Technical Guidelines on Retro-commissioning and Pilot Projects

Climate Ready@HK 氣候變化香港行動

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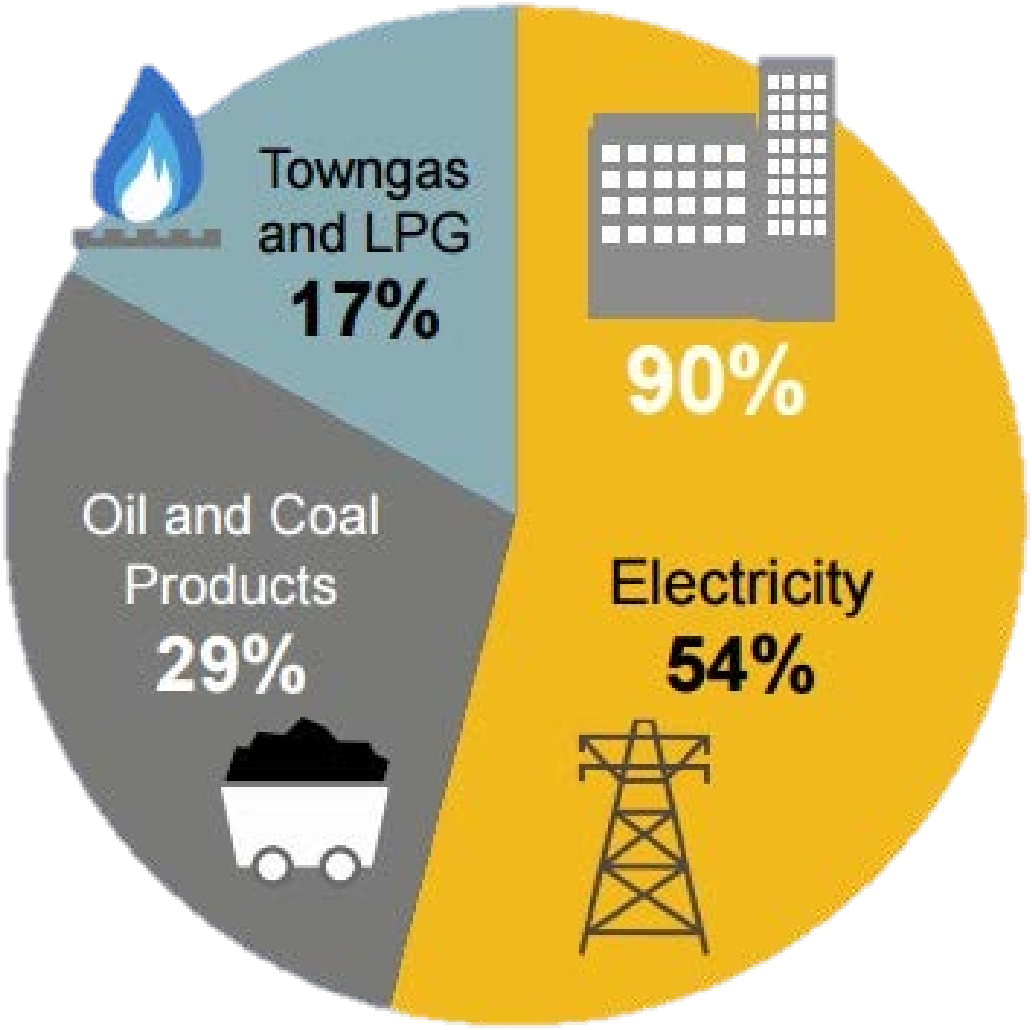

Buildings consume **90%** of the City Electricity

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Existing Buildings in Hong Kong

Age	Number of Buildings	Percentage
<10	5814	14%
10-19	8569	20.6%
20-29	11148	26.7%
30-39	6688	16.1%
40-49	5712	13.7%
>50	3690	8.9%
Total	41621	100%

Source: Buildings Department (as at 31.12.2009)

More can be done on Existing Buildings

- Green housekeeping;
- Retrofitting with energy efficiency equipment;
- Retro commissioning

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What is Retro-commissioning ?

