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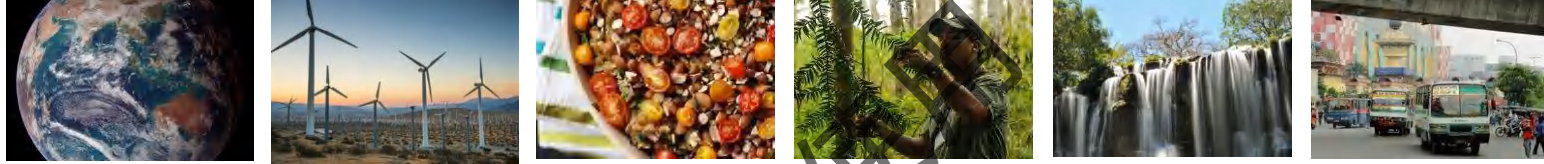
# DATA FOR ACTION ON CITY CLIMATE MITIGATION AND RENEWABLES

## Three Barriers and Three Tools to Help

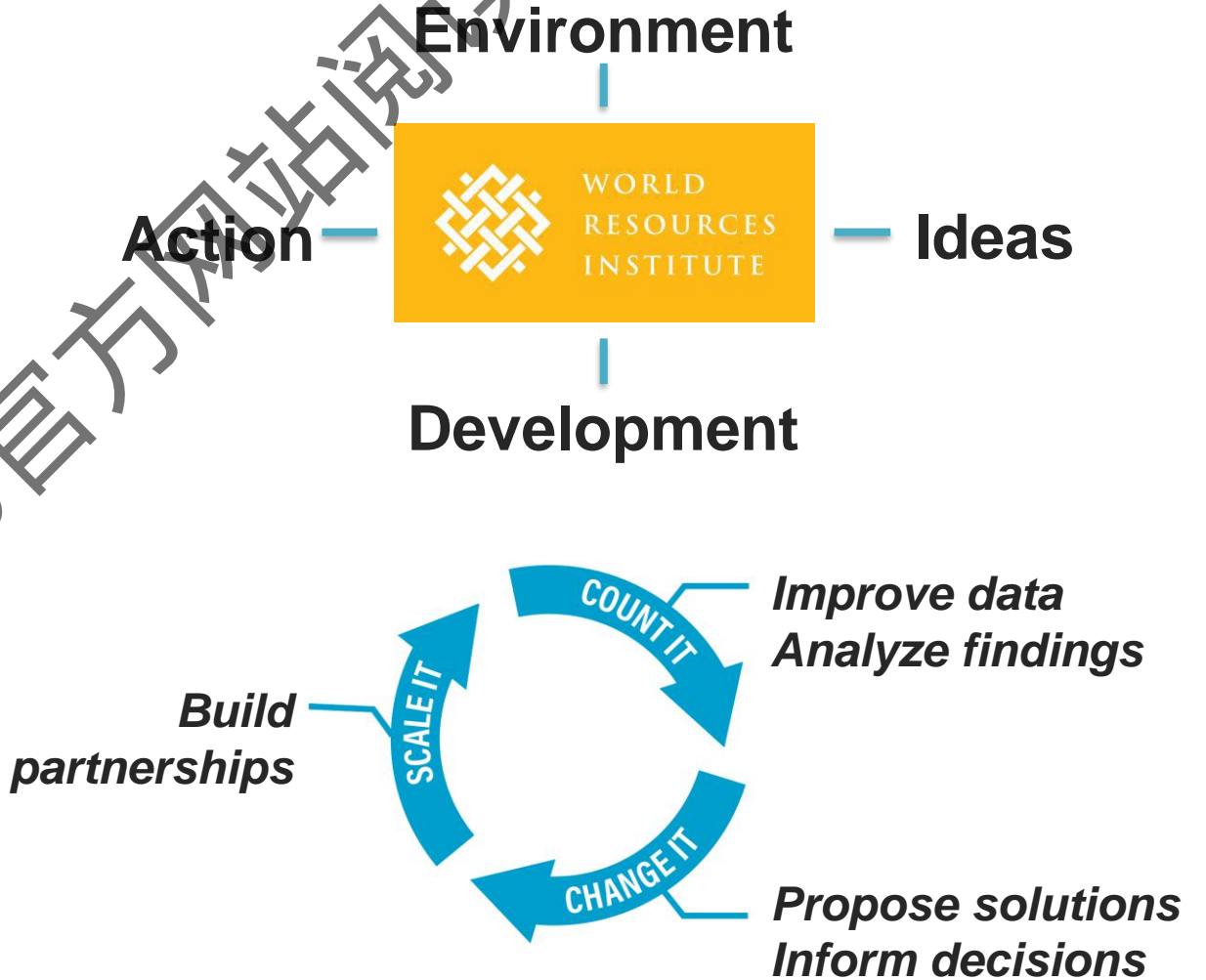
*Eric Mackres, Senior Manager, Data & Tools – Cities  
World Resources Institute*

17 SEPTEMBER 2020 - 5TH APEC WORKSHOP ON SUSTAINABLE CITIES, TIANJIN/ONLINE

# ABOUT WRI



- A **global research organization** that spans more than 60 countries
- We work at the nexus of **environment, economic opportunity and human well-being.**
- **More than 1,000 experts** based in Africa, Brazil, China, Europe, India, Indonesia, Mexico and United States
- We turn big **ideas into action** in Cities, Climate, Energy, Food, Forests, Oceans, Water
- Our approach:
  - **Count It**
  - **Change It**
  - **Scale It**



# THREE PROBLEMS IN CITY CLIMATE MITIGATION AND ENERGY TRANSITIONS

1. How do I measure my city's emissions problem?
2. How do I get the data to measure it?
3. How do I learn from others on how best to take action (on renewable energy)?

