

Program Design in Malaysia

Carbon/Energy Reporting Program

Low Carbon Society (LCS) Plans in Malaysia

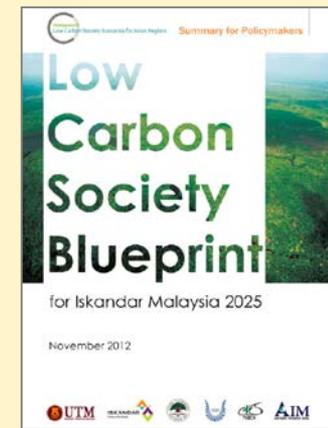
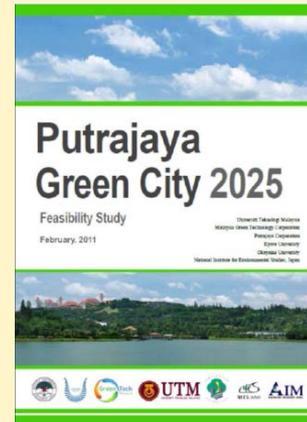
- UTM and AIM have collaborated with City of Putrajaya and Iskandar Region Development Authority to create low carbon society plans (and completed).
- Both of these cities are now moving on to the next stage “implementation” to realize low carbon society.

LCS Planning

through quantitative approach

GHG
Emission &
Reduction

LCS Policies
& Actions



City level LCS Plans

COMPLETED!!

