



The Hong Kong & China Gas Co. Ltd. (3 HK)

incorporated

Towngas China Co. Ltd. (1083 HK)

2019 Interim Results

20 August 2019



Disclaimer

This presentation and subsequent discussion may contain certain forward-looking statements. These forward-looking statements reflect the company's view on some future events and involve known and unknown risks and uncertainties and other factors which may cause actual performance and development differ materially. Past performance cannot be relied on as a guide for future performance.

~~~~~  
Creating

Shared  
Value  
~~~~~

**GROUP
FINANCIAL
RESULTS**

2019 First-half Results

The Hong Kong & China Gas (3 HK)

(HK\$ Mn)	1H 2019	1H 2018	Change
Revenue	20,352	19,242	+6%
Profit after tax before property revaluation	3,752	3,963	-5%
IFC revaluation gains	137	827	-83%
Profit attributable to shareholders	3,889	4,789	-19%
Earnings per share [^]	HK 23.0 cents	HK 28.3 cents	-19%
Interim dividends per share	HK 12 cents	HK 12 cents	

[^]2018 figures were adjusted for the bonus share issue in 2019

Business Sectors

2019 First-half Operating Profit After Tax



OPAT HK\$3.88Bn - **5%** (-2.5% in constant Rmb)

Hong Kong (HC)

HK\$1.67Bn

- 5%

(Gas Volume -2.4%)

Mainland Utilities (MU)

HK\$2.12Bn

+ 2%

(+ 7.8% in Rmb)

New Energy (NE)

HK\$0.09Bn

- 67%

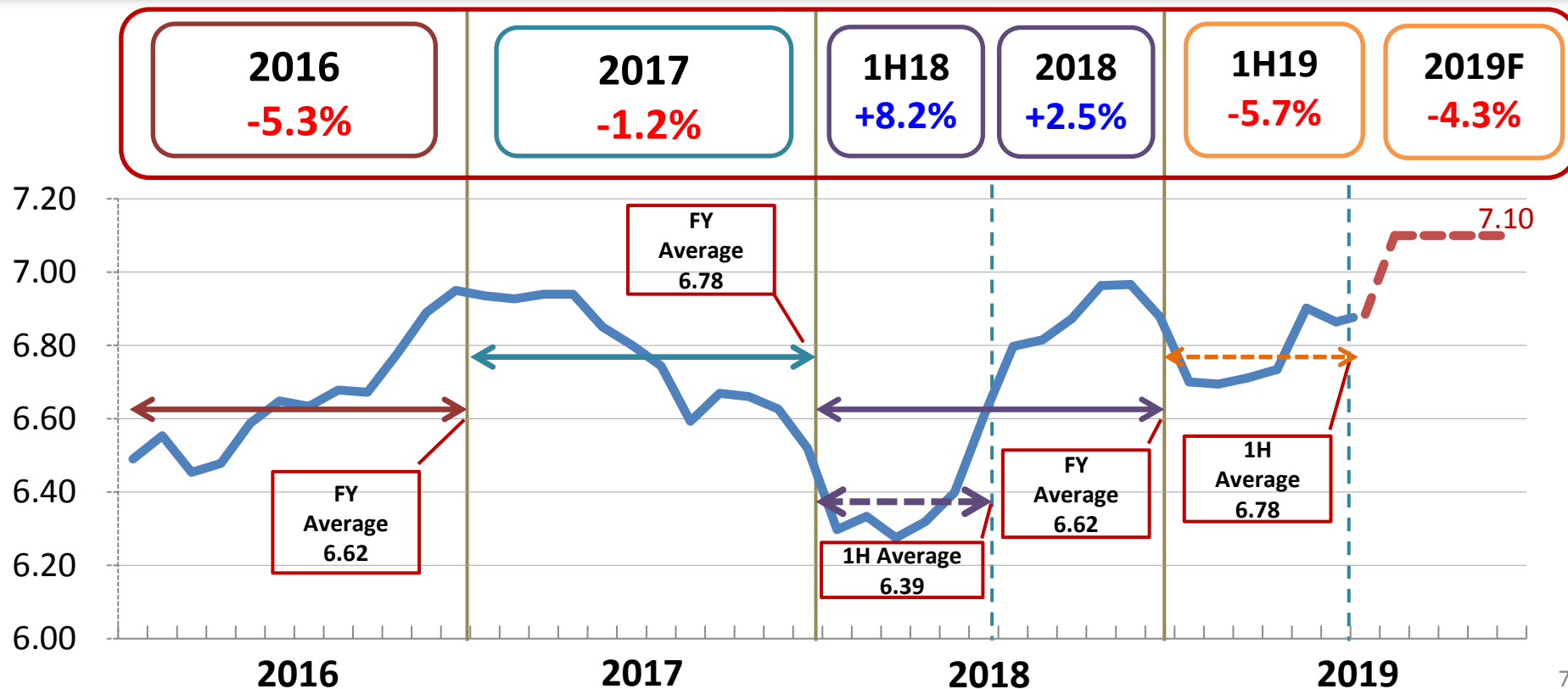
(Falling commodity prices)