# THREE TOOLS TO HELP

1. How do I measure the problem?

*GHG Protocol for Cities (GPC)*

2. How do I get the data?

*Data Portal for Cities*

3. How do I learn from others on how to take action?

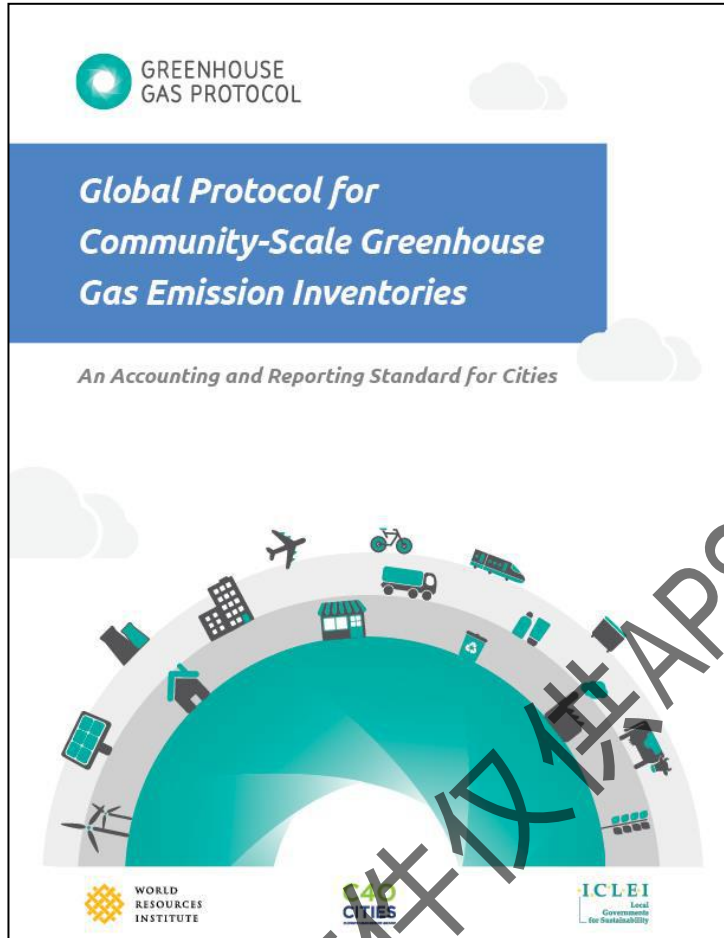
*City Renewables Accelerator's  
Transaction Tracker and Engagement Tracker*

# Why Measure Emissions?

- ❖ Establish base year emissions
- ❖ Identify emission sources and reduction opportunities
- ❖ Set target and develop action plans
- ❖ Track progress
- ❖ Benchmarking



# About the GHG Protocol for Cities (GPC)



- ❖ The authoritative standard for measuring city GHG emissions
- ❖ A 176-page document
- ❖ One of the GHG Protocol series of GHG accounting standards
- ❖ Download: <http://www.ghgprotocol.org/city-accounting>

# Accounting Principles

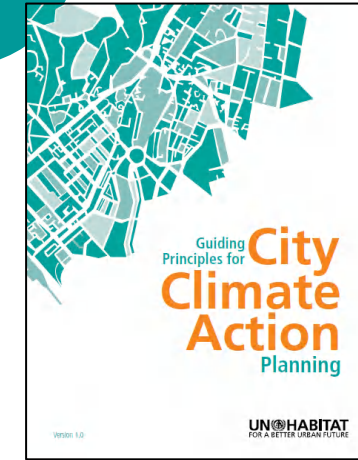
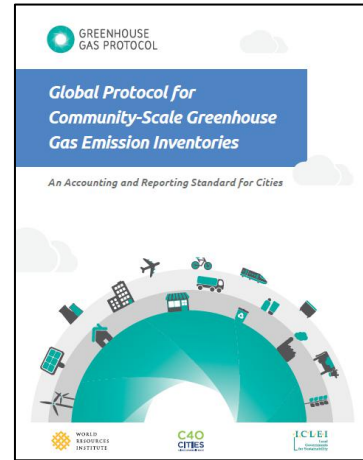
- **Relevance:** Prioritisation of activity data and reported emissions to the activities and priorities in the city
- **Completeness:** Ensuring all sectors and sources are included, or explained if not
- **Consistency:** Ensuring consistency in approach, boundaries, data sources, assumptions and methodologies, with the GPC, and within and between years
- **Transparency:** Clear documentation and disclosure of data sources, assumptions, procedures and methodologies
- **Accuracy:** Ensuring integrity of data, assumptions, and calculations, so results are neither under- or over-stated

# Contents of the GPC

<b>PART I: INTRODUCTION AND REPORTING REQUIREMENTS</b>		
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<b>PART III: TRACKING CHANGES AND SETTING GOALS</b>		
<b>11</b>	<b>Setting Goals and Tracking Emissions Over Time</b>	<b>136</b>
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# The suite of GHGP tools to help cities mitigate emissions



