



# Academic<sup>th</sup>

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## **Energetic Inefficiency and Environmental Unsustainability in a Brick Making Industry in Alagoas**

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### **Abstract**

Some brick making industries in Alagoas are still using outdated technics and types of kilns. This situation was seen in an enterprise visited in the county of Matriz de Camaragibe which uses a typology of intermittent kiln, locally known as “caieira”. This paper tries to evaluate how and if the performance of this type of kiln could be seen as a model that widely wastes energetic resources. The study dimensions the losses and tries to understand how an industry could keep this equipment operating. The study faced problems, basically, in obtaining data from the operators of this type of kiln. These gaps were filled by the bibliography and data borrowed by similar cases seen in industries located in the same region. The study concluded two convergent aspects: that the losses were derived from the precarious structures of the industry itself; and that, economically and environmentally, the poor performance of the kiln is unbearable. At last, the study considers the necessity of knowledge about how is the energetic and environmental performance of the different types of kilns used by the brick making industry in Alagoas. These data could be used not only to mitigate the damages produced in the environment but, mainly, for limiting the usage of kilns by the brick making industry. That perspective can be decisive for the developing of a technology in which the bricks could be made without usage of a significant amount of heat.

**Keywords:** *kiln, brick making industry, sustainability, energetic efficiency.*

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