

**DEPARTMENT OF ENERGY
RESPONSE
TO THE
2012 SONA
AND
2012/13 BUDGET VOTE**

PRESENTATION

- **Introduction**
- **2012/13 MTEF Budget allocation**
- **Department's responses to:**
 - **Growing the economy**
 - **Job creation**
 - **The country's 20 year plan (National Development Plan)**
 - **Infrastructure development drive**
 - **Department's role in the electricity price path**
 - **Renewable energy**
 - **Demand side management**
 - **NEPAD and SADC engagements**
 - **Women and Youth Empowerment**
 - **State Owned Entities**
 - **Conclusion**

2011/12 – 2012/13 Funding Overview-per Economic classification

DEPARTMENT OF ENERGY Programmes	2011/12	2011/12	2012/13	11/12 & 12/13
	Original Appropriation	Adjusted Appropriation	Original Appropriation	Change in Original Appropriation
Rand	R'000	R'000	R'000	%
Compensation of Employees	181,718	183,317	196,260	8.0%
Goods & Services	115,470	148,213	111,014	-3.9%
Transfer Payments	5,784,884	5,861,467	6,493,557	12.3%
Payments for Capital Assets	7,830	7,912	5,072	-35.2%
Total	6,089,902	6,200,909	6,805,903	11.8%

Compensation of Employees –the increase caters for the general salary increase of 5% and other aspects of remuneration such as pay progression, housing allowances & other improvements in conditions of service

Transfer Payments –the major increase is within the EEDSM projects which received additional funding as follows:

- EEDSM Eskom –R1 billion in 2012/13, R1.7 billion in 2013/14 and R2 billion in 2014/15
- EEDSM Municipalities –R200 million in 2012/13, R200 million in 2012/14 and R200 million in 2014/15

2011/12 – 2012/13 Funding Overview-per Programme

DEPARTMENT OF ENERGY Programmes	2011/12	2011/12	2012/13	11/12 & 12/13
	Original Appropriation	Adjusted Appropriation	Original Appropriation	Change in Original Appropriation
Rand	R'000	R'000	R'000	
Administration	167,471	198,140	181,745	8.5%
Energy Policy & Planning	1,546,958	1,544,708	1,541,548	-0.3%
Energy Regulation	554,697	551,631	1,350,028	143.4%
National Electrification Programme	3,207,555	3,264,555	3,136,294	-2.2%
Nuclear Energy and Regulation	613,221	641,875	596,288	-2.8%
Total	6,089,902	6,200,909	6,805,903	11.8%

Growing the economy

- Security of energy supply
- Investments (including infrastructure) in the industry by international and local role players (Independent Power Producers, shale gas, etc.)
- Increased modern technology and skills
- Localisation

Job Creation

DoE not a primary job creator - catalyst, e.g

- IPP procurement programme
- Renewable energy industry in the rural areas
- Localisation
- New to industry service stations
- Infrastructure upgrades - refineries upgrade
= 1 000 + jobs
- Department's Internship programme

Implementing the Country Energy Infrastructure plan

The country's 20 year Plan

- Implementation of the IRP
 - New electricity generation capacity - 51,422 MW by 2015/16
 - Nuclear procurement process
 - Construction of IPP plants
 - MTRMP – address short term electricity supply shortfall
 - Energy efficiency and demand side management, including solar water heating
- Integrated Energy Plan
 - Guide infrastructure & policy development
 - Consolidate and provide Energy Data for future planning

The country's 20 year Plan (2)

- **20 Year Liquid Fuels Infrastructure Roadmap**
 - Audit of South Africa's refineries – prioritised for 2012
 - Liquid fuels infrastructure expansion needs
 - Improved liquid fuels storage and distribution
- Nuclear Procurement Programme
- Nuclear Fuel Cycle Infrastructure
- Integrated National Electrification Programme (INEP)

INFRASTRUCTURE DEVELOPMENT DRIVE

- Electricity generation capacity
- Electricity distribution infrastructure
- Independent Power Producers
- Renewable Energy investments
- Nuclear Build programme

INFRASTRUCTURE DEVELOPMENT DRIVE

- Liquid fuels infrastructure
 - Transnet's NMPP (New Multi-Products Pipeline)
 - Trunk line commissioned in January 2012 (will only transport diesel only until end of 2013, while the DJP will transport other products)
 - Construction of accumulation terminals (Jameson Park & Durban) and auxiliary infrastructure for completion by Dec-2013
 - Last tranche of R1.5bn (to amount to a total of R4.5bn over 3 years from 2010/11 FY) to be disbursed to the project in 2012/13

