



Annual Registration Statement / Annual Report

Form 56-1 One Report

(Structured Data Report)

QTC ENERGY PUBLIC COMPANY LIMITED

Fiscal Year End 31 December 2022



Table of Contents

	Page
Business Operations and Performance	
Group Structure and Operations	1
Risk Management	4
Sustainable Development	6
Corporate Governance	
Corporate Governance Policy	10
Corporate Governance Structure and Significant Information Regarding the Board of Directors, Subcommittees, Management, Employee and Other Information	11
Performance Report on Corporate Governance	20

Group Structure and Operations

Group Structure and Operations

Business Overview and Policies (1.1)

Company Information (1.1.5)

Company Name : QTC ENERGY PUBLIC COMPANY LIMITED

Symbol : QTC

Address : 2/2 SOI KRUNGTHAP KRITHA 8 (5) , HUAMARK BANGKAPI

Province : Bangkok

Postcode : 10240

Business : conducts the businesses of manufacturing and distributing custom made transformers and provides various types of services for customers

Registration Number : 0107553000158

Telephone : 0-2379-3089-92

Fax (if applicable) : 0-2379-3097

Website : www.qtc-energy.com

Email : ir@qtc-energy.com

Total Shares Sold (shares)

Common Stock : 341,092,557

Preferred Stock : 0

Business Operations (1.2)

Revenue Structure (1.2.1)

By Product Line or Business Grouping

	2020	2021	2022
Total (Thousand baht)	1,037,240.00	1,185,026.00	1,236,698.00
Revenue from sales of transformers (Thousand baht)	744,084.00	751,282.00	766,164.00
Revenue from sales of Inverter and PV Panel (Thousand baht)	86,302.00	245,576.00	356,985.00
Revenue from sales of solar power business (Thousand baht)	146,869.00	133,507.00	47,339.00
Revenue from Services (Thousand baht)	42,238.00	41,629.00	45,966.00
Other income (Thousand baht)	17,747.00	13,032.00	20,244.00

	2020	2021	2022
Total (%)	100.00	100.00	100.00
Revenue from sales of transformers (%)	71.74	63.40	61.95
Revenue from sales of Inverter and PV Panel (%)	8.32	20.72	28.87
Revenue from sales of solar power business (%)	14.16	11.27	3.83
Revenue from Services (%)	4.07	3.51	3.72
Other income (%)	1.71	1.10	1.64

By Geographical Area or Market

	2020	2021	2022
Total (Thousand baht)	1,037,240.00	1,185,026.00	1,236,698.00
Domestic (Thousand baht)	776,163.00	863,503.00	957,053.00
International (Thousand baht)	261,077.00	321,523.00	279,645.00

	2020	2021	2022
Total (%)	100.00	100.00	100.00
Domestic (%)	74.83	72.87	77.39
International (%)	25.17	27.13	22.61

Information on Products and Services (1.2.2)

Product/Service Information and Business Innovation Development (1.2.2.1)

Research and Development (R&D) Policy : Yes

(Unit : Thousand baht)	2020	2021	2022
R&D expenses in the past 3 years	6,700.00	7,300.00	8,773.00

Risk Management

Risk Management

Risk Factors (2.2)

Risk that might affect the company's business, including environmental, social and corporate governance issues (2.2.1)

Risk Management Policy and Plan

Risk Management Measures: Yes

Related Risk Topics

Strategic Risk

- Reliance on large customers or few customers
- Other

Operational Risk

- Reliance on employees in key positions
- Shortage or fluctuation in pricing of raw materials or productive resources
- Information security and cyber-attack
- Safety, occupational health, and working environment
- Impact on the environment
- Impact on human rights
- Corruption

Compliance Risk

- Violations of laws and regulations
- Corporate Governance

Financial Risk

- Fluctuation in exchange rates, interest rates, or the inflation rate
- Other

Sustainable Development

Sustainable Development

Sustainability Management Policy and Targets (3.1)

Sustainability Management Policy and Targets

Corporate Sustainability Policy : Yes

URL of corporate sustainability policy : <https://qtc-energy.com/th/sustainability-policy/>

Environmental Aspect (3.3)

Policy and Guideline on Environmental Aspect (3.3.1)

Environmental Policy and Practice : Yes

URL of environmental policy and practice : <https://qtc-energy.com/th/energy-policy/>

