



Cambodia's Country Report On Power Sector Development

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 Training on “Energy Policy”

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1. Country Overview

1.1 Country Profile and Economic Indicator

[Cambodia](#) is a country in [mainland Southeast Asia](#) that have borders [Thailand](#) to the northwest, [Laos](#) to the north, [Vietnam](#) to the east and covers a total area of approximately 181,035 km², and has a population of about 17 million, estimate in 2023, we have 24 provinces with one capital is Phnom Penh city.

The number of households in Cambodia is forecast to amount to 3.27m in 2024.

Official language: [Khmer](#), Religion [Buddhism](#) for official

Currency: [Cambodian riel](#)

GDP PPP 2024 Estimate Billions, Int\$ \$148.48

King: [Norodom Sihamoni](#), Continent: [Asia](#),

The prime minister of Cambodia is Hun Manet

Continent: [Asia](#),



1. Country Overview

1.2 Organization Structure



- The Law on the Establishment of the Ministry of Mines and Energy was approved by the National Assembly on November 12, 2013 and promulgated by Royal Kram NS / RKAM / 1213/017, dated December 06, 2013
- The Ministry of Mines and Energy acts as a staff for the Royal Government on missions to lead and manage the mining and energy sectors, including the oil, gas and electricity sectors of the Kingdom of Cambodia.
- The Ministry has the mission to properly prepare and implement policies, legal frameworks and regulations related to the management of the mining and energy sectors. Including the oil, gas and electricity sectors.



- Royal Decree No. NS / RKOT / 0396/10, dated March 09, 1996, Electric du Cambodge (EDC) has become a limited liability company of the state with the responsibility of producing, transmitting and distributing electricity throughout Cambodia.
- Provide adequate, stable, quality and efficient electricity supply to customers in its licensed areas at competitive prices, optimize business operations and implement the policies of the Royal Government of Cambodia to reduce poverty and protect the environment. And Socio-Economic Development



- The Electricity Law was promulgated by the Royal Decree No.NS/RKM/0201/03, dated February 02, 2001. This law aims to :
- Ensure the protection of the rights of the consumers to receive the reliable and adequate supply of electric power services at reasonable cost.
- Promote private ownership of the facilities for providing electric power services.
- Establish competition wherever feasible in the sector.
- Establish the Electricity Authority of Cambodia for regulating the electricity power services, granting the right and obligation and penalize, if necessary, the supplier and consumer of electricity in relation to electricity generation and supply facilities.
- Create favorable conditions for the investment in and the commercial operation of the electric power industry.



