

Vermont Climate Action Commission

Thursday, November 9, 2017

1 – 4 pm

The Montpelier Room/ National Life Building / Montpelier

Commissioners Present:

Marie Audet, David Dutcher (for Michelle Boomhower), Peter Bourne, Harrison Bushnell, Kristen Carlson, Paul Costello, Tom Donahue, Bethany Fleishman, Joe Fusco, Liz Gamache, Adam Knudsen, Bill Laberge, Linda McGinnis, Johanna Miller, Ted Brady (for Michael Schirling), Mary Sprayregan, Bob Stevens, Riley Allen (for June Tierney), Peter Walke

Agenda Items

1. Welcome (Walke and Costello)

The Chair brought the meeting to order and welcomed the commissioners and other attendees. There was a brief review of the November 8 Energy Action Network Energy and Climate Summit which several commissioners attended. Co-Chair Costello also recognized Commissioner Bourne for the Anne & Arthur Bendt award he received at the summit.

2. October 12 meeting minutes (Costello)

Notes from last month's meeting were approved with no comments.

3. VT Youth Environment Summit Survey review (H. Bushnell)

Commissioner Bushnell gave a presentation on a survey he conducted during the recent VT Youth Environmental Summit. He noted that the survey was not intended to be a representative sample of Vermont attitudes, but stated it did provide an interesting look at commission ideas. There were many engaged respondents – over 100 replies to the survey. See attached presentation.

4. Executive Order Review (Walke / ANR Staff – Jeff Merrell)

The Chair reviewed the commission charge regarding review of and recommendations for action on existing executive orders on related to climate change. The deadline for the commission's recommendation is December 2017.

Mr. Merrell noted that a half-dozen executive orders are still on the books. The most recent (12-17) is the one creating this group. Others include:

- Governor's Commission on Climate Change (07-05)
- Governor's Climate Cabinet (05-11)
- Governor's Climate Cabinet and State Agency Climate Action Plan (15-12)
- Climate Change Considerations in State Procurements (05-16)
- Council on Energy and the Environment (01-11)
- Energy Generation Siting Policy Commission (10-12)
- Vermont Housing Council (08-11)(terms expired)

Regarding the Climate Cabinet, while that group is not currently active, interagency cooperation on climate change issues is ongoing. There is an interagency climate and energy group (led by VTrans) that meets monthly. It was also noted that there is a legislative committee on energy issues.

Commission options for executive order recommendations include sunset, rejuvenate/renew, or supersede.

Executive Order status:

- Energy Generation Siting Policy Commission (10-12) led to Act 174
- Governor's Council on Energy and the Environment (01-11) – no specific charge
- Climate Change /State Procurement (05-16) – the commissioners asked for additional information on the results of this order. The Department of Buildings and General Services is the lead agency for procurement issues.

The group discussed clarifying what the role of the executive branch could or should be, and the scope of executive authority. It was noted that the governor is bound by existing laws and regulations. Executive orders are directions to the executive branch employees, and indicate how the executive branch is to prioritize certain activities. Legislation or private citizen action may not be mandated by an executive order. Only the legislature has authority to establish new agencies.

The Chair directed commission members to review the existing executive orders, collect additional information and to come to the December meeting ready to agree upon recommendations on how to proceed with each of the identified orders.

5. Sector-specific subcommittee breakout sessions (All)

The Chair provided instructions for the breakout sessions. The Chair noted that the commission as a whole will also discuss strategic issues before meeting adjournment.

Commissioner McGinnis noted that at the EAN summit yesterday only 13 policy pitches were presented, out of 50 that were submitted. She will forward a summary of all policy ideas presented to the commission members.

6. Cross-cutting subcommittee breakout sessions (All)

No discussion – groups moved immediately into second breakout groups.

7. January 1 Subcommittee Proposal Articulation (Subcommittee leads)

The subcommittees articulated their current slate of ideas they will work on for decision by the whole commission at the December meeting:

Transportation (McGinnis, Bushnell)

Largest contributor for GHG; core sector

1. Public transport electrification (muni, school) – VW settlement

Use school buses for public transit

Calculate lifetime cost of EV v. internal combustion vehicles

2. Accelerate EV adoption for low income, rural

Charging station infrastructure – 30 mi between public charging stations

Charging focus at large infrastructure, schools

Charging rate structure to incent use

EV incentives for low/middle incomes (4 ideas)

3. reduce SOV

Incentives for car share/ride share

4. Expand WCI/RGGI to include transportation

At minimum, study team for WCI

Working Lands/Ag/Forestry/Waste (Walke)

1. Anaerobic digesters – use WQ funds on new projects w/carbon benefit. AQ emission controls to make VT digesters the best fleet in world.
2. Reengage biomass heating world. Remove moratorium on school biomass projects. Continue wood stove changeouts.

Buildings (Stevens)

1. Building retrofit/weatherization
 - Enforcement of existing energy codes
 - Building efficiency grading/minimum grade for sale
 - Scaling up existing weatherization entities to 8K-10K/year 9form 2k-3k_
2. Smart Buildings
 - Learning thermostats for residences
3. Smart Growth

Power Production/Distribution/Use (Laberge)

1. Implementing time of use rates focused around EVs
2. Decoupling commercial charge rates from other demand rates
3. Incentivize off-peak home charging
4. Challenge – transportation funding transition
5. Funding – VW settlement (50% for workplace charging)

Addendum (Allen) – Study for locational/transmission implications of assets

R&D/Innovation (Fusco)

- Group renamed itself Climate Economy Business Innovation
Long term viability, sustainability
1. Capital – provide preferential tax incentives for investments
 - Capital gains
 - Incentives for climate economy
 2. R&D – incent climate-economy investments
 - = people (visit, move, stay)
 - Education – state/private incentives for long-term employees
 - Climate-economy tax incentives
 - Financial incentives
 3. Make VT a national proving ground (petri dish) for the climate economy concept - a warm, inviting place to begin and grow your climate business.

