



## Energy Efficiency Financing Policy:

# South Africa's Standard Offer Scheme

Country Energy Policies

7 December 2011

# Research has been undertaken into the market potential for energy savings per technology

Technology	Resid	Comm	Indus	Total
Efficient Lighting	939	115	116	<b>1,170</b>
Solar Water Heating	3,713			<b>3,713</b>
Domestic Cooking Conversion	2,144			<b>2,144</b>
Infra red heating	766			<b>766</b>
Heat Pumps	960	224	569	<b>1,753</b>
Showerheads & Restrictors	240	160		<b>400</b>
Load Management		9	200	<b>209</b>
Heating, Ventilation & (HVAC)		14	70	<b>84</b>
Agricultural Initiatives		144		<b>144</b>
Efficient Compressed Air			1,255	<b>1,255</b>
Motor Efficiency			408	<b>408</b>
Variable Speed Drivers			417	<b>417</b>
Fan / Pumps			530	<b>530</b>
<b>TOTAL</b>	<b>8,762</b>	<b>666</b>	<b>3,565</b>	<b>12,933</b>

- The market's total potential is the estimated maximum amount of demand savings that can be achieved in each technology class.
- The market potential was estimated in a recent research study conducted by EEDSM.
- In setting targets, the market penetration in any of the technology classes did not exceed 50% of the research finding's maximum market potential.
- The above conservative target settings approach allows for market estimation accuracy, customer own projects and supply chain constraints.

