

Annual Report

Eskom's IDM Activities and Related Performance

for the Year 1 April 2013 to 31 March 2014

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Glossary of terms

CFL	Compact fluorescent lamp
DoE	Department of Energy
EA	Energy Audits
ESCO	Energy service company
Financial year	From 1 April of the previous year to 31 March of the mentioned year
FY	Financial year
FY2014	1 April 2013 to 31 March 2014
GWh	Gigawatt-hours (energy measurement)
IDM	Integrated Demand Management
MAD	Measure acceptance date
Project status: implementation	Project is in process of being implemented/installed at the customer's premises
Project status: completed	M&V has issued a performance certificate, DSM has issued an MAD certificate, and customer assumes responsibility for the project
Project status: MAD still to verify	Project has been fully installed, completion certificate has been issued, and waiting for M&V to deliver the first performance assessment report
Project status: verified	First assessment report has been issued for the project
MW	Megawatt (demand measurement)
M&V	Measurement and Verification
Residential	All residential households
SWH	Solar water heating

1. Executive summary

Since Eskom initiated demand-side management projects in 2004 and actively measured the results, the demand savings realised in the Eskom evening peak (18:00 to 20:00) have risen in line with the growing requirement for demand reduction.

IDM has focused on the realisation of energy and demand savings within the evening peak, utilising ESCO-related projects in the industrial, mining, and commercial sectors of the economy, in addition to hot water load management and energy-efficient lighting projects (compact fluorescent lamps or CFLs) within the municipal residential environments.

The following is a summary of IDM's results:

- The accumulated Eskom IDM demand savings from inception to financial year (FY) 2014 are 3 978 MW (Figure 1), against a target of 3 446 MW.
- The total evening peak demand savings achieved for FY2014 are 409.6 MW, against a target of 379 MW. Included in the achieved saving figure is 12.1 MW for DoE projects.
- The annualised energy savings for FY2014 are 1 362.9 GWh (of this value, a total of 53.42 GWh is for the DoE projects), against a target of 1 853 GWh.
- The FY2014 savings were achieved through 203 projects, which were summarised into 122 M&V reports according to their project allocations.
- Demand Response had 1 361 MW certified for dispatch.
- The costs incurred in FY2014 were R1 357 million, against a budget of R1 455 million.

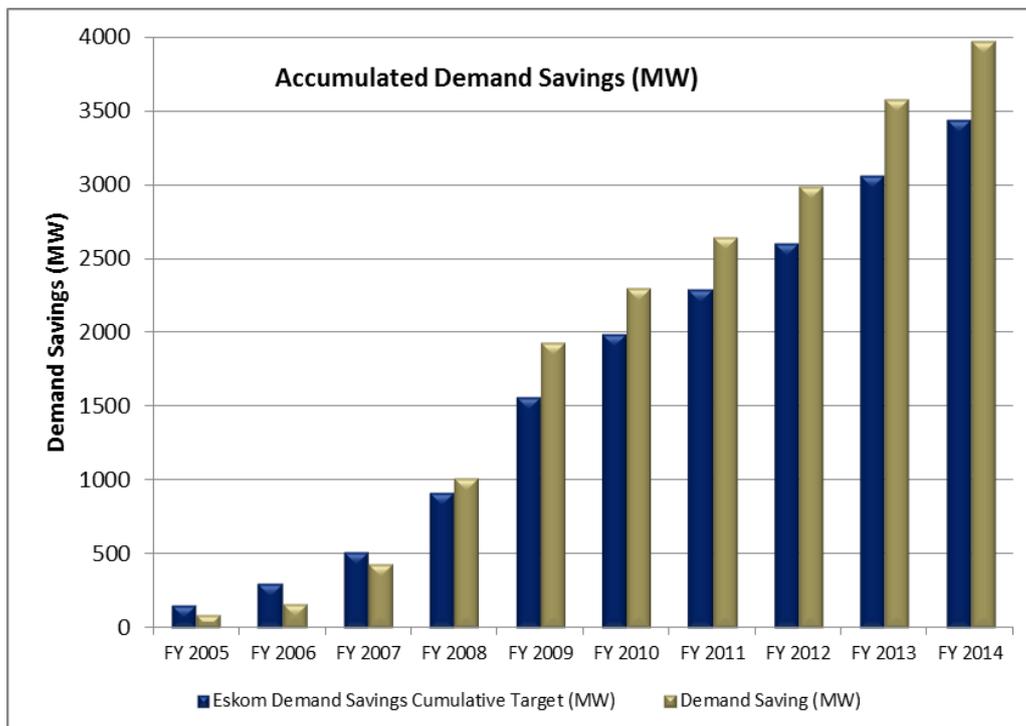


Figure 1: Cumulative demand savings (in year claimed) achieved by IDM since inception

2. Overview

2.1. Introduction

Since 2004, Eskom has offered programmes geared towards supporting and funding energy efficiency. Initiatives and programmes are all aimed at balancing supply and demand in the short to medium term and are consolidated and coordinated for optimal effect.

