CF ENERGY CORP.
Management's Discussion and Analysis
for the three-month periods ended
March 31, 2023 and 2022

Dated May 30, 2023

Advisory

This Management's Discussion and Analysis ("MD&A") provides an analysis to enable readers to understand the financial position and operations of CF Energy Corp. (hereafter referred to as "CF Energy", "we" or the "Company") and its subsidiaries (collectively referred to as the "Group" or "our Group") as at and for the three-month period ended March 31, 2023. This information should be read in conjunction with the Company's unaudited condensed interim consolidated financial statements and related notes for the three-month periods ended March 31, 2023 and 2022 and audited consolidated financial statements and related notes for the year ended December 31, 2022. "CF Energy " includes CF Energy Corp. and its subsidiaries, unless otherwise indicated. Additional information related to CF Energy is available on SEDAR at www.sedar.com or on its website at http://www.cfenergy.com.

The preparation of the audited consolidated financial statements in conformity with International Financial Reporting Standards ("IFRS") or Generally Accepted Accounting Practices ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosed contingent assets and liabilities at the date of the financial statements, and reported amounts of sales and expenses during the reporting period. CF Energy bases its estimates on historical experience, current trends and various other assumptions that are believed to be reasonable under the circumstances. Actual results could differ from those estimates.

This MD&A contains certain non-IFRS financial measures to assist users in assessing the Company's performance. Non-IFRS financial measures do not have any standard meaning prescribed by IFRS and may not be comparable to similar measures presented by other issuers. These measures are identified and described under the section "Non-IFRS Financial Measures".

Amounts are stated in Renminbi (RMB), the official currency of the People's Republic of China (the "PRC" or "China") and the functional currency of the principal operating subsidiaries of the Company in the PRC, and Canadian dollars (CAD) unless otherwise indicated.

Caution Regarding Forward-Looking Information

Certain statements in this MD&A may constitute "forward looking" statements which involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Group, or the industry in which they operate, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. When used in this MD&A, the words "estimate", "believe", "anticipate", "intend", "expect", "plan", "may", "should", "will", the negative thereof or other variations thereon or comparable terminology are intended to identify forward-looking statements. Such forward looking statements reflect the current expectations of the management of the Company with respect to future events based on currently available information and are subject to risks and uncertainties that could cause actual results, performance or achievements to differ materially from those expressed or implied by those forward looking statements, such as significant changes in market conditions, the inability of the Company to realize sales and the inability of the Company to attract sufficient financing and the risk factors summarized below under the heading "Risks and Uncertainties". New risk factors may arise from time to time and it is not possible for management of the Company to predict all of those risk factors or the extent to which any factor or combination of factors may cause actual results, performance or achievements of the Company to be materially different from those expressed or implied in such forward-looking statements. Given these risks and uncertainties, investors should not place undue reliance on forward-looking statements as a prediction of actual results. Although the forward-looking statements contained in this MD&A are based upon what management believes to be reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. The forward-looking statements contained in this MD&A speak only as of the date hereof. The Company does not undertake or assume any obligation to release publicly any revisions to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events, except as required by law.

Overview

CF Energy is a Canadian public company currently listed on the TSX Venture Exchange ("TSX-V") under the stock symbol "CFY". CF Energy is primarily involved in natural gas distribution and sustainable energy utilization, serving residential, commercial and industrial users as well as electric vehicle battery swap service in the PRC.

Our existing business model comprises three main segments:

(i) Gas distribution utility segment, which comprises natural gas transmission and sales, including:

- (a) Pipeline Natural Gas ("PNG") sales and Liquified Natural Gas ("LNG") supply distribution sales and related service pipeline installation and connection sub-segments;
- (b) Compressed natural gas ("CNG") vehicle refueling stations; and
- (c) Natural gas direct transmission;

(ii) Integrated smart energy segment, which comprises the integrated smart energy system and integrated district energy distribution; and

(iii) Smart mobility segment, which comprises the operation of electric vehicle ("EV") battery swap stations.

Gas Distribution Utility Segment

Pipeline PNG Sales and LNG Supply Distribution Sales

Major pipeline PNG sales projects are based in Sanya City, Hainan Province, and Pingxiang City, Jiangxi Province. The Company has been granted a 30-year exclusive concession right (2007 to 2037) in Sanya City to operate the PNG sales as well as the construction and maintenance of the required facilities and pipelines which makes the Company the dominant participant in the Sanya PNG gas distribution market. The Company also distributes PNG to users in the ceramic industry base of Xiangdong District, Pingxiang City, Jiangxi Province under a 30-year distribution right (2010 to 2040) granted to its 40% owned associate.

CNG Vehicle Refueling

The Company operates two refueling stations respectively in Sanya City, Hainan Province, and Changsha City, Hunan Province which provide refueling services for vehicles such as household cars, taxicabs, buses and trucks. The Company offers two types of natural gas to customers for vehicle refueling: CNG and LNG.

Natural Gas Direct Transmission

This is the transportation of natural gas via the Company's 2.0 kilometers (1.4 miles) pipeline connecting the provincial natural gas trunk lines to the Gaoyao Combined Heat, Power and Cold Natural Gas Power Plant owned by Guangdong Datang International Zhaoqing Heat & Power Co., Ltd. in Zhaoqing City, Guangdong Province.

Integrated Smart Energy Segment

Currently, there are two projects under this segment, namely the integrated smart energy project (the "Haitang Bay Integrated Smart Energy Project") and the integrated district energy distribution project (the "Meishan Project").

The Haitang Bay Integrated Smart Energy Project

The Haitang Bay Integrated Smart Energy Project, which combines the use of multiple clean energy sources, including solar, hydro, electricity and natural gas (CCHP/Co-Gen), is to supply cooling, heating, as well as hot water to the hotels, shopping centers and households in the Haitang Bay area of Sanya City, Hainan Province, the PRC. This project is conducted through the Group's 70% held (30% held by the EDF Group) subsidiary company, EDF Changfeng (Sanya) Energy Co., Ltd. ("EDF CF") with an authorized capital of RMB119.1 million fully paid up in 2021. Under a 30-year concession right agreement (2017 to 2047), EDF CF has the right to build, own and operate the project in Haitang Bay, Hainan Province.

The Project has been recognized as a low-carbon energy utilization project in the tropical resort city of Sanya, Hainan Province, to provide air-conditioning with reduced emissions for public facilities in the Haitang Bay area. The Project will have four (4) central energy stations with 30km of district cooling and heating distribution networks when fully developed. Once fully implemented, the system will distribute cooling, heating and hot water to serve 3.5 million square meters of cooling space for commercial customers, including large-scale hotels, shopping malls, entertainment parks and buildings, hospitals and other commercial complexes. The Project uses an optimized multi-energy integration program to distribute cooling, heating and hot water to customers. The system will apply many advanced technologies, i.e. multi-level compressed high-efficient refrigeration units, "ice battery" technology, hydro heat pump technology, distributed photovoltaic technology and AI data management to provide a more efficient energy supply. The Project integrates advanced energy-saving technologies, such as ice storage and water-source heating pumping. It is expected to save about 30,000 tons of standard coal and reduce about 100,000 tons of carbon dioxide, sulfur dioxide and nitrogen oxide emissions every year once fully implemented.

Construction of the first energy station and the 31.318km of a doubled-lined pipeline for the integrated smart energy network has been completed and commenced commercial operation in September 2021. The first group of commercial customers includes the Sanya Edition Hotel, Fairmont Sanya Haitang Bay, Westin Sanya Haitang Bay Resort and China Taiping Qube Hotel. The Company has signed up ten (10) commercial customers in Haitang Bay as of the date of this MD&A. The first phase of the first energy station can provide services to 400,000 square meters of cooling space.