Company environmental guideline : Electricity Management, Water Management, Waste Management, Biodiversity Management, Greenhouse Gas and Climate Change Management

Results with Respect to the Environmental Aspect (3.3.2)

Energy management

• Fuel consumption

	2020	2021	2022
Diesel (Litre)	79,941.07	72,349.34	77,385.29
Gasoline (Litre)	30,883.41	27,189.43	31,229.71
LPG (Kilogram)	678.00	696.00	252.00

• Electricity consumption

	2020	2021	2022
Amount of electricity purchased (kWh)	1,772,954.00	1,979,801.00	1,871,518.00

Water management

• Water consumption

	2020	2021	2022
Water consumption (cubic meters)	909.00	883.00	913.00

Waste management

• Waste from operations

	2020	2021	2022
Non-hazardous waste (kg)	223,810.00	130,910.00	224,780.00
Hazardous waste (kg)	63,760.00	76,130.00	76,460.00
Total (kg)	287,570.00	207,040.00	301,240.00

Greenhouse gas management

• Greenhouse gas emissions

	2020	2021	2022
GHG emission target	N/A	N/A	N/A
Scope 1 (Tons of carbon dioxide equivalents)	276.00	253.00	315.00
Scope 2 (Tons of carbon dioxide equivalents)	745.00	863.00	904.00
Scope 3 (Tons of carbon dioxide equivalents)	55.00	698,295.00	575,912.00
Total (Tons of carbon dioxide equivalents)	1,076.00	699,411.00	577,131.00

• Verification of greenhouse gas emissions over the past year

Third-party verification : Yes

Name of verifying organization : SGS (Thailand) Co.,Ltd.

Social Aspect (3.4)

Policy and Guideline on Social Aspect (3.4.1)

Human Rights Policy : Yes

URL of human rights policy : <https://qtc-energy.com/th/humans-right-policy/>

Company human right guideline : Employee Rights, Migrant Workers, Child Labor, Consumer Rights, Community and Environment Rights, Safety and Occupational Health at Work, Non-discrimination

Results with Respect to the Social Aspect (3.4.2)

Information about employees

• Total number of employees

	2020	2021	2022
Number of male employees (persons)	187	190	190
Number of female employees (persons)	92	90	93
Total (persons)	279	280	283

• Employee remuneration

	2020	2021	2022
Employee remuneration (baht)	146,980,000.00	152,820,000.00	147,960,000.00

• Employee development and training

	2020	2021	2022
Average training hours of employees (hour / person / year)	31	15	23
Employee development and training expenses (baht)	1,343,411.07	505,008.00	1,024,939.00

• Health, safety and work environment

	2020	2021	2022
Number of employee work injuries leading to employee absence (times)	1	3	3

• **Employee retention**

	2020	2021	2022
Percentage of employees who voluntarily resigned (%)	13.98	20.71	11.66

• **Significant labor dispute**

	2020	2021	2022
Significant labor dispute	No	No	No

Corporate Governance Policy

Corporate Governance Policy

Overview of the Corporate Governance Policy and Guideline (6.1)

Corporate Governance Policy

Corporate Governance Policy : Yes

Company website on corporate governance policy : <https://investor.qtc-energy.com/th/corporate-governance/corporate-governance-policy>

Policy and Guideline Related to the Board of Directors (6.1.1)

Policy and guideline related to the board of directors

Company policy and guideline : Nomination of Directors, Compensation, Independence of the Board of Directors, Director Development, Board Performance Evaluation, Corporate Governance of Subsidiaries and Associated Companies

Code of Conduct (6.2)

Establishing a Code of Conduct

Establishing a Code of Conduct

Code of Conduct : Yes

Policy and Guideline related to the Code of Conduct

Company policy and guideline : Preventing of Conflicts of Interest, Preventing the Misuse of Inside Information, Anti-corruption, Whistleblowing

Corporate Governance Structure
and Significant Information Regarding
the Board of Directors, Subcommittees,
Management,
Employee and Other Information

Corporate Governance Structure and Significant Information Regarding the Board of Directors, Subcommittees, Management, Employee and Other Information

Board of Directors (7.2)

Composition of the board of directors (7.2.1)

