



**sanedi**

South African National Energy  
Development Institute (SNC) Ltd.



# South Africa National Product Registration System for Appliances

Theo Covary, PhD  
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[theo@unlimitedenergy.co.za](mailto:theo@unlimitedenergy.co.za)  
[www.savingenergy.org.za](http://www.savingenergy.org.za)



**ENERGY INNOVATION FOR LIFE**

# Large Residential Appliances in SA



**Dishwashers**

1.3 million p/a



**Washer-Dryers**

< 0.1 million p/a



**Washing  
Machines**

0.5 million p/a



**Tumble Dryers**

<0.1 million p/a



**Electric Ovens**

0.6 million p/a



**Fridges and  
Freezers**

FF 1.3 million p/a  
F 0.3 million p/a



**Water Heaters**

0.5 million p/a



**Air Conditioners**

0.3 million p/a



**Lights Bulbs**



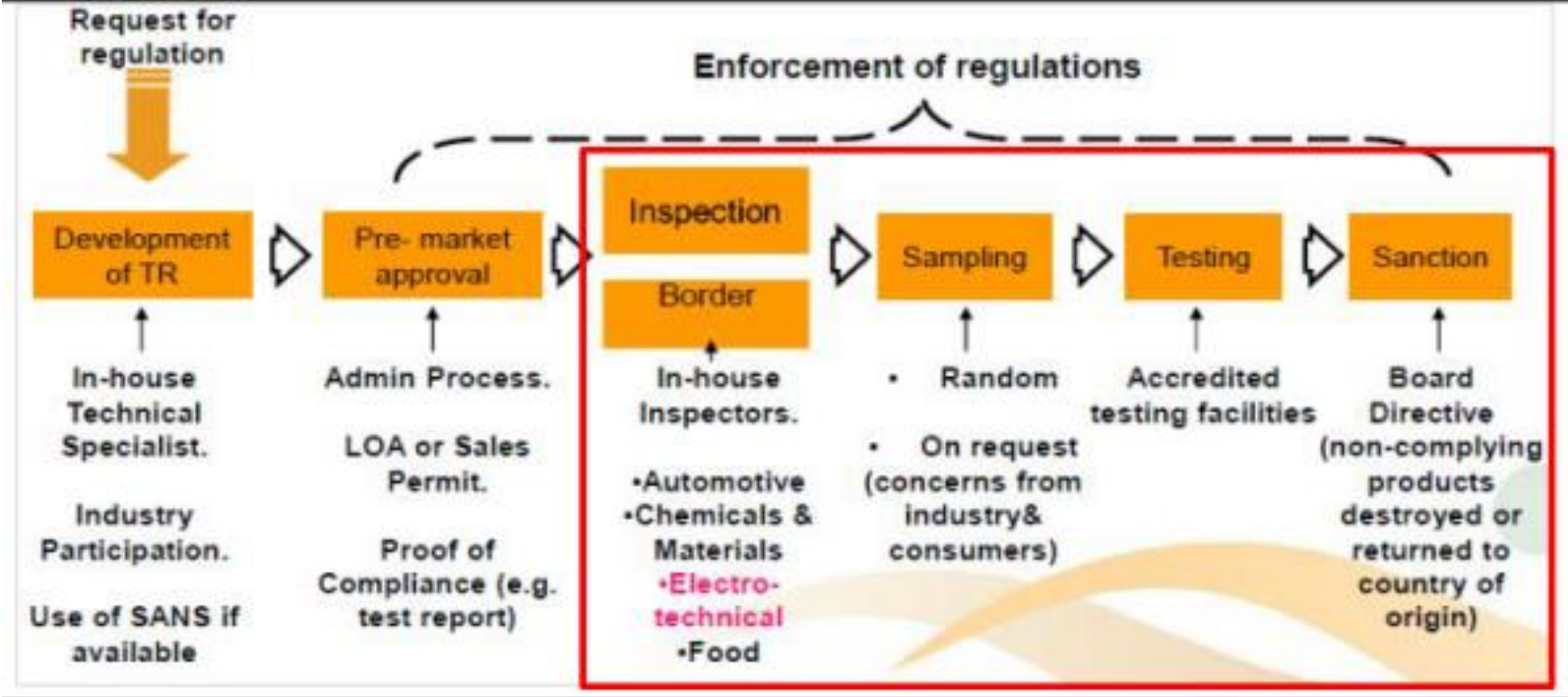
**Audio-Visual  
Equipment**

# South Africa's S&L Programme



- Supported by Energy Efficiency Strategy
- Successful GEF application (\$4.1m) 2011
- MEPS Legislation in 2015 & 2016 (water heaters)
- National Regulator for Compulsory Specifications uses the 3<sup>rd</sup> party conformity assessment approach
- The NRCS Act views public safety, health and environmental protection with the same lens

# NRCS Process Flow



- 🇷🇷 Established process
- 🇷🇷 No investment or lead time to create a Regulator
- 🇷🇷 Complements H&S registration requirements
- 🇷🇷 Sustainable funding model

