

## 6.0 REFERENCE

- Acquaye, A. (2010). A Stochastic Hybrid Embodied Energy and CO<sub>2</sub>eq Intensity Analysis of Building and Construction Processes in Ireland CO<sub>2</sub>eq Intensity Analysis of Building and Construction Processes in Ireland. <https://doi.org/10.21427/D7RW34>
- Akbarnezhad, A., & Xiao, J. (2017). Estimation and Minimization of Embodied Carbon of Buildings: A Review. *Buildings*, 7(1), 5. <https://doi.org/10.3390/buildings7010005>
- Alwan, Z., & Jones, P. (2014). The importance of embodied energy in carbon footprint assessment. *Structural Survey*, 32(1), 49–60. <https://doi.org/10.1108/SS-01-2013-0012>
- Bekker, P. C. F. (1982). A life-cycle approach in building. *Building and Environment*, 17(1), 55–61. [https://doi.org/10.1016/0360-1323\(82\)90009-9](https://doi.org/10.1016/0360-1323(82)90009-9)
- Bilec, M., Asce, S. M., Ries, R., Matthews, H. S., Asce, A. M., Sharrard, A. L., & Asce, S. M. (2006). Example of a Hybrid Life-Cycle Assessment of Construction Processes, (December), 207–215.
- Biswas, W. K. (2014). Carbon footprint and embodied energy consumption assessment of building construction works in Western Australia. *International Journal of Sustainable Built Environment*, 3(2), 179–186. <https://doi.org/10.1016/j.ijjsbe.2014.11.004>
- Bricki, N., & Green, J. (2007). A Guide to Using Qualitative Research Methodology, 37.
- BS 7361-1-1991 Cathodic protection.* (n.d.).
- Cabeza, L. F., Barreneche, C., Miro, L., Martinez, M., Fernandez, A. I., & Urges-Vorsatz, D. (2013). Affordable construction towards sustainable buildings: review on embodied energy in building materials. *Current Opinion in Environmental Sustainability*, 5(2), 229–236. <https://doi.org/10.1016/j.cosust.2013.05.005>

- Chastas, P., Theodosiou, T., & Bikas, D. (2016). Embodied energy in residential buildings-towards the nearly zero energy building: A literature review. *Building and Environment*, *105*, 267–282. <https://doi.org/10.1016/j.buildenv.2016.05.040>
- Chen, T. ., Burnett, J., & Chau, C. . (2001). Analysis of embodied energy use in the residential building of Hong Kong. *Energy*, *26*(4), 323–340. [https://doi.org/10.1016/S0360-5442\(01\)00006-8](https://doi.org/10.1016/S0360-5442(01)00006-8)
- Ciravoglu, A. (2005). A RESEARCH ON EMBODIED ENERGY OF BUILDING MATERIALS : REFLECTIONS ON TURKEY, *2005*(September), 27–29.
- Crawford, R. (2012). Life Cycle Energy Analysis, (November 1998), 1–8.
- Crawford, R. H., & Treloar, G. J. (2003). VALIDATION OF THE USE OF AUSTRALIAN INPUT-OUTPUT DATA FOR BUILDING ENERGY SIMULATION. In *English International Conference* (p. 6).
- Creswell, J. W. (2007). Qualitative inquiry and research design: Choosing among five approaches., *2nd editio*.
- Crowther, P. (1999). Design for disassembly to recover embodied energy. *The 16th International Conference on Passive and Low Energy Architecture*, 6.
- Damgaard, A., Larsen, A. W., & Christensen, T. H. (2009). Recycling of metals: accounting of greenhouse gases and global warming contributions. *Waste Management & Research*, *27*(8), 773–780. <https://doi.org/10.1177/0734242X09346838>
- Dawson, C. (2002). *Practical Research methods*. (D. Brueton, Ed.). How To Books Ltd. Retrieved from <http://www.howtobooks.co.uk>
- Department of Economic and Social Affairs- United Nations. (2020). World Population Prospects in 2019. United Nations.
- De Wolf, C., Pomponi, F., & Moncaster, A. (2017). Measuring embodied carbon dioxide equivalent of buildings: A review and critique of current industry practice. *Energy and Buildings*, *140*, 68–80. <https://doi.org/10.1016/j.enbuild.2017.01.075>