2. Key Highlight on Cambodia Energy Development

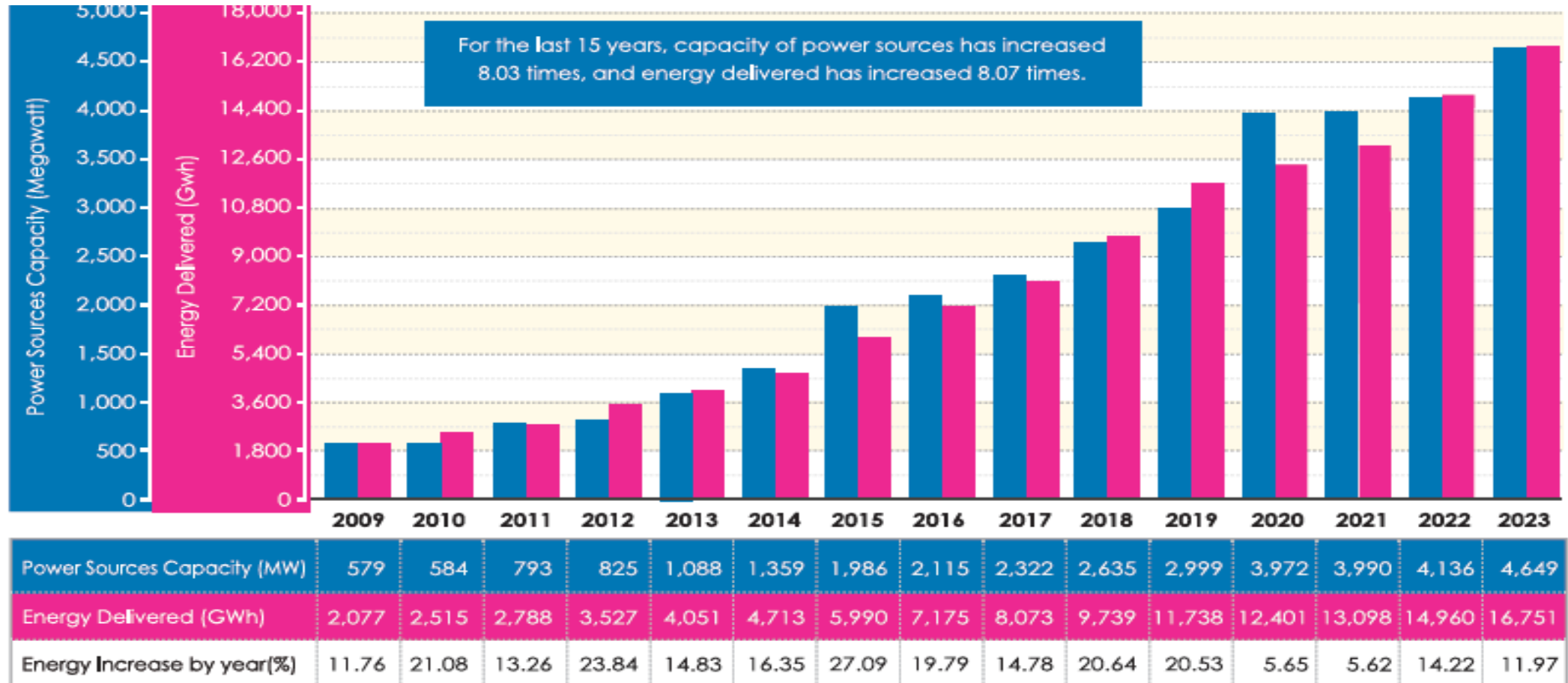
- For the last 15 years, capacity of power sources has increased **8.03 times** and energy delivered has increased **8.07 times**.
- Achieved village electrification rate of **98.87%** and households connection rate of **94.02%** in 2023
- Total Installed Power Capacity is **4,649 MW** in 2023, comprising of **3,977 MW** (85.54%) from domestic power sources, and **672 MW** (14.46%) from power importation from neighboring countries
- The domestic power sources include **1,700 MW** (42.75%) of fossil fuels (coal and fuel oil) and **2,277MW** (57.25%) of renewable energy (hydro power, solar power and biomass power).



2. Key Highlight on Cambodia Energy Development

Development of Power Sources

Progress of development of Power Sources for the last 15 Years



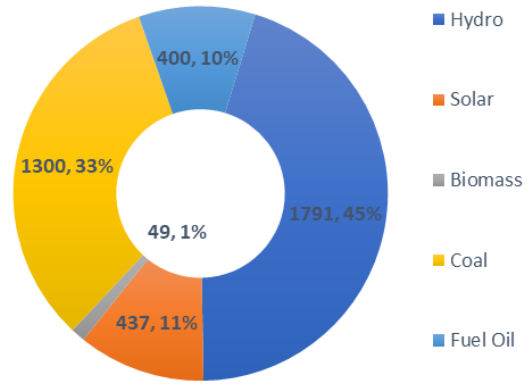
2. Key Highlight on Cambodia Energy Development

- Total high-voltage transmission lines of 3,708.56 km and 68 sub-stations in 25 cities/provinces throughout Cambodia.
- Committed not to develop any new coal fired power plants in addition those that have been approved prior in 2019.
- And looking for possibility to early retire some Coal-Fired Power Plants
- Committed not to develop any large hydropower plants in the Mekong Basin.
- Committed to achieve 70% of RE in installed capacity mix, 19% decrease in energy consumption by the end of this decade.

