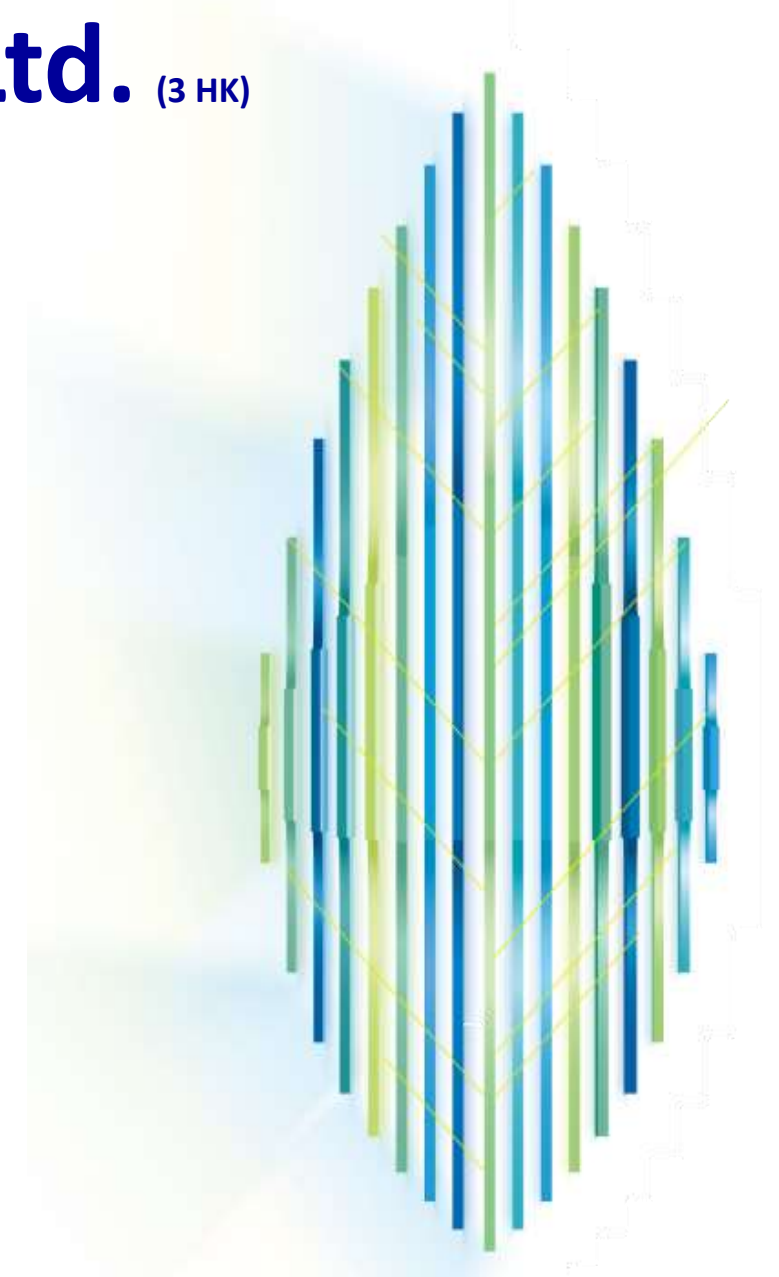


# The Hong Kong & China Gas Co. Ltd. (3 HK)

*incorporated*

Towngas China Co. Ltd. (1083 HK)

## 2018 Interim Results Presentation



# 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.



# Agenda

Greening up your life



煤氣  
Towngas

- **2018 Interim Results / Group Financial Overview**
- **Utilities Business**
- **New Energy Business**
- **Business Outlook**



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



# Business Profile

Greening up your life



Hong Kong Core  
City-gas & Telecommunications



Mainland Utilities

City-gas  
Water/Sewage



New Energy

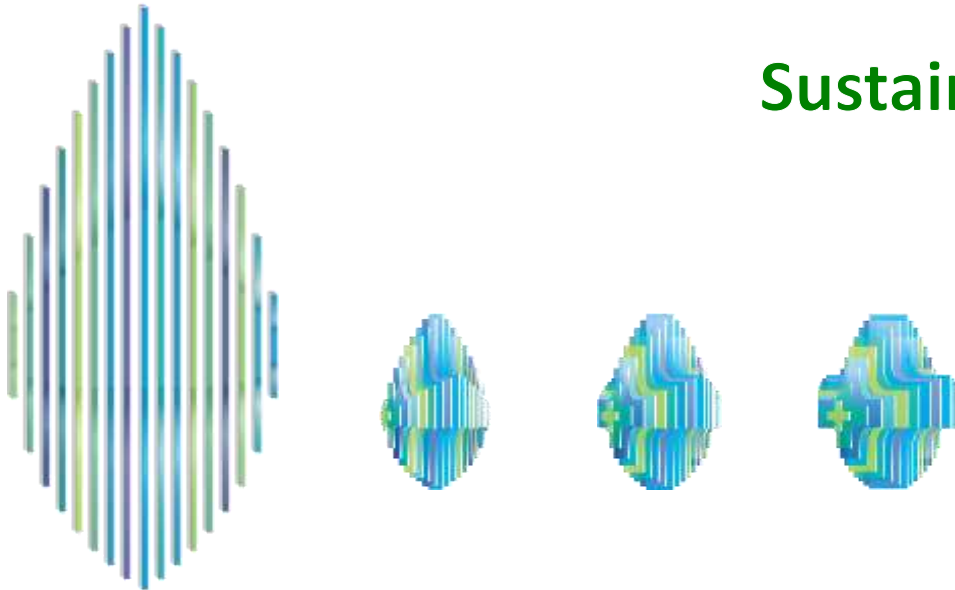




Sustainable

Growth

# Group Financial Overview



# Three Business Drivers

1H 2018 Operating Profit After Tax



## OPAT HK\$4.11Bn + 7%

Hong Kong (HC)

HK\$1.76Bn

+ 6%



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- City-gas



TGT  
天燃气

- Bandwidth  
+Data Centre

Mainland Utilities (MU)

HK\$2.08Bn

+ 6%



港华燃气  
Towngas

- City-gas  
(0003.hk + 1083.hk)
- Midstream
- Distributed Energy System
- Gas Storage
- Clean Transportation Fuels



华衍水务  
Hua Yan Water

- Water Supply/Sewage/  
Bio-waste Treatment

New Energy (NE)

HK\$0.27Bn

+ 35%



- Renewables/Recycling
- Unconventional Fuels
- Clean Transportation Fuels
- Energy Infrastructure
- Clean Coal Technology Products