2019 First-half Results

Towngas China (1083 HK)



(HK\$ Mn)	1H 2019	1H 2018	Change
Turnover			
Gas Sales & Others	5,619	4,728	+19%
Connection Fees	893	856	+4%
	6,512	5,584	+17%
Operating Profit before Finance Costs	955	916	+4%
Less: Finance Costs	199	253	-21%
Profit Attributable to Shareholders	756	663	+14%
Earnings per Share	HK 26.89 cents	HK 23.96 cents	+12%

RMB/USD Average Exchange Rate



HKCG Group Financial Position



as at 30 Jun 2019

HKCG (3 HK)	30 Jun 2019	31 Dec 2018	Change		19 Aug 2019	31 Dec 2018	Change
	HK\$ Bn	HK\$ Bn					
Total assets	135.3	132.7	+2%	Share price (HK\$)^	16.92	14.73	+15%
Net asset value	73.2	70.2	+4%	Market cap. (HK\$ Bn)	286.3	249.3	+15%
Cash and Bank	7.5	8.8	-15%	P/E Ratio	30.8x	26.8x	
Total borrowings	36.9	35.7	+4%	P/B Ratio	4.6x	4.0x	
Interest Coverage	10.4x	10.7x		<div> Credit Ratings: <div>  A </div> <div>  A1 </div> </div>			
Gearing (Net)	31%	29%					

