Agenda

01 Overview of the Race to Zero
   C40

02 Resources available to cities
   ICLEI USA and CDP

03 Reporting for Race to Zero
   CDP

04 Q&A
What is the Race to Zero?

The Race to Zero is a global campaign organized by the UN High Level Climate Champions for Climate Action.

The Race to Zero rallies cities, regions, businesses, and investors committed to the 1.5°C goal of the Paris Agreement and to achieving net zero emissions by 2050 at the very latest.

Collectively these actors now cover nearly 25% global CO2 emissions and over 50% GDP.
What is the Cities Race to Zero?

The Cities Race to Zero is the city-specific track of Race to Zero, with the goal of recruiting over 1,000 cities to join the umbrella Race to Zero Campaign.

The Cities Race to Zero aims to deliver a better future by addressing equity together with the environment and to build broad coalitions across business, labor unions, youth and civil society.

“As the first generation of leaders to recognize the scale of the impending climate crisis and the last generation to be able to prevent it, I invite you to join the Cities Race to Zero.”

Eric Garcetti, Mayor of Los Angeles, Friend of COP26 & C40 Chair

To join go to www.citiesracetozero.org and sign the Cities Race to Zero pledge.
Who has already joined the Cities Race to Zero in the US?

A total of 88 cities in the US have joined Cities Race to Zero...with 1 city in Arizona committed.
The most important milestone since the adoption of the Paris Agreement: for the first time nations are expected to present new and enhanced pledges showing how they will reach net-zero emissions by 2050.

“Every country, city, financial institution and company should adopt plans for transitioning to net-zero emissions by 2050 and take decisive action now to put themselves on the right path towards achieving this vision.”

Antonio Guterres, Secretary General of the United Nations,
US Infrastructure Bill to provide funding to cities to meet their climate goals.
Cities Race to Zero pledge: 5 REQUIREMENTS

01 **Endorse** the following principles:
- We recognise the global climate emergency.
- We are committed to keeping global heating below the 1.5 °C goal of the Paris Agreement.
- We are committed to putting inclusive climate action at the center of all urban decision-making, to create thriving and equitable communities for everyone.
- We invite our partners—political leaders, CEOs, trade unions, investors, and civil society—to join us in recognising the global climate emergency and help us deliver on science-based action to overcome it.

02 **Pledge** to reach net-zero in the 2040s or by mid-century at the latest and limit warming to 1.5 °C.

03 **Plan** to set an interim 2030 target consistent with a fair share of 50% global emission reductions.

04 **Proceed** to planning at least one inclusive climate action, eg. Procure only zero emission buses from 2025.

05 **Publish** your target and action to your usual reporting platform and report progress annually.
JOINING the Cities Race to Zero

The next decade will decide the future for humanity. Delivering a green and just recovery to the COVID-19 crisis; creating strong, fair economies that serve everyone; and cutting greenhouse gas emissions quickly enough to limit global heating to the 1.5°C target of the Paris Agreement, are one and the same thing. None are possible without the others. Success in all is the only way to prevent a catastrophic crisis.

G40 Cities, the Global Covenant of Mayors for Climate & Energy (CoM), ICLEI – Local Governments for Sustainability (ICLEI), United Cities and Local Governments (UCLG), CDP, the World Wide Fund for Nature (WWF) and the World Resources Institute (WRI) have come together to mobilize an unprecedented coalition of cities committed to setting science-based targets and start implementing inclusive and resilient climate action ahead of and beyond the COP26 in Glasgow. This is the Cities Race to Zero effort, with the goal of recruiting 1,000 cities to the Race to Zero, in support of the COP26 Roadmap of Local Governments and Municipal Authorities (LGMA) Constituency to the UNFCCC.

www.citiesracetozero.org
Resources Available to Cities
ICLEI USA AND CDP
2030 Science-Based Targets (SBTs)

SBTs include a 2050 zero carbon goal and an interim 2030 goal. To meet the Paris Agreement commitment of keeping warming below 1.5°C.

