Delaware's Climate Action Plan Virtual Public Workshop Series
Workshop No. 1, Option B – Minimizing Greenhouse Gas Emissions
September 17, 2020, 5:30 p.m. to 7 p.m.

Breakout Room Activity Results

The following slides provide the results of the breakout room activity that took place during the Climate Action Plan virtual public workshop held via Zoom on September 17, 2020, 5:30 p.m. to 7 p.m. There were a total of seven breakout rooms, and room-specific results are included in this document.

Please note:

• For the first poll question (pages 2-7), the results shown on the graph are the average values of all participant responses submitted for that question. Participants were asked to rate each measure twice on a scale of 1-5, once for "GHG Reduction" and once for "Cost Effective", where 1 represented "low impact" and 5 represented "high impact". The horizontal and vertical axes on the graph, therefore, each represent a scale of 1-5.
• For the poll questions with horizontal bars (pages 26-61), the numerical results shown are the average values of all participant responses submitted for that question. Participants were asked to rate each of the six potential benefits on a scale of 1-5 for the measure in question, where 1 represented "strongly disagree" and 5 represented "strongly agree". The colored curves shown above each horizontal bar represent the distribution of participant answers for that option.
• Pages 62-67 show "word clouds" of phrases submitted by participants. The larger the text size of a certain phrase, the more frequently that phrase was submitted by participants.
• Breakout Group No. 2 did not complete all poll questions in the activity.
• Breakout Group No. 4 was dedicated to attendees who either called into the workshop by phone only or could not get the technical aspects of the breakout room activity to work on their end. Participants in this group did not go through the breakout activity but discussed the same topics addressed in the activity. Outputs from Breakout Group No. 4 will be included in the workshop summary report, to be released later in fall 2020.
Which measures do you think have the most impact and are the most cost-effective?

- Building Electrification
- Building Energy Efficiency
- Fuel and Roadway Efficiency
- Renewable Energy
- Waste Diversion & Reduction
- Zero-Emission Vehicles

Breakout Group No. 1 (September 17)
Which measures do you think have the most impact and are the most cost-effective?

- Building Electrification: 1
- Building Energy Efficiency: 2
- Fuel and Roadway Efficiency: 3
- Renewable Energy: 4
- Waste Diversion & Reduction: 5
- Zero-Emission Vehicles: 6

Number of Participants Responding to Poll: 7
Which measures do you think have the most impact and are the most cost-effective?

- Building Electrification
- Building Energy Efficiency
- Fuel and Roadway Efficiency
- Renewable Energy
- Waste Diversion & Reduction
- Zero-Emission Vehicles

Breakout Group No. 3 (September 17)

Number of Participants Responding to Poll: 6
Which measures do you think have the most impact and are the most cost-effective?

1. Building Electrification
2. Building Energy Efficiency
3. Fuel and Roadway Efficiency
4. Renewable Energy
5. Waste Diversion & Reduction
6. Zero-Emission Vehicles
Which measures do you think have the most impact and are the most cost-effective?

1. Building Electrification
2. Building Energy Efficiency
3. Fuel and Roadway Efficiency
4. Renewable Energy
5. Waste Diversion & Reduction
6. Zero-Emission Vehicles
Which measures do you think have the most impact and are the most cost-effective?

1. Building Electrification
2. Building Energy Efficiency
3. Fuel and Roadway Efficiency
4. Renewable Energy
5. Waste Diversion & Reduction
6. Zero-Emission Vehicles

Breakout Group No. 7 (September 17)

Number of Participants Responding to Poll: 6
Which of the following measures comparably has the largest GHG reduction impact?

- Building Energy Efficiency: 4
- Waste Diversion and Reduction: 0
- Zero-Emission Vehicles: 2

Number of Participants Responding to Poll:
Which of the following measures comparably has the largest GHG reduction impact?

- Building Energy Efficiency: 1
- Waste Diversion and Reduction: 1
- Zero-Emission Vehicles: 6

Number of Participants Responding to Poll: 8
Which of the following measures comparably has the largest GHG reduction impact?

- Building Energy Efficiency: 2 respondents
- Waste Diversion and Reduction: 0 respondents
- Zero-Emission Vehicles: 4 respondents

Number of Participants Responding to Poll: 6
Which of the following measures comparably has the largest GHG reduction impact?

- Building Energy Efficiency
- Waste Diversion and Reduction
- Zero-Emission Vehicles

Number of Participants Responding to Poll: 6
Which of the following measures comparably has the largest GHG reduction impact?

