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Energy statistics, balances and methodologies for SDG indicators 7.2 and 7.3

Sustainable Development

In the energy sector, The Government of the Kingdom of Saudi Arabia has been keen to played a pivotal and comprehensive role in advancing development and to draw up a vision for an economy less dependent on oil. This is confirmed by the Kingdom’s Vision 2030 through diversification of energy sources such as renewable and alternative energy by producing 5.3 gigawatts of renewable energy by 2020 and producing 5.9 gigawatts of renewable energy by 2030. As for the electricity sector, have contributed effectively to improvement of the standard of living and in the delivery of electricity to all regions of the Kingdom of Saudi Arabia, including villages ery rate to the residential sector.

"The Kingdom has invested a great deal to maintain its production levels in order to promote the stability of global energy markets, in turn promoting global economic growth and stability."

Custodian of the Two Holy Mosques
King Salman bin Abdulaziz

The Kingdom of Saudi Arabia's initiatives to promote clean and affordable energy

The Kingdom has made remarkable progress in renewable energy projects, particularly solar and wind energy. Due to this, many programs, projects and initiatives have been launched as follows:

01

The National Renewable Energy Program
The Kingdom has launched several projects and initiatives within this program, which are:

- Advanced Cooling Challenge Campaign.
- King Salman Renewable Energy Initiative.
- The National Committee for the Clean Development Mechanism.
- Saudi Energy Efficiency Center.
- Wind farm project in Skaka.
- Innovation Initiative.
- The Kingdom's accession to climate change agreements.
- The National Renewable Energy Program.
- The leading forum for carbon capture and storage.
- King Abdullah City for Atomic and Renewable Energy.

02

Initiative to increase energy efficiency in the iron, cement and petrochemical industries.

The Kingdom of Saudi Arabia's initiatives to promote clean and affordable energy

03 Buildings Sector Initiatives

- Saudi Building Code (Energy Efficiency).
- Project of energy density certificate for existing and new buildings.
- The initiative to rehabilitate government buildings and stimulate the private sector to invest in the energy efficiency services sector.
- Develop and update energy efficiency specifications and standards for small and large capacity air conditioners.
- High Efficiency Air Conditioning Initiative.

04 Transport sector initiatives

- An initiative to determine the requirements for selling new cars in the local market.
- An initiative to develop energy efficiency standards for tires.
- Apply fuel economy card to light vehicles and adopt fuel economy standard.

Sustainable Development

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The Sustainable Development Indicators cover a wide range of social and economic development issues and are a set of 17 goals developed by the United Nations as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030.

The 2030 goals include access to affordable and reliable energy while increasing the share of renewable energy in the global energy mix.

This involves improving energy eff access to clean energy technology and inv

Sustainable Development Indicators (Goal 7)

- Proportion of population with access to electricity.
- Proportion of population with primary reliance on clean fuels and technology.
- **Renewable energy share in the total final energy consumption.**
- **Energy intensity measured in terms of primary energy and GDP.**
- International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems.
- Installed renewable energy-generating capacity in developing countries (in watts per capita).

Indicator's Number	Indicator	Data collection methods	Definition	Computation Method
7.2.1	Renewable energy share in the total final energy consumption.	Administrative records data	The renewable energy share in total final consumption is the percentage of final consumption of energy that is derived from renewable resources.	The indicator can be calculated by dividing final energy consumption from all renewable sources by total final energy consumption. $P_{RE} = \frac{EC_{RE}}{EC_{Total}} X100$
7.3.1	Energy intensity measured in terms of primary energy and GDP.	Administrative records data	Energy intensity is defined as the energy supplied to the economy per unit value of economic output.	The indicator can be obtained by dividing total energy supply over $EI = \frac{Total\ energy\ supply\ (Megajoules)}{Total\ GDP\ (USD)}$

