

# THE DISTRICT ENERGY IN CITIES INITIATIVE



## DISTRICT ENERGY IN CITIES

A GLOBAL INITIATIVE TO UNLOCK THE POTENTIAL OF ENERGY EFFICIENCY AND RENEWABLE ENERGY



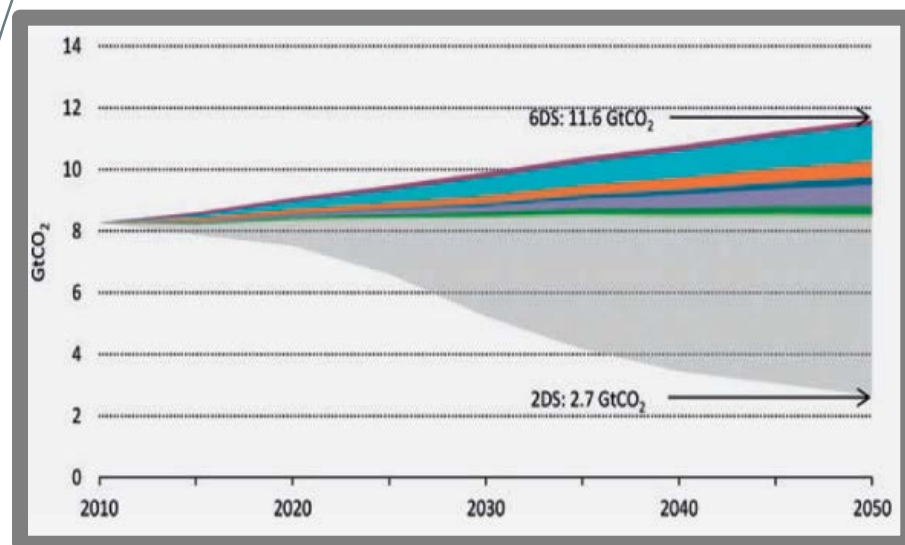
Celia Martinez, Technical Coordinator Latin America and Africa, District Energy in Cities Initiative



# WHY IS DISTRICT ENERGY IMPORTANT TO THE UN?

## Some facts...

- Heating, hot water and cooling account for **60% of the global energy consumption** in buildings, largely met by fossil fuels
- Cooling demand will **grow by 625% by 2050** in selected regions of Asia and Latin America (IEA 2°C scenario)
- Emissions from the buildings sector need to be reduced by approximately 75% by 2050

