

# Program Design in Malaysia

## Carbon/Energy Reporting Program

# Low Carbon Society (LCS) Plans in Malaysia

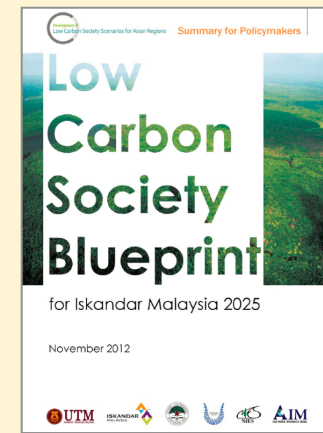
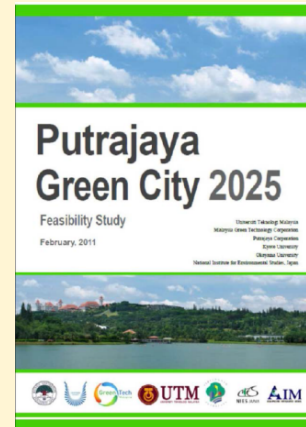
- UTM and AIM have collaborated with City of Putrajaya and Iskandar Region Development Authority to create low carbon society plans (and completed).
- Both of these cities are now moving on to the next stage “implementation” to realize low carbon society.

## LCS Planning

through quantitative approach

GHG  
Emission &  
Reduction

LCS Policies  
& Actions



City level LCS Plans

**COMPLETED!!**

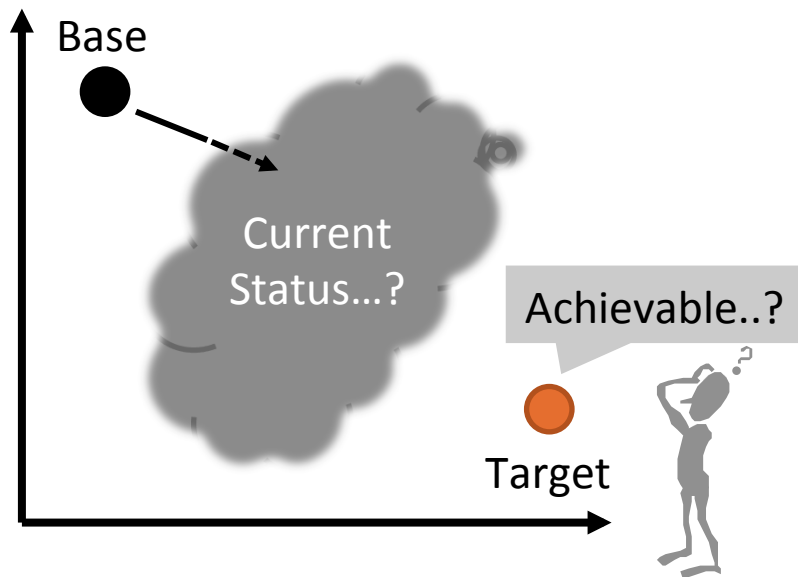
Next Stage

**Implementation**

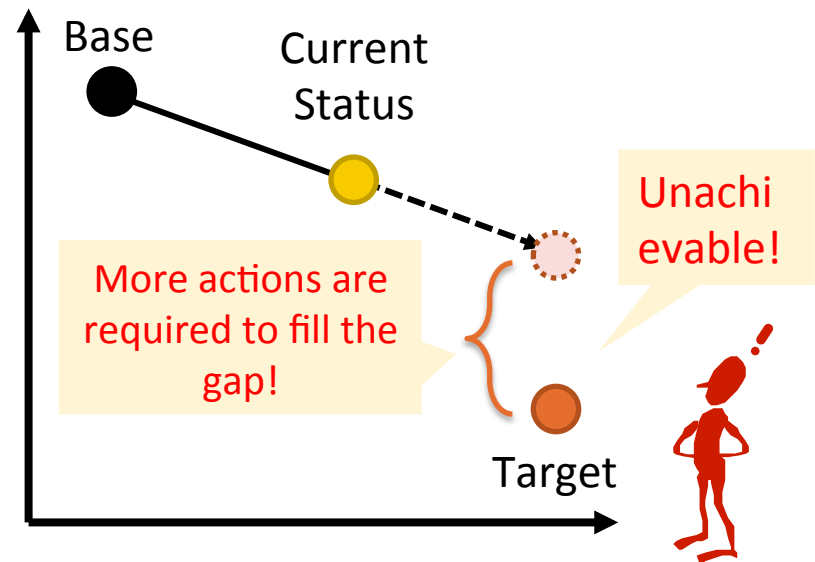
# Necessity of Monitoring Scheme

- 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