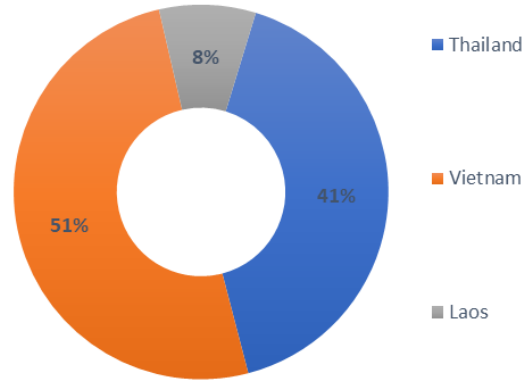


2. Key Highlight on Cambodia Energy Development

Domestic Installed Power Sources in 2023 (MW)



Imported Power Sources in 2023 (MW)



Power Sources	2022				2023				Plan for 2024			
	Capacity		Energy		Capacity		Energy		Capacity		Energy	
	MW	%	GWh	%	MW	%	GWh	%	MW	%	GWh	%
1. Power Sources directly connected to National Grid												
- Renewable Energy	2,142	61.83%	9,184.23	72.58%	2,277	57.25%	8,153.43	51.60%	2,437	58.91%	8,456.31	48.48%
+ Hydro Power	1,676	48.39%	8,435.34	66.66%	1,791	45.05%	7,287.84	46.12%	1,791	43.30%	7,553.28	43.30%
+ Solar Power	437	12.61%	690.00	5.45%	437	10.98%	804.05	5.09%	597	14.43%	839.48	4.81%
+ Biomass Power	29	0.82%	58.88	0.47%	49	1.22%	61.54	0.39%	49	1.17%	63.56	0.36%
- Non-renewable Energy	1,322	38.17%	3,470.55	27.42%	1,700	42.75%	7,647.03	48.40%	1,700	41.09%	8,986.63	51.52%
+ Coal	675	19.49%	3,133.50	24.76%	1,300	32.69%	7,593.23	48.06%	1,300	31.43%	8,511.30	48.80%
+ Fuel Oil	647	18.69%	337.05	2.66%	400	10.06%	53.79	0.34%	400	9.67%	475.34	2.73%
Total Power Sources directly connected to National Grid	3,464	100%	12,654.78	100%	3,977	100%	15,800.46	100%	4,137	100%	17,442.95	100%
2. Import Power Sources from Neighboring Countries												
- Thailand	277	41.24%	780.12	33.84%	277	41.24%	167.42	17.61%	277	41.24%	284.90	20.14%
- Vietnam	339	50.43%	1,327.99	57.60%	339	50.43%	717.94	75.51%	339	50.43%	998.13	70.57%
- Laos	56	8.33%	197.26	8.56%	56	8.33%	65.47	6.89%	56	8.33%	131.40	9.29%
Total Import Power Sources from Neighboring Countries	672	100%	2,305.38	100%	672	100%	950.83	100%	672	100%	1,414.43	100%
3. Power Sources												
- Total Power Sources directly connected to National Grid	3,464	83.75%	12,654.78	84.59%	3,977	85.54%	15,800.46	94.32%	4,137	86.02%	17,442.95	92.50%
- Total Import Power Sources from Neighboring Countries	672	16.25%	2,305.38	15.41%	672	14.46%	950.83	5.68%	672	13.98%	1,414.43	7.50%
Total Power Sources	4,136	100%	14,960.16	100%	4,649	100%	16,751.29	100%	4,809	100%	18,857.38	100%

