UNIVERSITAS GADJAH MADA
Konsep Pengembangan Cascade Utilization Pada Rencana Pembangkit Listrik Tenaga Panas Bumi Untuk Usaha Produktif di Wilayah Kerja Panas Bumi di Kabupaten Tabanan, Bali
CRISTY SUTRIYANI D, Dr. Rachmawan Budiarto, S.T., M.T.; Dr.Eng Himawan Tri Bayu, S.T., M.Eng.
Universitas Gadjah Mada, 2018 | Diunduh dari http://etd.repository.ugm.ac.id/

Daftar Pustaka

Ambriz-Díaz, V.M., C. Rubio-Maya, J.J.P. Ibarra, S.R.G. González, J.M. Patiño, 2017, Analysis of a sequential production of electricity, ice and drying of agricultural products by cascading geothermal energy,International Journal of Hydrogen Energy, 42 : 18092 – 18102.

Amponsah, N. Y., M. Troldborg, B. Kington, I. Aalders, R. L. Hough. (2014) 'Greenhouse gas emissions from renewable energy sources: A review of lifecycle considerations', *Renewable and Sustainable Energy Reviews*. Elsevier, 39, pp. 461–475. doi: 10.1016/j.rser.2014.07.087.

Badan Pusat Statistik, 2017, 'Kabupaten Tabanan Dalam Angka', BPS Kabupaten Tabanan, Bali.

BAPPENAS, 2014, Potret rencana aksi daerah penurunan emisi gas rumah kaca (RAD-GRK).

BAPPENAS, 2016, Laporan Pelaksanaan Perpres No. 61/2011 Tentang Rencana Aksi Nasional Penurunan Emisi Gas Rumah Kaca Tahun 2015, Kementerian Perencanaan dan Pembangunan Nasional, Republik Indonesia

Blodgett, L. (2014) 'Geothermal 101: Basics of Geothermal Energy', *Geothermal Energy*, (202), pp. 0–65.

Boyd, T., 2008, 'Geothermal greenhouse information package'.

Budiarto, R., D.S. Widhyharto, A. Prasetya, A.R. Wardhana, J.J. Hidayat, 2017, 'Energi surya untuk komunitas - Meningkatkan produktivitas masyarakat pedesaan melalui energi terbarukan', Jakarta : LAKPESDAM-PBNU.

Çengel, Y.A., M.A. Boles, 2005, Thermodynamics an engineering approach 5th Edition, McGraw-Hill.

Chou, S.k., dan K.J. Chua, 2001, 'New hybrid drying technology for heating sensitive foodstuffs', *Trends in Food Science and Technology*, 12(1): 359-369.

Ciolkosz, D., 2017, What is renewable energy? Pennstate Extension. https://extension.psu.edu/what-is-renewable-energy diakses pada 25 Januari 2018.

DEN, 2014, Ketahanan Energi Indonesia 2014, Dewan Energi Nasional, Republik Indonesia

DEN, 2016, Outlook Energi Indonesia 2016, Sekretariat Jenderal Dewan Energi Nasional, Republik Indonesia

Dickson, M.H., dan M. Fanelli, 2004, What is geothermal energy? International Geothermal Association. https://www.geothermal-energy.org/what_is_geothermal_energy.html#c336 diakses pada 14 Februari 2018.

DiPippo, R. (2012) *Geothermal power plants*, *Comprehensive Renewable Energy*. doi: 10.1016/B978-0-08-087872-0.00708-3.

Direktorat Jenderal Energi Baru Terbarukan (EBTKE), 2018, 'Indonesia Peringkat 2 Produsen Listrik Panas Bumi Lampaui Filipina', Kementerian Energi dan Sumberdaya Mineral, Republik Indonesia http://ebtke.esdm.go.id/post/2018/04/28/1948/indonesia.peringkat.2.produsen.listrik.panas.bumi.lampaui.filipina. (diakses pada 18 Juli 2018).