# NERSA has granted Eskom funding to pursue these market opportunities

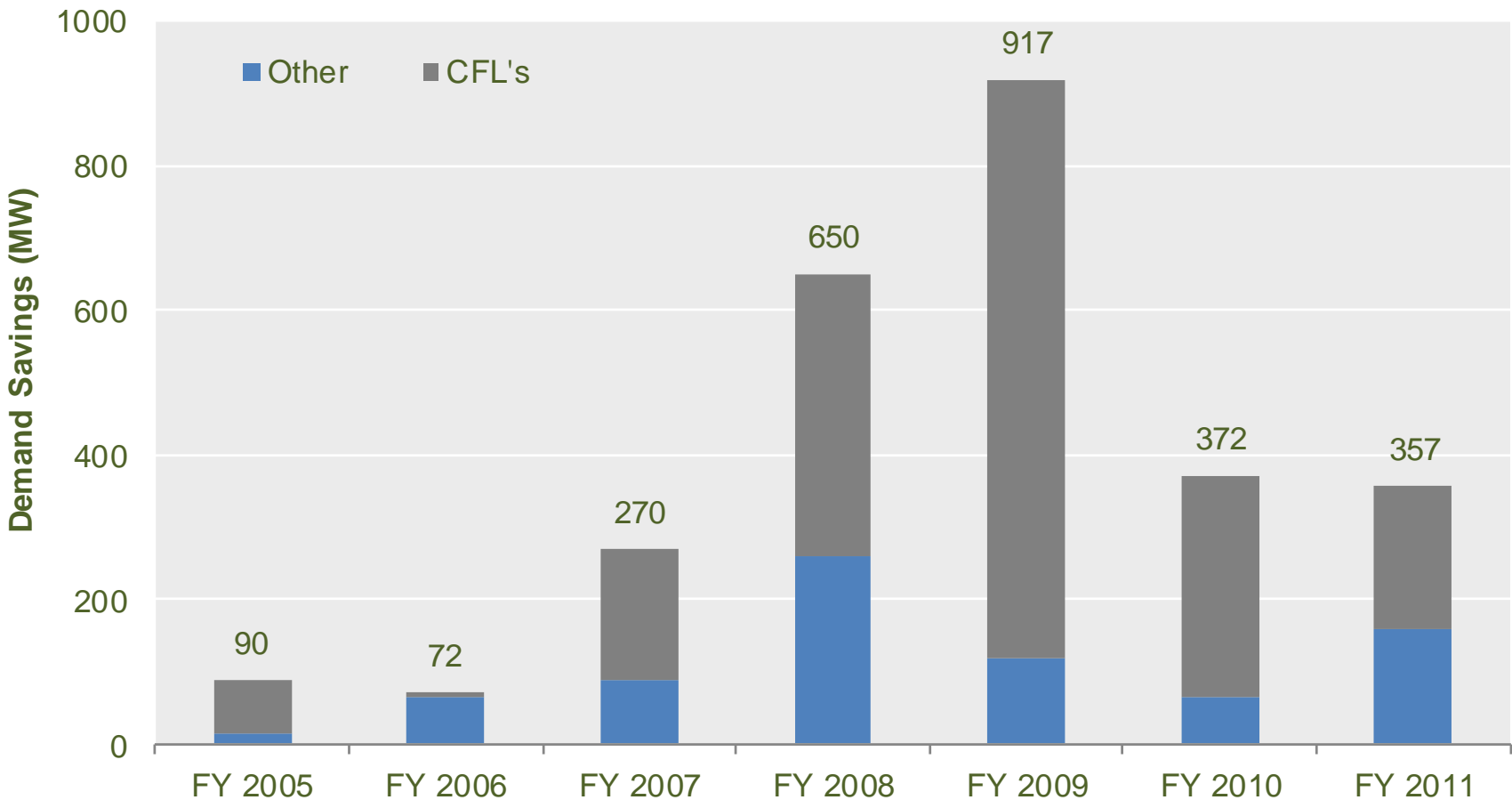


- As part of the MYPD2, NERSA approved a total of R 5,445m for Energy Efficiency and DSM. *“These funds will be applied for project implementation and administrative costs for DSM, energy efficiency and demand-reduction programmes, including a portion of the solar water