# 2018 First-half Results



## The Hong Kong & China Gas (3 HK)

(HK\$ Mn)	1H 2018	1H 2017	Change
<b>Revenue</b>	<b>19,242</b>	<b>15,431</b>	<b>+24.7%</b>
<b>Operating Profit</b>	<b>4,107</b>	<b>3,823</b>	<b>+7.4%</b>
• Net financial	55	59	-
• Provision for projects	(200)	-	-
• IFC Revaluation:	827	590	-
<b>Profit Attributable to Shareholders</b>	<b>4,789</b>	<b>4,472</b>	<b>+7.1%</b>
<b>Earnings Per Share</b>	<b>HK 31.13 cents</b>	<b>HK 29.06 cents</b>	<b>+7.1%</b>
<b>Interim Dividends</b>	<b>HK 12 cents</b>	<b>HK 12 cents</b>	<b>-</b>



# 2018 First-half Results



## Towngas China (1083 HK)

(HK\$ Mn)	1H 2018	1H 2017	Change
<b>Turnover</b>			
Gas Sales & Others <sup>#</sup>	4,728	3,272	45%
Connection Fees	856	764	12%
	<u>5,584</u>	<u>4,036</u>	+38%
<b>Operating Profit before Finance Cost</b>	916	817	+12%
<b>Profit Attributable to Shareholders</b>	663	602	+10%
<b>Basic EPS (HK cents per share)</b>	23.96	22.21	+8%
<b># Gas Sales Dollar Margin (Rmb/m<sup>3</sup>)</b>	2017 1H	0.67	
	2017 2H	0.59	
	2018 1H	0.61	

# HKCG Group Financial Position

## as at 30 Jun 2018



HKCG (3 HK)	30 Jun 2018	31 Dec 2017	Change		20 Aug 2018	31 Dec 2017	Change
	HK\$ Bn	HK\$ Bn					
Total assets	134.9	131.1	+2%	Share price (HK\$)	15.90	13.93	+14%
Net asset value	71.6	70.2	+2%	Market cap. (HK\$ Bn)	244.6	214.3	+14%
Cash and Bank	12.8	12.8	-	No. of Shares (Bn)	15.39	15.39	-
Total borrowings	40.0	36.9	+8%	P/E Ratio	30.0x	26.1x	
Gearing (Net)	30%	28%		P/B Ratio	4.1x	3.5x	

Credit Ratings:



A+



A1

# Repayment of USD 1Bn 10-Year Bond



- **Repaid on 7 August 2018**
- **Sources of fund**
  - **Pre-funding from MTN private placements**
  - **Bank loans**
  - **Cash on hand**
- **Interest reduction by \$200Mn p.a. after repayment**

# TCCL Financial Position

## as at 30 Jun 2018



TCCL (1083 HK)	30 Jun 2018	31 Dec 2017	Change		20 Aug 2018	31 Dec 2017	Change
	HK\$ Bn	HK\$ Bn					
<b>Total assets</b>	<b>33.8</b>	<b>32.8</b>	<b>+3%</b>	<b>Share price (HK\$)</b>	<b>6.81</b>	<b>6.28</b>	<b>+8.4%</b>
<b>Net asset value</b>	<b>17.4</b>	<b>17.2</b>	<b>+1%</b>	<b>Market cap. (HK\$ Bn)</b>	<b>19.1</b>	<b>17.4</b>	<b>+10.1%</b>
<b>Cash and Bank</b>	<b>1.7</b>	<b>1.7</b>	<b>-</b>	<b>No. of Shares(Bn)</b>	<b>2.81</b>	<b>2.77</b>	<b>+1.4%</b>
<b>Total borrowings</b>	<b>9.4</b>	<b>8.8</b>	<b>+7%</b>	<b>P/E Ratio</b>	<b>14.0x</b>	<b>12.7x</b>	
<b>Gearing (Net)</b>	<b>33%</b>	<b>31%</b>		<b>P/B Ratio</b>	<b>1.2x</b>	<b>1.1x</b>	

**Credit Ratings:**



**BBB+**



**Baa1**

# Rolling 3-Year Cashflow Projection

Healthy Growth

## Inflow



	(HK\$ Bn)
HK Operation	14
PRC Dividends Distribution	8
<hr/>	
	<b>22</b>

Cash on Hand	13
<hr/>	

<b>Fund available for investment</b>	<b>35</b>
--------------------------------------	-----------

## Outflow



Dividend	17
----------	----

HK Capex	3
----------	---

PRC Investments	10
<hr/>	

**30**

<b>Cash Balance</b>	<b><u>5</u></b>
---------------------	-----------------



**Green City**

**Gas**

# UTILITIES

HONG KONG & MAINLAND



# City-gas Businesses (1H 2018)

## Hong Kong

- ⊕ The only territory-wide gas company
- ⊕ 1.89Mn customer accounts
- ⊕ Gas sales: 16,158TJ (+1.6%)  
(NG equivalent: 462Mn m<sup>3</sup>)

## Mainland

### MU

- ⊕ 26.5Mn customer accounts  
(six months +1.1Mn)

### TCCL

- ⊕ Mainland city-gas operator
- ⊕ 98 city-gas projects
- ⊕ 11 midstream projects

### MU Gas Volume

14.4Bn m<sup>3</sup> +21%

#### City-gas

11.5Bn m<sup>3</sup>  
+18%

#### Midstream

2.9Bn m<sup>3</sup>  
+33%

# Market View – Towngas China (1083 HK)



Bank	Headline Comments	Rating	Target Price	Issue Date
CCB Intl	1H18 earnings slightly below expectation; Measures taken to defend margins in 2H18	Outperform	\$9.00	16 Aug
HSBC	Risk/reward remains attractive	Buy	\$8.60	16 Aug
Citi	1H18 Profit in Line; 1st Time Most Profit from Gas Sales	Buy	\$8.50	16 Aug
Daiwa	1H18 results a slight miss on connections and finance cost	Buy	\$8.50	16 Aug
Deutsche Bank	Volume/margin trends in line while connection slightly below DB estimate	Buy	\$8.30	16 Aug
DBS	Decline in dollar margin, offset by good volume growth	Buy	\$8.20	17 Aug
Morgan Stanley	No surprise on 1H18 results; 2018 guidance maintained	Equal-weight	\$7.70	16 Aug
Huatai	Results in line; gas sales volume growth stable	Hold	\$6.80	16 Aug
CICC	1H18 slightly miss; FY18 guidance at risk	Hold	\$6.29	17 Aug



# Territorial Coverage

Up to 31 Jul 2018



**6** projects added, total to more than **165** projects in **24** provincial regions

New Projects		
City-gas	○	1. Liuzhou, Guangxi
Midstream	△	2. Jinan – Liaocheng, Shandong
Distributed Energy System	◇	3. Jiawang District, Xuzhou, Jiangsu
	◇	4. Jimo Chuangzhi New District, Qingdao, Shandong
	◇	5. Yangxin, Shandong
	◇	6. Changchun, Jilin

