

<b>2021 ACEEE City Clean Energy Scorecard Results</b>	<b>Max scores</b>
<b>Grand total</b>	<b>100</b>
<b>Community-wide initiatives</b>	<b>15</b>
Community-wide climate and energy goals	8
Equity-driven planning	2.5
Clean distributed energy systems	3
Urban heat island mitigation	1.5
<b>Buildings policies</b>	<b>30</b>
Building energy code adoption	10
Building energy code compliance and enforcement	3
Policies targeting existing buildings	12
Equity in policies targeting existing buildings	3
Energy efficiency and renewable energy workforce development	2
<b>Transportation policies</b>	<b>30</b>
Sustainable transportation plans	4
Location efficiency	6
Mode shift	7
Public transit	4
Efficient vehicles	4
Sustainable freight plans	2
Clean, efficient transportation for low-income communities	3
<b>Energy and water utilities</b>	<b>15</b>
Efficiency efforts	9
Decarbonization and climate change mitigation efforts	2.5
Efficiency efforts in water services	3.5
<b>Local government operations</b>	<b>10</b>
Local government climate and energy goals	4
Procurement and construction policies	4
Asset management	2

Milwaukee	Difference
<b>24.5</b>	<b>75.5</b>
<b>4</b>	<b>11</b>
2	6
0.5	2
0.5	2.5
1	0.5
<b>5.5</b>	<b>24.5</b>
2	8
0	3
2.5	9.5
1	2
0	2
<b>7.5</b>	<b>22.5</b>
0.5	3.5
3	3
2	5
1.5	2.5
0.5	3.5
0	2
0	3
<b>7</b>	<b>8</b>
3.5	5.5
2	0.5
1.5	2
<b>0.5</b>	<b>9.5</b>
0	4
0	4
0.5	1.5

<b>Final Rank</b>	<b>53</b>
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Category	Metric
Climate and energy goals	Community-wide climate goal stringency
	Community-wide climate goal progress
	Community-wide energy efficiency goal stringency
	Community-wide renewable energy goal stringency and renewable energy supply
Equity-driven climate and energy planning	Equity-driven community engagement
	Equity-driven decision making
	Accountability for social equity
Distributed energy resources	Support for carbon-reducing technologies in microgrids and district energy systems
	Support for shared community solar systems

	Equity-driven approach to shared, distributed energy systems
UHI	Urban heat island mitigation goals
	Urban heat island mitigation policies and programs

## 2021 Metric Language

2 pt: Average annual per capita GHG reductions are equal to or greater than 3.75%.

1 pt: Average annual per capita GHG reductions are at least 2.5% but less than 3.75%.

2 pt: City is on track to meet or exceed its community-wide climate mitigation goal.

1 pt: City is not on track to achieve its community-wide climate mitigation goal but is projected to be within 25% of the goal.

2 pt: Average annual energy savings per capita are equal to or greater than 3.25%.

1 pt: Average annual energy savings per capita are at least 2% but less than 3.25%.

1.5 pt: Annual per household conversion target is greater than or equal to 875 kWh.

1 pt: Annual per household conversion target is at least 490 kWh but less than 875 kWh.

0.5 pt: Annual per household conversion target is at least 320 kWh but less than 490 kWh.

0.5 pt: Renewable energy supplied at least 20% of city's electricity in the year the city's goal was adopted.

0.5 pt: City has structured its public engagement strategies to increase engagement with marginalized groups.

1 pt: City has given a decision-making body of marginalized residents the authority to approve and allocate funding towards clean energy projects.

0.5 pt: City has given marginalized residents formal roles in decision-making processes for clean energy initiatives.

1 pt: City has institutionalized equity accountability such that all policy and planning documents undergo structural equity assessments.

0.5 pt: City has adopted structural equity procedures that are limited in scope or aspirational in nature.

0.5 pts per system type: City has adopted a formal policy, rule, or agreement that requires or supports shared district energy systems and/or microgrids to include energy technologies that reduce their carbon footprint. Examples of these technologies include:

Integrated storage

Electric vehicles

Combined heat and power

Fuel cells

Additional renewable energy technologies

0.5 pt: City has adopted a formal policy, rule, or agreement that requires the creation of community solar energy systems, or the city has made a formal commitment of financial or in-kind support to create these systems.

