

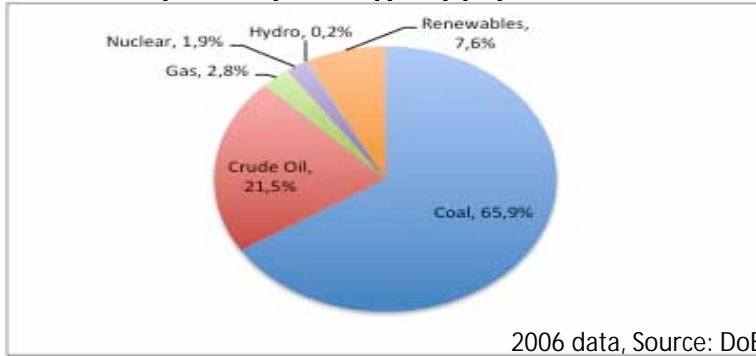


DTI Strategy on renewable Energy industry Development  
Africa Renewable Energy Dialogue  
31 October 2013

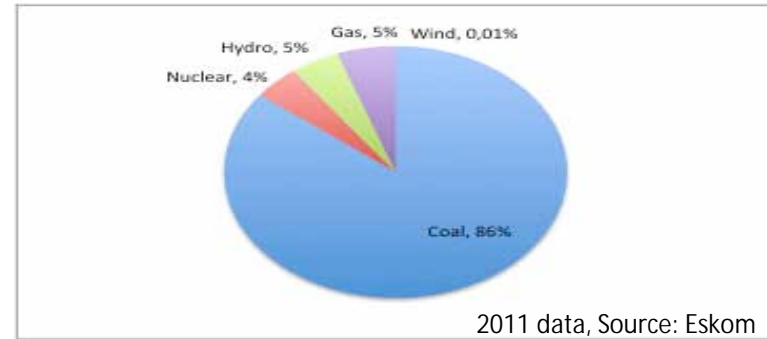
Green Industries, Department of Trade and Industry

# Context - Energy

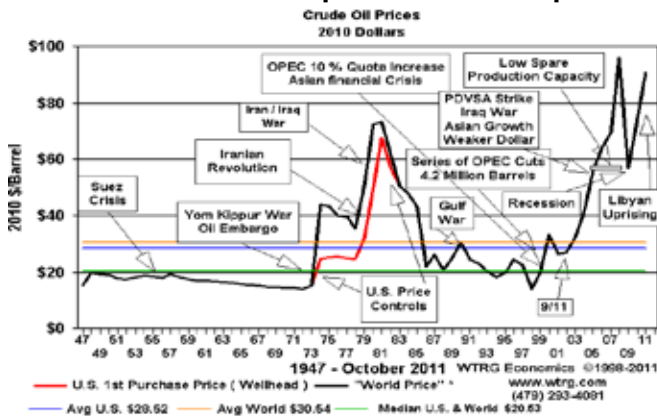
87% of primary energy supply from fossil fuels



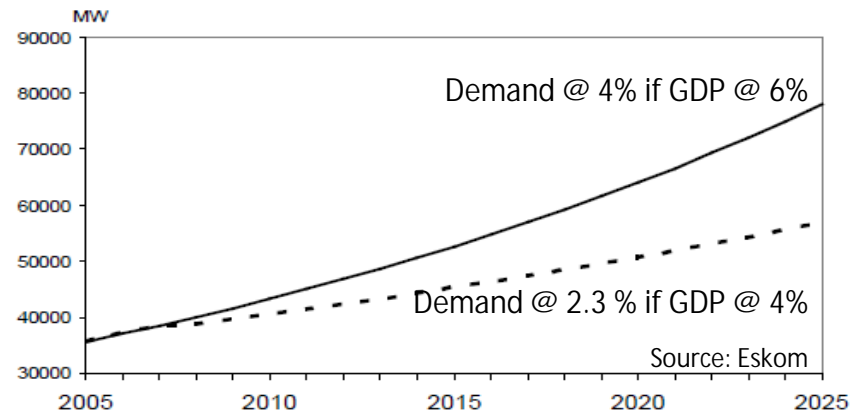
86% of power generation capacity from coal



95% of crude oil requirement is imported



Electricity demand may reach 78000 MW with economic growth



## Context – Climate Change

- South Africa pledged a 34% emissions reduction below business as usual by 2020 and 42% by 2025.
- Condition of technology transfer and finance by developed nations
- President Jacob Zuma said that \$100bn per year is needed for low carbon development and a further \$100bn per year for adaptation



# Government Policy on Renewables

- IRP2010 – 17,8 GW of Renewable Energy – 42% of new build capacity
- Failed REFIT à Renewable Energy IPP Procurement Programme
- Initial Determination 3725 MW by 2016
- Additional determination – 3200 MW by 2020
- Green Economy Accord
- Local Procurement Accord



## Why Renewable Energy Localisation?

- Round 1 & 2 = R75 billion (R23billion Local Content)
- Renewable Energy a new sector – re-industrialisation and re-skilling opportunities and address unemployment
- Existing industrial capabilities in a range of relevant areas e.g. engineering, metal fabrication, etc.
- Growing number of component suppliers into renewable energy and energy efficiency value chains



# The dti interventions for Renewable Energy Localisation

- Market creation - Local Content Requirements
- Trade and Investment promotion and support
- Export promotion
- Manufacturing Incentives
- Financing through the IDC and DBSA
- Import Tariffs
- Standards and testing facilities
- R & D and Skills Development – support DST and DHET



# Local Content Requirements

- Components earmarked for local manufacturing in the immediate to short term
  - wind turbine blades and towers;
  - PV modules;
  - PV inverters; and
  - the metal structures used in PV plants.
- Government would eventually like to see all of these components manufactured in South Africa but understands that a gradual roll-out may be necessary in order to build manufacturing capacity in South Africa.



