

# Department of Energy

Routine Energy data collection, analysis and dissemination within Energy Planning Chief Directorate

04 September 2014



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Energy  
REPUBLIC OF SOUTH AFRICA

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& Integrity

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# The Legal framework

- The National Energy Act (Ministry's mandate)
- Regulations on Mandatory provision of Energy Data



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# Data routinely Collected



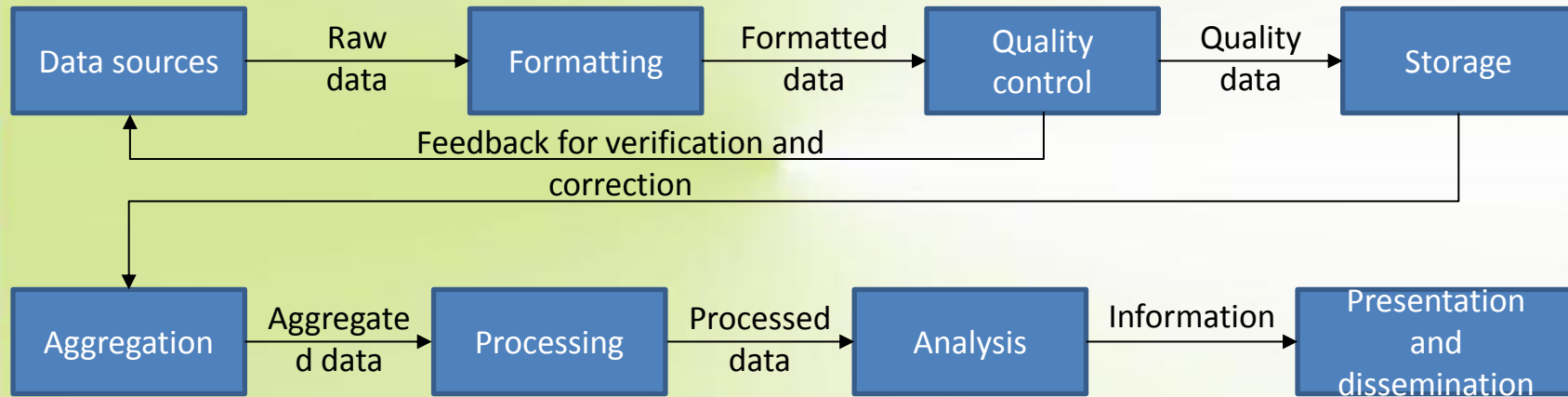
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# Generic data flow



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# Commodity data collected

Dataset	Commodities (or energy carriers) in dataset	Commodity flow (or process)	Frequency of data collection	Spatial aggregation	Parameters (dimensions)	Source
Coal	Bituminous and Sub-bituminous coal	Import, export, transformation, final consumption (with sectorial breakdown)	Yearly	National	Quantity (commodity, flow, period)	DMR
Eskom Electricity Sales	Electricity	Sales/consumption by Standard Industrial Classifications	Yearly	Provincial, national	Quantity (commodity, flow, area, SIC code, period)	Eskom
Fuel Sales	All petroleum products	Sales/consumption by trade categories	Monthly	Magisterial district	Quantity (company, commodity, magisterial district, trade category, period)	Oil companies
Municipal Electricity Sales	Electricity	Sales/consumption	Yearly	Municipal	Quantity (commodity, area, customer category and period)	NERSA
Natural gas (for JODI Gas)	Natural gas (for JODI)	Production, import, export, transformation, sales/consumption	Monthly	National	Quantity (company, commodity, flow, period)	Sasol
Natural gas consumption	Natural gas	Sales/consumption, imports, exports, transformation	Yearly	National	Quantity (company, commodity, flow, period)	Sasol