Eskom is working towards its objectives through:

- implementing a “step change” in demand management delivery through an integrated and innovative portfolio of demand management initiatives;
- optimally using Eskom and national resources to deliver the national demand-side management initiative;
- transparent communication of the extent and nature of the electricity crisis to create acute national awareness that will drive the required response; and
- partnering with stakeholders through a proactive and collaborative approach to contribute to national energy efficiency objectives.

Nersa has, in the MYPD3, allocated R5 183 million to fund these initiatives over five years. Certain initiatives are fully funded, while customers contribute a portion of the cost of others.

2.2. IDM and future sustainability and drive

IDM requires a steady supply of new sustainable products to offer the market. As part of this need, IDM develops concepts and solutions to offer customers new innovative DSM offerings.

2.2.1. Products and services

New products and services are required to enable IDM to ensure that the market is willing to participate in the programmes. Each solution has its own unique technical, market, funding, and roll-out challenges. These solutions need to be developed and documented to be ready to be rolled out to the implementation teams to assist in reaching the IDM demand and energy reduction targets.

This is done using the solutions development innovation “funnel” process, which is loosely based on the Eskom project life cycle model. In order to achieve this, analysis of the required process flow is undertaken in order to assess possible gaps that will cause blockages in the process flows affecting solution development, execution, governance, and implementation. Activities also include analysis and evaluation of the actual proposals for “technical and financial soundness”, potential implementation challenges, as well as market constraints. Examples of current solutions/products (and associated processes) are the current Standard Offer, Standard Product, Performance Contracting, and Residential Mass Roll-out funding mechanisms. (See Annexure B.)

2.2.2. Project approval

In order for a project to be granted funding, the project is required to be approved by a rigorous approval process. Projects are evaluated for technical (Technical Evaluation Committee (TEC) and Project Evaluation Committee (PEC)) and financial (Investment Committee (IC)) viability. Costs are compared against predetermined benchmarks as a guideline and cross-checked against the cost avoidance model, where necessary.

Once these validations and cross-checks have taken place, the Procurement Committee will thereafter grant a mandate to negotiate and conclude a contract with the service provider.

2.3. Current-year highlights

Other highlights for the year are as follows:

- Power Alert continued to drive savings in critical time. During the year, average demand savings of 297 MW were attained during the evening peak on maximum constraint days (more details are available from the M&V report, which can be provided on request).
- The CFL Sustainability Programme installed 1 227 521 units during the financial year 2014.
- Promoted growth and establishment of SMMEs through the Standard Product Programme.
- Introduced new energy-efficient lighting technologies such as light-emitting diode (LED) tubes.

3. IDM performance

3.1. Demand and energy savings performance

The total evening peak demand savings achieved for FY2014 were 409.6 MW, against the Nersa target of 379 MW. The annualised energy savings for FY2014 were 1 362.9 GWh, against the Nersa target of 1 853 GWh. These savings were achieved through 203 projects, which were summarised into 122 M&V reports according to their project allocations.

Of the total savings achieved, 107.9 MW of demand savings were installed, but will only be verified in the financial year 2014/15. Also, demand savings of 12.1 MW and energy savings of 53.4 GWh were installed and verified as part of the DoE SWH Programme. (See Table 1 for a breakdown of the above.)

IDM reporting category	Status	Demand savings (MW)	Annualised energy savings (GWh)	No. of projects
MYPD	Installed and verified FY2013/14	289.6	1 309.5	158
MPYD	FY2013/14 installed, not verified	107.9	0.0	27
DoE	Installed and verified FY2013/14	12.1	53.4	18
TOTAL Eskom IDM savings		409.6	1 362.9	203

Table 1: Consolidated savings towards target for FY2014

These results are broken down further, according to the implemented IDM programmes listed below (Table 2).

Programmes	Demand savings (MW)	Annualised energy savings (GWh)	No. of projects
CFL Roll-out	81.8	219.0	19
Demand Reduction	34.9	1.0	7
Heat Pumps ¹	2.0	9.6	9
Lighting and HVAC	123.7	445.8	87
Process Optimisation	48.9	391.2	41
Compressed Air	9.4	101.8	5
Renewables	0.4	4.2	8
RMR – Geyser Control	87.2	92.1	6
Waste Heat Recovery	9.2	44.8	3
MYPD total	397.5	1 309.5	185
SWH	12.1	53.4	18
DoE total	12.1	53.4	18
GRAND TOTAL	409.6	1 362.9	203

Table 2: Savings towards target for FY2014

Note 1: The MYPD3 decision does not include funding for the heat pump programme; however a review period was agreed to by NERSA for reconsideration. This was subsequently disallowed and the programme was discontinued.