	Number of persons	Percentage (%)
Total number of directors	10	100.00
Number of male directors	9	90.00
Number of female directors	1	10.00
Number of executive directors	2	20.00
Number of non-executive directors	8	80.00
Number of independent directors	5	50.00

Information on the board of directors and persons with authority to control the company (7.2.2)

List of directors

General information	Position	Date position was assumed	Experience and expertise
1. Mr. KRIRKKRAI JIRAPAET Gender: Male Age: 79 years old Highest level of education: Master's degree Major: Economics Thai nationality: Yes Residing in Thailand: Yes	Chairman of the board (Non-executive, Independent director) Director type: Original director	22 Jun 2016	Law, Strategic Management, Economics, Finance, Negotiation

2.	Mr. POONPHIPHAT TANTANASIN Gender: Male Age: 69 years old Highest level of education: Bachelor's degree Major: Engineering Thai nationality: Yes Residing in Thailand: Yes	Director (Executive) Director type: Re-elected as director	9 Jun 2003	Strategic Management, Corporate Management, Finance, Governance/ Compliance, Leadership, Engineering
3.	Mr. NATTHAPHON LILAWATTHANANUN Gender: Male Age: 64 years old Highest level of education: Master's degree Major: Business Administration Thai nationality: Yes Residing in Thailand: Yes	Director (Non-executive, Independent director) Director type: Original director	28 Nov 2008	Law, Strategic Management, Finance, Accounting, Audit
4.	Mr. RUANGCHAI KRITSNAKRIENGKRAI Gender: Male Age: 56 years old Highest level of education: Master's degree Major: Economics Thai nationality: Yes Residing in Thailand: Yes	Director (Executive) Director type: Original director	13 Sep 2016	Strategic Management, Risk Management, Negotiation, Engineering, Economics
5.	Mr. SUROJ LAMSAM Gender: Male Age: 56 years old Highest level of education: Master's degree Major: Business Administration Thai nationality: Yes Residing in Thailand: Yes	Director (Non-executive) Director type: Original director	29 Aug 2017	Finance, Finance & Securities, Strategic Management

6.	<p>Mrs. WASARA CHOTITHAMMARAT</p> <p>Gender: Female</p> <p>Age: 57 years old</p> <p>Highest level of education: Master's degree</p> <p>Major: Business Administration</p> <p>Thai nationality: Yes</p> <p>Residing in Thailand: Yes</p>	<p>Director</p> <p>(Non-executive, Independent director)</p> <p>Director type: Original director</p>	7 Jun 2019	Accounting, Audit, Finance
7.	<p>Mr. KAMOL TAKABUT</p> <p>Gender: Male</p> <p>Age: 72 years old</p> <p>Highest level of education: Doctoral degree</p> <p>Major: Engineering</p> <p>Thai nationality: Yes</p> <p>Residing in Thailand: Yes</p>	<p>Director</p> <p>(Non-executive, Independent director)</p> <p>Director type: Re-elected as director</p>	7 Jun 2019	Engineering, Energy & Utilities, Audit
8.	<p>Mr. PREEDEE NGAMSANTIKUL</p> <p>Gender: Male</p> <p>Age: 46 years old</p> <p>Highest level of education: Master's degree</p> <p>Major: Economics</p> <p>Thai nationality: Yes</p> <p>Residing in Thailand: Yes</p>	<p>Director</p> <p>(Non-executive)</p> <p>Director type: Re-elected as director</p>	7 Jun 2019	Strategic Management, Law, Finance, Engineering, Negotiation
9.	<p>Mr. APHICHAT SRAMOON</p> <p>Gender: Male</p> <p>Age: 52 years old</p> <p>Highest level of education: Doctoral degree</p> <p>Major: Engineering</p> <p>Thai nationality: Yes</p> <p>Residing in Thailand: Yes</p>	<p>Director</p> <p>(Non-executive)</p> <p>Director type: Original director</p>	30 Jul 2020	Strategic Management, Finance, Engineering

10.	Mr. NORACHIT SINHASANI	Director	30 Jul 2020	Law, Strategic Management, Negotiation, Leadership
	Gender: Male	(Non-executive, Independent director)		
	Age: 68 years old			
	Highest level of education:			
	Honorary degree	Director type: Original		
	Major: Public Administration in International Relations	director		
	Thai nationality: Yes			
	Residing in Thailand: Yes			

