

80X50 CLIMATE GOAL SURVEY RESULTS

January 2018

Public Comments

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Introduction

In December of 2015, Denver's Department of Public Health and Environment (DDPHE) released an updated [Climate Action Plan](#). As part of that plan, Mayor Michael B. Hancock announced Denver's goal of reducing community Greenhouse Gas (GHG) emissions 80 percent below 2005 levels by the year 2050 (80 by 50). Mayor Hancock also committed the City to pursuing a robust stakeholder process to identify and vet potential strategies to get Denver to that goal.

After the Mayor's announcement, DDPHE hosted a stakeholder process supported by Lotus Engineering & Sustainability. The vision, strategies and analysis presented in this plan were immediately followed by community outreach conducted by DDPHE. Those who live and/or work in Denver were encouraged to provide input on the [80x50 Climate Goal](#) by taking the 80x50 Climate Goal Survey. In total, 1,700 individual responses were collected. The survey results provide additional considerations to strategies, targets and visions developed by the 80x50 Climate Goal Stakeholders. This report outlines and analysis the survey results.

METHODOLOGY

The Stakeholder Process

The survey is comprised of questions that were developed in response to targets and goals identified during the Stakeholder Process.

To conduct the Stakeholder Process, Denver identified individuals with varied expertise, perspectives and backgrounds who developed an attainable 80x50 plan for Denver by creating a comprehensive list of strategies and targets to meet goal by 2050. In addition, the stakeholders were asked to integrate the strategies and targets into a larger transformative framework made up of six vision statements that set the groundwork and priorities for Denver in the short-, mid- and long-term. In August 2017, DDPHE published the full [Stakeholder Report](#).

Public Comment Period

The 80x50 Climate Goal Survey was created by the Denver Department of Public Health and Environment and was distributed online through City resources beginning August 28th, 2017. The survey, available in both English and Spanish, closed November 25th, 2017. During the 3 months the survey was over, 1,700 individual responses were collected. The Colorado Chapter of the Sierra Club partnered with DDPHE to distribute the survey and host several public forums to increase survey responses and provide a platform for the City to interact directly with the target audience. The Sierra Club also had tablets at the events to encourage attendees to take the survey on-site.

80X50 Climate Goal Survey Results

The survey was hosted through SurveyMonkey and was limited by IP address, discouraging respondents from taking the survey more than once. Respondents were not required to answer every question. Additionally, the survey had an option to end the survey at question 13, if participants were not interested in answering more detailed questions about the stakeholder report. Over 60 percent continued to part 2 of the survey. Many questions had an option to provide additional comments. Comment trends are highlighted under Survey Highlights.

Trends

Survey respondents indicated they were from age 10 to 100 with the average indicated age of 58.

Survey participants were asked to identify the zip codes where they work and live. Responses were received across all 90% of Denver zip codes. The top 10 zip codes where respondents live and work are highlighted below. While people who indicated a zip code out of Denver were not prohibited from taking the survey, the number of external zip codes were not significant enough skew the results, so they were not excluded.

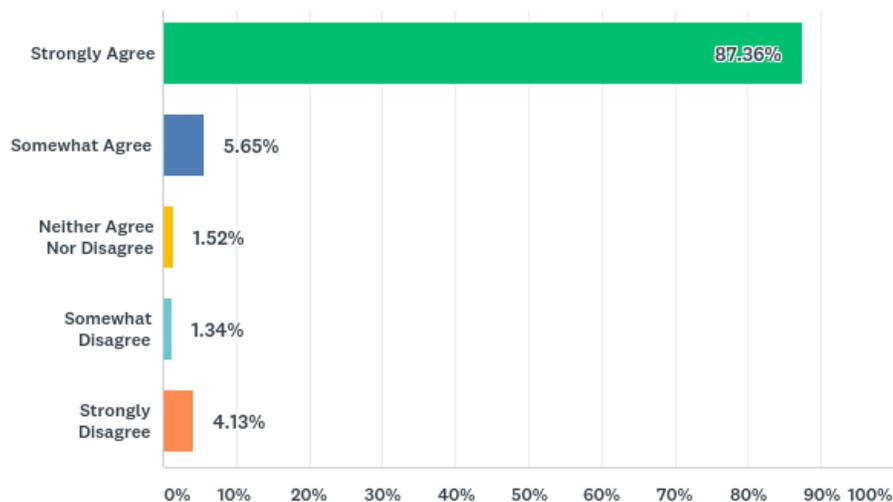
Top Zip Codes Where Respondents Work	
80202	12%
80205	4%
80204	4%
80210	4%
80203	3%

Top Zip Codes Where Respondents Live	
80210	8%
80206	6%
80220	5%
80205	5%
80211	5%

SURVEY HIGHLIGHTS

Denverites in favor of local action.

