

# Optimizing renewables in Cities: successes, replication potential, challenges and solutions

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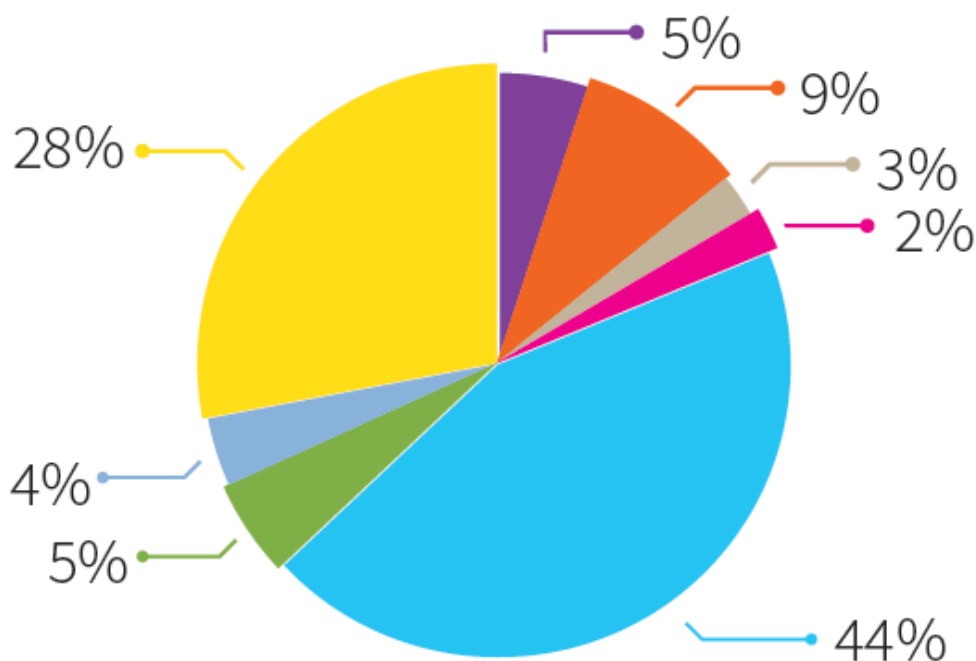
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## Successes - Cities in action (i)

- **Leadership & drive from local governments (LGs).**
- LGs = **governmental stakeholders** in int. climate negotiations.
- **Many different motivations for LGs:** Link to sustainable development, climate change mitigation and adaptation, improved community resilience, access to energy, stimulate green urban economy, ...
- **Replication potential** is context specific.
- **Wide range of solutions available:** people, policy, finance, technology.
- **Lessons learned need to be more widely shared.**

## Successes - Cities in action (ii)

### Actions



- More than 90% of all reported 4,000+ actions are either completed or in progress,
- More than 50% of these actions which are financed by municipal resources.
- Policy/strategy development (45%) and technical/ infrastructure investments (28%) are the most frequently reported actions in 2013 GHG inventories.

- Assessment / Research
- Education / Awareness Raising
- Fiscal / Financial mechanism
- Organizational / Governance
- Policy / Strategies / Action Plans
- Public Participation / Stakeholder engagement
- Regulatory
- Technical / Infrastructure investment

## Ongoing ICLEI case study collection

- Basket of RE projects identified by end of 2006, then allocated staff on a permanent basis to RE projects - **Nelson Mandela Bay, South Africa**
- Hybrid wind and solar PV system was installed at bus station as demonstration model - **Coimbatore, India**



## Examples – IRENA case studies

- Green econ dev strategy with RE industries, **Dezhou, China**
- RE potentials analysis for targeted policy intervention – **Chemnitz, Germany**
- Integrating RE targets into city planning – **Malmö, Sweden**
- LG regulation ordinances & laws to promote RE – **São Paulo, Brazil**
- PV-powered street lighting – **Nagpur, India**
- Stimulating RE through public & private procurement – **Austin, USA**
- Waste-to-energy for more effective landfill site management – **Belo Horizonte, Brazil**