Rural Issues (Sprayregan)

This group will be resource to other sector specific groups, providing feedback on rural community impact of proposals. In addition, this group proposes:

1. Access to high-speed internet in rural communities
2. Intersection between school & public transit
3. Home energy labeling; incorporate transportation cost (affordability score)

Capital (Carlson)

1. \$100M bond for low-income home weatherization
2. Look at other opportunities for bonding in energy sector
3. VSECU V-Green as example – loan buy-down program

4. Leverage access to private capital
5. Reallocate funds

Education-Outreach (Miller)

1. Support /promote recommendations of CAC
2. Fit E&O solutions, strategies
3. E&O to build up existing assets, fill gaps (educate people on opportunities, peer-to-peer)
4. Trained energy work force
 VT work force development – focus on energy & EE
5. Establish a climate communications tsar (cabinet level)

Post-Presentation Discussion

The Chair noted that the charge to the commission is to forward “at least three” recommendations for executive action to the governor by January. Whatever recommendation are proposed should be fully formed. The Chair referred to the goals that Jon Ericson presented at yesterday’s EAN summit as a possible frame for how short-term recommendations relate to longer-term actions. Commissioners noted that the breakout group work benefits from the broader group conversation to identify potential conflicts, issues, consequences, including the implications of the energy transition on the economy and employment.

8. Upcoming Commission Schedule

The Chair noted that the individual subgroup meetings have been very productive. The group agreed to continue the individual subgroup meetings, and to use the January and March 2018 meetings for full commission discussion. The February 2018 meeting will include time for the subgroup breakout sessions.

Commissioners discussed sectors that may require attention, including advanced wood heat/biomass/forestry and finance. The Chair noted that not all proposals require identification of a dedicated funding source.

9. Public Comments

J. Halaz: Transportation is most important sector. 47 quads of energy go in, 4.7 do work. Need to electrify transport to increase efficiency. However, prices of raw materials for electrification (e.g. lithium, rare earths) are increasing as demand increases. Don’t assume today’s prices for tomorrow’s electrification. Role of railroads – the commission should be thinking long-term of re-establishing and electrifying inter-city rail. Finally, the commission should consider state issued loan guarantees to finance energy efficiency.

R. Wakernagel: Noted that electrification of the transportation sector will disrupt state funding sources. Need restructuring of the tax system in conjunction with transition of transportation sector to support infrastructure.

L. Fielder VSECU – The VSECU Heat Saver loan is state subsidized. The business energy loan is backed by Efficiency VT. Various triggers available. Loan-loss guarantee may not be most effective tool; loan buy-down has proven to be the most effective measure which supports low-income homeowners.

J. McCormack – Recommendations need to consider on and off budget implications. VSECU may be possible gatherer of private capital.

4:00PM Adjourn

SUBCOMMITTEE GROUP NOTES

Power Production, Distribution and Use

Topics discussed:

- Rate Design – grid issue as well as a transportation issue; barriers to implementation – gas tax pays for highways, likely need an analogous revenue stream to replace gas tax.....(this was the idea brought to the full committee)
- Strategic renewable energy deployment/ strategic electrification – locational incentives, evaluation, pricing to promote renewable energy in areas that need it;
- Can we use distributed generation - renewable generation as a positive economic development engine? Or framed as the rational use of the infrastructure and by that use, it becomes an economic engine. To bring grid efficiency.....
- Integrated resource plans – mapping of distribution system.
- Rate structure and infrastructure at the same time
- Volkswagen Settlement
- Job lens?
- Legislation -
- Storage –
- Low income access to renewables and community solar – municipalities, schools, renters, low income;

Commercial and Residential Buildings

Topics discussed:

Committee leader Bob Stevens distributed two proposals for review. There has not yet been a proposal drafted for smart growth.

Building retrofit:

Laura Capps from EVT gave the subcommittee information related to building retrofit, with the most valuable being a report entitled ACEEE. The ACEEE report focuses on cutting energy use and carbon emissions in half with impact metrics. It is well referenced and sourced. The question becomes: how many buildings can you retrofit per year? It is possible to make a calculable impact of different portions per year.

The PSB (now PUB) did a report in 2008 on how to improve weatherization and it concluded last year. It was a 2008 legislative goal to retrofit 60,000 units by 2017. There are 300,000 units that need retrofitted in VT. As of end of 2016, there were retrofits of 20,000 completed. Of those that were retrofitted, they saw 20% decrease in energy use for about \$10,000 worth of investment per unit.

If you look at 10 years and assume that by 2028 that we want to have reductions, you can back into number housing units, at \$10k per unit. That's about \$150M of capital needed.

The group will work under the assumptions that if buildings represent 40% of carbon emissions, if we don't address existing buildings, there won't be a change in VT emissions.

Members discussed the need to have energy codes for both residential and commercial. New construction is built at a higher standard. The group noted that these codes aren't universally enforced. There's no inspection process and only in a small percentage of cases are building certificates required. The certification is required only for towns that have zoning for certificate of occupancy.

One member likened retrofitting to the need to comply with ADA requirements and questioned whether we could have similar requirements of energy efficiency.

The group discussed that one solution be to require certifications as part of a clear title. If you don't record septic, you can't go to closing. One solution would be to add the burden to fire safety.

A member noted that in France, all buildings get an energy grade. Your property is rated from A through F rating and if you're going to sell or rent, if you have an F, and you want to sell, you have to move it to C. If we create an energy grade for buildings, every building would have a grade. Homeowners would know if their property has a low grade which would incentivize them to move their grade to a higher level. This creates a mechanism to educate people as to what energy performance is of their building, gives them time to take measures to correct these issues. From an implementation standpoint, it moves the capital retrofit at the point of selling the property.

One member noted that another problem is that the appraisal and realty system don't understand energy as a selling point. It's not included in an appraisal. Another suggestion was to consider the rating next to property transfer tax. Perhaps, if you've got a good rating, you pay less property transfer tax.

A point was raised that often the operational savings for an energy retrofit aren't sufficient to pay for the retrofit. It doesn't have a ROI within a reasonable period of time. The market isn't going to allow this on its own, the government will have to incentivize this or create a requirement.