0.5 pt per system: City has taken an equity-driven approach to the proliferation of shared, distributed energy systems. Examples of these approaches include:

- Siting the system in an environmental justice community or in affordable housing complexes
- Designing the system to directly reduce energy bills for marginalized community residents
- Reserving community solar shares for marginalized community residents

0.5 pt: City has quantitative urban heat island mitigation goal.

0.5 pt each, up to 1 pt: City has one or more of these:

- Green infrastructure policy
- Private tree protection ordinance
- Private tree planting program
- Private land conservation policy

Maximum points	Milwaukee
2	2
2	0
2	0
2	0
	0
0.5	0
1	0.5
1	0
3	0.5

Common Council requires Equity Impact Statements

0.5	0.5
1	0.5



Category	Metric
Building code adoption	Residential and commercial codes
	Low energy-use requirements
	Renewable readiness
	Building EV readiness
	EV-charging readiness and infrastructure
Compliance and enforcement	Dedicated staffing for building energy code compliance
	Dedicated staffing for building energy code compliance
	Dedicated staffing for building energy code compliance
	Building energy incentives & financing programs
	Building performance standards

Existing Building Policies	Retrofit requirements
	Retrocommissioning requirements
	Building crosscutting requirements
	Energy audit requirements
	Benchmarking requirements
	Benchmarking compliance
	Building voluntary programs
	Commercial rental energy disclosure policy
	Other building energy-saving requirements
Equitable Existing Building Policies	Building performance standards for affordable housing
	Residential rental energy disclosure policy
	Low-income energy incentive and financing programs
	Affordability requirements in energy incentive and financing programs
Workforce development	Inclusive energy efficiency workforce development
	Energy efficiency workforce development

Inclusive renewable energy workforce  
development

Renewable energy workforce development

## 2021 Metric Language

### Residential

Cities with code authority:

3 pt: zEPI score <54.3

2 pt: zEPI score 54.3–58.1

1 pt: zEPI score 58.2–60.7

Cities without code authority:

2.5 pt: zEPI score <54.3

1.5 pt: zEPI score 54.3–58.1

0.5 pt: zEPI score 58.2–60.7

### Commercial

Cities with code authority:

3 pt: zEPI score <49.3

2 pt: zEPI score 49.3–52.2

1 pt: zEPI score 52.3–5.45

Cities without code authority:

2.5 pt: zEPI score <49.3

1.5 pt: zEPI score 49.3–52.2

0.5 pt: zEPI score 52.3–5.45

Cities without code authority:

0.5 pt per sector: City advocates to state for more-stringent codes.

0.5 pt per sector, capped at 1 pt: City has low-energy-use requirements for residential, commercial, or municipal buildings.

1 pt: City has renewable-ready requirements for residential or commercial new construction.

0.5 pt: City allows renewable energy use in all zones.

1 pt: City has EV-ready requirements for residential or commercial new construction.

1 pt: City has EV-charging infrastructure requirements for residential or commercial new construction.

1 pt: City has at least one full-time employee dedicated to energy code compliance.

2 pt: City has at least one full-time employee dedicated to energy code compliance.

3 pt: City has at least one full-time employee dedicated to energy code compliance.

1 point (2+ energy efficiency incentives)

0.5 points (1 energy efficiency incentive)

1 point (2+ solar incentives)

0.5 points (1 solar incentive)

3 pt: Commercial

1.5 pt: Residential

1.5 pt: Commercial 1.5 pt: Residential
1.5 pt: Commercial 1.5 pt: Residential
1 pt: Commercial 1 pt: Residential
0.5 pt: Commercial 0.5 pt: Residential
1 pt: Commercial 1 pt: Multifamily 1 pt: Single-family
0.5 pt: City demonstrates at least one year of compliance rates greater than 90% for at least one type of building.
Cities without code authority 1 pt: Commercial 1 pt: Residential  Cities with code authority 0.5 pt: Commercial or residential
1 pt: Commercial
1 pt: Commercial 1 pt: Residential
Total exist
1.5 pt: Residential
1 pt: Residential
1 pt: 2 or more programs 0.5 pt: 1 program
0.5 pt: Residential
0.5 pt: City has equitable workforce development initiatives for residents.
0.5 pt: City has workforce development programs complemented by or associated with energy efficiency policies, or city funds third-party training.

0.5 pt: City has equitable workforce development initiatives for residents.

0.5 pt: City has workforce development programs complemented by or associated with renewable energy policies, or city funds third-party training.

Maximum points	Milwaukee
6	1.5
1	0
1	0.5
1	0
1	0
1	0
1	0
1	0
	1.5
	0

DNS?