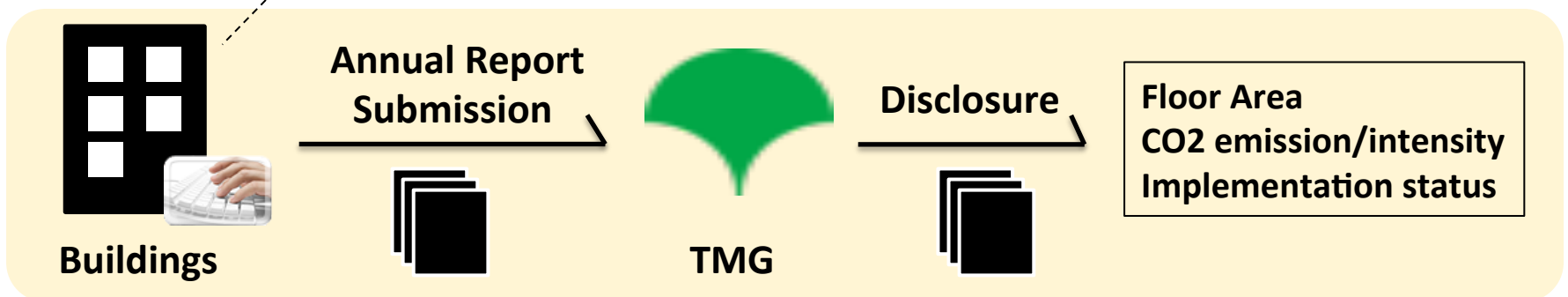
- Tokyo Metropolitan Government (TMG) has operated Carbon Reduction Reporting Program for mid-small scale buildings, which aims to enhance mitigation actions.
- The program asks buildings to monitor and report their CO2 emission as well as mitigation actions taken by owners and/or tenants.

## 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

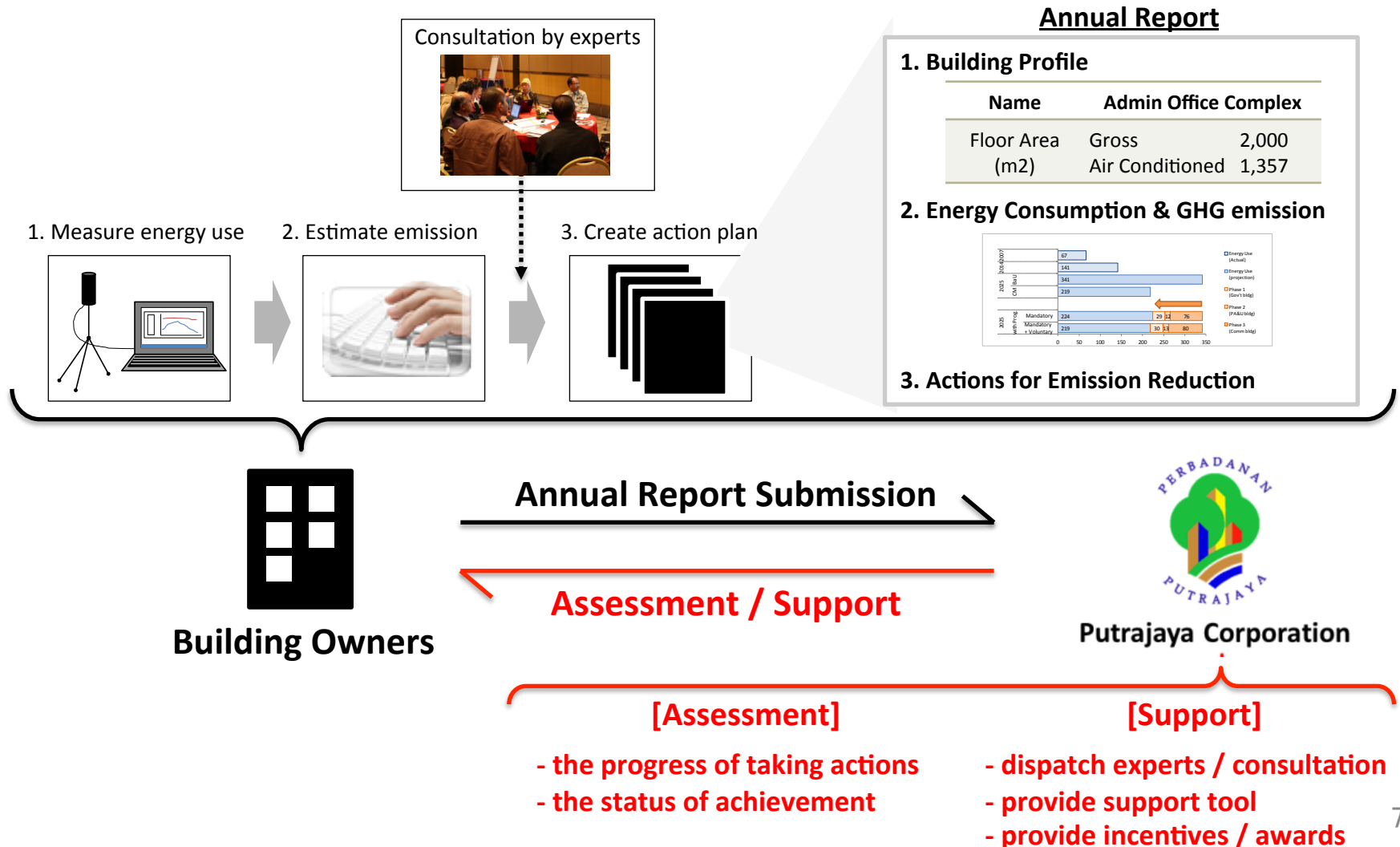
- Collaborative team comprised by UTM/TMG/AIM is trying to transfer the reporting program which has been implemented by TMG.
- We works together with Putrajaya Corporation (PJC) and Iskandar Region Development Authorities to design and introduce a reporting program in these cities.
- Trainings, workshops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