^2018 figures were adjusted for the bonus share issue in 2019

TCCL Group Financial Position

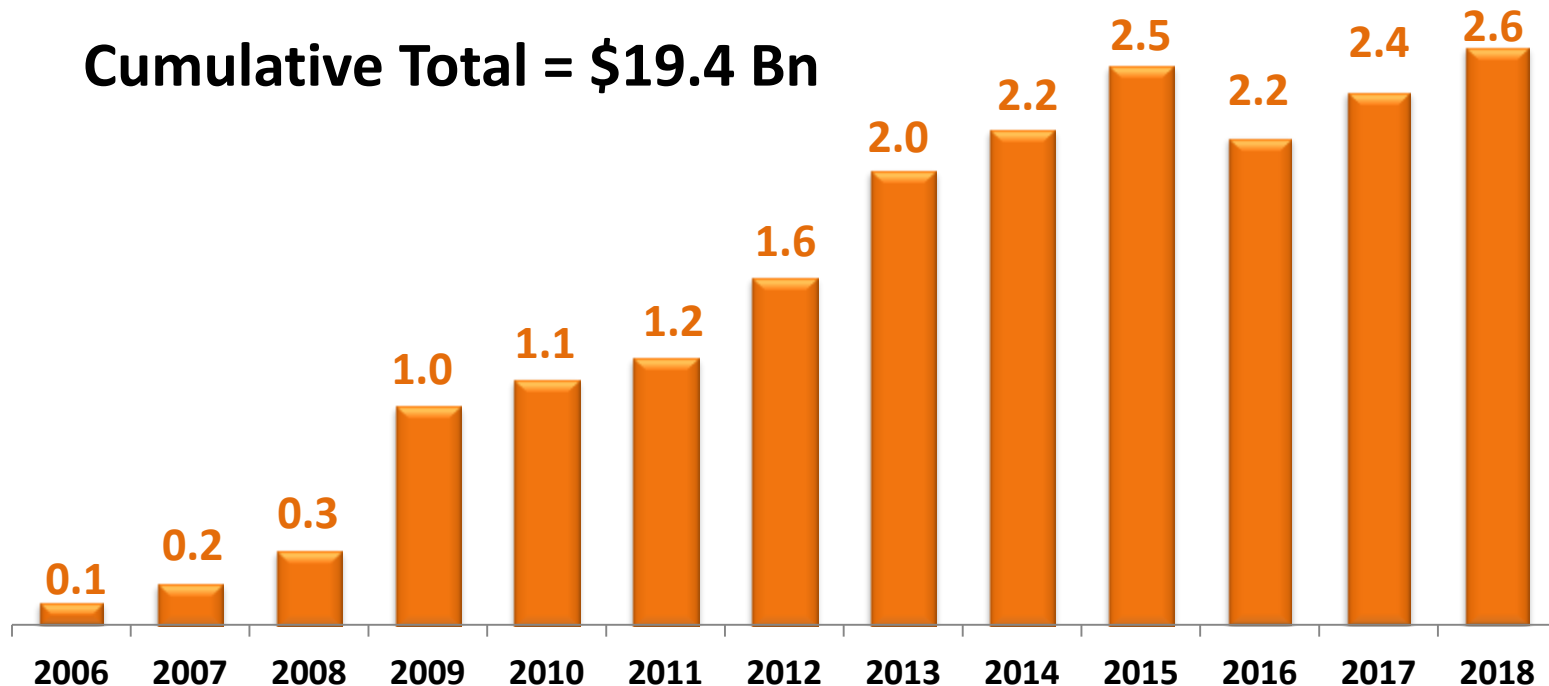
as at 30 Jun 2019

TCCL (1083 HK)	30 Jun 2019	31 Dec 2018	Change		19 Aug 2019	31 Dec 2018	Change
	HK\$ Bn	HK\$ Bn					
Total assets	35.4	34.0	+3%	Share price (HK\$)	5.45	5.81	-6%
Net asset value	18.0	17.8	+3%	Market cap. (HK\$ Bn)	15.6	16.3	-4%
Cash and Bank	2.0	1.7	+18%	No. of Shares (Bn)	2.87	2.81	+2.2%
Total borrowings	10.2	9.5	+8%	P/E Ratio	11.6x	13.3x	
Interest Coverage	8.4x	8.6x		P/B Ratio	0.9x	1.0x	
Gearing (Net)	33%	33%		<div> Credit Ratings: <div>  BBB+ </div> <div>  Baa1 </div> </div>			

Strong Dividend from Joint Ventures



(HK\$Bn)

Cumulative Total = \$19.4 Bn



Rolling 3-Year Cashflow Projection

Healthy Position

		(HK\$ Bn)
Inflow 	HK Operations	14
	PRC Dividends Distribution	8
		22
Outflow 	Cash on Hand	7
	Fund available for investment	29
	Dividend	18
	HK Capex	2
	PRC Investments	8
		28
Cash Balance		<u>1</u>



煤氣
Towngas

Hong Kong TGC + Gas Business

點玩都開心



Hong Kong Business 1H 2019



Gas Sales **15,776TJ**
-2.4%

Basic tariff increase 1.1¢/MJ
(4.4%) effective 1 August 2019

- Additional income:
HK\$270Mn p.a.

FCVC fuel cost pass-through
mechanism

Profit After Tax
HK\$1.67Bn
Strong & Stable



Customers **1.92Mn**
+ 12,084



Household Penetration **74%**



Network Coverage **86%**

Business Challenges & Opportunities

- **More housing units**
- **New gas applications**
- **Kitchen cabinet: ~ 30% market share on private housing**
- **CAPEX will remain at a low level**

More Housing Units

2019-20 HK Government Budget

	Supply in coming 5 years
Public	100K
Private	100K
	Around 200K units

More Commercial & Industrial Gas Sales

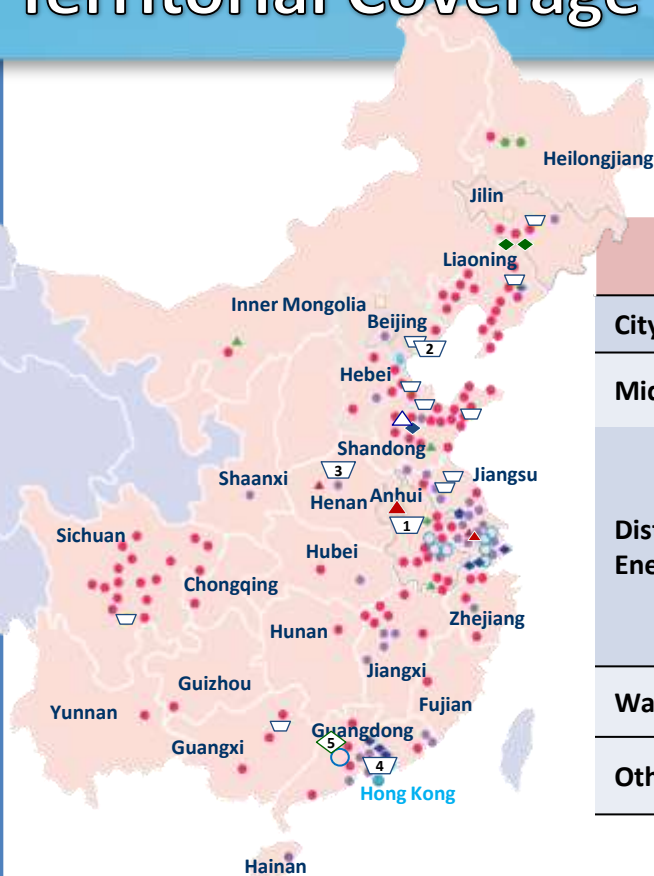
	Target Customer	Additional Annual Gas Volume
Gas Cooling and Heating Applications	Disneyland, Ocean Park, Data Centres, HK Airport	500TJ
Diesel Conversion Projects	Hospitals, Food Factories, Laundries	590TJ
New Projects	Children Hospital, Kai Tak Hospital, Hospital Redevelopment Projects, Hotels, Food Factories Expansion, HKJC new Clubhouse	280TJ
Potential Project	Waste Paper Recycle Plant (Tuen Mun)	1,000TJ

