

# Analyzing Energy Justice in the Housing Sector: A Study of Cities Climate Action Plans (CAPs)

## Energy Justice & TransformTO

It is well-documented that equity-denied populations within urban areas often experience the worst impacts of climate change due to historical, economic, social and political factors (Islam & Winkel, 2017; Wilbanks, 2011; Wilson et al., 2010). While Climate Justice is an approach used to analyze the potential justice dimensions of climate change impacts, mitigation and adaptation, Energy Justice is a form of energy analysis that emphasizes the potential justice considerations and dimensions of low-carbon energy transitions (McCauley et al., 2019). In *TransformTO*, Toronto communicates a road map to get net zero by 2040; however, the city also wants to ensure an equitable energy transition.

Therefore, the goal of this research is to evaluate the City of Toronto's CAP, in addition to two other cities, to provide benchmarks for where the city can improve and to provide recommendations to the city for progressing the integration of equity into TransformTO.



## Research Methods

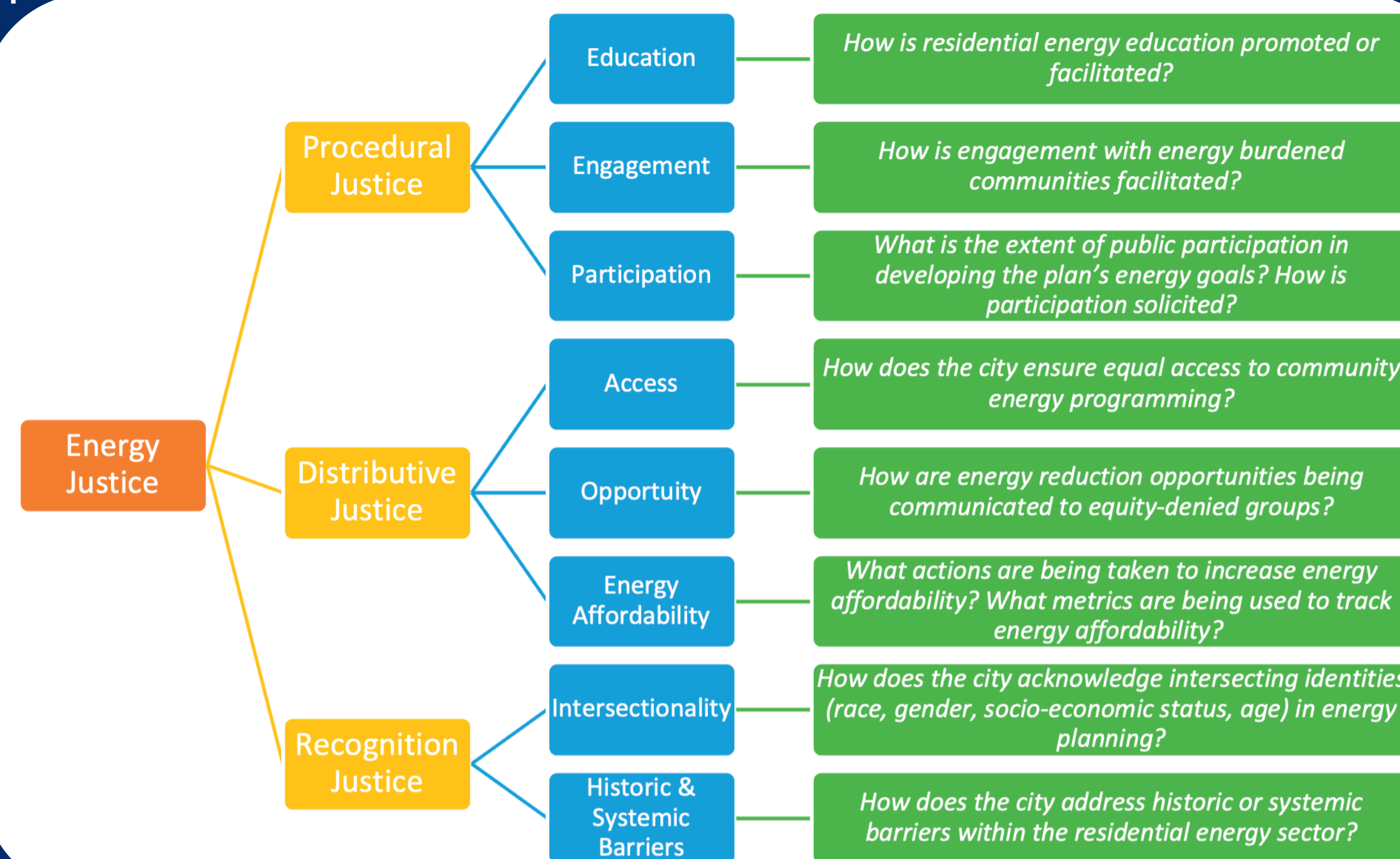
The research methods for this study included an in-depth literature review of energy justice, just transitions and planning literature. This review of academic literature helped to inform the Energy Justice Framework, which was then applied to three different cities' CAPs. The three cities were selected based on five different criteria. The goal of these criteria was to narrow down cities that are excelling in social sustainability but could also be easily compared to the city of Toronto. The Energy Justice Framework was then applied to the CAPs to evaluate the inclusion of equity actions under the three dimensions of Energy Justice: procedural justice, distributive justice and recognition justice.