3. Overview of Energy Policy

3.1 Electricity Law

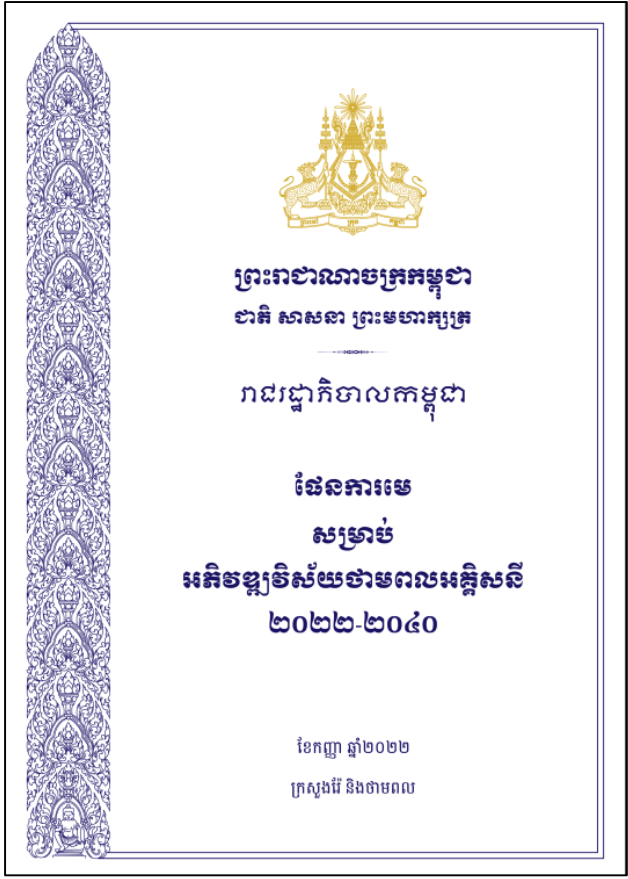


(Adopted in 2001 , amendment to some articles in 2015)

- ❑ **Purpose:** To govern and to prepare a framework for electric power supply and services throughout the Kingdom.
- ❑ **Effective:** Cover all activities related to supply of electricity, provision of services and use of electricity, and other associated activities of power sector.
- ❑ **In Article 3:** It defines the responsibility of Ministry of Mines and Energy (MME) and Electricity Authority of Cambodia (EAC) **separately**

3. Overview of Energy Policy

3.2 Power Development Masterplan 2022-2040



(Adopted on 21 September 2022)



Energy Reliability and Affordability

To fulfil the **future demand** for power adequacy with the supply of reliable and affordable electricity across all sectors in Cambodia.



Energy Security

To strengthen **energy security** by reducing the dependency on energy imports and maximizing the development of **domestic energy resources**.