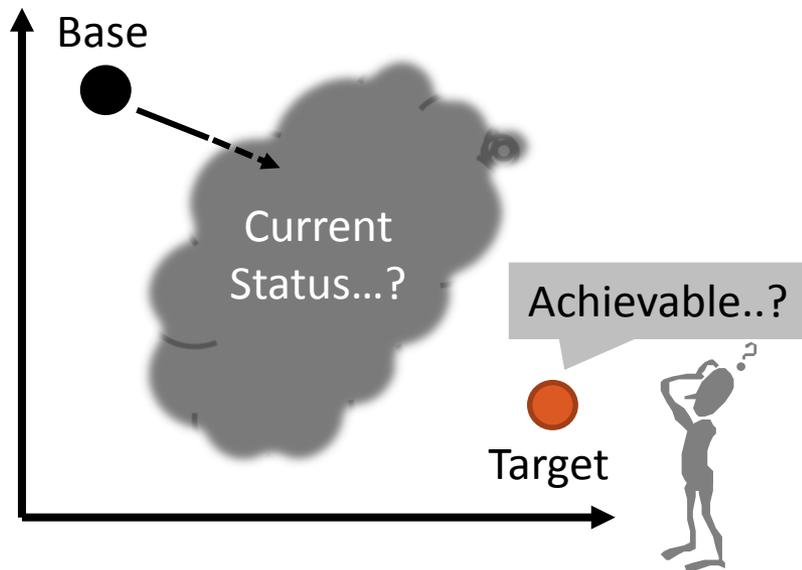
Next Stage

Implementation

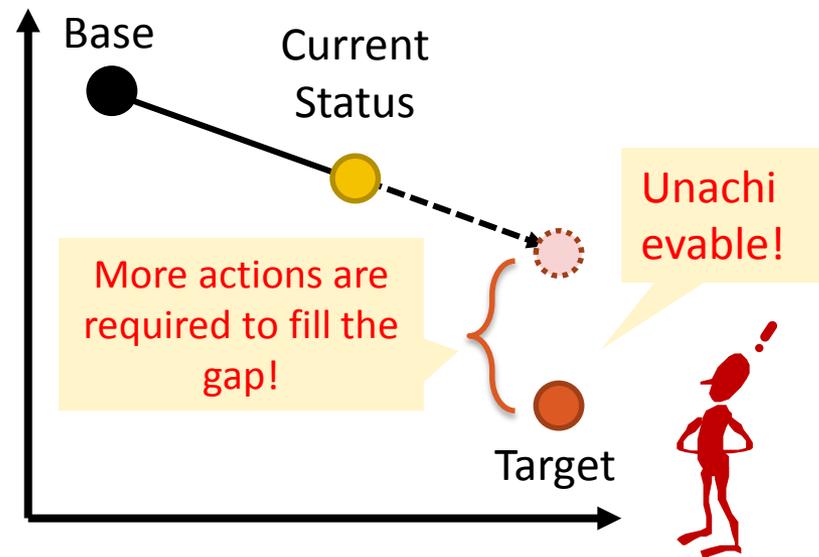
Necessity of Monitoring Scheme

- In order to accomplish low carbon society certainly, progress and/or achievement of policies have to be checked periodically.
- Thus, monitoring of policy implementation is indispensable in implementation stage.

Without Monitoring



With Monitoring



Monitoring enables policy makers to confirm the current status of progress and to consider how to fill the gap between expected trend and actual trend

Best Practice in Tokyo

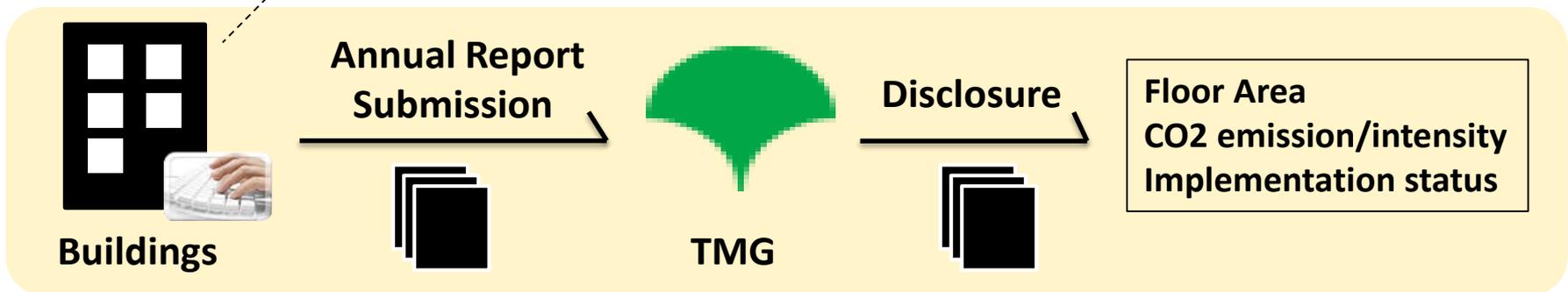
- Tokyo Metropolitan Government (TMG) has operated Carbon Reduction Reporting Program for mid-small scale buildings, which aims to enhance mitigation actions.
- The program asks buildings to monitor and report their CO2 emission as well as mitigation actions taken by owners and/or tenants.

1. Energy Consumption and CO2 Emission in Previous FY

- Calculate CO2 emissions from previous FY's fuel, energy, electricity, water and sewerage use

2. Mitigation Actions Taken in Previous FY

- Choose measures taken from 255 option menu which has been categorized by TMG



Continuous Efforts on the Global Warming Measures

- Realize continuous understanding/management of energy consumption
- Continuous efforts and improvement on the global warming measures

CO2 Emission Reduction (10% reduction has achieved)

Transfer Knowledge from Tokyo to Malaysia

- Collaborative team comprised by UTM/TMG/AIM is trying to transfer the reporting program which has been implemented by TMG.
- We works together with Putrajaya Corporation (PJC) and Iskandar Region Development Authorities to design and introduce a reporting program in these cities.
- Trainings, workshops and intensive discussions many times among both cities' staffs, TMG's staffs and experts have been conducted so far.

