Inspiring Better Buildings
Green Building Council SA

• South Africa's lead green building authority
• Established in 2007
• 13th member and current Chair of the WorldGBC
• Chair Africa GBC Region
• 140 Green Star Africa certifications, 3 outside of SA
Cato Manor Green Street - COP 17

*Where the environment & development agendas meet*

Green upgrade to 30 low income houses in Durban, South Africa ahead of COP17 international climate change talks in Dec 2011.

Upgraded houses are 30 m² and were built in 2006 for an average of 5 people per house. Fairly typical of almost 3 million government subsidized homes built in last 15 years.
Cato Manor Green Street - COP 17

No hot water on tap in the house.

Skills training & ‘green jobs’

Paraffin heaters health & safety risk

Wonderbag insulation cookers save energy cost & time, and are safer.
MY GREEN HOME

Join the family who changed their home to help change the world.
COUNTING THE SAVINGS

- **R670** monthly savings on water
- **26%** reduction in water use through behaviour changes
- **-68%** savings switching to LED TVs
- **5.1** year anticipated payback for the SWH (GEYSER)
- **75%** reduction in energy for lighting
- **230 watts** generated by PV panels in full sun
- **29 kWh** generated by PV panels in September
- **12 kgs** recycled or composted weekly
- **32%** reduction in electricity consumption through behaviour changes alone
- **4.4 tons** CO₂ saved over 6 months
- **300 watts** used by new pool pump vs. 620 W for old one
- **11** 9-kL gas bottles saved during winter heating
#Aspiration
7 year projection of 1.3 million green homes, with annual power savings equal to 3,300 acres of solar farms, water savings of 38 million cubic metres, and savings of a million tons of CO2 per year.

EDGE is a new green building certification programme developed to empower the residential property market to design and build resource-efficient buildings. Globally EDGE has the potential to achieve 20% transformation of the construction sector in just 7 years.
PILOT: Socio-Economic Category (SEC)

New category for green building rating systems
To recognise that social and economic factors are important to address broader sustainability issues, which are particularly relevant for South Africa and other developing countries.

SEC Addresses:
- Education
- Skills development
- Job creation
- Well-being of Workers
TOTAL CERTIFICATIONS & PROJECTED TRENDLINE

TOTAL GREEN STAR SA & GBCSA CERTIFICATIONS - 140

*EBP – Existing Building Performance rating tool
*EWP – Energy & Water Performance tool
IMPACTS OF GREEN BUILDINGS

TOTAL GREEN STAR SA CERTIFIED SPACE

2.2 MILLION m² GFA

TOTAL GREEN STAR SA ENERGY SAVINGS

159 MILLION KILOWATT HOURS OF ELECTRICITY PER YEAR

TOTAL GREEN STAR SA EMISSIONS SAVINGS

208 MILLION KILOGRAMS OF CARBON EMISSIONS

TOTAL GREEN STAR SA WATER SAVINGS

302 MILLION LITRES OF WATER SAVED
1. Target of 2500 commercial green building certifications by 2020 (which are on average 30% more energy efficient than the South African legislated standard for energy efficiency)

2. A target of 10,000 residential green building certifications by 2020 (certifications per home).

3. A target of 12,000 professionals to be trained in green building principles and practices by 2020.

4. The GBCSA commit to introducing a net zero/positive certification scheme by 2020 for buildings, which will cover energy/carbon and possibly also cover water and waste