



public works

Department:  
Public Works  
**REPUBLIC OF SOUTH AFRICA**

# Upscaling of Green building across state owned facilities



Department Of Public Works  
Green Building Unit

# The Role of Public Works

The Department of Public Works, is the custodian of all state-owned property and represents the largest property portfolio in the country.

Public Works therefore bears the responsibility of addressing the need to bring the consumption of natural resources to within the 'carrying capacity' of the planet, while stimulating the development of the Green Economy.

# Portfolio Overview

Table 1.1 Total portfolio

	Land parcels	Buildings & Improvements	Assets Under Construction	TOTAL
Count	31 146	92 593	-	N/a
Extent (millions)	5.5 hectares	36.9 m <sup>2</sup>	-	N/a
Value	R48.9 B	R54.7 B	R8.7 B	R112.3 B

Table 1.2 Land Parcels by Zoning Type

Type	Count	Extent (hectares)	Value R mil
Agriculture	3 387	1.6 million	9 154
Education	5	1 550	4
Industrial	68	2 199	113
Residential	5 107	168 479	3 911
Specialised	22 579	3.7 million	35 763
Total			48 945

*Based on 2016-2017 Annual Report*

# Rationale

The Green Building Unit was established in 2015 to make a significant impact on the sustainability of the State's property portfolio

Through the development of the Green Building Policy and its implementation, the Green Building Unit will:

- Implement resource efficiency across the existing property portfolio
- Support the sustainable development of new buildings and refurbishments in the built environment through Green Building Lifecycle Management.
- Socio-Economic imperatives are a key driver

# Principles of the Green Building Policy

Leadership

Energy, water and  
waste management

Indoor environmental  
quality and comfort

Product and  
materials  
management

Promotion of  
Indigenous  
Knowledge Systems  
(IKS)

Acceptable  
horticulture and  
landscaping  
construction  
practices

Green Procurement

Monitoring and  
reporting

# Aims and Objectives

## Short term

- Reduced energy, water and waste usage and cost by at least 10% across DPW property portfolio
- Free Up Capex and Opex Budgets
- Embed sustainable building and refurbishment practice and green facilities management
- Support Local Manufacturing
- Implementation of targets on youth and women's empowerment – enterprise development

## Medium Term

- Reduced resource usage for client departments, communities and the country.
- Reduced financial burden on the national fiscus
- Creation of Green Jobs
- Stimulation of Green Economic Growth
- Social orientation towards sustainability
- Broad adoption of alternative building technologies and practices
- Establishment of a Super ESCO within the DPW (industry growth and international cooperation)

## Long Term

- Significant contribution to the reduction in GHG emissions
- Limit the impact of climate change through effective mitigation and adaptation
- Build sustainable communities
- Improved quality of life
- Catalyst for the circular economy
- Public Buildings that have a sense of place, nested in the culture of the region and foster national pride, cultural diversity, respect and reverence.

# Snapshot of Achievements

- Green Building Policy and Framework adopted
- Development of Green Building Sector plan and Technical Committee incorporating National and Provincial Public Works
- Roll out of energy, water and waste projects across all regional portfolios
- 10% of energy and water saved during the 2016-2017 financial year
- Development of Norms and Standards for Construction of Green Buildings
- Solar PV strategy in development with DBSA
- Engagement of National Treasury - GTAC

# New projects

## GHG Emissions Project

- Full GHG emissions study across the National DPW property portfolio.
- Development of science-based targets for implementation of resource efficiency

## Eco-Labeling

- Categorise and label construction materials
- Use of low impact construction materials in all DPW projects

## Post Shared Savings Resource Efficiency Projects

- Energy & Water Performance Contracting
- Deeper retrofits
- Holistic Resource Efficiency Perspective

## Cogen At WWTW

- 178 Small WWTW around the country offers potential for Biogas for own use

## Waste-to-Gas

- Make use of organic waste which would traditionally be directed to landfill, as a fuel source

## Residential Efficiency Roll out

- Residential roll-out similar to the projects of 2015 sponsored by Eskom
- Include Solar Hot Water heaters, and a range of water and energy efficiency technologies combined with careful monitoring and evaluation through smart metering.,

# Working with DPW

- Projects must be transformational
- Focus on creation of jobs, skills developments and enterprise development
- Sustainability of interventions and supporting DPW in effective maintenance and management
- Strict adherence to supply chain regulations
- Proof of capacity and ability to perform
- Strict security clearance protocol
- Complex environment requires broad stakeholder engagement

Thank you