<u>The Meishan Project</u>

The Meishan Project is a joint investment, construction and operation of an integrated district energy distribution project in the New Economic Development Zone of Meishan City, Sichuan Province (the "Meishan New Economic Development Zone") to be operated by Meishan Hengtai Tianzhiyuan Energy Limited ("Meishan Hengtai"), a company which the Group holds an effective interest of 72%. The Meishan New Economic Development Zone, situated next to the central urban area of Meishan City, Sichuan Province, with a planned development area of 50.5 square kilometers, is to be the hub for manufacturers of drugs, supplements, medical equipment and other medical-related supplies. The year-round constant demand for steam is necessary to produce drugs which makes the Meishan New Economic Development Zone an ideal platform for integrated district energy distribution.

The project commenced trial operation in April 2021 and commercial operation officially in mid-May 2021 and has signed up seven (7) commercial customers with four (4) customers under service as of the date of this MD&A. Pipeline construction for the remaining three (3) customers have been completed and pending completion of installing of their own equipment. Trial operation is expected to commence in 2023. Eight (8) potential new customers are under negotiation and expected to commence operations in 2024.

The project is expected to significantly improve the district's energy consumption efficiency and reduce local air pollution in line with state policy as more customers connect to the program.

<u>**Smart Mobility Segment**</u>

EV Battery Swap Station

The EV battery swap station business is a segment of the Group to build and operate battery swap service for electric vehicles. Two (2) EV battery swap stations in Sanya City commenced operation in August 2020 and January 2021 respectively to serve BAIC Qingxiang Technology Co., Ltd.'s ("BAIC QX") 200 swap-battery EVs for its network taxi hiring business (the "Network Taxis") currently operating in Sanya City and additional 200 EV Network Taxis planned for Hainan Province in the near term with Blue Valley Smart (Beijing) Energy Technology Co., Ltd. ("Blue Valley"). In September 2020, the Company and EDF (China) Holding Ltd. ("EDF (China)") jointly established Hainan EDF Huapu Smart Mobility Company Limited ("Huapu SM"), which signed an 8-year exclusive co-operating agreement with BAIC QX and Blue Valley to provide EV battery swap services in Haikou City, the provincial capital of Hainan Province. The first battery swap station in Haikou City commenced operation in August 2021 and the second station commenced operation in January 2022. Concurrently, a memorandum of understanding was also signed among the Company, EDF (China) and Blue Valley to jointly develop the battery swap project in Zhuhai City, Guangdong Province. The first battery swap station of Zhuhai City officially commenced operation in March 2022. The second station of Haikou City was relocated to Sanya City in April 2023 as the third station there to cope with the additional traffic of EV taxis in the city.

Following the acquisition of a 70% equity stake in the local Beihai City EV battery swap station operator, Beihai Brighton Road New Energy Ltd. (the “Beihai Company”) in Beihai City, Gangxi Province in October 2022. The Beihai Company currently operates two (2) EV battery swap stations and has 344 registered active taxis as its EV battery swap users with an estimated 87 more battery swap EV taxis expected to be added in 2023 to a total of 431 taxis. There is a total of 600 taxis in Beihai City and our clientele accounts for approximately 72% of the market. All of the taxis in Beihai City are battery swap cars, only Beijing Electric Vehicle Co., Ltd. and Dongfeng Electric Vehicle Co., Ltd. are within the government's supplier list for taxis.

Results for the three-month period ended March 31, 2023

For the three-month period ended March 31, 2023, the Group reported a net profit from continuing operations of RMB3.5 million, a decrease of RMB7.8 million, or 69%, from RMB11.3 million for the three-month period ended March 31, 2022. On a comparable basis, after excluding the fair value gain of RMB2.0 million (2022 gain: RMB6.2 million) on the derivative financial instrument of the loan discharge agreement (see “Related Party Transactions” section on page 19 of this MD&A), recognition of share-based payment expenses RMB Nil (2022: RMB0.2 million) and a non-recurring government financial assistance of RMB0.8 million (Q1 2022: RMB Nil) from the local government of Haikou City to subsidize infrastructure of EV station in the city, the non-IFRS adjusted net profit from continuing operations for the three-month period ended March 31, 2023 was RMB0.7 million, a decrease of RMB4.5 million, or 87% from an adjusted net profit of RMB5.3 million as reported for the three-month period ended March 31, 2022.

Major Highlight for the three-month period ended March 31, 2023 and up to the date of this MD&A

Gas Selling Price Adjustment

The Group's natural gas business is a price-regulated industry in China, where its business and operations are susceptible to risks associated with government pricing policy and regulation changes. The Group needs to enter into discussions and negotiations with local governments on pricing from time to time. Over the past years, the Group had been able to increase the selling price several times. In July 2020, as the government natural gas price regulating body in Sanya City, the Sanya City Development and Reform Commission (“SYDRC”) finalized the City's natural gas utility pricing formula adjustment (the “Pricing Formula”), which is based on and adjusted with reference to the pricing formula adjustment of the gas purchase price (the “Gas Purchasing Price”) plus gas distribution cost became the guideline for the Group to follow on its gas selling prices starting from August 1, 2020 (the “2020 Gas Selling Price”) for both residential and commercial customers. The Pricing Formula is part of the pricing control strategy of the SYDRC for the whole of China.

With effect from May 1, 2022, the 2020 Gas Selling Price per m^3 to commercial customers in Sanya City has been adjusted from RMB3.83 to RMB4.12 (the “2022 Gas Selling Price”) while the price to social welfare units such as schools, government facilities, and other not-for-profit organizations which are classified under commercial customers remain unchanged at RMB3.23. The 2022 Gas Selling Price per m^3 to residential customers is based on three (3) levels of consumption, with the third level price to be adjusted from RMB3.82 to RMB4.10 while the first and second level prices remain unchanged at RMB2.94 and RMB3.53 respectively.

On April 11, 2023, SYDRC informed the Company by way of a notification letter that the 2022 Gas Selling Price for commercial and third level price for residential customers have been recalculated according to the previously adopted Pricing formula (the “2023 Gas Selling Price”). With effect from the April 2023 meter reading cycle, the 2023 Gas Selling Price per m^3 to commercial customers will increase from RMB4.12 in 2022 to RMB4.31 and third level price to residential customers will increase from RMB4.10 in 2022 to RMB4.30, while the gas selling price for the remaining categories of customers remains unchanged.

Going forward, as the pricing control policy is being further implemented by the SYDRC, the Group expects the New Gas Selling Price would significantly and adversely impact the profitability of its natural gas distribution business segment.

COVID-19 impact on our business in the Hainan Province

Chinese government loosened its COVID policy and restrictions in December 2022, commercial activities gradually resumed, the tourism market turned from negative to positive, and the economic benefits of tourism became obvious and evidenced by the Sanya City Bureau of Statistics which recorded a significant increase in overnight visitors to Sanya City driven by the Golden Week of the Spring Festival in late January 2023. The tourism market in Sanya City was booming and the peak of accommodation during the Spring Festival continued to extend to the month of February 2023. The city received an accumulated 7.5 million overnight tourists in the first quarter of 2023, an increase of 33% as compared to the same quarter in 2022 or 97% of the same period of pre-COVID level in 2019.

According to the Sanya City Bureau of Statistics, a significant increase in economic benefits of tourism in 2023 exceeded the income level before the epidemic was recorded. Sanya City's total tourism revenue for the first quarter of 2023 was RMB28.2 billion, an increase of 44% as compared to the same quarter in 2022 and exceeding RMB9.7 billion as compared to pre-COVID level in 2019.

Speedy recovery and return to normal activities after COVID in Sanya City was evidenced in the first quarter of 2023.

