

Public Perceptions of Climate and Energy

Maryland



Climate Communication Consortium of Maryland

climatemaryland.org

Public Perceptions of Climate Change

Report Key Findings

A majority continue to say climate change is happening, regardless of 2014's cold winter.

- About three-quarters (77%) of Marylanders say that climate change is happening. Almost half of state residents – 45% – say that they are extremely or very sure it is happening. Very few residents (10%) in the state do not think that it is occurring. By way of comparison, only 64% of Americans nationwide say that global warming is happening, according to nationally representative survey results using a similarly phrased question in April 2014.
- A majority of Marylanders say that the past year's cold winter weather was evidence that climate change is happening (55%). Very few Maryland residents say that the cold weather is evidence that climate change is not happening (2%).



Public Perceptions of Climate Change

A Maryland Statewide Survey | Fall 2014



Marylanders support state climate and energy policies, and rank climate with universal pre-kindergarten as a priority for the General Assembly and Governor.

- Climate change is ranked similarly to establishing universal pre-kindergarten as a priority for the General Assembly and Governor. Eight in 10 Marylanders (79%) say that it should be a medium, high or very high priority for the state; 75% say the same for universal pre-kindergarten.
- Statewide, majorities of residents support 7 of 8 climate and energy policies that we listed in the survey. Most popular are expanding rebates to help people purchase energy-efficient lighting and appliances (82%), and supporting the production and consumption of local agricultural products (82%).
- Other policies supported by a majority of Marylanders include: requiring new cars and other vehicles in Maryland to be less polluting (78%); requiring that Maryland's electricity suppliers provide 20% of their total electricity from renewable energy sources by 2022 (73%); doubling use of public transportation in Maryland by 2020 (65%); encouraging the development of more homes in our cities, with better access to public transportation, as a means to reduce sprawl (63%); and participating in a regional carbon emissions trading program to reduce overall production of greenhouse gases (54%).

The level of scientific consensus on climate change remains little understood.

- About one quarter of Marylanders (26%) correctly say that 81% or more of climate scientists agree that climate change is happening. (A number of studies have placed the true estimate of scientific consensus to be about 97%.)

Scientists, health experts and environmental organizations are most trusted on climate; agencies also rank highly.

- More than half of residents say that they trust scientists at Maryland universities (70%), doctors and other public health experts (63%), and environmental organizations (52%) for information on climate change.
- More than half of state residents say that on climate change they trust three of five listed state agencies: Maryland Department of the Environment (58%), Maryland Department of Natural Resources (53%), and Maryland Department of Health and Mental Hygiene (51%).

Communication Considerations

- 1. Communicate the social consensus of Marylanders who think climate change is happening, and that majorities support state climate and energy policies**

More than three-quarters (77%) of Marylanders say that climate change is happening. Support for climate and energy policies is also high – more than 50% support almost all of the policies that we listed in the survey, but for the majority of those policies that they support, they say they have not heard of them before the survey. When people think that there is high social consensus on an issue, their own attitudes become clarified and they are more likely to believe that they are correct.
- 2. Communicate the consensus of 97% of climate scientists who say human-caused climate change is happening**

Scientists are the most trusted sources of information on climate change. Seventy percent of Marylanders say that they trust Maryland’s scientists on this issue. Understanding the scientific consensus has been shown to be a critical gateway belief; yet just over one-quarter of Marylanders understand the high percentage of agreement among climate scientists that human-caused climate change is occurring.
- 3. Understanding that climate change is primarily human-caused is important to convey**

Almost identical percentages of Marylanders say that climate change is caused entirely or mostly by human activities (37%), or that it is about equally driven by natural changes in the environment and human activities (36%). Understanding that human beings are the primary driver of climate change, as opposed to natural cycles, is highly correlated with wanting Maryland’s Governor and the General Assembly to place a high priority on climate change, and support for local and state government protection of communities against climate change harms.
- 4. Recruit trusted messengers to talk about climate: scientists, doctors and state agencies**

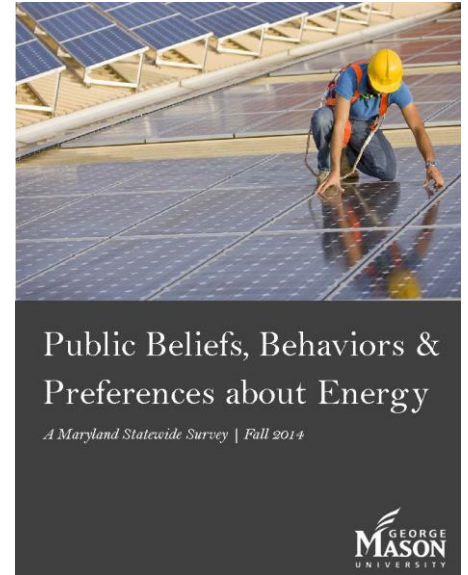
More than half of residents say that they trust scientists at Maryland universities (70%), doctors and other public health experts (63%), and environmental organizations (52%). More than half of state residents also say that they trust Maryland Department of the Environment (58%), Maryland Department of Natural Resources (53%), and Maryland Department of Health and Mental Hygiene (51%).