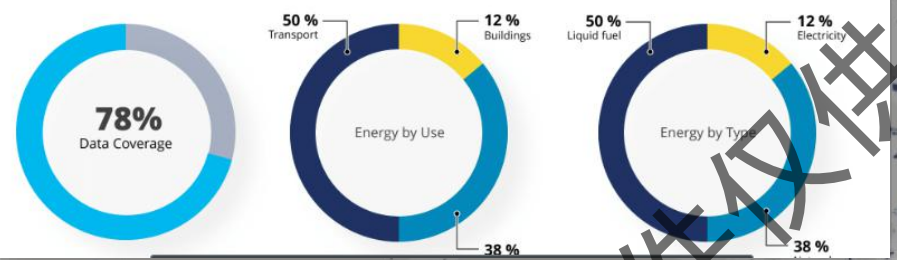
# DATA for CITIES PORTAL



Chicago - Illinois, USA Search

Building area	Population	Land area	Energy consumption	Energy intensity per capita
452 <small>km<sup>2</sup></small>	2.8 <small>Million</small>	606 <small>km<sup>2</sup></small>	371.400 <small>TJ</small>	133 <small>TJ</small>

[View all city facts](#)



Chicago - Illinois, USA

Est. TJ/yr (2015)

**371,400 TJ**

Data Coverage 78%

[Learn more](#)

## DataPortalForCities.org

# HOW IT WORKS

- Recognizes that **lack of reliable data is a barrier** to **climate mitigation** action, especially for smaller cities
- Existing **national and regional data is scaled** consistently to provide cities without any data with a starting point
- Provides over data by city across **contextual data, sectoral activity data and emission factors**
- Includes city-scale data on multiple sectors
  - **Buildings & Stationary Energy**
  - **Transportation**
  - **Waste**
- **Free, open, and transparent platform** with data sources and methods

# COVERAGE

- Currently includes **over 60,000 municipalities** from **12 countries** across:
  - Asia – India, Philippines, Indonesia, Japan
  - Europe – Denmark
  - Latin America – Mexico, Brazil, Chile, Costa Rica, Colombia
  - North America – United States, Canada

# VALUE TO CITIES AND NATIONAL GOVERNMENTS

- Gives cities an initial footprint and a place to begin climate action
- Highlights where cities should focus on local data collection and measurement
- Informs national governments how to support city climate action through data access

# AMERICAN CITIES CLIMATE CHALLENGE – RENEWABLES ACCELERATOR



Supported by Bloomberg Philanthropies, WRI and RMI provide technical assistance to 25 Climate Challenge cities on renewables procurement.

Also provide resources and support to 150+ cities and counties through cohorts with similar interests in partnership with the Urban Sustainability Directors Network.