CF Energy Adds 232 Battery Swap Electric Vehicle Taxis As Customers In Sanya City

In August 2022, following a successful bidding process, the Group signed a three-party exclusive battery swap type EV purchase and EV battery swap service cooperating agreement (the "Agreement") with Sanya Feima Vehicle Operating Management Ltd. Co. ("Feima") and Hainan Huacheng Minghong New Energy Vehicle Sale and Service Ltd. Co. ("Huacheng") in Sanya City. Under the Agreement, Feima is to purchase 232 BAIC EU5 battery swap-type EVs excluding batteries from Huacheng to be used as taxis in Sanya City and these taxis will exclusively use the batteries procured by the Group and its EV battery swap station network in Sanya City for swapping of their batteries with a limited number of times of fast charging per month allowed. As of the date of this MD&A, the first batch of 197 EV taxis were delivered and the rest is expected to be delivered in 2023.

Outlook

The continuing recovery of business and economic activities with the relaxation of COVID 19 restriction policy in China is very encouraging and we see our Group returning back to business-as-usual stage and strive for gradual improvement in our financial performance going forward in the coming years. In line with our development plan as an integrated energy player, we will continue to focus on the integrated smart energy segment and the smart mobility segment and expand our businesses in China. This will be achieved via cooperating with our strategic partners and valuable resources in the related sector.

Selected yearly Financial Information

The following table provides selected financial information for the three-months periods ended March 31, 2023 and 2022 in Chinese RMB. Presentation in Canadian dollars is for information purposes only.

					For information purposes and unaudited			
	RMB'000				CAD'000			
except percentages and per share amounts	**Q1 2023**	**Q1 2022**	**Change**	**%**	**Q1 2023**	**Q1 2022**	**Change**	**%**
Continuing Operations								
Revenue	**100,117**	**95,379**	**4,738**	**5%**	**19,793**	**19,028**	**765**	**4%**
Gross profit	**28,521**	**37,349**	**(8,828)**	**-24%**	**5,639**	**7,451**	**(1,812)**	**-24%**
% of revenue	28.5%	39.2%	-10.7%		28.5%	39.2%	-10.7%	
Other income	1,017	449	568	127%	201	90	111	123%
Other losses, net	(258)	(61)	(197)	323%	(51)	(12)	(39)	325%
Impairment losses reversed (recognized) under expected credit loss model, net	464	(302)	766	-254%	92	(60)	152	-253%
Fair value change on derivative financial instrument	1,983	6,230	(4,247)	-68%	392	1,243	(851)	-68%
Selling and marketing expenses	(9,414)	(8,128)	(1,286)	16%	(1,861)	(1,622)	(239)	15%
% of revenue	9.4%	8.5%	0.9%		9.4%	8.5%	0.9%	
General and administrative expenses (note 3)	(9,804)	(10,855)	1,051	-10%	(1,939)	(2,166)	227	-10%
% of revenue	9.8%	11.4%	-1.6%		9.8%	11.4%	-1.6%	
Share of results of associates	(631)	(3,155)	2,524	-80%	(125)	(629)	504	-80%
Finance costs	(4,222)	(4,810)	588	-12%	(835)	(960)	125	-13%
Profit before tax	**7,656**	**16,717**	**(9,061)**	**-54%**	**1,513**	**3,335**	**(1,822)**	**-55%**
% of revenue	7.6%	17.5%	-9.9%		7.6%	17.5%	-9.9%	
Income tax expense	(4,193)	(5,380)	1,187	-22%	(829)	(1,073)	244	-23%
% of revenue	4.2%	5.6%	-1.5%		4.2%	5.6%	-1.5%	
Profit for the period	**3,463**	**11,337**	**(7,874)**	**-69%**	**684**	**2,262**	**(1,578)**	**-70%**
% of revenue	3.5%	11.9%	-8.4%		3.5%	11.9%	-8.4%	
Discontinued operation (note 1)								
Profit (loss) for the period from discontinued operation	37	(8)	45	-563%	7	(2)	9	-450%
Profit for the period	**3,500**	**11,329**	**(7,829)**	**-69%**	**691**	**2,260**	**(1,569)**	**-69%**
Profit and total comprehensive income for the period	**3,500**	**11,329**	**(7,829)**	**-69%**	**691**	**2,260**	**(1,569)**	**-69%**
Profit (loss) for the period attributed to owners of the Company								
- from continuing operations	**5,846**	**13,879**	**(8,033)**	**-58%**	**1,156**	**2,769**	**(1,613)**	**-58%**
- from discontinued operation	22	(5)	27	-540%	4	(1)	5	-500%
	5,868	13,874	(8,006)	-58%	1,160	2,768	(1,608)	-58%
Profit (loss) for the period attributed to non-controlling interests								
- from continuing operations	**(2,383)**	**(2,542)**	**159**	**-6%**	**(471)**	**(507)**	**36**	**-7%**
- from discontinued operation	15	(3)	18	-600%	4	(1)	5	-500%
	(2,368)	(2,545)	177	-7%	(467)	(508)	41	-8%
	3,500	**11,329**	**(7,829)**	**-69%**	**693**	**2,260**	**(1,567)**	**-69%**
Total comprehensive income (expenses) attributable to								
- Owners of the Company	**5,868**	**13,874**	**(8,006)**	**-58%**	**1,159**	**2,768**	**(1,609)**	**-58%**
- Non-controlling interests	(2,368)	(2,545)	177	-7%	(467)	(508)	41	-8%
	3,500	11,329	(7,829)	-69%	692	2,260	(1,568)	-69%
EBITDA from continuing operations (note 2)	**19,982**	**30,650**	**(10,668)**	**-35%**	3,950	6,115	(2,165)	-35%
% of revenue	20.0%	32.1%			20.0%	32.1%		
Earnings per share								
From continuing and discontinued operations	***RMB***	***RMB***			***CAD***	***CAD***		
- Basic	*0.09*	*0.21*			*0.01*	*0.04*		
- Diluted	*0.09*	*0.21*			*0.01*	*0.04*		
From continuing operations								
- Basic	*0.09*	*0.21*			*0.01*	*0.04*		
- Diluted	*0.09*	*0.21*			*0.01*	*0.04*		
From discontinued operations								
- Basic	*0.00*	*0.00*			*0.00*	*0.00*		
- Diluted	*0.00*	*0.00*			*0.00*	*0.00*		

Note 1: Discontinued operation is in respect of the termination of the operation of Hebei Riheng Clean Energy Co., Ltd. ("Riheng")

Note 2: EBITDA is identified and defined under the section "Non-IFRS Financial Measures".

Note 3: Recognition of share-based expense of RMB Nil are included in general administrative expenses for the purpose of presentation in the unaudited condensed interim consolidated financial statements for the three-month period ended March 31, 2023 (Q1 2022: RMB0.2 million).

Note 4: Canadian dollars were converted from RMB at the respective average rates of RMB1.000 to CAD0.1977 and RMB1.000 to CAD 0.1995 for the three-month periods ended 2023 and 2022 respectively.

Result of Operations

Total Revenue and Sales Volume sold

Continuing Operations

Revenue (Summary table)

Total Revenue (in RMB'000)	**Q1 2023**	**Q1 2022**	**Change**	**%**
Gas Distribution Utility				
- Gas supply	61,287	54,282	7,005	13%
- Pipeline installation and connection	27,784	29,191	(1,407)	-5%
- CNG vechicle refueling	6,292	7,961	(1,669)	-21%
Integrated Smart Energy	2,297	3,754	(1,457)	-39%
Smart Mobility	2,457	191	2,266	>999%
Total Revenue in RMB'000	**100,117**	**95,379**	**4,738**	**5%**
Total Revenue in CAD'000	**19,793**	**19,028**	**765**	**4%**

Located in an international tourist destination in the PRC's only tropical province, Sanya City, our business is affected by the demand for natural gas generated by tourists in hotel stays and traveling activities such as catering in restaurants.