INFRASTRUCTURE DEVELOPMENT DRIVE

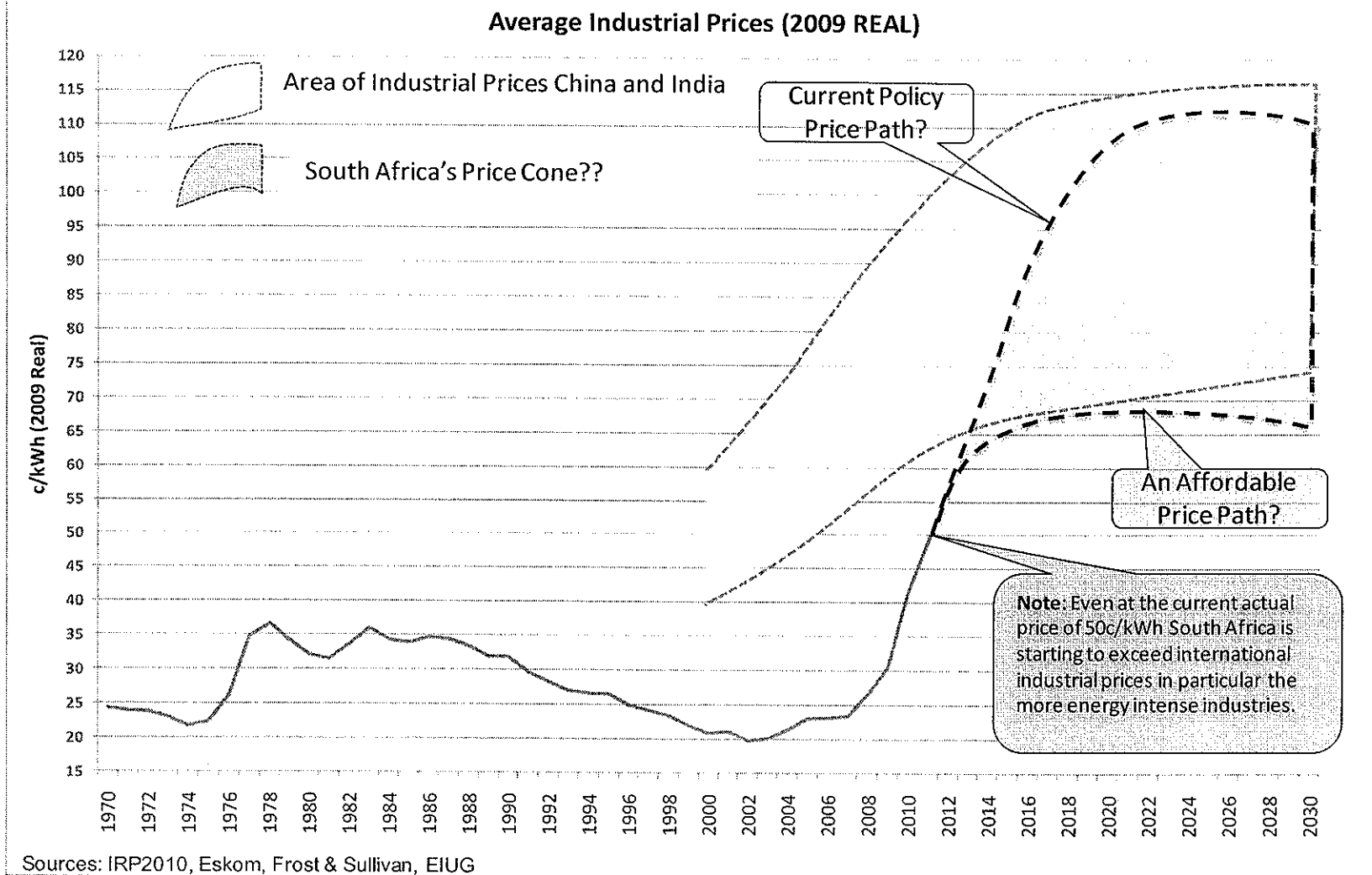
- Liquid fuels infrastructure
 - Project Mthombo Refinery
 - New crude oil refinery by PetroSA in the Coega IDZ, Eastern Cape
 - Studies revising the capacity of the proposed refinery downwards, in line with RSA's liquid fuels supply / demand balance, are underway - outcome of the studies is expected by mid-2012.
 - Refinery Upgrades For Cleaner Fuels Two (CF2)
 - Refinery infrastructure upgrades to meet new fuel specifications & standards (CF2 specs), being finalised but will come into effect in 2017
 - Oil companies' decisions to invest depend on the outcomes of the investigation into the cost recovery mechanism