DNS?

DNS?

12	0
	0
	0
	0
	0
	0
	1
	0
	0
	ting building policies score:
3	0
	0
	1
	0
0.5	0
0.5	0



0.5	0
0.5	0

Category	Metric
Sustainable transportation plans	Sustainable transportation plan
	Codified VMT/GHG targets
	Stringency of VMT/GHG targets
	Progress achieved toward VMT/GHG goal
Location efficiency	Location efficient zoning codes
	Parking requirements
	Location efficiency incentive programs and disclosure policies
Mode shift	Mode shift targets
	Progress toward mode shift target
	Bicycle system efficiency and connectivity
	Complete streets
	Congestion pricing (Bonus)
Transit	Transit funding

Transit	Transit performance
Efficient vehicles	Vehicle purchase incentives
	Vehicle charging infrastructure incentives
	Number of EV charging station ports
	Electric school bus goal
	Electric transit bus goal
Sustainable freight plans	Sustainable freight plans and strategies
Low-income	Low-income housing around transit
	Low income access to high quality transit
	Subsidized access to efficient transportation options
	Equitable EV infrastructure deployment (Bonus)

## 2021 Metric Language

1 pt: City has a stand-alone sustainable transportation plan or strategies included within a broader plan that has been updated within the past five years.

0.5 pt: City has a stand-alone sustainable transportation plan or strategies included within a broader plan that has not been updated within the past five years.

1 pt: City has codified VMT/GHG targets or goals.

1 pt: City's target requires at least a 4% average annual decrease from its target baseline.

0.5 pt: City's target requires at least a 1.5% average annual decrease from its target baseline.

1 pt: City is on pace to achieve its goal by the adopted target year.

0.5 pt: City is not on track to meet nearest-term goal but is projected to achieve savings within 25% of stated goal.

2 pt: Codes for TOD, compact or mixed-use development, or form-based zoning apply to the whole city.

1 pt: Codes for TOD, compact or mixed-use development, or form-based zoning apply only to certain areas or neighborhoods.

2 pt: Either parking maximums are in place for all new development, or no minimum parking requirements are in place for all new development.

1.5 pt: At least one zone, neighborhood, or district has parking maximums or no minimum parking requirements, or the whole city has a requirement of 0.5 or fewer spaces per housing unit.

1 pt: At least one zone, neighborhood, or district has a requirement of 0.5 or fewer spaces per housing unit, or the whole city has a requirement of one space or fewer per unit.

0.5 pt: At least one neighborhood has a requirement of 1 or fewer spaces per housing unit.

2 pt: 4 or more types of unique incentives or programs

1.5 pt: 3 or more types of unique incentives or programs

1 pt: 2 or more types of unique incentives or programs

0.5 pt: 1 or more types of unique incentives or programs

1 pt: City has a modal share target for all modes of transportation (single-occupancy vehicles, public transit, biking, and walking).

0.5 pt: City has a modal share target for only some modes of transportation.

1 pt: City demonstrates any quantitative progress toward modal share target.

1 pt: Places for Bikes score of 9 or above

0.5 pt: Places for Bikes score of at least 6 but not exceeding 8.9

1 pt: City's policy covers the entire city.

0.5 pt: City's policy only covers specific districts and neighborhoods.

1 bonus pt: City has congestion pricing mechanisms in place.

Transit funding per capita (5-year average)

