

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

*incorporated*

Towngas China Co. Ltd. (1083 HK)

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# 2017 Interim Results

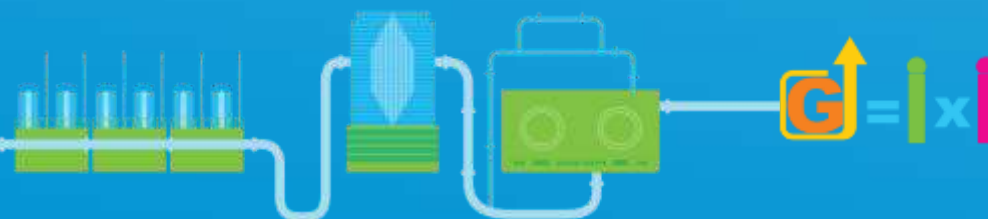
## Presentation

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# FINANCIAL OVERVIEW



# 1<sup>st</sup> Half 2017 Results at a Glance



	2017	2016	Change
Revenue	HK\$15.43Bn	HK\$14.16Bn	+9.0%
Operating Profit	HK\$3.82Bn	HK\$3.73Bn	+2.4%
• IFC Revaluation:	HK\$0.59Bn	HK\$0.59Bn	-
Profit Attributable to Shareholders	HK\$4.47Bn	HK\$4.33Bn	+3.3%
Earnings Per Share	HK 32 cents	HK 31 cents	+3.3%
Dividends	HK 12 cents	HK 12 cents	-

# Three Business Drivers



## 1<sup>st</sup> Half 2017 Operating Profit After Tax

### HK Core (HC)



煤氣  
Towngas

- City-gas



TGT

- Bandwidth  
+Data Centre

### Mainland Utilities (MU)



港华燃气  
Towngas

- City-gas  
(0003.hk + 1083.hk)

- Mid Stream

- Gas Storage

- Clean Transportation  
Fuels



华衍水务  
Hua Yan Water

- Water Supply/Sewage/  
Bio-waste Treatment

### New Energy (NE)



ECO

- Renewables/Recycling
- Unconventional Fuels
- Clean Transportation  
Fuels
- Energy Infrastructure

**HK\$1.65Bn**  
Stable



**HK\$1.97Bn**  
Stable  
(+ 4.8% in Rmb)

**HK\$0.20Bn**  
**+ 86%**

**OPAT HK\$3.82Bn + 2.4%**

# HKCG Financial Position as at 30 Jun 2017



HKCG (003 HK)	1H 2017		1H 2017
	HK\$ Bn		
Total assets	121.6	Interest coverage	10.5x
Net asset value	65.8	Return on Equity	8.1%
Cash and Bank	10.5	Gearing (net)	29.0%
Total borrowings	34.5	Credit Ratings	 
Market cap	206.5		
			A1



# 1083.HK Towngas China Co., Ltd. 1<sup>st</sup> Half 2017



<i>(HK\$ Mn)</i>	1H 2017	1H 2016	Change
<b>Turnover</b>			
Gas Sales	3,272	2,693	21.5%
Connection Fees	764	743	2.8%
	<u>4,036</u>	<u>3,436</u>	+17.4%
<b>Operating Profit before Finance Cost</b>	<b>817</b>	<b>754</b>	<b>+8.4%</b>
<b>Effective Finance Cost</b>	<b>(215)</b>	<b>(190)</b>	<b>+13.2%</b>
<b>Profit attributable to shareholders</b>	<b>602</b>	<b>564</b>	<b>+6.7%</b>
	<b>In Rmb</b>		<b>+12%</b>
<b>Basic EPS</b> (HK cents per share)	<b>22.21</b>	<b>21.18</b>	<b>+4.9%</b>

# TCCL Financial Position as at 30 Jun 2017



TCCL (1083 HK)	1H 2017		1H 2017
	HK\$ Bn		HK\$ Bn
Total assets	29.8	P/B	1.0x
Net asset value	15.3	P/E	14.3x
Market cap	14.0	Gearing (net)	32.2%
Cash & bank	1.7	Credit Ratings	 
Total borrowings	8.4		
			Baa1