INFRASTRUCTURE DEVELOPMENT DRIVE

- Liquid fuels infrastructure
 - Sasol's Project Mafutha
 - 80,000 barrels per day coal-to-liquids (CTL) project in Lephalale, Limpopo
 - Sasol decided to slow down the project, reporting that it would not "progress into the feasibility phase within the originally envisaged timeline", pending clarity on "the large-scale coal gasification tests and the provision of a commercially viable carbon capture and storage (CCS) solution".
 - Sasol said that project progress depends on: Finding a storage solution for the CO₂ emitted; Alignment to South Africa's fiscal priorities; Climate commitments; and Imposition of tax on carbon emissions investigated by the National Treasury

Affordability of Electricity Prices

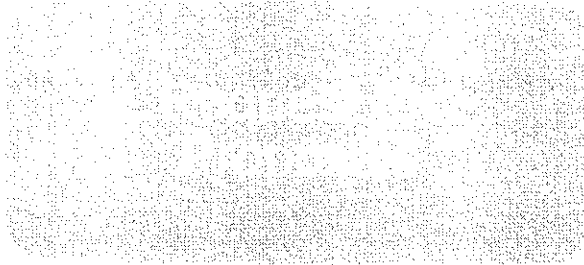
NERSA to Regulate for an Affordable Price Path



**Renewable Energy
Independent Power Producers
Bid Programme**

Procurement Process Background

Procurement documents



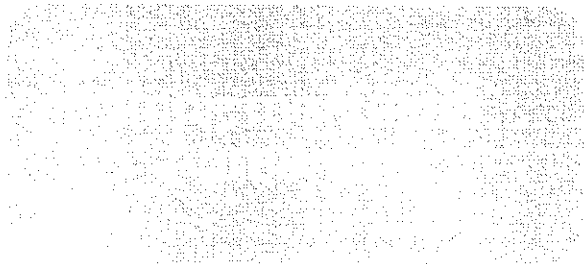
- Part A: General Requirements and Rules
- Part B: Qualification Criteria
- Part C: Economic Development



- Wind PPA
- Solar PPA
- CSP PPA



To be
concluded in
Phase 1



- Contract between the IPP and the Department
- Obligation for IPP to deliver as per their commitment
- In buyer default – Department to pay the IPP

Procurement Process Background

Request for Proposal (RFP)

- Requirements
- Rules

- Environment
- Land
- Economic Develop
- Finance
- Technical
- Price
- Capacity

- Price
- Job creation
- Local content
- Ownership
- Management Control
- Preferential Procurement
- Enterprise Development
- Socio-economic development

General Evaluation Observations

- Comprehensive evaluation template developed in accordance with the RFP prior to accessing the evaluation venue.
- Comprehensive training of all evaluators in all different disciplines the use of the template.
- Moderation of all evaluators work by independent evaluators.
- Cross moderation in respect of finance.

Recommended Preferred Bidders (Technology allocations)