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# Commodity data collected

Dataset	Commodities (or energy carriers) in dataset	Commodity flow (or process)	Frequency	Spatial aggregation	Parameters (dimensions)	Source
Petroleum product price components	Petroleum Commodities components: taxes and levies	n/a	Monthly	Regional	Price (commodity, component, region, period)	DOE
Energy prices	Primary and secondary energy prices: coal, gas, crude oil, electricity	n/a	Yearly and monthly	Regional	Price (commodity, customer category, region, period)	NERSA, Eskom, StatsSA, CEF, DOE
Refinery activity (JODI Oil)	Primary petroleum and refined products	Production, import, export, transformation, stock, sales, transfers, see Appendix H for a detailed list	Monthly	Refiner specific	Quantity (company, commodity, flow, period)	Major oil companies (refineries)
SARS Energy Trade Data	All energy products under section 27 tariff codes	Import, export	Monthly	National	Import /Export Value (commodity, period) Quantity (commodity, period)	South African Revenue Service

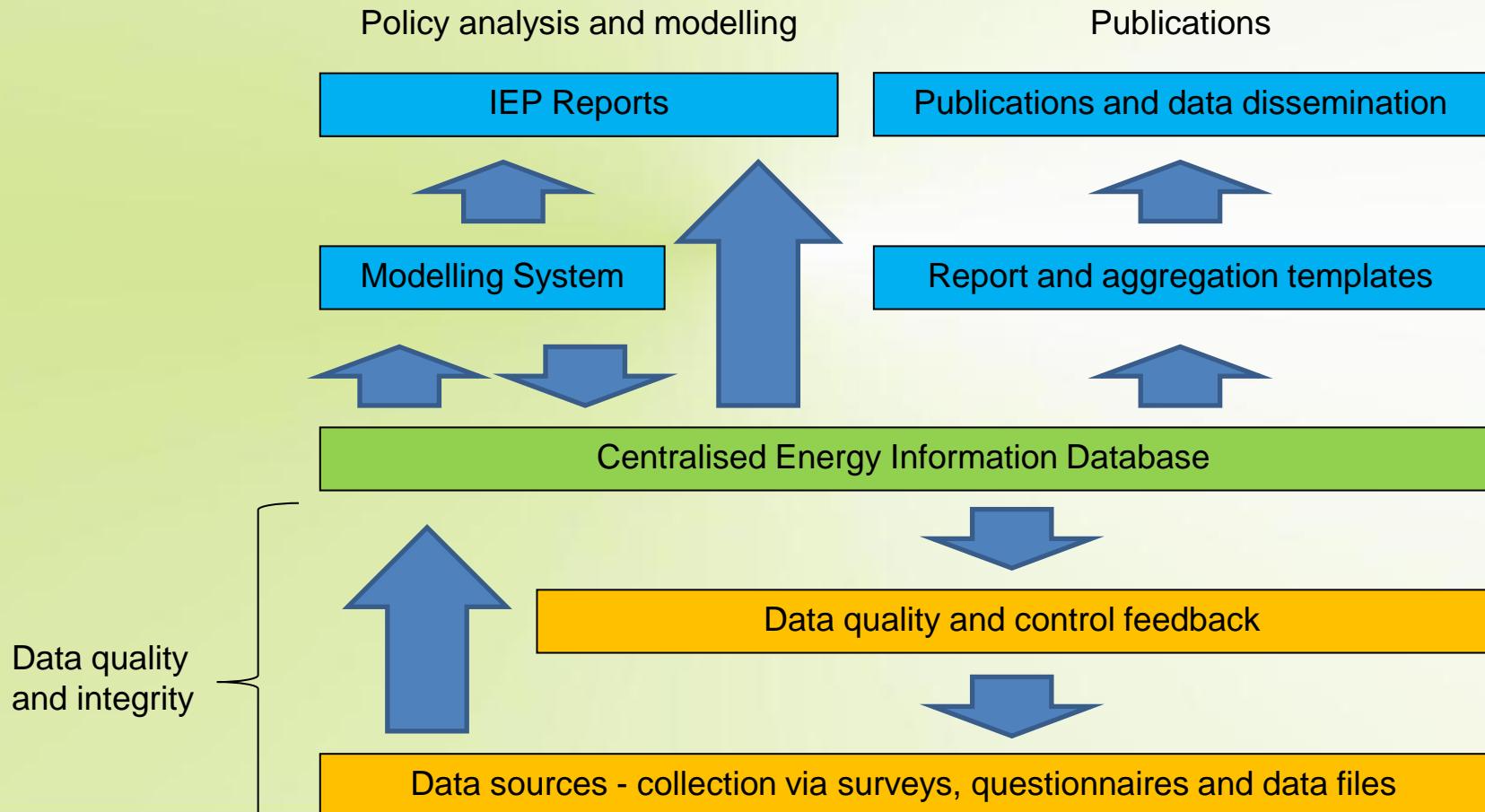
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# Data flow within Energy Planning