Total revenue from continuing operations for the three-month period ended March 31, 2023 ("Q1 2023") was RMB100.1 million, an increase of RMB4.7 million, or 5%, from RMB95.4 million for the three-month period ended March 31, 2022 ("Q1 2022"). Revenue from gas supply in Q1 2023 was RMB61.3 million, an increase of RMB7.0 million, or 13% as compared to RMB54.3 million in Q1 2022. Revenue from pipeline installation and connection in Q1 2023 was RMB27.8 million, a decrease of RMB1.4 million, or 5% as compared to RMB29.2 million in Q1 2022. CNG vehicle refueling revenue in Q1 2023 was RMB6.3 million, a decrease of RMB1.7 million, or 21% as compared to RMB8.0 million in Q1 2022.

Haitang Bay Smart Energy Project alongside the Meishan Project contributed revenue of RMB2.3 million to the Integrated Smart Energy segment in Q1 2023, a decrease of RMB1.4 million, or 39% as compared to RMB3.7 million in Q1 2022.

Smart mobility segment comprises the EV battery swap business in various cities. Revenue from the smart mobility segment in Q1 2023 was RMB2.5 million, an increase of RMB2.3 million, a significant increase as compared to Q1 2022.

Signs of recovery of business in Sanya City were evidenced by the breaking of the decreasing trend in sales volume and revenue from commercial customers in the gas supply segment in Q1 2023. Revenue from residential customers recorded a slight decrease in terms of volume and sales amount in Q1 2023 which was attributed to the less time spent at homestay during Q1 2023 following the release of COVID restrictions and policy at the end of 2022.

Recovery of the pipeline installation and connection segment was saw by the significant increase in newly connected residential customers in Q1 2023.

Sales volume sold

Gas sales Sales volume sold (m³)	Q1 2023	Q1 2022	Change	%
Sanya City, Hainan Province	18,175,025	17,013,942	1,161,083	7%
Other cities	-	-	-	0%
Total gas sales volume (m³)	**18,175,025**	**17,013,942**	**1,161,083**	**7%**
CNG refueling				
Sanya CNG/LNG	894,274	1,230,821	(336,547)	-27%
Changsha CNG	309,657	489,975	(180,318)	-37%
Total CNG/LNG volume (m³)	**1,203,931**	**1,720,796**	**(516,865)**	**-30%**
Total sales volume sold (m³)	**19,378,956**	**18,734,738**	**644,218**	**3%**

Total sales volume from continuing operations in Q1 2023 was 19.3 million m³, an increase of 0.6 million m³, or 3% as compared to 18.7 million m³ in Q1 2022. The increase in gas sales volume in Sanya City is mainly attributed to the return of normal consumption in gas supply during Q1 2023.

The reduction in consumption of CNG in Sanya and Changsha City was attributed to the continuous common usage of EV taxis as a replacement for the traditional CNG taxis.

Gas Sales volume by nature of customers

Gas sales

Sanya City, Hainan Province Gas volume sold (m³)	Q1 2023	Q1 2022	Change	%
Residential customers	6,821,349	7,411,979	(590,630)	-8%
Commercial customers	11,353,676	9,601,963	1,751,714	18%
	18,175,025	**17,013,942**	**1,161,083**	7%
Other cities Gas volume sold (m³)	**Q1 2023**	**Q1 2022**	**Change**	**%**
Commercial customers	-	-	-	0%
Total	**18,175,025**	**17,013,942**	**1,161,083**	7%

Gas sales volume of residential customers in Q1 2023 was 6.8 million m³, a decrease of 0.6 million m³, or 8% as compared to 7.4 million m³ in Q1 2022. Following the Government's policy to remove all COVID restrictions and control measures at the end of 2022, people returned to their normal daily activities and reduced time spent at homestay which attributed to the decrease in demand of gas supply from residential customers.

Gas sales volume for commercial customers in Q1 2023 was 11.3 million m³, an increase of 1.7 million m³, or 18% as compared to 9.6 million m³ in Q1 2022. The positive effect of recovery in business was obvious and evidenced by the Sanya City Bureau of Statistics which showed a significant increase in overnight visitors to Sanya City in Q1 2023. Both the number of overnight visitors to Sanya City and hotel occupancy rates in Q1 2023 have returned to pre-COVID level in 2019. According to the Sanya City Bureau of Statistics, the average hotel occupancy rates in Sanya City followed the increasing trend of overnight visitors and recorded a record high of 81% in the month of February 2023, a significant increase of 20.6 percentage points from 59.0% in Q1 2022 to 79.6% in Q1 2023.

As an international tourist destination and the only tropical province in the PRC, Sanya City's traveling activities have a direct impact on gas revenue from commercial customers with traveling activities as a large portion of gas revenue was generated from this sub-segment.

Commercial customers in Sanya City include non-residential customers such as hotels, resorts and restaurants and attributed to approximately 85.0% of the total volume from commercial customers, whereas social welfare units such as schools, government facilities, and other not-for-profit organizations attributed to approximately

15.0% of the total volume from commercial customers. Customers outside of Sanya City are all commercial customers which mainly come from brick manufacturers in Wenchang City, Hainan Province.

Gas sales by number of customers

Sanya City, Hainan Province	Q1 2023	Q1 2022	Change	%
Customers newly started gas supply				
Residential customers	**10,971**	**6,720**	4,251	63%
Commercial customers	**23**	**22**	1	5%
Total customers				
Residential customers	**296,247**	**269,690**	26,557	10%
Commercial customers	**1,398**	**1,315**	83	6%

There was a significant increase in new residential customers in Q1 2023. The residential sector recorded 10,971 new customers in Q1 2023, 4,251 or 63% more as compared to Q1 2022. The increase in new residential customers is attributed to the connection of gas supply to the temporary housing for relocating residences of certain old residential areas in Sanya city under the government policy of city planning and organic growth of residential customers. 23 new commercial customers in Q1 2023 were recorded which remained constant as compared to Q1 2022.

There was a total of 296,247 residential customers and 1,398 commercial customers as at March 31, 2023, as compared to 269,690 residential customers and 1,315 commercial customers as at March 31, 2022.

Gas sales revenue by customers

Gas sales

Sanya City, Hainan Province **Gas sales revenue** **(in RMB'000)**	Q1 2023	Q1 2022	Change	%
Residential customers	18,319	20,010	(1,691)	-8%
Commercial customers	41,955	33,318	8,637	26%
	60,274	**53,328**	**6,946**	13%

Other cities **Gas sales revenue** **(in RMB'000)**	Q1 2023	Q1 2022	Change	%
Commercial customers	1,013	954	**59**	6%
Total gas sales by customers	**61,287**	**54,282**	**7,005**	13%

Gas sales revenue from residential customers for Sanya City in Q1 2023 was RMB18.3 million, a decrease of RMB1.7 million, or 8% as compared to RMB20.0 million in Q1 2022. Gas sales revenue from commercial customers for Sanya City in Q1 2023 was RMB42.0 million, an increase of RMB8.7 million, or 26%, from RMB33.3 million in Q1 2022.

Sales revenue in Sanya City was driven by the sales volume and gas selling price. As mentioned earlier in this MD&A, the 2022 Gas Selling Price impacts the profitability of the Group's natural gas distribution business segment. The Gas Selling Price per m^3 for commercial customers in Sanya City was RMB3.83 in Q1 2022 and RMB4.12 in Q1 2023. The third level of consumption for residential customers in Sanya City was RMB3.82 in Q1 2022 and RMB4.1 in Q1 2023. The positive impact of 2022 Gas Selling Price on these categories of customers was 8% and 7% respectively. However, the third level of consumption in residential customers was less than 5% of total sales to residential customers and its effect on selling price was minor.

While the price for social welfare units such as schools, government facilities, and other not-for-profit organizations which are classified under commercial customers remained unchanged at RMB3.23 and the first and second level of consumption in residential customers remained unchanged at RMB2.94 and RMB3.53 respectively in both Q1 2023 and Q1 2022.