# However,



- 🌍 Staff training required
- 🌍 Existing IT system not fit for purpose – old and H&S centric
  - Long LoA processing times – at one point >120 days
  - Combination of online and paper
  - Manual processes (errors, loss of data)
  - No data repository
  - Poor reporting
  - Inefficient market surveillance
- 🌍 Industry approached Minister and Parliament to intervene

# PRS – The Answer?



- 🇿🇦 International expert to develop technical specs
- 🇿🇦 ToR issued for a system developer
- 🇿🇦 Open source software
- 🇿🇦 Staff and industry training

[www.applianceregistrationdatabase.org.za](http://www.applianceregistrationdatabase.org.za)



energy  
Department:  
Energy  
REPUBLIC OF SOUTH AFRICA



LOGIN

REGISTER AN ACCOUNT

To create an on-line account that will enable you to register products for Energy Efficiency Products Database in South Africa submit the details below.

Email Address \*

theo@unlimitedenergy.co.za



Please enter a valid Email Address.

JDE Number \*

# PRS is a Game Changer



**Applicant  
Portal**

- Applicants can submit the relevant supporting documents to acquire LOA



**Regulator  
Portal**

- Evaluators can view, evaluate and make decisions on applications submitted



**Public  
Portal**

- The public can check LOA's of an appliance and compare energy efficiency

**Shifts responsibility to applicant, with basic intelligence and automated responses**

# Progress to Date

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- 🌍 Online registration database is live (May 2021)
- 🌍 LoA application processing times have dropped from ~70 to ~15 days
- 🌍 NRCS officials would like the system to be replicated for H&S applications
- 🌍 After initial concerns of revised application approach, industry recognises the benefits of an automated system



# Still to do

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- 🌐 Data analysis and reporting
- 🌐 Risk based compliance
- 🌐 Public access to database
- 🌐 Updating energy label with QR code

# Evolution of Energy Label



Proposed

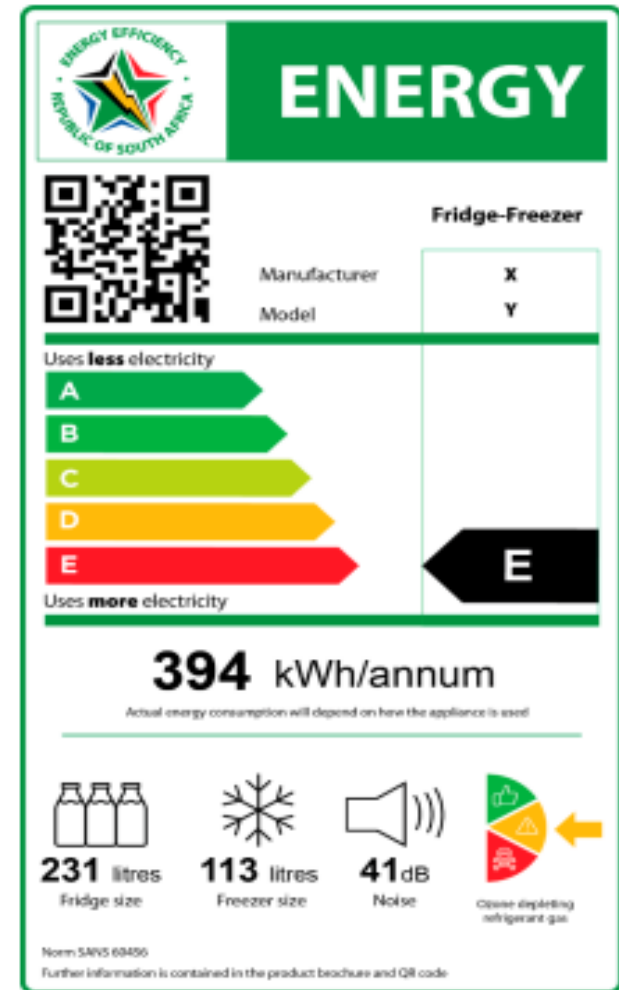


Figure 22: Recommended A - G scale, MEPS-1



## Change must be managed

- Ministries must remain up to date with technology advances
- Regulator staff must be convinced of the benefits
- IT department must be on board
- Business process (re) engineering is a crucial intermediary step
- Industry must be dealt with fairly but **firmly**



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**THANK  
YOU**



# SA's S&L Impacts and Remaining Potential

- 7.1 TWh (2030) - the total avoided capacity of a 1.1 GW plant
- Lighting MEPS additional 1.5 TWh by 2040 (250 MW plant).
- HH utility bills will ↓ \$1.2b 2030.
- HH bills will be ↓ \$54 by 2030.
- CO<sub>2</sub> ↓ 6.8Mt/year 2030  
(= Zambia)
- 10b litres of water/year (2030)
- Particulate emissions ↓ by 3 kt,  
Sulphur oxide ↓ 2.5 Mt  
Nitrogen oxide emissions ↓ 24 kt