Survey Question 5: Denver should take aggressive local action to combat climate change.



Results show that a large majority of survey respondents strongly agree that Denver should take aggressive local action to combat climate change.

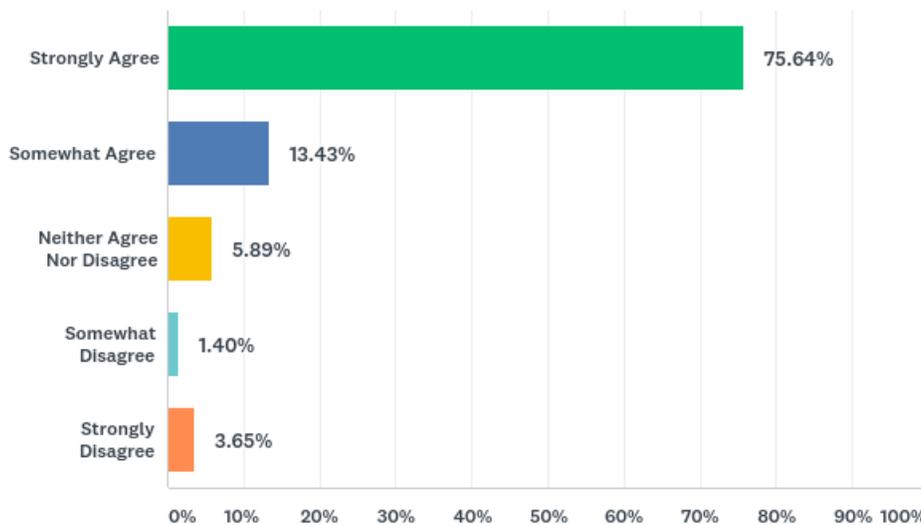
According to a recent [AP-NORC poll](#) 48 percent of Americans called climate change very or extremely important issues and 54 percent said the same of energy policy. The same poll found that 55 percent of Americans say their own local and state governments should be doing more to address global warming.

Yale published a recent survey stating, 72 percent of Americans believe that corporations and industry should be doing more to address global warming.

Mayor Hancock has demonstrated the city’s commitment to combat climate change by signing on to the [Mayor’s Climate Protection Agreement](#) of the U.S. Conference of Mayors, more recently, the [Mayor’s National Climate Action Agenda](#) in response to the U.S.’s withdrawal from the Paris Agreement.

Denver residents believe the City should increase the production of renewable energy.

Survey Question 6: The 80x50 stakeholder report indicates that electricity from renewable sources (like the sun and wind) is very important to meeting the 80x50 goal. Currently 29 percent of the electricity Xcel Energy provides to Denver is from renewable sources. Xcel has plans to increase this percentage to 55 percent by 2026. Denver should partner with Xcel Energy to increase the production of renewable energy. State to which level you agree with this statement.



Over 89 percent of participants agree that there should be an increase of renewable energy. Many respondents also commented, however, that while they agree the City needs an increased production of renewables, they did not feel that the City should only partner with Xcel to achieve these goals. Several also voiced their concerns on the timeline, suggesting that the 80x50 goal and 55 percent renewable by 2026 is not aggressive enough.