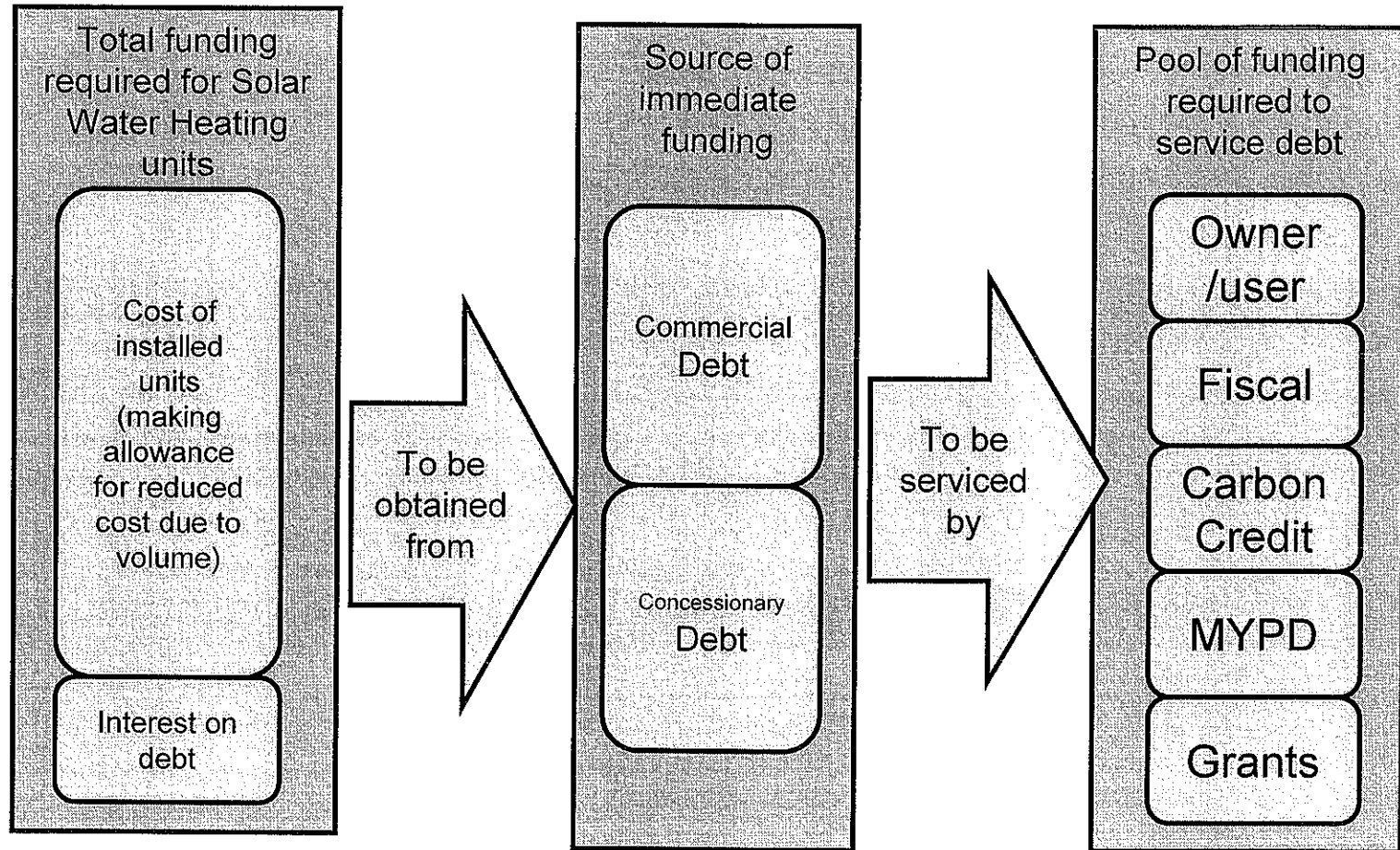
	Allocation to Preferred Bidders: Window 1		Allocation per Determination Still Available		MW allocation per Determination
	MW	Percentage	MW	Percentage	
Solar PV	631.53	43.6%	818.47	56.4%	1450.00
Solar CSP	150.00	75.0%	50.00	25.0%	200.00
Wind	633.99	34.3%	1216.01	65.7%	1850.00
Biomass	0.00	0.0%	12.50	100.0%	12.50
Biogas	0.00	0.0%	12.50	100.0%	12.50
Landfill gas	0.00	0.0%	25.00	100.0%	25.00
Small Hydro	0.00	0.0%	75.00	100.0%	75.00
Total MW	1415.52	39.0%	2209.48	61.0%	3625.00
Total Capacity - Bids Received	2127.66				
Percentage Preferred Bidders	66.5%				
Number of Passing Bids	28				

Solar Water Heater Programme

Standard Offer Concept

- The Standard Offer Concept is based on the energy savings to be derived from an initiative, irrespective of the technology applied to achieve such savings. It is an intervention that is outcome based with the incentive flowing after delivery of the intervention, and subject to verification of the savings. The solar water heating system will have a deemed savings value. It is envisaged that the rebate will be attractive initially, in order to kick-start the market. Over time, it is predicted that costs will be reduced through economies of scale.

