



INTEGRATED ENERGY PLANNING PROCESS

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SCOPE OF IEP

Integrated energy planning seeks to consider all the key elements of the energy value-chain at a national level

PRIMARY ENERGY/ RESOURCES

CONVERSION TECHNOLOGIES

SECONDARY ENERGY CARRIERS

END-USE TECHNOLOGIES

DEMAND FOR ENERGY SERVICES

- RENEWABLES
- Solar
- Wind
- Biomass
- Hydro
- FOSSIL FUELS
- Coal
- Crude Oil
- Natural Gas
- NUCLEAR FUELS
- Uranium
- Resources extraction and sourcing

- POWER GENERATION
- Conventional Coal
 Plant
- Nuclear
- CCGT
- OCGT
- Solar
- Wind
- FUEL PROCESSING
- Oil refineries
- GTL
- CTL
- REGASIFICATION

- Electricity
- Heat
- Refined Petroleum Products
- INDUSTRY
- Steam boilers
- Furnace
- Machinery
- COMMERCE
- Air Conditioning
- Light Bulbs
- HOUSEHOLDS
- Space Heaters
- Refrigerators
- Stoves
- Geysers
- AGRICULTURE
- Irrigation pumps
- TRANSPORT
- Vehicles
- Aircraft
- Rail

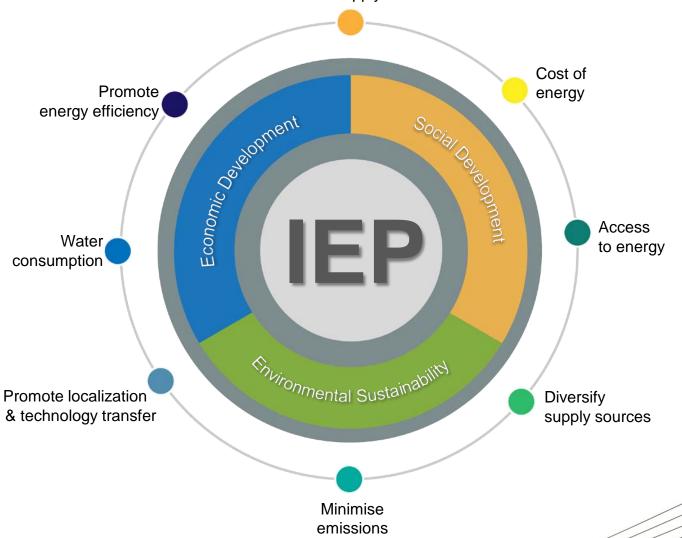
- INDUSTRIAL SECTOR
- Process Steam
- Motive Power
- COMMERCIAL SECTOR
- Electronic
 Communication
- Cooling
- RESIDENTIAL SECTOR
- Space Heat
- Refrigeration
- Cooking
- Hot water
- AGRICULTURAL SECTOR
- Water supply
- TRANSPORT SECTOR
- Person kms



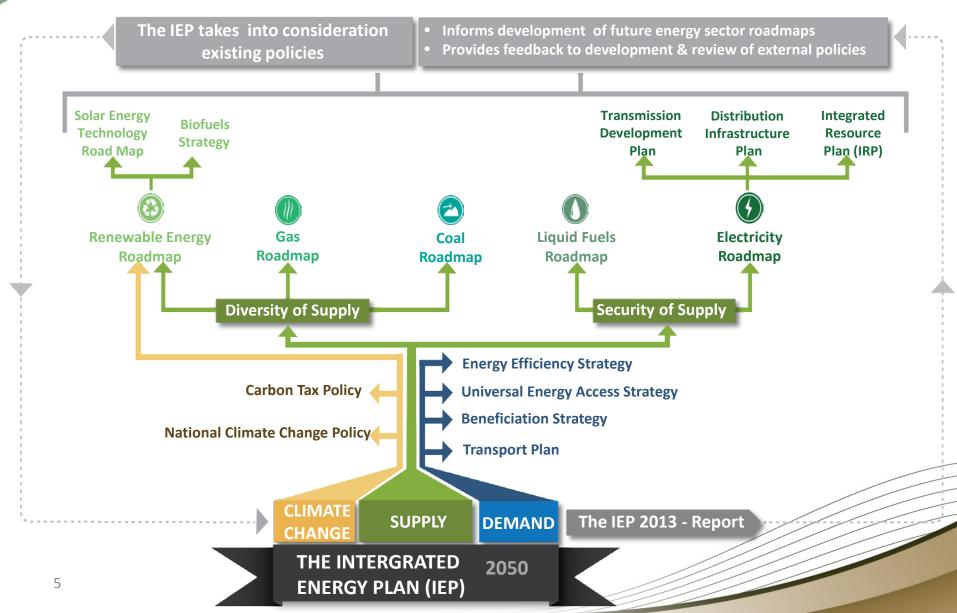
8 KEY OBJECTIVES







IEP AND OTHER PLANS energy Department: Energy REPUBLIC OF SOUTH AFRICA





NEW GROWTH PATH, NATIONAL DEVELOPMENT PLAN



OVERVIEW OF PROCESS



ENERGY PLANNING COLLOQUIUM



- Policy and socioeconomic issues
- Planning considerations
- Technology options
- Energy Modelling Approaches

INTER-GOVERNMENTAL FORUMS



- Policy and macroeconomic assumptions
- Key planning objectives
- High-impact policies
- Energy supply technology assumptions

PUBLISHED DRAFT IEP REPORT

- Presentation of:
 - Estimated future energy requirements in support of macroeconomic and socioeconomic requirements
 - Energy supply options in light of:
 - High-impact national policy imperatives
 - Various technology assumptions

OVERVIEW OF PROCESS



STAKEHOLDER CONSULTATIONS ON DRAFT IEP REPORT



- Public input on policy and macroeconomic assumptions
- Additional policy and socio-economic issues
- Other planning considerations

INTER-GOVERNMENTAL FORUMS



- Review policy, macroeconomic and technology assumptions
- Consider socioeconomic issues and other planning issues
- Consider alternative energy demand scenarios
- Evaluate energy supply options
- Make final recommendations

FINAL IEP REPORT (IEP)

- Presentation of:
 - Estimated future energy requirements
 - Recommended energy pathway/roadmap supported by:
 - Socio-economic implications
 - Macroeconomic implications