- Dias, W. P. S. A., & Pooliyadda, S. P. (2004). Quality based energy contents and carbon coefficients for building materials : A systems approach, 29, 561–580. <https://doi.org/10.1016/j.energy.2003.10.001>
- Dias, W. P. S. A., & Pooliyadda, S. P. (2005). The significance of embedded energy (pp. 1–3).
- Dimoudi, A., & Tompa, C. (2008). Energy and environmental indicators related to construction of office buildings. *Resources, Conservation and Recycling*, 53(1–2), 86–95. <https://doi.org/10.1016/j.resconrec.2008.09.008>
- Dincer, I., Midilli, A., Hepbasli, A., & Karakoc, T. H. (2010). Global warming: Engineering solutions. *Green Energy and Technology*, 31. <https://doi.org/10.1007/978-1-4419-1017-2>
- Dissanayake, D. M. K. W., & Jayasinghe, C. (2015). Embodied Energy Analysis of a Pre-cast Building System, (December).
- Dissanayake, D. M. K. W., Jayasinghe, C., & Jayasinghe, M. T. R. (2017). A comparative embodied energy analysis of a house with recycled expanded polystyrene (EPS) based foam concrete wall panels. *Energy and Buildings*, 135, 85–94. <https://doi.org/10.1016/j.enbuild.2016.11.044>
- Dixit, M. K., Fernandez-Solis, J. L., Lavy, S., & Culp, C. H. (2010). Identification of parameters for embodied energy measurement: A literature review. *Energy and Buildings*, 42(8), 1238–1247. <https://doi.org/10.1016/j.enbuild.2010.02.016>
- Dixit, M. K., Fernandez-Solis, J. L., Lavy, S., & Culp, C. H. (2012). Need for an embodied energy measurement protocol for buildings: A review paper. *Renewable and Sustainable Energy Reviews*, 16(6), 3730–3743. <https://doi.org/10.1016/j.rser.2012.03.021>
- Dumani, N. (2009). CRADLE-TO-GATE ENERGY AND GREENHOUSE GAS EMISSIONS OF SOUTH AFRICAN CONCRETE AND REBAR Residential sector Commercial sector Building materials Manufacturing other Other Mining Transport, 1–8.
- Emmanuel, R. (2004). Estimating the environmental suitability of wall materials :

- Preliminary results from Sri Lanka. *Building and Environment*.  
<https://doi.org/10.1016/j.buildenv.2004.02.012>
- Energy Efficiency Trends in Canada 1990 to 2013. (2013).
- Fay, R., Treloar, G., & Iyer-raniga, U. (2000). Life-cycle energy analysis of buildings : a case study, 28, 31–41.
- Gan, V. J. L., Cheng, J. C. P., Lo, I. M. C., & Chan, C. M. (2017). Developing a CO<sub>2</sub>-e accounting method for quantification and analysis of embodied carbon in high-rise buildings. *Journal of Cleaner Production*, 141, 825–836.  
<https://doi.org/10.1016/j.jclepro.2016.09.126>
- Gong, Y., & Song, D. (2015). Life cycle building carbon emissions assessment and driving factors decomposition analysis based on LMDI-A case study of Wuhan city in China. *Sustainability (Switzerland)*, 7(12), 16670–16686.  
<https://doi.org/10.3390/su71215838>
- Gronvall, S., Lundquist, M., & Bergli, C. P. (2014). Embodied carbon for residential buildings A life cycle assessment for concrete and wooden framed buildings.
- Gunawardena, T. (2013). Innovative Prefabricated Modular Structures – An Overview and Life Cycle Energy Analysis.
- Gustavsson, L., & Sathre, R. (2006). Variability in energy and carbon dioxide balances of wood and concrete building materials. *Building and Environment*, 41(7), 940–951. <https://doi.org/10.1016/j.buildenv.2005.04.008>
- Hakkinen, T., Kuittinen, M., Ruuska, A., & Jung, N. (2015). Reducing embodied carbon during the design process of buildings. *Journal of Building Engineering*, 4, 1–13. <https://doi.org/10.1016/j.jobe.2015.06.005>
- Hammond, G. ., & Jones, C. I. (2008). Embodied energy and carbon in construction materials, 161(May), 87–98. <https://doi.org/10.1680/ener.2008.161.2.87>
- Hammond, G., & Jones, C. (2008). INVENTORY OF CARBON & ENERGY ( ICE ).
- Han, M. Y., Chen, G. Q., Shao, L., Li, J. S., Alsaedi, A., Ahmad, B., ... Ji, X. (2013).