# Local Content Requirements

## Local Content

Technology	First Bid Submission Date		Second Bid Submission Date		Third Bid Submission Date	
	Current Threshold	Current Target	Threshold	Target	Threshold	Target
Onshore Wind	25%	45%	25%	60%	40%	65%
Solar Photovoltaic	35%	50%	35%	60%	45%	65%
Solar CSP Without Storage	35%	50%	35%	60%	45%	65%
CSP with storage	25%	45%	25%	60%	40%	65%
Biomass	25%	45%	25%	60%	40%	65%
Biogas	25%	45%	25%	60%	40%	65%
Landfill gas	25%	45%	25%	60%	40%	65%
Small scale hydro	25%	45%	25%	60%	40%	65%
	25%	45%	25%	60%	40%	65%





# Studies Supporting Localisation of Renewables

- Solar and Wind Strategy
- Solar PV Localization Roadmap
- Solar CSP Localization Roadmap
- Wind Industry Localization Roadmap



# Conclusion

- Renewable energy will contribute significantly to the future energy mix of the country – 42% (17.8 GW) of the total new electricity generation planned for in the current Integrated Resource Plan will be renewable.
- The cost (excludes interest and inflation) of this is expected to be R400 billion plus.
- Therefore such a large renewable energy programme is expected to put electricity on the grid, support industrialization, local value add and jobs and make a significant contribution to address South Africa's climate commitments



# Thank you

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the dti

Department:  
Trade and Industry  
REPUBLIC OF SOUTH AFRICA

# Progress in REIPPPP Rollout

Technology	MW allocation in accordance with the Determination	MW capacity allocated in the First Bid Submission Phase	MW capacity allocated in the Second Bid Submission Phase	MW capacity for allocation in future Bid Submission Phases
Onshore wind	1 850.0 MW	634.0 MW	562.5 MW	653.5 MW
Solar photovoltaic	1 450.0 MW	631.5 MW	417.1 MW	401.1 MW
Concentrated solar power	200.0 MW	150.0 MW	50.0 MW	0.0 MW
Small hydro ( $\leq 10$ MW)	75.0 MW	0.0 MW	14.3 MW	60.7 MW
Landfill gas	25.0 MW	0.0 MW	0.0 MW	25.0 MW
Biomass	12.5 MW	0.0 MW	0.0 MW	12.5 MW
Biogas	12.5 MW	0.0 MW	0.0 MW	12.5 MW
<b>Total</b>	<b>3 625.0 MW</b>	<b>1 415.5 MW</b>	<b>1 043.9 MW</b>	<b>1 165.6 MW</b>



# Bid window 1 outcomes

Technology	MW Allocated	Price (fully Indexed) / MWh	Total Project Cost (Mil)	Local Content Value (Mil)	Average local content	Construction Jobs	Operational Jobs
Onshore wind	634	R1.14	R12 724	R2 766	21.7%	1869	128
Solar PV	632 MW	R2.75	R21 937	R6.262	28.5%	10 386	221
Solar CSP	150MW	R2.68	R11 365	R2 391	21%	1 165	70
Small hydro	None	None	None	None	None	None	None
<b>Total</b>	<b>1416 MW</b>		<b>R46 026</b>	<b>R11 419</b>		<b>13 420</b>	<b>419</b>



# Bid Window 2 Outcomes

Technology	MW Allocated	Price (fully Indexed) / MWh	Total Project Cost (R'Mil)	Local Content Value (R'Mil)	Average local content	Construction Jobs	Operational Jobs
Onshore wind	563MW	R0.89	R10 897	R4 001	36.7	1579	65
Solar PV	417MW	R1,65	R12 048	R5 727	47.5%	4 557	194
Solar CSP	50MW	R2.51	R4 483	R1 638	36.5%	662	50
Small hydro	14MW	R1,03	R631	R421	66.7%	261	7
<b>Total</b>	<b>1044 MW</b>		<b>R29 321</b>	<b>R11 787</b>		<b>7 059</b>	<b>316</b>



# Summary of BW1 and BW2

	Total MW Allocated	Total Project Cost (R'Mil)	Total Local Content Value (R'Mil)	Total Construction Jobs	Total Operations Jobs
BW 1	1416 MW	R 46 026	R11 419	13 420	419
BW2	1044 MW	R29 321	R11 787	7059	316
Total	2460	R75 347	R23 206	20 479	735