Public Beliefs, Behaviors & Preferences about Energy

Report Key Findings

Marylanders want the state to use more renewable energy.

- A large majority of Marylanders say that they would like the state to use more renewable fuel sources to generate electricity. The sources of renewable electricity most favored by Marylanders for further development are solar (78%), and offshore and land-based wind (each 69%).
- Support for increased use of renewable fuels for electricity generation rose between 2013 and 2014, especially for solar (9 percentage points) and wind (offshore, 10 percentage points; land-based, 7 percentage points).



Half of Maryland's residents say the state should use less coal.

- Coal is the fuel source that Marylanders would most like to be used less for electrical energy generation (somewhat less/much less, 50%), after petroleum (52%). (Coal is one of the predominant sources of electrical power in the state, whereas the petroleum is not widely used for electrical generation.)

A majority of Maryland's residents want to buy renewable electricity.

- A majority in the state (54%) would be willing to pay more each month – ranging from \$1 more, to over \$30 more – to purchase 100% renewable energy from wind or solar. More than a quarter of Marylanders – 28% – would be willing to pay \$11 a month or more, on top of their current energy bill, for this service.

Majorities support requiring a percentage of electrical energy to come from renewables.

- As was the case in 2013, there is strong support for the current state mandate that, by 2022, 20% of the electricity in the state must be generated from renewables (somewhat/strongly support, 2013, 75%; 2014, 73%); this support is consistently high across the state (Western, 66%; Central, 74%; Southern, 74%; Eastern, 69%). A majority in the state also supports increasing the renewable energy mandate to 40% by 2025; 65% either somewhat or strongly support this expanded requirement for suppliers.

Desire for more natural gas use is split by whether it is "fracked" in Maryland.

- In 2013, while 41% of residents preferred using more natural gas for electrical generation over the next several years, only 33% preferred to use more natural gas if extracted by hydraulic fracturing in Maryland. The gap between these two preferences became even larger this year with almost half – 49% – saying they would like to see more natural gas used, but only 28% saying the same if it comes from "fracking" within the state – a 20 percentage point difference. (No natural gas is currently being

extracted in Maryland using hydraulic fracturing. These questions are posed in the context of the next several years.)

State residents demonstrate strong support for rebates for energy efficiency purchases, but less enthusiasm for energy audits

- Expanding rebates to help people purchase energy-efficient lighting and appliances is one of Maryland's most popular climate and energy policies, with 82% support.
- Few residents say that they have had an energy audit in the last five years (15%) and even fewer (10%) say that they would be willing to pay \$100 for an energy audit in the upcoming year.
- Approximately 1 out of 4 people cited cost concerns – cost of energy efficient retrofits (28%), and cost of the audit (27%) – and approximately 1 in 5 people cited other barriers including not knowing what an energy audit is (18%), not knowing how to get an energy audit (17%), and not trusting energy audit contractors (17%).

Communication Considerations

1. Talk to Marylanders about how to sign up for renewable electricity

Most Marylanders (54%) are willing to spend more on their energy bills each month for renewably sourced electricity, but the vast majority of Marylanders (64%) say they currently are not participating in these types of programs, or don't know whether they are (23%). Providing lists of firms that offer higher percentages of renewable energy, especially from local sources, may be one way to reduce some of the barriers to participation.

2. Promote microgeneration of renewable energy, such as with solar leasing plans

In 2014, as in 2013, more than half of Marylanders say that they would like the state to use more renewable fuel sources to generate electricity. The source of renewable electricity most favored by Marylanders for further development is solar (78%). At the same time, it is becoming increasingly easier for residents to install solar panels through leasing programs.

3. Help Marylanders understand that coal powers their homes

Half of Marylanders say that they want less coal used for electrical energy generation, the predominant source of electrical energy in the state, but about the same percentage say that they want less petroleum (oil) used as well, even though only 1% of electricity nationally is fueled by oil. Marylanders are much more likely to say that coal is very harmful to people's health than petroleum (41% vs. 26%), which makes it important that they understand the true source of their electricity in their homes.