## Challenges (i)

- **Categorization of challenges:**
  - Funding
  - Institutional
  - Technical/Human Capacity
  - Perception
- **Funding and Institutional: Local climate action and energy is mostly **voluntary** – no mandate = **no funds / competing priorities.****

## Challenges (ii)

- **Technical / Human capacity and Perception Challenges:**
  - Local leaders & technical municipal staff should be **empowered to better understand and explore low-carbon development (incl. RE, EE, energy savings):**
    - How to institutionalize in municipal structure and processes
    - How to conduct RE scenarios / select appropriate one
    - With whom to engage / how to optimize stakeholder engagement
    - How to enhance co-benefits for local community
    - Value of reporting

## Challenges (iii)

- **Institutional and Capacity Challenges:**
  - Make LG process and projects **Measurable, Reportable, Verifiable (MRV)**.
  - ICLEI developed a comprehensive response in its **GreenClimateCities program:**
    - developed **MRV for local climate process**
    - **testing this** in Urban-LEDS project (cities from Brazil, India, Indonesia, South Africa)
    - conducting GHG inventories using multi-lingual **Harmonized Emissions Analysis Tool *plus* (HEAT+)**
    - reporting in **carbonn Cities Climate Registry**



## Call (i)

- **Create enabling frameworks that actively support local climate / energy action led by local governments, including:**
  - **Regular flow of up-to-date information** (policy, trends, technology options, sharing lessons, mistakes to avoid)
  - **LG capacity to act:**
    - Mandate
    - Fair share of tax income to enable local action
    - Trained staff
- **Ease access to financing** – i.e. reduced admin for applications, credit worthiness, direct access to Climate Funds, ...

## **Call (ii)**

- **Support existing programmes and activities – accelerate:**
  - Earth Hour City Challenge** – stimulating competition between cities (national and international)
  - GreenClimateCities program with MRV process**
  - Strengthen regular reporting** as a mechanism to monitor developments and identify weak areas – **carbonn Cities Climate Registry**
  - Improve multi-governance coordination and synergies** through vertical integrated efforts – commitments, reporting, ...
- **Explore practical support at June Summit**

# Links – Technical support

- GreenClimateCities program: [www.iclei.org/gcc](http://www.iclei.org/gcc)
- Global Protocol on Community-scale GHG Emissions (GPC): [www.ghgprotocol.org/city-accounting](http://www.ghgprotocol.org/city-accounting)
- HEAT+, GHG quantification and monitoring tool: <http://heat.iclei.org>
- Urban-LEDS project: [www.urban-leds.org](http://www.urban-leds.org)
- Procura+ Campaign, green public procurement: [www.procuraplus.org](http://www.procuraplus.org)
- Resilient Cities Congress series: <http://resilient-cities.iclei.org>
- Local Renewables Initiative and Conferences: [www.local-renewables-conference.org](http://www.local-renewables-conference.org)



## Links – Global processes

- Mexico City Pact:  
[www.worldmayorscouncil.org/the-mexico-city-pact](http://www.worldmayorscouncil.org/the-mexico-city-pact)
- Durban Adaptation Charter:  
[www.durbanadaptationcharter.org](http://www.durbanadaptationcharter.org)
- carbonn Cities Climate Registry (cCCR):  
- global reporting platform for local climate action for Mexico City Pact and Durban Adaptation Charter signatories, as well as other voluntary city actions  
[www.citiesclimateregistry.org](http://www.citiesclimateregistry.org)



## Links – Global climate advocacy

- Local Government and Municipal Authorities (LGMA) Constituency at the UNFCCC (ICLEI is the focal point)
- Local Government Climate Roadmap: [www.iclei.org/climate-roadmap](http://www.iclei.org/climate-roadmap)
- World Mayors Council on Climate Change (WMCCC): [www.worldmayorscouncil.org](http://www.worldmayorscouncil.org)



**United Nations**  
Framework Convention on  
Climate Change



**Local Government  
Climate Roadmap**  
Recognize • Engage • Empower



**World Mayors  
Council on  
Climate Change**

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