# HKD/RMB FX Rate Depreciation

## 1<sup>st</sup> Half 2016 vs 1<sup>st</sup> Half 2017



### HKD/RMB

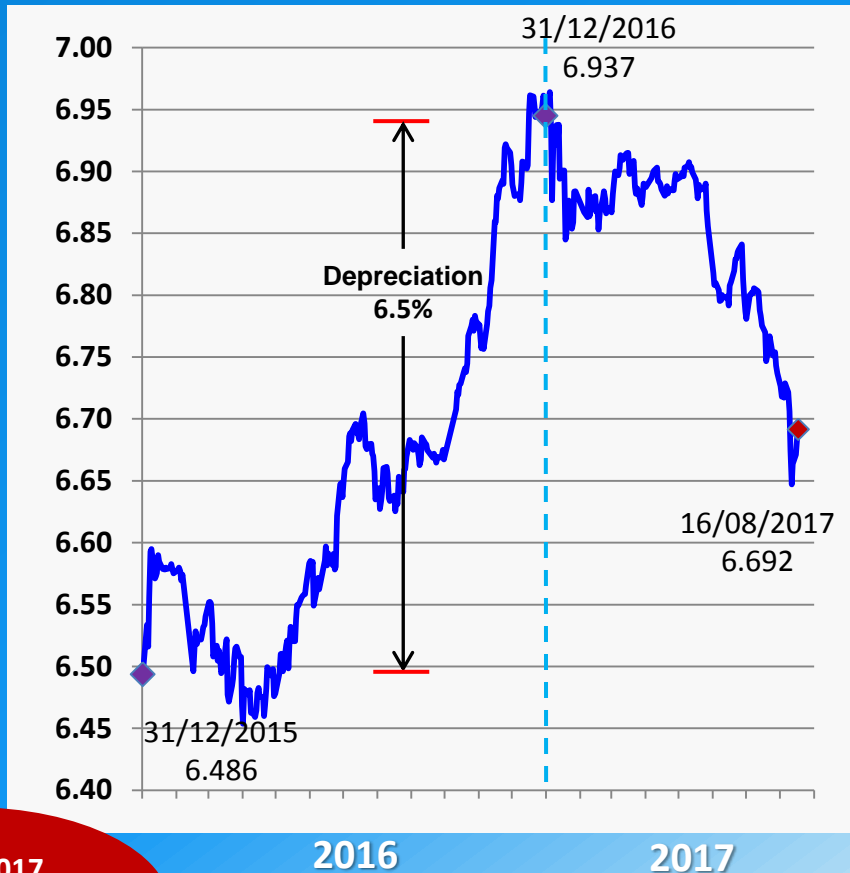




# RMB / USD Forecast

	<u>2018 F</u> 16.08.17	<u>2017 F</u> 16.08.17	<u>2017 F</u> 06.03.17	<u>2016 A</u>
Morgan Stanley	6.80	6.60	7.10	
Credit Suisse	--	6.71	7.26	
MUFG	--	6.75	6.80	
Barclays	6.80	6.75	7.35	
Mizuho	7.17	6.80	7.10	
ANZ	6.95	6.85	7.10	
JP Morgan	--	6.88	7.10	
HSBC	7.00	6.90	7.20	
Nomura	7.10	6.95	7.15	
Citi	6.83	6.96	7.12	
SCB	6.97	6.99	7.06	
Rabobank	7.87	7.17	7.63	
<b>Average</b>	<b>7.054</b>	<b>6.859</b>	<b>7.164</b>	<b>6.937</b>

## RMB/USD

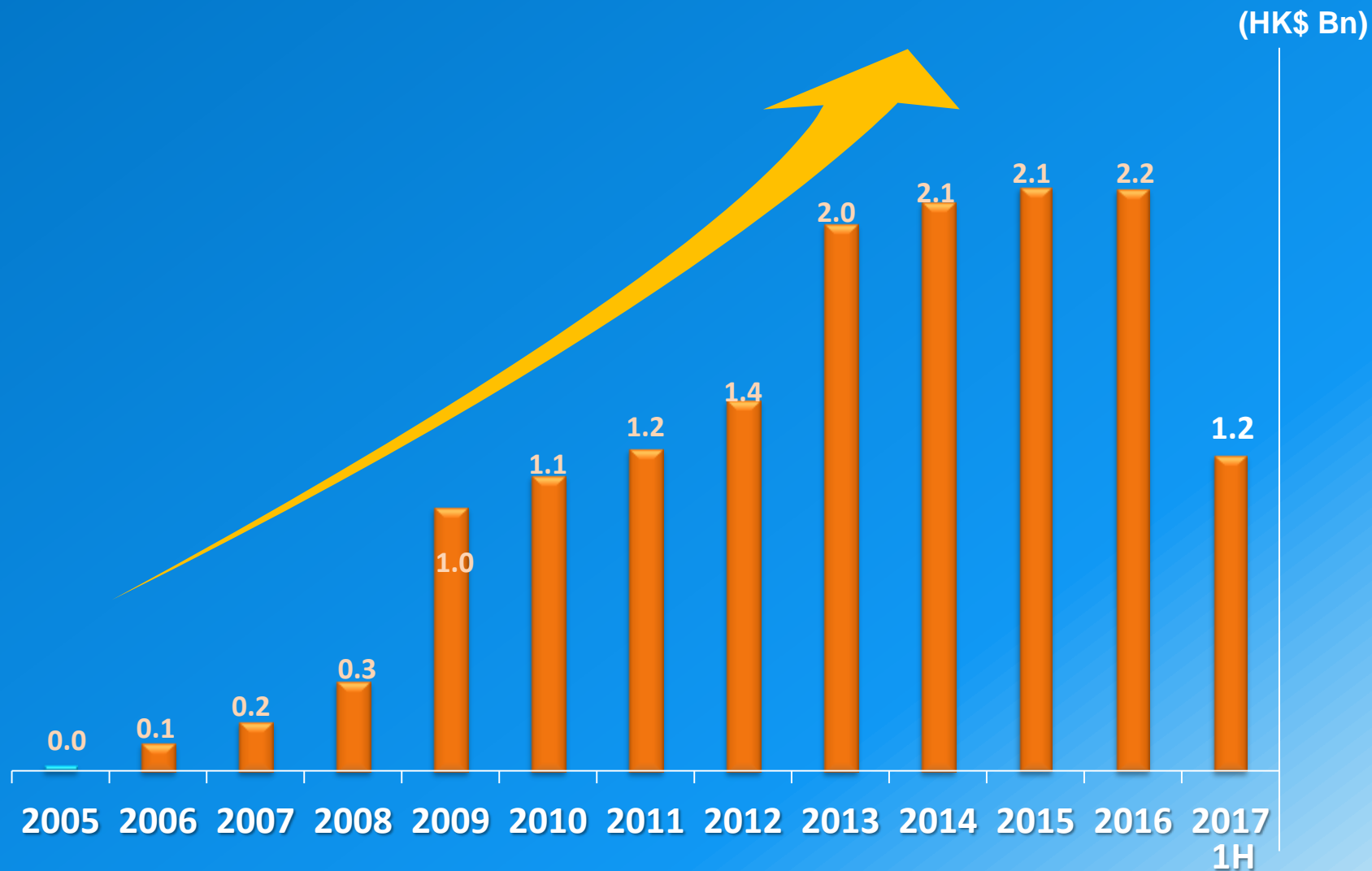


16.08.2017  
2018 Forecasted  
Depreciation  
~1%

16.08.2017  
2017 Forecasted  
Appreciation  
~1%

06.03.2017  
2017 Forecasted  
Depreciation ~3%

# Strong Dividend from Offshore Projects



# Rolling 3-Year Cashflow Projection

## Healthy Cashflow



	(HK\$ Bn)
HK Operation	13
PRC Dividends Distribution	7
	<b>20</b>
Cash on Hand	12
	<b>32</b>
Dividend	16
HK Capex	3
PRC Investments	10
	<b>29</b>
<b>Cash Balance</b>	<b><u>3</u></b>

## Objectives:

1. **Strengthen ESG / Sustainability Practice**
2. **Encourage Innovation**
3. **Improve Accountability & Transparency – Feasibility, Viability & ESG Content**
4. **Enhance HKCG Reputation**
5. **Diversify Financing Channels**

# Green Financing

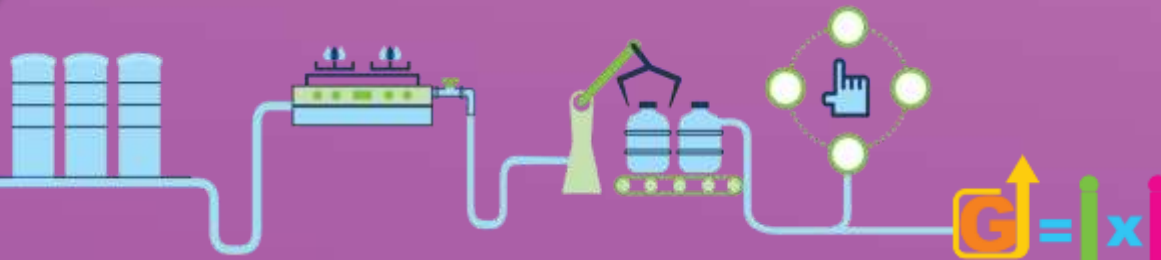
## Green Projects:

