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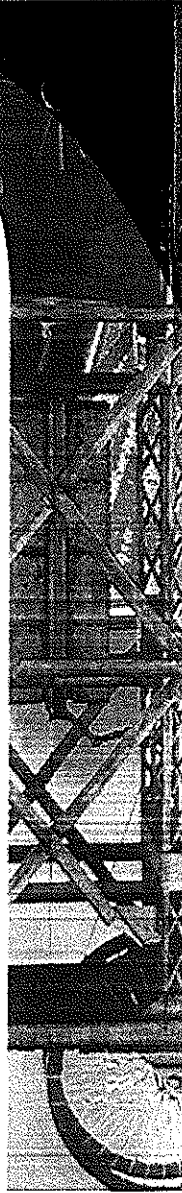
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Presentation to the Parliamentary Portfolio
Committee on Mineral Resources
21 October 2015

ALIGNMENT OF DMR'S BENEFICIATION ACTIVITIES WITH THE NDP AND IPAP



PRESENTATION OUTLINE

- ❑ BACKGROUND
- ❑ INTERDEPENDENCE WITH OTHER PROGRAMMES OF GOVERNMENT
 - ✓ NDP AND BENEFICIATION
 - ✓ IPAP AND BENEFICIATION
 - ✓ ALIGNMENT OF DMR ACTIVITIES TO NDP, IPAP AND NINE POINT PLAN
- ❑ VALUE CHAIN SPECIFIC PROJECTS
- ❑ CONCLUDING REMARKS



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BACKGROUND

- Mineral beneficiation represents a “game changing” opportunity for South Africa to secure radical socio-economic transformation
- In 2011, the beneficiation strategy was adopted by Government by policy and it provides a broad framework to turn the country’s comparative advantage in mineral resource endowment to a competitive advantage for downstream industries



BACKGROUND (cont...)

- The mineral beneficiation policy document seeks to:
 - ❖ Increase a ratio of beneficiation extent to mineral production and increase export revenue
 - ❖ Facilitate economic diversification
 - ❖ Expedite progress towards a knowledge based economy
 - ❖ Create opportunities for new enterprise development
 - ❖ Contribute to creation of decent jobs and poverty alleviation

