



# What are the steps:

## Target setting

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Municipal and Utility Services: Session 5

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 #energyefficientworld

1. **Where to start:** Energy use in municipalities
2. **Where to start:** Energy efficiency potential in municipalities
3. **Toolkit:** Energy-efficient municipal planning
4. **Toolkit:** Energy-efficient technologies

**Where do I get help?** IEA's Technology Collaboration Programmes

5. **What are the steps:** Implementing energy efficiency programmes – target setting
6. **What are the steps :** Implementing energy efficiency programmes – implementation
7. **What are the steps:** Enabling public energy efficiency investment
8. **What are the steps:** Enabling private energy efficiency investment

**Special session:** Multiple benefits of energy efficiency for municipalities

9. **Did it work:** Evaluation and energy efficiency indicators

**Special session:** International and regional initiatives that can help

10. **Energy Efficiency Quiz:** Understanding energy efficiency in municipal and utility services

## 5. What are the steps: Energy efficiency programmes - target setting

**Trainer(s):** John Dulac

**Purpose:** To teach how energy efficiency targets and policies can be used to achieve both energy-saving and development goals.

**Scenario:** A prominent NGO is challenging your targets as not being aggressive enough.

**Question:** How do you identify, quantify, and prioritise energy efficiency programmes and set appropriate targets?

## **1. Why do targets matter?**

- A. Targets work
- B. Targets track progress
- C. Targets increase financing

## **2. Stakeholder consultations to obtain data**

## **3. Setting targets**

## **4. Plan short-term and long-term**

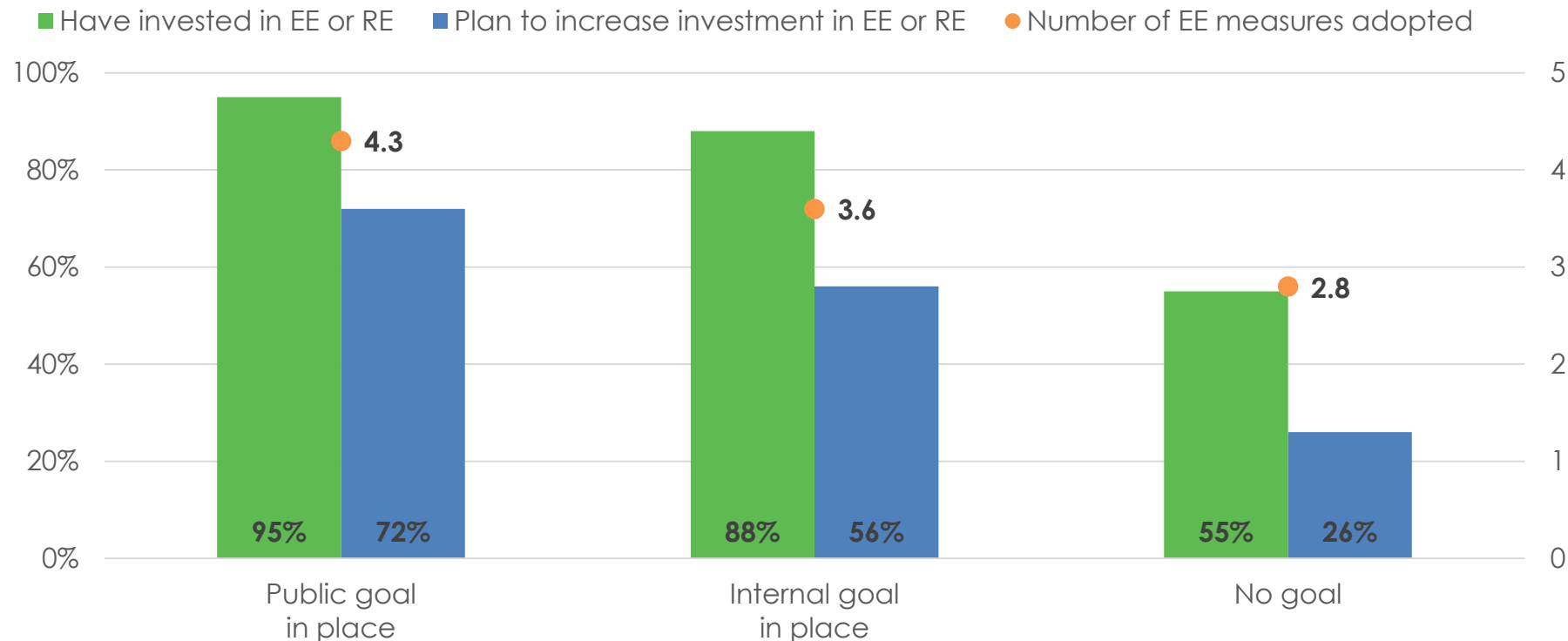
## **5. Make an implementation plan and present to stakeholders**