3.2. Historical performance of demand savings (MW) achieved by IDM

The Eskom IDM Programme started in 2004, with savings only realised and reported on in the financial year 2004/2005. From the inception of IDM until the end of FY2014, total demand savings of 3 977.9 MW were installed (Figure 2, Figure 3, and Table 3).

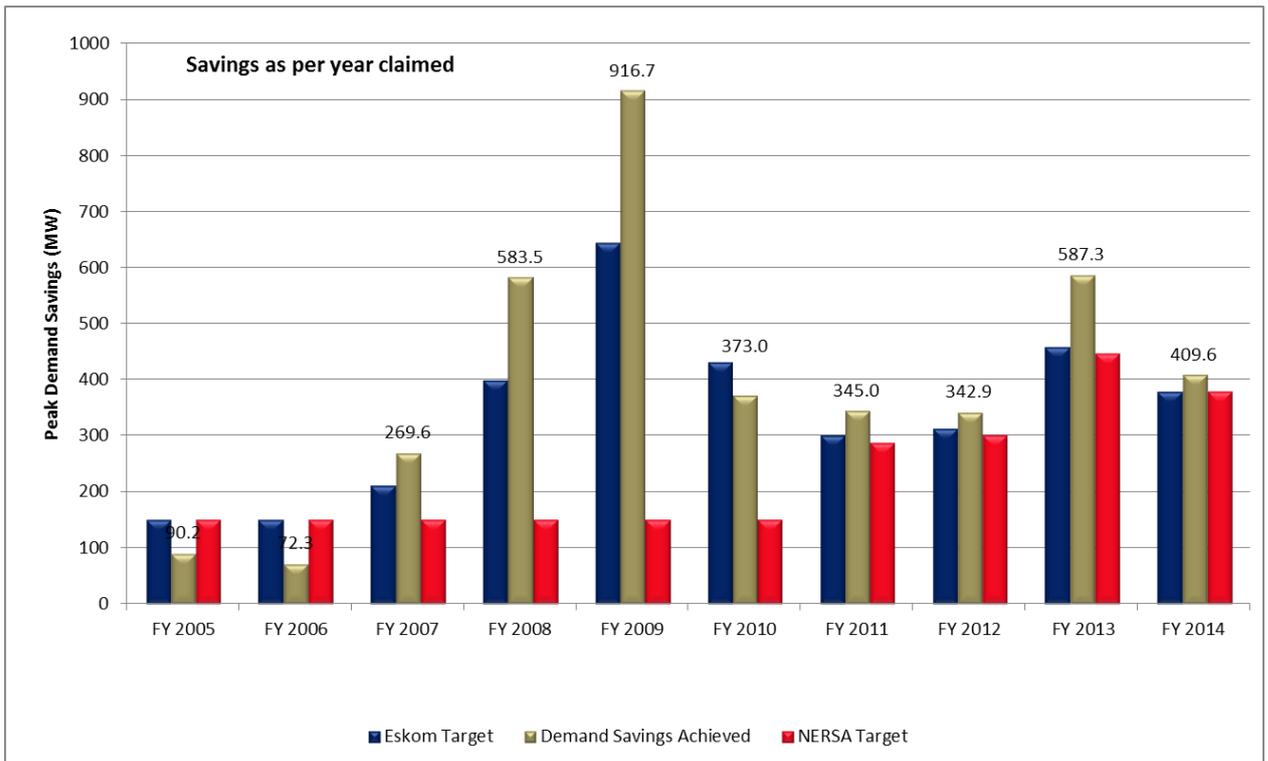


Figure 2: Annual demand savings achieved by initiatives implemented by IDM since inception in the year in which they were claimed

Financial year	Nersa target (MW)	Eskom target (MW)	Demand savings achieved (MW)	Nersa target (MW)	Eskom target (MW)	Demand savings achieved (MW)
FY2005	152	152	90	152	152	90
FY2006	152	152	72	304	304	162
FY2007	152	213	270	456	517	432
FY2008	152	400	584	608	917	1 016
FY2009	152	645	917	760	1 582	1 932
FY2010	152	432	373	912	1 994	2 305
FY2011	289	301	345	1 201	2 295	2 650
FY2012	301	313	343	1 502	2 608	2 993
FY2013	447	459	587	1 949	3 067	3 580
FY2014	379	379	398	2 328	3 446	3 978
Total	2 328	3 446	3 978			

Table 3: Annual and cumulative demand savings (in year claimed) achieved by IDM since inception (to be read in conjunction with Figure 3)