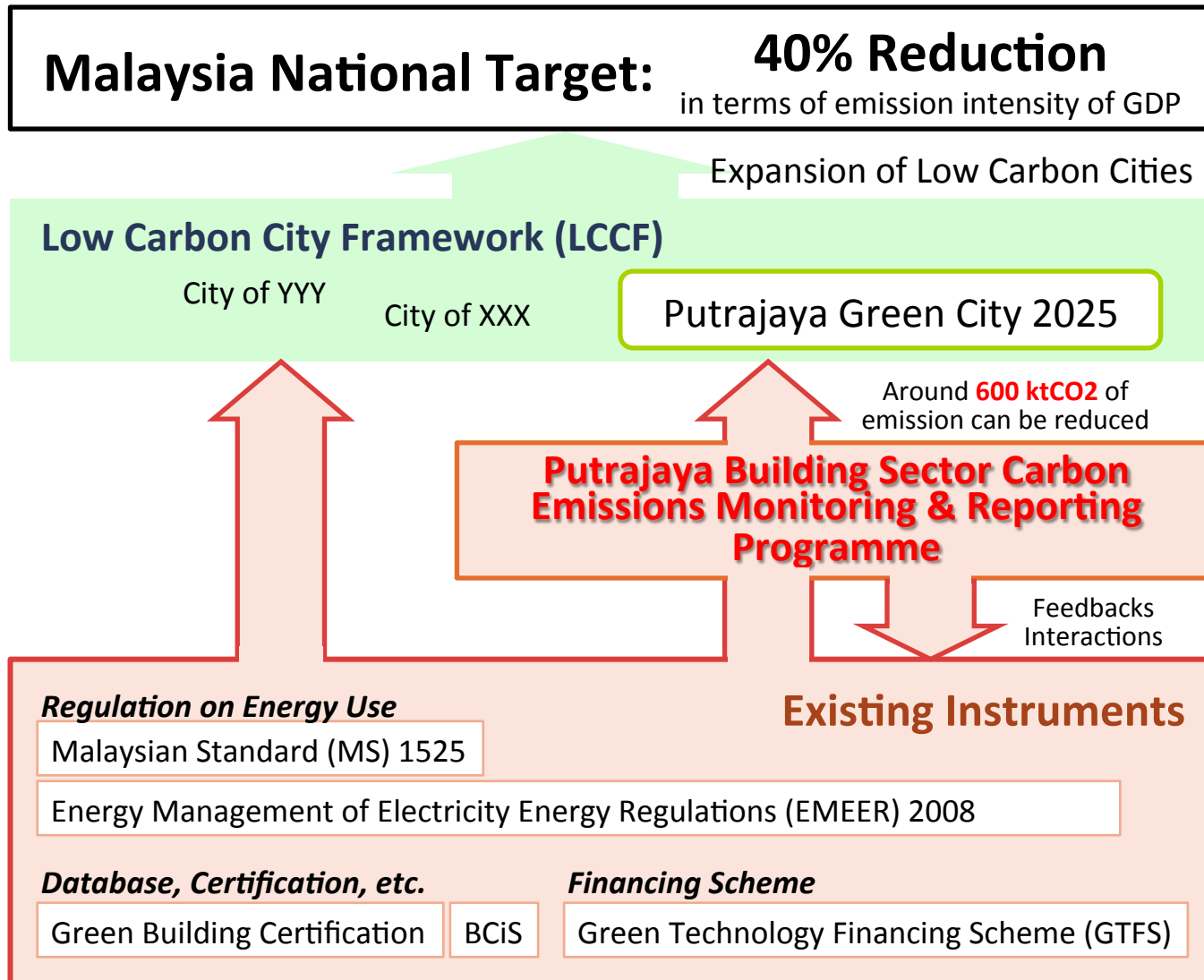
# Proposed Scheme and its Impact

## Case in City of Putrajaya

- 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.

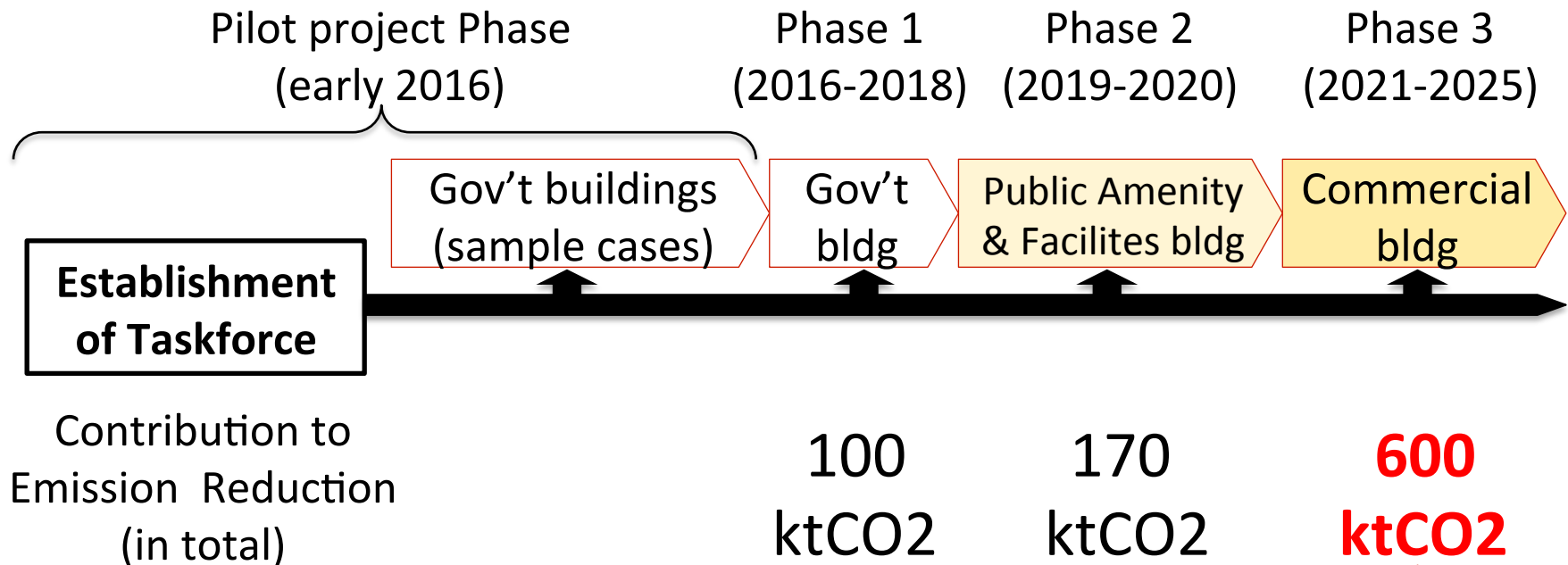




# Expected Impacts of the Programme

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 ktCO<sub>2</sub> emission reduction at maximum; amounting to abt MYR 450 (US\$ 100) million in saving through the reduction in energy use. )

