Energy Accounting in South Africa: Taking stock of physical energy flows in our economy

National NCA Forum

7 August 2024

Parallel session B: Climate-related accounts and data foundations

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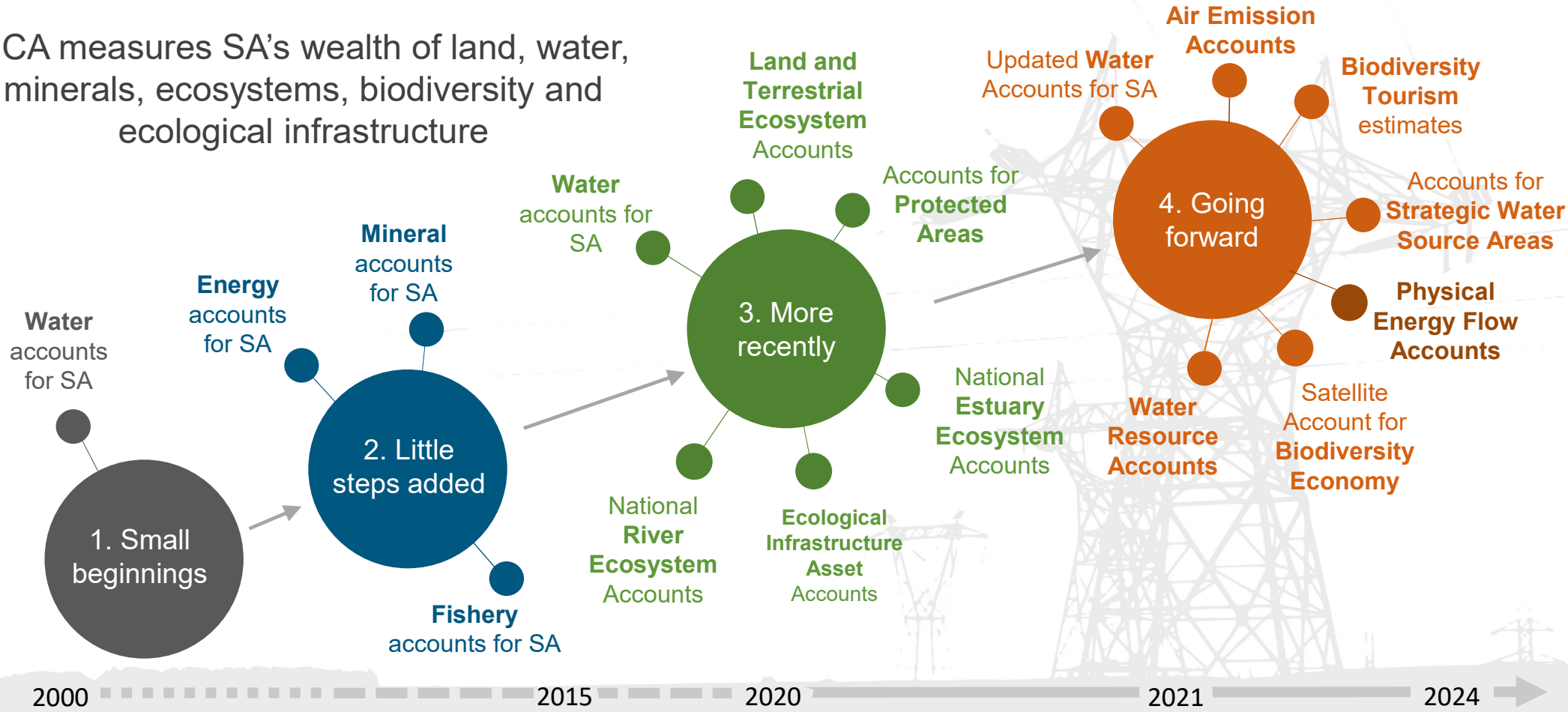
Overview

1. Background / Past publications
2. Why do we need Energy Accounting?
3. Data sources for Energy Balances
4. Data collection for Energy Balances
5. Methodology / SEEA Energy
6. Course on Compilation of Energy and Air Emission Accounts
7. Balance to Accounts System
8. Way Forward