Another member suggested a solution could be to introduce thermal into EVT. Per Liz, EVT already has thermal but it could be made a larger portion.

We should be looking at the current landscape of what's available with thermal efficiency incentives. EVT, Burlington electric, Vermont gas, VT weatherization all have programs dealing with thermal efficiency. One challenge of this subcommittee is to identify work that is already being done in some of these areas and identifying gaps. Since distribution utilities are looking at thermal requirements, we should look at scaling up existing priorities and objectives. Restructuring of energy taxes will be needed. Diesel tax subsidies will need changed once EV vehicles come along.

One members noted that a challenge of this subcommittee is that there are many different directions that a building retrofit program can go, and the question is where and how deep. The key to success is to explain the situation, and define the problem and set the parameters as a goal.

Regarding the building grading system, some agreed that it would be tying energy efficiency to house value and it'd make the expectations are clearer. The group stressed the need to evaluate the effects on the first homebuyer and what they can vs how much they can't afford.

Members liked the simplicity of the building grading. Others noted that for low income populations, there'll be a stranded asset piece. Owners could lose value if it's too expensive to bring houses up to grade.

Another member pointed out that if this truly is a ~\$10k per unit problem, maybe funding could be made available for income sensitive properties.

The building grade concept has a built-in consumer awareness piece.

There are a couple of rating systems in existence. There's been work in the real estate/banks to see how this could be implemented. We don't need to figure out the barriers and could get recommendations of what the current state is.

The subcommittee recognized the need to meet again before the December 1 deadline and Bob Stevens will coordinate that meeting. The committee may want to reach out to the technical advisory group.

Transportation

Topics discussed:

Refine the 3 ideas to present today:

- 1) Public transit buses and school buses (no new diesel buses; use electric buses going forward).
- 2) Electrifying the passenger fleet (charging infrastructure, incentives, revenue).
- 3) Private car sharing – addressing obstacles (i.e. insurance).

Use electric public transit and school buses to replace diesel buses at the end of their serviceable lives.

This proposal may require changes to how ANR plans to allocate VW funds, with increasing the market share of electric buses taking priority over replacing older diesel trucks with newer ones. Electrifying the bus fleet will benefit all Vermonters. When comparing electric buses to diesel buses, life cycle costs should be considered rather than just upfront costs. Public health and climate considerations should also be factored into the comparison.

Electrifying the passenger fleet with emphasis on low and middle income and rural Vermonters. The passenger fleet must go from 2,000 to 45,000 EVs in the next eight years to meet the state's climate and energy goals. Charging infrastructure should be accessible to all Vermonters. VW settlement funds could be used to help build charging stations, including financial support for the fast charging study that Dubois & King is conducting for VTrans. Charging infrastructure is needed not only for thru travelers, but also at workplaces and schools.

Research and experience have demonstrated that robust incentives for purchasers of new and used electric vehicles increase sales; however, an adequate funding source for significant consumer rebates has not yet been identified.

Ideas for revenue: What about the western climate initiative? Expanding RGGI to transportation fuels? Sales tax incentives? Higher registration fee/tax for vehicles with higher fossil fuel consumption? These ideas can be tied to economic development.

- How can there be changes to the way electric vehicles are financed? Ex. It currently costs more to lease an electric car vs. a traditional fuel car.
- Maybe Efficiency VT should move toward supporting electric cars? Turn efficiency utilities into “whole energy” utilities.

What ideas are there that don't include raising taxes, fees, or using VW settlement funds?

What are the opportunities to influence behavior change? This effort needs to be transformational, with transportation becoming a service, rather than something you own.

Awareness of EV incentives will need to be spread. Changes in rate structures to address demand charges will be needed.

Enable Private Car Sharing.

What about an open-sourced rideshare App for Vermonters? This idea is the least developed of the subcommittee's three proposals and may have the least impact in the short term.

Next Steps:

Are there any Legislative changes needed for the 3 proposals?

The subcommittee will work on refining its written proposals prior to the December meeting of the full Commission. Linda and Harrison will refine the block forms and send them to Michele and Dan, who will provide any feedback necessary to Linda and Harrison and then circulate the revised forms to the subcommittee for approval at the subcommittee meeting. The proposals will then be ready for the consideration of the full Commission.

Agriculture/Forestry/Waste/Industry

Topics discussed:

Agricultural digester proposal:

- Clean Water Fund Board allocated \$1.6m to digester plus phosphorus reduction technology on Monday.
 - 80% reimbursement of the cost of DAF for water quality phosphorus benefits. 90% reimbursement if appropriate air pollution controls to limit hydrogen sulfide and formaldehyde emissions are also installed.
- Discussion regarding having a pot of incentive money to improve some existing digesters, as well as having a focus on promoting several new digesters with appropriate water and air quality controls. Only new digesters will provide additional GHG emissions reductions.
- Plan to have top proposal(s) completely finalized by Thanksgiving timeframe.
- Additional suggested language changes to the proposal were provided:
 1. Replace paragraph 2 under Background
The engines utilized to produce electricity from traditional anaerobic digesters have proven to produce air pollutant emissions that have the potential to negatively impact human health and the environment. Raw biogas if unmanaged can impact the operation and maintenance costs of the digestion and engine equipment. The hydrogen sulfide in

raw biogas impacts the mechanical components of the digester and engine, so many owners have already installed, or are considering installing, hydrogen sulfide control systems, such as scrubber or adjusting the inputs to the digestion process to reduce the formation of hydrogen sulfide. However, to achieve maximum engine emission reduction, an engine exhaust catalytic converter could also be installed to minimize formation of combustion byproducts such as formaldehyde.

2. \$1 million can leverage 80/90% cost share, where one system is \$4 million?

3. Why hold this proposal for what should become the norm in the future of farming, digesters, gas scrubbers, exhaust catalytic converters, and PH recovery, hostage to community digesters?

- Failed attempt by GMP, what lessons learned?
- Challenges with locating the projects, getting multiple farms on board, transportation costs...