heating (SWH) initiated by the Department of Energy (DoE).”*

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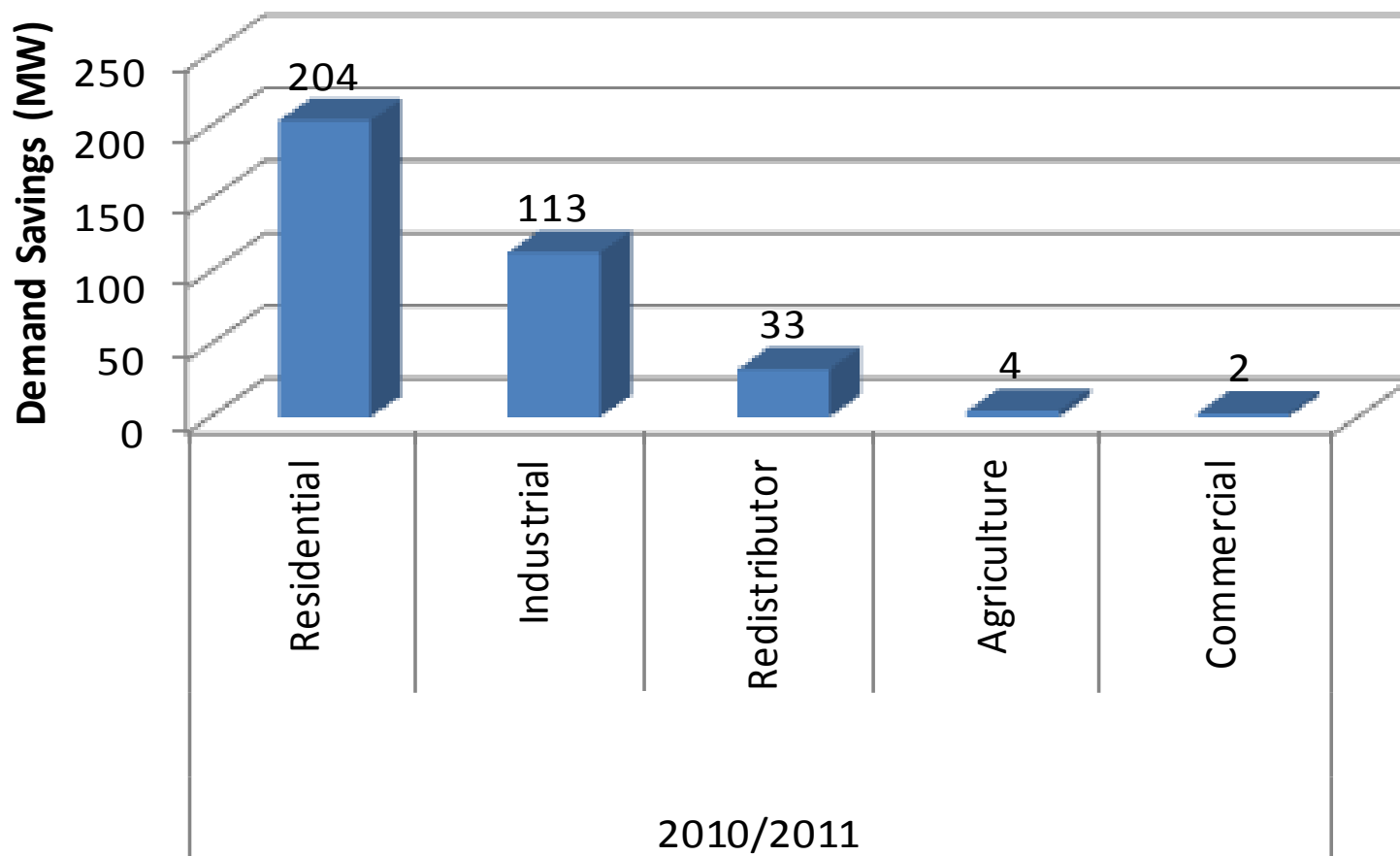
	Demand Savings (MW)					
	Current Year FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Total
<b>Eskom EEDSM</b>	301	313	459	502	656	2231
<b>MYPD2 NERSA Approved</b>	289	301	447			1037
<b>IRP2</b>	252	242	315	501	656	1966