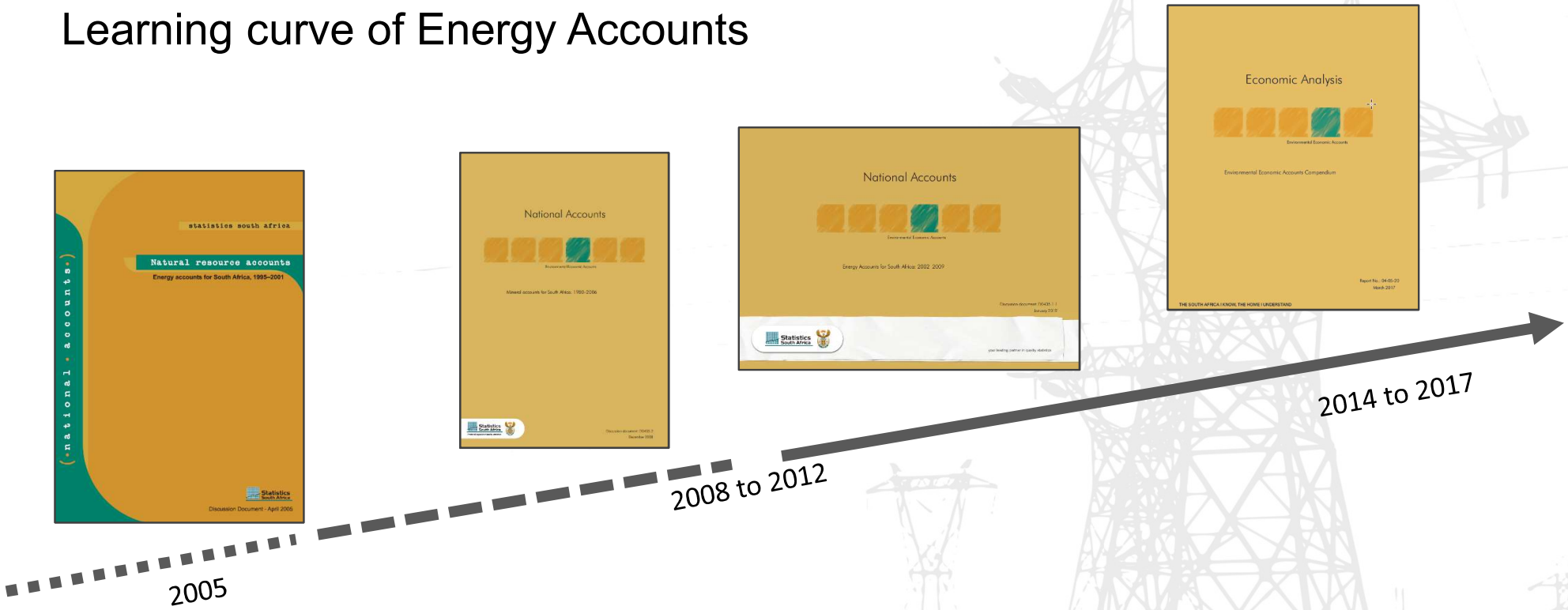
Snapshot of National Energy Accounts in South Africa

NCA measures SA's wealth of land, water, minerals, ecosystems, biodiversity and ecological infrastructure



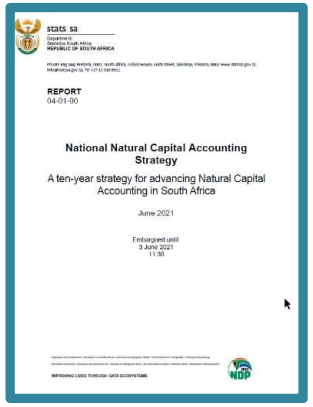
Energy Accounts – past publications

Learning curve of Energy Accounts



Energy Accounts for South Africa – Why?

Implementation of South Africa's National NCA Strategy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REPORT
04-01-00

National Natural Capital Accounting Strategy

A ten-year strategy for advancing Natural Capital Accounting in South Africa

June 2021

Embargoed until
3 June 2021
11:30

Output	High level indicative activities		Funding scenario	Key role players	Timeframe	Resources
3.1.2. Accounts related to energy	3.1.2.1	Regularly produce national energy supply and use tables	High road	Stats SA, DMRE, Eskom, SANEDI, relevant NGOs		
	3.1.2.2	Explore production of energy supply and use tables at finer spatial resolutions, e.g. district municipality level	High road	Stats SA, DMRE, local and district municipalities		