4. Strengthen proposal by adding the many other benefits:

- Odor reduction!!!
- Ability to easily export solids as fertilizer
- Bedding for cow comfort and reduced imports for other products such as sawdust
- Improved fertilizer easily incorporated into the soil, increasing the adoption of incorporating into the soil, improvements to soil health, reduction of harmful pathogens and weed seeds
- Potential to incorporate human food waste into the system alleviating the pressure on what to do with it as the Universal recycling Law comes into effect, while returning it to the soil for the farm's manure to maintain and improve soil health

5. Replace 'waste' with either manure or organic waste'

- Important to be clear in all proposal reports about level of GHG benefits associated with the proposal, how far that moves the VCAC towards achieving the GHG emission reduction and goals. It is also important to describe additional co-benefits environmental, economic, health, etc.
- Food scrap digesters – separate Standard Offer program. PUC is working to finalize definition in terms of percentage of food scraps.

Biomass fuels proposals:

- Residential wood stove changeouts –
 - Need to identify the pool of old, non-EPA certified units out there in need of replacement.
 - An estimate of this is available in the most recent Vermont Residential Fuel Assessment for the 2014-2015 heating season (see: http://fpr.vermont.gov/sites/fpr/files/About_the_Department/Library/Library/FINAL_2015%20Residential%20Fuel%20Assessment%20Report.pdf)

- Good air quality benefits through reduced particulate matter emissions, etc. but GHG emissions reduction benefit limited to reduction in wood burned due to improved stove efficiency.
 - Advanced pellet boilers –
 - Outreach to educate potential users re: how operation of these units compares to existing wood, oil, propane, nat. gas, etc.
 - Provide boost for declining forest economy
 - Economically viable working lands will keep forests as forests
 - As with other proposals, quantify GHG and other benefits / impacts.
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Access to Capital

Topics discussed:

- Top ideas from October meeting:
 - Leverage to access capital from private entities
 - Consider re-allocating existing revenue sources (ex. RGGI)
 - Market based approach

Other Ideas discussed -

- 1) What about bonding? \$100M state bonding idea pitched at EAN Meeting. To be used for low income weatherization retrofit program. (would significantly increase weatherization in the state, currently around 2,000 homes).

Thoughts?

- Will need labor capacity? Ramping up programs slowly over time might be more practical.
- There are existing organizations doing this work now.
- VT's progress towards building energy goals – VT PSD December 2016

2) Look at all of the energy funding source to see if there is an opportunity to develop bonds in other areas beyond weatherization? This could create jobs.

3) Example of School Superintendents Association having a consultant help to make decisions about energy related decisions. Schools may not have the technical expertise to understand decisions and keep up with projects after the fact.

4) What is V-Green (VSECU)? – discounted loans on energy related purchases (ex. renewables, weatherization), discounts up to as much of 5%. Terms of up to \$60,000 over 20 years, unsecured. Heat saver loan program is popular (approx. 30 loans per month, statewide for the past 6 months, average \$11,000)

- Heat saver loan was a pilot program beginning in 2014, transitioning out of pilot phase, Efficiency Vermont receiving funds from Public Service Department, loans will be offered through Opportunities Credit Union and VSECU. This program can use more capital.

5) Strategic to attracting more capital. Needs more discussion.

Ideas to report out

- Support bond program for low income thermal improvements.
 - o More money for Heat Saver Loan Program – currently 250K for buydown.
 - o Currently 360+ loans per year? How high can we get this number?
- Identifying all potential bonding opportunities in existing energy revenue sources.

Education, Communication and Outreach

Topics discussed:

The session started by reviewing the 10/25/17 subcommittee meeting minutes. It was noted that only 2 of the 5 members attended this meeting.

There was discussion related to the overall goal of this subcommittee. As education should be a component of all of the other subcommittees, members expressed frustration that they are being asked to determine the best mechanism for education when they don't know what the other CAC recommendations will be. For example, there may be different recommendations for educating weatherization than electric vehicles.

Members expressed the desire to create a generic method of education that will support the other initiatives that come from this group. Members discussed at length the strong emphasis on not reinventing the wheel and instead on building capacity within existing, trusted resources such as energy cooperatives and RPCs being used as the channel.

There was discussion related to the previous subcommittee recommendation to conduct a survey of what educational opportunities are currently underway related to green job training and what that gap might be. It was noted that this work is already being done by human services so perhaps the subcommittee might want to utilize these survey results and put a "green slant" on the information. Some members were crossing the survey concept with general education and outreach opportunities, but the group as a whole recommends the survey for green job education.

All members agreed that the "gold star" that has the best chance of success on a number of levels—is the development and promotion of green jobs. Members expressed that this would cross political aisles and help Vermont economically, while making a meaningful impact on climate change.

In the final few minutes of the conversation, the members discussed having a cabinet level "green job tsar" whose objective is to promote educational opportunities and create a trained workforce capable of sustaining the types of "green" initiatives the CAC is promoting.

Topics discussed:

The group reviewed the notes and the initial list of ideas developed at the 10/12 meeting, which included:

- Building community
 - Infrastructure issues
 - Microgrids/resiliency/community-democratic energy
 - Location efficiency – incentivizing community-centered living (mortgages)
 - Need to be sensitivity to higher energy burden communities
 - Workforce skill diversification
 - Home energy disclosure/rating
 - High speed internet/wireless availability
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- After discussion, the group concluded that most of the climate solutions that will benefit rural communities (ride sharing, telework ability, remote reading of fuel delivery needs, etc.) require high-speed internet. The Rural Solutions Subcommittee will create a recommendation that the full VCAC endorse ongoing efforts to ensure all Vermonters have access to high-speed internet (framing and audience TBD). The group also agreed that its role would be to provide feedback and filter other subcommittee ideas in order to provide the rural perspective. At a minimum, the CAC shouldn't recommend or endorse any solutions that adversely harm rural communities.
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- Our specific ideas:
 - Encourage that any home energy score/label include the full cost of operating that home (including transportation costs).
 - Recommend that rural communities consider co-sharing transit and school bussing options. This may result in a recommendation that VTrans and the Dept. of Education host sessions to share lessons learned from communities that have reduced the VMT of busses and increased individuals access to transit.