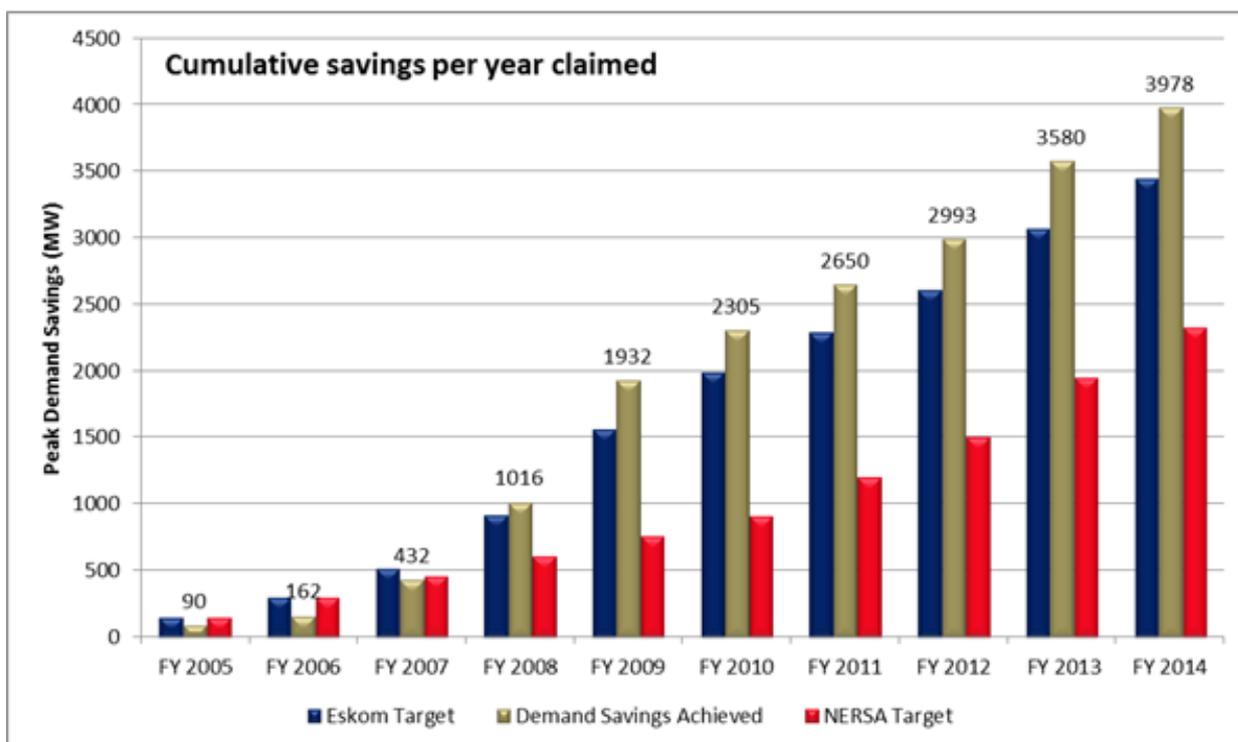


Figure 3: Cumulative sustainable verified demand savings (in year claimed) achieved by IDM since inception (to be read in conjunction with Table 3)

The accumulated Eskom IDM demand savings for the financial years 2005 to 2014 were 3 977.9 MW. This was achieved through several funding sources and drives, as shown in Table 4.

Source of funding		Peak demand savings inception to 2013 (MW)	Peak demand savings in 2014	Total peak demand ITD (MW)
Nersa	Sustainable projects	3 480.4	397.5	3 877.9
	Western Cape focus – FY2007	100.0	-	100.0
IDM sustainable projects total		3 580.4	397.5	3 977.9
Nersa	DMP non-sustainable – claimed 2008	67.0	-	67.0
DoE		4.9	12.1	17.0
Self-funded		9.0	-	9.0
TOTAL		3 661.3	409.6	4 070.9

Table 4: Breakdown of sustainable and non-sustainable demand savings achieved through the IDM Programme since inception

With reference to Table 4, the following should be noted:

- The 2007 financial year included 100 MW from the dedicated energy savings drive to restore the reserve margin in the Western Cape following the unplanned shutdown of the Koeberg nuclear plant. These demand savings were not claimed by EEDSM, but as these projects were deemed sustainable, their performance was monitored and reported quarterly by Energy Audits (EA).
- The 2008 financial year included 67 MW claimed for DMP (Demand Market Participation). These megawatts were not deemed sustainable and were no longer included in DSM targets. These were reported on, but not included in the claimed savings.
- The 2011 financial year included 9 MW from a non-funded project, which had IDM technical input and support. This was reported on, but not included in the claimed savings.

A single power station's generator unit contributes about 600 MW to the national grid. In the past 10 years, Demand-side Management's sustainable projects have "freed up" more than six generators (a typical power station has six).

3.3. Financial performance

The budget approved for IDM (excluding Demand Response) in the MYPD3 for FY2014 was R1 455 million. As at the end of March 2014, an amount of R1 357 million had been spent. A summary of this expenditure is shown below, with a more detailed breakdown provided in the abbreviated income statement in Annexure A.