IMF G20 Data Gaps Initiative 3 – Theme: Climate Change – Recommendation 2

G20 DATA GAPS INITIATIVE 3
DELIVERING INSIGHTS FOR ACTION

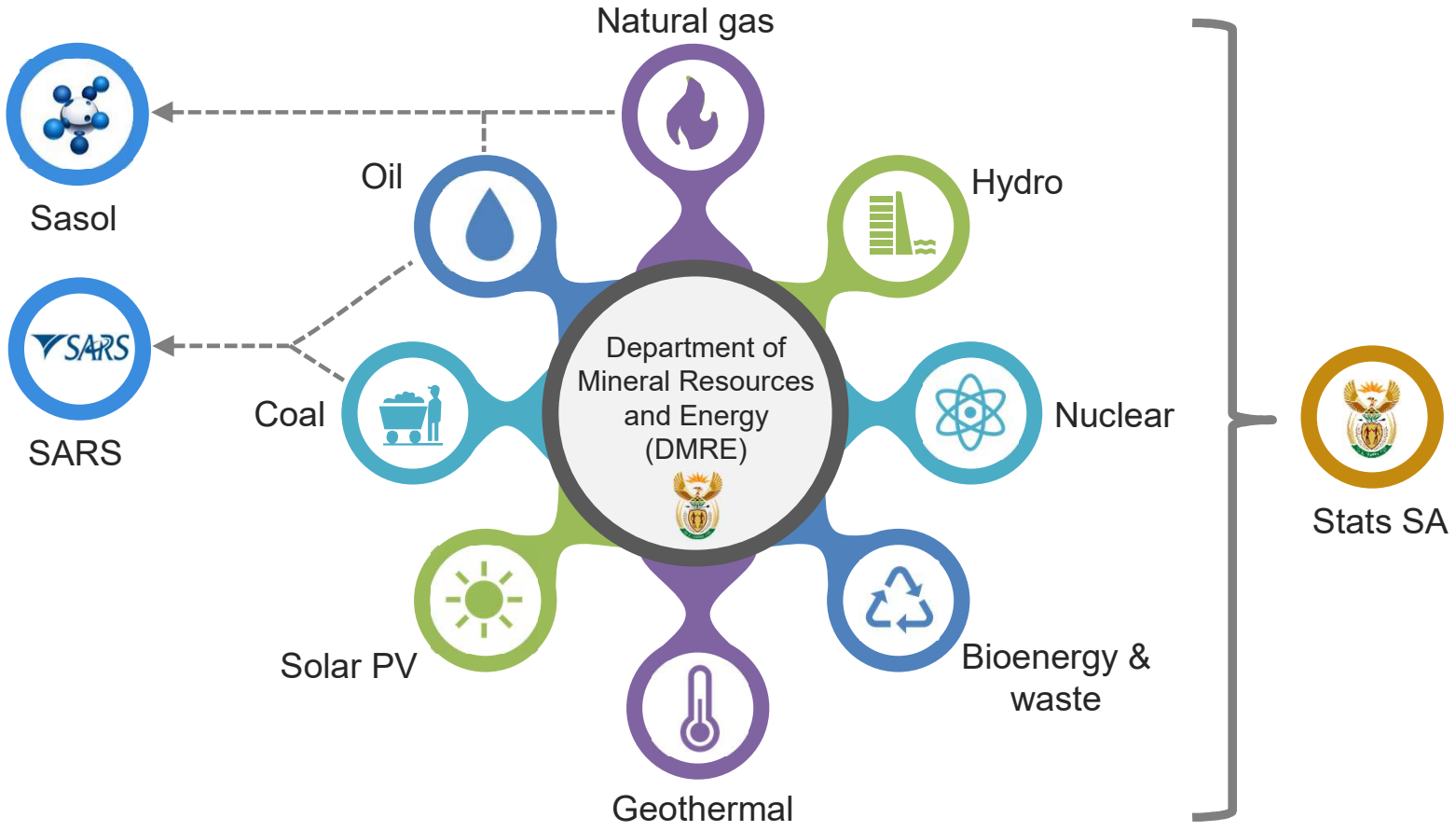
(i) Climate Change Theme

Rec 1: GHG Emission Accounts and national carbon footprints.
Rec 2: Energy Accounts.
Rec 3: Carbon footprint of FDI.
Rec 4: Climate finance.
Rec 5: Forward looking physical and transition risk indicators.
Rec 6: Government climate impacting subsidies.
Rec 7: Climate change mitigation and adaptation current and capital expenditures.

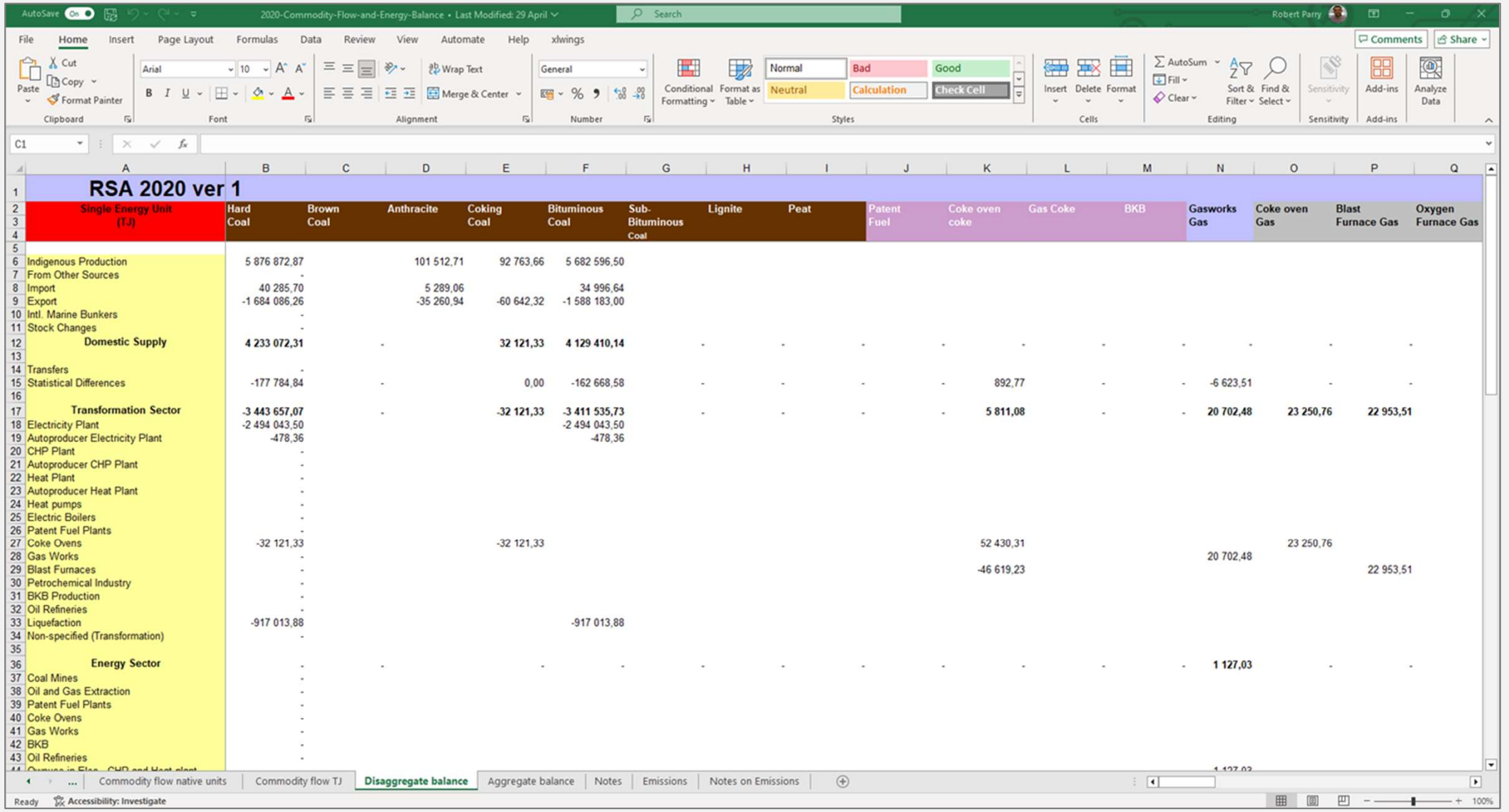
Why do we need Energy Accounting?