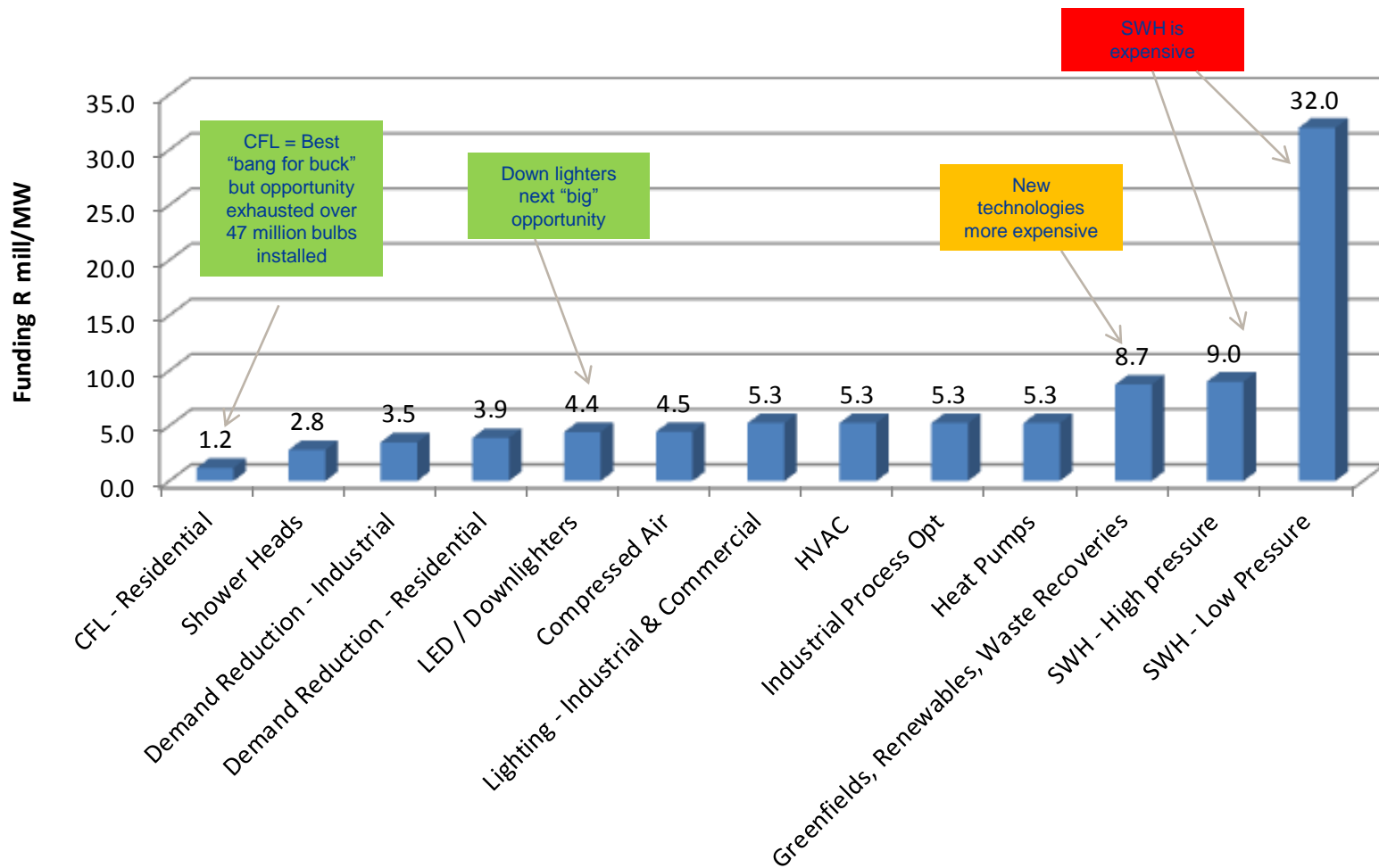
# Demand Savings (MW) Claimed Since Inception Of IDM Programme



