

Maldives Energy Balance (in original units)					
	Solar Power (GWh)	Diesel (kt)	Petrol (kt)	Jet A1 (kt)	LP Gas (kt)
Supply					
Primary Energy					
Imports					
Direct Exports					
Foreign Aviation and Bunkering					
Statistical Difference					
Total Energy Supply					
Energy Conversion					
Thermal Power Plants					
Solar PV					
Own Use					
Conversion Losses					
Losses in Transport and Distribution					
Consumption for Non Energy Use					
Total Energy Conversion					
Energy Use					
Industry					
Water Suply					
Transport					
Road Transport					
Domestic Navigation					
Domestic Aviation					
Others					
Household, Commercial, Agriculture and Other					
Total Energy Use					

Maldives Energy Balance (in thousand toe)					
	Solar Power	Diesel	Petrol	Jet A1	LP Gas
Supply					
Primary Energy					
Imports					
Direct Exports					
Foreign Aviation and Bunkering					
Statistical Difference					
Total Energy Supply					
Energy Conversion					
Thermal Power Plants					
Solar PV					
Own Use					
Conversion Losses					
Losses in Transport and Distribution					

Consumption for Non Energy Use					
Total Energy Conversion					
Energy Use					
Industry					
Water Suply					
Transport					
Road Transport					
Domestic Navigation					
Domestic Aviation					
Others					
Household, Commercial, Agriculture and Other					
Total Energy Use					

Thousand toe =	41.868	TJ
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Maldives Energy Balance (in Tera Joules)					
	Solar Power (GWh)	Diesel (kt)	Petrol (kt)	Jet A1 (kt)	LP Gas (kt)
Supply					
Primary Energy					
Imports					
Direct Exports					
Foreign Aviation and Bunkering					
Statistical Difference					
Total Energy Supply					
Energy Conversion					
Thermal Power Plants					
Solar PV					
Own Use					
Conversion Losses					
Losses in Transport and Distribution					
Consumption for Non Energy Use					
Total Energy Conversion					
Energy Use					
Industry					
Water Suply					
Transport					
Road Transport					
Domestic Navigation					
Domestic Aviation					
Others					
Household, Commercial, Agriculture					
Total Energy Use					

Imports			
Fuel	Qty	Unit	Data source
LP gas	18	kt	Maldives Customs
Petrol	89	kt	Maldives Customs
Jet A1	222	kl	MACL
Diesel	644	kt	Maldives Customs

Type of fuel	Density g/cm ³	Energy content toe/t	Emission factor tCO ₂ /toe
Diesel	0.84	1.035	3.06
Petrol	0.75	1.070	2.84
Jet A1	0.8	1.065	2.92
LP gas	0.54	1.130	2.57

Foreign aviation and bunkering			
Fuel	Qty	Unit	Data source
Jet A1	163	kl	MACL (international)
Diesel	7	kt	FSM data >> vessels leaving Maldives

Power generation			
Type	Qty	Unit	Data source
Thermal power plants	984	GWh	STELCO and FENAKA summaries - desalination power generation
Diesel consumption in thermal power	281	kl	STELCO and FENAKA summaries
Solar PV	16	GWh	STELCO and FENAKA summaries
Airport (captive generation) - diesel	10	kl	STO data >> MACL >> MGO
Airport generation	37	GWh	Back calculated from the above row
Desalination (captive generation)	58	GWh	RO plant data >> annual generation
Desalination - diesel	15	kl	RO plant data >> fuel consumption
Resort thermal generation	732	GWh	Resort data calculation >> bednight basis
Resort thermal -diesel	176	kt	Resort data calculation >> bednight basis
Resort solar generation	55	GWh	Resort data calculation >> bednight basis
Losses in transport and distribution	113	GWh	STELCO and FENAKA summaries >> difference between total generation and consumption
Thermal generation	1,810	GWh	
Solar generation	71	GWh	
Diesel consumption	433	kt	

Energy usage			
Activity	Qty	Unit	Data source
Fishing industry - diesel	31	kt	Estimated. Fisheries sheet
Desalination -electricity	58	GWh	Same as generation in RO plants
Airport - electricity	37	GWh	Same as generation of the airport
Road Transport - petrol	45	kt	Estimated/ calculated in the land transport sheet
Road Transport - diesel	13	kt	Estimated/ calculated in the land transport sheet
Domestic navigation - petrol	44	kt	Estimated/ calculated in transport sheet
Domestic navigation - diesel	167	kt	Estimated/ calculated in transport sheet
Domestic Aviation - Jet A1	59	kl	MACL >> domestic

Resorts - electricity	787	GWh	Same as generation
Resorts - LP gas	6	kt	Estimated in the resorts sheet
Household -elect	887	GWh	STELCO and FENAKA sheets
Household, -LPg	11	kt	Customs data apportioned as per Maldives gas company data
Other (aggregated elect)	1,711	GWh	
Other (aggregated LPg)	18	kt	



Utility Regulatory
Authority



Ministry of Climate Change,
Environment and Energy

Training on Energy Statistics and Energy Balance

30th January 2025

CBIT Maldives

Capacity Building for Improved Transparency of Climate
Change Mitigation and Adaptation Actions in the Maldives



Data Collection

Nimashi Fernando



The Process of Requesting Data

- Data collection formats should be sent to relevant institutes, at the beginning of each calendar year.
- Data should be requested for the immediate past year.
- Ex: data of 2024 should be requested in early 2025.
- Initially data collection would be difficult, but once routinised, stakeholders would respond on time.
- Data submission should ideally be obligated *via* regulations.