Mainland Utilities

Caring for
Future
Generations



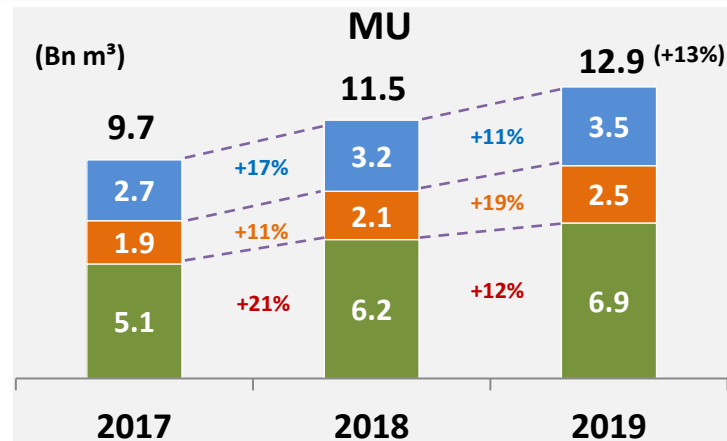
Mainland Utilities Territorial Coverage



5 projects added, total **178** projects
in **24** provincial regions

		Total projects	New Projects
City-gas	○	131	-
Midstream	△	12	-
Distributed Energy System	◻	14	<ol style="list-style-type: none"> 1. Maanshan Economic and Technological Development Zone South District 2. Luanzhou Economic Development Zone Chemical Industrial Park 3. Xinmi Yinji International Tourism Resort 4. Shenzhen
Water	◯	8	-
Others	◇	13	<ol style="list-style-type: none"> 5. U-Tech (Guangdong) Engineering Construction

Mainland City-gas Volume(All JVs) 1H 2019



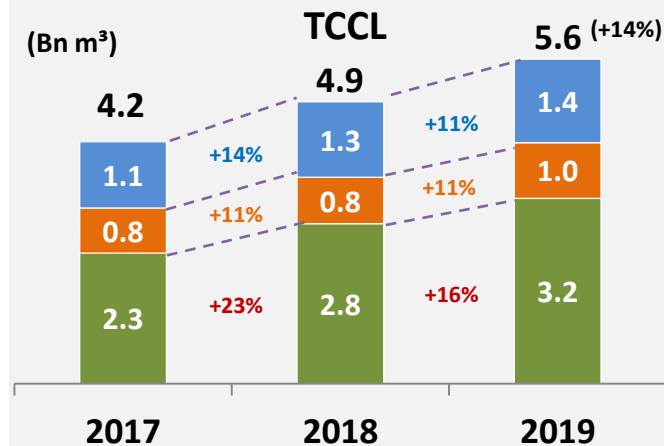
■ Residential

■ Commercial

■ Industrial

Volume Mix

2017	2018	2019
28%	27%	27%
20%	19%	20%
52%	54%	53%



Volume Mix

2017	2018	2019
27%	26%	26%
19%	18%	17%
54%	56%	57%

Mainland City-gas Customer Gain

1H 2019	MU	TCCL
New Customers	1.0Mn	0.5Mn
Total	28.5Mn	13.0Mn

Mainland City-gas Business Environment (1)

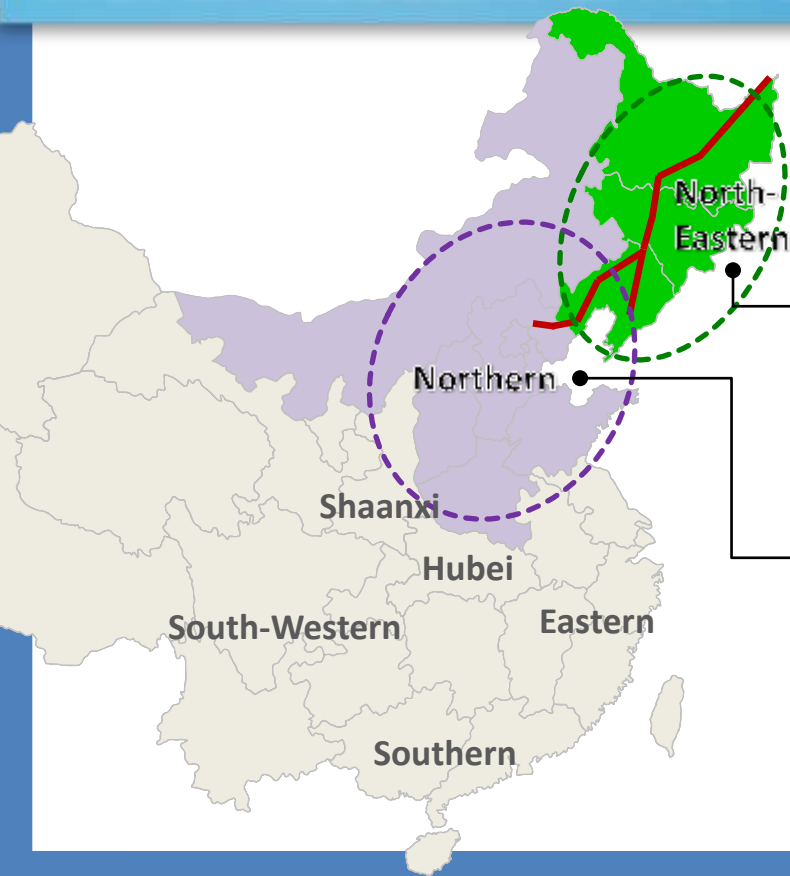
1. National Gas Volume Growth Continues

	2018	2020	2030
National Annual Consumption	280 Bn m ³	360 Bn m ³	480 Bn m ³
Share of Primary Energy	8%	10%	15%