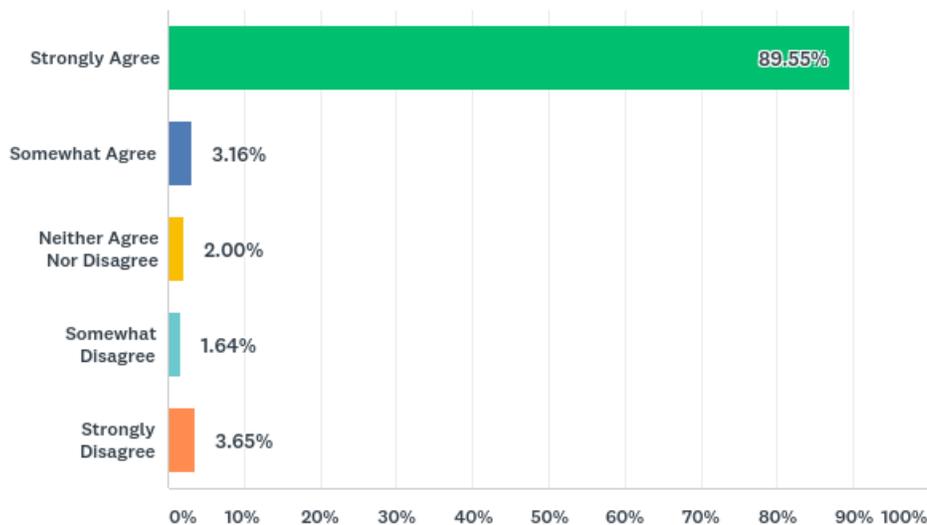
80X50 Climate Goal Survey Results

A 2016 [PEW Research Center Poll](#) shows 89 percent of Americans are in favor of more solar panel farms, and 83 percent in favor of wind turbine farms. An impressive 66 percent of homeowners living in the Western U.S. have given serious thought to or have already installed home solar panels.

Denver's 2015 Climate Action Plan outlines strategies for lowering emission by maintaining the Renewable Portfolio Standard and partnering with Xcel Energy to rapidly attain a lower emissions factors for electricity through additional renewable energy projects, and low- or no carbon sources.

Denver as an environmental leader.

Survey Question 7: Denver Mayor Michael B. Hancock recently said it's important for cities like Denver to be environmental and sustainability leaders. He further said that federal inaction on climate will not stop Denver from taking action to tackle climate change. State to which level you agree with this statement.



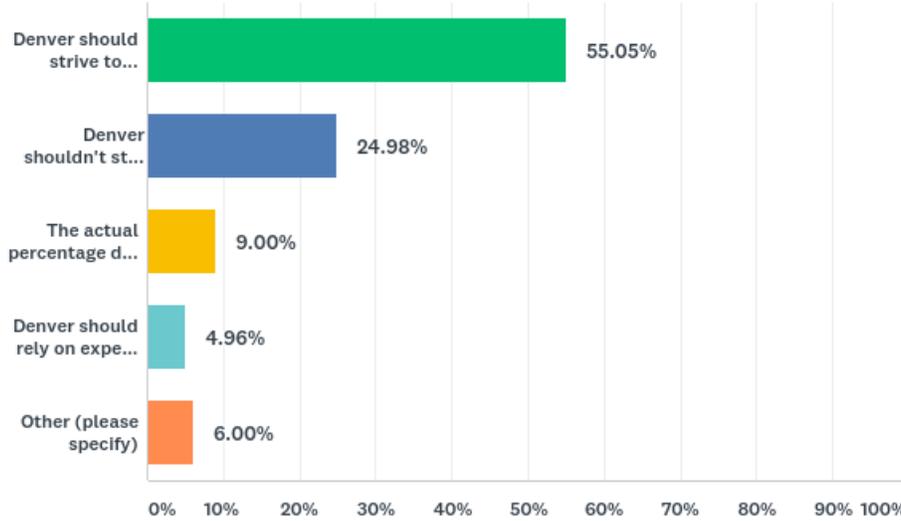
An overwhelming majority of respondents agree that Denver should be an environmental and sustainability leader.

A poll by [The Associated Press-NORC](#) Center for Public Affairs Research and the Energy Policy Institute at the University of Chicago finds 57 percent of Americans say they favor local governments picking up the slack to try and reduce greenhouse gas emissions on their own. About 55 percent of Americans say their own local and state governments should be doing more to address global warming.

Mayor Hancock has demonstrated the city's commitment to sustainability despite federal actions when he signed on, with over 300 other mayors, to the [Mayor's National Climate Action Agenda](#) in response to the U.S.'s withdrawal from the Paris Agreement.

Denver should set a goal to reach 100 percent renewable energy.

Survey Question 8: Even if Denver isn't able to achieve 100 percent renewable electricity, please mark the statement that most accurately reflects your opinion...