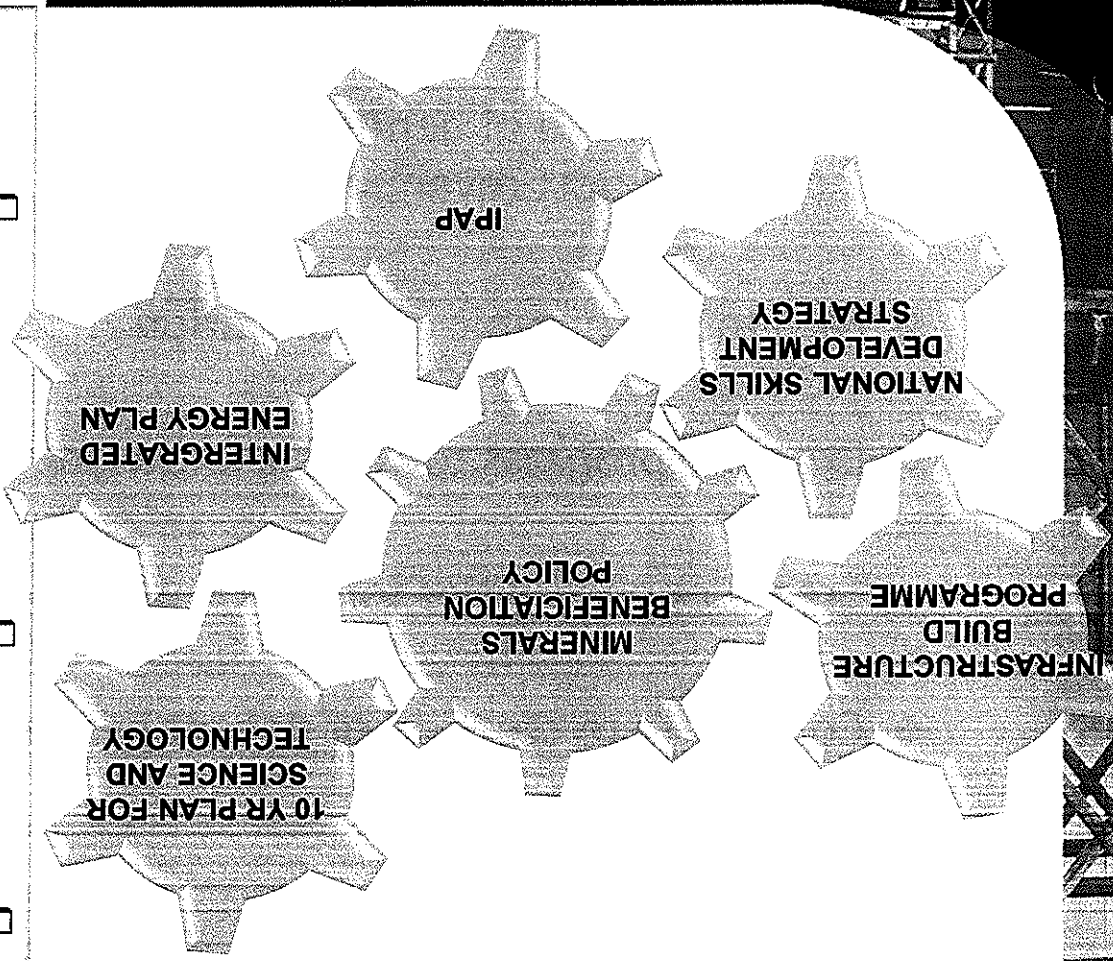


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INTERDEPENDANCE WITH OTHER PROGRAMMES OF GOVERNMENT

- The mineral beneficiation policy is complementary to a number of Government Programmes
- The beneficiation programme involves R&D, innovation, skills development and therefore this work includes science councils such as MINTEK, CGS and CSIR
- Cooperation will also go beyond organs of State to include other stakeholders



NDP AND MINERAL BENEFICIATION

- ❑ The NDP recognises the “game-changing” nature of mineral beneficiation
- ❑ It however stresses the need:
 - ❖ for prioritisation of key value chains as it will neither be possible nor feasible to beneficiate all of the country’s minerals
 - ❖ To leverage the country’s strengths and know-how in mining manufactured goods and services

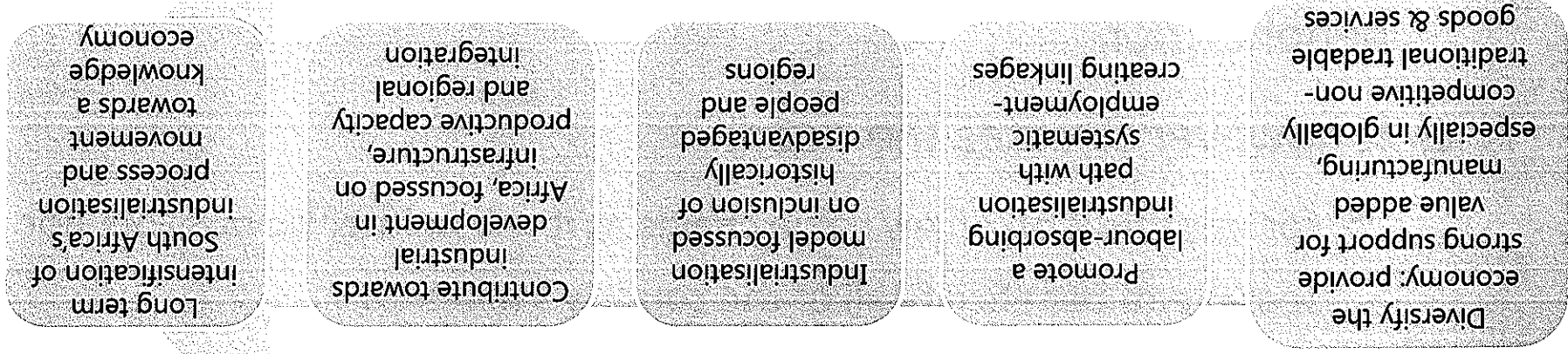


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NDP AND MINERAL BENEFICIATION

- In line with the vision of the beneficiation policy, the NDP further requires that mineral beneficiation value chains currently in existence be extended further down to the more labour intensive fabrication part



IPAP AND MINERAL BENEFICIATION

- ❑ The Government's Medium Term Strategic Framework has identified the DTI as the lead department in developing value chain specific interventions that will draw on the mineral beneficiation policy document for constraints and policy levers to unlock the identified constraints as outline in the
- ❑ Amongst the policy levers identified so far, the two key ones are administered by DMR are:
 - ❖ The Minerals and Petroleum Resources Development Act, as amended
 - ❖ The broad based socio economic empowerment charter for the South African Mining Industry (Mining Charter)