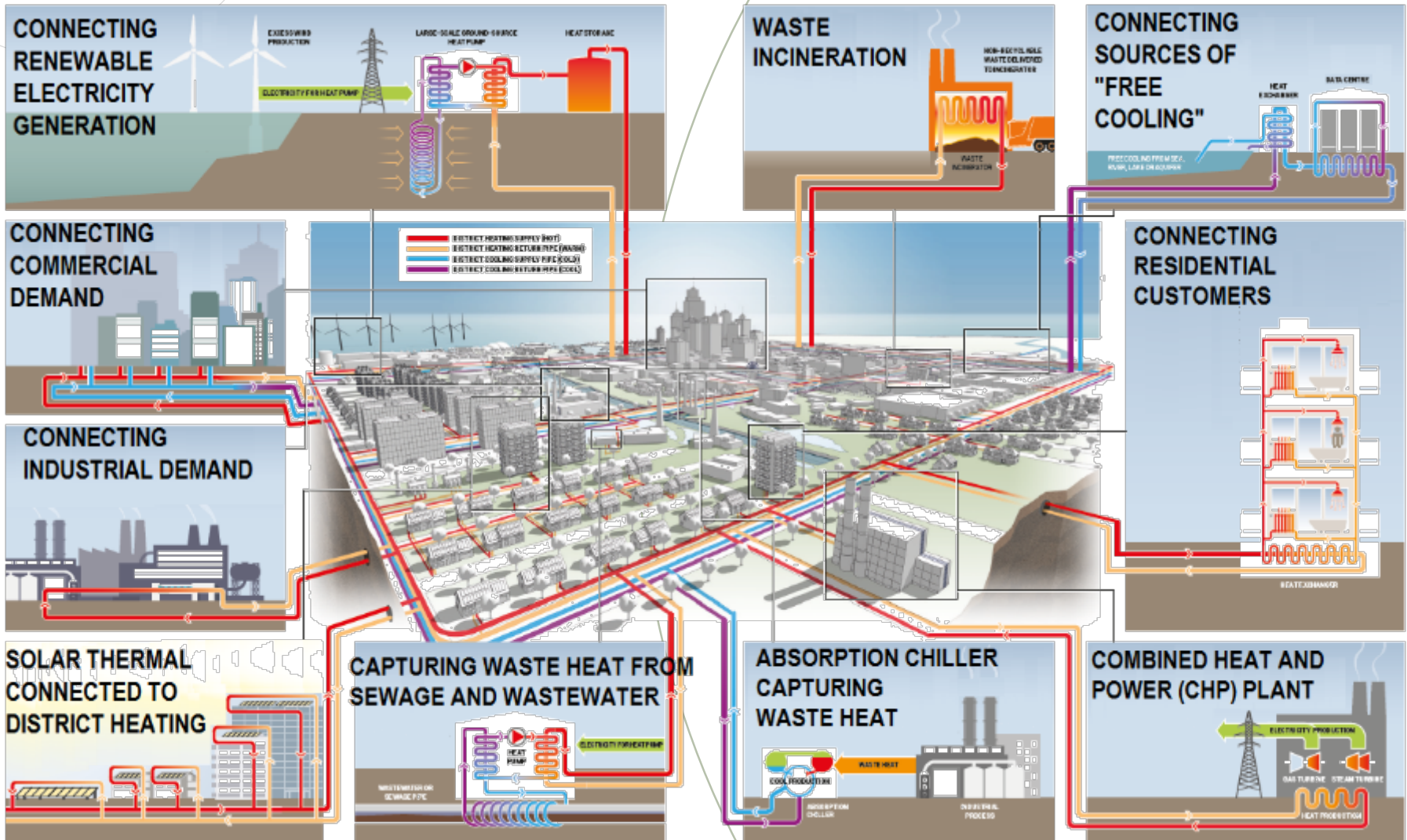


Any solution for the climate and energy transition must explicitly address urban heating and cooling, as well as their interaction with electricity consumption and production