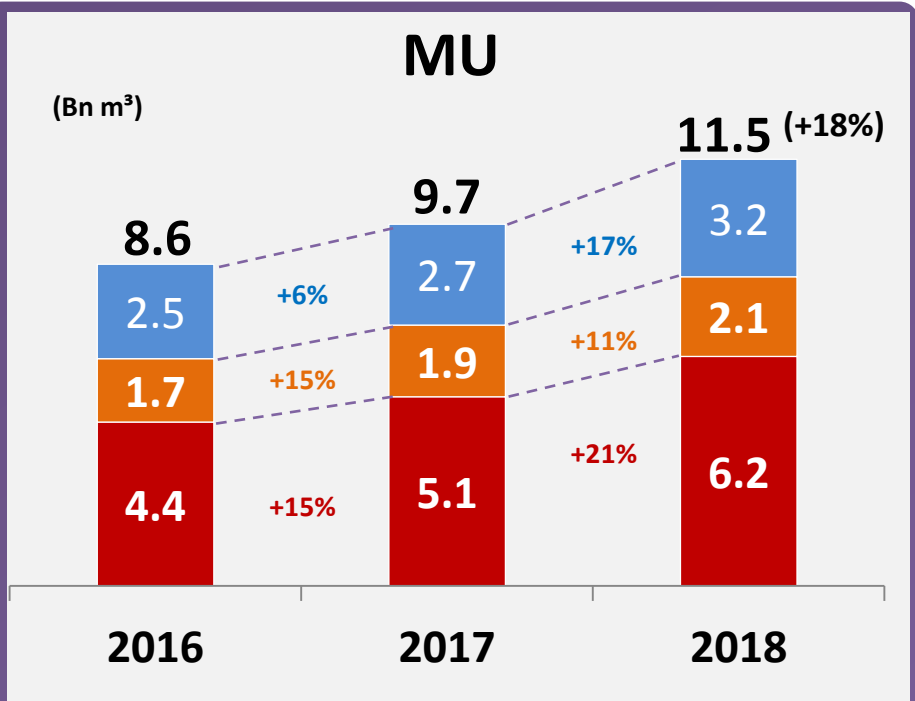
Utilities: Number of projects		
City-gas	132	(HKCG: 34 ● + TCCL: 98 ●)
Midstream	11	▲ HKCG: 7    ▲ TCCL: 4
Distributed Energy System	6	◇ TCCL: 6
Water, Sewage & Waste Treatment	7	○ HKCG: 7
Others	11	◆ HKCG: 8    ◆ TCCL: 3

# Mainland City-gas Volume Mix 1H 2018

(All JVs)

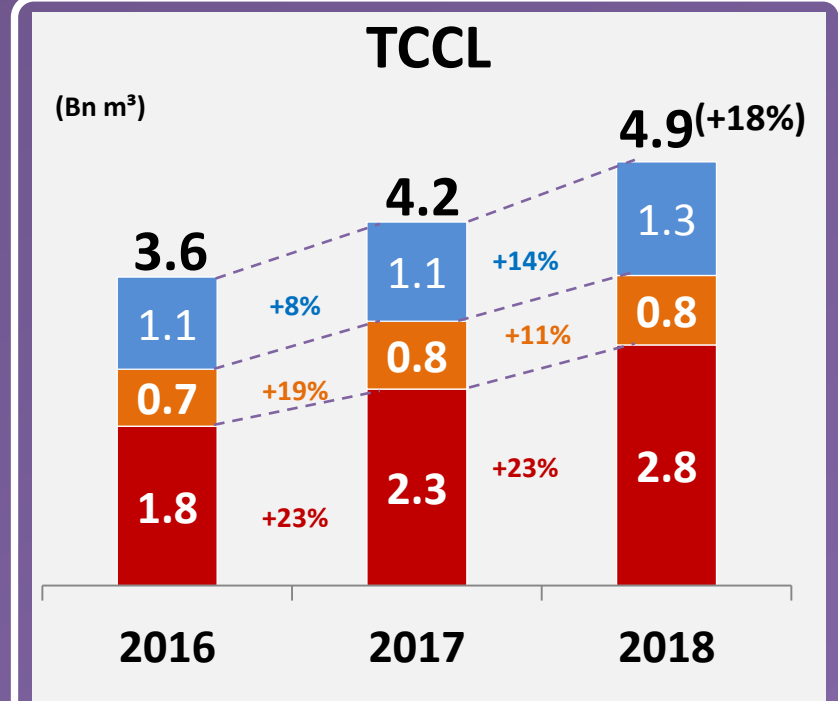


(MU)



Volume Mix

	2016	2017	2018
Residential	29%	28%	27%
Commercial	20%	20%	19%
Industrial	51%	52%	54%



Volume Mix

	2016	2017	2018
Residential	30%	27%	26%
Commercial	18%	19%	18%
Industrial	52%	54%	56%

# Mainland City-gas Customer Growth

1H 2018	MU	TCCL
Total Customer Accounts	26.5Mn	12.2Mn
New Connections (6 months)	0.9Mn	0.4Mn