2 pt: \$500 or more

1.5 pt: \$300 to \$499.99

1 pt: \$100 to \$299.99

0.5 pt: \$50 to \$99.99

<p>City's transit performance score</p> <p>2 pt: 9.0 and above</p> <p>1.5 pt: 8.0 to 8.9</p> <p>1 pt: 7.0 to 7.9</p> <p>0.5 pt: 5.0 to 6.9</p>
<p>1 pt: City or utility has incentive program in place for the purchase of high-efficiency vehicles.</p> <p>0.5 pt: City has formed a public/private partnership resulting in the creation of a program that offers rebates for EV purchases</p>
<p>1 pt: City or utility offers incentives for installation of public or private EV charging infrastructure.</p>
<p>1 pt: At least 90 per 100,000 people</p> <p>0.5 pt: At least 50 per 100,000 people</p>
<p>0.5 pt: City or school district has a goal to increase the number of EV school buses in service.</p>
<p>0.5 pt: City or transit agency has a goal to increase the number of EV transit buses in service.</p>
<p>2 pt: City has a stand-alone sustainable freight plan or a multimodal freight plan outlining multiple strategies to increase efficiency.</p> <p>1.5 pt: City has a stand-alone sustainable freight plan outlining at least one strategy to increase efficiency.</p> <p>1 pt: City does not have a freight plan but has pursued multiple freight efficiency strategies.</p> <p>0.5 pt: City does not have a freight plan but has pursued at least one freight efficiency strategy.</p>
<p>2 pt: City policy requires low-income housing development around transit facilities</p> <p>1 pt: City policy incentivizes low-income housing development around transit facilities.</p>
<p>2 pt: At least 90% of low-income households have access to high-quality transit.</p> <p>1.5 pt: Between 75% and 89.9% of low-income households have access to high-quality transit.</p> <p>1 pt: Between 60% and 74.9% of low-income households have access to high-quality transit.</p> <p>0.5 pt: Between 50% and 59.9% of low-income households have access to high-quality transit.</p>
<p>0.5 pt each, up to 2 pt: City provides rebates or incentives to low-income residents for efficient transportation options. (0.5 points for each mode of transport that's been incentivized)</p>
<p>1 bonus pt: City lends special consideration to low-income communities when siting the placement of EV charging equipment.</p>

Maximum points	Milwaukee
1	0.5
1	0
1	0
1	0
2	1
2	1.5
2	0.5
1	0.5
1	0
1	0.5
1	1
1	0
2	0.5



Category	Metric
	Electric and natural gas efficiency savings
Efficiency efforts	Low-income energy efficiency programs
	Comprehensive multifamily energy efficiency program
	Affordable multifamily program



	Community energy data
	Utility automated benchmarking program
	Energy data advocacy
Decarbonization and climate change mitigation efforts	City-led actions to decarbonize electric grid
	Electric utility climate goal stringency
Water efficiency	Joint water-energy programs
	Water savings strategy
	Water utility energy efficiency strategies

Water utility energy recovery and  
renewables

## 2021 Metric Language

Electric efficiency savings as a percentage of sales

Munis:

3 pt: 2% or greater

2.5 pt: 1.75–1.99%

2 pt: 1.50–1.74%

1.5 pt: 1.25–1.49%

1 pt: 1.00–1.24%

0.5 pt: 0.60–0.99%

IOUs:

2 pt: 2% or greater

1.5 pt: 1.75–1.99%

1 pt: 1.50–1.74%

1 pt: 1.25–1.49%

0.5 pt: 1.00–1.24%

0.5 pt: 0.60–0.99%

City-utility partnerships, IOUs only:

1 pt: City has a formal partnership with the electric and/or natural gas utility in the form of a jointly developed or administered energy savings strategy, plan, or agreement.

0.5 pt: City has informally collaborated with the electric and/or natural gas utility on an energy efficiency project or program.

Natural gas savings as a percentage of sales

1.5 pt: 1.20% or greater

1 pt: 0.70–1.19%

0.5 pt: 0.20–0.69%

0.5 pt per strategy, capped at 1.5 pt:

- Electric and/or natural gas utility offers a portfolio of low-income program (i.e., more than one program to specifically address low-income customer needs), including a comprehensive low-income energy efficiency program

- Electric and/or natural gas utility braids funds with other sources for one or more of its low-income programs to cover health and safety and other program costs.

- Electric and/or natural gas utility includes health-related measures in its low-income program.

- Local government contributes funds toward local weatherization providers or other low-income energy efficiency efforts (excluding financing programs). (IOUs only)

0.5 pt: Electric and/or natural gas utility offer(s) a comprehensive energy efficiency program for multifamily customers that focuses on whole-building improvements.

0.5 pt: Electric and/or natural gas utility offer(s) a low-income multifamily program.

1 pt: City and/or energy utility makes community-wide energy usage information at the aggregate level publicly available for community planning and evaluation purposes in the past five years.

0.5 pt: City has requested community-wide energy usage data but has not received it from the energy utility OR the city has community-wide energy usage data for internal planning purposes but does not make this data publicly available.

0.5 pt: Utilities provide automated benchmarking services through ENERGY STAR Portfolio Manager for multi-tenant commercial and/or multifamily buildings.

0.5 pt: City advocates for improvements in data provision by utilities or has established a data-sharing agreement with them.