<b>HC</b>	<b>Landfill Gas Projects Combined Heat &amp; Power System</b>
<b>MU</b>	<b>Wastewater Treatment Food Waste Treatment</b>
<b>NE</b>	<b>Agricultural Waste Project, e.g. Stalk Biomass Projects, e.g. PAO</b>



# UTILITIES

## HONG KONG & MAINLAND



**Profit After Tax**

**HK\$1.7Bn** Stable

**Gas Sales**

**15,896TJ**

**+ 0.8%**

**Customers**

**1.87Mn**

**+ 13,314**

**Household  
Penetration**

**74%**

**Network  
Coverage**

**86%**

- **Weather dependent, 1°C affects 2.5% gas sales**
- **Industrial gas sales volume at low level**
- **Rising cost environment**
  - **More automation replacing labour forces**
  - **Durable and environmentally friendly appliances**
- **More “closet-type” housing units**
  - **Innovation on appliances installation**



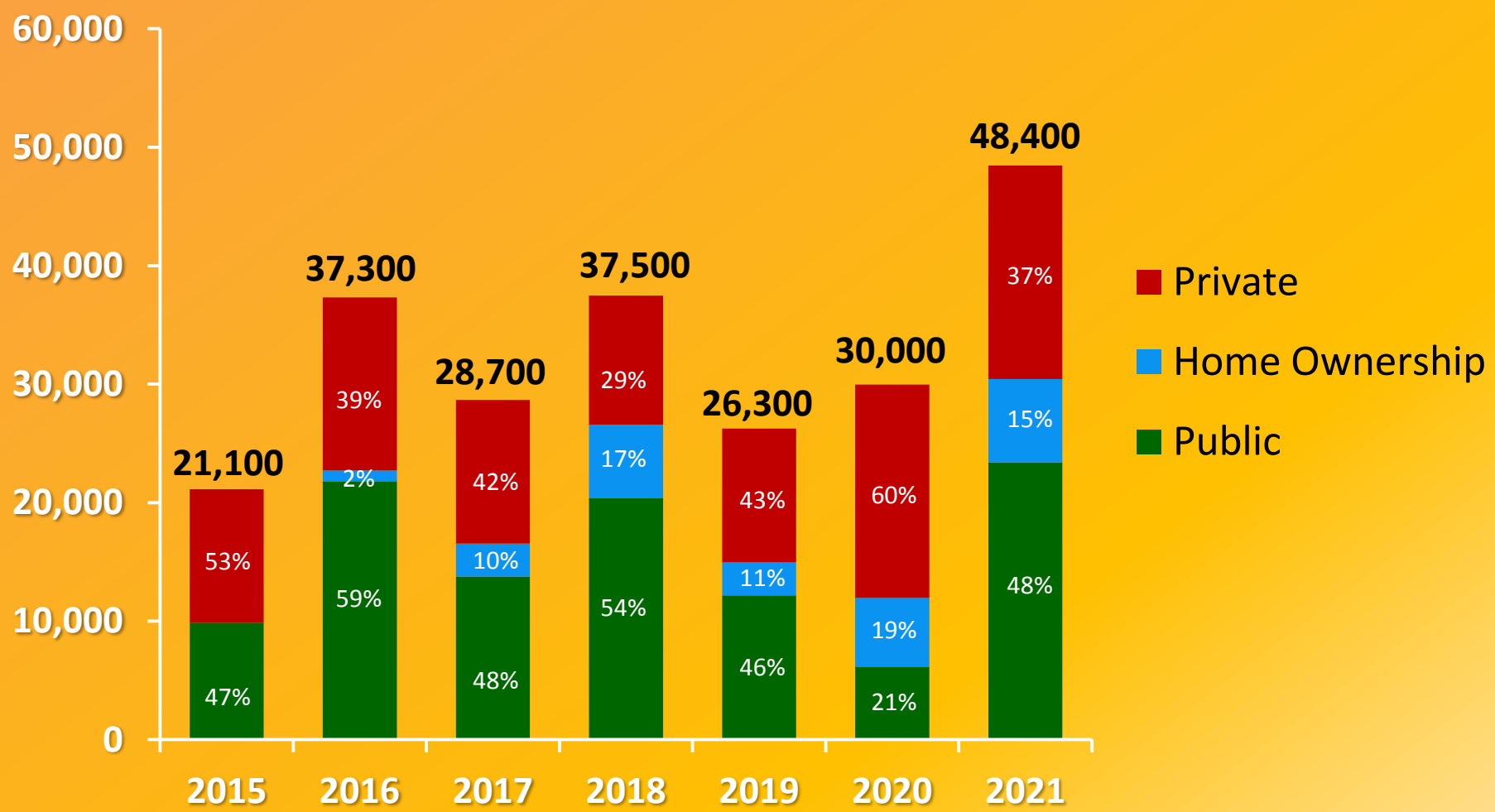
# Business Opportunities

- **Achieved tariff increases**
- **More housing units coming**
- **New gas applications**
- **Extended business - Mia Cucina**
  - **Kitchen cabinet: > 30% market share**
  - **Appliances launched in March 2017**
- **CAPEX reducing**

# More Housing Units In Coming Years



(HC)



# More Commercial & Industrial Gas Sales


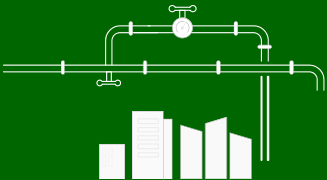


(HC)

	Target Customer	Annual Volume In 5 <sup>th</sup> Year
<b>Gas Cooling and Heating Applications</b>	<b>Disneyland, Ocean Park, Data Centres</b>	<b>350TJ</b>
<b>Diesel Conversion Projects</b>	<b>Hospitals, Hotels, Food Processing Factories</b>	<b>440TJ</b>
<b>New Projects</b>	<b>Children Hospital and Hospital Authority Projects, HKJC, West Kowloon Cultural District</b>	<b>500TJ</b>

## Gas Volume

(MU)