# OUR CONCEPT: INTEGRATING RENEWABLE ENERGY AND ENERGY EFFICIENCY IN THE CITY



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# MULTIPLE BENEFITS: ACHIEVING UN SUSTAINABLE DEVELOPMENT GOALS

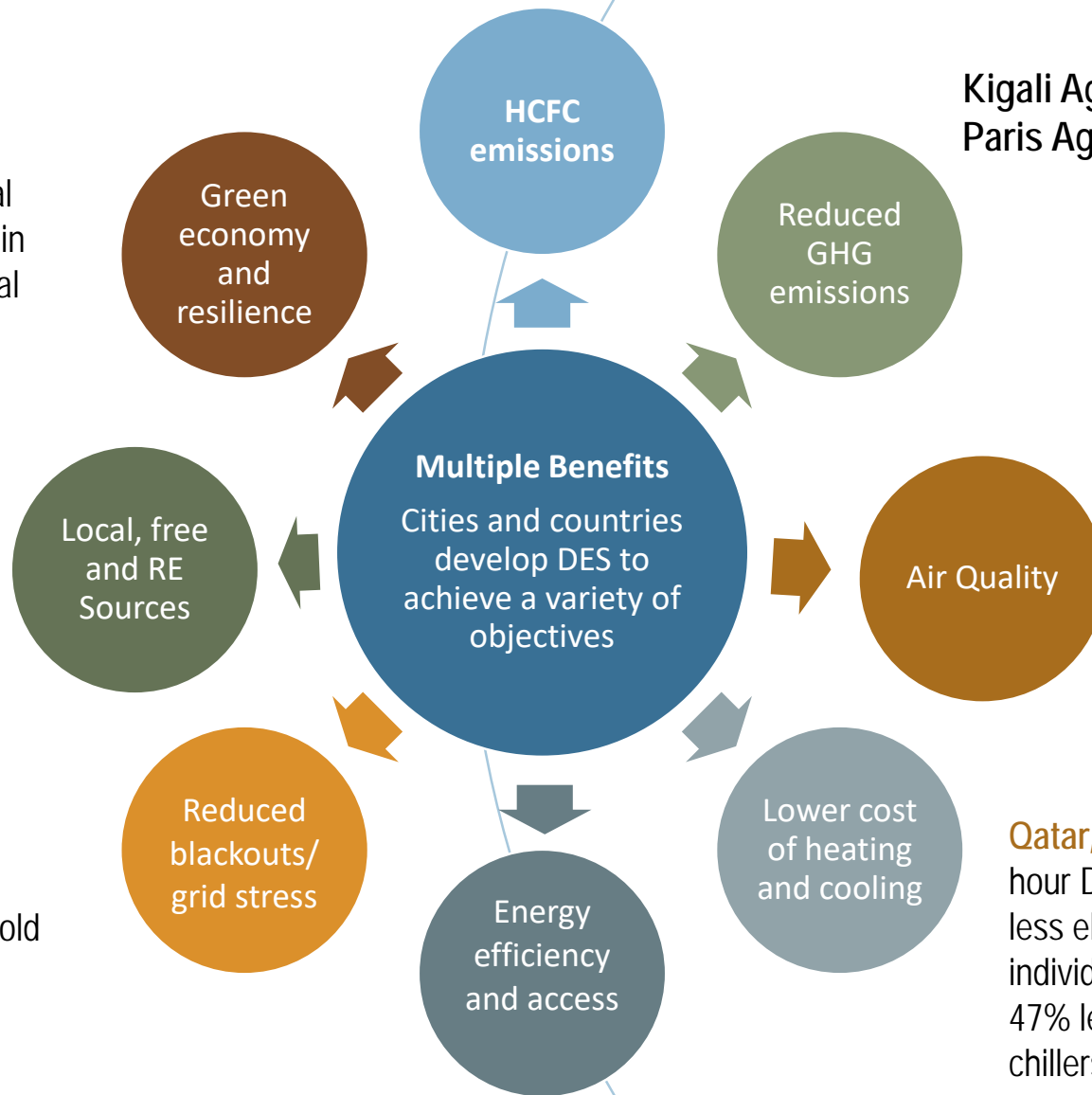
## St. Paul, USA

Reduce 275,000t of coal  
annually US\$12 million in  
energy dollars kept local  
Reduced SO<sub>2</sub> by 60%

**Dubai, UAE** shifts peak  
electricity demand with cold  
storage lowering power  
transmission investment

Kigali Agreement and  
Paris Agreement

**Qatar**, to produce 1 TR  
hour DC consumes 55%  
less electricity than  
individual window units and  
47% less than air-cooled  
chillers (source: Kahramaa)