# Lets change this picture....

Demand Savings = 355 MW





The IDM energy savings target for 2011/12 could power a city for a year

**1,280**  
Gigawatt hours

either of

**Buffalo City**

(1,305 GWh consumed during 2006)

**Mangaung**

(1,397 GWh consumed during 2006)

for ~1 year

or

**Sol Plaatjie**

(514 GWh consumed during 2006)

for 2½ years



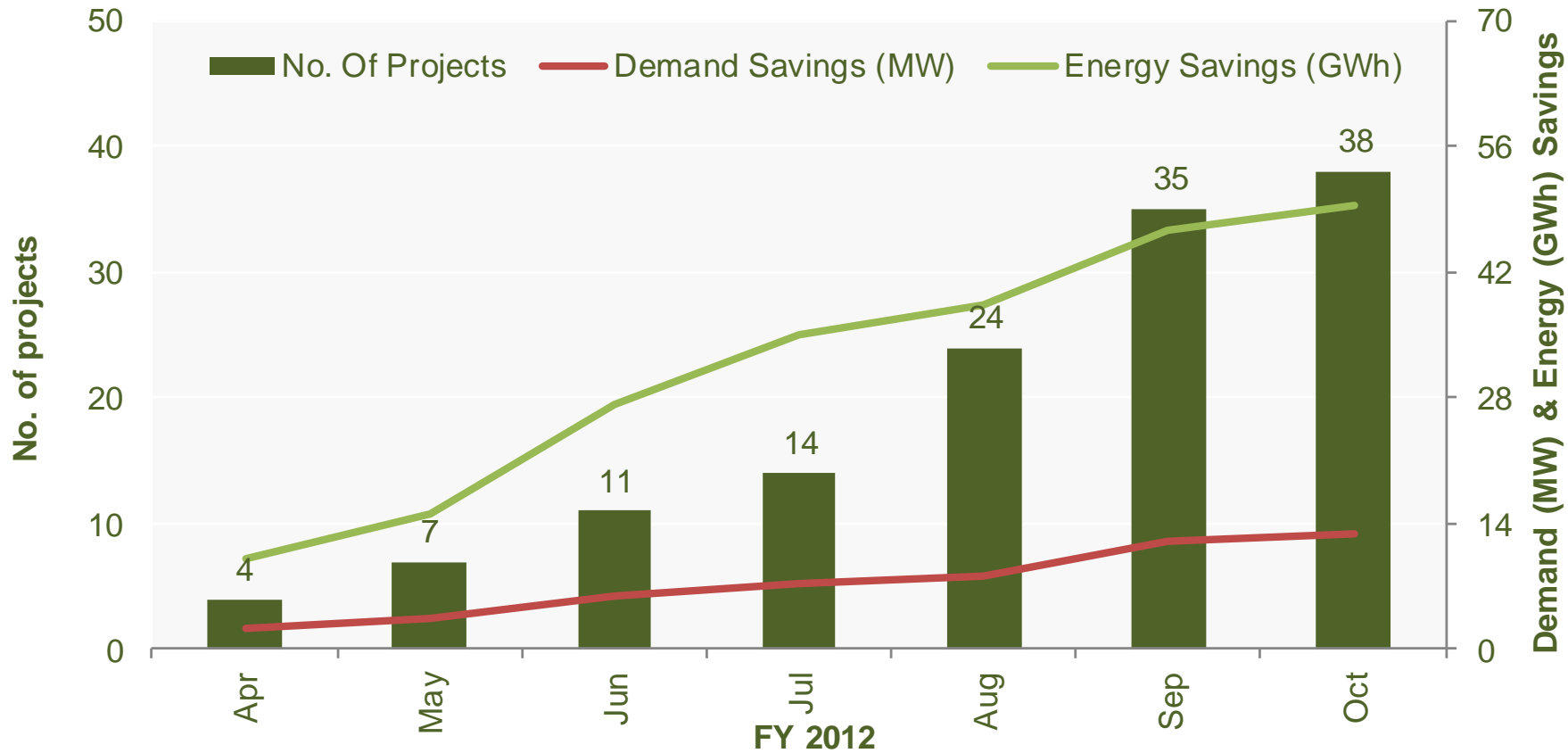
Source: Annual electricity consumption/sales as reported in the State of Cities 2006, City Energy Support Unit, Sustainable Energy Africa, 2006