2. Lift restriction on foreign ownership of city-gas JVs

- Restriction on majority foreign ownership for cities with population >500,000 was lifted
- Open up city-gas business investment for foreign investors
- Reduce the risk of taking away majority shareholding status when the city expands
- City-gas business will be more market oriented

Russian Gas Will Spark Volume Growth in North-Eastern & Northern Regions



Russian NG arriving in Dec 2019 with volume of 38 Bn m³ p.a. by 2024

North-Eastern	2018	2019F	2023F
Number of projects	25	25	>30
Volume (Bn m ³)	1.7	2.0	4.6
Volume Growth	CAGR: 22%		

Northern	2018	2019F	2023F
Number of projects	38	38	>40
Volume (Bn m ³)	3.0	3.4	6.0
Volume Growth	CAGR: 15%		

Mainland City-gas Business Environment (2)

3. Set up National Oil and Gas Pipeline Company

- Open access to pipelines and NG importation
- Free flow of NG, LNG nationwide
- Lower procurement cost
- Gas shortage in certain regions will be reduced

4. NDRC on Connection Fees Policy

- The guidelines issued in June 2019 is more liberal
- Provincial and municipal authorities will discuss with city-gas operators considering local situations
- Unless exceptionally high, connection fees arrangement should be allowed to continue

Mainland City-gas Business Environment (3)

5. Coal-to-Gas Conversion Policy

- Chinese government continues to reduce carbon emission and improve air quality
- Step up boiler conversion: 10 to 35 steam tons (eqv. 2,800 m³ NG/hour)

Benefits to MU	2017	2018	2019F	Cumulative
Annualized Gas Consumption Capacity (Bn m ³)	1.2	1.2	1.0	3.4

- Key driver for gas sales volume growth

Mainland City-gas Opportunities & Strategies



Jintan Underground NG Storage

Project Information

- Phase 1-1 capacity: (3 caverns)
- Completion:
- Phase 1-2 capacity: (+7 caverns)
- Construction Commencement:
- Phase 2 capacity: (+12 caverns)

Cumulative

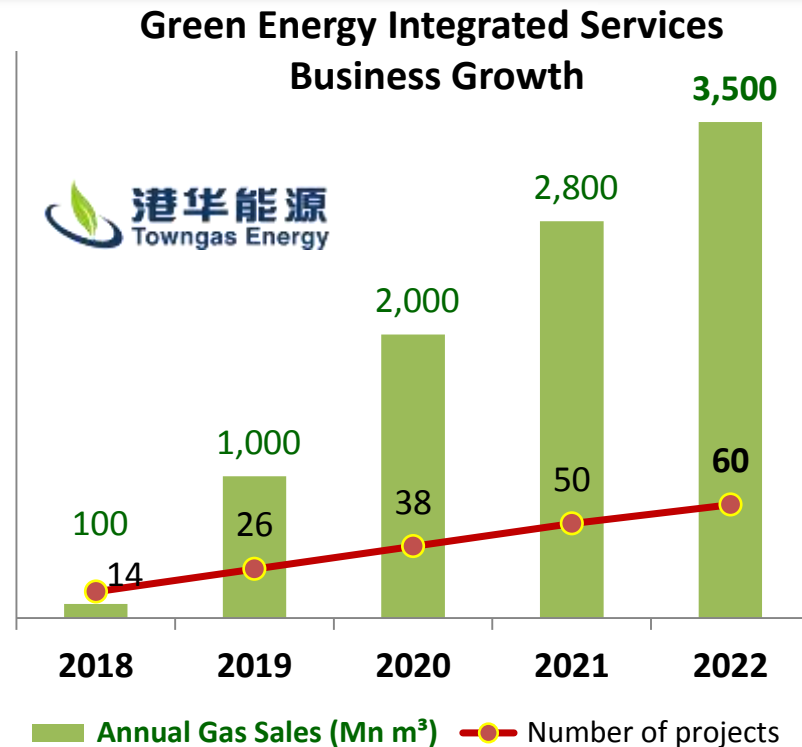
140Mn m³
Jan 2018
460Mn m³
Mar 2018
>1,000Mn m³

Gas storage in Jintan, Jiangsu

- To meet winter peak demand
- Sharing investment cost among JVs
- National pipelines facilitates free flow of NG
- NG trading opportunities
- Shanghai Gas is a partner of Phase 1 with 25% shareholding
- Total investment Rmb1.2Bn (22 caverns)