Energy accounting is a system used to measure, analyse and report energy consumption with the aim to:

Data sources for Energy Balances



Data Collection: Energy Balances Pre 2021



2020-Commodity-Flow-and-Energy-Balance • Last Modified: 29 April

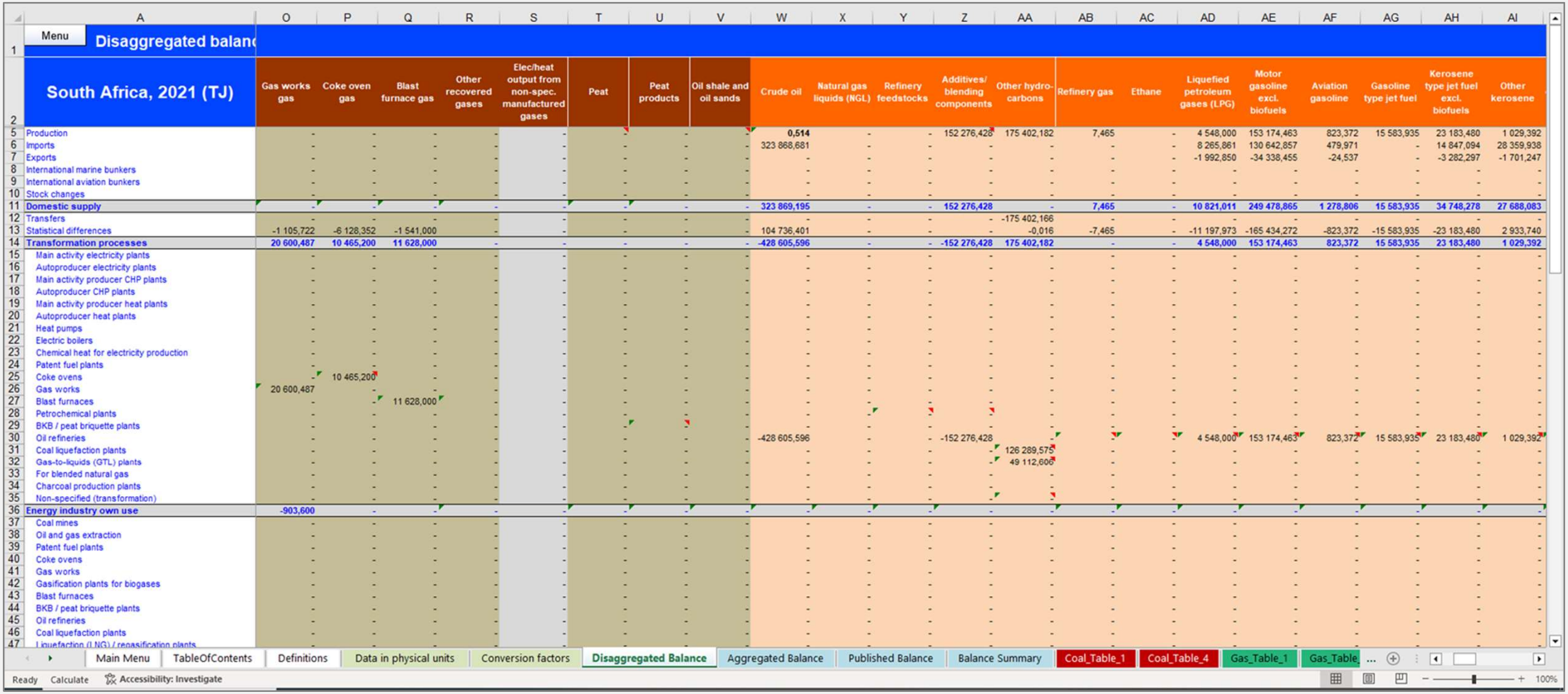
RSA 2020 ver 1

Single Energy Unit (TJ)	Hard Coal	Brown Coal	Anthracite	Coking Coal	Bituminous Coal	Sub-Bituminous Coal	Lignite	Peat	Patent Fuel	Coke oven coke	Gas Coke	BKB	Gasworks Gas	Coke oven Gas	Blast Furnace Gas	Oxygen Furnace Gas
Indigenous Production	5 876 872,87		101 512,71	92 763,66	5 682 596,50											
From Other Sources	-															
Import	40 285,70		5 289,06		34 996,64											
Export	-1 684 086,26		-35 260,94	-60 642,32	-1 588 183,00											
Intl. Marine Bunkers	-															
Stock Changes	-															
Domestic Supply	**4 233 072,31**	-		**32 121,33**	**4 129 410,14**	-	-	-	-	-	-	-	-	-	-	
Transfers	-															
Statistical Differences	-177 784,84	-		0,00	-162 668,58	-	-	-	-	892,77	-	-	-6 623,51	-	-	
Transformation Sector	**-3 443 657,07**	-		**-32 121,33**	**-3 411 535,73**	-	-	-	-	**5 811,08**	-	-	**20 702,48**	**23 250,76**	**22 953,51**	
Electricity Plant	-2 494 043,50				-2 494 043,50											
Autoproducer Electricity Plant	-478,36				-478,36											
CHP Plant	-															
Autoproducer CHP Plant	-															
Heat Plant	-															
Autoproducer Heat Plant	-															
Heat pumps	-															
Electric Boilers	-															
Patent Fuel Plants	-															
Coke Ovens	-32 121,33			-32 121,33						52 430,31				23 250,76		
Gas Works	-												20 702,48			
Blast Furnaces	-									-46 619,23					22 953,51	
Petrochemical Industry	-															
BKB Production	-															
Oil Refineries	-															
Liquefaction	-917 013,88				-917 013,88											
Non-specified (Transformation)	-															
Energy Sector	-	-		-	-	-	-	-	-	-	-	-	**1 127,03**	-	-	
Coal Mines	-															
Oil and Gas Extraction	-															
Patent Fuel Plants	-															
Coke Ovens	-															
Gas Works	-															
BKB	-															
Oil Refineries	-															