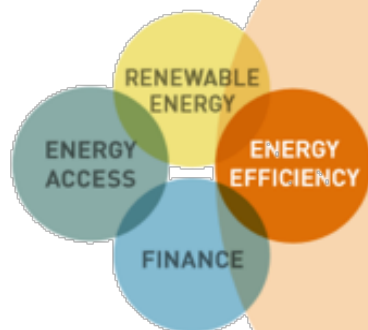


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# DISTRICT ENERGY IN CITIES INITIATIVE LAUNCH AT CLIMATE SUMMIT



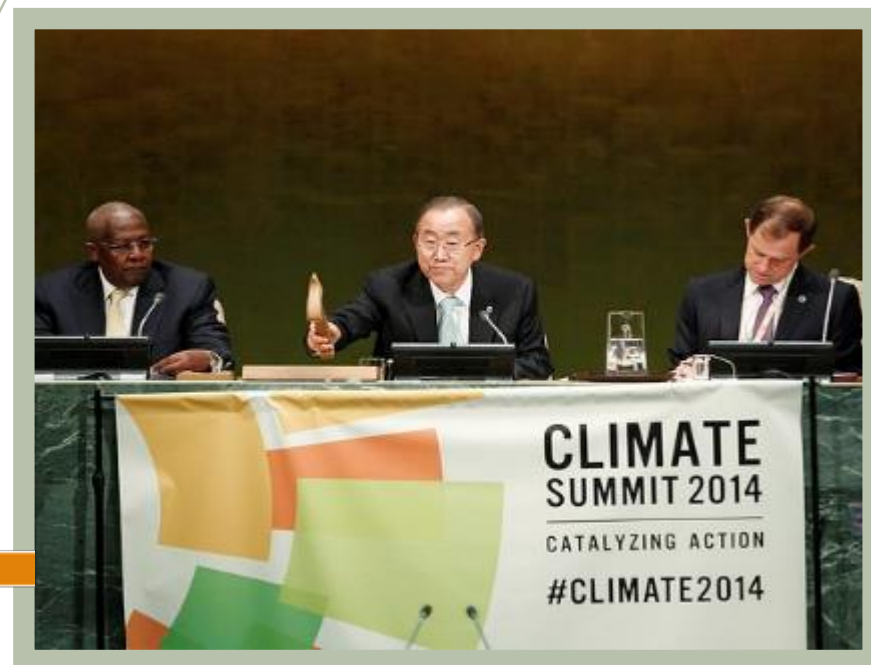
Sustainable Energy for All  
(SE4All) Sub-Committee's



Co-chairs:  
- UNEP Executive Director  
- CEO Accenture  
- Minister for Trade and Development  
Cooperation, Denmark

Global Energy Efficiency Accelerator  
Platform: to scale up efficiency gains and  
investments at the national, sub-national and  
city levels through technical assistance, sup-  
port and public-private sector collaboration  
Individual accelerators  
focus on specific energy efficiency sectors

- Buildings
- Transport
- **DISTRICT ENERGY**
- Lighting
- Appliances & Equipment



Our donors:



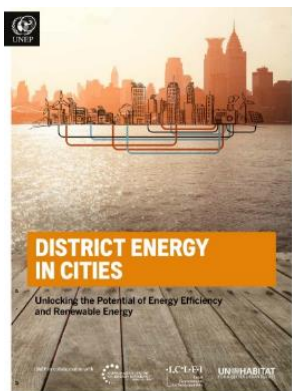
MINISTRY OF FOREIGN AFFAIRS OF DENMARK  
**DANIDA** INTERNATIONAL  
DEVELOPMENT COOPERATION



Double Global Rate of  
Improvement of Energy  
Efficiency by 2030



# OUR APPROACH: TAKE BEST PRACTICES, ADAPT AND REPLICATE



- 45 Champion Cities
- Technology and benefits
- City policies
- Business models
- National policies



## Methodology and Key Steps

1. **Assess** existing energy and climate policy objectives, strategies and targets and identify catalysts.
2. **Strengthen** or develop the institutional multi-stakeholder coordination framework
3. **Integrate** district energy into national and/or local energy strategy and planning
4. **Map** local energy demand and evaluate local energy resources
5. Determine relevant **policy design** considerations
6. Carry out **project pre-feasibility** and viability
7. Develop **business plan**
8. Analyse **procurement options**
9. Facilitate **finance**
10. **Replicate**



# WHAT WE DO

Our goal:

Helping cities tackle the energy transition through district energy

Our model:

A private-public partnership with over 40 partners

What we do:

MARKET DEVELOPMENT



1. Increase **knowledge** of multiple benefits of district energy
2. Provide **technical assistance** to identify potential pilot projects, undertake pre-feasibility studies, design business models, support the tender process and develop long-term local district energy strategies.
3. **Scale-up** locally through the establishment of local multi-stakeholder coordination units and nationally through a National Delivery Unit and the development of a regulatory framework.
4. **Unlock investments:** Design financial mechanisms to address financial barriers and support the first projects in new markets.



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# WHERE WE ARE



13 COUNTRIES  
22 CITIES







# EXAMPLE OF IMPLEMENTATION: MARRAKECH, MOROCCO



## PARTNERS INVOLVED:



United Nations  
Environment Programme



## WHAT ARE WE DOING...

- Engage local stakeholders
- Identify a high opportunity area for development of DC
- Identify a project and undertake a techno-economic analysis.



## NEXT STEPS...

- Techno-economic analysis presented end of June to local stakeholders.
- Business model development
- Matchmaking sessions with potential investors to attract finance
- Synthesis report on policy recommendations



For more information on the District Energy in Cities Initiative and to become a partner, please visit the website or contact:

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<http://www.districtenergyinitiative.org/>