- Building Energy Efficiency: 4
- Waste Diversion and Reduction: 0
- Zero-Emission Vehicles: 5

Number of Participants Responding to Poll: 9
Which of the following measures comparably has the largest GHG reduction impact?

- Building Energy Efficiency: 3 responses
- Waste Diversion and Reduction: 0 responses
- Zero-Emission Vehicles: 3 responses

Number of Participants Responding to Poll: 6
Which of the following measures comparably has the largest GHG reduction impact?

- Fuel and Roadway Efficiency: 0
- Renewable Energy: 6
- Zero-Emission Vehicles: 0

Number of Participants Responding to Poll: 6
Which of the following measures comparably has the largest GHG reduction impact?

- Fuel and Roadway Efficiency: 1
- Renewable Energy: 2
- Zero-Emission Vehicles: 1

Number of Participants Responding to Poll: 4
Which of the following measures comparably has the largest GHG reduction impact?

- Fuel and Roadway Efficiency: 1
- Renewable Energy: 6
- Zero-Emission Vehicles: 0

Number of Participants Responding to Poll: 7
Which of the following measures comparably has the largest GHG reduction impact?

- Fuel and Roadway Efficiency: 1
- Renewable Energy: 4
- Zero-Emission Vehicles: 1

Breakout Group No. 5 (September 17)
Which of the following measures comparably has the largest GHG reduction impact?

- Fuel and Roadway Efficiency: 0
- Renewable Energy: 9
- Zero-Emission Vehicles: 0
Which of the following measures comparably has the largest GHG reduction impact?

- Fuel and Roadway Efficiency: 1 participant
- Renewable Energy: 3 participants
- Zero-Emission Vehicles: 1 participant

Number of Participants Responding to Poll: 5
Which of the following measures comparably has the largest GHG reduction impact?

- Building Electrification: 3
- Fuel and Roadway Efficiency: 4
- Waste Diversion & Reduction: 0

Number of Participants Responding to Poll: 7
Which of the following measures comparably has the largest GHG reduction impact?

Breakout Group No. 2 was not able to answer this question in the time allotted for the breakout room activity.

<table>
<thead>
<tr>
<th>Building Electrification</th>
<th>Fuel and Roadway Efficiency</th>
<th>Waste Diversion &amp; Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>
Which of the following measures comparably has the largest GHG reduction impact?

1. Building Electrification
2. Fuel and Roadway Efficiency
3. Waste Diversion & Reduction

Number of Participants Responding to Poll:

- Building Electrification: 1
- Fuel and Roadway Efficiency: 6
- Waste Diversion & Reduction: 0
Which of the following measures comparably has the largest GHG reduction impact?

- Building Electrification: 1
- Fuel and Roadway Efficiency: 4
- Waste Diversion & Reduction: 1

Number of Participants Responding to Poll: 6
Which of the following measures comparably has the largest GHG reduction impact?

- Building Electrification: 7
- Fuel and Roadway Efficiency: 2
- Waste Diversion & Reduction: 0

Number of Participants Responding to Poll: 9
Which of the following measures comparably has the largest GHG reduction impact?

- Building Electrification: 2 respondents
- Fuel and Roadway Efficiency: 3 respondents
- Waste Diversion & Reduction: 0 respondents
Building Electrification - Potential Benefits?

- Personal economic benefits: 3.6
- Local or state economic development: 3.9
- Local or state preparedness: 3.3
- Natural resource protection: 3.4
- Health benefits: 4.3
- More transportation choices: 3.1

Breakout Group No. 2 (September 17)

Number of Participants Responding to Poll: 7
Building Electrification - Potential Benefits?

- Personal economic benefits: 3
- Local or state economic development: 3.5
- Local or state preparedness: 3.7
- Natural resource protection: 4.5
- Health benefits: 4.8
- More transportation choices: 2.3

Breakout Group No. 3 (September 17)
Building Electrification - Potential Benefits?

- Personal economic benefits
  - Strongly disagree: 2.3
- Local or state economic development
  - Strongly disagree: 3
- Local or state preparedness
  - Strongly disagree: 3
- Natural resource protection
  - Strongly agree: 4.2
- Health benefits
  - Strongly agree: 4.5
- More transportation choices
  - Strongly agree: 2.7
Building Electrification - Potential Benefits?

- Personal economic benefits: Strongly agree: 2.8
- Local or state economic development: Strongly disagree: 2.4
- Local or state preparedness: Strongly agree: 3.4
- Natural resource protection: Strongly agree: 2.8
- Health benefits: Strongly agree: 4.2
- More transportation choices: Strongly agree: 3.2

Breakout Group No. 7 (September 17)

Number of Participants Responding to Poll: 5
Building Energy Efficiency - Potential Benefits?