Climate Economy Business Innovation Subcommittee (f/k/a Research and Development/Non-emission based climate actions)

Topics discussed:

Name Change:

The R&D/Non-emissions Subcommittee decided to change its name to the Climate Economy Business Innovation Subcommittee.

Idea:

The Subcommittee discussed and added clarity to its proposal that it plans to put forward in the December meeting. The idea, "Fostering the Vermont Climate Economy," aims to nurture, attract and support the long-term viability, sustainability and growth of innovative enterprises that reduce GHG emissions, advance the clean energy system, and sequester carbon. The idea is focused primarily in five areas:

- Capital

- Growth
- Innovation
- People
- Competitive Edge

Next Steps:

The Subcommittee plans to hold at least one meeting before the December meeting to refine the idea further.

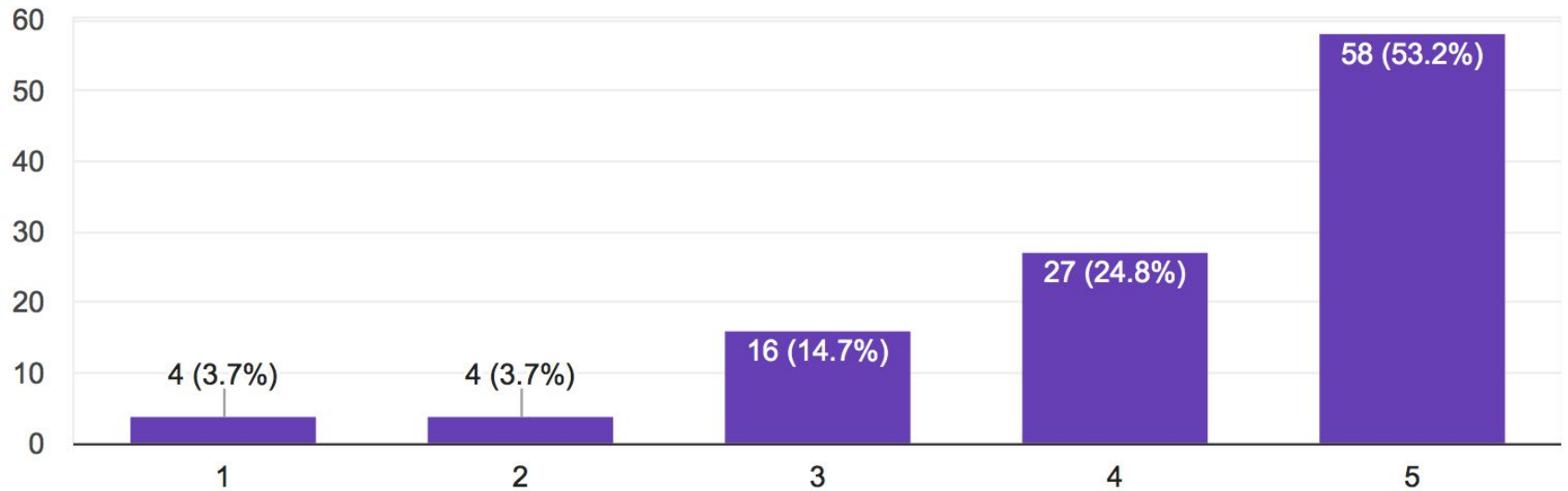
YOUTH ENVIRONMENTAL SUMMIT SURVEY RESULTS

Thank you for making your
voice heard! Over 100
people responded to the
survey!

After you see the following charts, turn and talk to your neighbor about what you notice about these results!

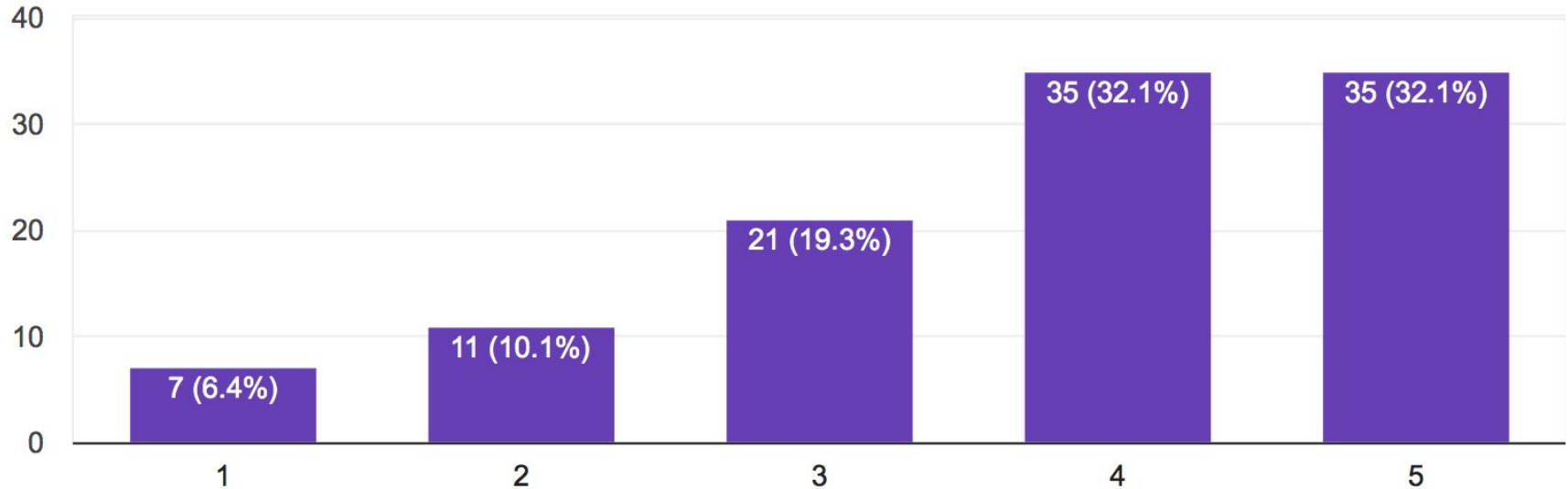
On a scale from 1-5, how concerned are you about the effects of climate change on the environment (1=not very concerned, 3=somewhat concerned, and 5=very concerned)?