List of directors who resigned/vacated their position during the year

General information	Position	Tenure	Replacement Director
1. Mr. PHAIROJ BOONPUN Gender: Male Age: 78 years old Highest level of education: Bachelor's degree Major: Accounting Thai nationality: Yes Residing in Thailand: Yes	Director (Non-executive)	Date position was assumed: 7 Jun 2019 Date directorship ended: 1 Apr 2022	No replacement director
2. Mr. PORNTHEP PANYARACHUN Gender: Male Age: 50 years old Highest level of education: Master's degree Major: Business Administration Thai nationality: Yes Residing in Thailand: Yes	Director (Non-executive)	Date position was assumed: 23 Apr 2021 Date directorship ended: 1 Jun 2022	No replacement director

Other Information pertaining to committees

The Chairman is an independent director : Yes

The Chairman and the manager are the same person : No

The Chairman and the manager are members of the same family : No

The company appoints at least one independent director to determine the agenda
of the Board of Directors' meetings : Yes

Sub-committees (7.3)

Information about sub-committees (7.3.2)

Audit Committee

List of audit committee members

General information	Position	Date position was assumed	Experience and expertise
1. Mr. NATTHAPHON LILAWATTHANANUN [1] Gender: Male Age: 64 years old Highest level of education: Master's degree Major: Business Administration Thai nationality: Yes Residing in Thailand: Yes	Chairman of the audit committee (Non-executive, Independent director) Director type: Original director	13 Sep 2016	Law, Strategic Management, Finance, Accounting, Audit
2. Mrs. WASARA CHOTITHAMMARAT [1] Gender: Female Age: 57 years old Highest level of education: Master's degree Major: Business Administration Thai nationality: Yes Residing in Thailand: Yes	Audit committee (Non-executive, Independent director) Director type: Original director	7 Jun 2019	Accounting, Audit, Finance
3. Mr. KAMOL TAKABUT [1] Gender: Male Age: 72 years old Highest level of education: Doctoral degree Major: Engineering Thai nationality: Yes Residing in Thailand: Yes	Audit committee (Non-executive, Independent director) Director type: Re-elected as director	6 Aug 2020	Engineering, Energy & Utilities, Audit

[1] A director with the accounting expertise needed to review financial statements

Executive Committee

List of executive committee members

General information	Position	Date position was assumed
1. Mr. POONPHIPHAT TANTANASIN Gender: Male Age: 69 years old Highest level of education: Bachelor's degree Major: Engineering Thai nationality: Yes Residing in Thailand: Yes	Chairman of the executive committee	24 Feb 2011
2. Mr. RUANGCHAI KRITSNAKRIENGKRAI Gender: Male Age: 56 years old Highest level of education: Master's degree Major: Economics Thai nationality: Yes Residing in Thailand: Yes	Member of the executive committee	3 Jan 2017
3. Mrs. Boonpa Ruddist Gender: Female Age: 61 years old Highest level of education: Bachelor's degree Major: Business Administration Thai nationality: Yes Residing in Thailand: Yes	Member of the executive committee	24 Feb 2011
4. Mr. Kittu Achariyaboonyong Gender: Male Age: 55 years old Highest level of education: Bachelor's degree Major: Engineering Thai nationality: Yes Residing in Thailand: Yes	Member of the executive committee	20 Feb 2019

Other sub-committees

Sub-committees information

Name of sub-committees	List of directors	Position
Nomination Remuneration and Corporate Governance Committee	Mr. NORACHIT SINHA SENI	Chairman
	Mr. KAMOL TAKABUT	Member
	Mr. POONPHIPHAT TANTANASIN	Member
	Mrs. WASARA CHOTITHAMMARAT	Member
	Mr. PREEDEE NGAMSANTIKUL	Member
Corporate Sustainability Promotion and Risk Management Committee	Mr. RUANGCHAI KRITSNAKRIENGKRAI	Chairman
	Mrs. Boonpa Ruddist	Member
	Mr. Kittu Acharyaboonyong	Member

Roles of Sub-committees

Sub-committees responsible for risk management	: Corporate Sustainability Promotion and Risk Management Committee
Sub-committees responsible for nomination	: Nomination Remuneration and Corporate Governance Committee
Sub-committees responsible for remuneration	: Nomination Remuneration and Corporate Governance Committee
Sub-committees responsible for corporate governance	: Nomination Remuneration and Corporate Governance Committee
Sub-committees responsible for corporate sustainability development	: Corporate Sustainability Promotion and Risk Management Committee