Funding requirements



Funding requirements “unpacked”

- **Owner/user**

- The intention is to create a market where the cost of switching to solar makes economic sense to the user/owner. Economic sense takes into account the cost of the unit, and the +/- 30% reduction of the household bill (factoring in tariff increases) over the repayment period of the Solar Water Heating geyser

- **Fiscal**

- The Fiscus has already provided funding into this programme.

- **Carbon credit**

- This income stream has been proven and is already benefitting specific Solar Water Heating programmes in South Africa.

- **Grants**

- There have been discussions with specific donors regarding grant funding.

Funding requirements “unpacked”

- **MYPD3**

- The intention was to use MYPD funding from the start of the programme. However, Eskom has committed the available MYPD2 funding. The Standard Offer will therefore run on a smaller scale until the new MYPD cycle kicks in, as this will allow for proper ring-fencing of the EEDSM funds within the next MYPD cycle.
- The difference/shortfall between the total pool of funding required, and the sum of grants, carbon credit, fiscal and user/owner contributions will be funded by subsequent MYPD periods (in the same way as power stations are funded)

What happens to existing initiatives

- **ESKOM Rebate**
 - The ESKOM rebate currently makes an up-front capital subsidy available for +/- 260000 units. Discussions with numerous players in industry has highlighted the need for a transitional period between the approaches (up-front capital subsidy vs standard offer). This rebate scheme will therefore run side-by-side with the Standard Offer for the remainder of MYPD2.
- **Other programmes**
 - All other known programmes are using the ESKOM rebate. These will continue for as long as the +/- 260 000 rebates do not run out

How homeowner gets Solar Water Heater

- There are currently a number of options available under the ESKOM rebate programme. These options will remain in place until the +/- 260 000 rebates under this programme run out.
- Standard Offer programme will be administered by the Department of Energy, as a demand side initiative similar to the RE IPP Bidding Programme. At a high level
 - An organisation will transact with a homeowner to give the homeowner the Solar Water Heating Unit in exchange for the home-owners' claim to the Standard Offer rebate and a top-up payment as required.
 - An individual not wanting to transact with an organisation, as described above, could purchase the Standard Offer him/herself and claim the standard offer rebate from an Energy Services Company or cooperative
 - Whether this is an aggregated approach (ESCO) or at an individual homeowner level, the benefits can be illustrated in the following slides

Benefit Analysis – SWH...

Residential market targets	Total	Potential	%	Reducing electricity demand MW	Universal access	Offset rising electricity cost	Accelerated service delivery	Renewable energy targets GWh/annum	Climate change '000 tons
Upper income geyser replacement	560,000	1,200,000	47%	347	Completely equitable across the markets. Plus frees grid capacity	<60% of water heating costs		672	679
Mid/low income geyser replacement	1,750,000	3,000,000	58%	1,085		<70% of water heating costs	Major impact	2,100	2121
Non Geyser delivery	2,690,000	6,600,000	41%	1,668		<80% of water heating costs	Major impact	3,228	3260
Insurance geyser replacement	55,000	0		34				66	67
New build	110,000	0		68				132	133
	5,165,000	10,800,000	48%	3,202				6,000	6,060

Residential market targets	Total	Potential	%	Reducing electricity demand MW	Access across all markets	Offset rising electricity cost	Accelerated service delivery	Renewable energy targets GWh/annum	Climate change '000 tons
Upper income geyser replacement	236,500	1,380,000	17%	142	Completely equitable across the markets. Grid capacity freed	<60% of water heating costs		284	358
Mid/low income geyser replacement	440,259	3,550,000	12%	264		<70% of water heating costs	Major impact	528	1248
Non Geyser delivery	383,389	6,320,000	6%	115		<80% of water heating costs	Major impact	460	842
Insurance geyser replacement	31,343			19				38	91
New build - SWH over geyser	123,631			74				148	182
New build -non geyser delivery	142,000			43				1,458	2,721
	1,357,122	11,250,000	12%	657					

Cost Analysis - SWH

Programme MYPD Subsidy Needs	
Residential market targets	
Upper income geyser	
150 litre SWH System	
200 litre SWH System	
250 litre SWH System	
300 litre SWH System	
Mid/low income geyser	
Closed coupled	
Split unit	
Non Geyser delivery	
100lt Roof mounted	
100lt Pole mounted	
55lt Pole with hand pump	
Insurance replacement	
Totals	

