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COUNCIL
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Certification Scheme for Clean Air Charter

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Outline

- Introduction
- Clean Air Charter
- Certification Process
- Case Study
- In future

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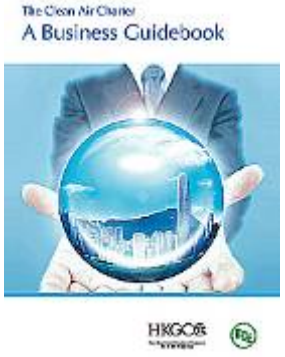
Project Clean Air

- Collaborative Effort
- Clean Air Charter (>600 endorsers)
- Project Activities
- Business Guidebook – How to …
- Care for Air Guidelines for business and the public
- Best Practice and Clean Air Solution examples
- Clean Air Charter Certification Pilot Scheme
- Formal Clean Air Charter Certification



HKGCC Hong Kong General Chamber of Commerce 香港總商會 1861

BCE

大珠三角商務委員會 The Greater Pearl River Delta Business Council

CCPIT

廣東省環境保護產業協會 Guangdong Association of Environmental Protection Industry

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Clean Air Charter

- **"The Government has agreed to sign the Charter as the largest employer in Hong Kong. We are serious about doing the best we can."** *(The Chief Executive signed the Clean Air Charter on behalf of the HKSAR Government, 27 Nov 06)*

- **Hong Kong - Guangdong Business Coalition on the Environment**
  Clean Air Charter
- *We recognise that improving air quality will require emissions reductions in the business community, and many of these reductions will result in additional business capital and/or operating costs. We support the development of fair, practical and cost-effective air quality management policy, and in addition:*

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Clean Air Charter

	Charter's Commitments	Relevant to Business Sectors
1	Operate to a recognized world class standard, or the standards established by the Hong Kong / Guangdong governments on emissions of air pollutants, even if it is not a requirement to do so here.	Industrial operations, power plants and businesses with direct emissions
2	Use continuous emissions monitors (CEMs) at significant sources, e.g. large and medium plants.	Large/medium industrial operations and power plants
3	Publish information on energy and fuel use, as well as total emissions of air pollutants annually and timely, if emissions are significant.	All businesses
4	Undertake to adopt energy-efficient measures in their operations.	All businesses
5	Identify and encourage business-relevant measures to be taken on days when air pollution is high.	All businesses
6	Share air quality expertise in business with others.	All businesses

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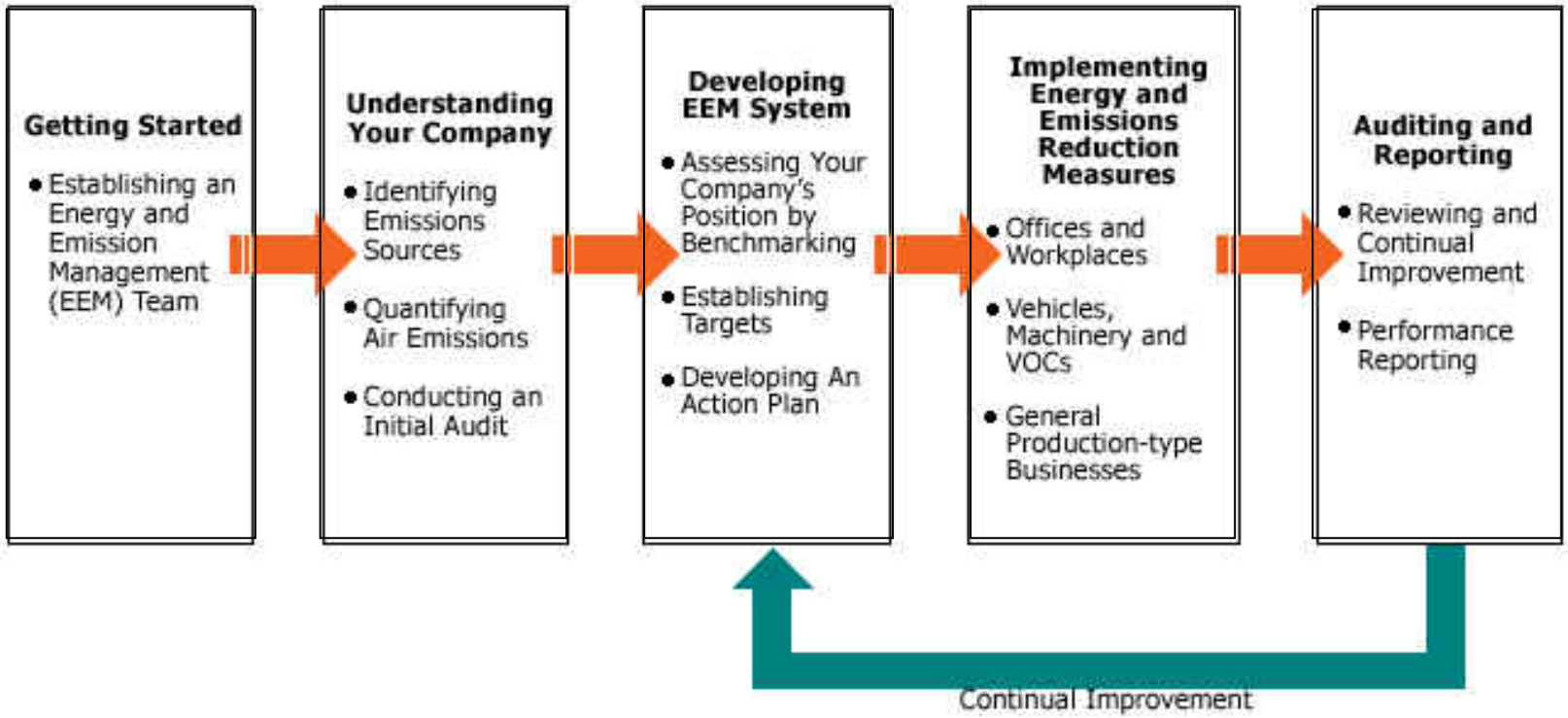
Turning Commitment into Action - A Systematic Approach