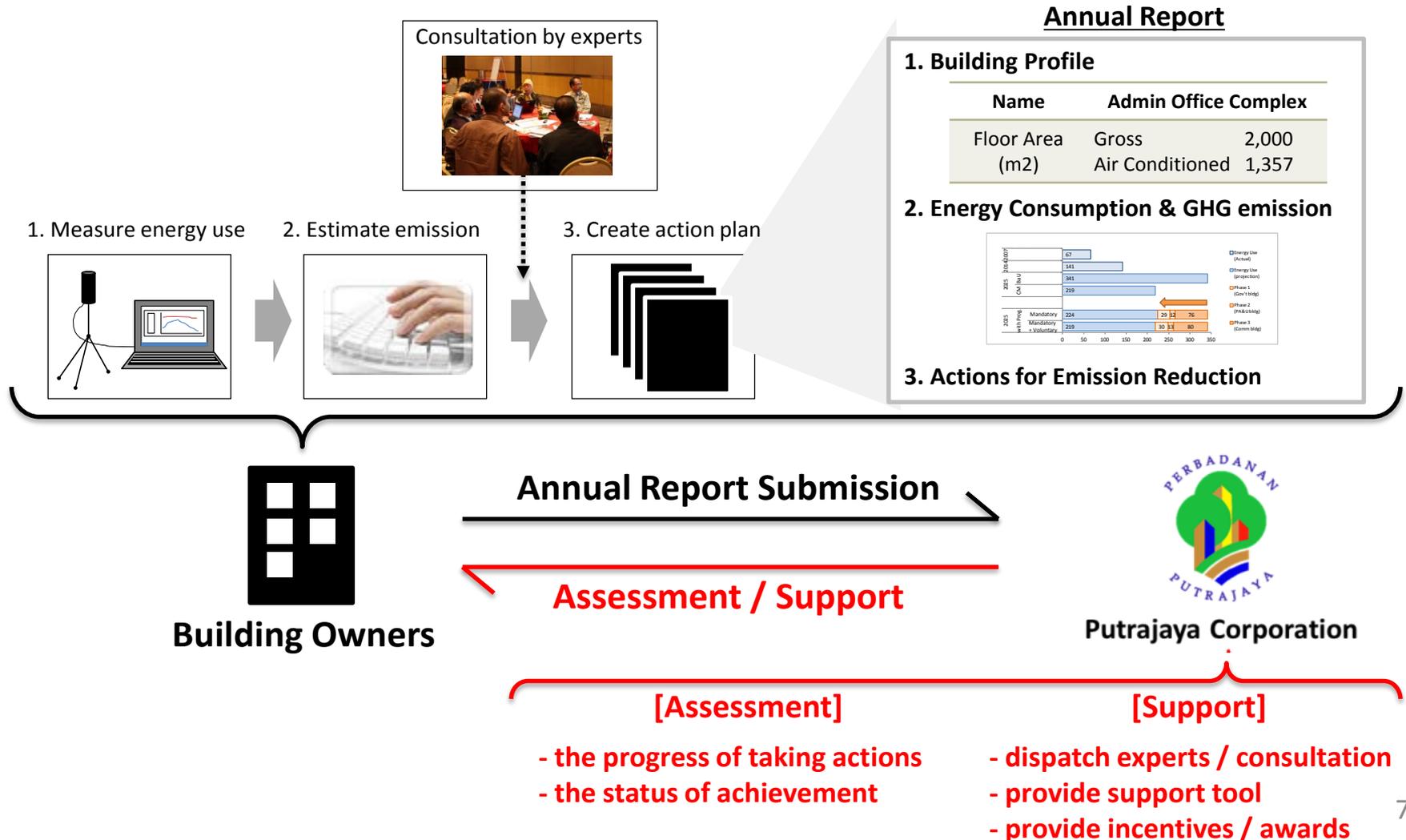


Proposed Scheme and its Impact

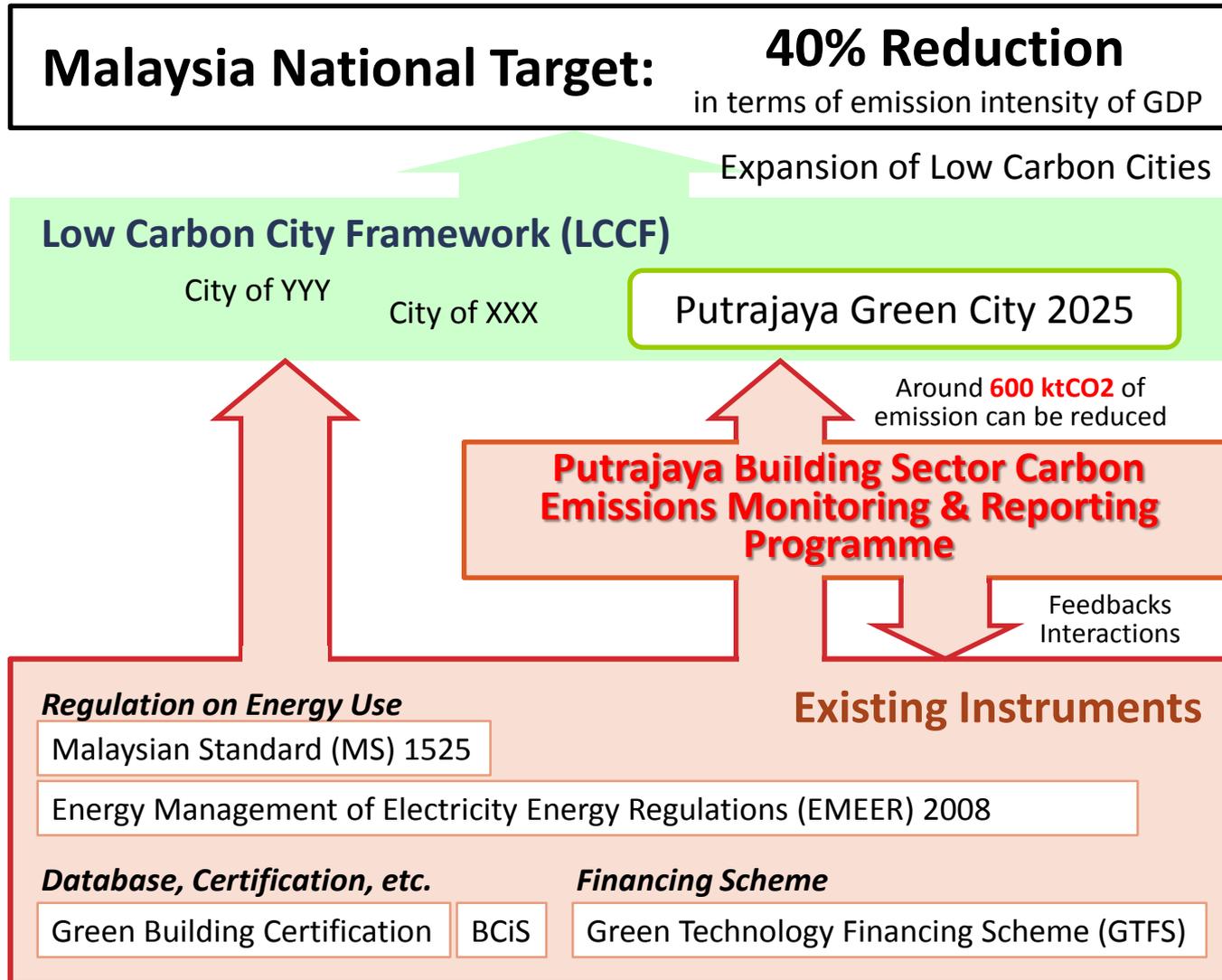
Case in City of Putrajaya

Proposed Scheme (1/2)

- Buildings are required to submit report including energy consumption, GHG emission and action plan for reducing their emission.
- The participating entities can receive feedbacks and support from the authority.