 City-gas	<b>9.7Bn m<sup>3</sup></b> <b>+ 13%</b> (131 projects)
 Midstream	<b>2.3Bn m<sup>3</sup></b> <b>+ 44%</b>
 Total Volume	<b>12.0Bn m<sup>3</sup></b> <b>+ 17%</b>

# Mainland Utilities 1<sup>st</sup> Half 2017

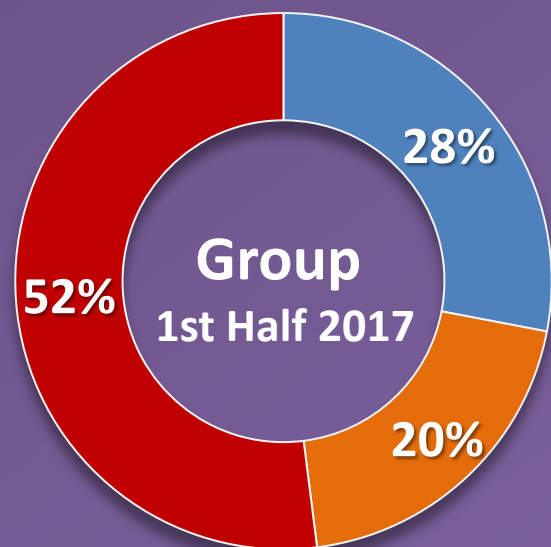


## City-gas Volume Mix

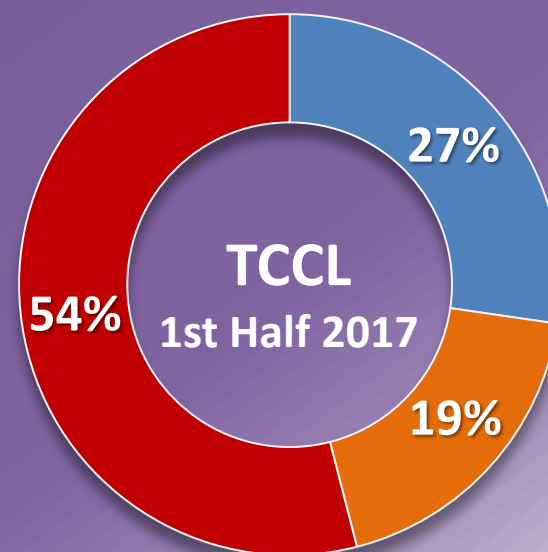
(MU)

Group Volume mix	1H16 (Mn m <sup>3</sup> )	1H17 (Mn m <sup>3</sup> )	1H17vs1H16 Change
Residential	2,541	2,704	+6%
Commercial	1,683	1,928	+15%
Industrial	4,410	5,083	+15%
	<b>8,634</b>	<b>9,715</b>	<b>+13%</b>

TCCL Volume mix	1H16 (Mn m <sup>3</sup> )	1H17 (Mn m <sup>3</sup> )	1H17vs1H16 Change
Residential	1,062	1,143	+8%
Commercial	656	782	+19%
Industrial	1,833	2,261	+23%
	<b>3,551</b>	<b>4,186</b>	<b>+18%</b>



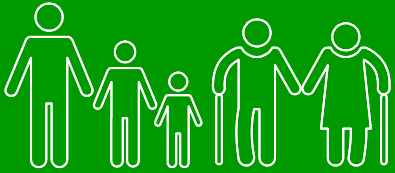
- Residential
- Commercial
- Industrial



(All JVs)

## City-gas Customer Growth

(MU)

 A white line-art icon of a family consisting of a man, a woman, a child, and an elderly person with a cane.	Group	TCCL
Total Customers	24.2Mn	11.3Mn
New Connections	1.0Mn (+ 2.9%)	0.4Mn (+ 0.1%)

# Mainland Utilities 1<sup>st</sup> Half 2017

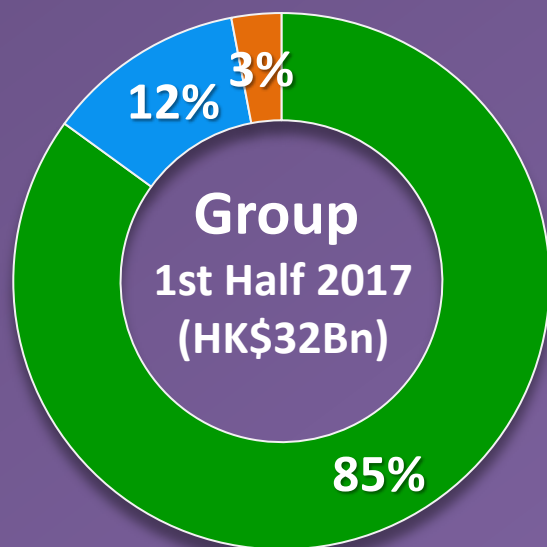


## City-gas Turnover Mix

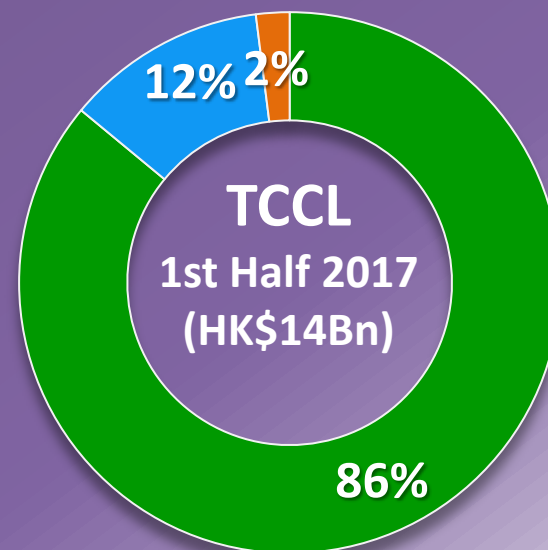
(MU)

Group Turnover mix	1H16 (Rmb Mn)	1H17 (Rmb Mn)	1H17vs1H16 Change
Piped-gas	21,628	24,400	+13%
Connection Fee	3,280	3,249	-1%
Others	966	970	+0.4%
	<b>25,874</b>	<b>28,619</b>	<b>+10%</b>

TCCL Turnover mix	1H16 (Rmb Mn)	1H17 (Rmb Mn)	1H17vs1H16 Change
Piped-gas	8,743	10,311	+18%
Connection Fee	1,562	1,452	-7%
Others	291	296	+2%
	<b>10,596</b>	<b>12,059</b>	<b>+14%</b>



- Piped-gas
- Connection Fee
- Others



(All JVs)