Executives (7.4)

List and positions of the executive (7.4.1)

The four highest-ranking executives

General information	Position	Date position was assumed	Experience and expertise
1. Mr. POONPHIPHAT TANTANASIN Gender: Male Age: 69 years old Highest level of education: Bachelor's degree Major: Engineering	CHIEF EXECUTIVE OFFICER	24 Feb 2011	Strategic Management, Corporate Management, Finance, Governance/ Compliance, Leadership, Engineering
2. Mr. RUANGCHAI KRITSNAKRIENGKRAI [1] Gender: Male Age: 56 years old Highest level of education: Master's degree Major: Economics	MANAGING DIRECTOR	3 Jan 2017	Strategic Management, Risk Management, Negotiation, Engineering, Economics
3. Mr. Kitti Achariyaboonyong Gender: Male Age: 55 years old Highest level of education: Bachelor's degree Major: Engineering	Deputy Managing Director, Marketing	20 Feb 2019	Marketing, Digital Marketing, Engineering
4. Mrs. Boonpa Ruddist Gender: Female Age: 61 years old Highest level of education: Bachelor's degree Major: Business Administration	Deputy Managing Director, General Management	24 Feb 2011	Data Management, Corporate Management, Leadership, Corporate Social Responsibility, Human Resource Management

[1] Highest responsibility in accounting and finance

[2] Directly responsible for financial account supervision

Remuneration policy for executives (7.4.2 – 7.4.3)

Remuneration policy for executives

Remuneration policy for executives : Yes

Remuneration

	2020	2021	2022
Total executive remuneration (baht)	30,300,000.00	34,810,000.00	33,540,000.00

Other forms of remuneration

Employee Stock Ownership Plan (ESOP) : No

Employee Joint Investment Program (EJIP) : No

Employees (7.5)

Information about company employees

Employees

Number of male employees (persons) : 190

Number of female employees (persons) : 93

Total (persons) : 283

Employee Remuneration

Total employee remuneration : 147,960,000.00

Provident fund

Total number of employees (persons) : 283

Number of employees contributing to the PVD (persons) : 151

Percentage of employees who are members (%) : 53.36

Performance Report on Corporate Governance

Performance Report on Corporate Governance

Summary of Director Performance (8.1)

Selection, development, and evaluation of duty performance of the Board of Directors (8.1.1)

List of new directors appointed in the past year

• List of continuing directors (full term of directorship and being re-appointed as a director)

General information	Position	Date position was assumed	Experience and expertise
1. Mr. POONPHIPHAT TANTANASIN Gender: Male Age: 69 years old Highest level of education: Bachelor's degree Major: Engineering Thai nationality: Yes Residing in Thailand: Yes	Director (Executive) Director type: Re-elected as director	Date position was assumed: 9 Jun 2003	Strategic Management, Corporate Management, Finance, Governance/ Compliance, Leadership, Engineering
2. Mr. KAMOL TAKABUT Gender: Male Age: 72 years old Highest level of education: Doctoral degree Major: Engineering Thai nationality: Yes Residing in Thailand: Yes	Director (Non-executive, Independent director) Director type: Re-elected as director	Date position was assumed: 7 Jun 2019	Engineering, Energy & Utilities, Audit
3. Mr. PREEDEE NGAMSANTIKUL Gender: Male Age: 46 years old Highest level of education: Master's degree Major: Economics Thai nationality: Yes Residing in Thailand: Yes	Director (Non-executive) Director type: Re-elected as director	Date position was assumed: 7 Jun 2019	Strategic Management, Law, Finance, Engineering, Negotiation

Development of directors over the past year

List of directors	Position	Participated in director development program
Mr. KRIRKKRAI JIRAPAET	Chairman of the board	Non-participating
Mr. POONPHIPHAT TANTANASIN	Director	Non-participating
Mr. NATTHAPHON LILAWATTHANANUN	Director	Non-participating
Mr. RUANGCHAI KRITSNAKRIENGKRAI	Director	Participating
Mr. SUROJ LAMSAM	Director	Non-participating
Mrs. WASARA CHOTITHAMMARAT	Director	Participating
Mr. KAMOL TAKABUT	Director	Non-participating
Mr. PREEDEE NGAMSANTIKUL	Director	Non-participating
Mr. APHICHAT SRAMOON	Director	Non-participating
Mr. NORACHIT SINHASANI	Director	Non-participating
Mr. PHAIROJ BOONPUN	Director	Non-participating
Mr. PORNTHEP PANYARACHUN	Director	Non-participating