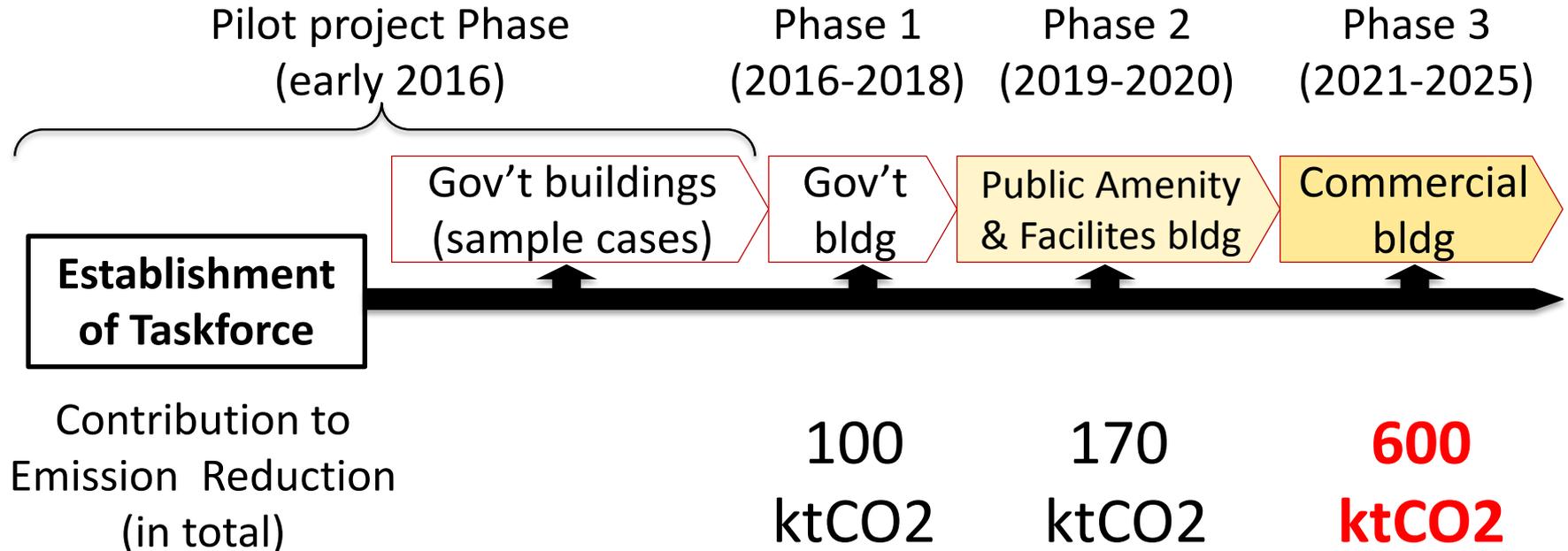
- The proposed scheme is an additional instrument to enhance the function of existing instruments for enhancing low carbon cities in Malaysia.



Expected Impacts of the Programme

Putrajaya

- In order to introduce the programme smoothly, the target buildings shall be expanded gradually.
- Expected impacts are estimated according to Putrajaya Green City 2025. (abt 600 ktCO₂ emission reduction at maximum; amounting to abt MYR 450 (US\$ 100) million in saving through the reduction in energy use.)