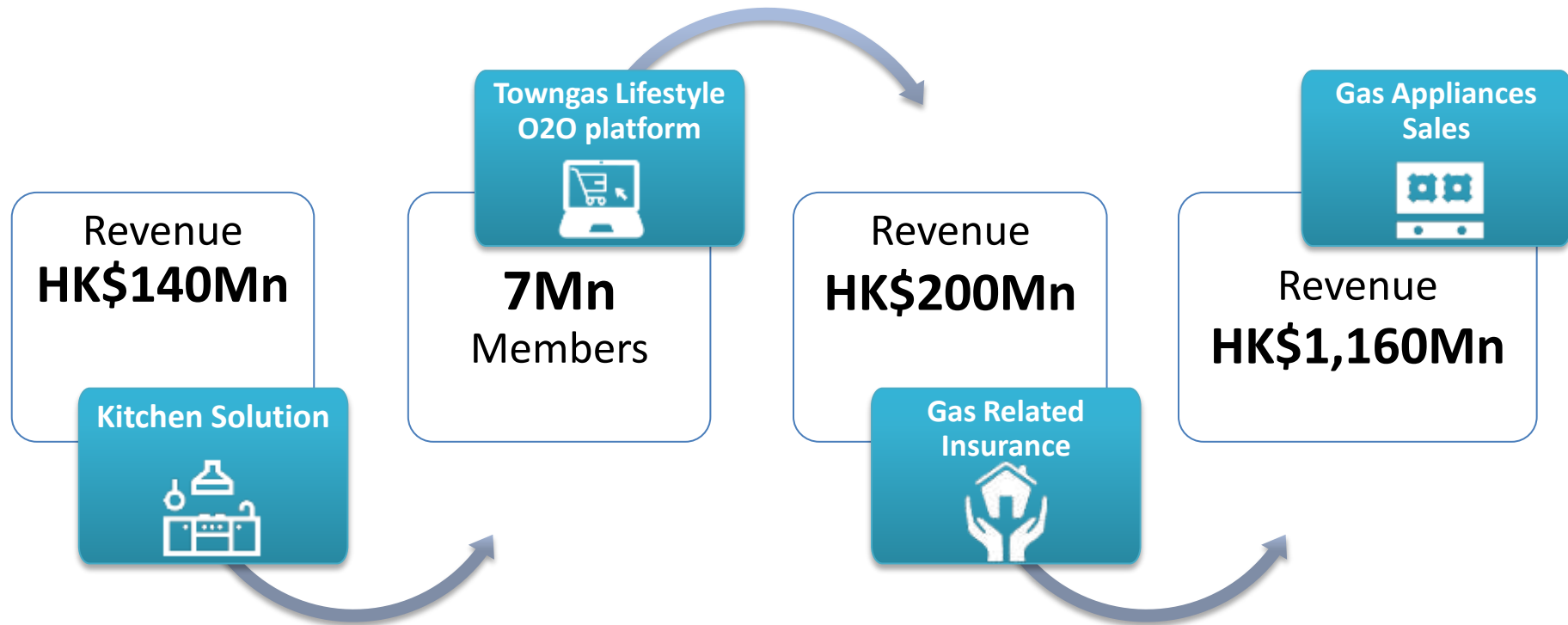
Distributed Energy System (DES) Strategies

- Green Energy Integrated Services
- Enhance energy efficiency with more gas sales
- Projects
 - Central space heating
 - Central steam supply for industrial parks
 - Air-conditioning
 - Electricity
 - Pipelines for steam supply from power plants
- Target: one project per JV



Expanding Extended Businesses

2019 Full Year Revenue Forecast: HK\$1,500Mn



Water Business

1. Total 8 projects serving more than 2.2Mn customers

	Water Supply	Sewage	Food & Organic Waste	Heavy Metals Sewage Treatment
Mn ton p.a.	431	189	0.31	2.4

2. 27% shareholding in Foshan Water company signaling a new era for business expansion in the Greater Bay Area

3. 1H 2019 profit = HK\$239Mn

4. 2019 profit growth target: >15%



Food Waste Treatment Business

- **First food waste project located in Suzhou Industrial Park**
- **Commissioned in Nov 2018**
- **Investment: Rmb290Mn**
- **Capacity: 500 tons/day, with capacity for expansion**
- **By-products:**
 - ❖ **Natural Gas**
 - ❖ **Gutter oil**
 - ❖ **Biomass solid fuel**
- **Expect to add 6 projects in the coming 3 years**
- **Project IRR: 10-12%**



New Energy

Sustainable Technology
Transformation

Business Development of Different Sectors

- City Gas

- Gas Distribution

- ➔ Distributed energy centers
 - ➔ Appliance/kitchen cabinets
 - ➔ Customer-based consumer items
 - ➔ Space-heating system installations

- City Water

- Waste Distribution/
Sewage Treatment

- ➔ Municipal waste economy
 - ➔ Industrial waste treatment

- New Energy

- Unconventional Fuels/
Clean Coal Utilization

- ➔ Sustainable biomass fuels/chemicals
 - Palm sludge oil/used cooking oil
 - Agricultural waste
 - High temperature tar oil (HTTO)