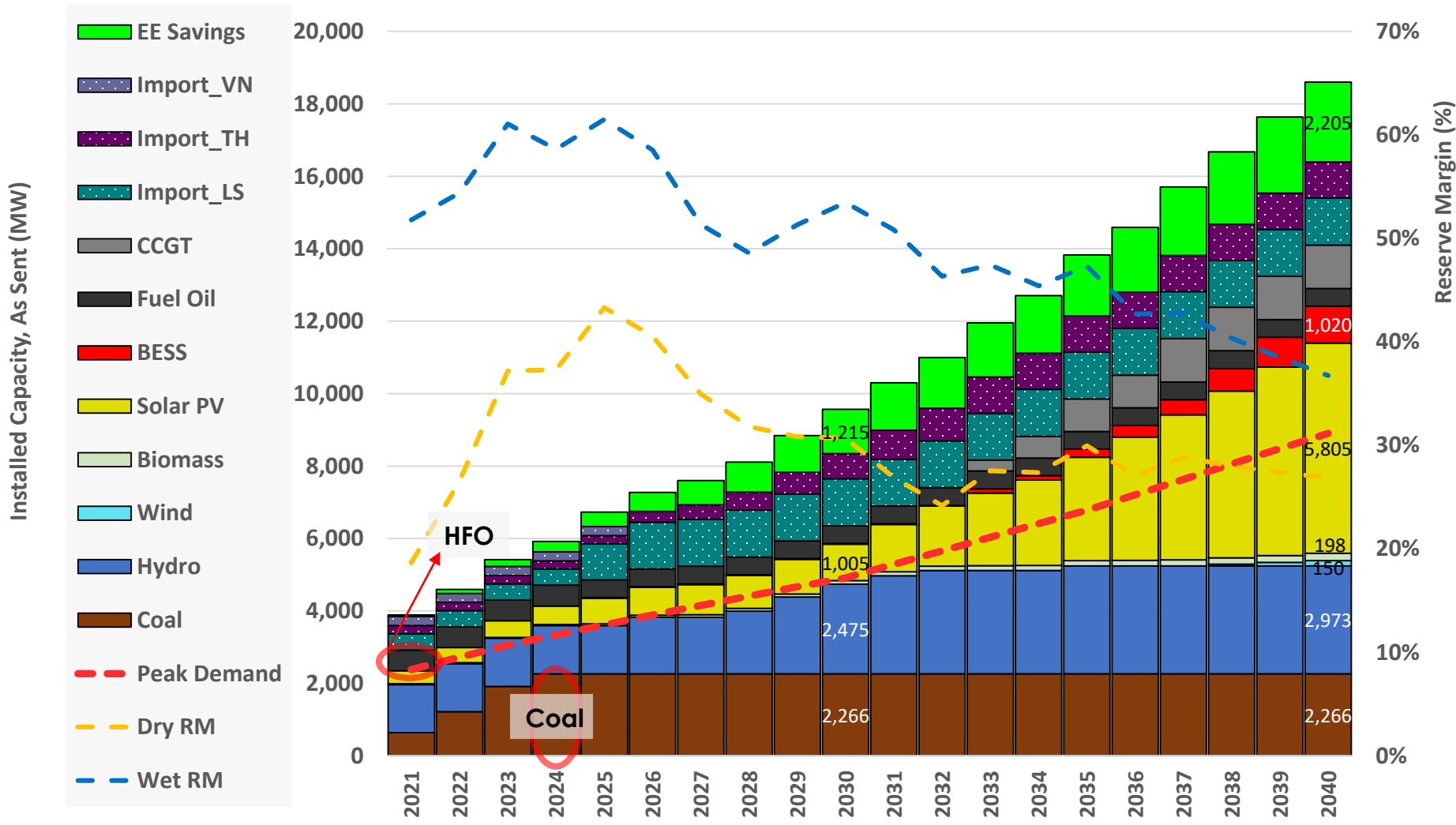
Energy Sustainability

To increase the **share of clean energy**, including **renewable and variable renewable energy**, and **energy efficiency**, by ensuring reliability and affordability of supply.

To contribute to the achievement of Cambodia's national environmental goals and global commitments to reduce greenhouse gas emissions.

3. Overview of Energy Policy

3.3 Power Development Masterplan 2022-2040



- No more thermal power Plant, including coal and HFO.
- Maximize the Clean Energy and RE
- Promote EE&C

3. Overview of Energy Policy

3.4 National Energy Efficiency Policy 2022-2030 (NEEP)



NATIONAL ENERGY EFFICIENCY POLICY

National target for the reduction of total energy consumption of **at least 19%** in relation to a BAU trajectory by 2030.

- 20% in the industrial sector, from 38,600 GWh to 30,800 GWh;
- 34% in the residential sector, from 17,981 GWh to 11,826 GWh;
- 25% in commercial buildings (including public buildings), from 8,552 GWh to 6,431 GWh;
- 29% in public services, from 42 GWh to 30 GWh;
- 5% in the transport sector, from 24,662 GWh to 23,383 GWh

(Adopted on 22 November 2022)

3. Overview of Energy Policy

3.5 Major difficult and bottleneck currently faced in formulating energy policies

- How to promote
- Subsidize
- Awareness between government and stakeholder



4 . Conclusion

Expectation from the Program

- The training program will be very useful and benefit to my carrier and organization as well . I strongly belief that I will gain more knowledge an experience from the “Energy Policy” program as well from Japanese organization and especially from the side visit will be a chance for me to know more technology development which are related in Cambodia.
- I will bring back and contribute my knowledges and experiences from the program to develop and improving my current work for Ministry of Mines and Energy to reach the commitment of the government for the reduce energy consumption by year 2030.





