

## Project Final Report for Professional Services Advancement Support Scheme (“PASS”)

### 1. Project Details

- 1.1 Project Reference No.** : PS191006
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- 1.2 Project Title** : Strengthening Technical Capability and Regional Collaboration in Implementing Retro-commissioning in Buildings
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- 1.3 Grantee** : Building Services Operation and Maintenance Executives Society Hong Kong Limited (BSOMES)
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- 1.4 Collaborating Organisation(s)** :
- (i) Hong Kong Green Building Council
  - (ii) Business Environment Council Limited
  - (iii) Hong Kong Association of Energy Engineers
  - (iv) The Energy Institute Hong Kong (Branch)
  - (v) Hong Kong Air Conditioning and Refrigeration Association Limited
  - (vi) Hong Kong Institute of Qualified Environmental Professional Limited
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- 1.5 Implementation Agent(s)** :
- (i) Hong Kong Productivity Council (HKPC)
  - (ii)
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- 1.6 Sponsoring Organisation(s)** :
- (i) Nil
  - (ii)
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- 1.7 Consultant(s)** :
- (i) Nil
  - (ii)
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- 1.8 Project Co-ordinator** :
- |                         |                             |
|-------------------------|-----------------------------|
|                         | (Post title)                |
| (Name)                  | Retro-commissioning Chamber |
| Ir Chan Nai Kin, Steven | Chairman                    |
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- 1.9 Deputy Project Co-ordinator** :
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|                    | (Post title)                |
| (Name)             | Retro-commissioning Chamber |
| Ir Leung Chi Shing | Vice-Chairman               |
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- 1.10 Project Period (duration)** : from 1 Dec 2019 to 30 Nov 2021 ( 24 months)
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- 1.11 Major Beneficiary Sector(s)** : Building and construction-related services
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- 1.12 Approved PASS Grant (HK\$)** : \$877,000
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## 2. Project Implementation

### 2.1 Project Summary

(Please give a summary of the project including objectives, deliverables and target professional service sectors within 100 words.)

- Strengthen Hong Kong engineers' professional knowledge and skills on implementing Retro-commissioning (RCx);
- Enhance the awareness of building services operation and maintenance sector on implementing RCx for building energy efficiency; and
- Enhance the regional collaboration of Hong Kong engineers with their counterparts in the Mainland.

### 2.2 Project Deliverables

(Please compare the actual results achieved with the agreed targets for each item.)

Agreed Targets		Actual Results Achieved (Please submit copies of all relevant supporting materials, e.g. proceedings, attendance records.)	
Date / Deliverables (with quantity)	Beneficiaries (estimated no. of local / non-local participants)	Date / Deliverables (with actual quantity)	Beneficiaries (actual no. of local / non-local participants)
01/03/2020 to 31/03/2020  1 Half-day seminar on RCx for building energy efficiency	100 Hong Kong building services operation and maintenance engineers	Completed in hybrid mode: 16/06/2020  1 Half-day seminar on RCx for building energy efficiency	482 Hong Kong building services operation and maintenance engineers attended  (87 attended physically and 395 attended online)  (For total participants: 482% of the target met)
01/02/2020 to 31/12/2020  1 RCx casebook with 10 video clips	Browsers on Internet	Published on 06/09/2021  E-copy have been uploaded on BSOMES and collaborating organisations' websites as well as YouTube channel Casebook: <a href="https://www.bsomes.org.hk/index.php/resources-center/resource-center-publications/167-strengthening-the-technical-capability-and-regional-collaboration-in-implementing-retro-commissioning-rcx-in-buildings">https://www.bsomes.org.hk/index.php/resources-center/resource-center-publications/167-strengthening-the-technical-capability-and-regional-collaboration-in-implementing-retro-commissioning-rcx-in-buildings</a>  Youtube: <a href="https://www.youtube.com/channel/UC6s-9BRffeM5Piyfgj5-Ufg">https://www.youtube.com/channel/UC6s-9BRffeM5Piyfgj5-Ufg</a>	Browsers on internet
01/01/2021 to 31/01/2021  1 Half-day seminar to introduce the casebook	100 Hong Kong building services operation and maintenance engineers	Completed online on 18/05/2021  1 Half-day seminar to introduce the casebook	681 Hong Kong building services operation and maintenance engineers attended online  (For total participants: 681% of the target met)