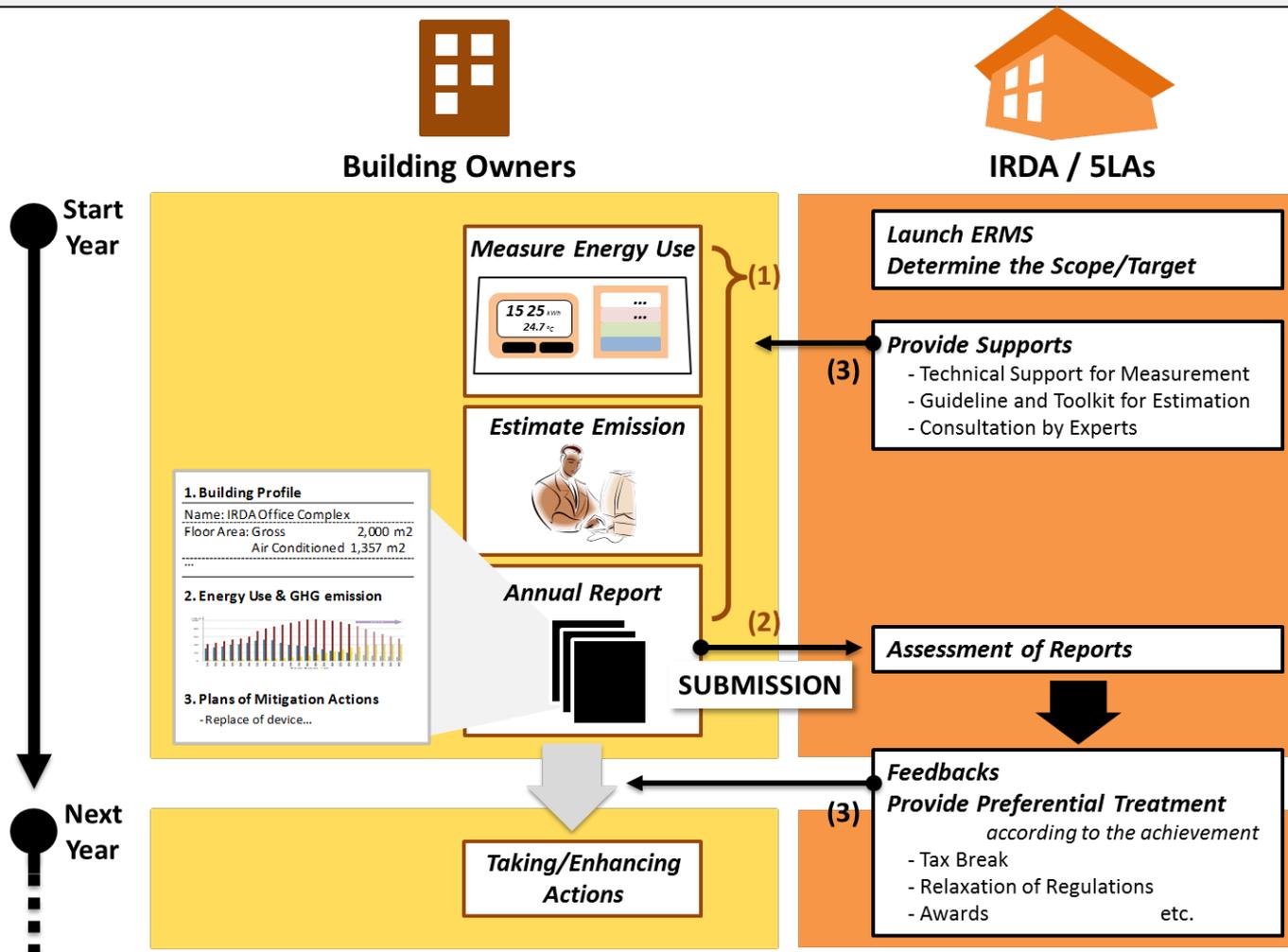
amounting to about **MYR450 (US\$ 100) million** in saving through the reduction in energy use