- Personal economic benefits: 4.1
- Local or state economic development: 3.4
- Local or state preparedness: 2.6
- Natural resource protection: 4.3
- Health benefits: 3.6
- More transportation choices: 1.4

Breakout Group No. 1 (September 17)

Number of Participants Responding to Poll: 7
Building Energy Efficiency - Potential Benefits?

- Personal economic benefits: 3.6
- Local or state economic development: 3.9
- Local or state preparedness: 3.4
- Natural resource protection: 3.8
- Health benefits: 3.9
- More transportation choices: 3.1

Breakout Group No. 2 (September 17)

Number of Participants Responding to Poll: 8
Building Energy Efficiency - Potential Benefits?

- Personal economic benefits: 3.1
- Local or state economic development: 4.1
- Local or state preparedness: 4
- Natural resource protection: 4.3
- Health benefits: 4.3
- More transportation choices: 2.4

Breakout Group No. 3 (September 17)
Building Energy Efficiency - Potential Benefits?

- Personal economic benefits: 4.3
- Local or state economic development: 4.2
- Local or state preparedness: 2.5
- Natural resource protection: 4.3
- Health benefits: 4.5
- More transportation choices: 2

Breakout Group No. 5 (September 17)

Number of Participants Responding to Poll: 6
Building Energy Efficiency - Potential Benefits?

- Personal economic benefits: 4
- Local or state economic development: 3.7
- Local or state preparedness: 3.9
- Natural resource protection: 4.6
- Health benefits: 4.1
- More transportation choices: 1.9

Breakout Group No. 6 (September 17)

Number of Participants Responding to Poll: 9
Building Energy Efficiency - Potential Benefits?

- Personal economic benefits: 2.8
- Local or state economic development: 2.5
- Local or state preparedness: 3.3
- Natural resource protection: 3.7
- Health benefits: 3.2
- More transportation choices: 1.8

Number of Participants Responding to Poll: 6
Fuel and Roadway Efficiency - Potential Benefits?

- Personal economic benefits: 4.1
- Local or state economic development: 2.9
- Local or state preparedness: 2.9
- Natural resource protection: 3.9
- Health benefits: 4
- More transportation choices: 3.7

Number of Participants Responding to Poll: 7
Fuel and Roadway Efficiency - Potential Benefits?

- Personal economic benefits: 4.4
- Local or state economic development: 4
- Local or state preparedness: 3.8
- Natural resource protection: 4.6
- Health benefits: 3.8
- More transportation choices: 4.1

Breakout Group No. 2 (September 17)

Number of Participants Responding to Poll: 8
Fuel and Roadway Efficiency - Potential Benefits?

- Personal economic benefits: 3.9
- Local or state economic development: 4.1
- Local or state preparedness: 3.7
- Natural resource protection: 4.4
- Health benefits: 4.1
- More transportation choices: 4.7

Breakout Group No. 3 (September 17)
Fuel and Roadway Efficiency - Potential Benefits?

- Personal economic benefits: Strongly agree (4.5)
- Local or state economic development: Strongly disagree (4)
- Local or state preparedness: Strongly disagree (4)
- Natural resource protection: Strongly agree (4.8)
- Health benefits: Strongly agree (4.5)
- More transportation choices: Strongly agree (4.7)

Number of Participants Responding to Poll: 6
Fuel and Roadway Efficiency - Potential Benefits?

- Personal economic benefits: 4
- Local or state economic development: 3.7
- Local or state preparedness: 3.6
- Natural resource protection: 4.4
- Health benefits: 4.3
- More transportation choices: 3.4

Breakout Group No. 6 (September 17)

Number of Participants Responding to Poll: 9
Fuel and Roadway Efficiency - Potential Benefits?

- Personal economic benefits: 3.8
- Local or state economic development: 3.5
- Local or state preparedness: 3.3
- Natural resource protection: 4.2
- Health benefits: 4.5
- More transportation choices: 3.5

Number of Participants Responding to Poll:

Breakout Group No. 7 (September 17)
Renewable Energy - Potential Benefits?

- Personal economic benefits: 3.7
- Local or state economic development: 4
- Local or state preparedness: 4.1
- Natural resource protection: 4.3
- Health benefits: 4
- More transportation choices: 2.3

Breakout Group No. 1 (September 17)

Number of Participants Responding to Poll: 7
Renewable Energy - Potential Benefits?