109 responses

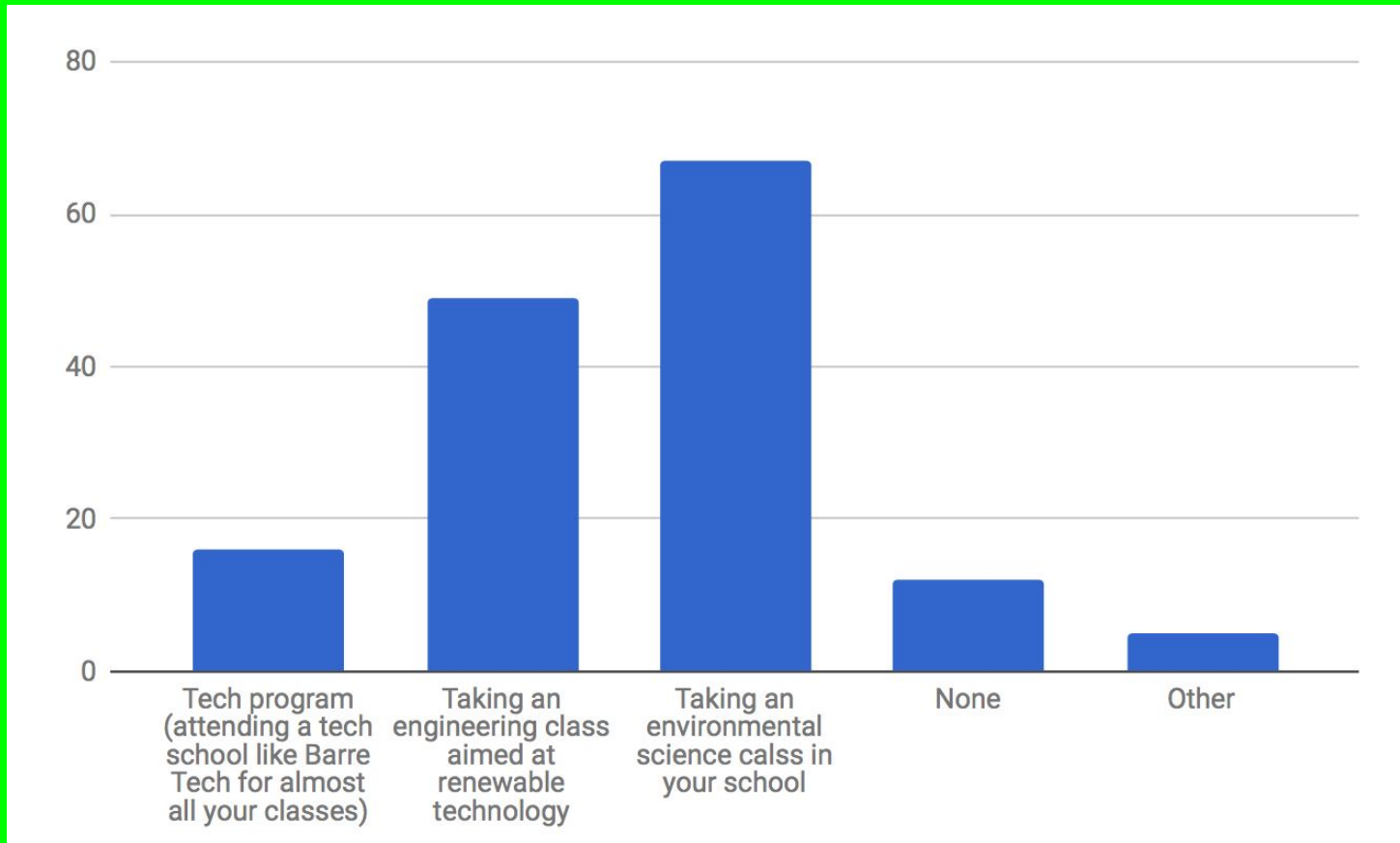


On a scale from 1-5, how concerned are your PARENTS about the effects of climate change on the environment (1=not very concerned, 3=somewhat concerned, and 5=very concerned)?

