardi, F., Belaud, J. P., Vialle, C., Monlau, F., Tayibi, S., Barakat, A., Oukarroum, A., Zeroual, Y., & Sablayrolles, C. (2022). Waste-to-energy innovative system: Assessment of integrating *anaerobic digestion* and pyrolysis technologies.



Capuano Mascarenhas, L., Ness, B., Oloko, M., & Awuor, F. O. (2021). Multi-criteria analysis of municipal solid waste treatment technologies to support decision-making in Kisumu, Kenya. *Environmental Challenges*, 4. <https://doi.org/10.1016/j.envc.2021.100189>

Chaerul, M. (2011). *Composting Technology Selection: AHP Approach.* (in Indonesian). <https://www.researchgate.net/publication/320611676>

Cheela, V. R. S., John, M., Biswas, W. K., & Dubey, B. (2021). Environmental impact evaluation of current municipal solid waste treatments in India using life cycle assessment. *Energies*, 14(11). <https://doi.org/10.3390/en14113133>

Chhabra, V., Parashar, A., Shastri, Y., & Bhattacharya, S. (2021). Techno-economic and life cycle assessment of pyrolysis of unsegregated urban municipal solid waste in India. *Industrial and Engineering Chemistry Research*, 60(3), 1473–1482. <https://doi.org/10.1021/acs.iecr.0c04746>

Christanti, E. Y. I., Kumara, I. N. S., & Partha, C. G. I. (2022). Analisis Tekno-Ekonomi dari Refuse Derived Fuel (RDF) sebagai Waste To Energy (WTE) di TPA Pakusari Jember, Jawa Timur. *Majalah Ilmiah Teknologi Elektro*, 21(2), 201. <https://doi.org/10.24843/mite.2022.v21i02.p07>

Cikarge, G. P. (2022). *PEMILIHAN LOKASI PLTB DI KABUPATEN CILACAP MENGGUNAKAN KOMBINASI METODE AHP DAN TOPSIS.* Universitas Gadjah Mada.

Dinana, K. (2014). *KAJIAN TEKNO-EKONOMI PEMBANGKIT LISTRIK TENAGA SAMPAH TPA PIYUNGAN PROVINSI DIY.*

Dong, J., Tang, Y., Nzihou, A., & Chi, Y. (2019). Key factors influencing the environmental performance of pyrolysis, gasification and incineration Waste-to-Energy technologies. *Energy Conversion and Management*, 196, 497–512. <https://doi.org/10.1016/j.enconman.2019.06.016>

Dong, J., Tang, Y., Nzihou, A., Chi, Y., Weiss-Hortala, E., & Ni, M. (2020). Life cycle environmental assessment of thermal waste-to-energy technologies and energy–environment–economy model development. In *Waste-to-Energy* (pp. 111–151). Elsevier. <https://doi.org/10.1016/b978-0-12-816394-8.00005-7>

Elhamdouni, D., Arioua, A., Karaoui, I., Ait Ouhamchich, K., Faouzi, E., & Aba, B. (2022). The multi-criteria analysis (AHP) method use for the environmental problems management: case of the household waste in Morocco. *Euro-Mediterranean Journal for Environmental Integration*, 7(1), 13–20. <https://doi.org/10.1007/s41207-022-00293-8>

Elsha, W. (2022). *Studi Komparasi Teknologi Waste to Energy (WtE) pada Municipal Solid Waste Management (MSWM) di Provinsi Daerah Istimewa Yogyakarta.* Universitas Gadjah Mada.