Data quality and integrity

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# Dissemination/reporting



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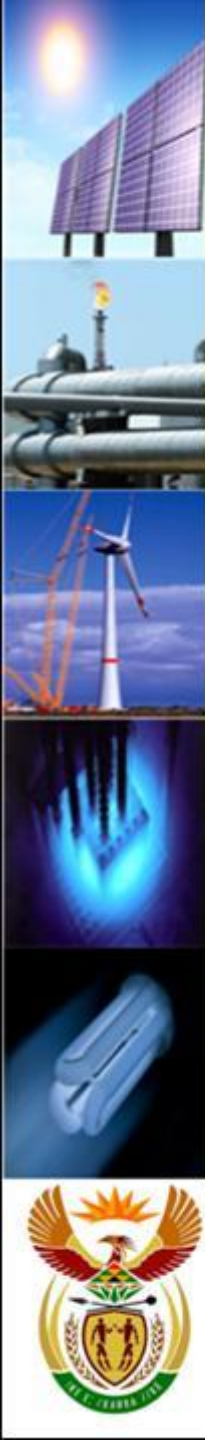
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# Data submitted to international organisations

Report	Organisation	Main content	Frequency of submission	Date of submission	Source of data	Location of Manual and questionnaire
JODI Oil questionnaire	International Energy Forum/UNSD	National refining activity	monthly	25 of the following month relevant to the dataset	Centralised Database: questionnaire is populated with aggregated data collected using a similar refinery questionnaire submitted to the department by individual refineries and inserted into the database.	The Joint Oil Data Initiative User Manual (N:\JODI\jodi-manual-2006.pdf) provides a detailed description of terms used in the questionnaire and a background to its structure. The JODI Oil questionnaire is included in Appendix I.
JODI Gas questionnaire	International Energy Forum/UNSD	Natural gas imports, exports and use	monthly	25 of the following month relevant to the dataset	The Gas questionnaire is populated by Sasol and is submitted to the department of energy. The questionnaire is submitted as is to the IEF.	The JODI Gas questionnaire is included in Appendix J.
United Nations Statistical Division (UNSD) questionnaire	UNSD on behalf of IEA, request made via StatsSA	Energy Balance in UNSD specified format	annually	No date specified, a request is usually made in April or May for data from 2 years back	Centralised database: National Energy Balance data	N:\UNSD\Part3_SupportingBooklet_2009.PDF  N:\UNSD\UNSD template.xls
Energy Balances	IEA, StatsSA etc	Flows of all commodities: Production, Transformation and final Consumption	Annual	Last quarter of each financial year	Centralised database: National Energy Balance data	N: Energy Balance
African Energy Commission (AFREC) questionnaire	AFREC	Energy balance in AFREC questionnaire format	annually	No date specified, a request is usually made	Centralised database: National Energy Balance data	N:\AFREC\AFREC Template.xlsx (instructions are included in the template)





# Issues of data quality



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# Some Identified gaps

- Insufficient data to inform energy policy decision making
  - Coverage
- Quality in the data collected
  - Mainly secondary data is collected (no control over data compilation)
  - Disintegrated collection of data: Researcher houses , SoE 's etc. **WHOSE DATA TO USE?**
  - Inconsistent definitions, classification of energy carriers across data providers ( SIC, SIEC)
- Capacity to collect demand side (energy services) data
  - End use data collection require multiple surveys
  - Current resources allow for collection of administrative energy data.



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# Addressing some the quality issues: Legal frameworks and institutional arrangements

- National Energy Act of 2008
- Regulations on Mandatory provision of Energy Data
- Revised Data questionnaires/forms (A comprehensive data management system being developed)
- JESTT ( DoE, Nersa, StatsSA and SANEDI)
- MoU's with StatsSA (NSS partnership)
- SLA with StatsSA - in progress
- MoU with DMR in progress
- Oslo Working group on Energy Statistics/IEA Training/ IEF workshops
- Standard Operating Procedures (SoP's)



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