SBTs are significant because:
- It is important to have a short term goal.
- Most short terms goals aren’t aligned with SBTs.
- Most analyses are outdated.

ICLEI’s calculation methodology is based on the World Wide Fund for Nature’s (WWF) One Planet City Challenge (OPCC) and uses inventories from between 2016 and 2019.
## SBT Overview

<table>
<thead>
<tr>
<th>National</th>
<th>Per Capita SBT</th>
<th>Absolute SBT</th>
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<tbody>
<tr>
<td></td>
<td>62.8-63.4%</td>
<td>40.2-64.9%</td>
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<tr>
<td></td>
<td>63.2% Average</td>
<td>59.7% Average</td>
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<td></td>
<td>63.3% Median</td>
<td>60.3% Median</td>
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</table>
1. It is critical to have a **2030 SBT**

2. Planning should incorporate rapidly **changing trends**

3. Programs should take a **holistic approach**, including health, resilience, and equity

4. Local government can’t do it alone. **Collaboration with state and utilities** is essential

5. Inventories provide the foundation for **informed decisions and transparency**
Inventory Analysis: 100 US City Emissions Overview

Breakdown of Average and Median Emissions by Sector for 100 City Analysis

- **Fuels Commercial**: Average 8.6%, Median 7.4%
- **Electric Commercial**: Average 17.6%, Median 16.4%
- **Fuels Residential**: Average 11.3%, Median 9.9%
- **Electric Residential**: Average 12.0%, Median 11.8%
- **Fuels Industrial**: Average 2.3%, Median 0.0%
- **Electric Industrial**: Average 1.8%, Median 0.0%
- **On-Road**: Average 36.7%, Median 36.3%
Inventory Analysis: FLA Cities Overview
(10 cities, pop: 19.5k to 2.7MM)

Breakdown of Average and Median Emissions by Sector for Florida Cities Analysis

Average Emissions (%)  Median Emissions (%)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Average</th>
<th>Median</th>
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<tbody>
<tr>
<td>Fuels Commercial</td>
<td>3.7%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Electric</td>
<td>27.6%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Residential</td>
<td>0.4%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Electric</td>
<td>23.2%</td>
<td>22.5%</td>
</tr>
<tr>
<td>Fuels Industrial</td>
<td>1.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Electric</td>
<td>0.5%</td>
<td>0.3%</td>
</tr>
<tr>
<td>On-Road</td>
<td>37.2%</td>
<td>40.2%</td>
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High Impact Action Pathways

Accelerating

Renewable Energy
Building Electrification (and Efficiency): New and Existing
EV Transition (and VMT Reduction)

Supporting

Waste and Methane
Nature-Based Solutions
Sustainable Food Systems
Circular Economy
Community Resilience, Health, and Equity (Just and Equitable Transition)
Cities Have an Important Voice at the State and Utility Level

For example...

Clean energy standards, allowing utilities to invest in EV infrastructure, & enabling utilities to value electrification
IHS Markit: “The Midwest had the smallest EV market share last year (2020) at 0.8%, with Chicago the top market area in the region at 1.5% market share.”
U.S. utility-scale electric generating capacity retirements (2008-2020)

- gigawatts


- reported planned retirements

- other
- natural gas combined cycle combustion turbine steam turbine
- nuclear
- petroleum
- coal
Planned U.S. utility-scale electricity generating capacity additions (2021)

Gigawatts (GW)

- Solar: 15.4 GW (39%)
- Wind: 12.2 GW (31%)
- Natural gas: 6.6 GW (16%)
- Batteries: 4.3 GW (11%)
- Other: 0.2 GW (3%)
- Nuclear: 1.1 GW (3%)

Total: 39.7 GW

Source: U.S. Energy Information Administration, Preliminary Monthly Electric Generator Inventory, October 2020
U.S. electric generating capacity additions (2021)