# Natural Gas Market Environment

- ▶ Central government promotes natural gas to cut carbon emissions
- ▶ Gas industry continues to achieve the fastest growth in the energy sector
- ▶ According to 13th Five-Year Plan

	2016	2020	2030
NG in Energy Mix	6%	10%	15%
Demand (Bn m <sup>3</sup> )	206	360	~480
Domestic Production (Bn m <sup>3</sup> )	137	~200	~220
Import (Bn m <sup>3</sup> )	72	~170	~280

- ▶ Ample supply, particularly LNG import
- ▶ Government policies & price regulations help drive a healthy market reform



## ▶ Gas price regulations and policy

- Positive as gas pricing mechanism more transparent, stable and predictable
- Connection fees not included in calculation of return
- To achieve a right balance between affordable gas supplies and city-gate gas price formula

## ▶ Connection fees

- Government has more understanding of its importance on gas development
- Connection fees included in property prices reducing sensitivity
- Urbanization of 1% point per year keeps property market momentum and gas consumption

# Analysts View on Gas Industry: “Positive”

	▶ <b>Overhang removed; sector re-rating opportunity</b>
	▶ <b>Return risk eased, growth intact, re-rating kicks-off</b>
	▶ <b>Regulatory Overhang Mitigated; Upgrade to Buy</b>
	▶ <b>A more favorable version of downstream return regulation issued</b>
	▶ <b>China's new distribution tariff mechanism for city gas distributors is credit positive</b>
	▶ <b>Overhang of policy risk is removed in near term</b>
	▶ <b>Policy dust settled</b>
	▶ <b>Sigh of relief. Regulated return set at 7%</b>
	▶ <b>Policy cap bark worse than its bite</b>
	▶ <b>Official policy confirms our positive stance</b>
	▶ <b>Raising Return Cap; Positive Outlook</b>

# Challenges

- ▶ **Loss making JVs**
  - Economy recovery, market development plus cost control
  - 20 JVs to turn black by end 2017, expecting all JVs profitable by end 2018
- ▶ **Regional price control e.g. Shandong's margin cap on C&I**
  - Liaise with local price bureaus to adjust pricing structure to minimize impact
  - Leading to a revisit by local governments on current low residential tariff
- ▶ **Market competition from small scale LNG & direct supply**
  - Seek government support to strengthen their control based on safety reasons and concession rights
  - Low cost LNG as a supplementary source at reduced price
- ▶ **Manage to keep gas margin stable**

# Business Opportunities



(MU)

## ▶ Distributed Energy System (DES)

- Established Towngas China Energy Investment Ltd to invest in and operate DES projects
- Favorable government policies and lower NG price boost DES business
- Over 40 key projects are being followed

## ▶ Coal-to-Gas Conversion

- National policy on replacing coal with natural gas in particular in Northern China
- Successful cases in Shandong and Hebei

## ▶ Space Heating

- Booming needs of space heating in non-central heating regions including Jiangsu and Zhejiang
- Space heating generates 2,000m<sup>3</sup> per household per winter period

# Business Opportunities

## ► Optimistic for double digit volume growth

	Projected Volume in 5 <sup>th</sup> Year
• <b>Distributed Energy System</b>	2.7Bn m <sup>3</sup>
• <b>Coal-to-Gas Conversion</b>	2.4Bn m <sup>3</sup>
• <b>Space Heating</b>	1.0Bn m <sup>3</sup>

6 Bn m<sup>3</sup>

# Business Opportunities

## New Projects

- ▶ Most new projects are greenfield industrial parks, which take long time to nurture and subject to economic volatility
- ▶ Acquire new projects with close scrutiny
- ▶ Focus on faster and more sustainable organic growth on existing city-gas projects

## Gas Storage Facility in Jiangsu

- ▶ Shanghai Gas shows interest to take up a 25% stake
- ▶ LNG terminal, gas storage and pipeline network will establish a platform for gas trading and security of supply

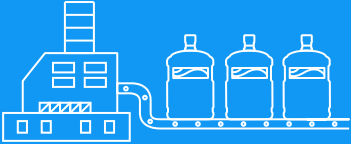


# Extended Services Businesses



(MU)

- ▶ Leverage on growing customer base and capitalize HK's successful experience
- ▶ 800k units of Bauhinia gas appliances sold every year with gas clothes dryers launched in 2016, market share 15% and growing
- ▶ Mia Cucina kitchen cabinets and appliances targeting at furnished property development
  - >4,000 units committed for cabinets
  - ~1,000 units considering cabinets and appliances
- ▶ Expand gas applications installation and services
- ▶ Gas insurance, household and kitchenware, virtual customer centre ...
- ▶ Expected turnover of HK\$800 million in 2017

	
<b>Water Volume</b>	<b>+ 2.2%</b> <b>214Mn tons</b>
<b>Total customers</b>	<b>1.21Mn</b> <b>(+ 21,938)</b>



