

International Energy Agency

**IEA EBC Annex 56 | Cost-Effective Energy and Carbon Emissions  
Optimization in Building Renovation**

**Energy in Buildings and Communities Programme**

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**List of Publications**

**2018**

Almeida, M., Ferreira, M., & Barbosa, R. (2018). Relevance of Embodied Energy and Carbon Emissions on Assessing Cost Effectiveness in Building Renovation—Contribution from the Analysis of Case Studies in Six European Countries. *Buildings*. <https://doi.org/10.3390/buildings8080103>

Almeida, M., & Ferreira, M. (2018). Ten questions concerning cost-effective energy and carbon emissions optimization in building renovation. *Building and Environment*, 143, 15–23. <https://doi.org/10.1016/j.buildenv.2018.06.036>

Dalla Mora, T., Peron, F., Romagnoni, P., Almeida, M., & Ferreira, M. (2018). Tools and procedures to support decision making for cost-effective energy and carbon emissions optimization in building renovation. *Energy and Buildings*, 167, 200–215. <https://doi.org/10.1016/J.ENBUILD.2018.02.030>

**2017**

Almeida, M., & Ferreira, M. (2017). Cost effective energy and carbon emissions optimization in building renovation (Annex 56). *Energy and Buildings*, 152(Supplement C), 718–738. <https://doi.org/10.1016/j.enbuild.2017.07.050>

Almeida, M., Mateus, R., Ferreira, M., & Rodrigues, A. (2016). Life-cycle costs and impacts on energy-related building renovation assessments. *International Journal of Sustainable Building Technology and Urban Development*, 7(3–4), 206–213. <https://doi.org/10.1080/2093761X.2017.1302837>

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Ferreira, M., Almeida, M., & Rodrigues, A. (2017). Impact of co-benefits on the assessment of energy related building renovation with a nearly-zero energy target. *Energy and Buildings*, 152, 587–601. <https://doi.org/10.1016/j.enbuild.2017.07.066>

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Mørck, O., Almeida, M., Ferreira, M., Brito, N., Thomsen, K. E., & Østergaard, I. (2016). Shining examples analysed within the EBC Annex 56 project. *Energy and Buildings*, 127, 991–998. <https://doi.org/10.1016/j.enbuild.2016.05.091>

Ferreira, M., Almeida, M., Rodrigues, A., & Silva, S. M. (2016). Comparing cost-optimal and net-zero energy targets in building retrofit. *Building Research and Information*, 44(2), 188–201. <https://doi.org/10.1080/09613218.2014.975412>

Ferreira, M., Almeida, M., & Rodrigues, A. (2016). Cost-optimal energy efficiency levels are the first step in achieving cost effective renovation in residential buildings with a nearly-zero energy target. *Energy and Buildings*, 133, 724–737. <https://doi.org/10.1016/j.enbuild.2016.10.017>

## 2015

Almeida, M., Bencresciuto, A., Ferreira, M., & Rodrigues, A. (2015). Cost-effective energy and carbon emission optimization in building renovation - A case-study in a low income neighbourhood. *Energy Procedia*, 78, 2403–2408. <https://doi.org/10.1016/j.egypro.2015.11.203>

Ferreira, M., & Almeida, M. (2015). Benefits from energy related building renovation beyond costs, energy and emissions. *Energy Procedia*, 78, 2397–2402. <https://doi.org/10.1016/j.egypro.2015.11.199>

Almeida, M., & Ferreira, M. (2015). IEA EBC Annex56 vision for cost effective energy and carbon emissions optimization in building renovation. *Energy Procedia*, 2409–2414. <https://doi.org/10.1016/j.egypro.2015.11.206>

Morck, O., Almeida, M., Ferreira, M., Brito, N., Thomsen, K. E., & Østergaard, I. (2015). Shining examples analysed within the EBC Annex 56 project. *Energy Procedia*, 78, 2334–2339. <https://doi.org/10.1016/j.egypro.2015.11.393>

Ferreira, M., Almeida, M., & Rodrigues, A. (2015). CO2 zero schools - School building renovation towards emissions neutrality. *The REHVA European HVAC Journal*, Volume 52, Issue 6, "Building Energy Efficient Renovations", Pages 34-38. Available online in <http://www.rehva.eu/publications-and-resources/rehva-journal/2015/062015/co2-zero-schools-school-building-renovation-towards-emissions-neutrality.html>

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<https://doi.org/10.1016/j.egypro.2015.11.396>

Höfler, K., & Venus, D. (2015). Detailed Case Studies - A closer look at cost effective energy and carbon emission optimization in Europe. *Energy Procedia*, 78, 2352–2357.  
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Bolliger, R., Ott, W., & Von Grünigen, S. (2015). Finding the balance between energy efficiency measures and renewable energy measures in building renovation: An assessment based on generic calculations in 8 European countries. *Energy Procedia*, 78, 2372–2377.  
<https://doi.org/10.1016/j.egypro.2015.11.191>

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Lasvaux, S., Favre, D., Périsset, B., Bony, J., Hildbrand, C., & Citherlet, S. (2015). Life Cycle Assessment of Energy Related Building Renovation: Methodology and Case Study. *Energy Procedia*, 78, 3496–3501. <https://doi.org/10.1016/j.egypro.2016.10.132>

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<https://doi.org/10.1016/j.egypro.2015.11.154>

Domingo-Irigoyen, S., Sánchez-Ostiz, A., & Miguel-Bellod, J. S. (2015). Cost-effective renovation of a multi-residential building in Spain through the application of the IEA Annex 56 Methodology. *Energy Procedia*, 78, 2385–2390. <https://doi.org/10.1016/j.egypro.2015.11.194>

## 2014

Ferreira, M., Almeida, M., & Rodrigues, A. (2014). Cost optimality and net-zero energy in the renovation of Portuguese residential building stock – Rainha Dona Leonor neighbourhood case study. *International Journal of Sustainable Building Technology and Urban Development*, 5(4), 306–317.  
<https://doi.org/10.1080/2093761X.2014.979268>

Almeida, M., Ferreira, M., Rodrigues, A., Coelho, A. (2014). Deep energy retrofit of vernacular housing. *The REHVA European HVAC Journal*, Volume 51, Issue 6, "Innovative HVAC system solutions in high performing buildings", pages 32-37. <http://www.airtradecentre.com/downloads/AA/Rehva/rehva-newsletter-6-2014.pdf>.