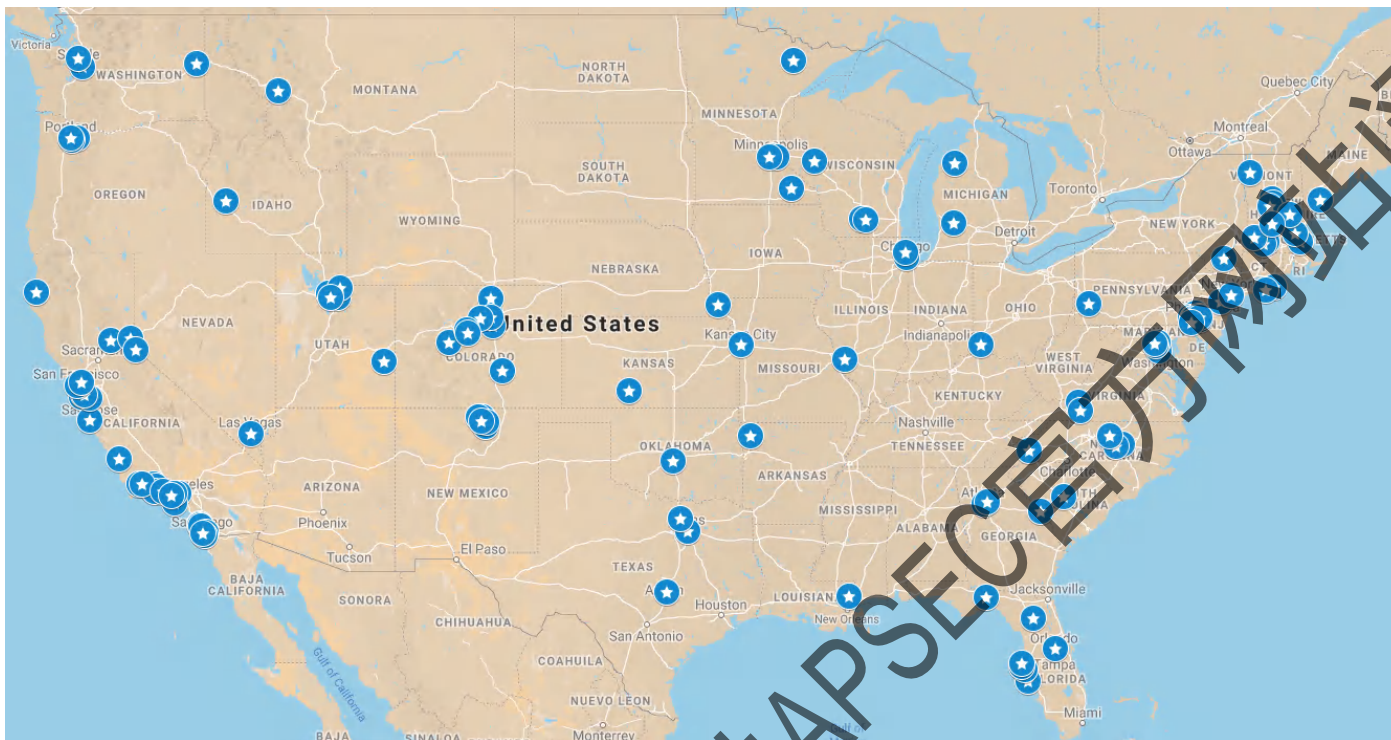


- ALBUQUERQUE, NM
- ATLANTA, GA
- AUSTIN, TX
- BOSTON, MA
- CHARLOTTE, NC
- CHICAGO, IL
- CINCINNATI, OH
- COLUMBUS, OH
- DENVER, CO
- HONOLULU, HI
- INDIANAPOLIS, IN
- LOS ANGELES, CA
- MINNEAPOLIS, MN
- ORLANDO, FL
- PHILADELPHIA, PA
- PITTSBURGH, PA
- PORTLAND, OR
- SAINT PAUL, MN
- SAN ANTONIO, TX
- SAN DIEGO, CA
- SAN JOSE, CA
- SEATTLE, WA
- ST. LOUIS, MO
- ST. PETERSBURG, FL
- WASHINGTON, D.C.



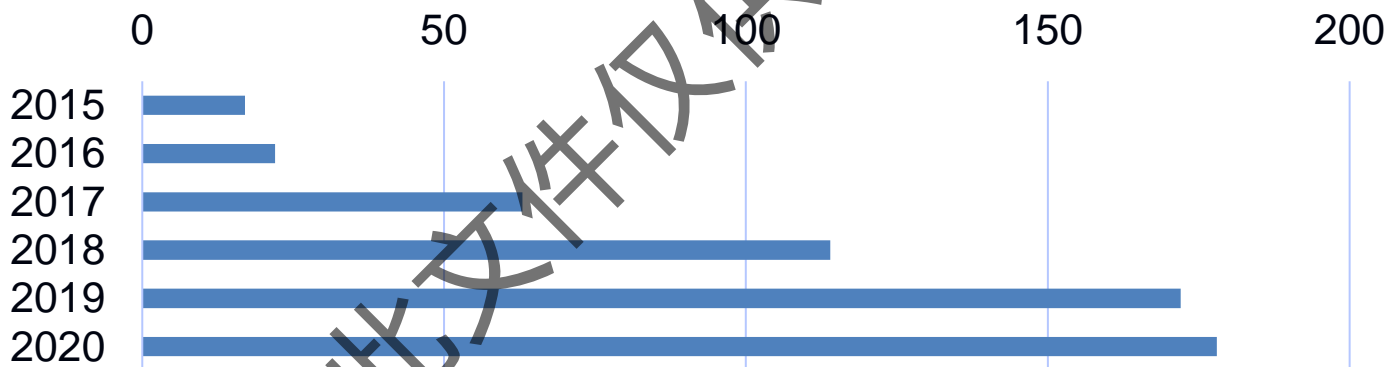
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# CITIES AND COUNTIES ARE INCREASINGLY SETTING 100% RE GOALS



Local governments with 100% renewables goals:

- >178 cities
- spanning 32 states
- >200 TWh of electricity demand



**Cumulative growth in the number of city commitments over last few years**

# YET PURCHASING RENEWABLE ENERGY REMAINS CHALLENGING FOR MOST LOCAL GOVERNMENTS

Many cities and counties face barriers relating to:

1

## **Staff capacity**

- Energy projects often require specialized skill and knowledge
- Sustainability staff are already stretched thin with competing tasks

2

## **Internal buy-in and resource allocation**

- Many city staff see renewables projects as risky or expensive
- Renewables must compete for resources and attention

3

## **External factors**

- Options and autonomy may be limited by state policies/regulations
- Renewable development may be limited by natural factors



# THE RENEWABLES ACCELERATOR WEBSITE IS A ONE-STOP SHOP FOR LOCAL GOVERNMENT STAFF IN THE UNITED STATES LOOKING FOR RENEWABLE ENERGY TOOLS AND RESOURCES

American Cities  
Climate Challenge

RENEWABLES ACCELERATOR

Procurement Guidance Tools & Resources City Actions About

Brand new to procuring renewable energy?

Start Here

Learn about renewable energy options in your state.

Select a State

Looking for something to assist efforts underway?

