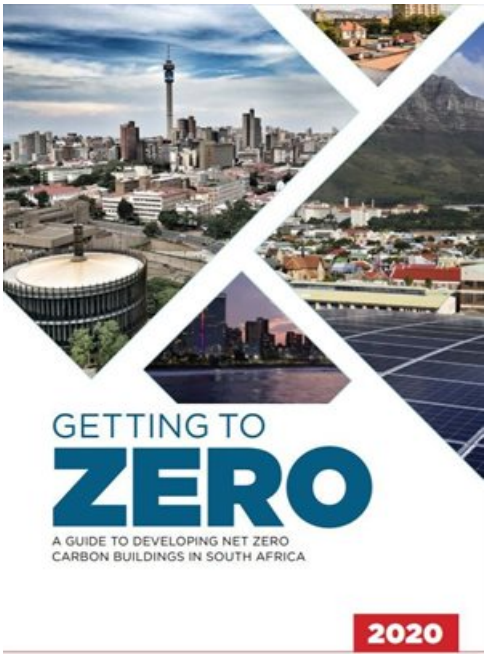
New guide, *Getting to Zero*, launched on developing net zero carbon buildings

A new guide has been launched for professional teams considering developing net zero carbon buildings. *Getting to Zero: A guide to developing net zero carbon buildings in South Africa* gives an overview on net zero carbon buildings in South Africa and shows those shaping the built environment that it is possible.



Sparked by engagement between the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the eThekwini Energy Office, the guide is a collaborative production, led by the ASHRAE South Africa Chapter with input from the C40 South Africa Buildings Programme, Sustainable Energy Africa (SEA), and the Green Building Council South Africa (GBCSA).

When it comes to getting a building to net zero carbon status, the basic idea is to reduce energy consumption as much as possible, and then to provide the building's minimal energy needs through renewable energy. Exactly how this can be done, is explained in the guide.

Getting to Zero gives practical tips on how net zero carbon can be achieved. From identifying the right people to have on a project team, to the actual energy use intensity of lighting and mechanical equipment that should be targeted in a commercial building. Furthermore, it highlights renewable energy considerations to bear in mind on a project.

The guide features numerous case studies, showcasing projects that have already achieved net zero carbon status.

Local context

Getting to Zero emphasises that building energy use intensity should be about one-third of current standard practice in South Africa. It advises of ways to reduce the energy use intensity, through passive design, building simulation and highly efficient active design/mechanical equipment and appliances.

It details the most effective passive design strategies to use in the South African context. And when implementing active systems such as air conditioning, it gives the pros and cons of different systems and guidance on choosing the most effective systems for particular regions in South Africa. The guide also highlights some of the intricacies of the renewable energy landscape in South Africa.

The imperative

The motivation for net zero carbon buildings is driven by South Africa's national and local climate change commitments, including the C40 Global Net Zero Carbon Buildings Declaration. Johannesburg, Tshwane, Cape Town and eThekwini are C40 cities and signatories to the 2018 declaration, alongside 24 other global cities. These cities have committed to developing regulations and/or planning policy to ensure new buildings operate at net zero carbon by 2030 and all buildings reach net zero carbon status by 2050.

Download the guide for free here.