Commodity flow native units | Commodity flow TJ | Disaggregate balance | Aggregate balance | Notes | Emissions | Notes on Emissions

Ready | Accessibility: Investigate

Data Collection: Energy Balances Post 2020



Menu — Disaggregated balanc

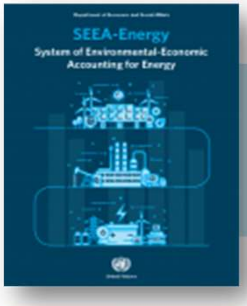
South Africa, 2021 (TJ)	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gases	Elec/heat output from non-spec. manufactured gases	Peat	Peat products	Oil shale and oil sands	Crude oil	Natural gas liquids (NGL)	Refinery feedstocks	Additives/ blending components	Other hydro-carbons	Refinery gas	Ethane	Liquefied petroleum gases (LPG)	Motor gasoline excl. biofuels	Aviation gasoline	Gasoline type jet fuel	Kerosene type jet fuel excl. biofuels	Other kerosene
Production	-	-	-	-	-	-	-	-	0,514	-	-	152 276,428	175 402,182	7,465	-	4 548,000	153 174,463	823,372	15 583,935	23 183,480	1 029,392
Imports	-	-	-	-	-	-	-	-	323 868,681	-	-	-	-	-	-	8 265,861	130 642,857	479,971	-	14 847,094	28 359,938
Exports	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-1 992,850	-34 338,455	-24,537	-	-3 282,297	-1 701,247
International marine bunkers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
International aviation bunkers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stock changes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic supply	-	-	-	-	-	-	-	-	**323 869,195**	-	-	**152 276,428**	-	**7,465**	-	**10 821,011**	**249 478,865**	**1 278,806**	**15 583,935**	**34 748,278**	**27 688,083**
Transfers	-	-	-	-	-	-	-	-	-	-	-	-	-175 402,166	-	-	-	-	-	-	-	-
Statistical differences	-1 105,722	-6 128,352	-1 541,000	-	-	-	-	-	104 736,401	-	-	-	-0,016	-7,465	-	-11 197,973	-165 434,272	-823,372	-15 583,935	-23 183,480	2 933,740
Transformation processes	**20 600,487**	**10 465,200**	**11 628,000**	-	-	-	-	-	**-428 605,596**	-	-	**-152 276,428**	**175 402,182**	-	-	**4 548,000**	**153 174,463**	**823,372**	**15 583,935**	**23 183,480**	**1 029,392**
Main activity electricity plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Autoproducer electricity plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Main activity producer CHP plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Autoproducer CHP plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Main activity producer heat plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Autoproducer heat plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heat pumps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electric boilers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical heat for electricity production	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Patent fuel plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coke ovens	-	10 465,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas works	20 600,487	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	11 628,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BKB / peat briquette plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-428 605,596	-	-	-152 276,428	-	-	-	4 548,000	153 174,463	823,372	15 583,935	23 183,480	1 029,392
Coal liquefaction plants	-	-	-	-	-	-	-	-	-	-	-	-	126 289,575	-	-	-	-	-	-	-	-
Gas-to-liquids (GTL) plants	-	-	-	-	-	-	-	-	-	-	-	-	49 112,606	-	-	-	-	-	-	-	-
For blended natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-specified (transformation)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Energy industry own use	**-903,600**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coal mines	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil and gas extraction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Patent fuel plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coke ovens	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gasification plants for biogases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BKB / peat briquette plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coal liquefaction plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Liquefaction (LNG) / regasification plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Main Menu | TableOfContents | Definitions | Data in physical units | Conversion factors | Disaggregated Balance | Aggregated Balance | Published Balance | Balance Summary | Coal_Table_1 | Coal_Table_4 | Gas_Table_1 | Gas_Table_ ...

Ready | Calculate | Accessibility: Investigate | 100%

Methodology

SEEA 2012



SEEA-E

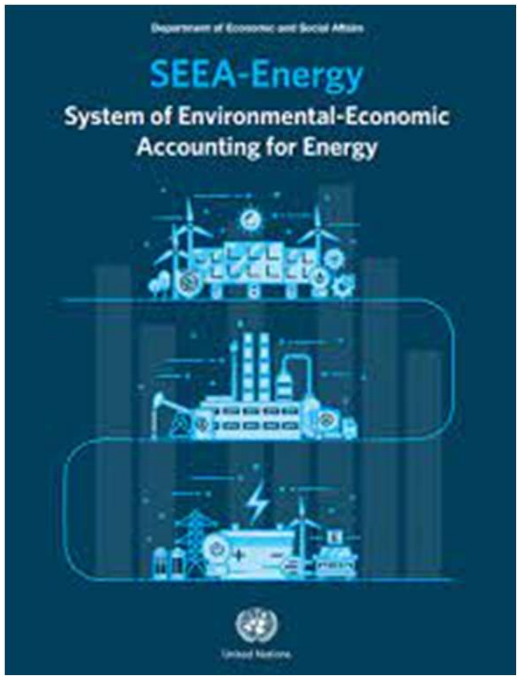
SIC

The methodology as set out in the System of Environmental-Economic Accounting 2012, an international standard developed by the United Nations, is followed with regard to the definition of natural resource accounting. Stats SA is also using the SEEA-Energy as a guideline.