2010	2011	2012	2013	2014	2015
92,089,800	143,250,800	255,805,000	270,130,080	252,735,340	212,829,760
10,788,525	16,782,150	29,968,125	31,646,340	29,608,508	24,933,480
49,838,085	77,525,910	138,439,125	146,191,716	136,777,856	115,181,352
9,468,360	14,728,560	26,301,000	27,773,856	25,985,388	21,882,432
21,994,830	34,214,180	61,096,750	64,518,168	60,363,589	50,832,496
76,708,800	150,409,412	270,736,941	391,064,471	451,228,235	752,047,059
61,367,040	120,327,529	216,589,553	312,851,576	360,982,588	601,637,647
15,341,760	30,081,882	54,147,388	78,212,894	90,245,647	150,409,412
14,016,324	60,834,740	134,761,117	225,407,313	363,159,065	730,016,883
8,806,068	38,220,779	84,666,670	141,617,160	228,162,764	458,649,351
4,403,034	19,110,390	42,333,335	70,808,580	114,081,382	229,324,675
807,223	3,503,571	7,761,111	12,981,573	20,914,920	42,042,857
11,475,403	26,775,940	33,469,925	33,661,182	29,071,021	24,480,860
194,290,327	381,270,892	694,772,983	920,263,046	1,096,193,662	1,719,374,562

Programme MYPD CDM Needs	
Residential market targets	
Upper income subsidy	
150 litre SWH System	
200 litre SWH System	
250 litre SWH System	
300 litre SWH System	
Mid/low income geyser	
Closed coupled	
Split unit	
Non Geyser delivery	
100lt Roof mounted	
100lt Pole mounted	
55lt Pole with hand pump	
Insurance replacement	
Totals	

2010	2011	2012	2013	2014	2015
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
77,333,357	151,634,033	272,941,259	394,248,486	454,902,099	758,170,165
61,866,685	121,307,226	218,353,007	315,398,789	363,921,679	606,536,132
15,466,671	30,326,807	54,588,252	78,849,697	90,980,420	151,634,033
10,502,649	45,584,416	100,978,597	168,901,200	272,120,727	547,012,987
6,301,590	27,350,649	60,587,158	101,340,720	163,272,436	328,207,792
3,150,795	13,675,325	30,293,579	50,670,360	81,636,218	164,103,896
1,050,265	4,558,442	10,097,860	16,890,120	27,212,073	54,701,299
0	0	0	0	0	0
87,836,006	197,218,449	373,919,857	563,149,686	727,022,826	1,305,183,152

WOMEN AND YOUTH EMPOWERMENT

- Draft Youth Strategy
- Gender Policy
- Participation in the UN initiatives on women empowerment
- Clean Energy Empowerment and Education (C3E)
- Annual Learners Focus Week Programme
- Women in Energy and Gas in South Africa (WOEA)
- Women in Nuclear in South Africa (WINSA)