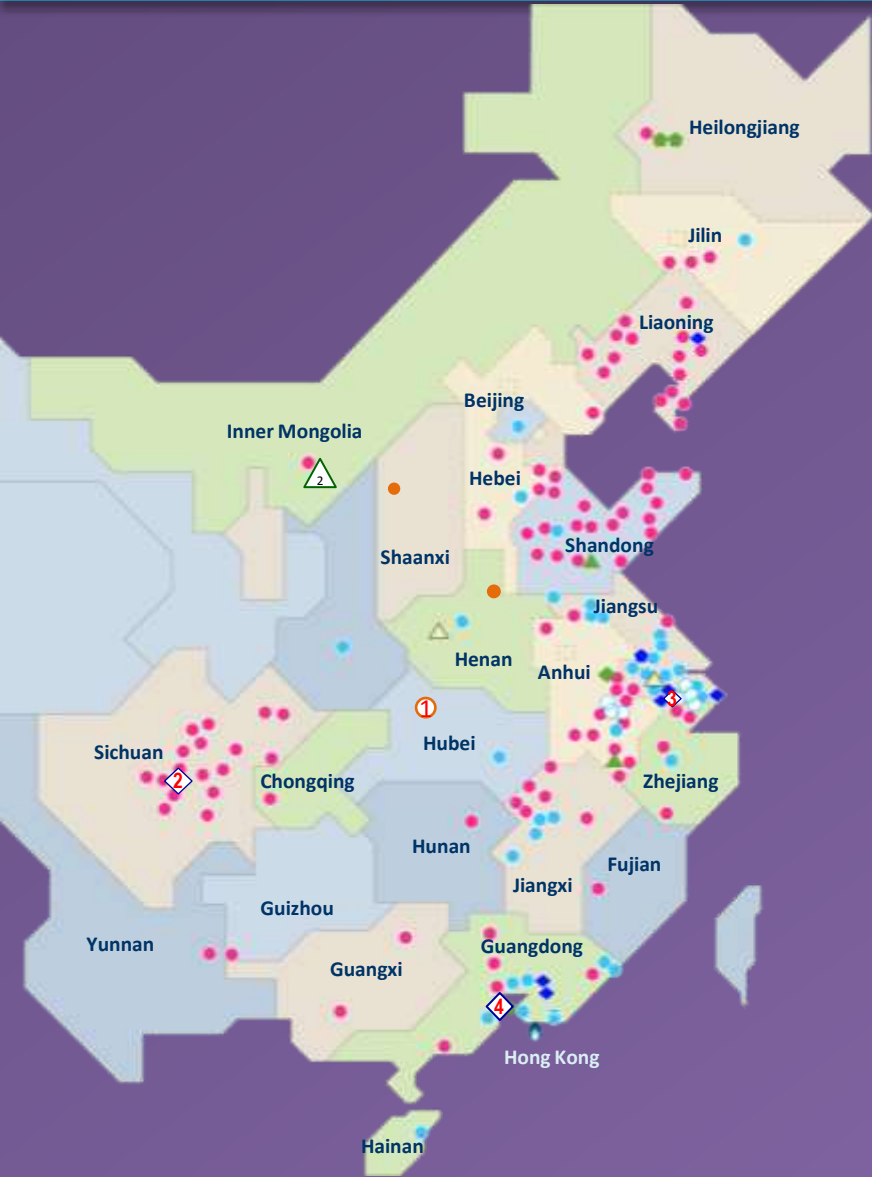
- ▶ Suzhou Industrial Park
- ▶ Capacity: 500tons/day
- ▶ By-products:
  - ❖ Natural Gas
  - ❖ Bio fuel
- ▶ Total investment: Rmb220Mn
- ▶ Target commissioning date: (3Q2018)
- ▶ Target IRR: ~15%
- ▶ Two projects under negotiation



# Territorial Coverage Up to 31 Jul 2017



(MU)



**2** projects added, total **159** projects  
in **24** provincial regions

## New Projects

- |           |   |                           |
|-----------|---|---------------------------|
| City-gas  | ○ | 1. Zhongxiang, Hubei      |
| Midstream | △ | 2. Guyang, Inner Mongolia |

## Utilities: Number of projects

City-gas	131 (HKCG: 34 ● + TCCL: 97 ● )
Midstream	9 △ HKCG ▲ TCCL
Water, Sewage & Waste Treatment	7 ○
Refilling stations	3 ● HKCG ● TCCL
Others	9 ◆ HKCG ◆ TCCL



# NEW ENERGY & OUTLOOK



# New Energy

- Brent stabilizes at US\$ 40-50/barrel (+30%)
- HK Aviation Fuel grew steadily (+5%)
- Shanxi LCBM output (+21%)
- Inner Mongolia Methanol plant output (+50%)
- Gas refilling sales volume (HK +4%, PRC +36%)
- R&D focuses on waste/low value feedstock renewable technologies
  - New Zhangjiagang HVO plant (4Q 17)
  - New IM Coal to Ethylene Glycol plant (4Q 17)
  - New Xuzhou COG to LNG plant (1Q 18)
  - New Hubei agricultural waste conversion plant (2Q 18)
  - New Tar Oil to Lithium Battery Anodes (4Q 18)