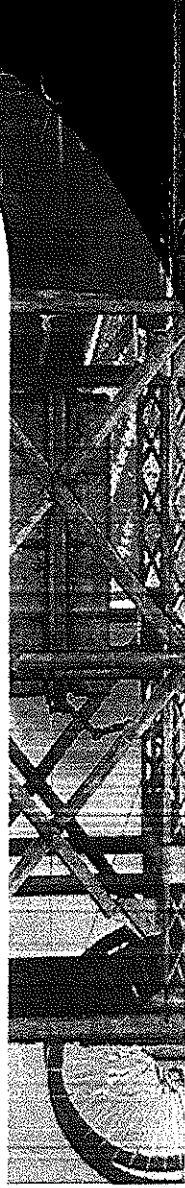


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IPAP AND MINERAL BENEFICIATION

- Previous iterations of IPAP recognised the potential competitive advantage our mineral endowment held for downstream sectors
- Access to minerals, by local beneficiaries, at a price reflective to their proximity to the resource is one of the two key factors, amongst others, for a competitive domestic beneficiation sector
- The other is the large market for locally manufactured mining goods and services that the local mining industry represents





IPAP AND MINERAL BENEFICIATION (Cont...)

- To this extent, the current iteration of the Industrial Policy Action Plan (2015-16) lists amongst its constraints:
 - ❖ Delays in the finalising the legislative enabler (i.e. MPRD Amendment Bill, 2012) which will enable access to competitively priced minerals
 - ❖ Mining Charter revision which will enable access for locally manufactured capital goods, consumables and services to the local mining industry market



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ALIGNMENT OF DMR ACTIVITIES TO NDP, IPAP AND NINE POINT PLAN

Prioritisation of mineral value chains

- ❖ Proposed amendments to section 26 of the MPRD Amendment Bill enable prioritisation of minerals in priority mineral value chains identified in IPAP through the process of designation
- ❖ The designation process enables the Minister to designate minerals as critical for local beneficiation after having considered national developmental imperatives such as macro-economic stability, energy security, industrialisation, food security and infrastructure development



ALIGNMENT OF DMR ACTIVITIES TO NDP, IPAP AND NINE POINT PLAN

Access to competitively priced minerals

- ❖ Section 26 further empowers the Minister to set aside predetermined volumes of designated minerals for domestic beneficiation after consulting relevant Department.
- ❖ Competitive pricing of minerals alone will not be sufficient, other complementary interventions are being considered

Leveraging the Mining Industry as a market for locally manufactured goods

- ❖ The Mining Charter element on procurement requires mining companies to source 40%, 70% and 50% of their capital goods, services and consumable from local BEE companies.
- ❖ This element is to be amended to specify that the companies must source locally manufactured goods, services and consumables

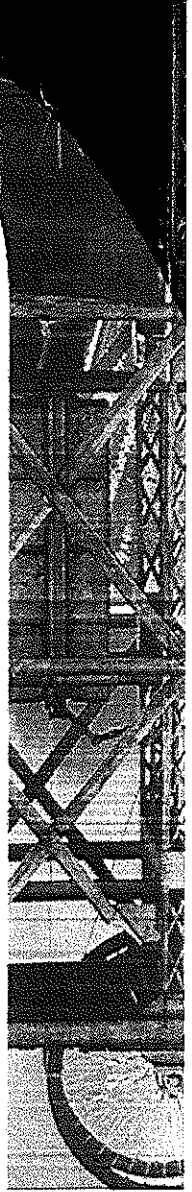


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ALIGNMENT OF DMR ACTIVITIES TO NDP, IPAP AND NINE POINT PLAN

- The President, in the SONA of 2015, announced the development of a nine point plan intended to accelerate economic growth
- The nine point plan identifies nine critical government interventions to catalyse the desired growth, amongst which Mineral Beneficiation is part
- The plan, although acknowledging that benefits from beneficiation will be realised in the medium to long term, work needs to be done to create an enabling environment which includes enabling policy tools such as the MPRDA and the Mining Charter