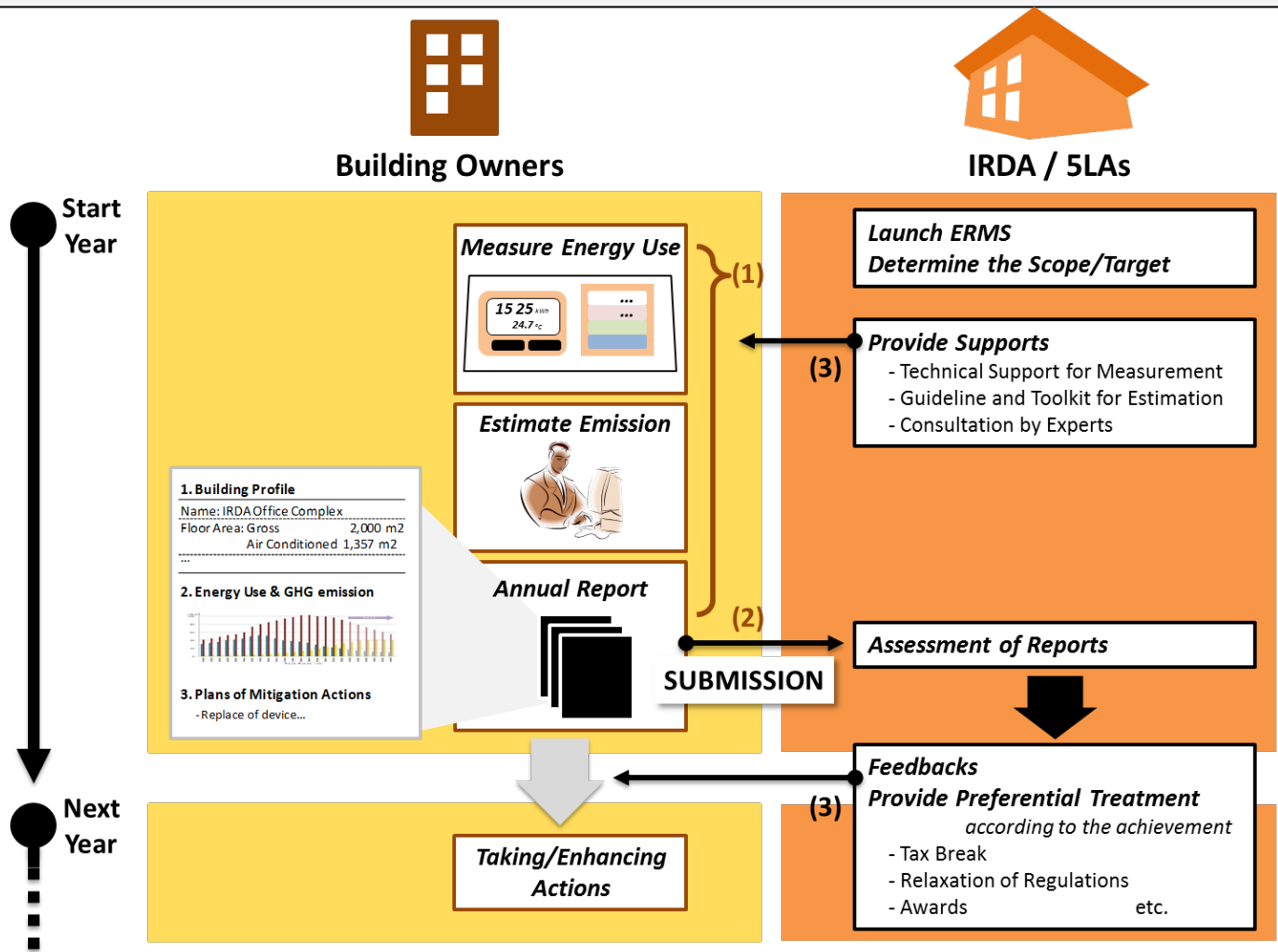


amounting to about **MYR450 (US\$ 100) million** in saving through the reduction in energy use