# Zhangjiagang, HVO (Hydrotreated Vegetable Oil) Plant

Renewable Diesel Fuels



Commission Date: 4Q 2017

Capacity: 120k Ton HVO



# IM, Coal to Ethylene Glycol Plant



**Commission Date: 4Q 2017**

**Capacity: 120k Ton EG**



# Xuzhou, COG (Coke Oven Gas) to LNG Plant



**Commission Date:** 1Q 2018

**Capacity:** 80k Ton LNG



# Hubei, Agricultural Waste Utilization Plant



## Renewable Feedstocks




















**Commission Date:** 1Q 2018  
**Capacity:** 86k Ton Cellulose  
20k Ton Furfural

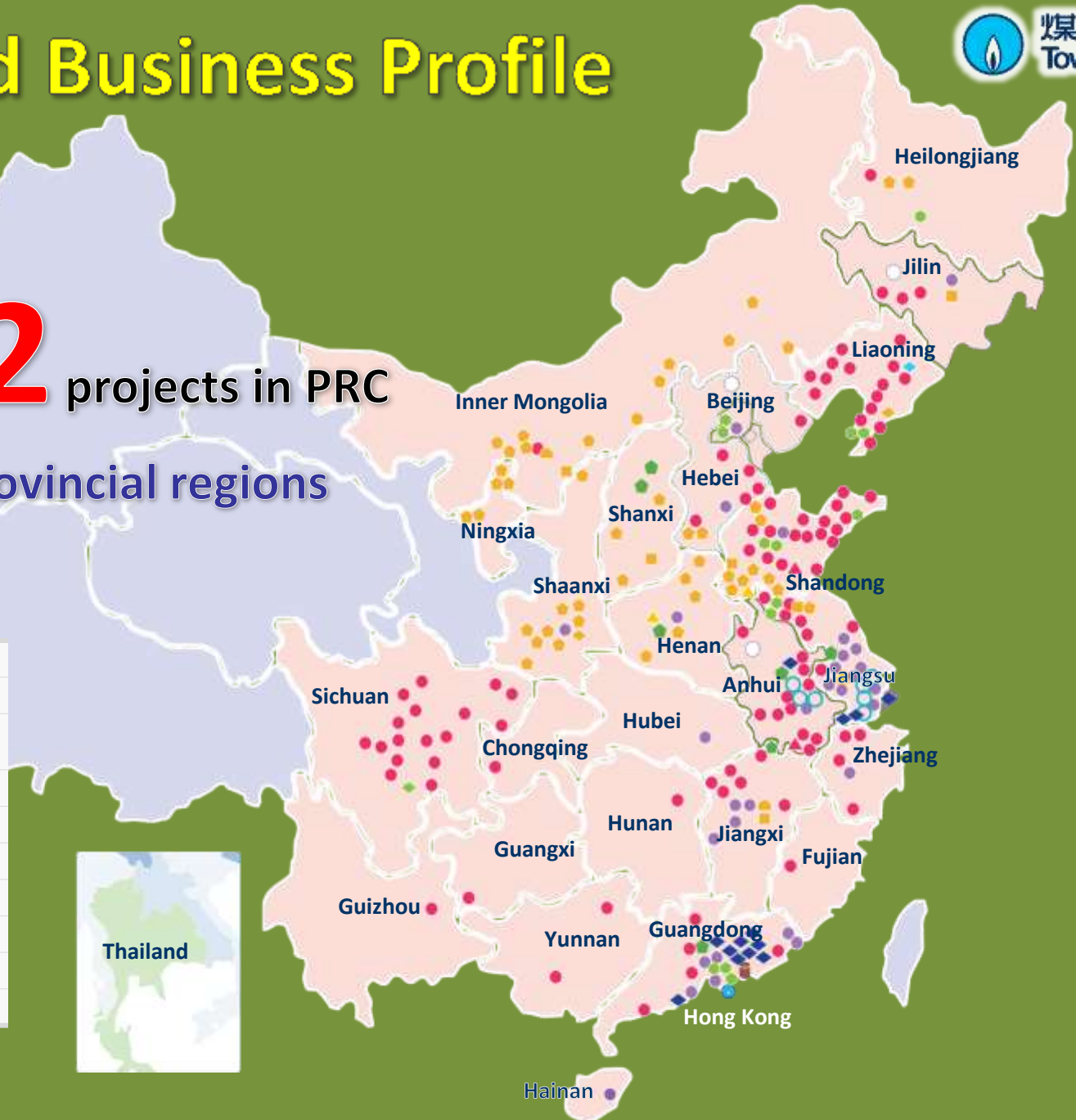


# Diversified Business Profile



Total **242** projects in PRC  
**26** provincial regions

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



Up to 31 Jul 2017



# NATURAL GAS & SUSTAINABILITY DEVELOPMENT (MAINLAND CHINA)



# 1<sup>st</sup> Wave of NG Development in China



Laying the Foundation, Dawn of the NG Era

(2000-2015)

- ❖ Reserves found at Sichuan, Xinjiang, Shaanxi
- ❖ Laid X-country pipelines; Zhong-Wu, W2E, Shaan-Jing
- ❖ Piloted LNG importation at GD
- ❖ Concession Right System in place, downstream open to investors
- ❖ Several city gas groups flourished, capturing plentiful concession rights
- ❖ NG conversion started, replacing coke gas, LPG & diesel
- ❖ Crude price shot up, NG in high demand and short supply
- ❖ On-shore liquefaction of NG, CBM commenced, supplementing shortage
- ❖ Led PNG from Asia Minor, Myanmar

# 1<sup>st</sup> Wave of NG Development in China



Laying the Foundation, Dawn of the NG Era

(2000-2015)

Cont'

- ❖ Long-term LNG supplies contracted. More than 20 importation terminals planned
- ❖ Automobile use of CNG / LNG as fuel encouraged
- ❖ Rapid urbanization accelerated gas network expansion
- ❖ China's positive response to global call for GHG reduction favors NG utilization
- ❖ By 2015,
  - ❖ NG share of total primary energy Consumption: 5.9%
  - ❖ Consumption: 193Bn m<sup>3</sup>, CAGR 15% (from 2000: 24Bn m<sup>3</sup>)
  - ❖ Pipeline length: 64,000km
  - ❖ Population connected: 290Mn

# 2<sup>nd</sup> Wave of NG Development in China



Deepening Market Penetration, Becoming Energy Growth Engine (2016-2030)

- ❖ Environmental and health concerns drive strong consumption growth, coal ➡ gas
- ❖ Supply remains abundant in the Pacific Rim
- ❖ Russian PNG will arrive NE region by 2020
- ❖ Price continues to be affordable, narrowing gap against coal
- ❖ Rapidly dispelling coal on industrial and heating applications
- ❖ Bottled LPG gives way to city NG for safety reasons
- ❖ Coastal LNG terminals facilitate both importation and storage



# 2<sup>nd</sup> Wave of NG Development in China



Deepening Market Penetration, Becoming Energy Growth Engine (2016-2030)

Cont'

- ❖ Regulation aims at market opening both on upstream and downstream, while regulating the mid-stream
- ❖ Mid-stream (LNG terminals, long-haul pipelines, storage) will be open for 3<sup>rd</sup> party access.
- ❖ NG trading platforms enabling downstream players to access supplies
- ❖ Electric cars market share grow rapidly
- ❖ LNG trucks penetrate further into the diesel truck market
- ❖ LNG marine vessel market commences, but takes longer time to develop
- ❖ Individual home NG space heating and water heating becomes a trend

# 2<sup>nd</sup> Wave of NG Development in China



Deepening Market Penetration, Becoming Energy Growth Engine (2016-2030)

Cont'

- ❖ NG network coverage extends to villages generating another wave of customer gain
- ❖ Distributed energy systems become a trend, enhancing energy efficiency, taking up market share of traditional electricity supply
- ❖ Sizable city gas players seek to raise capital for expansion via IPO
- ❖ Excellence in city gas business shifts from capturing new concession rights to further penetrating potential markets
- ❖ By 2030, it is estimated that:
  - NG share of total primary energy: ~15%
  - Consumption: ~480Bn m<sup>3</sup>
  - Pipeline length: ~164,000km (by 2025)
  - Connected Population: 550Mn (by 2025)

# 1<sup>st</sup> Wave of Sustainability Development in China



Economy Further Develops, Recycling Becoming a Trend (2010-2025)

Cont'

- ❖ Sustainable development becomes centre-piece of any policies
- ❖ Promote “Reduce-Reuse-Recycle-Replace” policy
- ❖ Reduce share of coal and oil in primary energy
- ❖ Encourage the use of clean and renewable energies
- ❖ Efficient use of energy becomes an essence
- ❖ Collect and utilize waste energy sources (e.g. CBM, COG, LFG, etc)
- ❖ Promote carbon reduction incentives (e.g. carbon trading, etc)



# 1<sup>st</sup> Wave of Sustainability Development in China



Economy Further Develops, Recycling Becoming a Trend (2010-2025)

Cont'

- ❖ Tighten policy on emission, contamination and cycling; air, water, waste
- ❖ Renewable energies accelerate growth, but have their limitations
- ❖ Target to achieve 85% utilization of agricultural waste
- ❖ Promote municipal waste sorting/recycling
- ❖ “Sponge City” concept be incorporated in town planning
- ❖ Raise standards for sewage and waste water treatment
- ❖ Heavy penalties practised against pollutions (air, water, solid waste & noise)
- ❖ Advanced sustainability technologies well sought after