www.cleanair.hk/eng/business_guideline01.htm

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Reporting as a tool

- Centralized way to organize and report charter commitments, objectives and targets
- Report steps in your process from getting started to current status – EEMS if set up or WIT or E-Wi$e or Env. Comms…. your team effort
- Report future plans and expected progress – SMART objectives
- Normalize data, use benchmarks with other reporters both locally and internationally
- Use as a platform to share your success stories – case studies on the Project Clean Air website

Clean Air Charter - Certification

The Assessment Team will be looking for:

- Company policy
- Records of air emission reduction or energy audits
- Energy efficiency team, environmental committee or management committee meetings, with specific evidence of discussion of the Clean Air Charter and the response of the organisation. Determination of relevant Charter elements
- Objectives and Targets – reduce energy and prevent emissions
- Evidence of improvements made in terms of direct air emission reductions or energy efficiency
- Training and education of staff and relevant suppliers and contractors
- Publicly available information on air emission reduction and energy efficiency performance
- Written policies and procedures on measures to be taken on high air pollution days
- Demonstration that the is company sharing best practice and improvement ideas

Clean Air Charter - Certification

Companies have signed the Clean Air Charter Participating companies are divided into three groups, depending on the starting point of the organisation and the anticipated time to evaluate compliance with the spirit and intent of the clean air charter:

Group A: Companies with little or no knowledge/expertise on energy/emissions reduction, and requiring support in the form of advice and consultancy to better understand their charter commitment and compliance with the Clean Air Charter and to become eligible for certification

Group B: Companies which have undertaken some energy efficiency/emissions reduction programs, but which do not have comprehensive management systems or reporting to demonstrate their achievements and compliance with the Clean Air Charter, and

Group C: Companies which have comprehensive management systems and means to easily identify/verify the programs implemented to demonstrate their compliance with the Clean Air Charter

Clean Air Charter - Certification

Scope of Work of the Project Consultant/Certification Agent	Companies in Group A	Companies in Group B	Companies in Group C
Initial Audit			
Company visit	✓		
Initial audit	✓		
Consultancy			
Recommendations	✓		
Programme development	✓		
Advice during implementation	✓		
Investigation & Certification			
Company visit (or re-visit)	✓	✓	✓
Investigation on performance	✓	✓	
Report & advice	✓	✓	
Verification	✓	✓	✓

Clean Air Charter - Certification

- Certification relies on demonstrating the achievement of the Clean Air Charter key elements. (Certain requirements of the charter may not apply to all companies.)
- All companies should be able to demonstrate their understanding of each charter element and define their positive steps towards implementation of the Charter.
- Not all work will be expected to be complete to be certifed – but it is expected that a program of implementation will be required as a minimum.

Validity and Use of Certification and Logo

The validity of the Clean Air Charter Certificate and the use of the Clean Air logo shall be **3 years** from the date of certification.

The Clean Air logo can be used by certified companies and displayed in corporate literature. However under no circumstances should the artwork or design of the logo be altered from its original form. The logo shall not be incorporated into, or be used as, a trademark. The Organisers of the Project CLEAN AIR hold the copyright for the Clean Air logo.

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How tough is it to get certified?

- Depends on starting point
- Those departments/bureau that are already ISO 14001 certified and have a strong track record of measurement, management and performance reporting will find it quick and simple - 0.5 day certification audit.
- Others starting from a lower base will have a learning curve to climb - initial audit, and performance evaluation with recommended compliance action plan – implementation and then certification audit.