Browse Resources

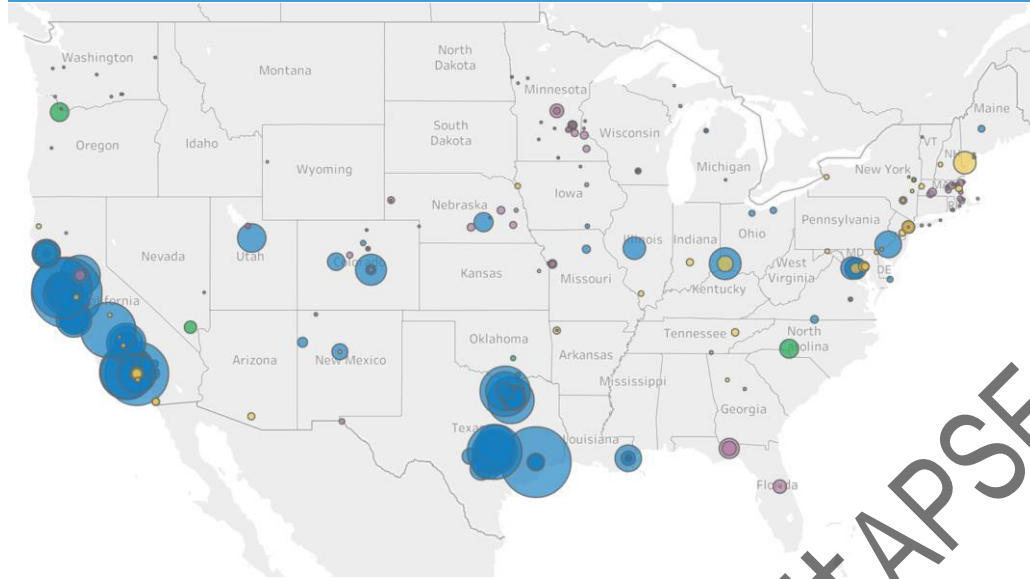
What actions are local governments taking on renewables?

Explore Our Tracker

CityRenewables.org

# THE TRACKER IS AN INTERACTIVE WEB TOOL THAT PRESENTS THE RENEWABLE ENERGY TRANSACTIONS AND ADVOCACY EFFORTS COMPLETED BY U.S. LOCAL GOVERNMENTS

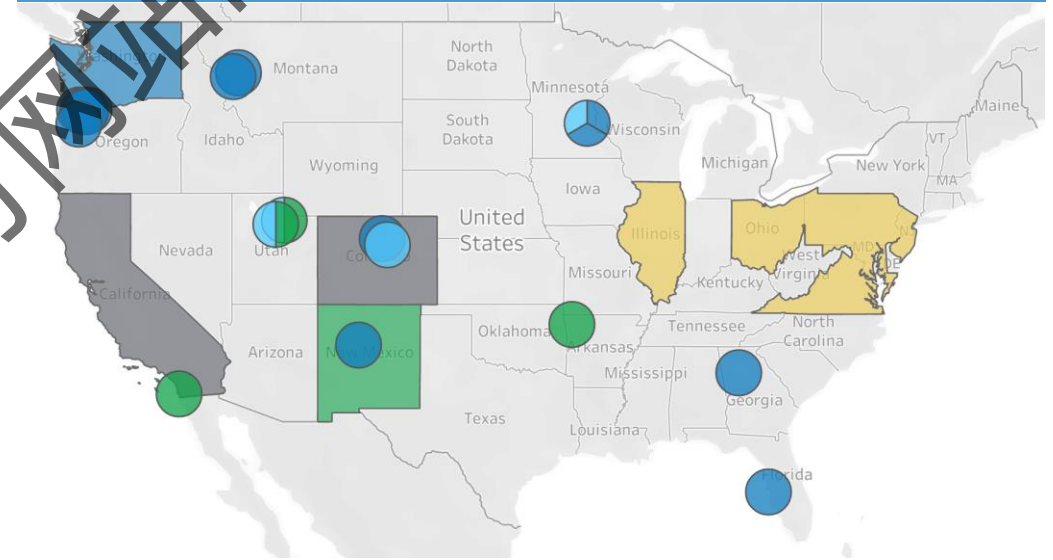
## Transaction Tracker



Records renewable energy transactions, including:

- On-site generation
- Off-site physical PPAs
- Off-site virtual PPAs
- Community solar projects
- Green tariffs