# 1. Why do targets matter?

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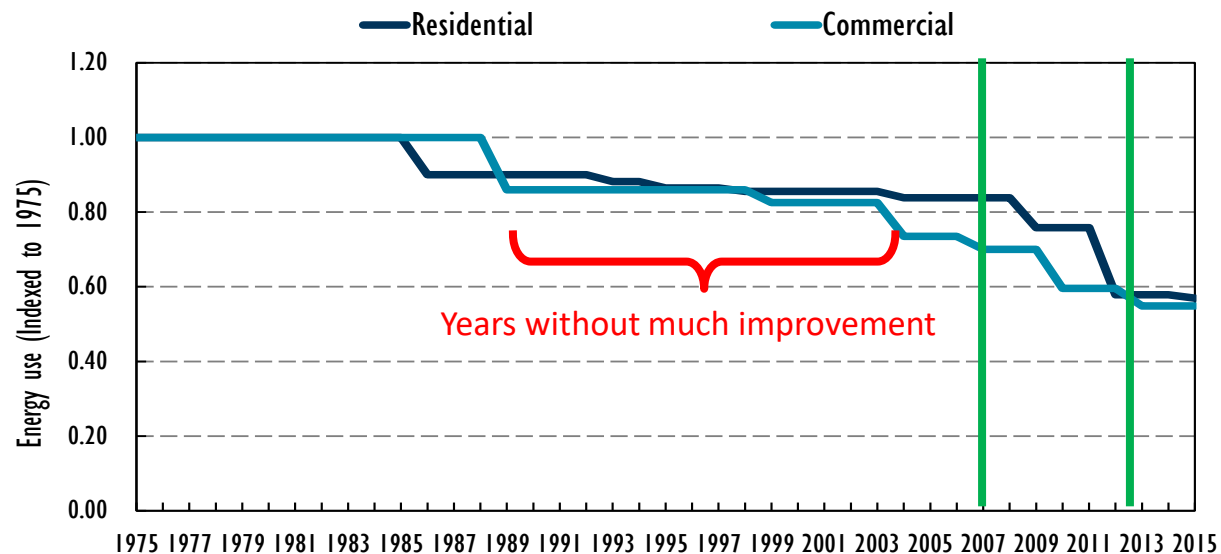
## Targets work: influences behaviour



# 1. Why do targets matter?

## Targets work: compel action

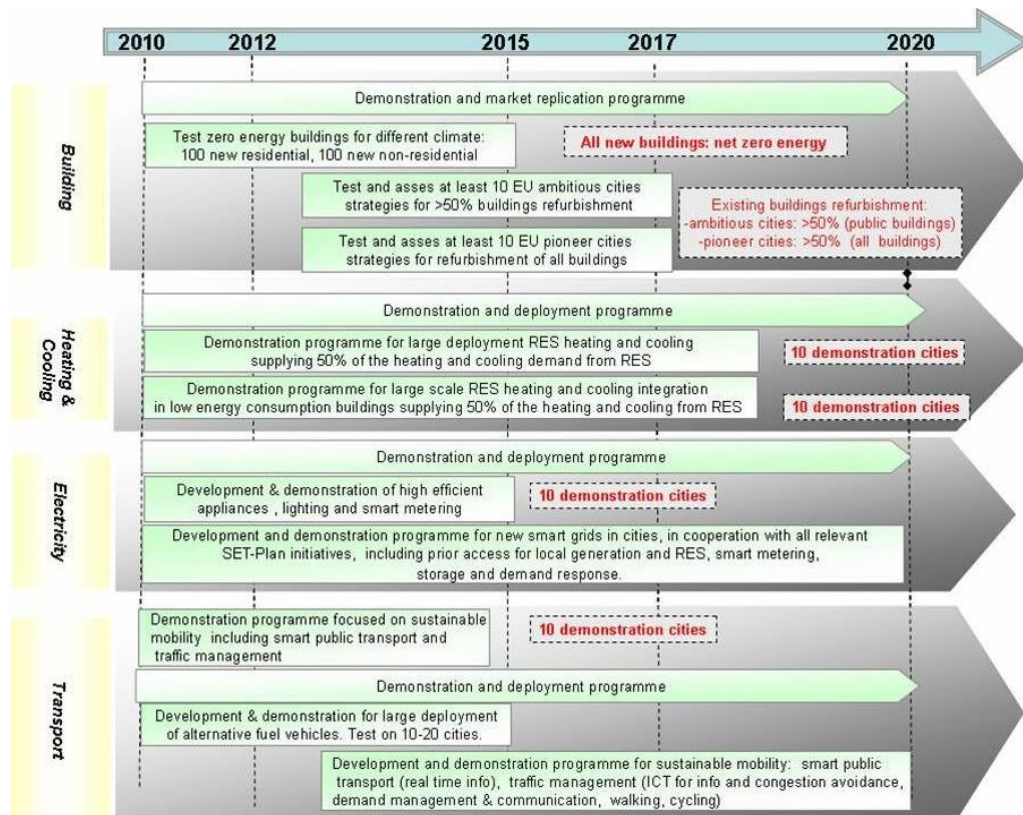
- In 2007, US DOE needed to reduce energy use in new buildings **by at least 30% by 2010** and set this target
- In October 2010, **32% energy savings** was achieved due to building codes