ALIGNMENT OF DMR ACTIVITIES TO NDP, IPAP AND NINE POINT PLAN

- The plan prioritises the value chains identified in IPAP which are:
 - ❖ Iron-ore and steel (led by DTI)
 - ❖ Polymers (led by DTI)
 - ❖ Titanium (led by DST)
 - ❖ Platinum group metals (led by DTI supported by DST HYSA strategy)
 - ❖ Upstream mining inputs (led by DTI)
 - ❖ Energy value chain (led by DMR)
 - a) The coal policy to be finalised by March 2016 to ensure security of supply for energy generation
 - b) Unlocking the development of petroleum resources, including shale gas
 - c) Assessment of uranium resources in South Africa
 - d) Legislative provision to classify minerals as strategic, including uranium



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VALUE CHAIN SPECIFIC PROJECTS



IRON ORE AND STEEL

- ❑ Steel products are vital inputs into the economy as they are inputs for a range of activities ranging from mining to manufacturing
- ❑ Current anticompetitive pricing practices in the steel industry are however one of several constraints to the growth of manufacturing industries.
- ❑ Increasing competition in the local steel industry will be looked at as one of the interventions for countering anti-competitive pricing strategies.



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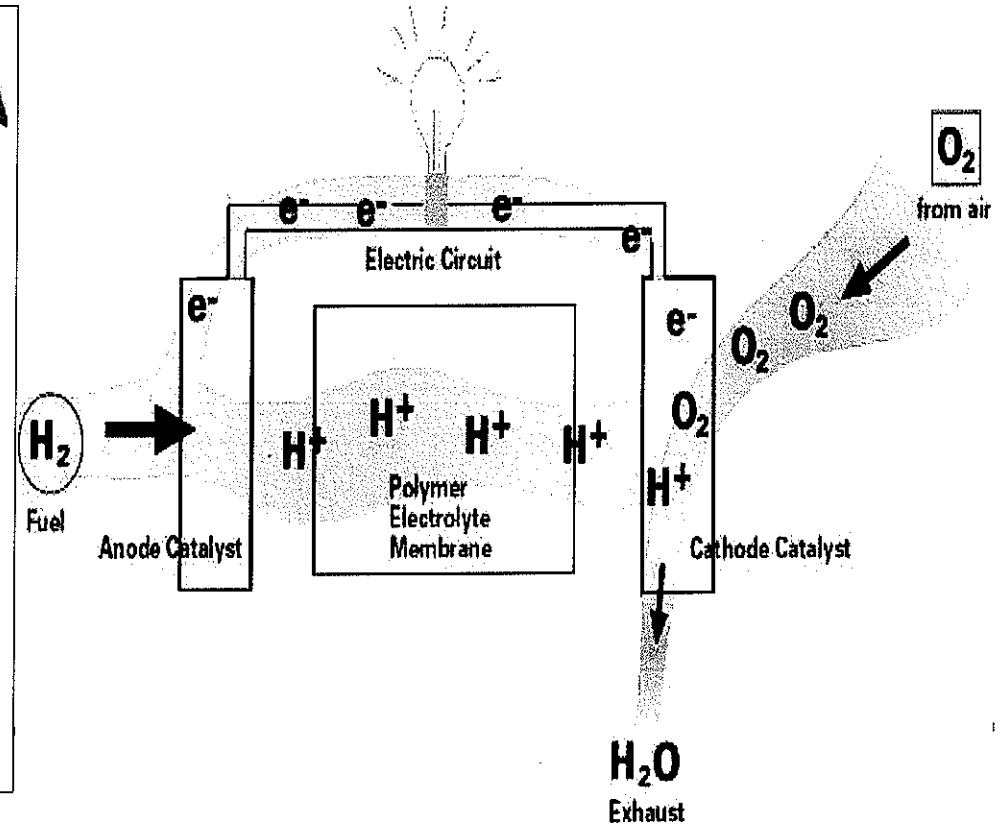
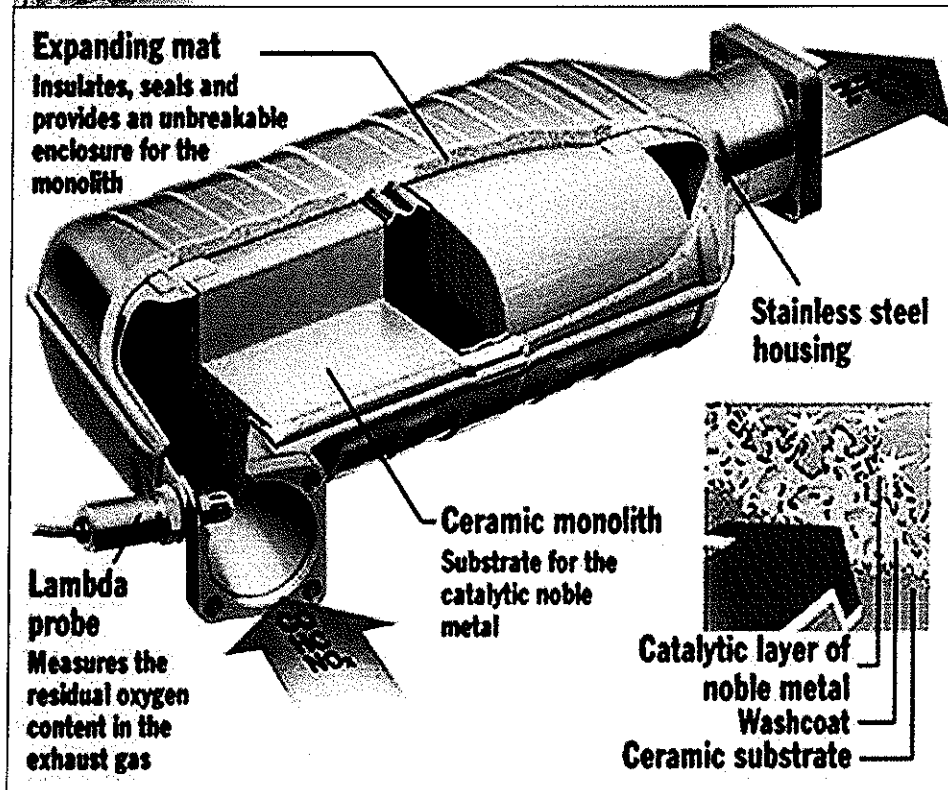
IRON ORE AND STEEL