IOUs only (capped at 1.5 pts)

0.5 pt per strategy

- City has submitted comments or has been involved in public utility commission proceedings regarding renewable energy advocacy (e.g., net metering legislation).
- City and electric utility have a formal partnership to advance the development of renewable energy.
- City has participated in planning efforts with its electric utility to promote renewables or has made additional efforts to encourage more utility-scale renewable generation.
- City has been directly involved in utility planning efforts around expanding utility-scale renewable generation.
- City has introduced legislation to enable community choice aggregation but it has not yet passed.

1 pt: City has enacted enabling legislation for community choice aggregation program but is not yet served by a CCA.

1.5 pt: City has community choice aggregation program in place with a green option.

Electric utility carbon emissions per capita, Munis only:

1.5 pt: < 5 thousand metric tons CO<sub>2</sub>e

1 pt: 5–10 thousand metric tons CO<sub>2</sub>e

0.5 pt: 10–20 thousand metric tons CO<sub>2</sub>e

1.5 pt: > 5% per year

1 pt: 2–4.99% per year

0.5 pt: < 2% per year

0.5 pt: The local water utility and/or energy utility provide deep water saving measures streamlined with energy saving measures.

0.5 pt: City and/or local water or wastewater utility has established a formal water savings target or long-term strategy for reducing community-wide water use.

1 pt: At least one drinking water or wastewater utility serving the city has adopted a strategic and comprehensive energy management approach.

0.5 pt: Water utilities report having retrofit strategies but did not provide data indicated that projects have been completed or if water utilities have conducted one-off energy savings measures.

1 pt: Wastewater utility generates electricity and/or fuel from its wastewater influent.

0.5 pt: Wastewater utility has installed onsite renewable energy at its wastewater treatment plant.

Maximum points	Milwaukee
4.5	1.5
1.5	1.5
0.5	0.5
0.5	0

1	0
0.5	0
0.5	0
1.5	0.5
	0
1.5	1.5
0.5	0
0.5	0
1	0.5

1	1
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Category	Metric
Climate and energy goals	Local government climate goal stringency
	Local government climate goal progress
	Local government energy efficiency goal stringency
	Local government renewable energy goal stringency
Procurement and construction	Fleet procurement policy
	Fleet procurement composition
	Efficient public lighting policy
	Efficient public lighting performance
	Onsite and offsite renewable energy systems
	Inclusive procurement and contracting
	Asset management
Municipal building retrofit strategies	
Municipal building sustainable EE funding	

## 2021 Metric Language

1 pt: Average annual greenhouse gas emissions reductions per capita are greater than or equal to 4%.

0.5 pt: Average annual greenhouse gas emissions reductions per capita are less than 4% but greater than 2.75%.

1 pt: City is on track to meet its nearest-term goal.

0.5 pt: City is not on track to meet nearest-term goal but is projected to achieve savings within 25% of stated goal.

1 pt: Average annual energy savings per capita are greater than or equal to 3.5%.

0.5 pt: Average annual energy savings per capita are less than 4% but greater than 2%.

1 pt: Annual per household conversion target is greater than or equal to 110 kWh.

0.5 pt: Annual per household conversion target is at least 25 kWh but less than 110 kWh.

0.5 pt: The city has a strategy to procure fuel-efficient, low-emissions vehicles or vehicle types.

0.5 pt: At least 8% of the city's fleet is composed of efficient vehicles types (hybrid, plug-in hybrid, battery electric, and fuel cell vehicles).

0.5 pt: The city has adopted Model Lighting Ordinance or similar policy.

1 pt: At least 76% of streetlights have been converted to LED.

0.5 pt: 36% to 75% of streetlights have been converted to LED

1 pt: City has installed or purchased at least 4W per capita of onsite and offsite municipal renewable electricity generation capacity.

0.5 pt: City has installed or purchased at least 1W but not more than 4W per capita of onsite and offsite municipal renewable electricity generation capacity.

0.5 pt: City has inclusive procurement and contracting processes for city projects.

0.5 pt: City benchmarks 90% of public buildings over 10,000 square feet.

1 pt: City evaluates public buildings to determine and prioritize energy efficiency retrofit opportunities, has completed projects in the past five years, and provides data on results of retrofit projects.

0.5 pt: City has a comprehensive retrofit strategy in place, but we were unable to verify that the strategy had been carried out.

0.5 pt: City has a dedicated funding source for energy efficiency work.

Maximum points	Milwaukee
1	0
1	0
1	0
1	0
0.5	0
0.5	0
0.5	0
1	0
1	0
0.5	0
0.5	0.5
1	0
0.5	0