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Why Certify?

- Credible demonstration of achievement
- Clean Air
- Big Smiles

Project Clean Air has successfully attracted a wide range of companies of all sizes as signatories to the *Clean Air Charter*.

To enhance this meaningful commitment – a voluntary certification scheme has been designed to:

- Independently certify companies compliance with the Clean Air Charter
- Serve as a showcase and recognition of their achievements
- Where necessary provide practical guidance and assistance to endorsers of the Clean Air Charter
- Give recognition to the Charter-compliant companies, and
- Disseminate Charter compliance information and success stories to help encourage more companies to participate

http://www.cleanair.hk/eng/business_clean_air.htm

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Assessment Fee

Assessment fee for different company type is indicated as below:

	Group A	**Group B**	**Group C**
Assessment Fee	HK$ 15,000	HK$ 10,000	HK$ 5,000

Assessment fee is designed on a flat rate for each group irrespective of the nature or scale of business.

However additional charges would be applied to cover traveling time to Mainland China or elsewhere in the region, and to assess companies which have signed the charter as a holding company or group of companies and that now wish to certify individual businesses or business units.

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Assessment Fee

The invoicing schedule of different company groups is indicated in the following table:

	Group A	**Group B**	**Group C**
Upon issuing observations and recommendations	HK$ 10,000	HK$ 5,000	-
Upon issuing final report	HK$ 5,000	HK$ 5,000	HK$ 5,000

Timeframe for implementation will depend on the schedule and resources of the applying company. However, for Group C type, assessment shall be completed in 3 months; otherwise, this will be considered as non-compliant. For Group A and B types, assessment shall be completed within 3 months after issuing the site observation with recommendations; otherwise, this will be considered as non-compliant.

For any company who has previously deemed to be non-compliant due to not completing the assessment within 3 months, they can reapply and an assessment of HK$5,000 will be applied.

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Observations

Pilot certification scheme has been conducted in the past few months and we observed that:

- Small company has limited resources in setting up company policy and implement energy mitigation works, in other cases, they have no control over the facilities provisions.
- Publication of the fuel and energy consumption is not common
- Among the 6 commitments, we would not expect actual work done related to the high air pollution dates

Case Study – Office

Commitment	Action done
Operate to a recognized world class standard, or the standards established by the Hong Kong / Guangdong governments on emissions of air pollutants, even if it is not a requirement to do so here. (Relevant to industrial operations, power plants and business with direct emissions)	No major direct emission will be generated. Most of the air emission will be indirect (energy consumption), hence this commitment has limited applicability.
Use continuous emissions monitors (CEMs) at significant sources, e.g. large and medium plants. (Relevant to large / medium industrial operations and power plants)	This commitment is for industrial or power plants, hence not applicable.
Publish information on energy and fuel use, as well as total emissions of air pollutants annually and timely, if emissions are significant.	Energy consumption data has been collected for the past few years and reported in the website. Benchmarking exercise has been conducted using EMSD's online "First Level Benchmarking & Private Target Setting" under the subgroup for "Private office" using centralised air-conditioning provided by the landlord, the annual energy consumption of the office can be compared.

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Case Study – Office

Commitment	Action done
Undertake to adopt energy-efficient measures in their operations. 	Energy label for office equipment such as photocopiers.
	Lighting study to find out whether there is any excessive lighting. De-lamping / Replacing lighting devices by energy efficiency ones
	"General guidelines for energy saving programme" setting up in-house rules on work practices
	Internal checking procedure to check whether lightings and computers are switched off after use in the office or not. Records are provided demonstrating the action.

Case Study – Office

Commitment	Action done
Identify and encourage business-relevant measures to be taken on days when air pollution is high.	All office staffs are encouraged to use environmental friendly transportation as MTR rather than taxis, bus and private car when the outdoor air pollution is high.
Share air quality expertise in business with others.	Newsletter, seminars~
	Contractors are encouraged to use products with zero or low VOCs during renovations.
	Working tips on energy saving / air emission on website

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Case Study – Manufacturer

Commitment	Action done
Operate to a recognized world class standard, or the standards established by the Hong Kong / Guangdong governments on emissions of air pollutants, even if it is not a requirement to do so here.	ISO9001, ISO14001, OHSAS18000 certifications.
	Products are not just complying with EU directive on WEEE and RoHS but also achieving a higher standard. For example, using lead-free glass and lower mercury contained light bulb.
Use continuous emissions monitors (CEMs) at significant sources, e.g. large and medium plants. (Relevant to large / medium industrial operations and power plants)	Air pollution control measures include the exhaustion of lead mists (from soldering), and VOC (inserting process), Hg gas (lighting tube manufacturing) is ventilated and treated by activated carbon system. Air quality is monitored at a regular basis.
	Indoor air quality is also closely monitored to ensure a healthy and safe working environment in the factories.
Publish information on energy and fuel use, as well as total emissions of air pollutants annually and timely, if emissions are significant.	The company environmental policy and objectives are published in their company website with achievement on energy saving, CO2 emission reduction.