109 responses

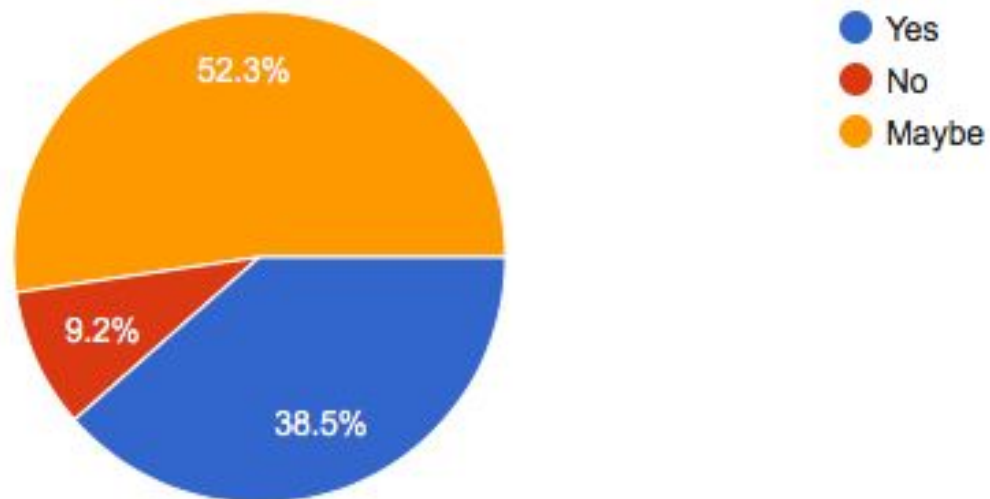


What classes students wish were implemented in their schools

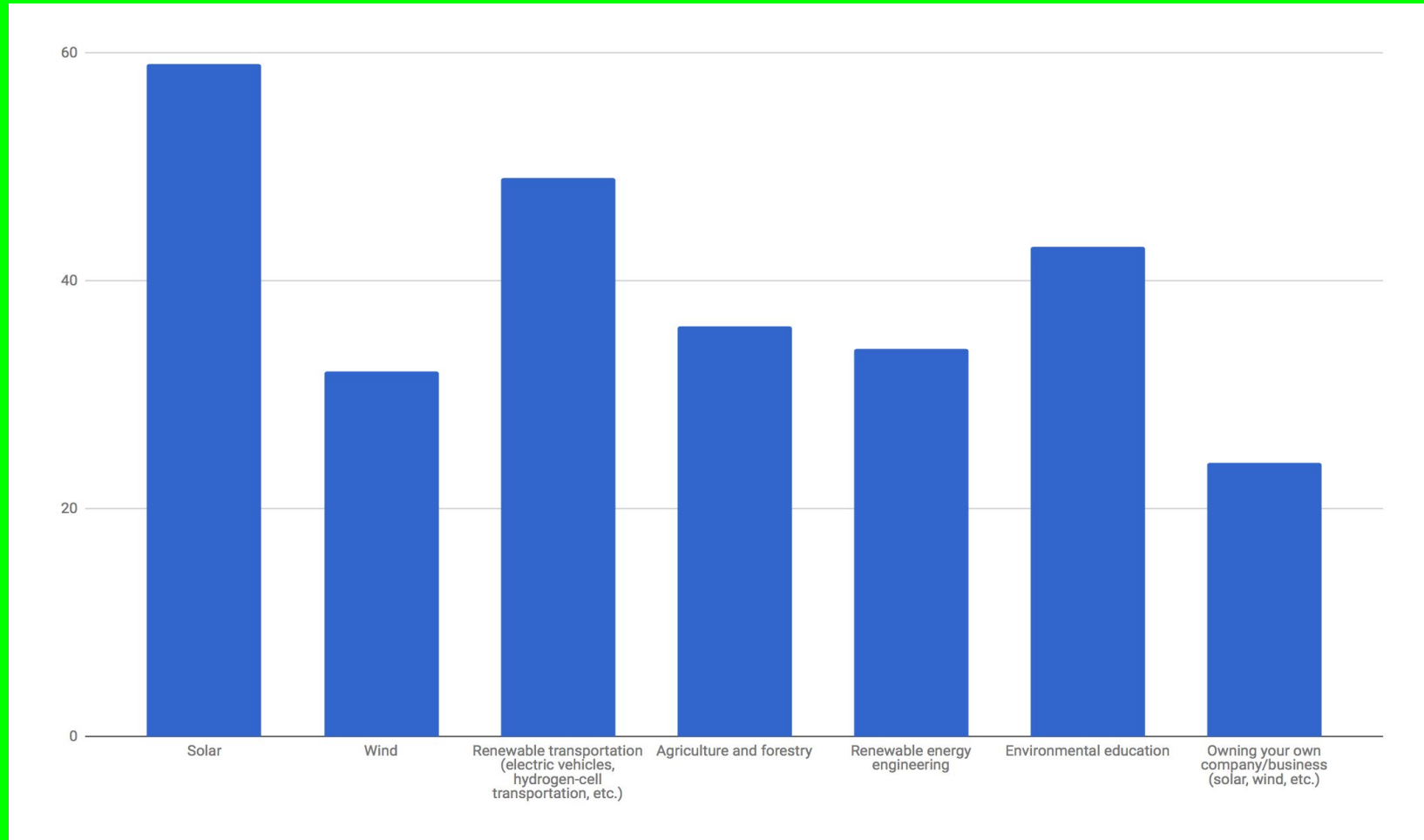


Would you be interested in working in clean energy or environmental fields later in life?