# Mainland City-gas Other Energy to NG Conversion/ New Customers

1H 2018



Commercial



Industrial

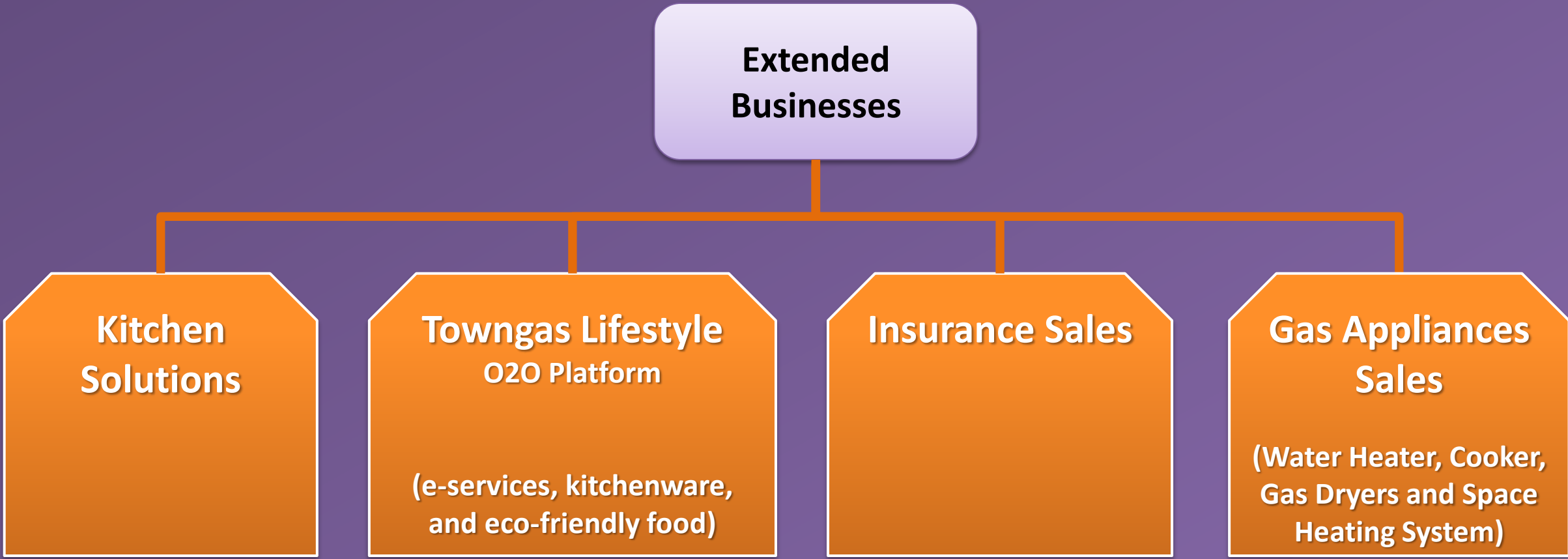
Total

		MU		TCCL	
		Customers Gained	Annualized Volume (Mn m <sup>3</sup> )	Customers Gained	Annualized Volume (Mn m <sup>3</sup> )
Commercial		8,790	220	4,650	120
Industrial		953	620	466	270
Total		9,743	840	5,116	390

# Distributed Energy System (DES)

<b>New Projects</b>	<b>Captured in 1H2018</b>	<b>9 Projects</b>
	<b>in Discussion</b>	<b>40 Projects</b>
<b>Number of Projects in Operation</b>		<b>19 Projects</b>
<b>Gas Volume in 1H2018</b>		<b>110Mn m<sup>3</sup></b>

# Extended Businesses



**FY2018 Estimated Revenue: HKD 1.1 billion**  
**(+40% vs. 2017 )**

# Opportunities & Challenges

- ▶ NDRC proposed new NG storage requirements to meet winter demand
- ▶ City-gate gas prices for Residential and Non-residential unified in June
- ▶ “Blue Sky” Policy
- ▶ LNG Terminals open access
- ▶ One National Natural Gas Grid Company
- ▶ Welcome investments on LNG importation

# Market Leader of NG Storage Amongst PRC City-gas Operators



(MU)



Jintan Underground NG Storage

- ✦ Jintan NG cavern storage with 1Bn m<sup>3</sup> capacity
- ✦ LNG terminals under discussion
  - With various parties in participating the setup of 5 to 6 LNG terminals (Southern, Eastern and Northern regions)
  - Buy NG/LNG storage services from upstream companies

## Project Information

- Phase I capacity: (3 caverns)

## Cumulative

140Mn m<sup>3</sup>

- Completion:

Jan 2018

- Phase II capacity: (+7 caverns)

440Mn m<sup>3</sup>

- Construction Commencement:

Mar 2018

- Phase III capacity: (+12 caverns)

1,000Mn m<sup>3</sup>



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



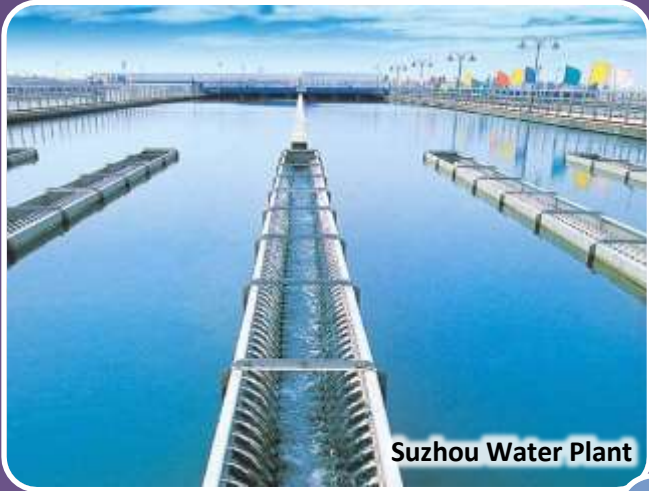
The 13th 5-Year Plan	2017	2020	2030
NG in Energy Mix	7%	10%	15%
Demand (Bn m <sup>3</sup> )	238	360	~480

- 5 billion m<sup>3</sup> Russian NG arrives in 4Q2019 & 38Bn m<sup>3</sup> by 2024

North-Eastern	2017	2022E
Volume (Bn m <sup>3</sup> )	1.5	4.0
Volume Growth	CAGR: 22.4%	

Northern	2017	2022E
Volume (Bn m <sup>3</sup> )	2.5	5.4
Volume Growth	CAGR: 16.8%	

# City-Water Businesses (1H 2018)



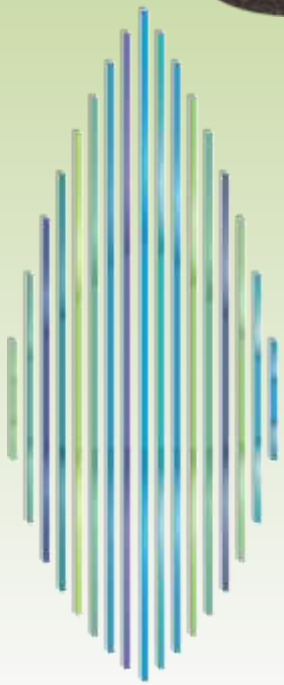
## Mainland

- ⊕ 7 JVs
- ⊕ 226 million m<sup>3</sup> water sales (+6%)
- ⊕ 67 million m<sup>3</sup> sewage/waste water treated (+5%)
- ⊕ Operating profit HK\$197 million (+19%)
- ⊕ Concluding a project in Greater Bay Area which will expand our water business footprint in Southern China