Sustainable Biomass Economy

20th Century: Crude oil

Utilization of Fossil Resources

Heavy oil, Light oil, Gasoline,
Kerosene, Naphtha

Innovative
technology

Petrochemical Process

- Energy, Chemical products, Materials

**Consumption Society
(Carbon Emission)**

21st Century: Plants

Utilization of Biomass & Waste Resources

Syngas, Sugar group, Oil

Bioprocess

- Energy, Chemical products, Bio-materials

**Sustainable Society
(Carbon Neutral)**

New Energy & Materials Projects

(Technologies Developed by ECO's R&D)

- **Advanced Biofuel**

- ZhangJiaGang, Jiangsu

- Biomass → HVO

- **Agricultural waste Utilization**

- Tangshan, Hebei

- Corn Stalks → Furfural, Paper Pulp

- Cangzhou, Hebei

- Corn Cobs → Furfural, Bio-Ethanol, Xylose

- **Carbon Material**

- Erdos, IM

- High Temperature Tar Oil Utilization

- Super Capacitor Material
 - Carbon Fibre

Zhang Jia Gang Biomass → HVO Project



Hydrotreated vegetable oil (HVO) – Advanced Biodiesel

- EU's HVO Standard: EN15940
- Phase 1 : In test running, 20k tons produced
- Phase 2 : 2Q 2020 commissioning
- Feedstock : Palm sludge oil, used cooking oil
- Total Capacity : 200k tons HVO/year
- Investment : RMB 850Mn
- Revenue : RMB 1.68Bn/year

Tangshan Agricultural Waste Utilization Project



- **Phase 1** : 4Q 2019 commissioning
- **Feedstock** : Corn stalk/corn cob, 240k tons/year
- **Total Capacity** : 25k tons furfural/year
80k tons paper pulp/year
- **Investment** : RMB 280Mn
- **Revenue** : RMB 380Mn/year
- **Phase 2** : Under planning

Cangzhou Agricultural Waste Utilization Project



- **Phase 1** : 4Q 2020 commissioning
- **Feedstock** : Corn cob, 240k tons/year
- **Total Capacity** : 25k tons furfural/year
25k tons bio ethanol/year
6k tons xylose/year
- **Investment** : RMB 380Mn
- **Revenue** : RMB 435Mn/year
- **Phase 2** : Under planning

Agricultural Waste Utilization Plan (2020 – 2023)

Biomass Utilization (t/a)



Unit: ton/year

	2020	2021	2022	2023	Application
Pulp / Paper Products	84,000	42,000	2,000	2,000	Paper, biodegradable tableware
Furfural / Furfural Alcohol	31,250	63,500	82,000	104,500	Self-hardening furan resin
Cellulosic Ethanol	6,250	50,000	71,000	96,000	Blending with gasoline
Xylose	1,375	9,625	16,500	22,000	Sugar substitute
Levulinic Acid (LA)	2,250	8,250	12,000	15,000	Gasoline additive, solvents
Polylactic Acid (PLA)	-	9,500	38,000	38,000	Biodegradable plastics
Bio-rayon	-	-	10,000	10,000	Clothing, non-woven bags
FDCA (raw material of PEF)	-	-	2,850	5,700	Replacing PET, e.g. plastic bottles

Erdos High Temperature Tar Oil → Carbon Materials Project

- 
- **Phase 1** : 4Q 2020 commissioning
 - **Feedstock** : HTTO, 7,000 tons/year
 - **Total Capacity** : 400 tons supercapacitor activated carbon/year
800 tons spinnable pitch/year (intermediate product)
 - **Investment** : RMB 500Mn
 - **Revenue** : RMB 250Mn/year

Erdos High Temperature Tar Oil → Carbon Materials Project

- 
- **Phase 2** : 4Q 2021 commissioning
 - **Feedstock** : HTTO, 7,000 tons/year
 - **Total Capacity** : 400 tons supercapacitor activated carbon/year
(Phase 1+2) 640 tons carbon fibre/year
 - **Additional Investment** : RMB 125Mn
 - **Revenue** : RMB 525Mn/year
(Phase 1+2)

2019: A Challenging Year




















- **Global economy at stake**
- **Sino-US trade war**
- **Social unrest & decline in tourist visits (HK)**
- **An exceptionally hot 7 months so far (HK)**
- **RMB weakening**
- **Commodity prices slump**
- **GDP growth slowing down**
- **Winter gas supply shortage**

