



# **Business Impact Assessment on Mandatory Implementation of the Building Energy Codes**

**Briefing to the Trade Task Force**

**19 June 2009**



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# Objectives of the Study

- **Evaluate the coverage and requirements of the proposed legislation;**
- **Evaluate the potential benefits and impacts of the proposed legislation to stakeholders and society; and**
- **Develop compliance, mitigation and monitoring measures for the implementation of the proposed legislation.**



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# Stakeholder View Seeking Process

- **Focus group discussion sessions (FGDs)**
  - 526 invitations were sent to various stakeholder groups, of which 69 stakeholders attended the five FGDs in mid-November 2008 to gather views and concerns on the proposed legislation.
- **Face-to-Face interviews (F2Fs)**
  - 16 F2Fs were conducted with various stakeholders (including property developer, property management company, tenant, contractor, engineer, equipment supplier and hospital) during the Study period to discuss the impact of the proposed legislation.
- **Case Studies**
  - Case studies on new and existing buildings (including commercial building, residential building, industrial building and hotel) were also carried out to examine the buildings and building services installations (BSIs) and the associated impacts with various stakeholders within each building type. Information collated from the case studies were also incorporated into the subsequent impact assessment task.



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# Key Stakeholder Groups Engaged

- **Property developers**
- **Multi or single-owned building owners**
- **Property management companies**
- **Tenants (such as tenants in catering, retailing industries)**
- **E&M equipment suppliers, contractors and consultants**
- **Recognised professional bodies**
- **Hotels**
- **Hospitals**
- **Green Groups**



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## Key Findings from Stakeholder View Seeking Process

- **Availability and cost of E&M equipment:** Concerns whether there is sufficient supply of BEC compliant equipment on the market and its price.
- **Policy implementation:** the mandatory requirements should be implemented in phases to facilitate compliance.
- **Compliance procedure:** compliance procedure should be streamlined to minimize the impacts to the stakeholders.



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## Key Findings from Stakeholder View Seeking Process (cont'd)

- **Energy audit:** Concerns about the availability of authorized engineers (AE) for energy audit; some stakeholders suggest focusing on the building services installations in the common areas; difficulties in securing funding for energy audits (especially buildings with multiple ownerships).
- **Public education:** public education and promotion on the proposed mandatory scheme should be strengthened.



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# Impact Assessment – Cost of Regulatory Scheme

Total Cost to Business, in NPV (2009-2019), (HK\$ Millions)

<i>(2008 HK\$, Million)</i>	Minimum	Base Case	Maximum
Total cost NPV	-7,780	-5,997	-5,713

Note: Benefits were taken as negative costs in the analysis.

Cost in NPV of each key stakeholder group (2009-2019), (HK\$ Millions)

<i>(2008 HK\$, Million)</i>	Minimum	Base Case	Maximum
Developers	96	104	134
Owners and Tenants	-7,640	-5,921	-4,221
AEs	-238	-134	-70
Contractors	-18	-9	-5
Suppliers	-64	-37	-29

Note: Benefits were taken as negative costs in the analysis.



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# Impact Assessment – Key Findings

- Total cost in NPV (2009-2019) is negative, indicating the business impact of the policy option in the long term is positive.
- Costs will fall on the developers initially, they will eventually be passed on to the property owners and tenants, and thus the final cost to developers is very low.
- Tenants and property owners will get most of the benefits through energy savings but also ultimately pay most of the additional cost. Benefits will however outweigh costs.
- AEs, contractors and suppliers are likely to earn a profit from the scheme.
- The total cost range reflects the large number of variables involved in predicting the impact of the legislation.



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# Other Potential Benefits of the Mandatory Scheme

- Create job opportunities for recognised professionals in Hong Kong to become AEs under the proposed mandatory scheme;
- Promote energy efficiency and conservation and encourage the building owners to achieve good energy performance in building;
- Raise the public awareness on environmental protection through the use of energy efficient equipment/installations; and
- Avoid Hong Kong becoming or being perceived as a jurisdiction in which substandard equipment/installation can be sold and used.



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# Impact on SMEs and Compliance Difficulties

The impact assessment on SMEs concluded that:

- the impact on SMEs is not significant, as many of the tenancy agreements in Hong Kong are about 1-3 years, major retrofitting works to be carried out by SMEs or responsible persons for all floor areas in premises are unlikely to happen frequently.
- As the proposed mandatory scheme does not require mandatory retrofitting works to meet the BEC standards, SMEs will take into account cash flow issues and profit impacts before undertaking major retrofitting works.

Some issues on compliance difficulties were identified:

- the schedule for completing the first round of energy audits in all existing commercial buildings and commercial portion of composite buildings might be too tight.
- timeframe for submitting the 2<sup>nd</sup> self-declaration within four months upon receiving the occupation approval for new buildings might be difficult in some instances.



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# Recommended Approach

- The proposed regulatory approach will have a net benefit to Hong Kong.
- The level of benefit will depend on several factors such as design of BSIs in new buildings in future; the amount of energy savings from the use of BEC compliant equipment, etc.
- The implementation of the mandatory scheme will bring some intangible benefits to Hong Kong, however, it may create some compliance difficulties to the stakeholders and impose some cost impacts to them.



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# Proposed Mitigation Measures for Policy Implementation

- **Use of guidelines, training workshops and public campaigns**
- **Financial support from the Government**
- **Phased implementation of the legislation**
- **A provision for extension of deadlines for 2<sup>nd</sup> self-declarations on a case-by-case basis**
- **Training of engineers for energy audit**



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# Proposed Measures Prior to the Policy Implementation

- **Streamline the COCR application process as far as practicable**
- **Develop and implement promotional campaigns**
- **Develop grace periods for enforcement**
- **Consult/Inform the industry on the final scheme to be implemented**



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