DJK, 2015, 'Faktor emisi gas rumah kaca sistem interkoneksi ketenagalistrikan tahun 2015, Direktoran Jenderal Ketenagalistrikan, Kementerian ESDM, Republik Indonesia.

Duffield, W.A., dan J.H. Sass, 2003, 'Geothermal energy - clean power from the

UNIVERSITAS GADJAH MADA
Konsep Pengembangan Cascade Utilization Pada Rencana Pembangkit Listrik Tenaga Panas Bumi Untuk Usaha Produktif di Wilayah Kerja Panas Bumi di Kabupaten Tabanan, Bali
CRISTY SUTRIYANI D, Dr. Rachmawan Budiarto, S.T., M.T.; Dr.Eng Himawan Tri Bayu, S.T., M.Eng.
Universitas Gadjah Mada, 2018 | Diunduh dari http://etd.repository.ugm.ac.id/

earth's heat', United States Geological Survey Circular No. 1249. Washington, DC, United Stateds Department of the Interior, 36 pp.

Ehiem, J.C., S.V. Irtwange dan S.E. Obetta, 2009, 'Design and development of an industrial fruit and vegetable dryer', *Research Journal of Applied Science, Engineering and Technology*, 1(2) : 44 - 53.

Eliasson, E. T., Thorhallsson, S. and Steingrímsson, B. (2011) 'Geothermal Power Plants', *Short Course on Geothermal Drilling, Resource Development and Power Plants*, pp. 1–16. Available at: http://www.os.is/gogn/unu-gtp-sc/UNU-GTP-SC-12-35.pdf.

ESDM, 2009, *Pembangunan PLTP Bedugul Tidak Mengganggu Lingkungan, Berita Panas Bumi*. http://www3.esdm.go.id/berita/panas-bumi/45-panasbumi/3022-pembangunan-pltp-bedugul-tidak-mengganggu-lingkungan.html diakses pada 24 November 2017.

ESDM, 2017, Potensi Panas Bumi Indonesia Jilid 1, Kementerian Energi dan Sumberdaya Mineral, Republik Indonesia

ESDM, 2018, 'Sebaran Pembangkit Listrik Panas Bumi di Indonesia', https://www.esdm.go.id/id/media-center/arsip-berita/ini-dia-sebaran-pembangkit-listrik-panas-bumi-di-indonesia (diakses pada 18 Juli 2018)

Fanani, Z., H. Prastawa, Suswianti, 2006, 'Perhitungan waktu pengeringan kayu jati metode progresif dengan logika fuzzy (studi kasus CV. Dwi Tunggal - Bawen)', *Jurnal Teknik Industri Universitas Diponegoro*, Vol 2 (1).

Gehringer, M. (2015) 'Use of waste heat from geothermal power plants focusing on improving agriculture in developing countries', *Transactions - Geothermal Resources Council*, 39, pp. 125–132. Available at: http://www.scopus.com/inward/record.url?eid=2-s2.0-84962854665&partnerID=tZOtx3y1.

Gill, A.T., T. Toyama, 2007, 'Feasibility of a geothermal direct use enterprise par in Puna, Hawaii', State of Hawaii: Department of Business, Economic Development and Tourism, Strategic Industries Division.

Gracía-Alamilla, P., M.A. Salgado-Cervantes, M. Barel, G. Berthomieu, G.C. Rodríguez-Jimenes, M.A. García-Alvarado, 2007, 'Mositure, acidity and temperature evolution during cacao drying', *Journal of Food Engineering*, 79 : 1159 - 1165.

Hadiwidjojo, M. M. P., H. Samodra., T. C. Amin, 1998, 'Geological map of the Bali sheet, Nusa Tenggara. Geological Research and Development Center, Bandung.

Harpole, G.B., 1988, Investment opportunity: the FPL low-cost sola dry kiln. Gen. Tech. Rep. FPL-GTR-58. Madison, WI: U.S. Departement of Agriculture, Forest Service, Forest Products Laboratory. 5 p.