Gas sales revenue in other cities included gas transmission fee charged for natural gas transmitted to the Datang Gaoyao Plant in Zhaoqing City, Guangdong Province which amounted to RMB1.0 million in Q1 2023 and remained at the same level as in Q1 2022.

Pipeline installation and connection

Sanya City, Hainan Province				
Pipeline connection by number of customers	**Q1 2023**	**Q1 2022**	**Change**	**%**
Customers newly connected				
Residential customers	**6,503**	**3,808**	2,695	71%
Commercial customers	**25**	**25**	-	0%
Total customers connected				
Residential customers	**369,661**	**339,789**	29,872	9%
Commercial customers	**1,500**	**1,390**	110	8%
Pipeline connection revenue (in RMB'000)	**Q1 2023**	**Q1 2022**	**Change**	**%**
Residential customers	23,374	25,863	(2,489)	-10%
Commercial customers	4,410	3,328	1,082	33%
Total	**27,784**	**29,191**	**(1,407)**	-5%

Pipeline installation and connection revenue from residential customers in Q1 2023 was RMB27.8 million, a decrease of RMB1.4 million, or 5% from RMB29.2 million in Q1 2022. Pipeline installation and connection revenue from commercial customers in Q1 2023 was RMB4.4 million, an increase of RMB1.1 million, or 33% from RMB3.3 million in Q1 2022. Pipeline installation and connection revenue from residential customers in Q1 2023 was RMB23.4 million, a decrease of RMB2.5 million, or 10% from RMB25.9 million in Q1 2022.

There were 6,503 and 25 new residential and commercial customers in Q1 2023 respectively as compared to 3,808 and 25 new residential and commercial customers in Q1 2022 respectively. There were 369,661 residential customers and 1,500 commercial customers as at March 31, 2023, as compared to 339,789 residential customers and 1,390 commercial customers as at March 31, 2022 respectively. No star-rated hotel was connected in Q1 2023 and the commercial customers connected are all small catering business owners.

CNG Vehicle refueling

CNG refueling				
Vehicles refueling stations				
CNG Sales Volume (in m³)	**Q1 2023**	**Q1 2022**	**Change**	**%**
Sanya CNG/LNG	894,274	1,230,821	(336,547)	-27%
Changsha CNG	309,657	489,975	(180,318)	-37%
Total Sales Volume (m³)	**1,203,931**	**1,720,796**	**(516,865)**	-30%
Total Revenue (in RMB'000)	**Q1 2023**	**Q1 2022**	**Change**	**%**
CNG Sales Revenue				
Sanya CNG/LNG	4,579	5,615	(1,036)	-18%
Changsha CNG	1,713	2,346	(633)	-27%
Total Revenue (RMB'000)	**6,292**	**7,961**	**(1,669)**	-21%

Total sales volume of vehicle refueling stations in Sanya and Changsha in Q1 2023 was 1.2 million m^3, a decrease of 0.5 million m^3, or 30% from 1.7 million m^3 in Q1 2022.

Decrease of revenue in Sanya CNG/LNG station was in line with the decrease in volume but not in the same magnitude as part of the increasing cost of LNG during Q1 2023 has been transferred to customers during the period which led to an increase in the average selling price of RMB0.7 per m^3, or 16% from RMB4.8 per m^3 in Q1 2022 to RMB5.5 per m^3 in Q1 2023. Customers switched to another type of transportation for daily travel and reduced the consumption of CNG/LNG taxis due to high price in Q1 2023. Decrease in sales volume for Changsha City in Q1 2023 was attributed to the increase in and the reduction in consumption of CNG due to common usage of EV taxis.

Integrated Smart Energy

Integrated smart Energy				
Integrated Smart Energy System				
Sanya City, Hainan Province				
(in RMB'000)	**Q1 2023**	**Q1 2022**	**Change**	**%**
Commerical customers	1,318	2,644	(1,326)	-50%
Integrated district energy distribution				
Meishan City, Sichuan Province				
(in RMB'000)	**Q1 2023**	**Q1 2022**	**Change**	**%**
Commerical customers	979	1,110	(131)	-12%
Total	**2,297**	**3,754**	**(1,457)**	-39%

The integrated smart energy segment comprises the Haitang Bay Integrated Smart Energy Project (integrated smart energy system) which commenced commercial operation in September 2021 and the Meishan Project (integrated district energy distribution project) which commenced commercial operation in May 2021. The Haitang Bay Integrated Smart Energy Project is in its implementation stage. Five of the hotels in Haitang Bay are currently using the system and the connection of two other hotels is under construction.

Revenue from Haitang Bay Smart Energy Project was RMB1.3 million, a decrease of RMB1.3 million, or 50% as compared to RMB2.6 million in Q1 2022. Revenue in Q1 2022 included installation fees of RMB2 million. However, no such revenue was recognized in Q1 2023.

Revenue from Meishan Project in Q1 2023 was RMB1.0 million, similar to that in Q1 2022.

Smart Mobility

Smart Mobility				
EV Battery Swap Revenue				
(in RMB'000)	**Q1 2023**	**Q1 2022**	**Change**	**%**
Sanya and Haikou City, Hainan Province	883	183	700	383%
Beihai City, Guangxi Province	1,369	-	1,369	100%
Other cities	205	8	197	>999%
Total Revenue (RMB'000)	**2,457**	**191**	**2,266**	>999%

The smart mobility segment comprises the EV battery swap business. There are a total of eight (8) EV battery swap stations currently in operation, including two (2) stations in Saya City, one (1) station previously located in Haikou City has been transferred to Sanya City in April 2023, leaving one (1) station remained in Haikou City. Following the acquisition of a local EV battery swap station operator in Beihai City of Guangxi Province in November 2022, the Beihai Company operates two (2) EV stations and contributed RMB1.3 million of revenue to the segment in Q1 2023. Stations in other cities include one (1) station in Zhuhai City and one (1) new station in Liupanshiu City of Guizhou Province which first commenced operation in January 2023.

Foreign exchange rates

CF Energy reports its financial results in Renminbi (RMB), its functional currency as it earns all its revenues and incurs most of its expenses in RMB. As the Company is listed in TSX-V Canada, certain financial information and/or comparative analysis are also presented in Canadian dollars (CAD), and fluctuations in the exchange rates between RMB and CAD should also be considered.

The exchange rate between the RMB and the CAD is summarized below.

One Chinese RMB to Canadian dollars	Q1 2023	Q1 2022	% change
Spot rate at the end of the period	0.1970	0.1971	-0.1%
Average rate for the period	0.1977	0.1995	-0.9%

Gross margin

Gross profit from continuing operations in Q1 2023 was RMB28.5 million, a decrease of RMB8.8 million, or 24.0%, from RMB37.3 million in Q1 2022. Gross profit margin in Q1 2023 was 28.5%, a decrease of 10.7 percentage points as compared to 39.2% in Q1 2022. The drop in gross profit margin from continuing operations in Q1 2023 as compared to Q1 2022 was attributed to the negative effects on gross margin during the period.

The negative effect on gross margin attributed to the high purchase price of LNG in Q1 2023 which could not be fully transferred to our customers in Sanya CNG vehicle station, increase in the purchase price of pipeline gas which attributed to the renewal of the two-year gas purchase contracts with China National Offshore Oil Corporation ("CNOOC") which became effective from April 1, 2022, alongside the negative margin for the Integrated Smart Energy segment while continuing with the effort to procure further hotel users to achieve critical mass.

Average purchase price of LNG remained at record high of approximately RMB4.4 per m^3 in Q1 2023 as compared to RMB3.9 per m^3 in Q1 2022. LNG cost contributed approximately 10.7% of the total cost of gas purchased in Q1 2023. Such increase in the purchase price of LNG could not be fully transferred to our customers in Sanya CNG vehicle station.