Retro-commissioning is…

- A cost-effective systematic process to periodically check an existing building's performance.
- The process identifies operational improvements that can effectively save energy and thus lower energy bill
- The process can be performed alone or with a retrofit project

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Buildings often get out of tune…

- Changes induced by addition, alterations and improvement works
- Drift off control set points
- Drop in accuracy or sensitivity of sensors and sub-optimal maintenance

- Outdated control system
- Unsatisfactory performance of building
- Unnecessary energy losses

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We completed Energy Audit already!

Why retro-commissioning ?

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What is the difference between an energy audit and retro-commissioning (RCx)?

- RCx focuses on O&M type opportunities, not capital projects like equipment replacement
- RCx may involve corrective actions/quick fix during the investigation
- RCx pushes towards an on-going commissioning effort and engages the owners staff

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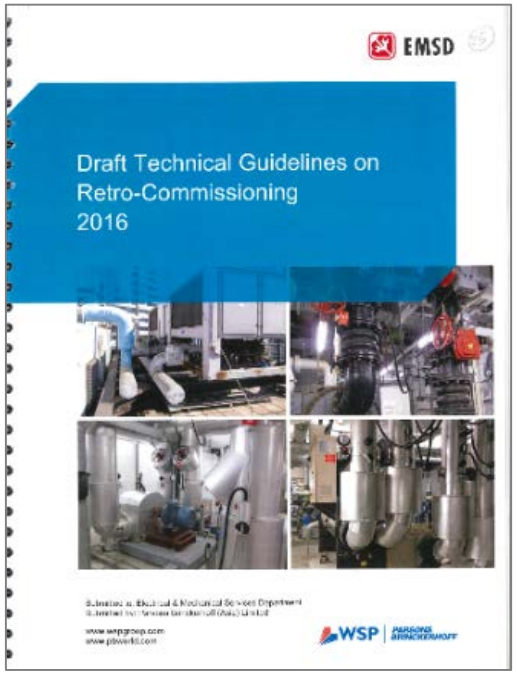
Key Initiatives - Retro-commissioning



- EMSD takes a leading role to develop the Technical Guidelines [TG(RCx)]
- 6 existing government buildings are selected as Pilot study for application of the draft TG(RCx).