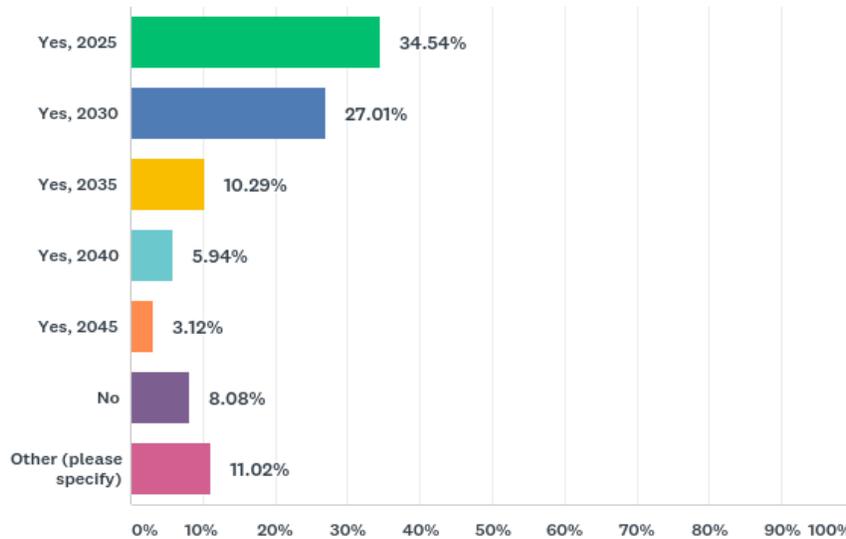


More than half of the respondents believe that Denver should strive to achieve as close to 100 percent renewable energy as possible.

Comments from this question took issue with Xcel “as an expert”, and feel that the City needs to consult with multiple partners to make this vision a reality. Other comments speculate that 100 percent renewables may not be economically feasible, and that the City should set a clear, and obtainable goal.

Denver should reach 100 percent renewables sooner rather than later.

Survey Question 9: Should Denver set a goal year to reach 100 percent renewable for electricity?



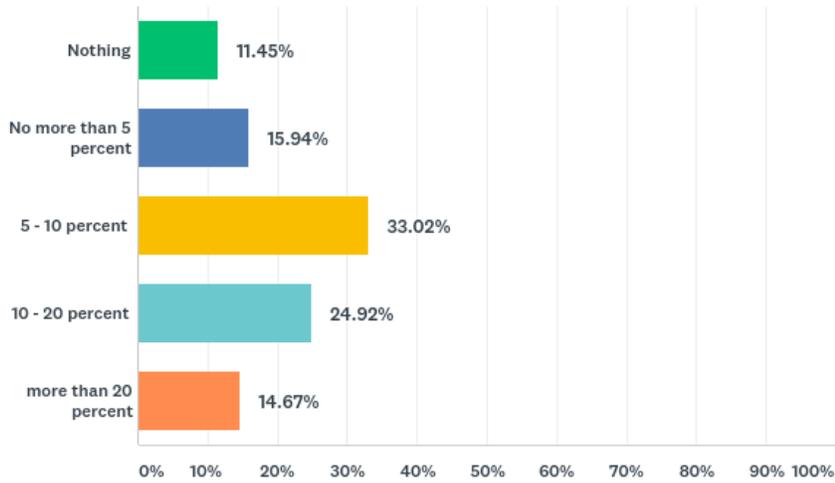
Results show that Denver residents are in favor of 100 percent renewable energy sooner rather than later. More than a third of results are in favor of Denver reaching the goal by 2025.

In a national poll, the 2015 [Solar City](#) survey found that 87 percent of Americans feel that renewable energy is important to America’s energy future.

Comments on this section indicated that some residents felt that a 100 percent renewable goal should be reached immediately, while others felt that reaching the goal is important, they believe experts should decide on a realistic and achievable date.

Denverites are willing to pay more on their utility bills for clean energy.

Survey Question 10: How much extra on your utility bill would you be willing to pay to achieve 100 percent renewable (or very nearly 100 percent) energy?