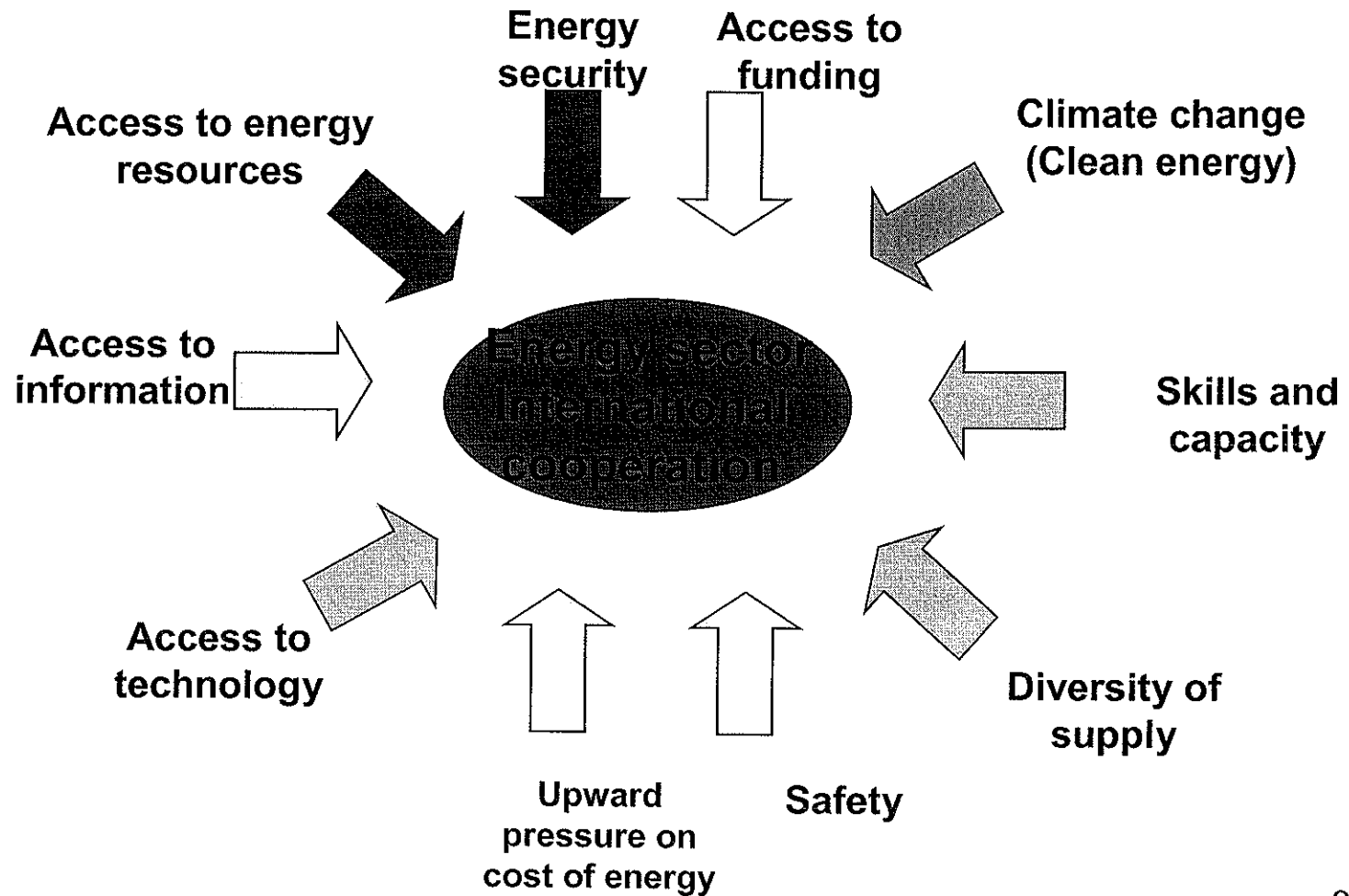
STATE OWNED ENTITIES

- Reviewing the structure of the CEF Group of companies
- Strategic Fuel Fund – improve governance issues
- National Oil Company - PetroSA
- Governance and operational structures of (NERSA)
- SANEDI
 - energy efficiency
 - carbon capture and storage