Case Study – Manufacturer

Commitment	Action done
Undertake to adopt energy-efficient measures in their operations.	Cleaner flue is applied during manufacturing process including the use of Infrared radiation burner to replace heat conductive burner (save up to 60% electricity consumption) and thermal radiation burner. In addition, LPG heaters are installed to replace the electric thermal burners.
	Use lead-free soldering process to eliminate gas emission. Mechanical snap-in method and water-based adhesive are applied during the manufacturing process
	Natural ventilation system is installed in the factory to reduce unnecessary energy consumption on mechanical ventilation.
	A number of air pollution control measures have been implemented, such as installing active carbon system to treat the Hg gas. Moreover, hydro-venting system is used to treat kitchen fumes.

Case Study – Manufacturer

Commitment	Action done
Identify and encourage business-relevant measures to be taken on days when air pollution is high.	Reduction on vehicle exhaust and will incorporate any future government initiatives on reduction of air emission by vehicle.
Share air quality expertise in business with others.	Newsletter is provided to internal staffs as well as their customers, dealers in Hong Kong and overseas with topics on energy saving, air pollution reduction, etc.
	Participation in varies award competitions on sustainability.
	Television programme regarding the company's sustainability ideas and implementations.

Case Study – Hotel

<table>
<tr><th>Commitment</th><th>Action done</th></tr>
<tr><td>Operate to a recognized world class standard, or the standards established by the Hong Kong / Guangdong governments on emissions of air pollutants, even if it is not a requirement to do so here.</td><td>In view of the main activities of hotel, no major direct emission will be generated. Most of the air emission will be indirect (energy consumption), hence this commitment has limited applicability.</td></tr>
<tr><td>Use continuous emissions monitors (CEMs) at significant sources, e.g. large and medium plants. (Relevant to large / medium industrial operations and power plants)</td><td>This commitment is for industrial or power plants, hence not applicable for hotel. Nevertheless, other direct emissions including emissions from boiler and kitchen exhausts. Regular checking (biweekly) is conducted to ensure normal operations of the equipment.</td></tr>
<tr><td>Publish information on energy and fuel use, as well as total emissions of air pollutants annually and timely, if emissions are significant.</td><td>Benchmarking with other hotels has been conducted.

In-house comparison data on 2005 and 2006 data are summarized:

<table><tr><td>Data Per Occ Rm</td><td>2005</td><td>2006</td></tr><tr><td>Electricity</td><td>67 kWh</td><td>63 kWh</td></tr><tr><td>Gas</td><td>2.64m3</td><td>2.48m3</td></tr><tr><td>Fuel Oil</td><td>113.1MJ</td><td>103.0MJ</td></tr></table>
Resource consumption data were reduced. These figures were displayed to the public through external seminar.</td></tr>
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Case Study – Hotel

Commitment	Action done
Undertake to adopt energy-efficient measures in their operations. 	T5 / T8 and compact fluorescent energy efficient lightings are applied in public areas with timer control. Part of the magnetic ballasts have been replaced by electronic ballasts and those non-energy efficient lightings will all be replaced.
	The preset guest room temperature is 25^0c. In addition, variable speed drive motors are installed for air handling units to enhance the efficiency
	There are 2 escalators in the entrance lobby and would be switched off during non-peak hours in the afternoon
	Study on application of electromagnetic influences device to improve the combustion efficiency of hot water boilers. Supplier was asked to modify the installation for trial purpose.
	Conserve energy through the use of electrical heat recovery machines in the heating / cooling system. Report and proposal were received and under evaluation.

Case Study – Hotel

Commitment	Action done
Identify and encourage business-relevant measures to be taken on days when air pollution is high.	The followings would be considered by the top management: • Defer monthly test-run of generator • Defer delivery of dried and canned food • Minimize intake of fresh air
Share air quality expertise in business with others. 	Incentive programe called "Green Innovator Award" is organized for working staffs
	Notice board indicating the environmental information is available.
	Suppliers are encouraged to participate in their green initiative. Questionnaire is established and sent to supplier to collect understand their environmental practices. Environmental performance of the suppliers would be evaluated.
	Experience sharing by technical seminars and site visits. There are staff newsletters reporting the green practices and activities of the hotel.

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In Future

At present, BEC is the only assessor in the market. If there is a need to expand the assessor network, we would organize training course and invite other interested organizations to participate.

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Act now!

For application, please download the application form from here:

http://www.cleanair.hk/eng/certification/apply.pdf

Give us a call if you have any queries~

Tel: 2784 3917