The negative gross profit margin for the Integrated Smart Energy segment from continuing operations in Q1 2023 as compared to Q1 2022 was mainly attributable to fixed costs such as depreciation which comprised approximately 48.0% (Q1 2022: 33.1%) of cost of sales in the Integrated Smart Energy segment that could not be fully absorbed with the decrease in revenue due to the slow recovery of business after COVID.

Operating expenses

Selling and marketing expenses of continuing operations in Q1 2023 were RMB9.4 million, an increase of RMB1.3 million, or 16% from RMB8.1 million in Q1 2022. Selling and marketing expenses as a percentage of sales in Q1 2023 was 9.4%, an increase of 0.9 percentage points as compared to 8.5% in Q1 2022. The increase in Q1 2023 was mainly attributable to the increase in selling and marketing activities in Q1 2023 under post-COVID.

General and administrative expenses of continuing operations in Q1 2023 were RMB9.8 million, a decrease of RMB1.1 million as compared to RMB10.9 million in Q1 2022. General and administrative expenses as a percentage of sales in Q1 2023 was 9.8%, a decrease of 1.6 percentage points as compared to 11.4% in Q1 2022. The decrease in Q1 2023 was mainly attributable to the continuing implementation of the cost control policy.

Finance Costs

Finance costs from continuing operations in Q1 2023 were RMB4.2 million, a decrease of RMB0.6 million, or 12% from RMB4.8 million in Q1 2022. Finance costs reflected interests on lease liabilities and interest on Convertible Debentures, short-term bank borrowings, and long-term bank financing for the development of the Group's projects under development, net of RMB1.1 million (Q1 2022: RMB1.0 million) capitalized on projects under development. Borrowing cost for Haitang Bay Integrated Smart Energy Project stopped capitalization subsequent to the project's completion and commenced operation in September 2021.

Share of results of associates

Share of results of associates represents the Group's share of loss of RMB0.6 million of its associates in Q1 2023, a decrease of RMB2.5 million, or 80% as compared to a share of loss of RMB3.1 million in Q1 2022. The share of loss mainly represents the share of loss of the Group's 40% held associate, Pingxiang Xinao Changfeng Gas Co., Ltd. ("Pingxiang Xinao CF") as its business was heavily impacted by the increasing LNG purchase prices in Q1 2023 which cannot be transferred to customers. The consumption of gas was large in the winter season. Pingxiang Xinao CF could not fully satisfy the keen demand for gas in Q1 2023 due to cold weather solely by pipelined gas and such shortage of gas has to be fulfilled by LNG in the market. With the high price of LNG, Pingxiang Xinao CF resulted in net loss of RMB1.6 million and RMB7.9 million in Q1 2023 and Q1 2022 respectively.

EBITDA from continuing operations

EBITDA from continuing operations (non-IFRS measure as identified and defined under section "Non-IFRS Measures") in Q1 2023 was RMB20.0 million, a decrease of RMB10.7 million, or 35%, from RMB30.7 million in Q1 2022.

EBITDA from continuing operations included a gain of RMB2.0 million in Q1 2023 (Q1 2022: gain of RMB6.2 million) on fair value change on derivative financial instrument of loan discharge agreement relating to the commitment of the estate of Mr. Huajun Lin to subscribe for the common shares of the Company in the amount of RMB36.0 million (please refer to the section headed "Related Party Transactions" on page 19 of the MD&A for more details), which is in line with IFRS, has been classified as a "derivative financial instrument", subject to periodic fair value assessment and adjustment (as applicable). The derivative financial instrument in question was initially recognized at fair value at the date when the derivative contract was entered into and is subsequently remeasured to its fair value at the end of each reporting period.

The market price of the common shares of the Company was CAD0.28 as at March 31, 2023 and CAD0.32 as at December 31, 2022 respectively. A gain of RMB2.0 million in fair value change on derivative financial instrument of loan discharge agreement was recognized in Q1 2023 which arose from a downward difference of RMB0.04 between the market price of the Company between March 31, 2023 and December 31, 2022. In contrast, a gain of RMB4.8 million in fair value change on derivative financial instrument of loan discharge agreement was recognized in Q1 2022 as the market price of the Company as at March 31, 2022 and December 31, 2022 had a downward difference of RMB0.12.

On a comparable basis, after excluding the effects of the above-mentioned fair value change on derivative financial instrument, recognition of share-based payment expenses of RMB Nil (2022: RMB0.2 million) and one-off government financial assistance of RMB0.8 million (Q1 2022: RMB Nil), the adjusted EBITDA from continuing operations in Q1 2023 was RMB0.7 million, a decrease of RMB4.6 million, or 86%, from RMB5.3 million in Q1 2022.

Profit for the period from continuing operations

The Group reported a net profit from continuing operations of RMB3.5 million in Q1 2023, a decrease of RMB7.8 million, or 69%, from RMB11.3 million in Q1 2022.

Earnings per share ("EPS") from continuing operations was RMB0.09 (CAD0.01) (basic and diluted) in Q1 2023 as compared to RMB0.21 (CAD0.04) (basic and diluted) per share in Q1 2022.

Adjusted net profit for the period from continuing operations (non-IFRS)

In RMB thousands (except for % figures)	**Q1 2023**	**Q1 2022**	**Change**	**%**
Continuing operations				
Net profit for the period from continuing operations	3,463	11,337	(7,874)	-69%
Adjusting items				
Fair value change on derivative financial instrument	(1,983)	(6,230)	4,247	-68%
Recognition of share-based payment expenses	-	183	(183)	-100%
Government financial assistance	(765)	-	(765)	100%
Adjusted net profit for the period from continuing operations (non-IFRS)	**715**	**5,290**	**(4,575)**	**-86%**

All non-GAAP measures have been identified. On a comparable basis (please refer to the section headed "EBITDA from continuing operations" above for more details), after excluding the gain in fair value change on derivative financial instrument of loan discharge agreement of RMB2.0 million (Q1 2022: RMB6.2 million), recognition of share-based payment expenses of RMB Nil (2022: RMB0.2 million) and one-off government financial assistance of RMB0.8 million (Q1 2022: RMB Nil), the Company reported an adjusted net profit of RMB0.7 million in Q1 2023, a decrease of RMB4.6 million, or 86% from an adjusted net gain of RMB5.3 million as reported in Q1 2022.

Adjusted EPS was derived from the adjusted net profit for the period from continuing operations (non-IFRS) divided by the weighted average number of ordinary shares for the purpose of diluted earnings per share. Adjusted EPS from continuing operations was RMB0.01 (CAD0.00) per share (basic and diluted) in Q1 2023 as compared to adjusted EPS from continuing operations of RMB0.08 (CAD0.02) (basic and diluted) in Q1 2022.

Profit (loss) for the year from discontinued operation

Discontinued operation related to the termination of the operation of Riheng as part of the Group's policy to realign its future business strategies with major focus on clean energy solutions with high growth potential. Profit from discontinued operation in Q1 2023 was RMB37,000 (Q1 2022: loss of RMB8,000) which was attributed to a recovery of the accounts receivable amount that was written off in the previous period.