## Engagement Tracker

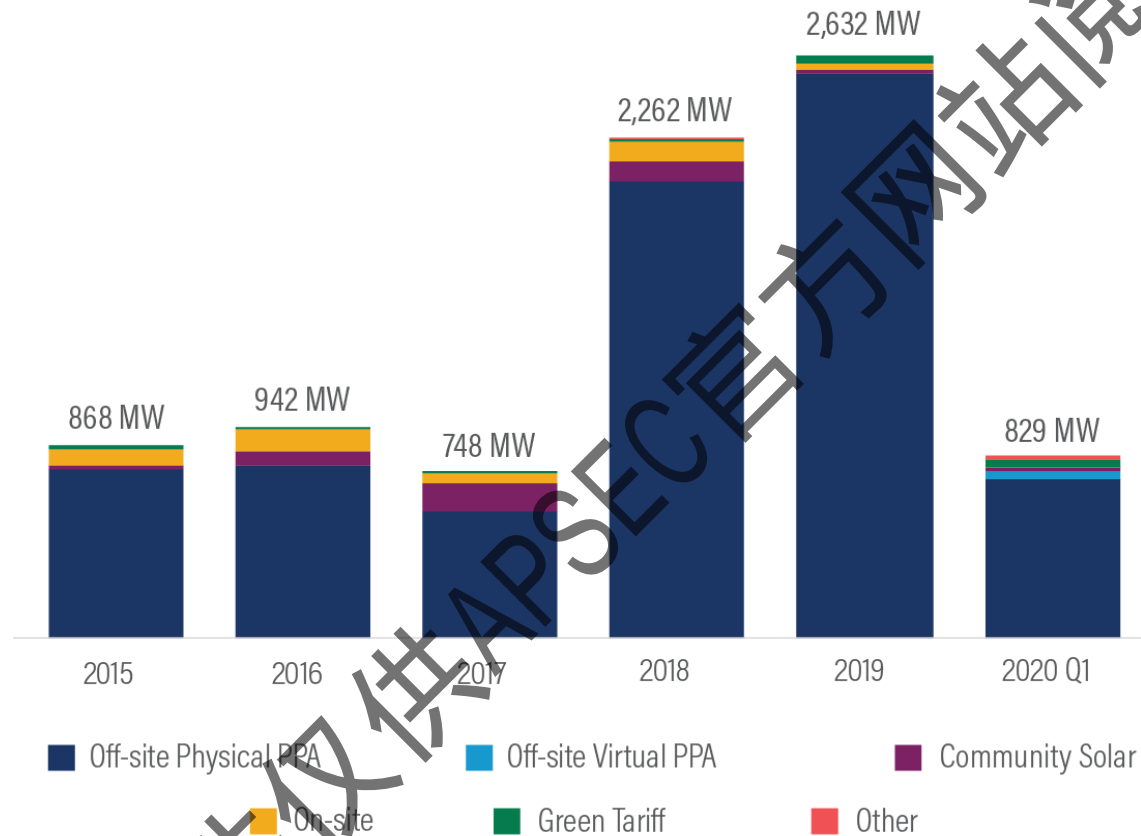


Highlights local governments' engagements with:

- Utilities
- Regulatory bodies (e.g. PUCs)
- Legislators
- RTO/ISOs

# LOCAL GOVERNMENT RENEWABLES EFFORTS ARE GROWING

Renewables Transactions by U.S. Local Governments\*



335 deals

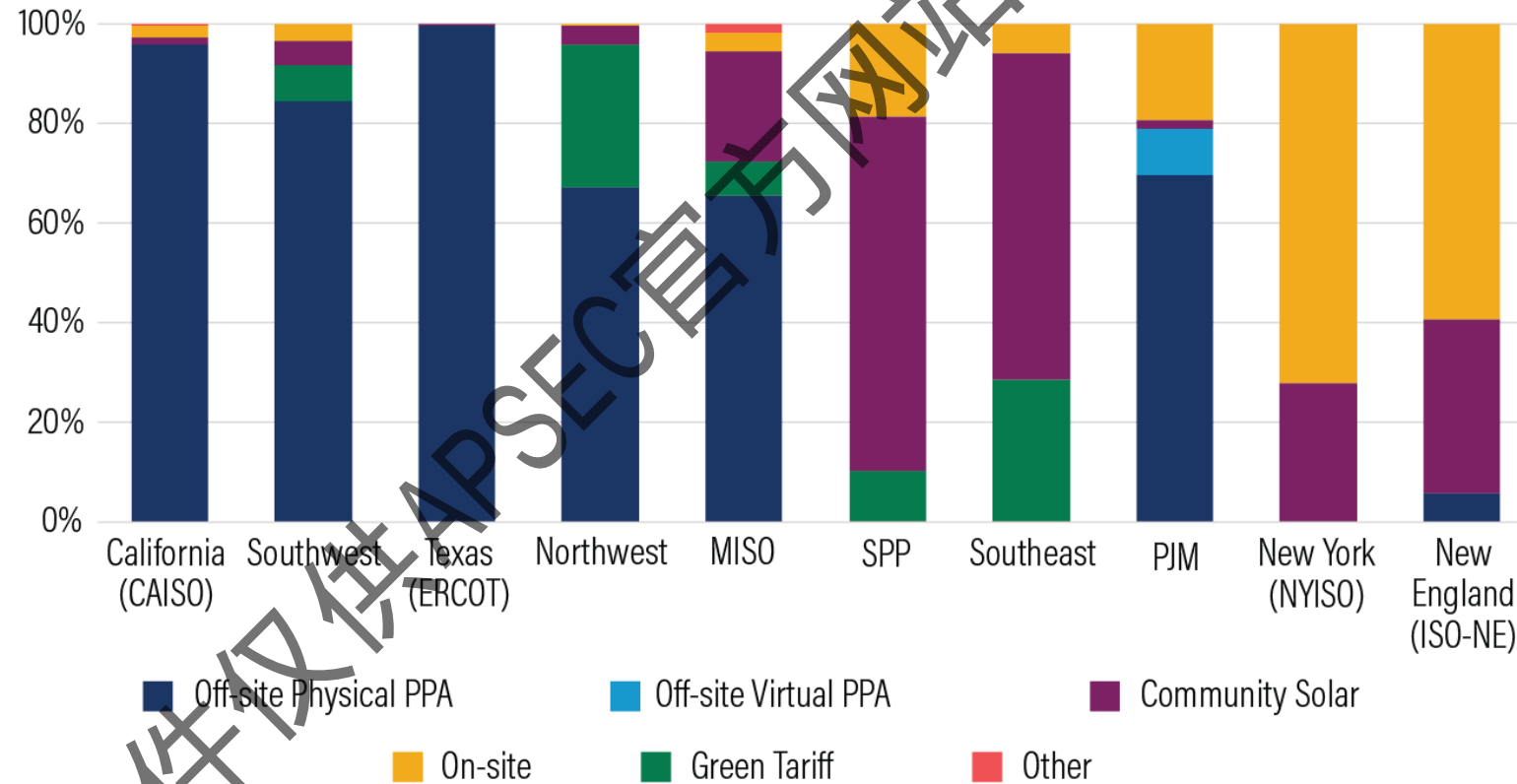
8.28 GW

Note: \* Announcement year (or operation start year if announcement year unavailable)  
Source: cityrenewables.org.