Energy

Innovation



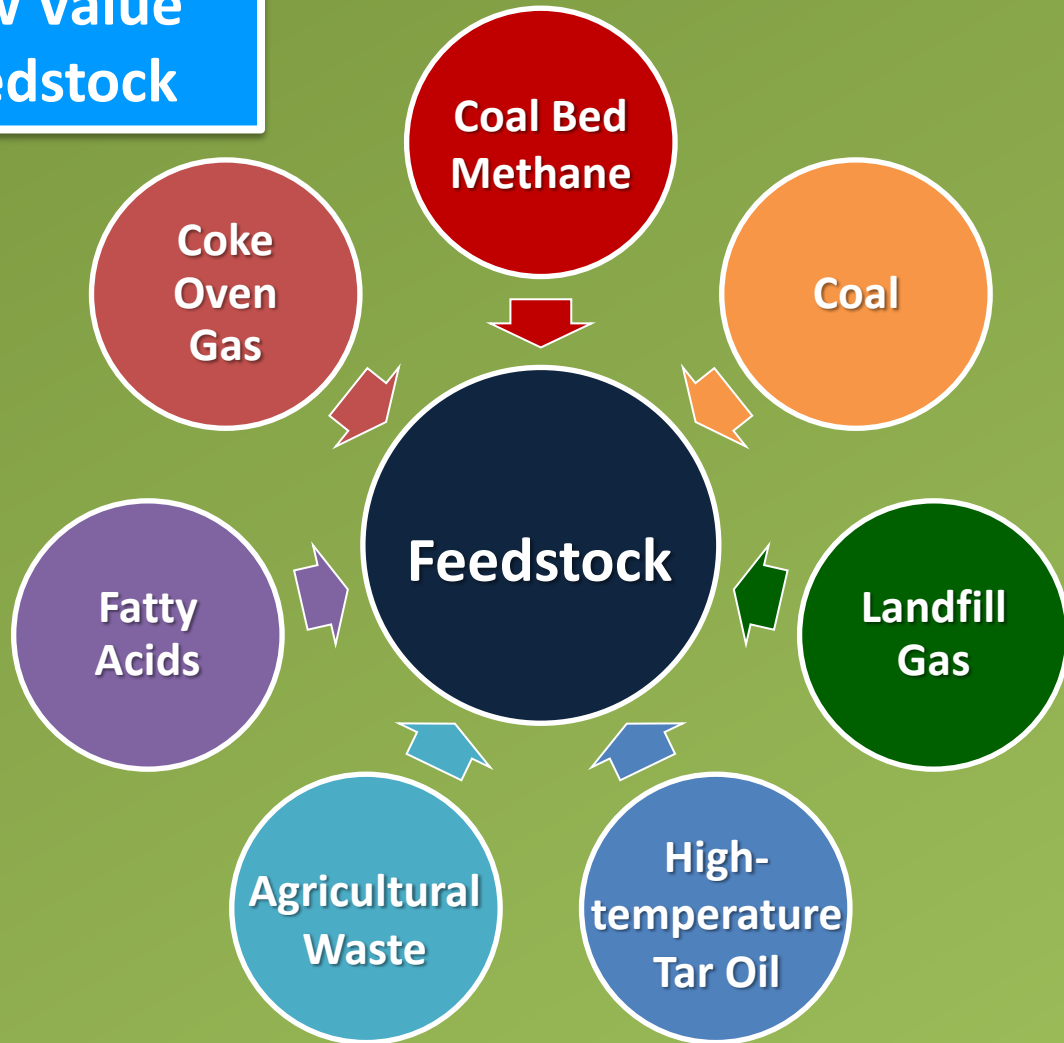
# New Energy



# New Energy Strategy:

## Turn Low Value Feedstock to High Value Products

Low Value  
Feedstock



Through  
environmental-  
friendly process

# New Energy Strategy:

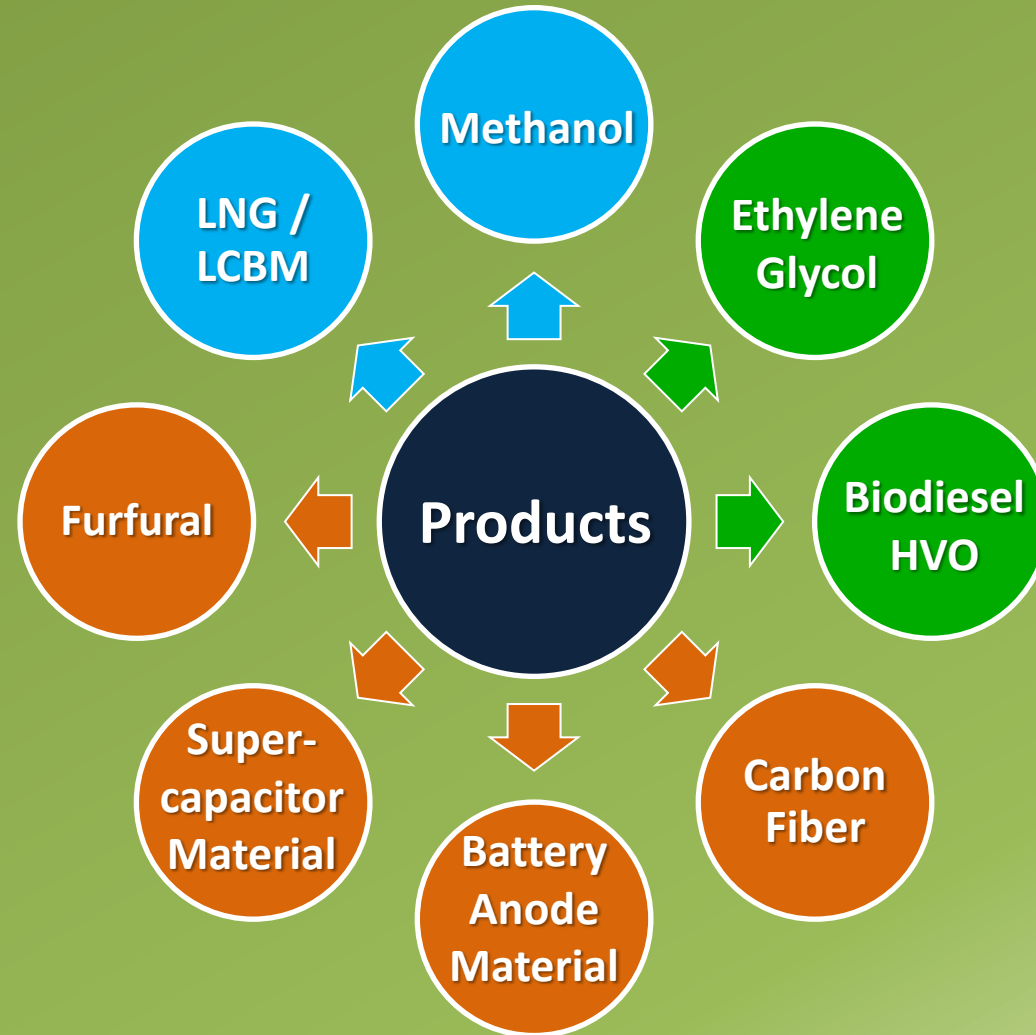
## Turn Low Value Feedstock to High Value Products

### First Plant: Stages

In operation

Pre-production

Under construction



# Coal to Methanol and Ethylene Glycol Plant, Inner Mongolia



(Clean Coal Process)