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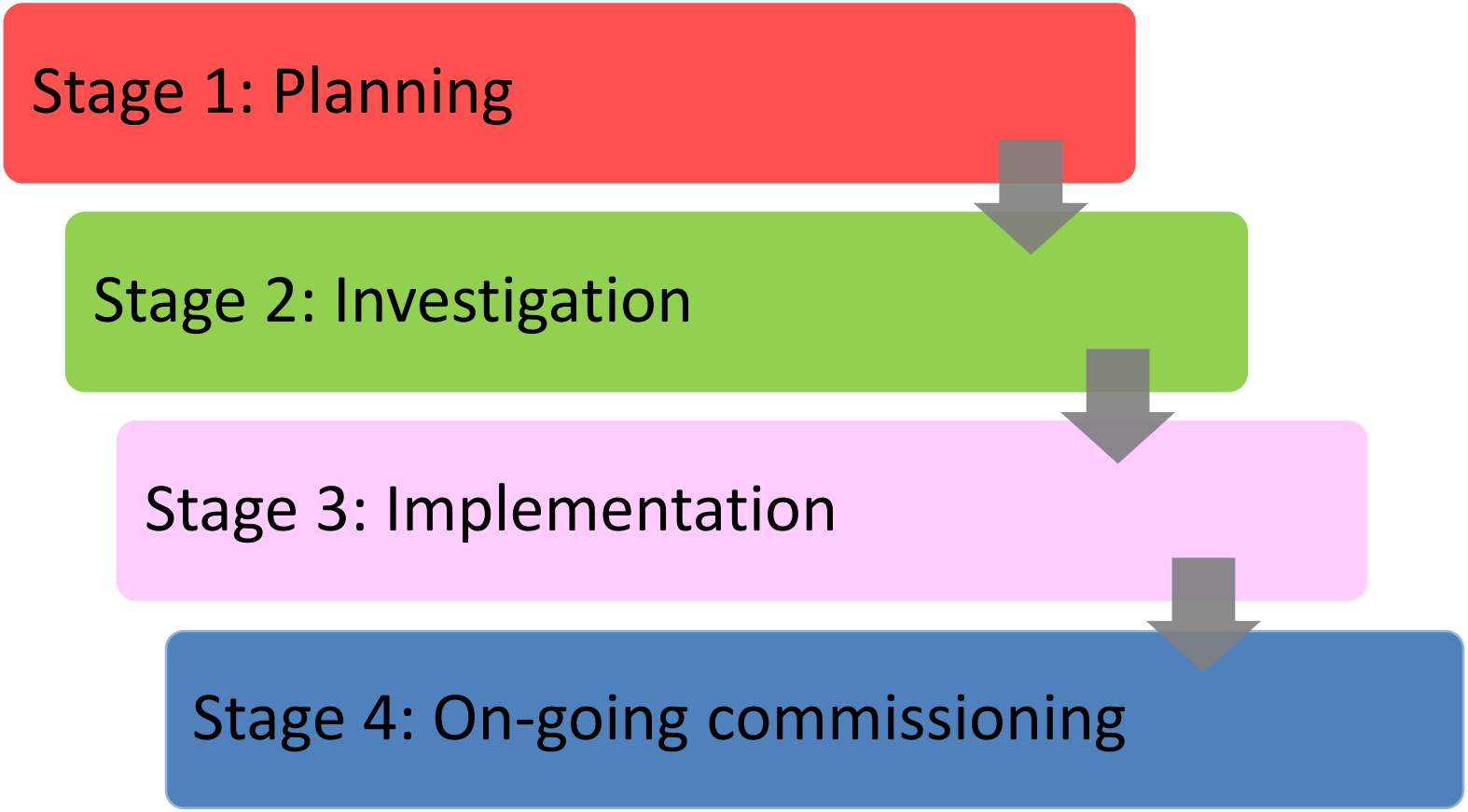
6. Framework of draft TG(RCx)



The Benefits

Improve building performance

Improve occupant comfort and productivity

Improved building systems efficiency and extended equipment useful life

Improve system reliability

Reduce maintenanc e cost

Provide appropriate training to O&M staff

No or Low cost - short payback

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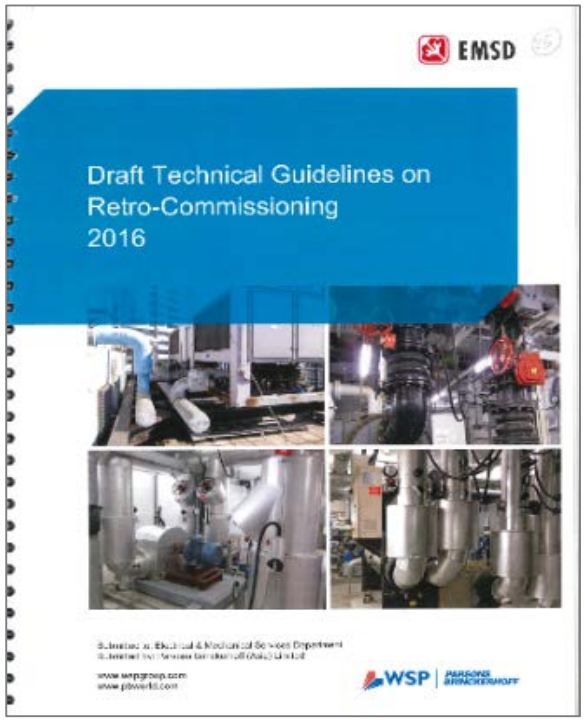
Review of Technical Guidelines on Retro-commissioning



- The pilot studies are still in progress and targeted to be completed by mid 2017.
- The feedback and experience gained from both consultation and pilot projects will be used to fine-tune the draft TG(RCx)
- Revised draft consultation in 2107Q2
- The guidelines targeted to be finalized and launch in **mid 2017**.

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THANK
YOU