Directors' performance assessment

Method used to evaluate directors' performance : Whole-board-of-directors assessment

Meeting attendance and remuneration to each Board member (8.1.2)

Meeting attendance of the board of directors

Number of board meetings (times) : 7

Date of AGM meeting : 1 Apr 2022

EGM meeting : No

	List of directors	Termination date	Number of Board Meeting	AGM meetings	EGM meetings
1.	Mr. KRIRKKRAI JIRAPAET (Chairman of the board)	-	7/7	Participating	Did not hold the meeting
2.	Mr. POONPHIPHAT TANTANASIN (Director)	-	6/6	Participating	Did not hold the meeting
3.	Mr. NATTHAPHON LILAWATTHANANUN (Director)	-	7/7	Participating	Did not hold the meeting
4.	Mr. RUANGCHAI KRITSNAKRIENGKRAI (Director)	-	6/6	Participating	Did not hold the meeting
5.	Mr. SUROJ LAMSAM (Director)	-	7/7	Participating	Did not hold the meeting
6.	Mrs. WASARA CHOTITHAMMARAT (Director)	-	7/7	Participating	Did not hold the meeting
7.	Mr. KAMOL TAKABUT (Director)	-	7/7	Participating	Did not hold the meeting
8.	Mr. PREEDEE NGAMSANTIKUL (Director)	-	7/7	Participating	Did not hold the meeting
9.	Mr. APHICHAT SRAMOON (Director)	-	7/7	Participating	Did not hold the meeting
10.	Mr. NORACHIT SINHASANI (Director)	-	7/7	Participating	Did not hold the meeting
11.	Mr. PHAIROJ BOONPUN (Director)	1 Apr 2022	2/2	Non-participating	Did not hold the meeting
12.	Mr. PORNTHEP PANYARACHUN (Director)	1 Jun 2022	4/4	Participating	Did not hold the meeting

Remuneration for company directors

	List of directors	Termination date	Meeting allowance (baht)	Other monetary remuneration (baht)	Other non-monetary
1.	Mr. KRIRKKRAI JIRAPAET (Chairman of the board)	-	140,000.00	1,693,332.00	No

2.	Mr. POONPHIPHAT TANTANASIN (Director)	-	100,000.00	0.00	No
3.	Mr. NATTHAPHON LILAWATTHANANUN (Director)	-	180,000.00	966,666.00	No
4.	Mr. RUANGCHAI KRITSNAKRIENGKRAI (Director)	-	90,000.00	0.00	No
5.	Mr. SUROJ LAMSAM (Director)	-	105,000.00	966,666.00	No
6.	Mrs. WASARA CHOTITHAMMARAT (Director)	-	165,000.00	966,666.00	No
7.	Mr. KAMOL TAKABUT (Director)	-	185,000.00	966,666.00	No
8.	Mr. PREEDEE NGAMSANTIKUL (Director)	-	115,000.00	966,666.00	No
9.	Mr. APHICHAT SRAMOON (Director)	-	105,000.00	966,666.00	No
10.	Mr. NORACHIT SINHASANI (Director)	-	150,000.00	966,666.00	No
11.	Mr. PHAIROJ BOONPUN (Director)	1 Apr 2022	60,000.00	125,000.00	No
12.	Mr. PORNTHEP PANYARACHUN (Director)	1 Jun 2022	30,000.00	750,000.00	No

Report on the Audit Committee's Performance for the Past Year (8.2)

Report on the audit committee's performance for the past year

Meeting attendance of audit committee

Number of Audit committee meetings (times) : 5

	List of directors	Termination date	Number of the audit committee meeting
1.	Mr. NATTHAPHON LILAWATTHANANUN (Chairman of the audit committee)	-	5/5
2.	Mrs. WASARA CHOTITHAMMARAT (Audit committee)	-	5/5
3.	Mr. KAMOL TAKABUT (Audit committee)	-	5/5