20.06.24

# TRANSACTION STRUCTURE POPULARITY VARIES BY REGION

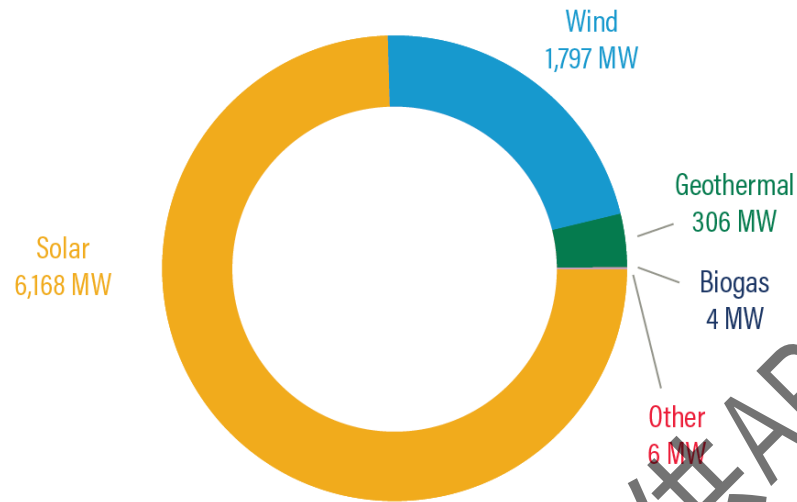
Types of Local Governments' Renewables Transactions, by Electric Power Market (2015-Q12020)



Source: cityrenewables.org.

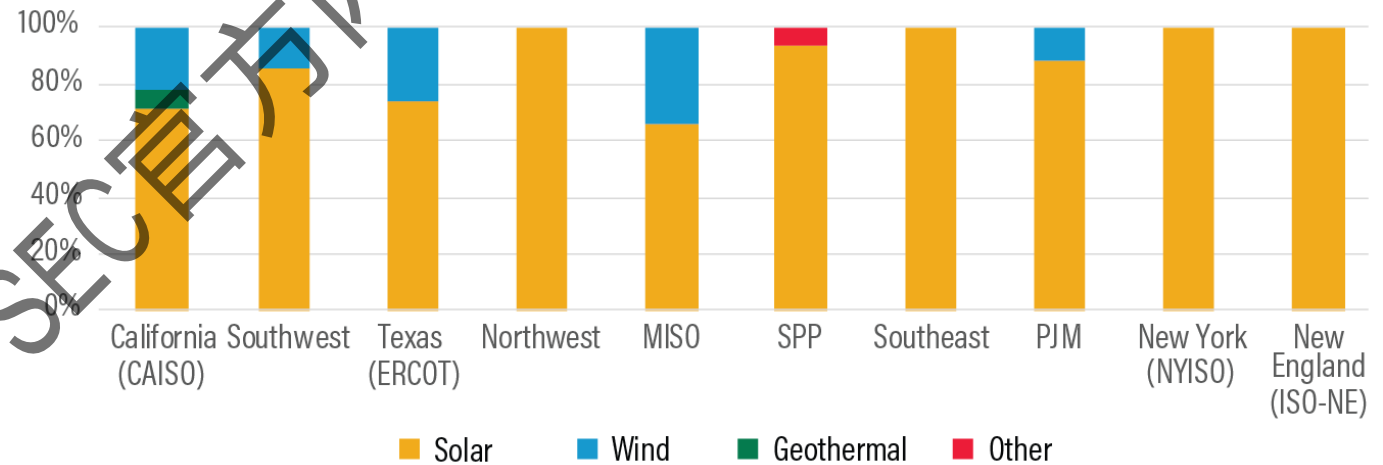
# YET SOLAR PV REMAINS THE MOST POPULAR TECHNOLOGY

U.S. Local Governments' Renewables Transactions, by Technology (2015-Q12020)



Source: cityrenewables.org.  
20.06.24

U.S. Local Governments' Renewables Transactions, by Technology and Electric Power Market (2015-Q12020)