- Feisal, A., & Surjosaty, A. (2021). Techno-Economic Analysis of Municipal Solid Waste Gasification System for Electric Generation, Case Study: City at Central Java. *IOP Conference Series: Earth and Environmental Science*, 926(1). <https://doi.org/10.1088/1755-1315/926/1/012110>
- Hermawan, F. S. (2017). *Penerapan Teknologi Waste to Energy (WTE) Pada Rencana Pembangunan Intermediate Treatment Facility (ITF) Sunter Jakarta Utara.*
- Hong, R. J., Wang, G. F., Guo, R. Z., Cheng, X., Liu, Q., Zhang, P. J., & Qian, G. R. (2006). Life cycle assessment of BMT-based integrated municipal solid waste management: Case study in Pudong, China. *Resources, Conservation and Recycling*, 49(2), 129–146. <https://doi.org/10.1016/j.resconrec.2006.03.007>
- Iqbal, A., Zan, F., Liu, X., & Chen, G. H. (2019). Integrated municipal solid waste management scheme of Hong Kong: A comprehensive analysis in terms of global warming potential and energy use. *Journal of Cleaner Production*, 225, 1079–1088. <https://doi.org/10.1016/j.jclepro.2019.04.034>
- Jeswani, H. K., & Azapagic, A. (2016). Assessing the environmental sustainability of energy recovery from municipal solid waste in the UK. *Waste Management*, 50, 346–363. <https://doi.org/10.1016/j.wasman.2016.02.010>
- Kaur, A., Bharti, R., & Sharma, R. (2021). Municipal solid waste as a source of energy. *Materials Today: Proceedings*. <https://doi.org/10.1016/j.matpr.2021.04.286>
- Khoo, H. H. (2009). Life cycle impact assessment of various waste conversion technologies. *Waste Management*, 29(6), 1892–1900. <https://doi.org/10.1016/j.wasman.2008.12.020>
- Kinandana, A. W., Zain, A. Z., Puryadi, Zahar, I., & Nur, M. (n.d.). *Gasifikasi Plasma Mengatasi Masalah Sampah Perkotaan dan Menghasilkan Energi Listrik.*
- Kumar, A., & Samadder, S. R. (2017). A review on technological options of waste to energy for effective management of municipal solid waste. In *Waste Management* (Vol. 69, pp. 407–422). Elsevier Ltd. <https://doi.org/10.1016/j.wasman.2017.08.046>
- Kurbatova, A., & Abu-Qdais, H. A. (2020). Using multi-criteria decision analysis to select waste to energy technology for a Mega city: The case of Moscow. *Sustainability (Switzerland)*, 12(23), 1–18. <https://doi.org/10.3390/su12239828>
- Lam, C. H. K., Ip, A. W. M., Barford, J. P., & McKay, G. (2010). Use of incineration MSW ash: A review. In *Sustainability* (Vol. 2, Issue 7, pp. 1943–1968). MDPI. <https://doi.org/10.3390/su2071943>
- Martowibowo, S., & Riyanto, H. (2011). Suitable multi criteria decision analysis tool for selecting municipal solid waste treatment in the city of bandung. *Journal of KONES*, 18(4).



Masebinu, S. O., Akinlabi, E. T., Muzenda, E., Mbohwa, C., Aboyade, A. O., & Mahlatsi,

T. (2016). Environmental sustainability: Multi-criteria decision analysis for resource recovery from organic fraction of municipal solid waste. *IEEE International Conference on Industrial Engineering and Engineering Management, 2016-December*, 1543–1547. <https://doi.org/10.1109/IEEM.2016.7798136>

Matheri, A. N., Mbohwa, C., Belaid, M., Soedigeng, T., Ngila, J. C., & Muzenda, E. (2016). *Waste to Energy Technologies from Organics Fraction of Municipal Solid Waste.*

Mulianingsih, S., Kunci, K., Pengolahan, M., Padat Perkotan, S., Pembuangan Akhir, T., Organik, S., & Non Organik, S. (2019). *MANAJEMEN SAMPAH PADAT DI KOTA BANDUNG DAN METODE ALTERNATIF PENGOLAHANNYA*. 2(1).

Octavianthy, D., & Purwanto, W. W. (2019). Municipal solid waste to electricity using *anaerobic digestion* and incineration conversion technologies: A comparative study. *2nd IEEE International Conference on Innovative Research and Development, ICIRD 2019*. <https://doi.org/10.1109/ICIRD47319.2019.9074751>

Parinduri, L., Parinduri, T., Kunci, K., Fosil, E., Biomassa, E., & Energi, K. (2020). Konversi Biomassa Sebagai Sumber Energi Terbarukan. In *Journal of Electrical Technology* (Vol. 5, Issue 2). <https://www.dosenpendidikan>.