Proposed Scheme and its Impact

Case in Iskandar Malaysia

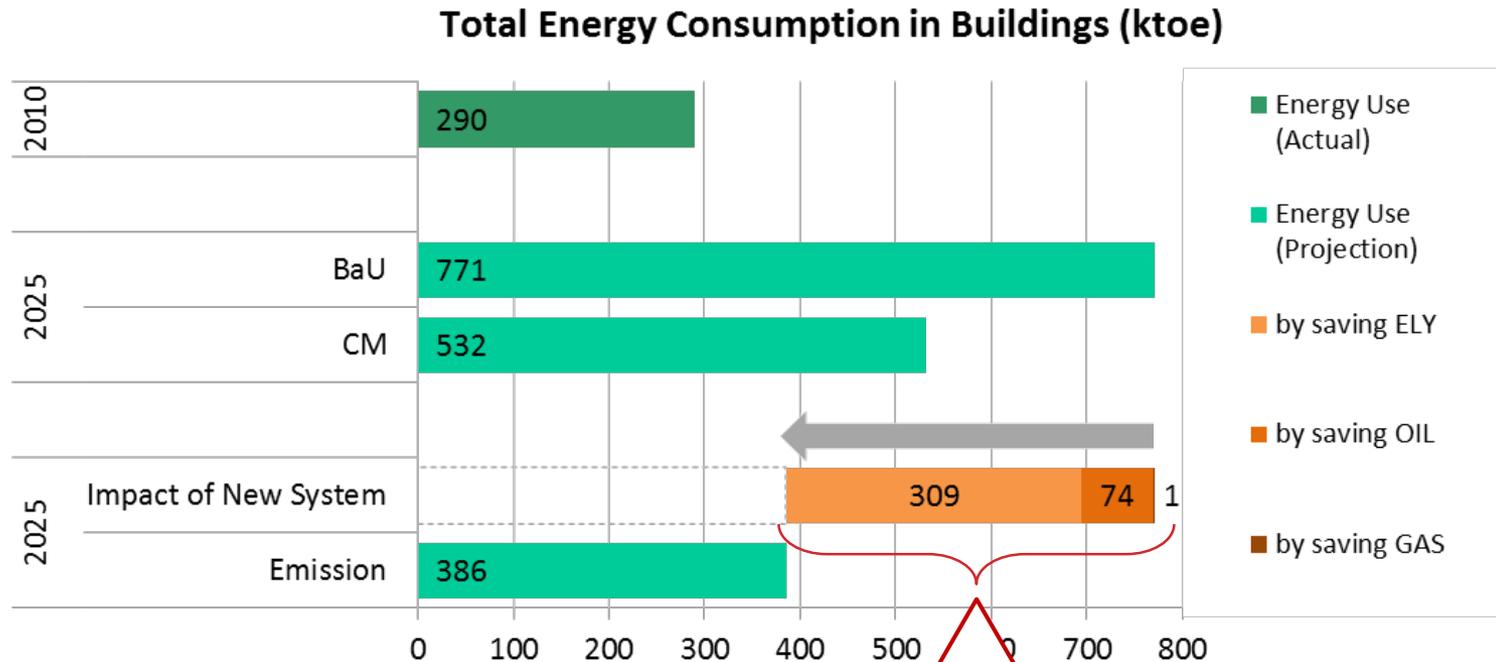
Proposed Scheme

- Building submits reports summarizing their energy usage, emissions and actions to the authorities annually.
- IRDA and/or 5-Las assess(s) the achievements of actions, provide(s) feedbacks and supports to encourage building to take actions.



Expected Impacts of the Programme

- Expected impacts of the programme are estimated according to Low Carbon Society Blue Print for Iskandar Malaysia towards 2025.
- Expected energy saving amount is around 380 ktoe in 2025 at maximum which corresponds to around 2,000 kt CO₂. Accompanying cost saving will reach around MYR 1.3 (US\$ 0.3) billion.



Emission Reduction: abt **2,000 ktCO₂**
Cost Saving: abt **MYR 1.3 (US\$ 0.3) billion**

Positive Feedbacks of the Programme

Other Positive Feedbacks of the Programme

- Various positive feedbacks are expected through the implementation of the Program.

Contribution to real measured **GHG emission reduction**

Potential actual **energy cost savings**

Possible **enhancement in the scoring** in Green Building Index, other certifications, etc.

National and international **exposure/publicity**

Conclusion

Conclusion

- UTM and AIM have collaborated with City of Putrajaya and Iskandar Region Development Authority to create low carbon society plans and completed.
- Both cities are now moving on to the implementation stage to create LCS. In implementation stage, monitoring of policy implementation is indispensable.
- Collaborative team comprised by UTM/TMG/AIM is trying to transfer the reporting program which has been implemented by TMG.
- The proposed Reporting Programs are expected to contribute emission reduction in Putrajaya (abt 600 ktCO₂ at maximum) and Iskandar (abt 2,000 ktCO₂ at maximum).
- Various positive feedbacks are expected through the implementation of the Program.