City	CAP Year	Population Estimate	Arcadis Overall Ranking 2022	Arcadis People Pillar Ranking 2022	100 Resilient Cities
Toronto	2017	2.9 M	41	29	Yes
Glasgow	2019	1.7M	13	1	Yes
New York	2017	8.4 M	15	42	Yes

## Climate Action Plans



## Energy Justice Framework



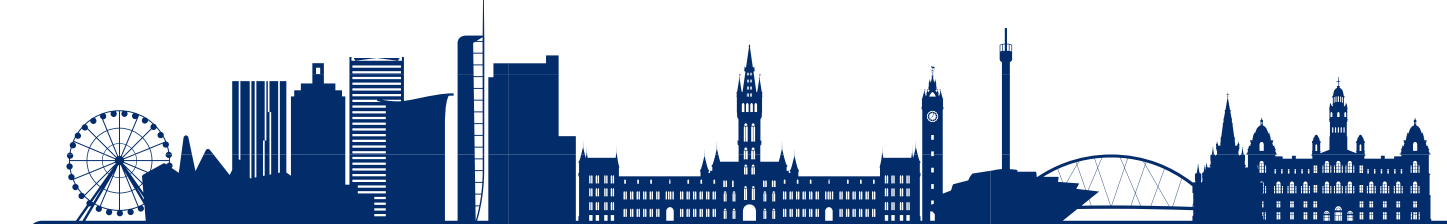
## Results

### New York City



- provides energy justice-related benefits in the description of each key action, such as reduced air pollution, job creation, improved housing quality for tenants, and reduced energy costs
- engages with communities through community boards, academic institutions, local businesses and other stakeholders from all five boroughs
- describes the potential benefit of each climate action to communities
- plans to create interagency working groups to address environmental injustice
- acknowledges historical discriminatory housing and investment practices

### Glasgow



- founded on two core principles: actions taken by the city should not contribute further to inequalities or increase barriers for disadvantaged communities to participate or benefit from the transition to net zero;
- and actions put forward by the strategy should create a safer, more resilient and sustainable city for all
- plans to create a Climate Change Communications Strategy
- Climate Conversations program to educate residents on climate action
- have a Local Just Transition Commission and abide by The Fairer Scotland Duty
- Local Heat and Energy Efficiency Strategy under the LHEES Order
- acknowledges Glasgow's colonial history