# 1. Why do targets matter?

## Targets work: allows build-up of roadmaps and track progress

- Guide specific activities with intermediate checkpoints building up to the target
- Allows to visualise potential roadblocks, as well as potential areas of coordination with other targets (e.g. **energy access**, **reduction of local air pollution**)





# 1. Why do targets matter?

## Targets increase financing

- Targets show the **municipalities'** **commitment** to energy efficiency and hence reduces the perceived risk from the financial institutions' point of view



## 2. Stakeholder consultation

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- A. Identify key stakeholders
- B. Scoping of priority issues
- C. Techniques and responsibilities

## 2. Stakeholder consultation

### A. Identification of key stakeholders

- General
  - Electric / state utilities for DSM
  - Banks / financial institutions
  - National government
- Buildings
  - Codes policymakers
  - Labor unions/associations
- Transport
  - Land developers
  - Transport policymakers
- Utilities
  - Consumers and operators
- Waste
  - Landfill / waste-to-energy operators

**Who else are the other key stakeholders?**

## 2. Stakeholder consultation

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### B. Scoping of priority issues

- This is the part where you plan who might require special attention. Are there sensitive or controversial topics?
- **Who gets impacted the most?**
  - Will retrofitting requirements provide jobs?
  - Will developers owners get assistance?
  - Will zoning ensure access for those in lower socio-economic status?
  - Will financial credit lines be available?

**What else would be a priority in energy efficiency programmes?**

## 2. Stakeholder consultation

### C. Techniques and responsibilities

- **Employ typical stakeholder consultation techniques**
  - Informal, semi-formal, formal
  - Facilitation of discussion towards objectives and common good
  - Reaching out to new stakeholders when necessary
- **Remember your responsibilities and to assign them theirs**
  - Stakeholder consultation **is an implicit promise** and results should be taken into consideration
  - Consultation **also gives legitimacy to municipalities** to assign responsibilities to specific parties













# 3. Setting targets

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### 3. Setting targets

#### Set the appropriate target

- Municipal targets could be general (**energy intensity, energy consumption**) which could mean different benefits and disadvantages

<b>ENERGY INTENSITY</b> A reduction in energy consumption per unit of activity, such as GDP	 A commonly used metric because data are usually available. Easy to understand Achievement influenced by economic activity and structural change. Not always linked to energy use reduction 	<b>ENERGY PRODUCTIVITY</b> An increase in activity per unit of energy consumed	 Resonates well with some stakeholders Achievement influenced by economic activity and structural change. Not always linked to energy use reduction 
<b>ENERGY CONSUMPTION</b> A reduction in energy consumption relative to a base year, projection or benchmark	 Aligned with environmental benefits of energy efficiency such as emissions reduction Achievement influenced by economic growth and structural change 	<b>ENERGY ELASTICITY</b> A reduction in the ratio of energy consumption growth to activity growth	 Allows for target development in the absence of reliable, detailed data or forecasts Not a commonly used metric and can be difficult to understand 
<b>POLICY PROGRESS</b> An increase in the impact of energy efficiency policies	 Encourages strong policy leadership Difficult to measure 	<b>TRANSACTIONAL</b> An increase in the uptake of energy efficient goods or services	 Encourages an increase in sales of energy efficiency products and services Achievement not always linked to energy use reduction 