Source: U.S. Energy Information Administration, Preliminary Monthly Electric Generator Inventory, October 2020
The good news and bad news for clean energy from LBNL’s nationwide interconnection study

1) The clean energy projects in queues today could get the U.S. more than halfway to net-zero electricity
AZ Energy

- Largest Nuclear Power Plant (Palo Verde), 2nd largest US power plant overall
- Top 5 Solar Power Plant (Agua Caliente)
- 2nd in net generation from solar (3rd in capacity)
- 2nd best solar resource in the US

Renewable Energy Commitments

Electricity Standards/Pledges

- States with Legally Binding 100% CES
- States with Legally Binding 100% RPS
- Utilities with 100% CES
- Utilities with 100% RPS
- Utilities with 80-99% CES or RPS

Arizona Public Service Company

Pledge:
- Description: 100% Carbon-Free Electricity by 2050
- Passed: 1/2020

Electricity Sales Coverage:
- 32,741 GWh
- 0.85% of National Total

Electricity CO₂ Emissions Coverage:
- 19.65 MMT
- 1.14% of National Total
- Reference
Community solar is available in 17 states and many other utility territories in the U.S.

*New Mexico recently passed community solar legislation as well.

Source: SEPA community Solar Database, Data up to date as of September 31, 2017.
Community Choice Aggregation (CCA), which is authorized in 10 states, allows cities to purchase electricity on behalf of citizens who agree to participate.

Authorized in 10 States:
- California
- Illinois
- Maryland (Montgomery Co. Pilot)
- Massachusetts
- New Hampshire*
- New Jersey
- New York
- Ohio
- Rhode Island
- Virginia*

Actively Investigating:
- Arizona
- Colorado
- Connecticut
- Michigan
- New Mexico

Watch List/Potential:
- Oregon
- Washington

* Not yet implemented

High Impact Action Categories:

1. Grid Decarbonization
2. VMT Reduction
3. Vehicle Electrification
4. Building Efficiency
   a. New and Existing
5. Building Electrification (Heat Pumps)
   a. New and Existing
## Florida High Impact Action Analysis (10 Cities)

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<tbody>
<tr>
<td>Grid</td>
<td>BAU</td>
<td>Low RE Cost</td>
<td>Low RE Cost</td>
<td>CES</td>
<td>CES</td>
</tr>
<tr>
<td>VMT Reduction</td>
<td>BAU (0% VMT Reduction Annually)</td>
<td>Moderate (10% VMT Reduction Annually)</td>
<td>Moderate (10% VMT Reduction Annually)</td>
<td>Moderate (10% VMT Reduction Annually)</td>
<td>Aggressive (20% VMT Reduction Annually)</td>
</tr>
<tr>
<td>EV Adoption</td>
<td>US-BAU (3% Annual Growth)</td>
<td>Moderate (4.5% Annual Growth)</td>
<td>Moderate (4.5% Annual Growth)</td>
<td>Moderate (4.5% Annual Growth)</td>
<td>California-BAU (6% Annual Growth)</td>
</tr>
<tr>
<td>Residential Building Electrification</td>
<td>New Buildings, All Electric</td>
<td>5% EB Electrified</td>
<td>New + 6% EB Electrified</td>
<td>New + 6% EB Electrified</td>
<td>New + 11% EB Electrified</td>
</tr>
<tr>
<td>Residential Building Efficiency</td>
<td>IECC 2018</td>
<td>5% EB Renovated</td>
<td>IECC New + 10% Existing</td>
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| % of Florida Cities that reach 2030 SBT | 0% | 0% | 20% | 90% | 100% |
| 2030 Average Per-Capita Emissions Reductions for Florida Cities | 23.3% | 45.8% | 52.7% | 67.7% | 72.7% |
Next Steps
CDP SCIENCE-BASED TARGETS SUPPORT
CDP is supporting cities to check/set science-based targets from 2021.