# Proposed Scheme and its Impact

## Case in Iskandar Malaysia

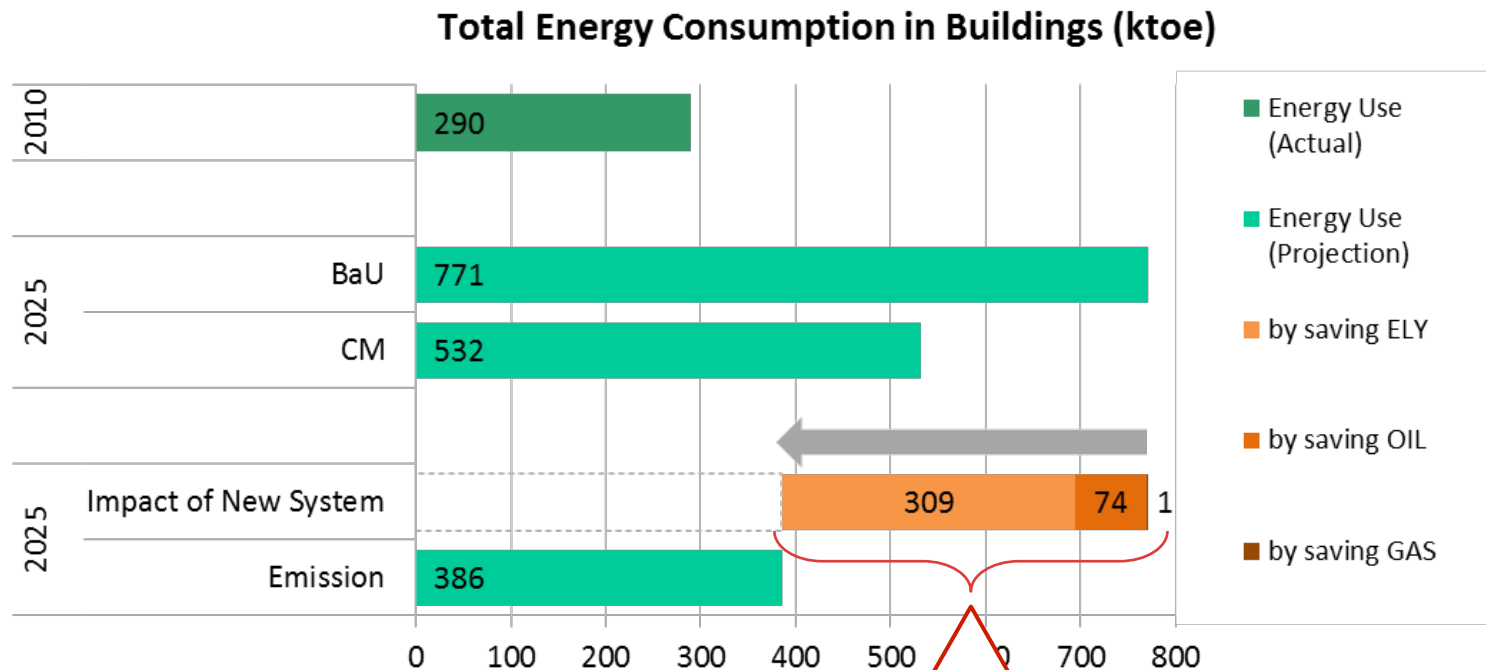
- Building submits reports summarizing their energy usage, emissions and actions to the authorities annually.
- IRDA and/or 5-Las assess(s) the achievements of actions, provide(s) feedbacks and supports to encourage building to take actions.



# Expected Impacts of the Programme

Iskandar

- 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 CO<sub>2</sub>. Accompanying cost saving will reach around MYR 1.3 (US\$ 0.3) billion.



Emission Reduction: abt **2,000 ktCO<sub>2</sub>**  
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

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- 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 ktCO<sub>2</sub> at maximum) and Iskandar (abt 2,000 ktCO<sub>2</sub> at maximum).
- Various positive feedbacks are expected through the implementation of the Program.