**680k tons Coal**



**190k tons Methanol  
(RMB 2,600/ton)  
120k tons Ethylene Glycol  
(RMB 7,300/ton)**

**Investment: RMB 640Mn**



# Downstream product of EG

## Polyester Fiber



## Polyester Film



## Antifreeze



# HVO Plant, Zhang Jia Gang

135k tons Fatty Acid  
(USD 550/ton)



108k tons HVO  
(USD 1,300/ton)

Investment: RMB 530Mn



# Fatty Acid

+

## **Palm Acid Oil**

- A residual sludge from palm oil extraction from the fruit
- Very acidic

## **Used Cooking Oil**

- Separate out from kitchen waste, or used oil from food industry

# Hydro-treated Vegetable Oil (HVO)

- Second generation of biodiesel, made completely from waste-based feedstock coming from animal or vegetable fat/oil
- Advantages
  - Renewable
  - Oxidization free
  - High cetane number
  - High energy intensity
  - Low CFPP

# Agricultural Waste Utilization, Hebei Tang Shan

**240k tons Stalks**  
**(RMB 300/ton)**



**25k tons Furfural**  
**(RMB 13,000/ton)**  
**84k tons Paper Pulp**  
**(RMB 3,000/ton)**

**Investment: RMB 280Mn**

# Furfural

- An important renewable, non-petroleum based chemical feedstock, for the production of:
  - Thermoset polymer matrix composites  
(cements, adhesives, casting resins, coatings)
  - Herbicide additive
  - Chemical solvent

# High Temperature Tar Oil to Carbon Materials, Inner Mongolia

**75k tons HTTO  
(RMB 2,700/ton)**



**3,750 tons Anode Material  
4,320 tons Activated Carbon  
2,000 tons Carbon Fiber**

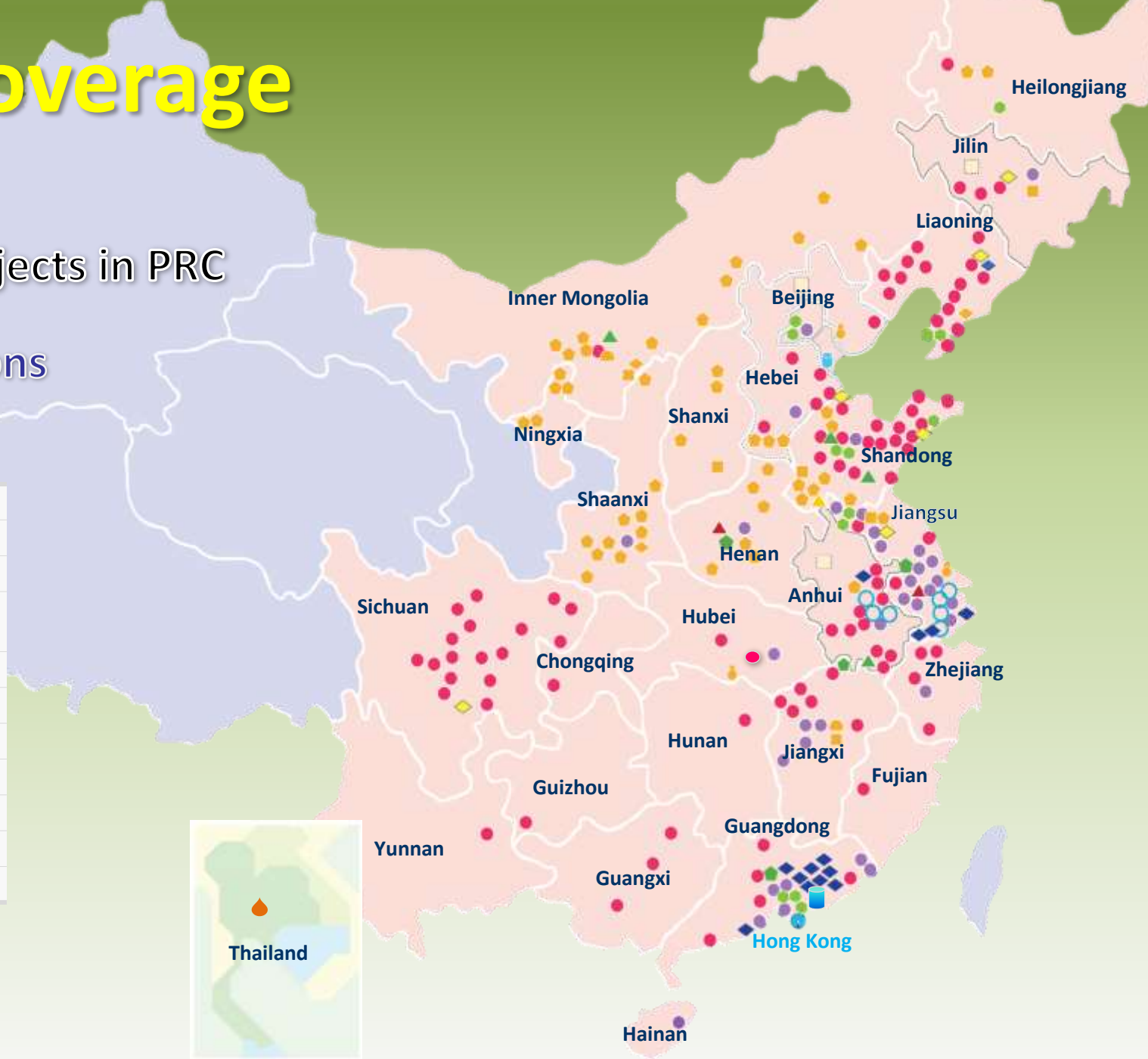
**Investment: RMB 640Mn**

# Territory Coverage



Total **251** 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	■ ■ ■



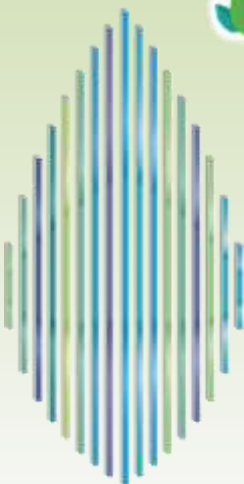
# Green Company



Energy

Innovation

-  **Clean Energy – NG Distribution / Utilization**
-  **Energy Efficiency Enhancement**
-  **Wastes (city, agricultural, industrial) → Fuels/Chemicals**
-  **Clean Coal Technologies**



# Business Outlook







# Business Outlook

## Hong Kong Core Business

- Increasing new housing supply
- High hotel occupancy rate
- Develop new markets:  
LFG utilization, gas cooling and dehumidification
- Promising “kitchen solution” market
- Mild tariff adjustments to offset rising costs
- Extend gas supply network to new housing sites