ACTIVITIES	PROJECT/S
<p>Facilitate an investment in a new steel mill to expand steel making capacity and develop a competitive industry in SA. Pre-feasibility study completed. Now need to undertake bankable feasibility study.</p>	<p>Iron and steel value-chain.</p>
<p>Develop a report that includes proposals on industrial opportunities, technology providers, configuring and linking to existing plants and/or projects and requisite interventions.</p>	<p>Unlocking iron ore and titanium resources in the Bushveld Complex.</p>



PLATINUM GROUP METALS

- ❑ SA has more than 80 % of the world's PGM resources
- ❑ The projects will focus on auto catalysts and fuel cells

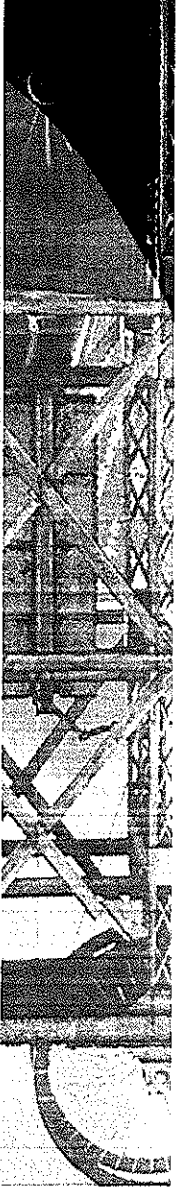


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PLATINUM GROUP METALS

ACTIVITIES	PROJECTS
<p>Introduce SEZ programmes to support platinum beneficiation.</p> <p>Investigate the establishment of a trading centre for key minerals.</p> <p>Launch the dti supported fuel cell demonstration.</p> <p>Launch a DST supported fuel cells at Eastern Cape schools.</p>	<p>Platinum Metal Group (PGM)</p>
<p>Establish critical supply chain capability</p> <p>Deliver first products to market</p> <p>Demonstrate capabilities in pilot markets</p>	
<p>Revive ESEID Cluster Fuel Cells Task Team to develop joint initiative to secure private sector investment and industrial financing for commercial-scale operation.</p>	



TITANIUM

- ❑ South Africa has the fourth largest deposits of titanium in the world and is the second largest producer of Titanium feed stock concentrates. Titanium concentrates are used to manufacture **Titanium Dioxide pigments, Titanium metals and chemicals.**
- ❑ Titanium dioxide pigments are the largest driver of demand for titanium, used to manufacture **paints, coatings, plastic and paper.**
- ❑ **Titanium metal** on the other hand is mainly used for power generation and aerospace applications.
- ❑ It is for this reason that in 2006 the DST launched a titanium centre of competence aimed at creating a titanium (upstream and downstream) industry in South Africa.



