

## Development of a Green Star Certification Tool for Existing Buildings in South Africa

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**Abstract :** The built environment is responsible for about 40% of the world's energy consumption and generates one third of global carbon dioxide emissions. The Green Building Council of South Africa's (GBCSA) current rating tools are all for new buildings. By far the largest portion of buildings exist stock and therefore the need to develop a certification tool for existing buildings. Direct energy measurement comprises 27% of the total available points in this tool. The aim of this paper is to describe the development process of a green star certification tool for existing buildings in South Africa with specific emphasis on the energy measurement criteria. Successful implementation of this tool within the property market will ensure a reduced carbon footprint of buildings.

**Keywords :** certification tool, development process, energy consumption, green buildings

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