Selected quarterly results

The following set out the Company's unaudited consolidated quarterly results for the most recent eight quarters:

In thousands of RMB, except per share amounts

Quarterly data (RMB '000)	2023	2022				2021		
except per share amounts	**Q1**	**Q4**	**Q3**	**Q2**	**Q1**	**Q4**	**Q3**	**Q2**
Revenue	100,117	93,270	61,590	84,000	95,379	105,239	82,612	86,177
Gross profit	28,521	29,260	17,865	23,194	37,349	32,182	33,757	34,474
Profit (loss) for the period from continuing operations	3,463	(6,973)	(426)	90	11,337	(5,689)	9,521	14,854
Profit (loss) for the period attributed to owners of the Company from continuing operations	5,846	(1,513)	1,927	2,688	13,879	(4,151)	9,664	14,397
EPS (loss) of continuing and discontinued operations								
- basic (RMB)	0.09	(0.02)	0.03	0.04	0.21	(0.07)	0.15	0.21
- diluted (RMB)	0.09	(0.03)	0.03	0.04	0.21	(0.06)	0.14	0.20
EPS (loss) from continuing operations								
- basic (RMB)	0.09	(0.02)	0.03	0.04	0.21	(0.06)	0.15	0.22
- diluted (RMB)	0.09	(0.03)	0.03	0.04	0.21	(0.05)	0.14	0.21

Selected Financial Data

(RMB000's)	March 31, 2023	December 31, 2022
Bank balances and cash and fixed term bank deposits	93,214	115,116
Net current liabilities	(140,624)	(128,171)
Adjusted working capital (note1)	(33,532)	(33,288)
Property and equipment	812,655	805,716
Right-of-use of assets	74,883	74,830
Total assets	1,239,008	1,245,108
Non-current liabilities	410,762	419,766
Shareholders' equity	437,643	434,143

note 1: This financial measure is identified and defined under the section "Non-IFRS Financial Measures"

Bank balance and cash and fixed term bank deposit decreased by RMB21.9 million from RMB115.1 million as at December 31, 2022 to RMB93.2 million as at March 31, 2023, primarily resulting from the net effect of the cash used in operating activities of RMB19.0 million, cash used for acquisition of property and equipment of RMB15.0 million, and net drawdown of new short-term borrowings and long-term debt of RMB16.0 million.

Adjusted Working Capital

The adjusted working capital (see "Non-IFRS Financial Measures") was negative RMB33.3 million as at December 31, 2022, a decrease of RMB34.9 million, from the positive adjusted working capital of RMB1.6 million as at December 31, 2022. Adjusted working capital excludes the receipt in advance from customers included in contract liabilities of RMB57.1 million related to receipts received in advance from customers from pipeline installation and connection projects prior to commencement and natural gas sales and short-term bank borrowings of RMB50.0 million.

Liquidity and Capital Resources

The Group's principal sources of short-term funding are existing bank and cash balances, operating cash flows and borrowings under its lines of credit and long-term funding are bank-term loan facilities provided to the Group which amounted to RMB50.0 million and RMB432.0 million respectively as at March 31, 2023.

In March 2023, the Group entered into an agreement with the Bank of China, Sanya to secure a long-term bank loan of RMB45.0 million. The loan has not been drawn down as of the date of this MD&A.

In March 2023, the Group entered into an agreement with China International Financial Leasing Co. Ltd. to sell and lease back electric vehicle batteries at a transaction price amounting to RMB12.0 million. The transaction was taken place in April 2023.

The 2-year unsecured convertible debentures ("Convertible Debentures") in the aggregate principal amount of CAD600,000 was matured in May 2023. The Company was informed by the Debenture Holders that they do not intend to exercise the Conversion Right to convert the Convertible Debentures into Shares upon maturity and the Debenture Holders agreed to extend the settlement of the redemption of the Convertible Bonds from maturity date to early June 2023.

The Company's principal sources of liquidity are cash provided from operation, including advance payments from residential and commercial and industrial customers related to construction contracts for gas connection included in contract liabilities, refund liabilities and access to credit facilities and capital resources.

The Company's primary short-term cash requirement is to fund working capital and repay the remainder of its outstanding withdrawal on its lines of credit as they fall due.

The Company's medium and long-term cash goals are to fund the construction of its pipeline networks and gas distribution facilities and projects under development, to acquire capital and intangible assets for its growth initiatives in China and to repay its long-term loan facilities from banks.

In the short term, management does not expect to face any liquidity problems considering its current bank and cash position, available undrawn bank facilities and continue to generate cash flows from operations in the short and long term. During the period ended and as at March 31, 2023, the Group was in compliance with all of its debt covenants.

The net gearing ratio is calculated by dividing interest-bearing borrowings, convertible debentures and lease liabilities, less cash and cash equivalents, by total equity attributable to equity shareholders of the Company. The Group's net gearing ratio was approximately 91.0% as at March 31, 2022, an increase of 7.9 percentage points as compared to 83.1% as at December 31, 2022.

Capital Commitments

As at March 31, 2023, capital expenditure in respect of the acquisition of property and equipment and the construction of pipelines under development contracted for but not provided in the unaudited condensed interim consolidated financial statements amounted to RMB107.9 million, a decrease of RMB2.7 million as compared to RMB110.7 million as at December 31, 2022. The decrease in capital commitment was attributable to the advancement of the development of the Haitang Bay Integrated Smart Energy Project as much of the unspent capital commitments brought forward from December 31, 2022 were utilized during Q1 2023. Capital commitments as at March 31, 2023 also included a remaining initial investment of RMB0.8 million for the 2% equity interests in Hainan Shanglian Investment Co., Ltd.

Share Capital

As at March 31, 2023, the Company has 65,885,155 common shares and 3,400,000 stock options outstanding.

50,000 share options granted on August 10, 2017 expired/forfeited in Q1 2023. The Company has no warrants outstanding as of the date of this MD&A.

On December 18, 2020, the Company awarded a total of 2,090,000 shares to senior management and employees of the Group under the Employee Stock Award Plan, of which 25% of the Award Shares, 522,500 shares at the price of CAD0.43 per common share which were not subject to any conditions were issued. 547,500 shares award rights expired/forfeited in 2021 as participants failed to satisfy the agreed financial performance condition and service condition for the year ended December 31, 2021. The remaining 1,020,000 shares award rights was forfeited in 2022 as participants failed to satisfy the agreed performance condition for the year ended December 31, 2022.

Non-IFRS Financial Measures

This MD&A contains certain financial measures that do not have any standardized meaning prescribed by IFRS. Therefore, these financial measures may not be comparable to similar measures presented by other companies or issuers. Investors are cautioned that these measures should not be construed as alternatives to net income or to cash provided by operating, investing, and financing activities determined in accordance with IFRS, as indicators of its performance. The Group provides these measures to assist investors in determining its ability to generate income and cash provided by operating activities and to provide additional information on how these cash resources are used. These measures are listed and defined below.

EBITDA from continuing operations

EBITDA is defined herein as earnings before income tax expense, finance costs, depreciation and amortization. EBITDA does not have any standardized meaning prescribed by IFRS and therefore may not conform to the definition used by other companies or issuers. A reconciliation of net profit from continuing operations to EBITDA and adjusted EBITDA are presented in the MD&A as follows:

In RMB thousands (except for % figures)	**Q1 2023**	**Q1 2022**	**Change**	**%**
Continuing operation				
Net profit for the period from continuing operations	3,463	11,337	(7,874)	-69%
Add:				
Finance costs	4,222	4,810	(588)	-12%
Income tax expense	4,193	5,380	(1,187)	-22%
Depreciation and amortization	8,104	9,123	(1,019)	-11%
EBITDA for the period from continuing operations	19,982	30,650	(10,668)	-35%
Adjusting items				
Fair value change on derivative financial instrument	(1,983)	(6,230)	4,247	-68%
Recognition of share-based payment expenses	-	183	(183)	-100%
Government financial assistance	(765)	-	(765)	100%
Adjusted EBITDA from continuing operations	**17,234**	**24,603**	**(7,369)**	**-30%**

Adjusted working capital

Adjusted working capital is calculated as current assets less adjusted current liabilities. Adjusted current liabilities is calculated as current liabilities, excluding the receipts in advance from customers from pipeline installation and connection project prior to commencement and natural gas sales, included in contract liabilities which represented the Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customers. Receipt in advance from customers from pipeline installation and connection will be recognized as income upon the performance obligations are fulfilled and receipt in advance from customers for natural gas sales will be recognized as income upon the consumption of natural gas. Both amounts are deferred income in nature and non-refundable to customers, hence are excluded in the calculation of adjusted current liabilities. Adjusted current liabilities also excluded the short-term bank loan as lines of credit in the PRC are typically renewable when due.

