

# Towngas Headquarters is the first non-residential building in Hong Kong to achieve Platinum rating under BEAM Plus Existing Buildings v1.2

# Renovations of the existing building successfully resulted in the reduction of 1 million kWh of electricity consumption, which is equivalent to 780 tonnes of greenhouse gas emissions

(10 Aug 2016) – The headquarters of the Hong Kong and China Gas Company Limited (Towngas) is the first non-residential building in Hong Kong to be awarded the Platinum rating, the highest rating under BEAM Plus Existing Building Version 1.2. This is an internationally recognised building assessment scheme that provides guidelines on how to make buildings safer, healthier, more comfortable, more functional and more efficient than those that haven't been certified.

Through the skillful use of modern technology and stakeholder engagement in sustainable development, the existing Towngas building was upgraded to a green building for the benefit of staff and the community. A certificate presentation ceremony was held on 9 August 2016 to acknowledge the efforts made by Towngas and its staff. It was attended by Wong Kam-sing, Secretary for the Environment, Cheung Hau-wai, Chairman of the Hong Kong Green Building Council, and Alfred Chan, Managing Director of Towngas.

Towngas' achievement is mainly attributed to successfully integrating green management, including Electricity Conservation, Preservation of Water Resources, Improvement of Indoor Air Quality, and Waste Management to enhance the overall building environment. Towngas implemented green purchasing and green management practices throughout the building renovation. By doing so, we have been able to share our experience and promote the adoption and effectiveness of green building facilities to the community. (Please refer to the Appendix for the "Highlights of Renovation Works and Sustainable Green Initiatives").

Victor Kwong, Head of Corporate Health, Safety and Environment and Chairman of the Towngas Environmental Working Committee, pointed out that the green renovation of Towngas' headquarters achieved significant energy savings and waste reduction. Towngas took a sustainable approach to the purchasing and management of green construction materials. Suppliers of green products had priority to become one of Towngas' business partners.

There were many challenges to implementing the green renovations for Towngas' 23-year-old headquarters building. According to Nelson Lo, Property Management Manager, these included: the

original structure of the headquarters limited the flexibility to apply green facilities; it required a large amount of investment; all of the daily operational services of Towngas had to stay unaffected and maintained throughout the renovation period; and Towngas had to closely cooperate with stakeholders to implement the green policies and measures.

BEAM Plus, the Building Environmental Assessment Method, is a voluntary initiative to measure, improve, certify and label the environmental performance of buildings. It aims to enhance the overall quality of Hong Kong's building environment. The scheme is adaptable to new buildings (NB) and existing buildings (EB). The Hong Kong Green Building Council will rate the environmental performance of existing buildings according to the assessed scoring by qualified BEAM professionals. Five ratings are available under the BEAM Plus: Platinum, Gold, Silver, Bronze and unclassified.

Apart from BEAM Plus Existing Building Version 1.2 Final Platinum, Towngas has earned many green awards, including:

- Gold Award in Manufacturing Sector of "BOCHK Corporate Environmental Leadership Awards" (June 2016)
- Hang Seng Pan Pearl River Delta Environment Awards 2013/14 "Green Medal" and "5 Years+ Entrant"

Looking forward, Towngas will continue to do its utmost to protect the environment and contribute sustainable development to society.

#### **Photo Caption**

Photo	Caption
Tile: 1	Towngas has been awarded the BEAM Plus Existing Building Version 1.2. Final Platinum. Wong Kam-sing, Secretary for the Environment (middle), Mr. Alfred Chan, Managing Director of Towngas (right), and Mr. Cheung Hau-wai, Chairman of the Hong Kong Green Building Council, (left) attended the presentation ceremony.
THE. I	With the skillful use of modern technology and stakeholder engagement in sustainable development, the 23-year-old Towngas headquarters was Hong Kong's first non-residential building to achieve BEAM Plus Existing Building Version 1.2 Final Platinum.
File: 2	Time Francisis

File: 3	The Rooftop Organic Farm at the Towngas headquarters not only provides a platform for staff to experience the fun of planting and low-carbon living, but also reduces the urban heat island effect and improves the ambient air quality.
はいませんの はいます はいます はいます はいます はいます はいます はいます はいます	Towngas launched the "Green Office Practice Guide" to encourage its staff to follow green office measures at the headquarters.
File: 4  File: 5	Towngas organises workshops for staff and the general public to teach them how to make natural enzyme detergent using the skin of vegetables.
File: 6	Towngas is dedicated to being a green enterprise. It encourages the general public to live a low-carbon life by launching Apps with a green living guide: "Low Carbon Daily".