# 3. Setting targets

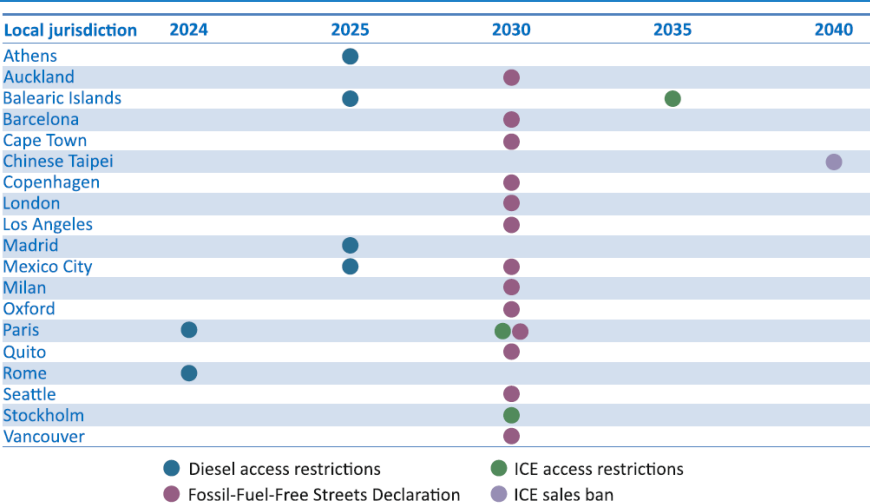
## Set the appropriate target : specific targets