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TITANIUM & FLUORSPAR

Activities	Objective	Projects
<p>Complete technology development at pilot scale; semi commercial scale; and industrial plant</p> <p>Complete Aeroswift prototype licenced the manufacturing of Aeroswift machines</p> <p>Commence aerospace component manufacturing</p>	<p>To enable the industrialisation of new primary titanium powder production process</p> <p>To commercialise the next generation 3D printing machine (Aeroswift)</p>	<p>Titanium (Ti)</p>
<p>Establish a 5 000 tpa HF plant for a new product range from by 2019</p> <p>Determine economic viability for new 10 000 tpa HF plant for greater fluorspar beneficiation</p> <p>Confirm viability for a new 30 000 tpa HF plant, based on MNC investment for the HF plant, but also to establish a local downstream industry by 2018</p>	<p>To complete new product development;</p> <p>Finalise economic viability for scaled-up HF plant; and</p> <p>Finalise engagement with MNCs to determine viability of large downstream fluorochemicals industry cluster</p>	<p>Fluorspar (Fluorochemicals Expansion Initiative {FEI})</p>



POLYMERS

- ❑ Polymers are used as inputs for downstream chemicals industry such as **plastics, fertilizer and pharmaceuticals**.
- ❑ The cost structure of South African based upstream polymers operations is not directly comparable to international standards.
- ❑ Feedstock costs are the key cost driver for the downstream chemicals sector, with particular reference to plastics and fertilisers



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POLYMERS

Projects	Activities
Polymers	Form a task team with SASOL and Plastics SA for a joint value chain analysis; ongoing examination of policy levers, tariffs and new investments
Additional concrete actions to unlock the beneficiation sector's potential.	Initiate Mining Phakisa operation focusing on



ENERGY VALUE CHAIN

- ❑ Energy, in its many forms, is an essential input for the growth and continued sustainability of any economy as borne out by the relationship between growth in the global economy and global energy consumption.
- ❑ Since there is a strong correlation between energy consumption and economic growth, constraints resulting from unavailability of energy commodities would reduce access to energy and limit economic growth
- ❑ Energy security is therefore crucial to the future growth and prosperity of the country especially its industrialisation drive

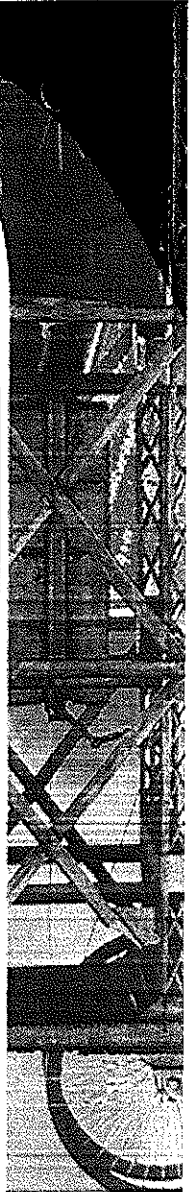


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ENERGY VALUE CHAIN

ACTIVITIES	PROJECT/S
Develop regulations Conduct Strategic Environmental Assessment Commencement of exploration activities	Shale Gas Development
Develop the coal policy	The coal policy
Undertake a nationwide assessment of uranium, thorium and related mineral resources	Assessment of uranium, thorium and related mineral resources in South Africa



OTHER BENEFICIATION PROJECTS

- ❑ In addition to the above-mentioned value chain project, the DMR SOEs are leading a number of beneficiation related projects
- ❑ Following the hosting of the National Jewellery Forum in 2013, a set of initiatives were to be implemented
 - ❖ One of these initiatives was the development of a curriculum intended to produce jewellery manufacturing entrepreneurs.
 - ❖ MQA has completed development of the curriculum and it has been submitted to SAQA for accreditation
 - ❖ A South African Diamond Indaba is to held later in October 2015 to further delineate challenges constraints to local diamond beneficiation and to develop interventions to unlock these
- ❑ MINTEK also supports 60 projects through its small scale mining and beneficiation unit



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KEY CHALLENGES

- ❑ Sustained depression of the bulk of commodities prices, consistent with the global economic climate
- ❑ Slow recovery of the key economic zones that are traditional demand drivers for beneficiated goods
- ❑ Finalisation of the Mineral and Petroleum Resources Development Amendment Bill
- ❑ Current construct of the procurement element of the Mining Charter, which focusses on sourcing from BEE entities, as opposed to emphasis on local content
- ❑ Access to cost competitive energy supply for energy intensive beneficiation initiatives





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