# Business Outlook

## Mainland Utility Business

- Aggressive Coal to Gas policy drives gas demand growth
- Urbanization continues
- Winter tight gas supply stays a short-term issue
- Opening up the cross-country pipeline for 3<sup>rd</sup> party access
- Arrival of Russian gas within sight
- More imported LNG under planning
- Develop DES business
- Capitalizing on strong customer base for extended business
- Develop kitchen waste treatment/utilization





# Business Outlook

## New Energy Business

- Crude price now stands within a favorable range
- Several new facilities are in pre-production or under construction stage
- Demand for the NE fuel/chemical products are high
- New plants are expandable/multipliable
- Several R&D projects are in the pipe-line





# Opportunities & Challenges

## Q1) Will downstream NG margin be further reduced?

- Unit gas margin might be squeezed
- Fast gas sales volume growth
- Growth in gas sales profit continues





# Opportunities & Challenges

## Q2) Will 7% ROA adversely affect city gas profits?

- Apply to gas distribution only (excluding connection fees)
- Most JVs have not reached that level
- JVs will continue to invest in fixed assets to meet the high demand growth, hence enlarging the asset base
- Implementation of 7% ROA across the board will be complicated and may vary amongst different provinces





# Opportunities & Challenges

## Q3) Will the high gas cost situation in winter time continue?

- New NG supply from Russia in 2019
- More LNG supply sources (e.g. Qatar, Australia, etc.)
- Policy to increase storage capacity for peak shaving
- By 2020, the storage requirement for upstream is 10%, downstream is 5%; city government is 3 days
- Gas Cost Pass-through mechanism progresses well





# Opportunities & Challenges

## Q4) Will connection fee practice be abolished?

- Is likely to stay
- May go for market competition
- Safety & quality of engineering work must be regulated
- Future maintenance needs provide opportunities

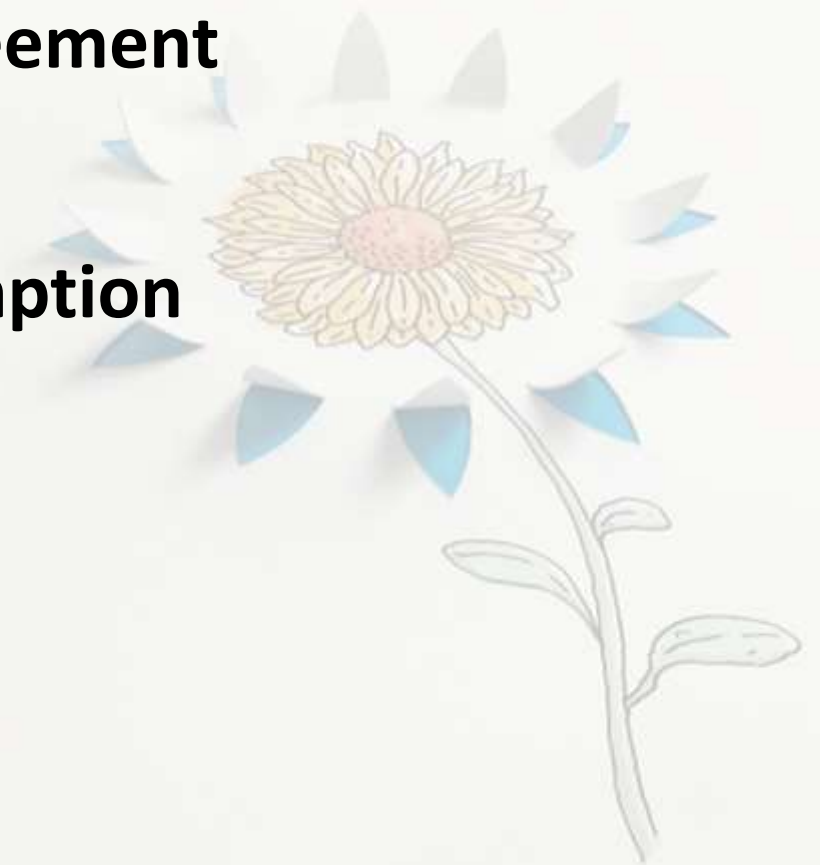




# Opportunities & Challenges

## Q5) How well will gas consumption growth continue?

- **Government committed to Paris Agreement**
- **Smog issues must be tackled**
- **NG's share of primary energy consumption**  
2015: 5%    2020: 10%    2030: 15%
- **Consumption forecast (BCM)**  
2015: 193    2020: 360    2030: 480





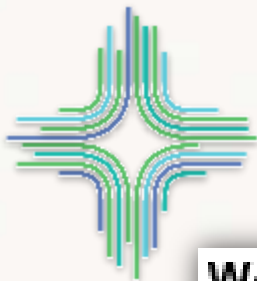


# Opportunities & Challenges

## Q6) Will NG (a fossil fuel) be replaced by renewable energies?

- NG is the cleanest fossil fuel & the backbone energy
- Coal and oil will be replaced by NG
- High supply reliability & ease of storage
- Renewable energy will grow but take longer time
- Most of the renewables requires storage
- Electric passenger cars may replace CNG vehicles
- LNG is the clean fuel for heavy-duty trucks & marine vessels