Conclusion

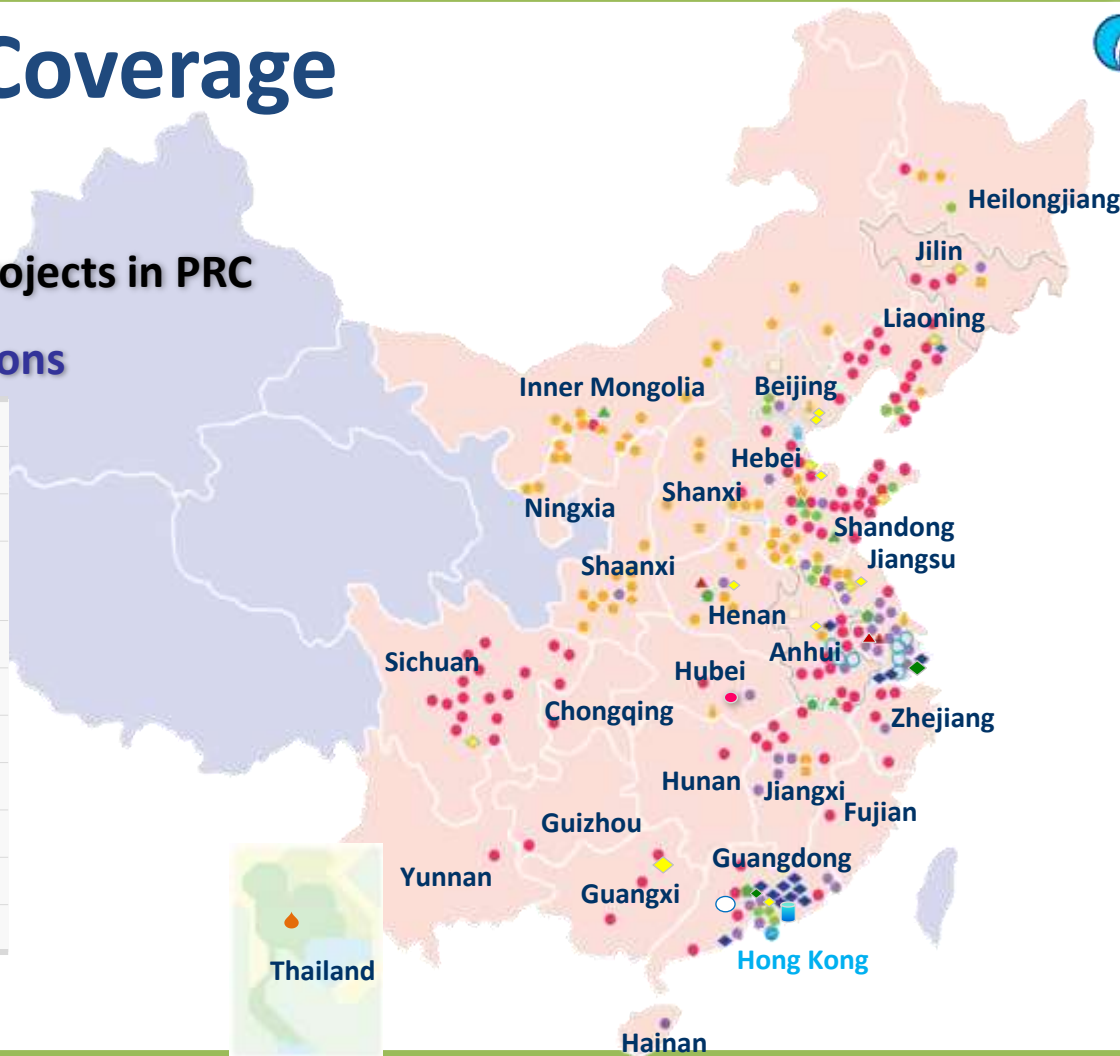
- **Steady city gas business with increasing housing supply, expanding gas cooling and dehumidification markets (HK)**
- **Natural gas becoming mainstream clean energy for China; more gas supply sources from Russia and LNG terminals**
- **Winter peak gas supply need to be addressed**
- **Extending gas markets to CHP, space heating/cooling & laundry**
- **NDRC's new guidelines on city gas are being handled**
- **City water growth drivers : waste treatment/utilization**
- **NE R&D projects: multipliable; hi-growth; intellectual properties**
- **Greater Bay Area potentials : city gas, water, waste treatment**
- **Capitalizing on 30Mn+ customer-base opportunities**

Group Project Coverage

Total **260** projects in PRC
26 provincial regions

City-gas	 
Midstream	   
Distributed Energy	
Water, Sewage & Waste Treatment	
Refilling Stations	 
Gas-based	
Coal-based	 
Biomass	
Oil E&P	
Telecommunications	
Others	  

Up to 31 July 2019



Thailand

Envisioning
A Better
Tomorrow

Outlook

2019 Outlook

**Expecting a difficult
second half**

**Continuing to seek
investment opportunities**

Investment Opportunities

- **LNG Importation Terminals**
- **LNG Storage Tank Farms**
- **Underground Cavern CNG Storage**
- **High Pressure Pipeline Connecting to Upstream Sources**
- **Distributed Energy Systems**
- **Laundry Business**
- **Bio Waste Conversion Facilities**
- **Agricultural Waste Treatment Plants**
- **Carbon Material R&D and Manufacturing**
- **Enhance Efficiency Through Smart Technologies**

Our Purpose

Sustained Business Growth



Our Aspiration

Aspire to be the **Greenest**
Hong Kong based Company



Thank You