# Conclusion

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- ❖ China only has 15 years NG history so far
- ❖ A long-way to bring 5.9%-15% (2016-2030 target)
- ❖ Still, NG market will further expand
- ❖ The era of capturing city gas concessions has passed
- ❖ NG market penetration is now the key
- ❖ Sustainability receives more emphasis, a greenfield
- ❖ Electric automobiles will be the trend.  
Where will the batteries come from?
- ❖ Effective waste treatment/utilization have a colossal market



煤氣  
Towngas

## *Our Vision*

*To be Asia's leading **clean energy** supplier and quality service provider, with an **innovation** and **environmental-friendliness** focus.*



# Business Outlook



## Dedicated to Environmental Protection

### ❖ City Gas Utilities

- ❖ NG is bound to replace coal & oil as cleaner energy; rapid growth
- ❖ Extend network coverage to villages
- ❖ Improve energy efficiency of gas applications
- ❖ Distributed Energy System / CHP
- ❖ Reduce CO<sub>2</sub> and NO<sub>x</sub> emissions

### ❖ Transportation Fuel

- ❖ CNG/LNG vehicle refilling stations
- ❖ LNG marine refilling stations
- ❖ Advanced materials for high performance batteries

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### ❖ Waste to Energy

- ❖ Landfill gas utilization (NENT, SENT, Hong Kong)
- ❖ CBM utilization (Shanxi)
- ❖ Biomass (PAO, UCO) to HVO plant (Zhangjiagang)
- ❖ COG to LNG (Xuzhou)
- ❖ Food waste to NG (Suzhou)

### ❖ Waste to Materials

- ❖ Agricultural waste (stalk) to chemicals

# Business Outlook



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### ❖ Clean Coal Utilization

- ❖ Coal to Ethylene Glycol
- ❖ Tar oil to carbon materials (batteries, super-capacitors, carbon fibre)

### ❖ Waste Water Treatment

- ❖ City sewage
- ❖ Industrial waste water

### ❖ Seek Green Capital and Carbon Trading Opportunities

### ❖ Extend Products/Service

# Looking Forward

## HC

Remains as a stable, low-growth cash generating business

## MU

Continues to be a mid-growth locomotive having market share & organic volume expansion while capturing the environmental & urbanization opportunities

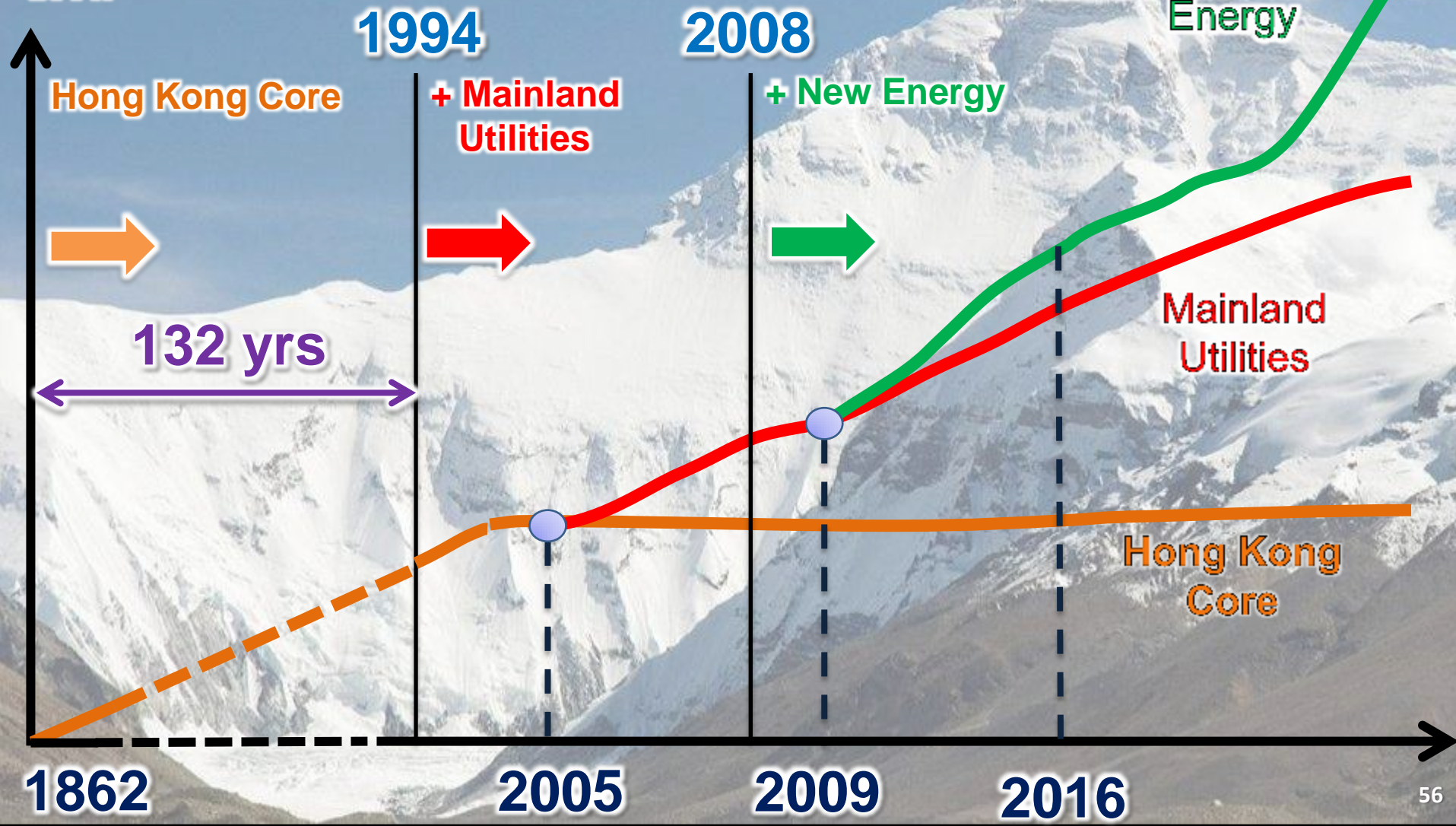
## NE

2018 – Turning Point

Positioned to be a high-growth driver focusing on renewable/recycling & clean fuels, while developing proprietary technologies, at the same time establishing energy infrastructures

# Sustaining Growth

Not to scale  
*OPAT*







# Thank You

EXPANDING  
NEW HORIZONS





# 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.