Pasek, A. D., Gultom, K. W., & Suwono, A. (2013). Feasibility of recovering energy from municipal solid waste to generate electricity. *Journal of Engineering and Technological Sciences*, 45(3). <https://doi.org/10.5614/j.eng.technol.sci.2013.45.3.3>

PD Kebersihan Kota Bandung. (2019). *Laporan Tahunan 2018*.

Prabowo, B., Simanjuntak, F. S. H., Saldi, Z. S., Samyudia, Y., & Widjojo, I. J. (2019). Assessment of waste to energy technology in Indonesia: A techno-economical perspective on a 1000 ton/day scenario. *International Journal of Technology*, 10(6). <https://doi.org/10.14716/ijtech.v10i6.3607>

PTL BPPT. (2016). *INSINERASI UNTUK PENGOLAHAN SAMPAH KOTA*.

Putra, B. P., & Sinaga, N. (2021). TINJAUAN RINGKAS TEKNOLOGI GASIFIKASI PLASMA DALAM PENGOLAHAN LIMBAH PADAT MENJADI ENERGI BARU TERBARUKAN. *Teknik Energi*, 17, 133–144.

Qazi, W. A., Abushammala, M. F. M., & Azam, M. H. (2018a). Multi-criteria decision analysis of waste-to-energy technologies for municipal solid waste management in Sultanate of Oman. *Waste Management and Research*, 36(7), 594–605. <https://doi.org/10.1177/0734242X18777800>

Qazi, W. A., Abushammala, M. F. M., & Azam, M. H. (2018b). Multi-criteria decision analysis of waste-to-energy technologies for municipal solid waste management in Sultanate of Oman. *Waste Management and Research*, 36(7). <https://doi.org/10.1177/0734242X18777800>



Pemilihan Teknologi Waste to Energy dengan Metode Analytical Hierarchy Process di Tempat Pembuangan
Akhir Sarimukti Bandung Jawa Barat
Putri Vicky Hapsari, Ir. Rochim Bakti Cahyono, S.T., M.Sc., Ph.D., IPM ; Ir. Nur Aini Masruroh, S.T., M.Sc., Ph.D., IPM
Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>
Qomitan, F. D., Wayan Koko Suryawan, I., & Rahman, A. (2021). Overview of Municipal Solid Waste Generation and Energy Utilization Potential in Major Cities of Indonesia. *Journal of Physics: Conference Series*, 1858(1). <https://doi.org/10.1088/1742-6596/1858/1/012064>

Rachim, T. A. (2017). *LIFE CYCLE ASSESSMENT(LCA) PENGOLAHAN SAMPAH SECARA TERMAL (STUDI KASUS: TPA BENOWO, KOTA SURABAYA)*. Institut Teknologi Sepuluh Nopember.

Rahman, S. M. S., Azeem, A., & Ahammed, F. (2017). Selection of an appropriate waste-to-energy conversion technology for Dhaka City, Bangladesh. *International Journal of Sustainable Engineering*, 10(2), 99–104. <https://doi.org/10.1080/19397038.2016.1270368>

Rivera, Di. R. T., Arce, T. A., Abistano, F. R., Bathan, C. J., & Palo, A. A. (2021). Waste to Energy Technologies using Multi-Criteria Decision Analysis for Municipal Solid Waste Management in Manila City, Philippines. *2021 IEEE 13th International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management, HNICEM 2021*. <https://doi.org/10.1109/HNICEM54116.2021.9731978>

Saaty, T. L., & Katz, J. M. (1990). How to make a decision: The Analytic Hierarchy Process. *European Journal of Operational Research*, 48, 9–26.

Samah, M. A. A., Manaf, L. A., & Zukki, N. I. M. (2010). *Application of AHP Model for Evaluation of Solid Waste Treatment Technology*. www.techsciencepub.com/ijets

Shahnazari, A., Rafiee, M., Rohani, A., Bhushan Nagar, B., Ebrahimnik, M. A., & Aghkhani, M. H. (2020). Identification of effective factors to select energy recovery technologies from municipal solid waste using multi-criteria decision making (MCDM): A review of thermochemical technologies. *Sustainable Energy Technologies and Assessments*, 40. <https://doi.org/10.1016/j.seta.2020.100737>