The energy accounts uses the Standard Industrial Classification of all Economic Activities (SIC) for economic activities as per the System of National Accounts (SNA).

SEEA Energy

- **SEEA Energy** is a seperate SEEA-publication with more details on how data on energy should be organised in the accounts.
  - **Flow accounts**
  - **Asset accounts**
  - **Physical accounts**
    - common physical unit: typically Joules
  - **Monetary accounts**
    - Rand, $, euros, etc.



SEEA energy accounts

In SEEA there are basically two types of accounts and tables:

Supply and use tables for recording of flows of energy →

and

Asset accounts for recording of the stocks of energy and changes in the stocks →

SUPPLY TABLE

	Industries	Households	Accumulation	Rest of the World	Environment	Totals
Energy from natural inputs						Total supply of energy from natural inputs
Energy products						Total supply of energy products
Energy Residuals	Energy residuals generated by industry	Energy residuals generated by household consumption	Energy residuals from accumulation	Energy residuals received from the rest of the world	Energy residuals recovered from the environment	Total supply of energy residuals

Supply of energy

USE TABLE

	Industries	Households	Accumulation	Rest of the World	Environment	Totals
Energy from natural inputs						Total use of energy from natural inputs
Energy products						Total use of energy products
Energy residuals	Collection & treatment of energy residuals		Accumulation of energy residuals	Energy residuals sent to the rest of the world	Energy residual flows direct to environment	Total use of energy residuals

Use of energy

Opening stock of resources	
Additions to stock of resources	
Growth in stock	
Discoveries of new stock	
Upwards reappraisals	
Reclassifications	
Reductions	
Catastrophic loss	
Downwards reappraisals	
Reclassifications	
Total reductions in stock	
Revaluation of the stock of resources *	
Closing stock of resources	

Energy asset account

Both types of accounts can be implemented in both **physical and monetary units** – The layout of the accounts are basically the same

SEEA energy accounts

The physical supply and use tables are two separate tables which share exactly the same headings and layout

Supply of energy

SUPPLY TABLE

	Industries	Households	Accumulation	Rest of the World	Environment	Totals
Energy from natural inputs					Energy inputs from the environment	Total supply of energy from natural inputs
Energy products	Output			Imports		Total supply of energy products
Energy Residuals	Energy residuals generated by industry	Energy residuals generated by household consumption	Energy residuals from accumulation	Energy residuals received from the rest of the world	Energy residuals recovered from the environment	Total supply of energy residuals

Shows the supply of energy by industries, households, accumulations (stocks), the rest of the world and the environment.

Use of energy

USE TABLE

	Industries	Households	Accumulation	Rest of the World	Environment	Totals
Energy from natural inputs	Extraction of energy from natural inputs					Total use of energy from natural inputs
Energy products	Intermediate consumption	Household consumption	Changes in inventories	Exports		Total use of energy products
Energy residuals	Collection & treatment of energy residuals		Accumulation of energy residuals	Energy residuals sent to the rest of the world	Energy residual flows direct to environment	Total use of energy residuals

Shows how the same categories use or receive the energy.

PEFA Supply table,

PHYSICAL SUPPLY TABLE (unit: PJ)	Production (incl. household own account) and generation of residuals								Accumulation	Flows from the rest of the World (Imports)	Flows from the environment	TOTAL
	Industries (by ISIC)							Households				
	Agriculture, Forestry and Fishery	Mining and Quarrying	Manufacturing	Electricity, gas, steam and air conditioning supply	Transportation and storage	Other industries	Total Industry					
ISIC	*A*	*B*	*C*	*D*	*H*	*Other*		HH	Acc	RoW	Env	
1 Energy from natural inputs:												
Natural resource inputs											6 852,0	6 852,0
Inputs of energy from renewable sources											157,2	157,2
Other natural inputs											0,0	0,0
2 Energy products:												
Production of energy products by SIEC class:												
Coal	0,0	6 123,0	93,9	63,5	0,0	0,0	6 280,4			24,5		6 304,9
Peat and peat products	0,0	0,0	0,0	0,0	0,0	0,0	0,0			0,0		0,0
Oil shale / oil sands	0,0	0,0	0,0	0,0	0,0	0,0	0,0			0,0		0,0
Natural gas	0,0	42,9	0,0	0,0	0,0	0,0	42,9			135,2		178,1
Oil	0,0	12,9	1 048,3	0,0	0,0	0,0	1 061,2			1 262,6		2 323,7
Biofuels	673,1	0,0	56,5	0,0	0,0	0,0	729,7			0,0		729,7
Waste	0,0	0,0	0,0	0,0	0,0	0,0	0,0			0,0		0,0
Electricity	0,0	0,0	0,0	907,3	0,0	0,0	907,3			47,0		954,3
Heat	0,0	0,0	0,0	4,7	0,0	0,0	4,7			0,0		4,7
Nuclear fuels and other fuels	0,0	133,5	0,0	0,0	0,0	0,0	133,5			0,0		133,5
3 Energy residuals:												
Energy residuals from end-use	91,5	196,4	1 524,1	54,2	953,4	184,5	3 004,1	703,9				3 708,0
Energy residuals from losses	0,0	0,0	363,9	2 096,1	0,0	0,0	2 460,0	0,0				2 460,0
4 Other residual flows:												
Residuals from end-use for nc	0,0	0,0	188,4	0,0	0,0	0,0	188,4	0,0				188,4
Energy from solid waste									15,0			15,0
5 TOTAL SUPPLY	764,6	6 508,8	3 275,1	3 125,8	953,4	184,5	14 812,3	703,9	15,0	1 469,2	7 009,1	24 009,4