4. Link water conservation with energy conservation

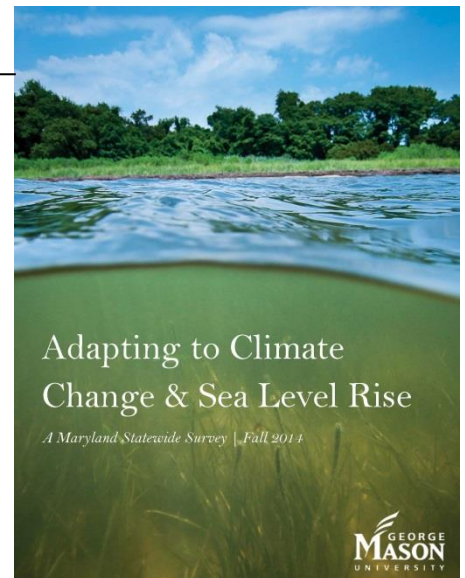
Marylanders are less likely to understand that home water heating is the second largest source of energy consumption in their home after space heating. Using less hot water by purchasing low flow showerheads and efficient appliances (dishwashers and washing machines), saves water and also saves energy, lowering monthly electricity bills.

Adapting to Climate Change & Sea Level Rise

Report Key Findings

A majority support protecting Maryland from rising waters

- More than half of Marylanders (55%) say that protecting coastal areas from sea level rise should be a high or very high priority for the state's General Assembly and the Governor.
- A majority of state residents support policies that protect shorelines and low-lying lands from sea level rise, such as changes to regulations like zoning laws and set-back distances for building (67%), long-range planning (66%), tax incentives to property owners to take protective actions (55%), and using government funds to buy natural areas as buffers against rising waters and storms (55%).



Many Marylanders don't know that sea level rise is happening locally, or its cause

- A majority of survey respondents (53%) say that they do not know whether sea level rise is currently happening along Maryland's shorelines. Of those who state an opinion, more think it is happening (39%) than think it isn't (8%).
- More than a third of state residents (36%) say they do not know what is causing sea levels to rise – whether it is from natural causes or human activities. Almost a quarter (23%) say that sea level rise is about equally the result of both natural and human influences on the environment. The rest of Marylanders are split between which of the two are a stronger influence on sea level rise (human activities, 18%; natural changes, 17%).
- A majority of Marylanders say that climate change is at least partially responsible for sea level rise – at least a little (5%), if not some (22%), or a lot (34%).

There is strong support for state climate protection actions

- Almost three quarters of Marylanders (73%) say they would like local and state governments to take actions to protect their communities against climate harms.
- Most state residents support a number of policies to protect communities against the effects of climate change, and only a very small percentage oppose them. Increasing trees in urban areas (82%), maintaining and restoring natural areas (80%), and helping Maryland's farmers become more water efficient (78%) are at the top of the list.

Marylanders see looming local climate changes and impacts to community resources

- Across the state, hotter weather (77%) and more severe storms (72%) are mentioned the most frequently as likely impacts from climate change that will occur in Marylanders' communities in the next 10-20 years.

- Agriculture (56%), people's health (55%), and coastlines (53%) are the types of resources that Marylanders are most likely to say are at risk from climate change in the next several years.

Communication Considerations

1. Help Marylanders recognize the current and future effects of sea level rise to the state

A majority of residents admit that they don't know whether sea-level rise is currently happening along Maryland's shorelines, even though the state is one of those most at risk. When coastal flooding and storm events occur use these windows of opportunity to draw the connection to rising sea levels and the increasing severity of these incidences over time.

2. Cause is important: Emphasize that we may not be able to reverse sea-level rise, but we can slow our contributions to it

More than a third of state residents (36%) say they don't know what is causing sea levels to rise – whether it is from natural causes or human activities. Another 17% say it is mostly a natural phenomenon. Emphasize that we may not have the ability to stop sea-level rise in the near term, but we have the ability to choose whether we make the warming that causes it even worse.

3. Promote protection of natural resources and habitats as necessary to community protection

Using government funds to buy natural areas as buffers against rising waters and storms (55%) is supported by the majority of Marylanders somewhat more than building shoreline walls and structural barriers as protection (48%). Promote the link between healthy natural ecosystems and human communities for all manner of climate adaptation activities – from coastal protection to stormwater management.

4. Climate change looks different depending on where you live; point to local changes

Recognizing the effects of climate change can be difficult because it manifests in so many ways. Hotter weather and more severe storms are mentioned the most frequently as likely impacts from climate change that will occur in Marylanders' communities in the next 10-20 years. What aren't as well known are more localized impacts like the warming of cold-water streams in Western Maryland, or higher storm surges in coastal regions.

5. Promote conversations about how climate change affects agriculture and public health

Marylanders are most concerned about how climate change will harm agriculture and public health. Start discussions about what climate change will mean to their health and the state's farming communities and what they can do to protect themselves and their local food supply.