The net project expenses (monies paid for the implementation of IDM projects) for the year amounted to R1 051 million. These expenses reflected a variance of R56 million against the budget of R1 107 million.

IDM spending	Cost (Rm)
Projects	1 051
Project recoveries	-32
Marketing and communications	85
Power Alert	40
M&V	79
Operating costs	134
TOTAL	1 357

Table 5: Breakdown of total budget spend for FY2014

3.3.1. Income statement overview (Annexure A – Income statement)

3.3.1.1. Income

Income of R32 million consisted of cost recovery for energy-efficient projects implemented and completed. There was also an income of R43 million due to over recovery on DoE-funded projects (Solar Water Heating) as compensation for under recovery in the prior financial years.

3.3.1.2. Net operating expenses

Total Nersa funding for the year amounted to R1 357 million, against a budget of R1 455 million, resulting in a favourable variance of R98 million.

3.3.1.3. Depreciation

The depreciation expense was minimal for the year.

3.3.1.4. Manpower

Overall manpower costs amounted to R95 million for the year. This represents a R1 million variance from budget. IDM had 125 staff members reflected on the payroll at the end of March 2014.

3.4. Measurement and Verification

M&V costs of R79.2 million were incurred during the financial year, against a budget of R57.7 million.

For FY2014, M&V received 83 M&V requests from IDM. For the same period, M&V reported on 122 projects. This was due to projects that were registered on the IDM and M&V databases in a financial year not always being implemented and verified within that same financial year.

M&V reported on 122 projects, equating to 296.7 MW. The same 122 projects equalled the 203 projects IDM reported on, achieving 289.6 MW. The difference in the verified demand savings was due to 7.1 MW claimed in FY2013 and verified in FY2014. The difference in the number of projects was due to the following:

- M&V reported on a project per M&V request received.
- IDM projects were split per region for Mass Roll-out projects (RMR, CFL).
- IDM projects were split per quarter for Performance Contracting projects.
- SWH Rebate Programmes were split per quarter per region for IDM.
- Certain national commercial and industrial projects were reported on per region, whereas M&V reported on the single M&V request.

3.5. Demand Response (DR)

Demand Response (DR) is a pricing initiative that offers participating customers the opportunity to receive monetary compensation for load reduction during times of supply or network constraints when requested by the System Operator.

The table below shows the breakdown of the Demand Response programmes.

Programmes	Funding source	Verified demand savings (MW)	Energy reduction (GWh)	Cost (Rm)
Supplemental DR	MYPD3	657	105.3	146.7
Instantaneous DR	MYPD3	685	n/a	54.7
Standby Generation	MYPD3	19	7.4	12.3
Emergency Demand Response	MYPD3			8.0
Hard-wired Winter Plan	MYPD3			25.9
Demand Response total		1 361	112.7	247.6
Administration cost	MYPD3			14.8
Grand total				262.4

Table 6: Demand Response programmes FY2014

A detailed report is provided in Annexure C.

3.6. Solar Water Heating

As per the agreement between Nersa, DoE and Eskom, the Solar Water Heating programme will in future be funded by DoE.

The breakdown of units installed for the Rebate programme is provided for information only (see Table 7).

IDM reporting category	FY claimed	No. of units installed	Low pressure	High pressure	Contract
DoE	ITD	336 391	225 246	62 914	48 231
	FY2014	46 151	31 901	14 250	
TOTAL		382 542	257 147	77 164	48 231

Table 7: Breakdown of SWH units installed since inception of Rebate Programme

4. Annexure A – Income statement

**INTEGRATED DEMAND MANAGEMENT
DETAILED INCOME STATEMENT
31 March 2014**

	Actual R'm	Planned R'm	Variance R'm
DoE AND METRO FUNDING	-43	-	-43
DoE Funding	-312	-	-312
DoE Funded Projects	269	-	269
MYPD FUNDING -DSM	1 357	1 455	-98
Depreciation	0.4	0.5	-0.1
Consulting fees	26	13	13
Insurance	0.01	0.2	-0.2
Legal Fees	1	1	-0.2
Manpower	95	100	-5
Marketing	125	174	-49
Measurement and Verification	79	58	21
Net Project expenses	1 019	1 107	-88
EE and LM Projects	1 051	1 107	-56
Energy Efficiency Project Recoveries	-32	-	-32
Repairs and Maintenance	0.04	0.1	-0.1
Research	1	2	-1
Sundries	10	-	10
Net (Income) / Loss	1 314	1 455	-141

5. Annexure B – Overview of IDM programmes and offerings

In order to expedite projects, it became necessary to expand the traditional ESCO funding mechanism to alternative models, which offered greater speed and convenience for smaller customers and projects. These are not new programmes per se, but rather implementation vehicles to optimise the Eskom internal investment and procurement approval processes.

5.1. Standard Offer

The Standard Offer is a mechanism used by Eskom for acquiring demand-side savings, under which Eskom will pay for verified energy savings using a predetermined and pre-published rate in c/kWh for the implementation of an approved technology.