PEFA Use table

PHYSICAL USE TABLE (unit: PJ)	Intermediate consumption, use of energy resources, receipt of energy losses							Final Consumption	Accumulation	Flows to the rest of the World (Exports)	Flows to the environment	TOTAL
	Industries (by ISIC)							Households				
	Agriculture, Forestry and Fishery	Mining and Quarrying	Manufacturing	Electricity, gas, steam and air conditioning supply	Transportation and storage	Other industries	Total Industry					
ISIC	*A*	*B*	*C*	*D*	*H*	*Other*		HH	Acc	RoW	Env	
1 Energy from natural inputs:												
Natural resource inputs	673,1	6 178,8	0,0	0,0	0,0	0,0	6 852,0					6 852,0
Inputs of energy from renewabl	0,0	133,5	0,0	23,6	0,0	0,0	157,2					157,2
Other natural inputs	0,0	0,0	0,0	0,0	0,0	0,0	0,0					0,0
2 Energy products:												
Transformation of energy products by SIEC class:												
Coal	0,0	0,0	373,5	2 817,5	0,0	0,0	3 191,1					3 191,1
Peat and peat products	0,0	0,0	0,0	0,0	0,0	0,0	0,0					0,0
Oil shale / oil sands	0,0	0,0	0,0	0,0	0,0	0,0	0,0					0,0
Natural gas	0,0	0,0	105,1	0,0	0,0	0,0	105,1					105,1
Oil	0,0	0,0	840,1	1,9	0,0	0,0	842,0					842,0
Biofuels	0,0	0,0	229,0	4,5	0,0	0,0	233,4					233,4
Waste	0,0	0,0	0,0	0,0	0,0	0,0	0,0					0,0
Electricity	0,0	0,0	0,0	18,9	0,0	0,0	18,9					18,9
Heat	0,0	0,0	0,0	0,0	0,0	0,0	0,0					0,0
Nuclear fuels and other fuels	0,0	0,0	0,0	133,5	0,0	0,0	133,5					133,5
End-use of energy products by SIEC class:												
Coal	14,2	5,9	909,6	0,0	0,0	73,1	1 002,8	145,0	-202,8	2 114,7		3 059,7
Peat and peat products	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
Oil shale / oil sands	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
Natural gas	0,0	0,0	72,9	0,0	0,0	0,1	72,9	0,0	0,0	0,0		72,9
Oil	57,4	69,3	82,9	0,0	941,0	12,9	1 163,6	23,9	-0,6	160,5		1 347,5
Biofuels	0,0	0,0	83,8	0,0	0,0	0,0	83,8	400,1	0,0	12,4		496,3
Waste	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
Electricity	19,9	121,2	370,1	125,9	12,4	98,4	747,9	134,9	0,0	52,6		935,4
Heat	0,0	0,0	4,7	0,0	0,0	0,0	4,7	0,0	0,0	0,0		4,7
Nuclear fuels and other fuels	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0		0,0
End-use of energy products for no	0,0	0,0	188,4	0,0	0,0	0,0	188,4	0,0	0,0	0,0	0,0	188,4
3 Energy residuals:												
Energy residuals from end-use											3 708,0	3 708,0
Energy residuals from losses											2 460,0	2 460,0
4 Other residual flows:												
Residuals from end-use for non-energy purposes									188,4			188,4
Energy from solid waste	0,0	0,0	15,0	0,0	0,0	0,0	15,0					15,0
5 TOTAL USE	764,6	6 508,8	3 275,1	3 125,8	953,4	184,5	14 812,3	703,9	-14,9	2 340,2	6 167,9	24 009,4

Course on Compilation of Energy and Air Emission Accounts

Attended Course on Compilation of Energy and Air Emission Accounts held in Chiba, Japan, from 5 to15 February 2024

Balance to Accounts System

Compilation of energy accounts based on IEA energy balances

Data is currently loaded for:

SOURCE: worksheet 'Copy_World'
COUNTRY: South Africa
TIME: 2015
UNIT: TJ

Instructions:

1. Open the IEA "World database" or IEA "OECD database", select all columns from product "Anthracite" to "Memo: Renewables" and copy the data (ctrl + c).

2. Use paste special to paste the data in cell A1 of the worksheet "Copy_OECD" (in case of the "OECD database") or "Copy_World" (in case of the "World database").

3. Choose the dataset to use: World

4. Complete the different worksheets with auxiliary data (yellow cells) to improve the industry detailing and make necessary adjustments.