# Current Funding Mechanisms and Initiatives

	ESCo Process	Rebates	Mass Roll-out	Standard Offer	Standard Product	Performance Contracting
Size	Projects > 1MW	Individual Products	Large Scale Roll-outs	50kW<Project<5MW	Projects <100kW	Substantially larger than ESCo process >5MW
Eskom Payment Value	Based on individual project calculation	Value per product based on savings potential	In line with MYPD benchmarks, with discretion	Standard value per kWh saved per technology. Focus on daytime hrs 6am – 10pm weekdays.	Standard value per item calculated based on savings potential	Competitive bidding process. Contract over 3 yrs.
Funding	Customer and Eskom (up to NERSA benchmark)	Customer and Eskom (up to NERSA benchmark)	Eskom or DoE	Market price per technology (up to 85% of NERSA benchmark)	Market price per technology (up to NERSA benchmark)	Customer and Eskom (up to NERSA benchmark)
Payment	Progress payments to ESCo's	Rebate claimed by consumer	Progress payments	70% on implementation, 10% pa based on M&V	100% on installation, based on M&V	Progress payments with retainer at a rate of 55c/kWh peak hrs.
Investment Decision	Individual IC approval	Once-off IC approval per technology	Individual IC approval	Bulk IC approval per technology	Bulk IC approval per technology	Bulk approval of individual projects
Procurement Decision	Price evaluation based on submitted approval	Rebate administration outsourced	Individual tender processes	Streamline individual project approvals Possibly no requirements if outsourced	Streamline individual project approvals Possibly no requirements if outsourced	RFI Tender