- Buildings in Jakarta
- Transport policies in different cities



Source: <http://greenbuilding.jakarta.go.id/index-en.html>

Table 2.4 • Announced access restriction mandates in local jurisdictions



Source: Global Electric Vehicle Outlook 2018

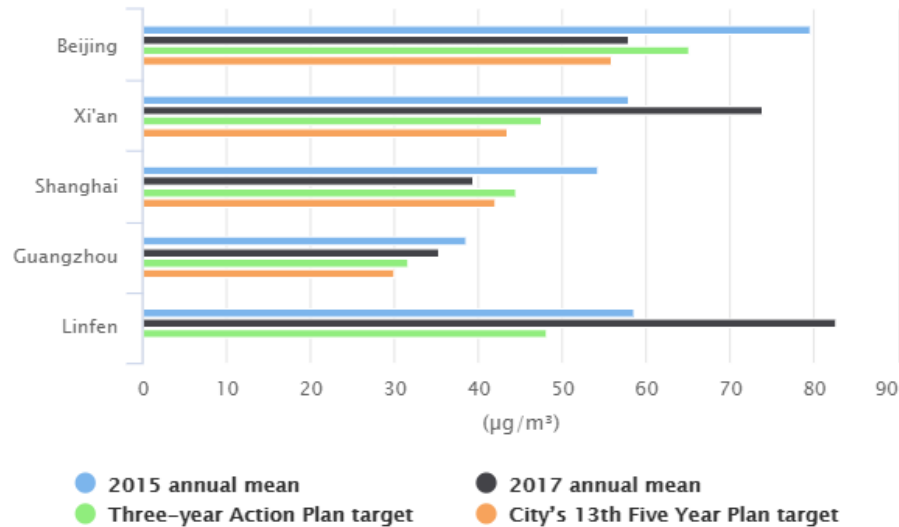


# 3. Setting targets

Set the appropriate target : targets based on multiple benefits

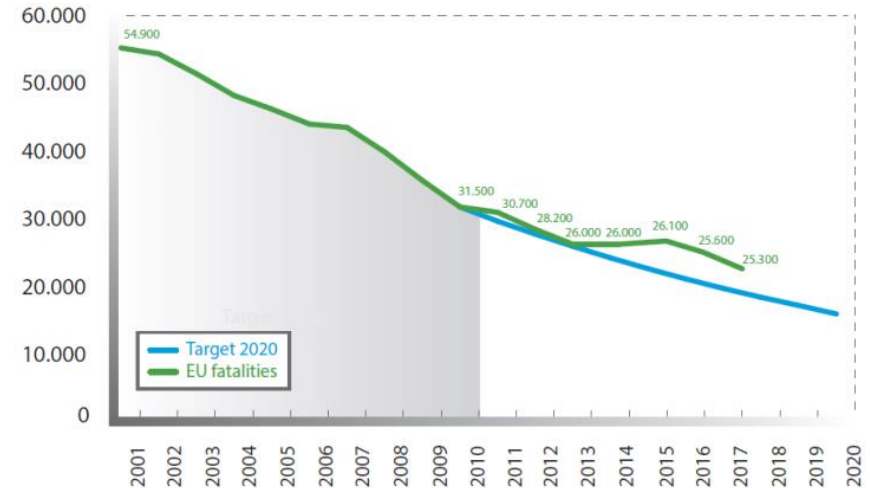
- Air pollution
- Traffic-related deaths

Current PM2.5 levels and targets in some Chinese cities



Source : <https://www.chinadialogue.net/article/show/single/en/10711-China-releases-2-2-action-plan-for-air-pollution>

Graph 1: EU fatalities and targets 2001-2020



Source – CARE (EU road accidents database)

Source : [http://europa.eu/rapid/press-release\\_MEMO-18-2762\\_en.pdf](http://europa.eu/rapid/press-release_MEMO-18-2762_en.pdf)

# 3. Setting targets

## Set the appropriate target : targets based on multiple benefits

- New York's Vision Zero: zero injuries or fatalities
- Key highlights relating to energy efficiency:
  - Cycling
  - Public transport
  - Infrastructure improvement



**Initiative Highlights**  
This plan announces 105 initiatives, including:

**6 Plan Highlights**

**1. Improving Street Safety:**  
Protecting the lives of millions of pedestrians, cyclists, and motorists who use New York's streets every day is DOT's top priority. In the next stage of Vision Zero, DOT will test new design treatments to **reduce left turn conflicts**, one of the leading causes of crashes involving pedestrians, **advocate for legislation to require back seat passengers to wear seat belts**, and **seek state authorization to expand the use of speed cameras**—which have been shown to reduce dangerous speeding by as much as 50 percent.

**2. Expanding Cycling:**  
Adapting best practices from Europe and across the globe, DOT seeks to double the **number of active cyclists** and make New York the best biking city in the United States. DOT will **create at least 10 miles of new protected bike lanes** each year, improve bike access to bridges, and **explore an expansion of the Brooklyn Bridge pedestrian and bike path**. DOT will also begin planning for **CIB Bike Phase 3**, bringing bike share to all five boroughs, and dramatically **expand opportunities for safe and secure bike parking**, especially near transit hubs.

**6. Caring for our Assets:**  
DOT will invest \$14 billion to keep our streets, bridges, and other assets in a state of good repair. The agency will complete a **comprehensive inventory of all of its assets**, invest in **modern asset management systems** to help guide investment decisions, **take into account social, environmental, and financial costs** when making investment choices, and continue to **seek state authorization to use design-build**, a procurement approach that would help DOT complete capital projects at lower cost and in less time.

**5. Developing a 21<sup>st</sup> Century Parking Policy:**  
Following the lead of cities like Seattle, Washington, D.C., and London, DOT will revolutionize how New York City manages curbside parking and loading. DOT will enable parkers to **pay for metered parking by smartphone**, complete a **comprehensive analysis of how our metered parking is used**, better manage and price curb space to **increase parking availability** and loading access in key commercial hubs, and, with the NYPD, **test new technologies to better enforce parking rules**.