<b>Agreed Targets</b>		<b>Actual Results Achieved</b> <i>(Please submit copies of all relevant supporting materials, e.g. proceedings, attendance records.)</i>	
<i>Date / Deliverables (with quantity)</i>	<i>Beneficiaries (estimated no. of local / non-local participants)</i>	<i>Date / Deliverables (with actual quantity)</i>	<i>Beneficiaries (actual no. of local / non-local participants)</i>
01/03/2021 to 31/03/2021  1 one-day conference on RCx	300 Hong Kong building services operation and maintenance engineers	Completed in hybrid mode: 30/09/2021  1 one-day conference on RCx	791 participants (including 570 Hong Kong building services operation and maintenance engineers and 221 other participants, of which 63 attended physically and 728 attended online)  (For Hong Kong professionals: 190% of the target met)

### 2.3 Project Promotion and Dissemination

*(Please compare the actual means used / outcomes with the agreed activities for each item.)*

<b>Agreed Activities</b>	<b>Actual Means Used / Outcomes</b> <i>(Please submit copies of all relevant supporting materials, e.g. posters, leaflets, invitation letters, publications, website printouts, dissemination e-mails, newsletters, feedback surveys and analysis.)</i>
<b>(a) For Project Promotion:</b>	
To issue invitations and distribute promotion leaflets for the seminars and conference to local building services operation and maintenance professionals by email and Electronic Direct Mail (eDM)	Development of email invitations and promotion leaflets for the seminars to local building services operation and maintenance professionals by email/ eDMs  eDMs via the membership database of BSOMES, the 6 collaborating organizations (Hong Kong Green Building Council, Business Environment Council Limited, Hong Kong Association of Energy Engineers, The Energy Institute Hong Kong, Hong Kong Air Conditioning and Refrigeration Association Limited, Hong Kong Institute of Qualified Environmental Professional Limited) and 14 supporting organizations (Chartered Institute of Housing Asian Pacific Branch, Hong Kong Institute of Real Estate Administrators, The Hong Kong Institution of Engineers- Building Services Division, The Hong Kong Institution of Engineers- Control, Automation & Instrumentation Division, The Hong Kong Institute of Facility Management, The Hong Kong Chapter International Facility Management Association, The Society of Operations Engineers Hong Kong Region, Asian Institute of Intelligent Buildings, The American Society of Heating, Refrigerating and Air-Conditioning Engineers Hong Kong Chapter, Hong Kong Institute of Certified Property Managers, Royal Institution of Chartered Surveyors, The Hong Kong Association of Property Management Companies, The Hong Kong Institute of Housing, The Hong Kong Institute of Surveyors and The American Society of Heating, Refrigerating and Air-Conditioning Engineers Hong Kong Chapter)
To promote the seminars and conference through BSOMES and collaborating organisations' network	Email invitations and promotion leaflets for the seminars to local building services operation and maintenance professionals by email/ eDMs.
<b>(b) For Dissemination of Project Deliverables:</b>	
To distribute the e-copy through the seminar and conference, the network of BSOMES and collaborating organisations	All speakers' presentation, experience sharing and interactive discussions during Q & A session of the two seminars and conference (Presentation files and Group photos of all guest speakers) have been distributed.
To upload onto BSOMES and collaborating organisations' websites	The online RCx practical practices casebook has been uploaded onto the BSOMES's websites.  ( <a href="https://www.bsomes.org.hk/index.php/resources-center/resource-center-publications/167-strengthening-the-technical-capability-and-regional-collaboration-in-im">https://www.bsomes.org.hk/index.php/resources-center/resource-center-publications/167-strengthening-the-technical-capability-and-regional-collaboration-in-im</a> )

<b>Agreed Activities</b>	<b>Actual Means Used / Outcomes</b> <i>(Please submit copies of all relevant supporting materials, e.g. posters, leaflets, invitation letters, publications, website printouts, dissemination e-mails, newsletters, feedback surveys and analysis.)</i>
E-copy of the final report of the conference and seminars – (i) Upload onto BSOMES’s website by batches; and (ii) Notify BSOMES’s members and organisations on the contact list of the release of the online final report	Implementing-retro-commissioning-rcx-in-buildings) The e-copy of the final report of conference and seminars has been uploaded on BSOME’s website. <a href="https://www.bsomes.org.hk/images/2021/Report/PS191006_BSOMES_PASS_Online_Final_Report_20211101.pdf">https://www.bsomes.org.hk/images/2021/Report/PS191006_BSOMES_PASS_Online_Final_Report_20211101.pdf</a>