- Embodied energy consumption of building construction engineering: Case study in E-town, Beijing. *Energy and Buildings*, 64, 62–72.  
<https://doi.org/10.1016/j.enbuild.2013.04.006>
- Harrell, M. C., & Bradley, M. A. (2009). *Data Collection Methods : Semi - Structured Interviews and Focus Groups*. Retrieved from <http://www.rand.org>
- Harwell, M. R. (2011). *Chapter 10 : RESEARCH DESGN IN QUALITATIVE/QUANTITATIVE/MIXED METHODS*. (C. F. Conrod & R. C. Serlin, Eds.). <https://doi.org/http://dx.doi.org/10.4135/9781483351377.n11>
- Haynes, R. (2013). Embodied Energy Calculations within Life Cycle Analysis of Residential Buildings Table of Contents :, *2010*(Revised), 1–16.
- HENDRICKSON, C., & HORVATH, A. (1998). Economic Input-Output Models for Environmental Life-Cycle Assessment, *32*(7).
- Hofstrand, D. (2008). Liquid Fuel Measurements and Conversions, (October), 1–4.  
*Household Income and Expenditure Survey 2009/10*. (2009).
- Itard, L. C. M. (2008). Embodied and operational energy use of buildings, 77–84.
- John, G., Treloar, B. A., Arch, B., & Arch, M. (1998). *A Comprehensive Embodied Energy Analysis Framework*.
- Kang, G., Kim, T., Kim, Y.-W., Cho, H., & Kang, K.-I. (2015). Statistical analysis of embodied carbon emission for building construction. *Energy and Buildings*, 105, 326–333. <https://doi.org/10.1016/j.enbuild.2015.07.058>
- Langdon, D. L. (2009). *Designing out Waste : a design team guide for buildings*.
- Lenzen, M., & Treloar, G. (2006). Embodied energy in buildings : wood versus concrete - reply to Borjesson and Gustavsson, *30*(2002), 249–255.
- Li, J., & Colombier, M. (2009). Managing carbon emissions in China through building energy efficiency. *Journal of Environmental Management*, 90(8), 2436–2447. <https://doi.org/10.1016/j.jenvman.2008.12.015>
- Liu, Z., Geng, Y., Lindner, S., Zhao, H., Fujita, T., & Guan, D. (2012). Embodied energy use in China's industrial sectors. *Energy Policy*, 49, 751–758.

<https://doi.org/10.1016/j.enpol.2012.07.016>

- Lockie, S. (2013). Session 2 : A methodology for measuring embodied carbon.
- Lockie, S., & Berebecki, P. (2012). *Methodology to calculate embodied carbon. RICS*. Retrieved from [http://www.rics.org/Documents/Methodology\\_embodied\\_carbon\\_final.pdf](http://www.rics.org/Documents/Methodology_embodied_carbon_final.pdf)
- Lupisek, A., Vaculikova, M., St, C., Hodkova, J., & H, R. (2015). Design strategies for low embodied carbon and low embodied energy buildings : principles and examples, 83, 147–156. <https://doi.org/10.1016/j.egypro.2015.12.205>
- Macdonald, S., & Headlam, N. (2011). *Research Methods Handbook*.
- McAlinden, B. (2015). Embodied Energy and Carbon - Institution of Civil Engineers (ICE). Retrieved from <https://www.ice.org.uk/disciplines-and-resources/briefing-sheet/embodied-energy-and-carbon>
- Menzies, G. F., Banfill, P. F. G., & Turan, S. (2007). Life-cycle assessment and embodied energy: a review. *Proceedings of the ICE - Construction Materials*, 160(4), 135–143. <https://doi.org/10.1680/coma.2007.160.4.135>
- Monahan, J., & Powell, J. C. (2011). An embodied carbon and energy analysis of modern methods of construction in housing: A case study using a lifecycle assessment framework. *Energy and Buildings*, 43(1), 179–188. <https://doi.org/10.1016/j.enbuild.2010.09.005>
- Moncaster, A. M., & Symons, K. E. (2013). A method and tool for “cradle to grave” embodied carbon and energy impacts of UK buildings in compliance with the new TC350 standards. *Energy and Buildings*, 66, 514–523. <https://doi.org/10.1016/j.enbuild.2013.07.046>
- Monteiro, H., Fernandez, J. E., & Freire, F. (2016). Comparative life-cycle energy analysis of a new and an existing house: The significance of occupant’s habits, building systems and embodied energy. *Sustainable Cities and Society*, 26, 507–518. <https://doi.org/10.1016/j.scs.2016.06.002>
- Pacheco-Torgal, F., Faria, J., & Jalali, S. (2013). Embodied energy versus operational energy. Showing the shortcomings of the energy performance