Hochstein, M. P., Mulyadi, R. and Joenoes, E. J. (2005) 'The Bedugul Geothermal Field , Bali (Indonesia)', (March).

ICCO, 2000, 'Drying Cocoa Beans', International Cocoa Organization, https://www.icco.org/faq/59-fermentation-a-drying/110-drying-cocoa-beans.html (diakses pada 29 Juni 2018).

Iklim: Bedugul, https://goo.gl/vtKSwt (diakses pada 9 Juli 2018).

Iklim: Tabanan, (https://id.climate-data.org/location/4564/ (diakses pada 9 Juli 2018).

Ix, P. (2004) 'Geothermal Technologies Program', *Energy efficiency and Renewable Energy*. Available at: http://www.eere.energy.gov/geothermal/pdfs/low_temp_copro_fs.pdf.

UNIVERSITAS GADJAH MADA
Konsep Pengembangan Cascade Utilization Pada Rencana Pembangkit Listrik Tenaga Panas Bumi Untuk Usaha Produktif di Wilayah Kerja Panas Bumi di Kabupaten Tabanan, Bali
CRISTY SUTRIYANI D, Dr. Rachmawan Budiarto, S.T., M.T.; Dr.Eng Himawan Tri Bayu, S.T., M.Eng.
Universitas Gadjah Mada, 2018 | Diunduh dari http://etd.repository.ugm.ac.id/

Jubaedah, E., T.P. Bambang, Abdurrachim, 2015, Study of geothermal utilization for milk pasteurization in Pangalengen, Indonesia, Proceedings World Geothermal Congress 2015, Melbourne – Australia.

Kakaç S., H. Liu, A. Pramuanjaroekij, Heat exchangers: selection, rating and thermal design 3rd edition, CRC Press.

Kementerian Lingkungan Hidup, 2012, Pedoman Penyelenggaraan Inventarisasi Gas Rumah Kaca Nasional, Buku II - Volume 1 : Metodologi Perhitungan Tingkat Emisi Gas Rumah Kaca, Kegiatan Pengadaan dan Penggunaan Energi.

Kern, D.Q., 1950, 'Process Heat Transfer', McGraw-Hill International Book Company Inc., New York.

Kettula, T., 2015, Know how to do: wood kiln drying

Klymenko, I., dan S. Iwan, 2015, 'Utilization of geothermal energy in production systems based on timber production example', Instytut Zarządzania Transportem, Akademia Morska w Szczecinie, Szczecin, ul. Pobożnego.

Limberger, J., T. Boxem, M. Pluymaekers, D. Bruhn, A. Manzella, P. Calcagno, F. Beekman, S. Cloetingh, J. van Wees, (2018) 'Geothermal energy in deep aquifers: A global assessment of the resource base for direct heat utilization', *Renewable and Sustainable Energy Reviews*. Elsevier Ltd, 82(November 2016), pp. 961–975. doi: 10.1016/j.rser.2017.09.084.

Lund, J.W., 1996, 'Lectures on direct utilization of geothermal energy', Reports 1996 No. 1, Reykjavik, United Nations University Geothermal Traning Programme.

Lund, J.W., 1998, 'Geothermal direct-use equipment overview', Geo-Heat Center Bulletin (Maret).

Lund, J.W., 2010, 'Direct utilization of geothermal energy. *Energies*, 3 : 1443 - 1471.

Lund, J. W. and Boyd, T. L. (2016) 'Direct utilization of geothermal energy 2015 worldwide review', *Geothermics*, 60(April), pp. 66–93. doi: 10.1016/j.geothermics.2015.11.004.

Mburu, M., 2012, 'Cascaded use of geothermal energy: Eburru case study', *Geo-Heat Center Quarterly Bulletin*, 30(4): 21-26.