The Standard Offer will:

- pay for energy savings at a published rate;
- focus on the 16 daytime hours between 06:00 and 22:00, weekdays only; and
- have a contract duration of three years.

Any energy user (customer), project developer, or energy service company (ESCO) that can deliver verifiable energy savings, from 10 kW to 5 MW, can propose projects and, if successful, will be paid the fixed amount per kWh over a period of three years. Achieved savings will be verified by an authorised, independent measurement and verification (M&V) organisation.

5.2. Standard Product

The Standard Product (SP) Programme is designed to cater for customers with energy savings of 1 kW to 250 kW and energy savings of at least 2 MWh per annum.

The SP Programme is a mechanism designed to provide specific rebates for efficiency improvements derived from the implementation of approved technologies. SP technologies are solutions designed to act as replacements for less energy-efficient technologies.

Participation in the SP Programme requires no formal contract – only a formal commitment by the customer. The project approval turnaround time frame has been streamlined in order to create the capacity to implement small and medium-sized projects. In order to accelerate energy efficiency projects, the SP project approval time frame should take no more than four weeks.

Only technologies that have been approved by Eskom according to minimum requirements will be considered to be Standard Products. Customers must ensure that new installations and technologies conform to all applicable laws, specifications, and regulations. It should be noted that any deviation from SP specifications will be for the customer's account. This SP list will continue to grow as "new" technologies are identified and approved for inclusion. In this last year, IDM has seen this programme attract a great deal of uptake from the market. This has also been a springboard for new emerging SMMEs wishing to participate in the energy market.

As an extension of this programme, IDM also offers an aggregated Standard Product, which allows the project developer to package multiple clients under a single contract. The rules are the same as those for SP, with the exception that the project developer/ESCO can claim the rebate on behalf of the client. This programme is managed via a custom contract, and the contract size is between 250 kW and 5 MW.

5.3. Performance Contracting

The target market for Performance Contracting is large industrial consumers and ESCOs. Similar to the Standard Offer, Eskom will “buy” energy savings at a fixed rate over an extended period of three years. Payments are made based on actual realised savings. Consumers and ESCOs will benefit from economies of scale associated with such large “bankable” projects. Consumers and ESCOs will not be constrained by Eskom requirements for individual project evaluations and approvals.

5.4. Residential Mass Roll-out

The Eskom Residential Mass Roll-out (RMR) Programme focuses on the replacement of energy-efficient and demand-reduction technologies in the residential sector. Eskom, through accredited project developers, provides a “mixed basket” of technologies, free of charge, to home owners. Technologies include low-flow shower heads, CFL lamps, LED downlighters, pool timers, geyser timers, and geyser blankets. A key objective is to implement a load management devices that will switch out geyser load between 06:00 and 08:00 and between 18:00 and 20:00.

5.5. ESCO Programme

ESCOs who are accredited by Eskom operate by establishing a three-way partnership among themselves, Eskom, and the customer and use their knowledge of DSM technologies and programmes to determine the best way of obtaining electricity savings at customer premises.

These organisations are experts within targeted vertical markets, capable of identifying opportunities for achieving reductions in electricity consumption, scoping and executing such projects.

To participate in the funding programme, the ESCO submits a proposal on potential savings (per load factor) of > 100 kW, which Eskom reviews on its technical and financial merits, as well as energy savings potential. Once a contract has been signed, the ESCO is given the go-ahead to implement the project.

Eskom supports ESCO projects by funding up to 100% of the financial benchmark value for viable energy efficiency projects.

In order to ensure that ESCO projects deliver the promised savings, there are penalty clauses in place that ensure that when ESCOs scope projects, they do so accurately to ensure that projected consumption savings are, in fact, achieved.

Once the project has received approval and a contract has been signed, the ESCO can commence implementation. Progress payments are made during implementation, with the final project payment paid on the measurement acceptance date (MAD). The MAD follows the completion of the installation and verification of the achievable energy savings per annum via an initial M&V report and the issuing of a certificate of completion, which is signed off jointly by the ESCO and Eskom. If the agreed-on savings have been achieved, Eskom pays the customer/ESCO the outstanding performance retainer.

Project sustainability is reviewed over a five-year period, with regular periodic M&V reporting.

ESCO projects have a more complex value chain that includes several parties and is regulated by legal contracts (Eskom, the ESCO, the M&V provider, and the end-user), which can result in long

lead times. However, because substantial sums of money are involved, careful execution of these projects is critical.

5.6. Heat Pump Programme

The Heat Pump Rebate Programme is for retrofit purposes where there is an existing working electrical-element geyser, and the conditions are such that the customer must buy from a registered supplier, and the supplier must do a complete installation. The programme is targeted at middle- to high-income, individual home owners, game lodges, bed and breakfasts, metros buying in bulk, municipalities, and corporate organisations. This rebate is paid to the supplier, after the installation of the system at the client's premises.