- Personal economic benefits: 3.6
- Local or state economic development: 4.4
- Local or state preparedness: 3.8
- Natural resource protection: 4.4
- Health benefits: 4.8
- More transportation choices: 3.8

Breakout Group No. 2 (September 17)
Number of Participants Responding to Poll: 8
Renewable Energy - Potential Benefits?

- Personal economic benefits: 3.9
- Local or state economic development: 4.6
- Local or state preparedness: 4.3
- Natural resource protection: 4.6
- Health benefits: 5
- More transportation choices: 3.1

Number of Participants Responding to Poll: 7
Renewable Energy - Potential Benefits?

- **Personal economic benefits**: 3.7
- **Local or state economic development**: 4.7
- **Local or state preparedness**: 4.3
- **Natural resource protection**: 5
- **Health benefits**: 5
- **More transportation choices**: 2.7

Breakout Group No. 5 (September 17)
Renewable Energy - Potential Benefits?

- Personal economic benefits: 3.6
- Local or state economic development: 4.4
- Local or state preparedness: 4.3
- Natural resource protection: 5
- Health benefits: 4.6
- More transportation choices: 3.2

Breakout Group No. 6 (September 17)

Number of Participants Responding to Poll: 9
Renewable Energy - Potential Benefits?

- Personal economic benefits: 3.7
- Local or state economic development: 4.2
- Local or state preparedness: 4
- Natural resource protection: 4.8
- Health benefits: 4.2
- More transportation choices: 2.8

Number of Participants Responding to Poll: 6
Waste Diversion & Reduction - Potential Benefits?

- Personal economic benefits: 3.1
- Local or state economic development: 2.7
- Local or state preparedness: 2.0
- Natural resource protection: 4.3
- Health benefits: 3.6
- More transportation choices: 1.3

Breakout Group No. 1 (September 17)

Number of Participants Responding to Poll: 7
Waste Diversion & Reduction - Potential Benefits?

- Personal economic benefits: 3.8
- Local or state economic development: 3.9
- Local or state preparedness: 2.5
- Natural resource protection: 4.1
- Health benefits: 4.6
- More transportation choices: 2.1

Breakout Group No. 2 (September 17)

Number of Participants Responding to Poll: 8
Waste Diversion & Reduction - Potential Benefits?

- Personal economic benefits
- Local or state economic development
- Local or state preparedness
- Natural resource protection
- Health benefits
- More transportation choices

Breakout Group No. 3 (September 17)
Waste Diversion & Reduction - Potential Benefits?

- Personal economic benefits: 3.3
- Local or state economic development: 4.2
- Local or state preparedness: 3.7
- Natural resource protection: 4.7
- Health benefits: 4.7
- More transportation choices: 2.2

Breakout Group No. 5 (September 17)

Number of Participants Responding to Poll: 6
Waste Diversion & Reduction - Potential Benefits?

- Personal economic benefits: 3.3
- Local or state economic development: 3
- Local or state preparedness: 2.8
- Natural resource protection: 4.2
- Health benefits: 4.2
- More transportation choices: 1.6

Number of Participants Responding to Poll: 9
Waste Diversion & Reduction - Potential Benefits?

- Personal economic benefits: 3
- Local or state economic development: 3
- Local or state preparedness: 3
- Natural resource protection: 4.7
- Health benefits: 3.7
- More transportation choices: 2.3

Breakout Group No. 7 (September 17)
Zero-Emission Vehicles - Potential Benefits?

- Personal economic benefits: 2.9
- Local or state economic development: 2.7
- Local or state preparedness: 2.1
- Natural resource protection: 3.9
- Health benefits: 4.6
- More transportation choices: 2.9

Breakout Group No. 1 (September 17)  Number of Participants Responding to Poll: [7]
Zero-Emission Vehicles - Potential Benefits?

- Personal economic benefits: 3.6
- Local or state economic development: 3.4
- Local or state preparedness: 3.0
- Natural resource protection: 4.5
- Health benefits: 4.9
- More transportation choices: 4.8

Breakout Group No. 2 (September 17)

Number of Participants Responding to Poll: 8
Zero-Emission Vehicles - Potential Benefits?

- Personal economic benefits: 3.6
- Local or state economic development: 3.6
- Local or state preparedness: 3.4
- Natural resource protection: 4.4
- Health benefits: 4.9
- More transportation choices: 4.3

Breakout Group No. 3 (September 17)
Number of Participants Responding to Poll: 7
Zero-Emission Vehicles - Potential Benefits?

- Personal economic benefits: 4.5
- Local or state economic development: 3.8
- Local or state preparedness: 3.7
- Natural resource protection: 5
- Health benefits: 4.8
- More transportation choices: 4.7

Number of Participants Responding to Poll: 6

Breakout Group No. 5 (September 17)
Zero-Emission Vehicles - Potential Benefits?