Mulyadi, A., Joenoes, E. J. and Widiasari, N. M. (2005) 'Bedugul Geothermal Prospect and Developments', (88), pp. 24–29.

Nasruddin, M.I. Alhamid, Y. Daud, A. Surachman, A. Sugiyono, H.B. Aditya dan T.M.I Mahlia, 2016, 'potential of geothermal energy fro electricity generation in Indonesia: A review', *Renewable and Sustainable Energy Reviews*, 53 : 733 – 740.

Panagiotou, C., 1996, 'Geothermal Greenhouse Design', Geothermak Training Programme, The United Nation University, Reykjavík - Iceland.

Peraturan Menteri Lingkungan Hidup dan Kehutanan No. P.13 Tahun 2015 Tentang Izin Usaha Industri Primer Hasil Hutan.

Peraturan Presiden Republik Indonesia No. 61 Tahun 2011 Tentang Rencana Aksi Nasional Penurunan Emisi Gas Rumah Kaca.

Pontoh, J., H.J. Roeroe, 2015, 'Tapping the leftover steam from geothermal power plant for environment and sugar palm farmers in Tomohon and it surroundings', *Proceedings World Geothermal Congress 2015*, 3 pp.

Popovska-Vasilevska, S., 2014, 'Drying of agricultural products with geothermal energy', St. Kliment Ohrdski University, Faculty of Technical Science, Bitola, Macedonia.

Popovski, K., 1993, 'Heating greenhouses with geothermal energy', International

UNIVERSITAS GADJAH MADA
Konsep Pengembangan Cascade Utilization Pada Rencana Pembangkit Listrik Tenaga Panas Bumi Untuk Usaha Produktif di Wilayah Kerja Panas Bumi di Kabupaten Tabanan, Bali
CRISTY SUTRIYANI D, Dr. Rachmawan Budiarto, S.T., M.T.; Dr.Eng Himawan Tri Bayu, S.T., M.Eng.
Universitas Gadjah Mada, 2018 | Diunduh dari http://etd.repository.ugm.ac.id/

Summer School, Skopje, Mecedonia, 326 pp.

Prasetya, N., D.E.U. Lubis, D. Raharjo, N.M. Saptadji, dan H.B. Pratama, 2017, 'Smart geo-energy village development by using cascade direct use of geothermal energi ini Bonjol, West Sumatera', *IOP Conf. Series: Earth and Environmental Science 103*, doi:10.1088/1755-1315/103/1/012004.

Pusat Data dan Informasi ESDM (2012) 'Kajian Supply Demand Energy 2012', pp. 1–78.

Pusat Data dan Informasi ESDM, 2016, Data Inventory Emisi GRK Sektor Energi, Kementerian Energi dan Sumberdaya Mineral, Republik Indonesia

Purnomo, B.J., T. Pichler, 2015, Geothermal systems on the island of Bali, Indonesia, Journal of Volcanology and Geothermal Research, 304 : 349 – 358.

Purwono, A. N., 2010, 'Comparison and selection of a steam gathering system in Ulubelu geothermal project, Sumatera, Indonesia, Geothermal Training Programme, The United Nation University, Reykjavík – Iceland.

Refferty, K.D., 'Geothermal direct use engineering and design guidebook Chapter 10: Piping', Geo-Heat Center, Oregon Institute of Technology, Klamath Falls - Oregon.

REN21, 2016, Community Renewable Energy, http://www.ren21.net/gsr-2016/chapter07.php (diakses pada 30 Juni 2018).

Rianti, E., 2018. http://market.bisnis.com/read/20180312/94/749038/permintaan-meningkat-harga-kakao-terkeret. (diakses pada 9 July 2018).

Rodriguez-Campos, J., H.B. Escalona-Buendía, S.M. Contreras-Ramos, I. Orozco-Avila, E. Jaramillo-Flores, E. Lugo-Cervantes, 2012, 'Effect of fermentation time and drying temperature on volatile compounds in cocoa', *Food Chemistry*, 132: : 277 - 288.