### City of Toronto



- advancing social equity is one of the eight guiding principles of TransformTO
- includes goals for protecting low-income residents and improving affordability for vulnerable populations
- plan to analyze the equity and affordability impacts of voluntary energy programs and short-term policies around energy retrofits
- connecting equity-denied groups to energy programs is an ongoing challenge
- public engagement included online content, a video, a NetZero backgrounder, a Community Disclosure guide, public surveys and online idea boards that were used due to COVID-19 limiting in person participation

## Discussion

Although all three action plans made an effort to address equity, it was often generally defined and addressed, and the plans did not go into detail regarding the multiple dimensions of equity issues within their city. Engagement and affordability were the most commonly addressed domains across all three plans, while there was little action targeting issues of recognition justice such as intersectionality and historic or systemic barriers. Judging these climate action plans on their ability to address the eight domains put forward by the Energy Justice Framework, Toronto and New York included the most examples of procedural, distributive and recognition-related actions toward progressing Energy Justice.



## Recommendations

**Recommendation 1:** Similar to New York City, Toronto should create an Equity Assessment Tool to measure the potential equity benefits and potential equity impacts of different climate actions regarding residential energy reduction. This tool should be developed with direct input from residents' concerns and feedback pre and post residential energy retrofit projects. The tool could be informed by results from City Housing improvement projects and be used to communicate energy justice considerations when implementing energy programs.

**Recommendation 2:** Toronto should create a Local Just Transition Commission. The commission would be dedicated to addressing energy justice issues facing the city, such as education, access, energy affordability and inclusion. The Commission would work closely with TransformTO, the Climate Advisory Board, and other agencies within the city. The commission would be dedicated to addressing energy justice issues that impact the most vulnerable communities in the city and ensure a just transition to net zero.

**Recommendation 3:** Toronto should take a participatory approach to evaluation by consulting with the public and gaining genuine feedback to help design evaluation metrics and indicators, to ensure the equitable implementation of TransformTO. Equitable indicators around energy programming should be informed by residents as it helps to identify particular equity and justice concerns that are most material to community members.



## References

Glasgow City Council. (2019). Glasgow's Climate Plan: Our Response to the Climate and Ecological Emergency. <https://www.glasgow.gov.uk/CHttpHandler.ashx?id=50623&p=0>

The City of Toronto. (2021). TransformTO Net Zero Strategy: A Climate Action Pathway to 2030 and Beyond. <https://www.toronto.ca/legdocs/mmis/2021/ie/bgrd/backgroundfile-173758.pdf>

The City of New York. (2017). 1.5 C Aligning New York With The Paris Climate Agreement. [https://www.nyc.gov/assets/sustainability/downloads/pdf/publications/1point5-AligningNYCwithParisAgmt-02282018\\_web.pdf](https://www.nyc.gov/assets/sustainability/downloads/pdf/publications/1point5-AligningNYCwithParisAgmt-02282018_web.pdf)

Islam, S. N., & Winkel, J. (2017). Climate Change and Social Inequality. <http://www.ejnetindiaresource.org/ejissues/bal.pdf>

Wilbanks, T. J. (2011). Overview: Climate Change Adaptation in the Urban Environment. *Advances in Global Change Research*, 42, 281–288. [https://doi.org/10.1007/978-94-007-0567-8\\_20/FIGURES/1\\_20](https://doi.org/10.1007/978-94-007-0567-8_20/FIGURES/1_20)

Wilson, S. M., Richard, R., Joseph, L., & Williams, E. (2010). Climate Change, Environmental Justice, and Vulnerability: An Exploratory Spatial Analysis. *Environmental Justice*, 3(1), 13–19. <https://doi.org/10.1089/ENV.2009.0035>

McCauley, D., Ramasar, V., Heffron, R. J., Sovacool, B. K., Mebratu, D., & Mundaca, L. (2019). Energy justice in the transition to low carbon energy systems: Exploring key themes in interdisciplinary research. *Applied Energy*, 233–234, 916–921. <https://doi.org/10.1016/j.apenergy.2018.10.005>