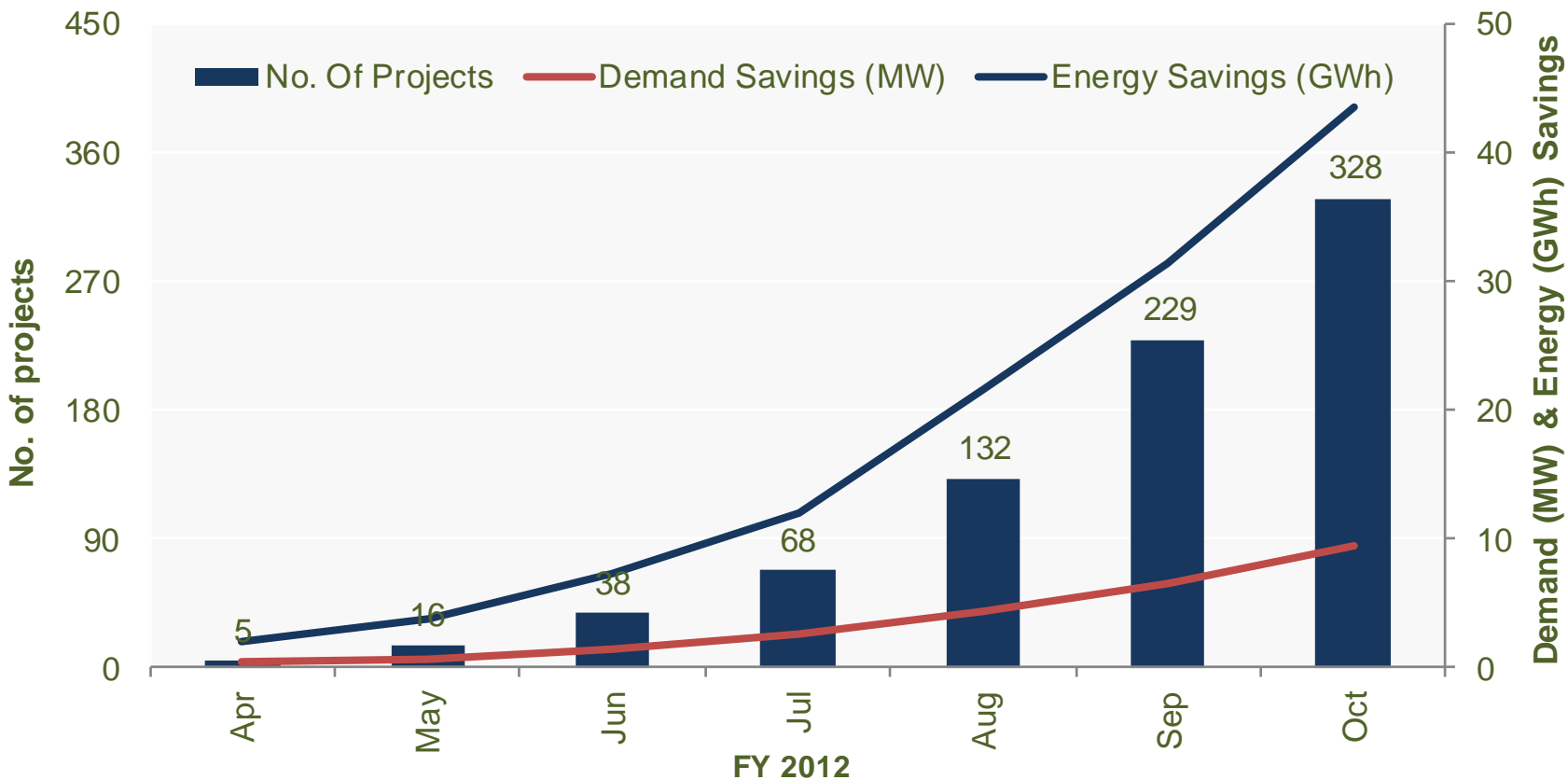


# Cumulative Progress on Registration Of Standard Offer Projects - As at end October 2011



FY 2012 = 38 projects registered with a demand savings = 12.8MW  
 Since inception (July 2010) - 52 projects registered with a demand savings of 16.4MW

# Cumulative Progress on Registration Of Standard Product Projects - As at end October 2011



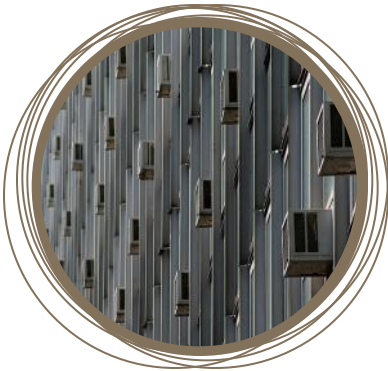
FY 2012 - 328 projects registered with a demand savings = 9.4MW  
 Since inception (Jan 2011) - 362 projects registered with a demand savings of 11.7MW