- building directive (EPBD). *Materials Science Forum*, 730, 587–591.  
<https://doi.org/10.4028/www.scientific.net/MSF.730-732.587>
- Pomponi, F., & Moncaster, A. (2016). Embodied carbon mitigation and reduction in the built environment – What does the evidence say? *Journal of Environmental Management*, 181, 687–700. <https://doi.org/10.1016/j.jenvman.2016.08.036>
- Poyry, A., Saynajoki, A., Heinonen, J., Junnonen, J., & Junnila, S. (2015). Embodied and construction phase greenhouse gas emissions of a low-energy residential building. *Procedia Economics and Finance*, 21(15), 355–365.  
[https://doi.org/10.1016/S2212-5671\(15\)00187-2](https://doi.org/10.1016/S2212-5671(15)00187-2)
- Rajasekar, S., Philominathan, P., & Chinnathambi, V. (2006). Research Methodology, (January).
- Ramesh, T., Prakash, R., & Shukla, K. K. (2010). Life cycle energy analysis of buildings: An overview. *Energy and Buildings*, 42(10), 1592–1600.  
<https://doi.org/10.1016/j.enbuild.2010.05.007>
- Reddy, B. V. V., & Jagadish, K. S. (2003). Embodied energy of common and alternative building materials and technologies, 35, 129–137.
- Sartori, I., & Hestnes, A. G. (2007). Energy use in the life cycle of conventional and low-energy buildings: A review article. *Energy and Buildings*, 39(3), 249–257.  
<https://doi.org/10.1016/j.enbuild.2006.07.001>
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th editio).
- Sibanda, N. (2009). Quantitative Research.
- Stephan, A., & Stephan, L. (2016). Life cycle energy and cost analysis of embodied, operational and user-transport energy reduction measures for residential buildings, (January). <https://doi.org/10.1016/j.apenergy.2015.10.023>
- Su, X., & Zhang, X. (2016). A detailed analysis of the embodied energy and carbon emissions of steel-construction residential buildings in China. *Energy and Buildings*, 119, 323–330. <https://doi.org/10.1016/j.enbuild.2016.03.070>

- Thormark, C. (2002). A low energy building in a life cycle — its embodied energy , energy need for operation and recycling potential, *37*, 429–435.
- Thurairajah, N., Haigh, R., & Amaratunga, R. D. . (2007). Leadership in construction partnering projects, 144–154.
- Udawattha, C., & Halwatura, R. (2016). Embodied energy of mud concrete block ( MCB ) versus brick and cement blocks. *Energy & Buildings*, *126*, 28–35. <https://doi.org/10.1016/j.enbuild.2016.04.059>
- Udawattha, C., & Halwatura, R. (2017). Life cycle cost of different Walling material used for affordable housing in tropics. *Case Studies in Construction Materials*, *7*(May), 15–29. <https://doi.org/10.1016/j.cscm.2017.04.005>
- Unalan, B., Tanrivermis, H., Bulbul, M., Celani, A., & Ciaramella, A. (2016). Impact of embodied carbon in the life cycle of buildings on climate change for a sustainable future. *International Journal for Housing Science and Its Applications*, *40*(1), 61–71. <https://doi.org/10.13140/2.1.4054.8169>
- Verbeeck, G., & Hens, H. (2010). Life cycle inventory of buildings : A contribution analysis. *Building and Environment*, *45*(4), 964–967. <https://doi.org/10.1016/j.buildenv.2009.10.003>
- VICTORIA, M., PERERA, S., & DAVIES, A. (2015). A pragmatic approach for embodied carbon estimating in buildings, *2*.
- Wallbaum, H., Ostermeyer, Y., Salzer, C., & Zea Escamilla, E. (2012). Indicator based sustainability assessment tool for affordable housing construction technologies. *Ecological Indicators*, *18*, 353–364. <https://doi.org/10.1016/j.ecolind.2011.12.005>
- Wijayasundara, M., Crawford, R. H., & Mendis, P. (2017). Comparative assessment of embodied energy of recycled aggregate concrete. *Journal of Cleaner Production*, *152*, 406–419. <https://doi.org/10.1016/j.jclepro.2017.03.118>
- Yin, R. K. (2009). Case Study Research . Design and Methods, *26*(1), 93–101.
- Yohanis, Y. G., & Nortan, B. (2002). Life-cycle operational and embodied energy for a generic single-storey office building in the UK. *Energy*, *27*(1), 77–92.



- Zainal, Z. (2007). Case study as a research method.
- Zhang, X., & Wang, F. (2016). Assessment of embodied carbon emissions for building construction in China: Comparative case studies using alternative methods. *Energy and Buildings*, *130*, 330–340.  
<https://doi.org/10.1016/j.enbuild.2016.08.080>
- ZHAO, X., & MA, H. (2015). Structural System Embodied Carbon Analysis for Super Tall Buildings. *Procedia Engineering*, *118*, 215–222.  
<https://doi.org/10.1016/j.proeng.2015.08.420>
- Zhao, Y., Wang, S., Zhang, Z., Liu, Y., & Ahmad, A. (2016). Driving factors of carbon emissions embodied in China-US trade: A structural decomposition analysis. *Journal of Cleaner Production*, *131*, 678–689.  
<https://doi.org/10.1016/j.jclepro.2016.04.114>