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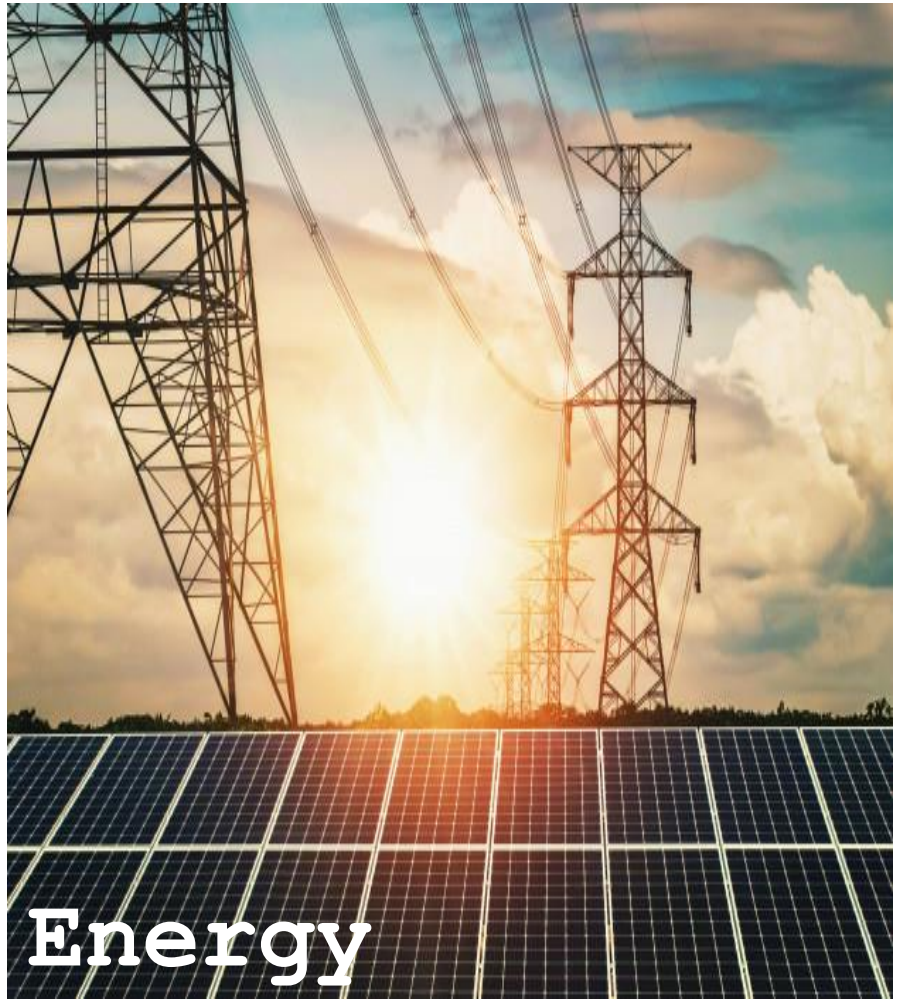
Is an accounting framework for the compilation and reconciliation of data on all energy products entering, exiting and used within the national territory of a given country during a reference period.

The energy balance is a multi-purpose tool to:

1. Enable the researchers and data users of study energy sector in more broadly.
2. providing comprehensive and reconciled data on the energy situation on Kingdom of Saudi Arabia.
3. Giving a far rang view about the development in energy sector to draw the policies and decisions that contribute to grow economics in Saudi Arabia.
4. Provide comprehensive information on the energy supply and demand in the national territory in order to understand the energy security situation, the effective functioning of energy markets.

Energy Supply - Is intended to show flows representing energy entering the national territory for the first time, energy removed from the national territory and stock changes.



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Energy Supplies Indicators :

- Crude oil production.
- Natural gas production.
- Natural gas liquids production.
- Marketed Natural gas production.
- Crude oil exports.
- Electricity import.
- Electricity export.
- Crude oil reserves.
- Natural gas reserves.

Energy Supplies Indicators

Is the manufacture of energy products through the process of transformation of other fuels or energy, whether primary or secondary(describes the processes that convert an energy product into another energy product which, in general, is more suitable for specific uses).

For example :

- Electricity :Transformation of an electric power plant from petroleum products (crude oil, natural gas, diesel, fuel oil) to electricity.

- Refineries: The transformation of refineries from crude oil to petroleum products such as "gasoline".

- Refineries outputs -Kerosene and Aviation fuel production.
- Refineries outputs -Naphtha production.
- Refineries outputs -Gas oil /Diesel production.
- Refineries outputs -fuel oil production.
- Refineries outputs -Asphalt production.
- Fuel consumed in electricity production station based on the type of the fuel.
- Electricity production.
- Refineries inputs- crude oil.
- Refineries outputs - liquefied petroleum gas production.
- Refineries outputs -Gasoline production.