# 4. Plan short-term and long-term

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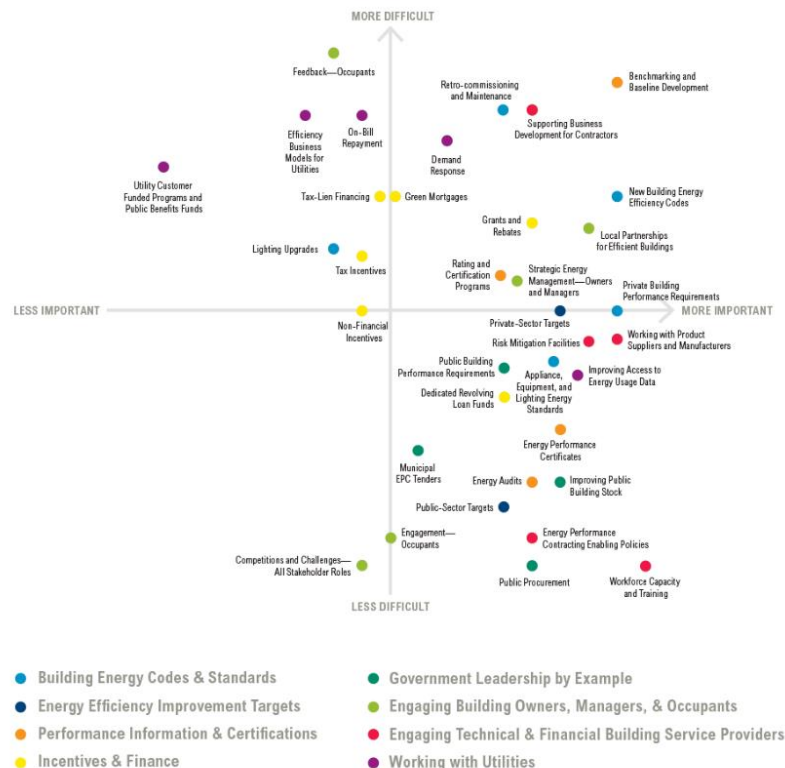
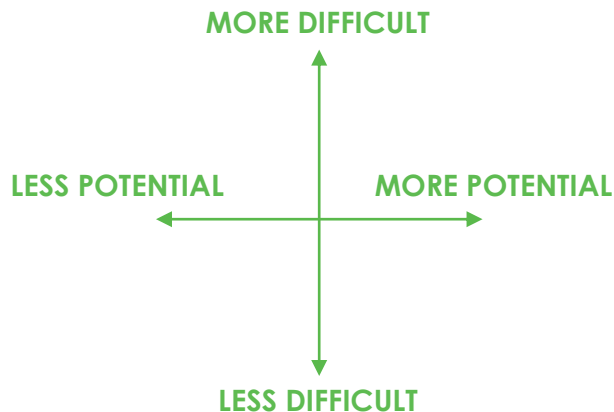
**Scenario:** A prominent NGO is challenging your targets as not being enough to reach climate goals.

**Question:** How do you identify, quantify, and prioritise energy efficiency programmes and set appropriate targets?

**Activity:** Lay out and plan short-term and long-term programmes

## 4. Plan short-term and long-term

- Based on your current level of influence (**Session 1**), and the energy efficiency potential (**Session 2**) rank the policies and programmes based on difficulty and importance/potential



## 4. Plan short-term and long-term

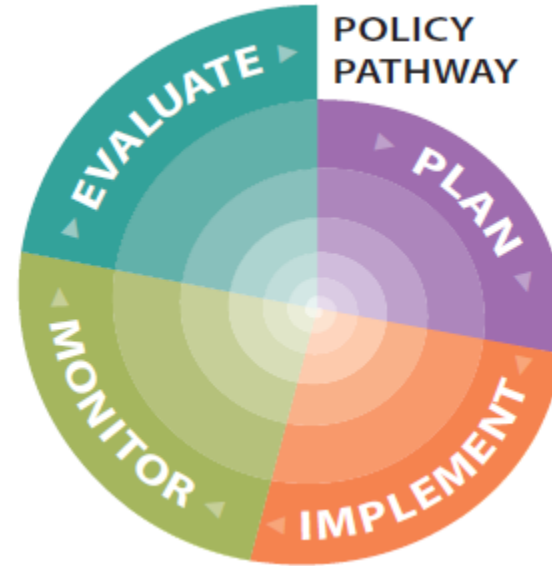
- A few examples of municipal policies/programmes for classification:
  - Municipal DSM (Demand Side Management)
  - Transit-oriented development
  - Electric and low carbon vehicle incentives
  - Information and Communication Technologies infrastructure for traffic management
  - Streetlight replacement
  - Motors replacement
  - Energy audits (public buildings, utilities)
  - Energy management systems (public buildings, utilities)
  - District energy systems
  - Electricity smart metering
  - Waste-to-energy programmes

# **5. Make a plan and present to stakeholders**

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## 5. Make a plan and present to stakeholders

- **Plan** – Sessions 1-5
- **Implementation** – Session 6-8
- **Monitor and Evaluate** – Session 9







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