Rubio-Maya, C., E.P. Martínez, C.E. Romero, V.M. Ambriz-Díaz, 2016, Techno-economic assessment for the integration into a multi-product plant based on cascade utilization of geothermal energy, Journal of Applied Thermal Engineering, 108 : 84 – 92.

Scott, J.W., J.W., Lund, 1998, 'Timber drying at Kawerau', Geo-Heat Center Bulletin, (September).

Simpson, W.T.; C.A. Hart, 2000, Estimates of air drying times for several hardwoods and softwoods. Gen. Tch. Rep. FPL-GTR-121. Madison, WI: U.S. Departement of Agriculture, Forest Service, Forest Products Laboratotry. 70 p.

Simpson, W.T., 1991, 'Dry kiln operator's manual', Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Product Laboratory. 274 p.

Sudarmawan, I.W., 2003, Presepsi masyarakat Desa Candikuning terhadap eksploitasi panasbumi Bedugul Tabanan Bali, Tesis, Universitas Gadjah Mada.

Sulistyardi, H. B., 2010, 'Basic design of lumut balai 2x55 MW geothermal power plant, Indonesia, Geothermal Training Programme, The United Nation University, Reykjavík – Iceland.

Susila, I.M.A.D., A.L. Sihombing, M. Magdalena, dan I. Adila, 2014, 'Jejak karbon pengembangan pembangkit listrik panas bumi di Indonesia', *Ketenagalistrikan dan Energi Terbarukan,* Vol 13 No. 2 : 123 - 138.

Taylor, F.W., P.H. Mitchell, 1987, 'Drying pine lumber at very high temperatures and air velocity, *Wood and Fiber Science*, 19 (3), pp 239-245.

Tesha, 2006, Utilization of brine water for copra drying in lahendong geothermal field, Indonesia, Geothermal Training Programme, The United Nation University, Reykjavík – Iceland.

UNIVERSITAS
GADJAH MADA
**Konsep Pengembangan Cascade Utilization Pada Rencana Pembangkit Listrik Tenaga Panas Bumi Untuk
Usaha Produktif di Wilayah Kerja Panas Bumi di Kabupaten Tabanan, Bali**
CRISTY SUTRIYANI D, Dr. Rachmawan Budiarto, S.T., M.T.; Dr.Eng Himawan Tri Bayu, S.T., M.Eng.
Universitas Gadjah Mada, 2018 | Diunduh dari http://etd.repository.ugm.ac.id/

Trubus Online, 2009, https://goo.gl/3YP7tm (diakses pada 30 Juni 2018).

Valdimarsson, P. (2011) 'Geothermal power plant cycles and main components', *Short Course on Geothermal Drilling, Resource Development and Power Plants*, (Figure 2), pp. 1–24.

Nguyen, M., S. Arason, M. Gissurarson, dan P. G. Pálsson, 2015. 'Uses of geothermal energy in food and agriculture - Opportunities for developing countries', Rome, FAO.

WALHI Bali, 2010, Proyek Geothermal Ancaman Bencana Bagi Bali. http://walhibali.org/proyek-geothermal-ancaman-bencana-bagi-bali/ diakses pada 24 November 2017.

Wengert, E.M., 2006, 'Principles and practices of drying lumber', Lignomat Moisture Measurment.

Widyaningsih, M.A., 2016, 'Teknologi budidaya bawang merah', Balai Pengkajian Teknologi Pertanian Bali, https://goo.gl/kbzh5U (diakses pada 30 Juni 2018).

Widyotomo S., S. Mulato, Handaka, t.t, 'Mengenal lebih dalam teknologi pengolahan biji kakao', Jember: Pusat Penelitian Kopi dan Kakao.

W. Resmiasih Mansoer, A. I. (2015) 'Geothermal Resources Development in Indonesia: A History', *World Geothermal Congress 2015* , (April), pp. 19–25.