Flows reflecting energy consumption by energy consumers as well as nonenergy use of energy products. The final consumption is measured by the deliveries of energy products to all consumers. It excludes deliveries of fuel and other energy products for use in transformation processes and the use of energy products for the energy needs of the energy industries .

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Energy Consumption Indicators

- Kerosene and Aviation fuel consumption.
- Naphtha consumption.
- Gas oil /Diesel consumption.
- Fuel oil consumption.
- Asphalt consumption.
- Lubricant consumption.
- Electricity consumption by sectors.
- Electricity consumption.
- Crude oil consumption.
- Natural Gas consumption.
- Liquefied petroleum gas consumption.
- Gasoline consumption.

SA	Total all products	Total Coal	Hard coal	Coke Oven Coke	Blast Furnace Gas	Coke Oven Gas	Lignite	Other products	Total Crude oil	Crude oil	Natural Gas Liquids	Refinery Feedstock	Total pet. Products	Refinery gas	Ethane	LPG	Gasoline	Jet Fuel and Kerosene	Naphta	Gas/diesel oil	Fuel oil	Petroleum coke	Bitumen	Other pet. Products	Total Marketed Natural gas	Natural gas	NGL	Total renew. Energy	Solar Thermal	Solar Photovoltaic	Geothermal	Biomass Fuel wood	Biomass Charcoal	Other Biomass (Bagasse)	WASTE (TJ)	Wind energy	Hydro energy	Electrical energy
Unit																																						
Primary production	-	-							-				-												-			-										
Recovered products	-	-							-				-												0			-										
Imports	-	-							-				-												-			-										
Stock change	-	-							-				-												-			-										
Exports	-	-							-				-												-			-										
Bunkers	-	-							-				-												0			-										
Gross inland consumption	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transformation input	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public thermal power stations	-	-							-				-												-			-										
Independent thermal power stations (Autoproducer)	-	-							-				-												-			-										
Nuclear power stations	-	-							-				-												-			-										
Patent fuel and briquetting plants	-	-							-				-												-			-										
Coke-oven plants	-	-							-				-												-			-										
Blast-furnace plants	-	-							-				-												-			-										
Gas works	-	-							-				-												-			-										
Refineries	-	-							-				-												-			-										
Other transformations	-	-							-				-												-			-										
Transformation output	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public thermal power stations	-	-							-				-												-			-										
Independent thermal power stations (Autoproducer)	-	-							-				-												-			-										
Nuclear power stations	-	-							-				-												-			-										
Patent fuel and briquetting plants	-	-							-				-												-			-										
Coke-oven plants	-	-							-				-												-			-										
Blast-furnace plants	-	-							-				-												-			-										
Gas works	-	-							-				-												-			-										
Exchanges transfers, returns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interproduct transfers	-	-							-				-												-			-										
Products transferred	-	-							-				-												-			-										
Returns from petrochem. Industry	-	-							-				-												-			-										
Consumption energy branch	0	0							0				0												0			0										
Distribution losses	0	0							0				0												0			0										
Available for final consumption	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Final non-energy consumption	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chemical/Petrochemical industry	-	-							-				-												-			-										
Other sectors	-	-							-				-												-			-										
Final energy consumption	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iron & steel industry	-	-							-				-												-			-										
Non-ferrous metal industry	-	-							-				-												-			-										
Chemical/Petrochemical industry	-	-							-				-												-			-										
Glass, pottery & building mat. Industry	-	-							-				-												-			-										
One-extraction industry	-	-							-				-												-			-										
Food, drink & tobacco industry	-	-							-				-												-			-										
Textile, leather & clothing industry	-	-							-				-												-			-										
Paper and printing	-	-							-				-												-			-										
CONSTRUCTION	-	-							-				-												-			-										
Engineering & other metal industry	-	-							-				-												-			-										
Other industries	-	-							-				-												-			-										
Transport	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Railways	-	-							-				-												-			-										
Road transport	-	-							-				-												-			-										
Air transport	-	-							-				-												-			-										
Domestic aviation	-	-							-				-												-			-										
Domestic navigation	-	-							-				-												-			-										
Others	-	-							-				-												-			-										
Households, commerce, pub. auth., etc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial and Public Services	-	-							-				-												-			-										
Households	-	-							-				-												-			-										
Agriculture	-	-							-				-												-			-										
Others	-	-							-				-												-			-										
Statistical difference	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Thank You for your attention