- Personal economic benefits: 3.3
- Local or state economic development: 2.9
- Local or state preparedness: 2.9
- Natural resource protection: 4.4
- Health benefits: 4.7
- More transportation choices: 3.6

Breakout Group No. 6 (September 17)  Number of Participants Responding to Poll: 9
Zero-Emission Vehicles - Potential Benefits?

Number of Participants Responding to Poll: 6

- Personal economic benefits: 3.8
- Local or state economic development: 2.8
- Local or state preparedness: 2.8
- Natural resource protection: 4.3
- Health benefits: 5
- More transportation choices: 3.3
What other benefits could result from reducing GHG emissions?

- sea level rise
- public health
- saving habitats wildlife
- reducing natural disaster
- energy security
- slowing climate change
- global equity
- economic
- less flooding
- air pollution
- kindness
- wildlife
- satisfaction
- reducing natural disaster
What other benefits could result from reducing GHG emissions?

- health
  - better health
  - grow green jobs
  - better environment
  - a livable world for kids
  - less air pollution
  - cleaner surface water
  - less fossil fuel spills
- innovation
  - biking
  - improve power grid
  - neighborhood solar grids
- natural environment
  - less health issues
  - recovery of wildlife
  - atmospheric recovery
  - carbon pollution effect on physical aspect of enviro
  - improve economic growth
  - healthy
  - culling of rising tides
- global warming
  - job creation
  - more walking
  - social responsible
  - climate
  - climate
  - economic

What other benefits could result from reducing GHG emissions?
What other benefits could result from reducing GHG emissions?

- fewer emergencies
- emotional well-being
- greater future for children
- create new economic opportunities
- avoiding weather extremes
- wildlife and flora protection
- energy independence
- equity
- awareness
What other benefits could result from reducing GHG emissions?

- Leadership recognition
- Air quality improved
- Lower electricity costs
- Jobs
- Green jobs
- Conservation
- Job creation
- Resilience
- Sustainability
- Biodiversity conservation
- Desirability of community
- Supporting tourism
- Exports
- Blue skies
- Innovation
- Restoration
What other benefits could result from reducing GHG emissions?

- livable land
- quieter roads
- healthier air
- balanced ecology
- reduced flooding
- better farming possible
- healthier air
- reduced cancer
- more enjoyment of the outdoors
- balanced ecosystem
- more bereal food supply
- more birds
- happier birds
- less sea level rise
- less lung issues
- less destruction
- less hurricanes
- less storms
- less rain bombs
- less temperature
What measures should be implemented first? (Top 3)

1. Building Electrification
2. Renewable Energy
3. Fuel and Roadway Efficiency
4. Building Energy Efficiency
5. Waste Diversion & Reduction
6. Zero-Emission Vehicles

Number of Participants Responding to Poll: 7
What measures should be implemented first? (Top 3)

- Building Electrification: 2 responses
- Building Energy Efficiency: 3 responses
- Fuel and Roadway Efficiency: 4 responses
- Renewable Energy: 8 responses
- Waste Diversion & Reduction: 2 responses
- Zero-Emission Vehicles: 3 responses

Breakout Group No. 2 (September 17)

Number of Participants Responding to Poll: 9
What measures should be implemented first? (Top 3)

1. Building Electrification (2)
2. Building Energy Efficiency (3)
3. Fuel and Roadway Efficiency (4)
4. Renewable Energy (7)
5. Waste Diversion & Reduction (2)
6. Zero-Emission Vehicles (3)

Breakout Group No. 3 (September 17)
What measures should be implemented first? (Top 3)

1. Building Electrification
2. Building Energy Efficiency
3. Fuel and Roadway Efficiency
4. Renewable Energy
5. Waste Diversion & Reduction
6. Zero-Emission Vehicles

Number of Participants Responding to Poll: 5
What measures should be implemented first? (Top 3)

1. Building Electrification
2. Building Energy Efficiency
3. Renewable Energy
4. Fuel and Roadway Efficiency
5. Waste Diversion & Reduction
6. Zero-Emission Vehicles

Breakout Group No. 6 (September 17)

Number of Participants Responding to Poll: 9
What measures should be implemented first? (Top 3)

1. Building Electrification
2. Building Energy Efficiency
5. Fuel and Roadway Efficiency
6. Renewable Energy
1. Waste Diversion & Reduction
4. Zero-Emission Vehicles

Number of Participants Responding to Poll: 7