# **Appendix**:

## **Towngas headquarters:**

## **Highlights of Renovation Works and Sustainable Green Initiatives**

## **4 Key Areas of Green Management**

Includes Electricity Conservation, Preservation of Water Resources, Improvement of Indoor Air Quality, and Waste Management.

## 1. Electricity Conservation

• Energy-saving air-conditioning system: upgraded the rooftop chiller plant system was upgraded to a high energy efficient oil-free variable speed water-cooled chiller.

- **High efficient energy-saving lighting devices:** lighting devices with Motion Sensors were installed in the office, which enable automatic switch-off when the premises are unoccupied; LED lighting devices with Motion Sensors and dimming function were installed at the staircase; existing lighting was upgraded to T5 light fixtures with nano reflector; and an "Intelligent power meter" was set up for energy management.
- **Achievement**: Compared to 2012, there was a 15% reduction in the headquarters' electricity consumption of 1,000,000 kWh in 2015 (that is equivalent to 780 tonnes of greenhouse gas emissions or approximately 33,000 trees), and the savings on electricity expenses for the headquarters was up to HK\$1,220,000.
- Rooftop organic farm: Each organic workshop serves 30 staff regularly and 50 catties of vegetables are reaped each harvesting cycle. The farm not only serves as a platform for Towngas' staff to experience the fun of planting and low-carbon living, but also effectively reduces the urban heat island effect, improves the ambient air quality, and creates a green landscape in the community. To further promote green living in the community, Towngas invites different green organisations and representatives of corporations and district councils to visit the eco-friendly facilities in the headquarters and the rooftop farm.

#### 2. Preservation of Water Resources

- Water Recycling System: set up the Rooftop Rainwater Harvesting System and the Condensate Water Collection System at the carpark floor.
- Installed a 1-cubic metre rainwater harvesting tank at the rooftop for irrigating the rooftop organic farm and for cleaning. 140 cubic metres of rainwater is collected annually.
- Installed a 2-cubic metre condensate water collection tank at the carpark floor for irrigating the flower farm on the ground floor and for cleaning the carpark. 355 cubic metres of condensate water is collected annually.
- Water Conservation devices: installed water-saving devices in the shower room, washroom and pantry, including the Grade 1 water fixtures, sensor type faucet, and urinal and dual flush water closets that reduce the water amount for flushing. 7% of potable water is saved.

#### 3. Improvement of Indoor Air Quality

- **Increased the fresh air:** installed a CO<sub>2</sub> sensor for controlling the amount of fresh air. A PAU Bag Filter was applied.
- **Achievement**: The Indoor Air Quality Certificate (Good Class) was obtained, maintaining the level of CO<sub>2</sub> at approximately 700 ppm.

### 4. Waste Management

• Established a Waste Management Strategy: Implemented the principles of "5R" Waste Management, including "Reduce", "Replace", "Recover" "Recycle" and "Reuse", and educated the staff about it.

- Recycled testing tubes: Thr amount of solid disposal was reduced.
- Whole-year office recycling scheme: set up disposal and food waste collection points. Over 18 types of wastes are collected for recycling.
- Waste management audit: In 2015, Towngas conducted a waste management audit at its headquarters in Hong Kong to develop a strategic plan for waste reduction.
- Achievement: Towngas has been participating in the reputable "Wastewi\$e Scheme" which has been organised by the Environmental Campaign Committee of HKSAR Government since 2001. In 2015, Towngas was awarded the "Wastewi\$e certificate" for the 14<sup>th</sup> consecutive cycle. In addition, Towngas has completed over 25 waste reduction and recycling campaigns since 2002.

#### **Staff Education and Implementation**

- "Green Office Practice Guide": It educates staff about recycling materials in its "Easy Guide on Recycling" and aims to encourage staff to carry out green initiatives in the office.
- **Internal green office audit:** The Green Ambassadors from each department conduct a green audit every two months.
- Towngas conducts a wide range of green activities and projects that enable staff to experience eco-friendly living and promote the green concept to the community. For example, we support "Zero Food Waste", "Cherish Food Reward Scheme", "Cherish Food Programme by Food Grace", "Leftover Cooking Contest" and "Recycling Red Pocket".
- **Achievement**: In 2014 2015, the paper consumption of staff at headquarters decreased by 3.5% and the overall water consumption dropped 12.8%.

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