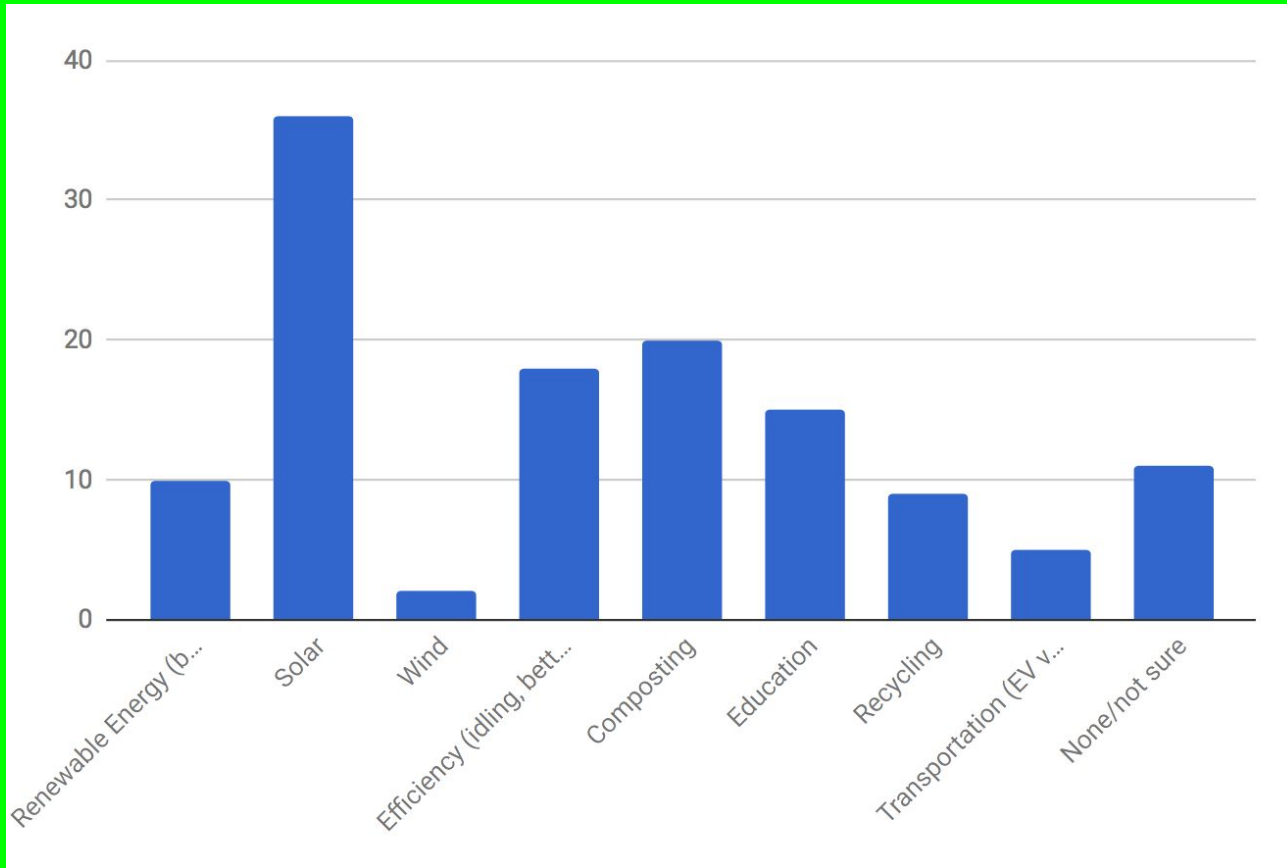
109 responses



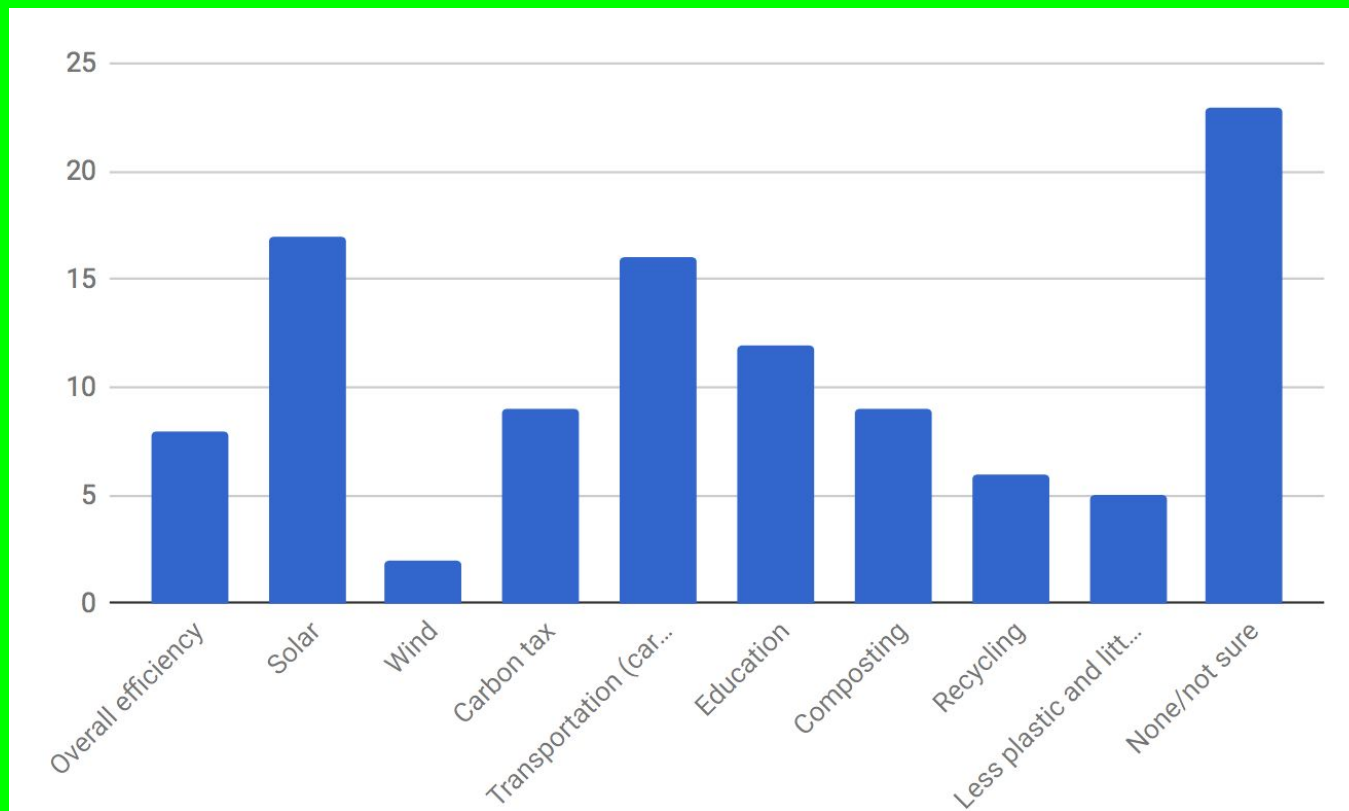
What clean energy sector would you be interested in working in? Check all that apply.



What actionable steps would you like your school to implement in response to climate change?

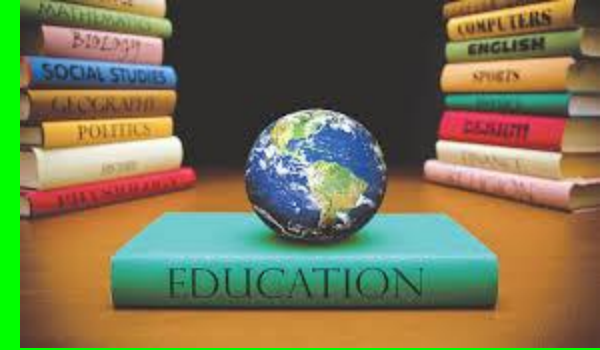


What action would you most like to take in response to climate change, and how could government support you in your effort?



A selection of comments from students...

- Put in milk dispensers with reusable cups instead of milk cartons
- Support the electric car market with greater incentives or tax reductions
- Fund nonprofits and other leaders in this fight
- “I would like the government to implement a carbon tax and incentivize the use of clean energy while also mitigating the effect on lower income people.”



One student had this to say to the commission...

“What steps are they willing to take to fix the issue of climate change?”