### 3. Achievements and Grantee’s Evaluation of the Project

#### 3.1 Number of participants and eligible beneficiaries

<b>Project Deliverables</b>	<b>Eligible Number of Beneficiaries (if known)</b>
1 Half-day seminar on RCx for building energy efficiency	482 Hong Kong building services operation and maintenance engineers
1 Half-day seminar to introduce the casebook	681 Hong Kong building services operation and maintenance engineers
1 One-day conference on RCx	570 Hong Kong building services operation and maintenance engineers

#### 3.2 Feedback from participants / users / professional services sectors

<p><u>Feedback collected from the first seminar held on 16 June 2020</u>            100% of respondents agreed that the seminar enhanced their awareness of Retro commissioning (RCx) for Building Energy Efficiency. 100% of respondents agreed that the seminar enhanced their understanding on the latest development of the Retro commissioning (RCx) for Building Energy Efficiency. 100% of respondents agreed that the showcase displayed in the seminar enhanced their knowledge and professionalism on the Retro commissioning (RCx) for Building Energy Efficiency. 100% of respondents agreed that the seminar enhanced their knowledge on the technology advancement and application for Retro commissioning RCx for Building Energy Efficiency. Overall speaking, 89% of the respondents rated “satisfied” and “very satisfied” whereas 7% rated neutral.</p> <p><u>Feedback collected from the second seminar held on 18 May 2021</u>            85% of respondents agreed that the webinar objective is well defined and achieved. 85% of respondents agreed that the content is practical and useful. 100% of respondents agreed that the webinar enhanced their knowledge and skills on the implementation of Retro commissioning RCx for Building Energy Efficiency. 99% of respondents agreed that the time allocated for each sharing was sufficient. 84% of respondents are “satisfied” or “very satisfied” with the contents of the seminar.</p> <p><u>Feedback collected from the one-day conference held on 30 September 2021</u>            94% of respondents agreed that the webinar objective is well defined and achieved. 93% of respondents agreed that the content is practical and useful. 100% of respondents agreed that the webinar enhanced their knowledge and skills on the implementation of Retro commissioning RCx for Building Energy Efficiency. 100% of respondents agreed that the time allocated for each sharing was sufficient. 91% of respondents are “satisfied” or “very satisfied” with the contents of the conference.</p>
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#### 3.3 Dissemination of project deliverables to relevant professionals

- To disseminate the knowledge of Retro-commissioning RCx for Building Energy Efficiency to enhance local building services operation and maintenance professionals’ awareness and standard through experience sharing on
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implementing retro-commissioning. The seminars and conference served as a platform for knowledge transfer.

- A “RCx Practical Practice Casebook” on integrating the best practices on implementing RCx in the market had been developed as a learning tool to facilitate engineers to acquire the knowledge and skills. The casebook consisted of two parts. The first part is about the knowledge of implementing RCx. The second part is cases sharing illustrate the practical skills of implementing RCx in different situations. The 10 cases sharing with video-clips have been uploaded on BSOMES website and YouTube channel to help engineers better understand the cases and ways to apply the skills in a different situation.

### 3.4 PASS and other objectives reached *(May choose more than one)*

- Increasing the exchanges and co-operation of Hong Kong’s professional services with their counterparts in external markets
- Promoting relevant publicity activities
- Enhancing the standards and external competitiveness of Hong Kong’s professional services
- Others

Please elaborate on how the objective(s) was/were met:

- The first seminar held on 16 June 2020 successfully gathered 482 local engineering experts in the environmental conservation, building service operation, property management and related disciplines to enhance their understanding on the latest technology development and applications on the Retro-commissioning (RCx) for Building Energy Efficiency.
- The second seminar held on 18 May 2021 had attracted a total of 681 attendees. At the seminar, speakers shared on the key achievements of RCx and introduce the RCx Casebook to enhance the attendees’ knowledge and skills on the implementation of Retro commissioning RCx for Building Energy Efficiency.
- 570 Hong Kong building services operation and maintenance engineers attended the one-day conference, under the theme of “ New Era of RCx for Building Energy Efficiency” on 30 September 2021. They learnt about the latest trends, challenges and opportunities for RCx in the Mainland, ASEAN countries, US and Europe, with a view to exploring regional collaboration with the Mainland and ASEAN and acquiring latest technologies from advanced nations.

### 3.5 Overall achievements of the project

Achievements of the project objectives including strengthening of Hong Kong engineers’ professional knowledge and skills on implementing RCx as well as enhancement of the awareness of building services operation and maintenance sector on implementing RCx for building energy efficiency.

The Project Final Report is prepared by the Grantee.