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Public Relation Office

THANK YOU



Energy Price

តារាងថ្លៃលក់រាយប្រេងឥន្ធនៈនៅលើទីផ្សារកម្ពុជា

ល.រ	អធិប្បាយ	ប្រេងសាំងធម្មតា/លីត្រ Gasoline 92	ប្រេងម៉ាស៊ូត/លីត្រ Gasoil 50ppm
១	Average MOPS	០,៥៣៦៤ ដុល្លារ	០,៥៨៥៦ ដុល្លារ
២	ពន្ធ៖	០,១៧៧១ ដុល្លារ	០,០៦៤១ ដុល្លារ
	ពន្ធគយ	០,០០០០ ដុល្លារ	០,០០០០ ដុល្លារ
	អាករបន្ថែម	០,០២០០ ដុល្លារ	០,០៤០០ ដុល្លារ
	អាករពិសេស	០,១៥៧១ ដុល្លារ	០,០២៤១ ដុល្លារ
៣	PREMIUM	០,២០ ដុល្លារ	០,២៣ ដុល្លារ
៤	អាករលើតម្លៃបន្ថែម (១០% នៃ ១+២+៣)	០,០៩១៤ ដុល្លារ	០,០៨៨០ ដុល្លារ
៥	ថ្លៃលក់រាយ/លីត្រ (គិតជាដុល្លារ)	១,០០៤៩ ដុល្លារ	០,៩៦៧៧ ដុល្លារ
៦	ថ្លៃលក់រាយ/លីត្រ (គិតជារៀល)	៤.១៣៦ រៀល	៣.៩៨៣ រៀល
៧	ក្រុមហ៊ុនប្រេងឥន្ធនៈបញ្ចុះតម្លៃ	០,០០០០ ដុល្លារ	០,០០០០ ដុល្លារ
៨	តម្លៃដែលត្រូវដាក់លក់រាយ/លីត្រ (គិតជាដុល្លារ)	១,០០ ដុល្លារ	០,៩៧ ដុល្លារ
៩	តម្លៃដែលត្រូវដាក់លក់រាយ/លីត្រ (គិតជារៀល)*	៤.១០០ រៀល	៤.០០០ រៀល

សម្គាល់៖ អត្រាប្តូរប្រាក់ផ្លូវការ ថ្ងៃទី១១ ខែមិថុនា ឆ្នាំ២០២៤ ដែលស្មើនឹង៤.១១៦រៀល/ដុល្លារអាមេរិក

Type of Purchase	Unit	Tariff to be applied by year							
		2017	2018	2019	2020	2021	2022	2023	2024
Residents (>200kWh/month), other than residents in provincial towns	\$/kWh	770	750	740	730	730	730	730	730
Residents (>200kWh/month), other than residents in rural areas	\$/kWh	790	770	740	730	730	730	730	730
Residents consume from 51 to 200kWh/month in provincial towns	\$/kWh	770	750	610	610	610	610	610	610
Residents consume from 51 to 200kWh/month in rural areas	\$/kWh	790	770	610	610	610	610	610	610
Residents consume from 11 to 50kWh/month in provincial towns and rural areas	\$/kWh	610	610	480	480	480	480	480	480
Residents consume from 1 to 10kWh/month in provincial towns and rural areas	\$/kWh	480	480	380	380	380	380	380	380
Water pump for agriculture and agricultural consumers from 9:00pm to 7:00am	\$/kWh	480	480	480	480	480	480	480	480
Schools, Hospitals and Referral Healthcare Centers in rural areas	\$/kWh	790	770	610	610	610	610	610	610



Energy Price

5. Progress of Electricity Tariff Reduction

5.1 Tariff Reduction Plan for Electricity supplied by National Grid

In accordance with the Ministry of Mines and Energy's Prakas N° 0258.ME.T.EBP.PR., dated November 1, 2022, on the implementation of the Electricity Tariff Plan for 2023, the Royal Government has decided to maintain the status of electricity tariff and tariff structure for 2023 as the same as that of 2022 as shown in the table below:

Type of Purchase	Unit	Tariff to be applied by year							
		2017	2018	2019	2020	2021	2022	2023	2024
1. Electricity Supply from National Grid Substation									
Purchase from HV feeder	\$/kWh	0.1240	0.1240	0.1170	0.1170	0.1170	0.1170	0.1170	0.1170
Purchase from MV feeder outside Phnom Penh and Takhmao	\$/kWh	0.1260	0.1260	0.1220	0.1210	0.1210	0.1210	0.1210	0.1210
Purchase from MV feeder in Phnom Penh and Takhmao	\$/kWh	0.1495	0.1475	0.1350	0.1320	0.1320	0.1320	0.1320	0.1320
2. Electricity Supplied by EDC in Phnom Penh and Takhmao									
Industrial and agricultural consumers connected at MV	\$/kWh	0.1670	0.1650	0.1470	0.1370	0.1370	0.1370	0.1370	0.1370
Commercial, administration and other consumers connected at MV	\$/kWh	0.1670	0.1650	0.1590	0.1580	0.1580	0.1580	0.1580	0.1580
Public administration consumers, paid with state budgets, connected at MV	\$/kWh					653	653	653	
Industrial and agricultural consumers with meter at low voltage of consumer's transformer	\$/kWh	0.1710	0.1706	0.1529	0.14248	0.14248	0.14248	0.14248	0.14248
Industrial and agricultural consumers with meter at low voltage of licensee's transformer	\$/kWh	0.1790	0.1786	0.1609	0.15048	0.15048	0.15048	0.15048	0.15048
Commercial, administration and other consumers with meter at low voltage of consumer's transformer	\$/kWh	0.1710	0.1706	0.1654	0.16432	0.16432	0.16432	0.16432	0.16432
Public administration consumers, paid with state budget, connected at low voltage of consumer's transformer	\$/kWh					679	679	679	
Commercial, administration and other consumers with meter at low voltage of licensee's transformer	\$/kWh	0.1790	0.1786	0.1734	0.17232	0.17232	0.17232	0.17232	0.17232
Public administration consumers, paid with state budgets, connected at low voltage of licensee's transformer	\$/kWh					712	712	712	
Residents (>200kWh/month), other than residents	\$/kWh	770	750	740	730	730	730	730	730
Residents consume from 51 to 200kWh/month	\$/kWh	720	720	610	610	610	610	610	610
Residents consume from 11 to 50kWh/month	\$/kWh	610	610	480	480	480	480	480	480
Residents consume from 1 to 10kWh/month	\$/kWh	610	610	380	380	380	380	380	380

3. Electricity Supplied by EDC outside Phnom Penh and Takhmao

Industrial and agricultural consumers connected at MV	\$/kWh	0.1650	0.1640	0.1470	0.1370	0.1370	0.1370	0.1370	0.1370
Commercial, administration and other consumers connected at MV	\$/kWh	0.1650	0.1640	0.1590	0.1580	0.1580	0.1580	0.1580	0.1580
Public administration consumers, paid with state budgets, connected at MV	\$/kWh					653	653	653	
Industrial and agricultural consumers with meter at low voltage of consumer's transformer	\$/kWh	0.1719	0.1706	0.1529	0.14248	0.14248	0.14248	0.14248	0.14248
Industrial and agricultural consumers with meter at low voltage of licensee's transformer	\$/kWh	0.1819	0.1786	0.1609	0.15048	0.15048	0.15048	0.15048	0.15048
Commercial, administration and other consumers with meter at low voltage of consumer's transformer	\$/kWh	0.1719	0.1706	0.1654	0.16432	0.16432	0.16432	0.16432	0.16432
Public administration consumers, paid with state budgets, connected at low voltage of consumer's transformer	\$/kWh					679	679	679	
Commercial, administration and other consumers with meter at low voltage of licensee's transformer	\$/kWh	0.1819	0.1786	0.1734	0.17232	0.17232	0.17232	0.17232	0.17232
Public administration consumers, paid with state budget, connected at low voltage of licensee's transformer	\$/kWh					712	712	712	