Heat pumps are also offered, as part of the Standard Product Programme, to corporate clients.

5.7. Shower heads

Flow-limiting shower heads, either by aerating the water or through the design of the shower head, have been proven to be highly effective in saving both electricity and water. Aerated shower heads mix air with water to form a misty spray, while laminar-flow shower heads form individual streams of water. Water flow regulators reduce the water usage of an existing shower head.

IDM funds the mass roll-out of these technologies in the different sectors via the RMR, Standard Offer, or Standard Product Programme.

5.8. CFL Roll-out

The CFL Mass Roll-out Programme is focused on the mass change-out of inefficient incandescent lamps with more efficient CFL lamps. This programme operates on the principle that Eskom bulk-procures CFLs and appoints installation teams and project management companies to manage and carry out the removal and destruction of the old technologies and installation of the new CFLs.

5.9. Demand Reduction

Demand Reduction is a programme focused on decreasing the demand during the Eskom evening peak. This includes domestic and industrial projects where loads can be managed to operate outside of the peak period without affecting the clients' processes. For this, IDM pays the client according to a benchmark for verified sustainable peak demand savings between 18:00 and 20:00.

5.10. Lighting and HVAC

The HVAC and lighting categories are combined, as historically almost all HVAC programmes were proposed in combination with the lighting retrofit in buildings. From an HVAC perspective, these projects are done via the Standard Offer or ESCO Programme, where IDM pays for verified sustainable energy offsets according to predetermined benchmarks.

The lighting portion of this involves all lighting projects done outside of the CFL Mass Roll-out Programme. For these lighting projects, IDM pays for verified sustainable energy offsets according to predetermined benchmarks.

5.11. Process Optimisation

For Process Optimisation, IDM pays clients either through the Standard Offer or ESCO Programme to fine-tune their manufacturing process in line with world-class benchmarks to achieve a greater efficiency per product unit produced. This can be achieved by process changes or by the retrofitting of additional technologies that can be employed to further optimise and increase the efficiency of the manufacturing process. These include (but are not limited to):

- efficient motors;
- variable-speed drives;
- fans; and
- waste heat recovery.

5.12. Renewables

The Renewable Energy Pilot Programme is a performance-based incentive paid on a R/kWh basis in lieu of grid-supplied electricity. This programme is an extension to the existing Standard Offer Programme.

Participation is subject to qualification requirements:

- Only equipment installed on the host customer's side of the meter would be eligible and only energy production that is predominantly for own consumption.
- Systems must be new and in compliance with all applicable performance and safety standards (applicable to all components of the installation).
- Grid-tied systems must comply with all regulatory and embedded generation interconnection requirements.
- Stand-alone systems (that is, applications that are not grid-tied) must replace an existing or planned grid connection/supply, therefore substituting energy that would have been drawn from the grid.
- Renewable technologies included in the programme are solar photovoltaic, biomass/biogas, small-scale hydro, and wind.

5.13. Demand Response

Demand Response (DR) is a pricing initiative that offers participating customers the opportunity to receive monetary compensation for load reduction during times of supply or network constraints when requested by the System Operator.

Conditions that may affect the customer's availability to participate include, but are not limited to:

- strikes;
- environmental issues;
- demand for its product/economic climate;
- planned and unplanned maintenance;
- electrode additioning; and
- Eskom's TOU peak rates.