Guidance and Tools:
- Begin checking or setting your target by reading the *Science-Based Climate Targets Guide for Cities*, produced by CDP and cities partners through the Science Based Targets Network.
- Check our FAQs page, SBT page; & Webinar Events page for the latest details.

Technical Support:
- Cities that are not in the ICLEI network can receive target setting support from CDP by contacting cities@cdp.net.
- ICLEI cities should reach out to their ICLEI contacts for supporting in setting science-based targets.

Timeline

| Report your current or updated target to the CDP-ICLEI Unified Reporting System in 2021. | CDP will review to see if it represents a fair share of 1.5 °C. | If your city does not have a target, please indicate why you have not yet set a target in your response. | CDP will contact you following disclosure to support you with next steps setting or updating your target. |
WHAT KIND OF CITY ARE YOU?

Cities that already have a 1.5°C aligned science-based target should report it. If you have never reported before, we will help you.

Cities that are not sure if their target is 1.5°C aligned science-based target should report it and we can check for alignment.

Cities that do not have 1.5°C aligned science-based targets should start developing one or update to an SBT, we will help you.
CDP SUPPORT FOR FINANCING CLIMATE ACTION

The Matchmaker Program helps you find investors for your projects

HOW MATCHMAKER WORKS

1. **Cities disclose** project data to CDP and our partners.
2. **Matchmaker analyzes** project data and consults with cities.
3. **Matchmaker subscribers** gain exposure to investment opportunities and CDP insights through the project dashboard.
FINANCING EXAMPLE - PHOENIX

● Read the full post here

● Phoenix Sustainability Bond to fund drought resiliency projects

● CDP Disclosure referenced in Use of Proceeds for the bonds

● Issuance totalling approximately $400 million, in a certified Sustainability Bond series and a “vanilla” series

● The Sustainability Series was 4.3x oversubscribed, and the regular series was 4.1x oversubscribed
Race to Zero Reporting

CDP
WHY REPORTING IS IMPORTANT FOR RTZ

Show leadership through the actions that you are implementing

Provide accountability to back up your commitments and stay on track

Contribute information that helps RTZ partners shape global policy

Continually monitor your progress towards climate objectives & find data gaps

Starting in 2022, reporting will be mandatory as part of your Race to Zero commitment.
ADDITIONAL BENEFITS OF REPORTING

- Join the CDP community of over 950 cities disclosing globally
- Report your data to our network of partner organizations
- Participate in our webinars and workshops
- Receive individual feedback on your climate progress and reporting
REPORTING IN ARIZONA

2020 AZ-Based Corporations Disclosing
Amkor Technology
Avnet
Caliente Construction
First Solar
Microchip Technology
On Semiconductor
APS
Republic Services

2021 AZ Cities Disclosing (so far!)
Flagstaff
Phoenix
Tempe
Mesa

AZ Climate Risks
Drought
Extreme heat waves

AZ Climate Opportunities
Green Jobs
Infrastructure investment
2021 disclosers reported projects totaling $160 million
Cities should report data for 2021 even if it is incomplete.

**If you’ve already reported:**

--Amazing, thank you!
--If you have not opted in to Race to Zero on your dashboard, we will fix that for you when you officially sign on.

**If you haven’t reported yet:**

--The CDP scoring deadline has passed (July 29).
--For GCOM or OPCC cities, the reporting deadline is **Aug 31**.
--Otherwise, report by **Dec 10** at the very latest to count for 2021.
If you do not have a CDP account, email citiesNA@cdp.net and we will assist you.

- There is **no fee** to participate in CDP reporting.
- Opt-in to Race to Zero from your reporting dashboard.
- Complete the CDP Questionnaire, focusing especially on section 5, as explained in our Reporting Guidance for Race to Zero and Race to Resilience.
- There are no additional questions beyond the standard CDP questionnaire.
- There are no minimum requirements to submit – just fill out what you have!
- For RTZ, reporting must be **public**.
- If you have questions, email us and we are here to help you.
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