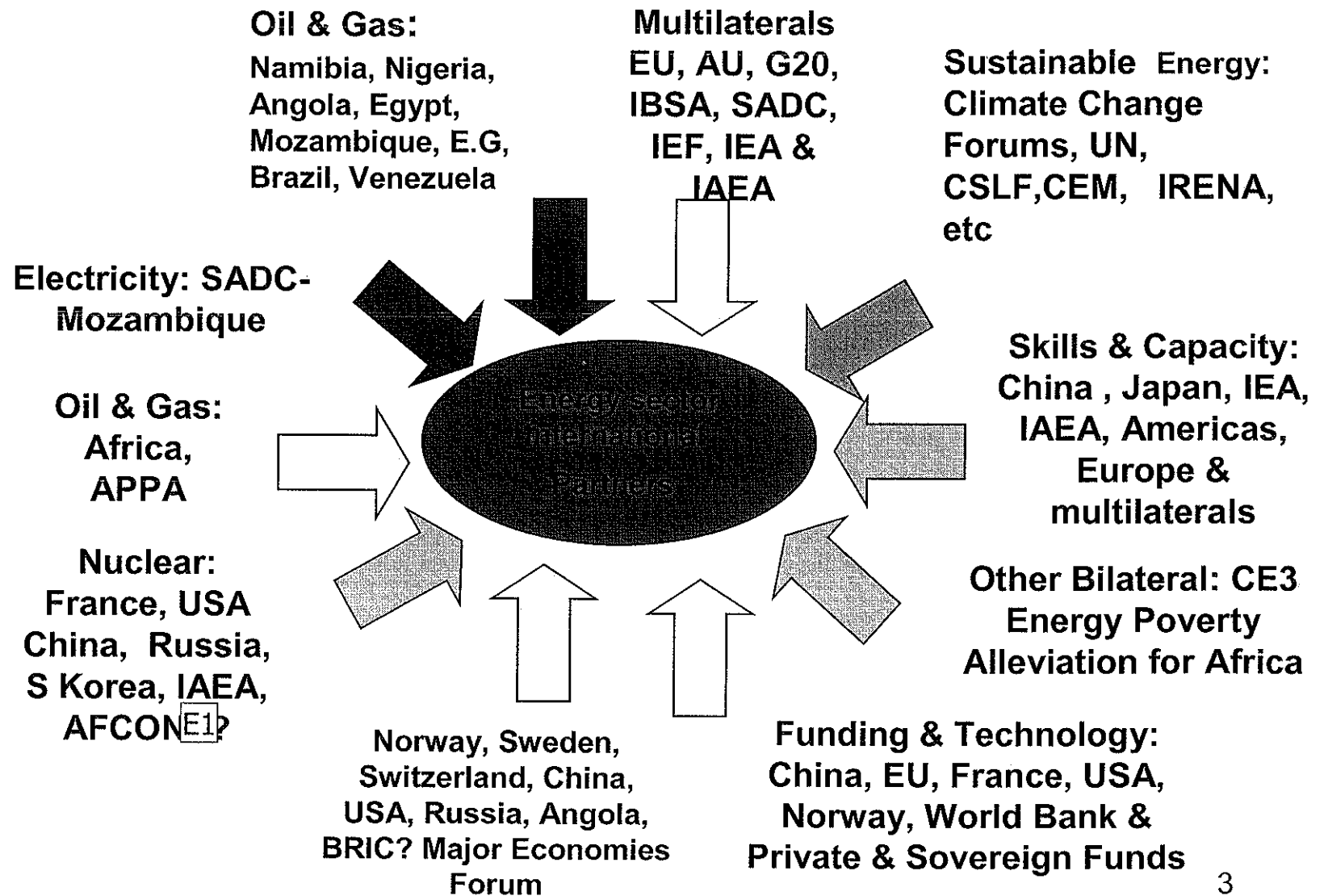
NEPAD AND REGIONAL INTEGRATION AGENDA

- The Department's International Relations Strategy embraces the African continent and the SADC region in line with DIRCO policy
- September 2011 (African Energy Ministers' Conference) Declaration - Acknowledges the urgent need for secure, affordable and accessible energy for the Continent. Need to secure funding, deploy technology intensive projects, skills development, localisation and job creation.
- Promotion of regional electricity interconnectivity and support to the Southern African Power Pool (SAPP) and related projects

FACTORS THAT GUIDE AND DRIVE THE ENERGY SECTOR INTERNATIONAL RELATIONS



PRIORITY PARTNERS IN THE ENERGY SECTOR IN SOUTH AFRICA



Slide 33

E1

african commission on nuclear energy. to be implemented and funded by march 2011.

Elizabeth.Marabwa, 2010/11/22

NEPAD AND REGIONAL INTEGRATION AGENDA

Some of the engagements with African countries

COUNTRY	COMMODITY
1. Egypt	MOU in oil and gas
2. Ghana	MOU in oil and gas
3. Algeria	MOU in oil and gas
4. Mozambique	Gas
5. Namibia	Gas
6. Angola	PetroSA and Sonangol exploration in oil and gas
7. Angola and Nigeria	Increase trading in petroleum products
8. Lesotho	Renewable energy
9. DRC	Grand Inga Project – potential of 40 000 MW of hydropower

CONCLUSION

- The Department has revised its 2011/12 – 2015/16 Strategic Plan to align it with the new government outcome based approach.
- The Annual Performance Plans for the 2012/13 have taken into account:
 - SONA and the Budget Speech
 - Government Priorities
 - Delivery Agreements signed by the Minister (Outcomes: 2,4,6,7,8,and 10)
 - Millenium Development Goals

Thank you