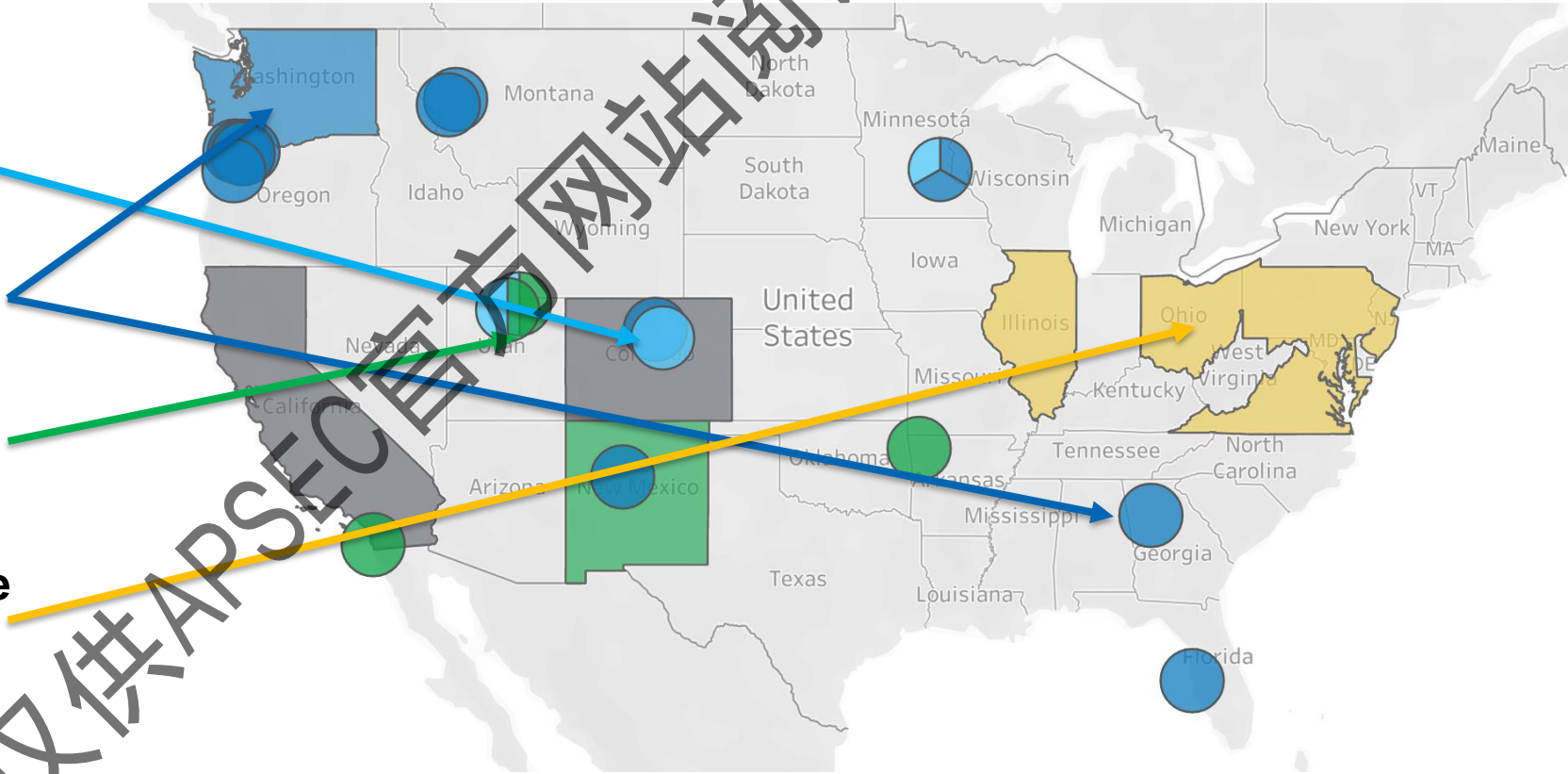
Source: cityrenewables.org.  
20.06.24

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# CITIES ARE ENGAGING A VARIETY OF ACTORS TO ACCELERATE RENEWABLE ENERGY DEVELOPMENT

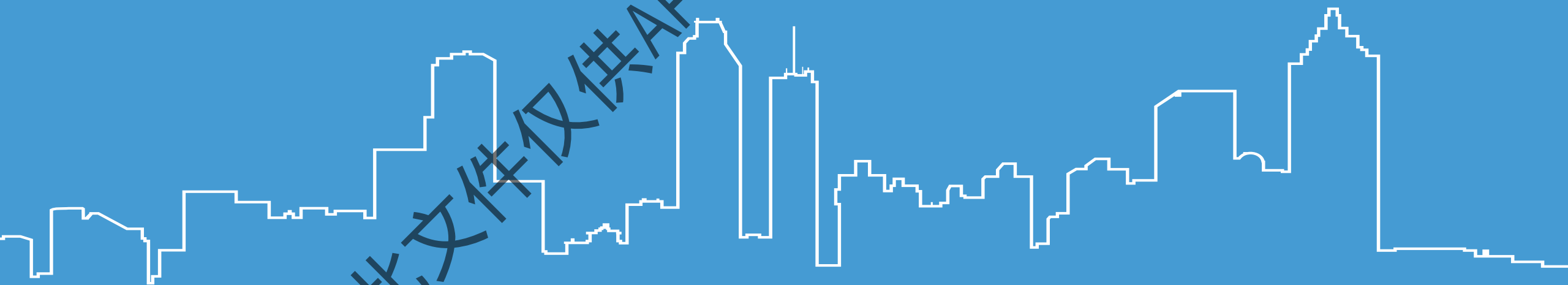
## Emerging City Efforts

- Partnering with Utilities
- Engaging in State Regulatory Proceedings
- Influencing Statewide Energy Policy
- Getting Involved in Wholesale Market Design



THANK YOU!

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