Siregar, S. R. H., Saragih, B. R., & Surjosaty, A. (2018). Evaluation of Waste Energy Conversion Technology using Analytical Hierarchy Process in Bantargebang Landfill, Indonesia. *E3S Web of Conferences*, 67. <https://doi.org/10.1051/e3sconf/20186702012>

Soltani, A., Hewage, K., Reza, B., & Sadiq, R. (2015). Multiple stakeholders in multi-criteria decision-making in the context of municipal solid waste management: A review. *Waste Management*, 35, 318–328. <https://doi.org/10.1016/j.wasman.2014.09.010>

Styana, U. I., Indrawati, R., & Cahyono, M. S. (n.d.). *KARAKTERISASI PROSES GASIFIKASI SAMPAH ORGANIK DENGAN VARIASI JENIS BAHAN*. 3(1).

Sudibyo, H., Majid, A. I., Pradana, Y. S., Budhijanto, W., Deendarlianto, & Budiman, A. (2017a). Technological Evaluation of Municipal Solid Waste Management System in Indonesia. *Energy Procedia*, 105. <https://doi.org/10.1016/j.egypro.2017.03.312>



- Pemilihan Teknologi Waste to Energy dengan Metode Analytical Hierarchy Process di Tempat Pembuangan Akhir Sarimukti Bandung Jawa Barat**
Putri Vicky Hapsari, Ir. Rochim Bakti Cahyono, S.T., M.Sc., Ph.D., IPM ; Ir. Nur Aini Masruroh, S.T., M.Sc., Ph.D., IPM
Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>
- Sudibyo, H., Majid, A. I., Pradana, Y. S., Budhijanto, W., Deendarlianto, & Budiman, A. (2017b). Technological Evaluation of Municipal Solid Waste Management System in Indonesia. *Energy Procedia*, 105, 263–269. <https://doi.org/10.1016/j.egypro.2017.03.312>
- Sulistyono, D. (2012). *Analisis Potensi Pembangkit Listrik Tenaga GAS Batubara di Kabupaten Sintang Dedy Sulistyono*. 4(2).
- Tang, Y., Dong, J., Li, G., Zheng, Y., Chi, Y., Nzihou, A., Weiss-Hortala, E., & Ye, C. (2020). Environmental and exergetic life cycle assessment of incineration- and gasification-based waste to energy systems in China. *Energy*, 205. <https://doi.org/10.1016/j.energy.2020.118002>
- Thanh, N. P., & Matsui, Y. (2012). An evaluation of alternative household solid waste treatment practices using life cycle inventory assessment mode. *Environmental Monitoring and Assessment*, 184(6), 3515–3527. <https://doi.org/10.1007/s10661-011-2205-5>
- Thanh, N. P., & Matsui, Y. (2013). Assessment of potential impacts of municipal solid waste treatment alternatives by using life cycle approach: A case study in Vietnam. *Environmental Monitoring and Assessment*, 185(10), 7993–8004. <https://doi.org/10.1007/s10661-013-3149-8>
- Thirugnanam, G., & Vignesh, P. (2013). *Refuse Derived Fuel To Electricity*. <https://www.researchgate.net/publication/265684610>
- Tun, M. M., Palacky, P., Juchelkova, D., & Síťař, V. (2020). Renewable waste-to-energy in southeast asia: Status, challenges, opportunities, and selection of waste-to-energy technologies. In *Applied Sciences (Switzerland)* (Vol. 10, Issue 20). <https://doi.org/10.3390/app10207312>
- Young, G. C. (2010). *MUNICIPAL SOLID WASTE TO ENERGY CONVERSION PROCESSES: ECONOMIC, TECHNICAL, AND RENEWABLE COMPARISONS*.
- Yuniar, M. I., Notosudjono, D., & Wismiana, E. (2017). Studi Potensi Pemanfaatan Sampah Melalui Perencanaan Biodigester Untuk Pembangkit Tenaga Listrik Di Kota Bandung. *Jurnal Online Mahasiswa (Jom) Bidang Teknik Elektro*, 1(1).
- Zaman, A. U. (2010). Comparative study of municipal solid waste treatment technologies using life cycle assessment method. *Int. J. Environ. Sci. Tech.*, 7(2), 225–234.