Add data (in PJ) for flaring and venting of natural gas	0 cell(s) of 1	filled in.	total from energy balanc 42 900
Add auxiliary data for nuclear fuel	0 cell(s) of 3	filled in.	total from energy balanc 133 519
Add auxiliary data for primary solid biofuels	0 cell(s) of 5	filled in.	total from energy balanc 673 143
Add auxiliary data for statistical differences	0 cell(s) of 90	filled in.	total from energy balanc 202 574
Add auxiliary data for autoproducers	0 cell(s) of 180	filled in.	total from energy balanc -81 094
Add auxiliary data for 'non-specified (transformation)'	0 cell(s) of 20	filled in.	total from energy balanc 0
Add auxiliary data for 'non-specified (energy)'	0 cell(s) of 30	filled in.	total from energy balanc 0
Add auxiliary data for losses	0 cell(s) of 5	filled in.	total from energy balanc -71 635
Add auxiliary data for non-energy use	0 cell(s) of 160	filled in.	total from energy balanc 188 444
Add data (in PJ) for transport (residence adjustment)	0 cell(s) of 320	filled in.	total from energy balanc 958
Add auxiliary data for final consumption	0 cell(s) of 100	filled in.	total from energy balanc 729 867

Go to PSUT

Balance to Accounts System Data input sheet

UNIT: TJ	COUNTRY: South Afri	TIME: 2021									
	Anthracite	Coking coa	Other bitun	Sub-bitum	Lignite	Patent fue	Coke oven	Gas coke	Coal tar	BKB	
Production	97 006	72 581	5 362 706	0	0	0	0	0	0	0	
Imports	12 920	0	44 988	0	0	0	0	0	0	0	
Exports	-30 950	0	-1 267 497	0	0	0	0	0	0	0	
International marine bunkers	0	0	0	0	0	0	0	0	0	0	
International aviation bunkers	0	0	0	0	0	0	0	0	0	0	
Stock changes	0	0	0	0	0	0	0	0	0	0	
Total primary energy supply	78 975	72 581	4 140 197	0	0	0	0	0	0	0	
Transfers	0	0	0	0	0	0	0	0	0	0	
Statistical differences	-28 587	0	-1 139 327	0	0	0	0	0	0	0	
Transformation processes	0	-72 581	-2 400 897	0	0	0	19 451	0	0	0	
Main activity producer electricity plants (t	0	0	-2 380 333	0	0	0	0	0	0	0	
Autoproducer electricity plants (transf.)	0	0	-188	0	0	0	0	0	0	0	
Main activity producer CHP plants (transf.)	0	0	0	0	0	0	0	0	0	0	
Autoproducer CHP plants (transf.)	0	0	0	0	0	0	0	0	0	0	
Main activity producer heat plants (transf.	0	0	0	0	0	0	0	0	0	0	
Autoproducer heat plants (transf.)	0	0	0	0	0	0	0	0	0	0	
Heat pumps (transf.)	0	0	0	0	0	0	0	0	0	0	
Electric boilers (transf.)	0	0	0	0	0	0	0	0	0	0	
Chemical heat for electricity production (t	0	0	0	0	0	0	0	0	0	0	
Blast furnaces (transf.)	0	0	0	0	0	0	-31 724	0	0	0	
Gas works (transf.)	0	0	0	0	0	0	0	0	0	0	
Coke ovens (transf.)	0	-72 581	0	0	0	0	51 175	0	0	0	
Patent fuel plants (transf.)	0	0	0	0	0	0	0	0	0	0	
BKB/peat briquette plants (transf.)	0	0	0	0	0	0	0	0	0	0	
Oil refineries (transf.)	0	0	0	0	0	0	0	0	0	0	
Petrochemical plants (transf.)	0	0	0	0	0	0	0	0	0	0	
Coal liquefaction plants (transf.)	0	0	-20 375	0	0	0	0	0	0	0	
Gas-to-liquids (GTL) plants (transf.)	0	0	0	0	0	0	0	0	0	0	
For blended natural gas (transf.)	0	0	0	0	0	0	0	0	0	0	
Charcoal production plants (transf.)	0	0	0	0	0	0	0	0	0	0	
Non-specified (transformation)	0	0	0	0	0	0	0	0	0	0	

Balance to Accounts System: Source data

Menu

Disaggregated balance

South Africa, 2021 (TJ)	Anthracite	Coking coal	Other bituminous coal	Sub-bituminous coal	Lignite	Patent fuel	Coke oven coke	Gas coke	Coal tar	BKB (Brown coal briquettes)	Gas works gas	Coke oven gas	Blast furnace gas	Other recovered gases	Peat	Peat products	Oil shale and oil sands
Production	97 006,394	72 581,146	5 362 706,322	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Imports	12 919,513	-	44 987,660	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exports	-30 950,486	-	##########	-	-	-	-	-	-	-	-	-	-	-	-	-	-
International marine bunkers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
International aviation bunkers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stock changes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic supply	**78 975,421**	**72 581,146**	**4 140 196,528**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statistical differences	-28 587,209	-	##########	-	-	-	-	-	-	-	-1 105,722	-6 128,352	-1 541,000	-	-	-	-
Transformation processes	-	**-72 581,146**	##########	-	-	-	**19 451,089**	-	-	-	**20 600,487**	**10 465,200**	**11 628,000**	-	-	-	-
Main activity electricity plants	-	-	##########	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Autoproducer electricity plants	-	-	-188,405	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Main activity producer CHP plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Autoproducer CHP plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Main activity producer heat plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Autoproducer heat plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heat pumps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electric boilers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical heat for electricity production	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Patent fuel plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coke ovens	-	-72 581,146	-	-	-	-	51 175,025	-	-	-	-	10 465,200	-	-	-	-	-
Gas works	-	-	-	-	-	-	-	-	-	-	20 600,487	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-31 723,936	-	-	-	-	-	11 628,000	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BKB / peat briquette plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coal liquefaction plants	-	-	-20 374,798	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas-to-liquids (GTL) plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
For blended natural gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Charcoal production plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-specified (transformation)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Way Forward

	2024												2025		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Working to have PEFA published as discussion document by March 2025 to meet G20 target (Time series of 2014 to 2021 data allowing)															

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