Sample Data Sets – Imported Fuel

STATISTICS AND RECORDS SECTION								
Maldives Customs Services								
Imports of Fuel from 2018-2022					*Subjected to post modification			
YEAR	MONTH	HS CODE	HS DESCRIPTION	COUNTRY OF ORIGIN	UNIT	QUANTITY	CIF (MVR)	RATE
2018	1	2710191110	PETROL	CHINA	TNE	3,430.86	37,833,293.64	5
2018	2	2710191110	PETROL	MALAYSIA	TNE	3,894.98	45,074,877.20	5
2018	8	2710191110	PETROL	MALAYSIA	TNE	2,607.79	31,609,870.43	5
2018	10	2710191110	PETROL	MALAYSIA	TNE	1,918.49	24,794,969.14	5
2018	11	2710191110	PETROL	MALAYSIA	TNE	1,981.96	25,118,019.33	5
2018	1	2710191110	PETROL	SINGAPORE	TNE	176.72	1,920,173.02	5
2018	2	2710191110	PETROL	SINGAPORE	TNE	2,664.90	29,776,099.21	5
2018	3	2710191110	PETROL	SINGAPORE	TNE	177.36	2,034,632.58	5
2018	4	2710191110	PETROL	SINGAPORE	TNE	171.73	1,844,359.51	5
2018	5	2710191110	PETROL	SINGAPORE	TNE	1,615.15	19,714,144.23	5
2018	7	2710191110	PETROL	SINGAPORE	TNE	170.83	2,018,844.75	5
2018	9	2710191110	PETROL	SINGAPORE	TNE	175.46	2,025,597.57	5
2018	10	2710191110	PETROL	SINGAPORE	TNE	171.86	2,210,319.44	5
2018	12	2710191110	PETROL	SINGAPORE	TNE	6,725.37	70,294,369.49	5

Unit (t)

Sample Data Sets – Imported Fuel

Energy Supply and Demand Study - Republic of Maldives

Nationwide Fuel Sales - Data Collection

Service Provider: Fuel Supplies Maldives

Atoll:

Island:

Type:

Bunkering

	Fuel Import		Fuel Supply to Vessels Leaving Maldives		Fuel Storage		Total Fuel Supply		Consumers				
	Fuel Type	Fuel Supply (l/yr)	Fuel Type	Fuel Supply (l/yr)	Opening (liters)	Closing (liters)	Fuel Type	Fuel Supply (l/yr)	Domestic		Resorts		Guest Houses/l
									Fuel Type	Fuel Sale (l/yr)	Fuel Type	Fuel Sale (l/yr)	Fuel Type
2018			Diesel	5,447,030			Diesel	274,921,889	Diesel	14,952,465	Diesel	64,101,757	
2019			Diesel	4,352,500			Diesel	311,311,958	Diesel	13,501,150	Diesel	94,791,371	
2020			Diesel	5,574,471			Diesel	302,672,179	Diesel	7,194,742	Diesel	71,142,715	
2021			Diesel	9,746,876			Diesel	354,547,329	Diesel	7,068,882	Diesel	77,856,034	
2022			Diesel	8,167,710			Diesel	457,955,913	Diesel	23,882,601	Diesel	105,044,958	

Sample Data Sets – Imported Fuel

Energy Supply and Demand Study - Republic of Maldives

STO - Data Collection Form

Atoll:

Island:

Type:

**Diesel for Power
Generation**

	Fuel Import		Fuel Supply to Airports		Fuel Storage	
	Fuel Type	Fuel Supply (l/yr)	Airport	Fuel Supply (l/yr)	Opening (liters)	Closing (liters)
2018	MGO	413,756,400	MACL	9,228,960	14,823,308	8,167,354
	ULG	61,152,000			1,658,592	4,122,516
	JET A-1	158,750,000	MACL & Regional	158,750,000	79,780	61,860
2019	MGO	439,872,000	MACL	10,458,550	8,167,354	20,484,783
	ULG	65,461,200			4,122,516	4,508,656
	JET A-1	195,500,000	MACL & Regional	195,500,000	61,860	58,400
2020	JET A-1	411,798,000	MACL	7,788,000	20,484,783	13,823,208
	ULG	42,700,000			4,508,656	5,015,968

Thank You..!