The Group believes that the working capital as a supplemental measure, as adjusted based on the above parameters, provides a more appropriate indication of the Group's ability to settle its debt obligations as they fall due.

The calculation of adjusted working capital is provided in the table below.

In RMB thousands			
As at	**Note**	**March 31, 2023**	**December 31, 2022**
Current assets		249,979	263,028
Less: Current liabilities		(390,603)	(391,199)
Net current liabilities		**(140,624)**	**(128,171)**
Add: Receipts in advance from customers	1	57,092	52,283
Add: Short-term bank borrowings		50,000	42,600
Adjusted working capital		(33,532)	**(33,288)**

Note 1: Receipts in advance from customers in respect of pipeline installation and connection projects prior to commencement and natural gas sales are included in contract liabilities.

As at March 31, 2023, the Group's current liabilities exceeded its current assets by RMB140.6 million, a decrease of RMB12.4 million in net current liabilities as compared to RMB128.2 million as at December 31, 2022 was mainly attributed to the decrease of cash and bank balance of RMB21.9 million and net drawdown in short-term borrowing of RMB7.4 million in Q1 2023 as compared to December 31, 2022.

In view of these circumstances, the management of the Group has given consideration to the future liquidity and performance of the Group and its available sources of finance in assessing whether the Group will have sufficient financial resources to continue as a going concern. Management is satisfied that the Group will have sufficient financial resources to meet its financial obligations including capital commitments. Taking into account the Group's cash flow projections, including the term facilities, unutilized bank facilities, the Group's ability to renew or refinance existing banking facilities upon maturity and the Group's future capital expenditure in respect of its non-cancellable capital commitments, management considers that it has sufficient working capital to meet in full its financial obligations as they fall due for at least the next twelve months from the end of the reporting period and accordingly, the audited consolidated financial statements have been prepared on a going concern basis.

Free Cashflow from continuing operations

Free cash flow is calculated as earnings before interest, net of tax, add/minus non-cash expense and income and reduced/increased by the change in net current liabilities and capital expenditure of the Company.

The calculation of free cash flow is provided in the table below:

In RMB thousands	**Q1 2023**	**Q1 2022**
Net profit for the period from continuing operations	3,463	11,337
Add: Finance costs	4,222	4,810
Income tax expense	4,193	5,380
EBIT	11,878	21,527
Effective tax rate	55%	32%
EBIT net of tax	**5,373**	**14,599**
Non-cash income and expense		
Depreciation and amortization	8,104	9,123
Impairment losses (reversed) recognized under expected credit loss model, net	(464)	302
Share of results of associates	631	3,155
(Reversal) recognition of share-based payment expenses	-	183
Gain (loss) on disposals of property and equipment	39	(32)
Fair value change on derivative financial instrument	(1,983)	(6,230)
Change in net current liabilities	12,453	(22,986)
Less: Capital expenditures	(83,332)	(17,004)
Free Cash Flow	**(59,179)**	**(18,890)**

Negative free cash flow from continuing operations in Q1 2023 amounted to RMB59.2 million, a decrease of RMB40.3 million as compared to the negative free cash flow of RMB18.9 million in Q1 2022 which attributed to the increase in capital expenditure for projects under business development.

Related Party Transactions

The following balances were outstanding from related parties at the end of the reporting period:

Name of related party	Relationship	Terms	March 31, 2023 RMB'000	Dec 31, 2022 RMB'000
Balances				
Pingxiang Xiao CF	Associate	Non-trade, unsecured and interest bearing (Note)	12,423	12,423

Note: The balance represented a loan of RMB11.0 million to Pingxiang Xinao CF plus interest accrued until October 16, 2019 when the Group entered a supplemental agreement with Ping Xiang Xinao CF to pay additional interest which had been bearing interest at 4.35% per annum until October 2019.

The loan discharge agreement (the "Loan Discharge Agreement") dated May 25, 2017 entered among Sanya Changfeng Offshore Natural Gas Distribution Co., Ltd. ("CF China") and Mr. Lin, provided that if the HKIPO of the Company's common shares on The Stock Exchange of Hong Kong Limited has not been completed on or prior to June 28, 2019, the Group shall have the right for a period of 90 days following June 28, 2019 to require Mr. Lin, directly or indirectly, to subscribe for common shares of the Company on the TSX-V, in the amount of RMB36.0 million or its CAD equivalent.

On July 26, 2019, the Company announced that the Board of the Company has determined to exercise the Company's option pursuant to the Loan Discharge Agreement dated May 25, 2017 among the Company, CF China and Mr. Lin to require the Estate to invest an aggregate amount of RMB36.0 million (approximately CAD6,861,587) in common shares of the Company (the "Investment"). Accordingly, the Estate will make the Investment at a price of CAD0.68 per common share representing a premium of approximately 6.3% over the closing price of the common shares of the Company on July 24, 2019. Following the Investment, based on the prevailing exchange rate, the Estate will hold approximately 44,774,068 common shares or approximately 59.43% of the total outstanding common shares of the Company.

Notices for the Investment (the "Notices") were sent to the four beneficiaries of the Estate. Among the four beneficiaries of the Estate, Siyin Lin (Ann) and Siqin Lin had provided written statements to the Company, respectively, that they were in full agreement to honor the Investment. The remaining two beneficiaries of the Estate, namely Mingfei He and Zhipei (Trevor) Lin, however, have not agreed to honor the Investment. On June 2, 2021, Ann Lin sent in her letter to the Company and CF China reiterated her consent to honor the Investment. Since the issuance of the Notices, the Board and management of the Company have made a continuous effort of communication with Mingfei He and Trevor Lin requesting and persuading them to honor the Investment. However, given the time that has passed for the Estate to subscribe for shares, the Company is left with no alternative but to take legal action to enforce the Loan Discharge Agreement and the Investment.

On June 21, 2021, the Company together with CF China filed a contract dispute case (the "Claim") against the Estate in the Sanya Intermediate People's Court, Sanya City, Hainan Province, the PRC to enforce the execution of the Loan Discharge Agreement and the Investment. Subsequent to the filing of the Claim, on June 23, 2021, Ann Lin sent her letter to the Company and CF China reiterated her consent to honor the Investment, and on June 24, 2021, the Court issued the subpoena requiring all parties related to the Claim to attend the court hearing scheduled to be held on August 31, 2021 in Sanya City, Hainan Province, the PRC. The Claim is now with the High People's Court of Hainan Province pending appeal.

Risks and Uncertainties

The preparation of unaudited condensed interim consolidated financial statements in compliance with IAS 34 requires the use of certain critical accounting estimates. There have been no material revisions to the nature and amount of changes in estimates of amounts reported in the audited consolidated financial statements for the year ended December 31, 2022.

Principal Accounting Policy

Amendments to IFRSs that are mandatorily effective for the current three-month period or after

In the current three-month period, the Group has applied the following amendments to IFRSs issued by the International Accounting Standard Board ("IASB") for the first time, which are mandatorily effective for the annual period beginning on or after January 1, 2023 for the preparation of the unaudited condensed interim consolidated financial statements:

IFRS 17	Insurance Contracts
Amendments to IAS 1 and IFRS Practice Statement 2	Disclosure of Accounting Policies
Amendments to IAS 8	Definition of Accounting Estimates
Amendment to IFRS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction

The adoption of these amended IFRSs had no material impact on how the results and financial position for the current three-month period and prior period have been prepared and presented.