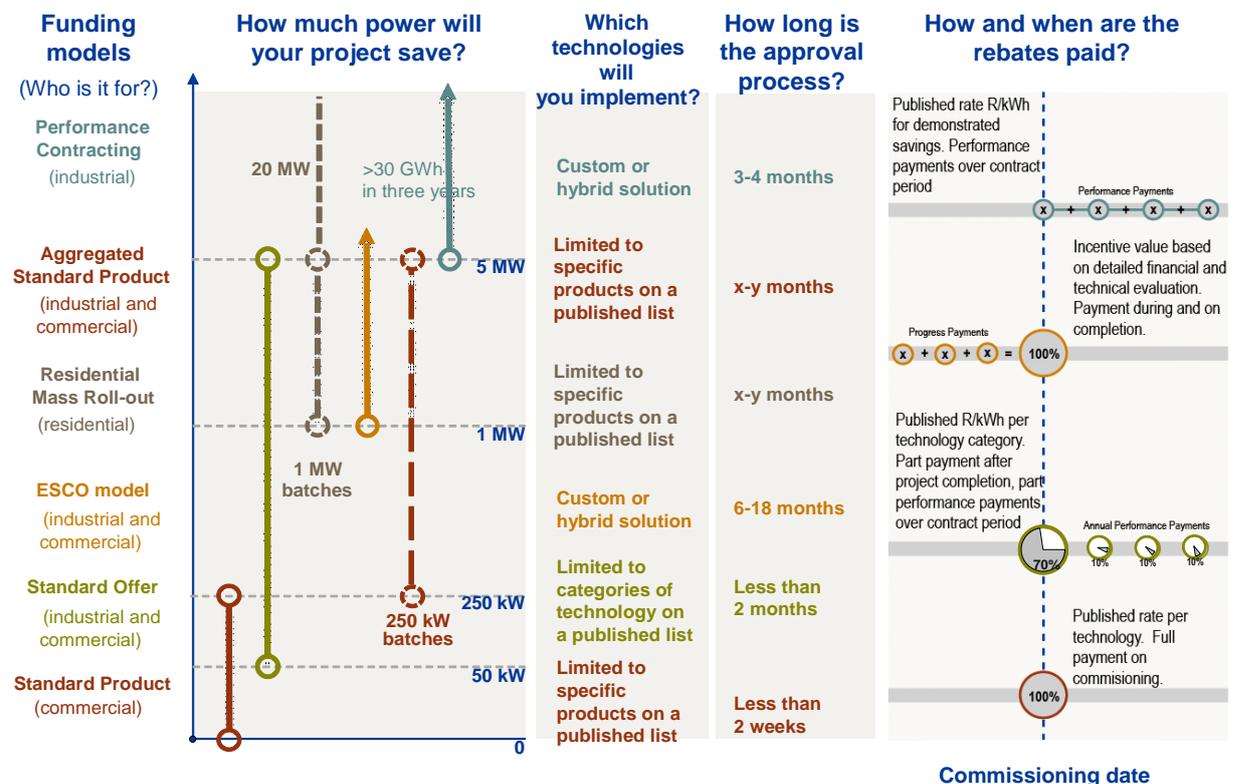
The Demand Response (DR) Programme currently consists of two types, namely, instantaneous reserve capacity and supplemental reserve capacity.

Instantaneous reserve capacity: instantaneous DR is a tool used by the System Operator to manage frequency decline during system constraints, ensuring stability of the Eskom transmission system. The instantaneous dispatch frequency can remotely be set between levels 49.85 and 49.55 Hz, depending of the severity of the constraint. The signal to reduce load and to restore comes from a local frequency relay. The response time for instantaneous loads is six to 10 seconds, with a maximum duration of 10 minutes per incident and a maximum of two events per scheduled day. The instantaneous DR target is determined annually by Eskom’s System Operator with reference to the shortfall of own reserves.

Customers are contracted to assist with 200 events per annum.

Supplemental reserve capacity: supplemental DR is a tool used by the System Operator in the operational reserve market to balance the supply-demand constraints. Load reduction durations can vary from two to 16 hours on a scheduled day. The load reduction performance is measured with reference to the scheduled capacity. The energy measured is energy not consumed during a constraint period, measured in MWh.

Delivery offerings reference guide



6. Annexure C – Demand Response report

6.1. Demand Response products/programmes

6.1.1. Demand Response (DR)

There are two types of products currently being offered under this programme:

Product type	Product description
Instantaneous	Assists in the operating reserve market. Customers are dispatched automatically when the network frequency reaches a preset level for a maximum of 10 minutes. They must react within six seconds.
Supplemental	Assists in the supplemental reserve market. Customers reduce load on request for a minimum of two hours up to 16 hours, with 30 minutes' notice.

The customer target market is as follows:

Product type	Target market
Instantaneous	Large industrial customers (Eskom and municipal).
Supplemental	Medium to large industrial and commercial customers (Eskom and municipal).

The customers are compensated as follows:

Product type	Compensation
Instantaneous	Monthly capacity payment for standby hours factored by overall dispatch performance.
Supplemental	Monthly capacity payment for standby hours factored by overall event performance. Energy payment for MWh reduced during each reduction event.

Status as at 31 March 2014:

Product type	Megawatts certified as at 31 March 2014
Instantaneous	685 MW
Supplemental	657 MW

6.1.2. Standby Generation

The Standby Generation Programme started in 2012 as a mechanism to assist the System Operator with reduced demand during system-constrained periods. The product is marketed and contracted by Eskom. Once contracted, it is managed on a day-to-day basis using the Virtual Power Station (VPS).

Product type	Product description
Standby Generation	Assists in the emergency reserve market. Customers dispatch generator on request in order to remove load off the system for a minimum of two hours up to six hours per event, with 30 minutes' notice.

The customer target market is as follows:

Product type	Target market
Standby Generation	Customers with generators greater than 1 MVA (Eskom and municipal).

The customers are compensated as follows:

Product type	Compensation
Standby Generation	Monthly capacity payment for standby hours factored by overall dispatch performance. Energy payment for MW generated for each dispatch.

Status as at 31 March 2014:

Product type	Megawatts certified as at 31 March 2014
Standby Generation	19 MW