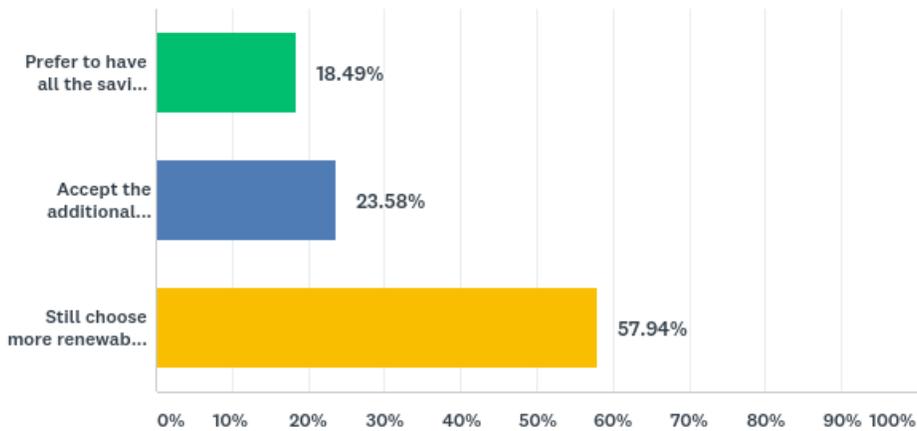


Most participants are willing to pay extra on their utility bill to help achieve 100 percent renewable energy. A third of participants indicated that they would be willing to pay 5-10 percent extra.

In a recent [AP-NORC](#) poll, 51 percent of Americans indicated they would be willing to pay an addition \$1 a month on their electricity bill to “fight climate change”, 40 percent an additional \$10, and 3 percent an additional \$20-\$40 monthly.

Denver residents are in favor of renewables over savings.

Survey Question 11: If personal or business decisions (e.g. energy efficiency or voluntary programs) offset the increase in your cost of additional renewable electricity, would you...



More than half of participants admitted they would still choose more renewable energy regardless of savings.

The [2015 Climate Action Plan](#) laid out recommendations to implement shared renewable power purchasing programs and encourage and develop innovative financing programs for energy efficiency and onsite renewables such as Property Assessed Clean Energy, revolving loan funds, and bond facilities.

Survey Question 12: As Denver moves forward towards implementation of strategies to meet the 80x50 goal, consider the following items and rank them in order from your greatest to least concern, 1 being of most concern, 5 being of least concern.

Ranked from most important to least important.

Climate Impacts

Equity of Strategies/ Solutions

Technical feasibility

Cost of Implementation

Implementing strategies too slow

Implementing strategies too fast

When given six factors to consider when implementing sustainability strategies, Denver residents identified climate impacts and the equity of strategies and solutions as their top two concerns. f

Residents of Denver want clean energy.

Survey Question 14: According to your opinion, please rank the six 80x50 Climate Goal Stakeholder-developed vision statements below in order of importance for Denver:

Ranked from most important to least important.

Make Denver a leader in clean and local energy that comes from the sun, wind or other innovative renewable technologies

Aggressively transition toward a clean, carbon-free transportation system that improves health and livability for the Denver community.

Transform Denver into a community where people walk, bike, take transit, or carpool for most trips in a safe, accessible and affordable transportation network.

Make Denver a leader in sustainable, smart transportation through innovative partnerships, policies, programs and technologies.

Inspire community action and equity towards an innovative energy system.

Transform Denver buildings into high-performing places to live, work, learn and play.

Survey takers were given the six stakeholder-developed visions as published in the Stakeholder Report. The top two responses weights as most important are focused in clean energy, in production and use in transportation.

Survey Question 15: Please indicate your level of agreement with the following target statements from the 80x50 Stakeholder Process:

Ranked from most important to least important.

By 2050, 90 percent of existing buildings should have completed a major energy efficiency improvement.

By 2050, 100 percent of taxis and transportation network vehicles should be electric.

By 2035, all new buildings in Denver should be net-zero for energy use.

By 2050, 80 percent of light-duty vehicles should be electric.

By 2030, 16 percent of commuters should use transit.

By 2050, 50 percent of commercial and residential fuel use should switch from natural gas/propane to low-carbon fuel and/or electric heat.

Of the six selected target statements from the stakeholder report, Denver residents expressed an interest in building efficiency and electric vehicles.

CONCLUSIONS

Comments collected during the survey period support the targets and goals of the Stakeholder Report and a general approval for Denver to pursue aggressive climate action. The public comments of the 80x50 Climate Goal Survey were used in combination with the Stakeholder Report recommendations to form the 80x50 Climate Action Plan which will be published in early 2018.