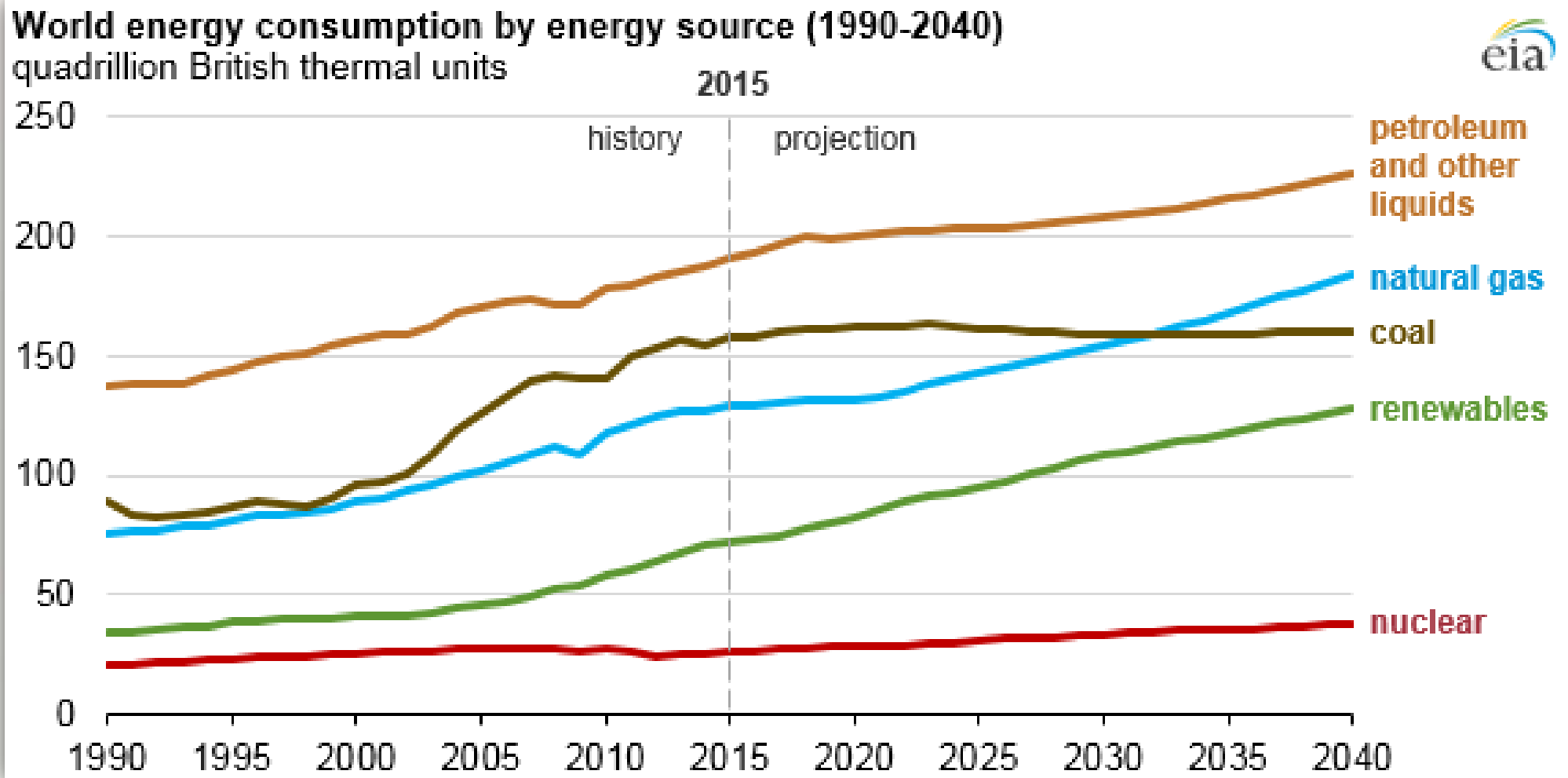


Greening up your life



煤氣  
Towngas

# Natural Gas is a Natural Choice!





# Opportunities & Challenges

## Q7) What is HKCG's plan in securing more NG sources?

- New NG supplies from Myanmar & Russia
- Invest in LNG receiving and gasification terminals
- National grid for 3rd party access
- Invest in provincial networks
- Expand NG storage for peak shaving and gas trading

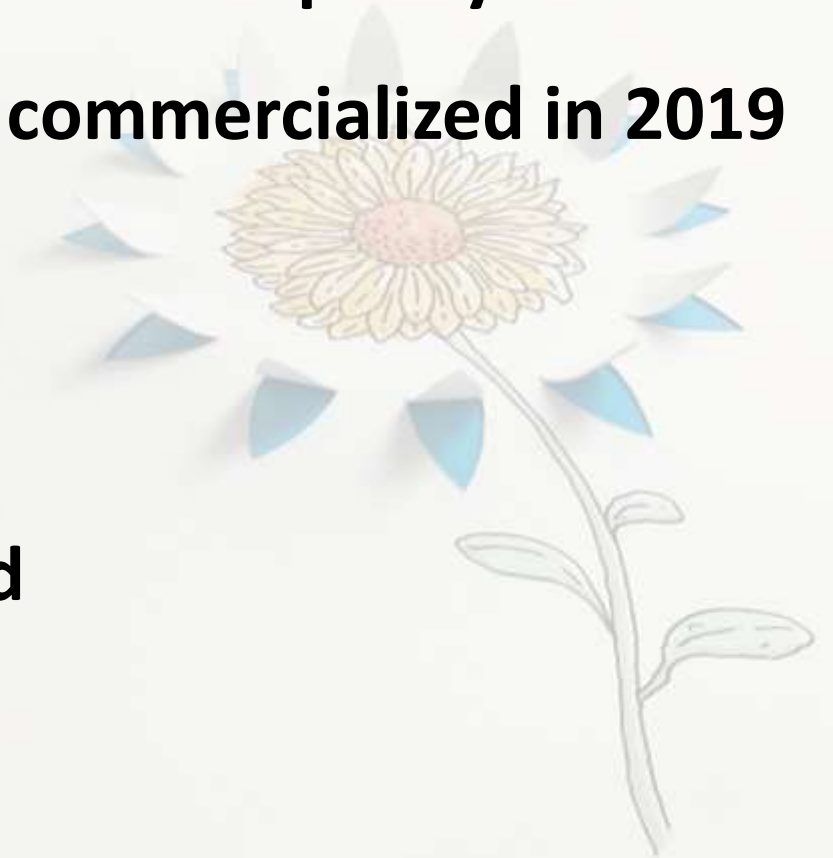




# Opportunities & Challenges

## Q8) How to sustain a high profit growth for NE?

- High demand for EG and HVO. Will expand the capacity.
- In-house developed technologies will be commercialized in 2019
  - Carbon fiber
  - Battery materials
  - Agricultural waste utilization
- Successful technologies can be multiplied





# Opportunities & Challenges

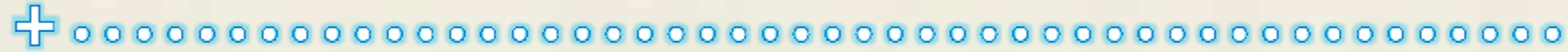
## Q9) What are HKCG's plans on "Belt and Road" & "Greater Bay Area" Initiatives?

- Will observe the development of "Belt & Road"
- Operating 20 projects in the Bay Area
- Accelerate the investment in gas, water and waste treatment in Bay Area



# 52 Weeks Share Price (HSI: -0.5%)

Greening up your life





# Conclusion

- **Steady HK city gas business**
- **Natural gas will become backbone energy for China**
- **Mainland city gas will sustain mid growth (fewer new city gas projects)**
- **Mainland city water will expand to cover city waste treatment/utilization**
- **Promising NE R&D projects; multipliable; hi-growth**
- **Tap the Greater Bay Area potentials**
- **Capitalize on the 26Mn+ customer-base**
- **US-Sino trade conflict's impact is uncertain**
- **RMB's depreciation is a concern**



# We Aspire to be the Greenest Hong Kong Based Company

- Natural Gas (replaces coal, oil)
- Wastes Treatment / Utilization
  - City Waste
  - Agricultural Waste
  - Industrial Waste
- Clean Coal Technologies





Greening up your life



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# Thank You