# Standard Products

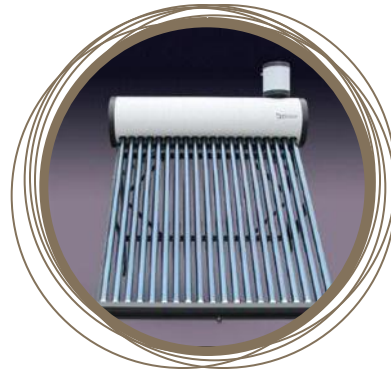
We started with lighting



Extension of standard product offer to include:



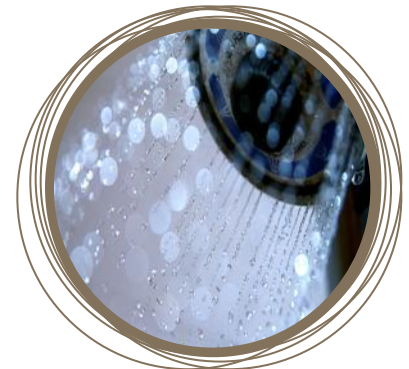
Air  
conditioners



Solar water  
heaters



Heat  
pumps



Shower  
heads

For Industrial and large commercial customers

For projects that save more than 5MW

Pays 55c/kWh during 'peak' (06:00 – 22:00)  
Pays 10c/kWh off peak and weekends

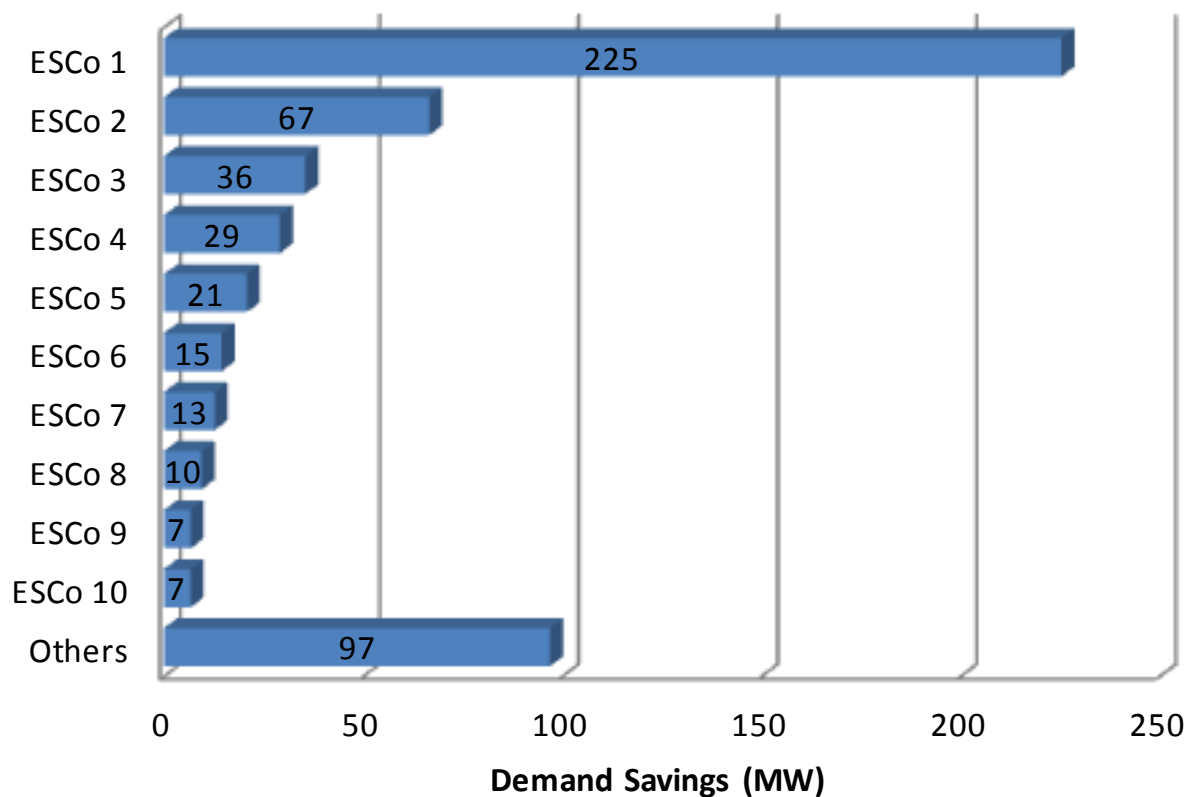


Published rate and invitation to tender

Contracts to value of R 750m awarded

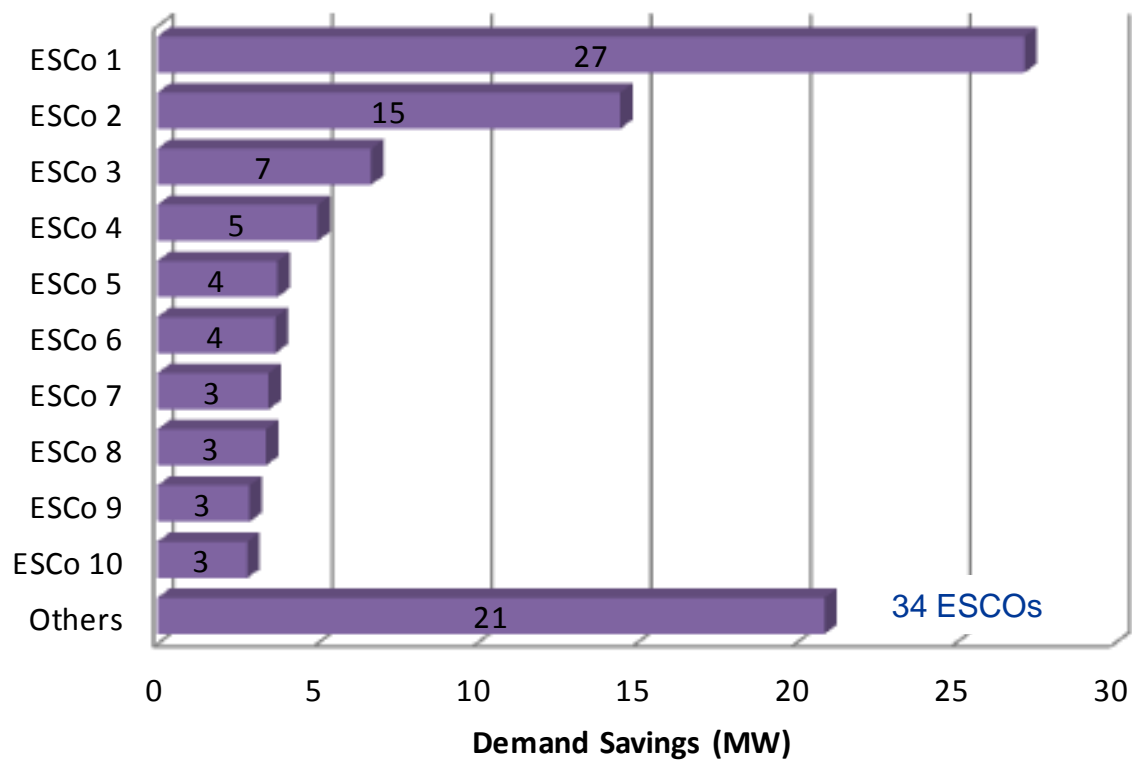
# Breakdown Of ESCOs In Industrial Sector

- Numerous ESCOs participate in the IDM programme
- To date the top 5 ESCOs have delivered 72% of the demand savings achieved



# Breakdown Of ESCOs In Commercial Sector

- Many smaller ESCOs (44) participate in the IDM programme in the Commercial Sector
- To date the top 5 ESCOs have delivered 61% of the demand savings achieved



Thank you