

The EAC's analysis and response to Nova Scotia's climate plan

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PREPARED BY
THE ECOLOGY ACTION CENTRE



Ecology Action Centre

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The Ecology Action Centre was pleased to see the release of the [climate plan](#) on December 7, 2022. In the plan we were looking for four things:

- Clear, actionable measures to address the climate crisis
- An appropriate level of funding commitments
- Accountability mechanisms
- Commitments to stop undermining climate action with further investment in outdated industries

Clear, Actionable Measures:

On the whole, we applaud the breadth of the plan, and the intent of the majority of the actions below. We are pleased to hear that modelling shows we can exceed our 2030 greenhouse gas emissions reduction target. In our analysis we have noted our reactions and questions we will be asking as plans unfold. We recognize that many of the actions are in the early stages, and there may not yet be answers to the questions we pose.

As articulated in the plan, achieving our goals will take all of us in partnership. We offer our analysis in the spirit of ongoing dialogue and a sincere desire to bring the plan to fruition. Let's make it happen!

Funding Commitments:

We await further details on funding commitments. We recognize that details on funding available through the Green Fund (and the last cap and trade auction) are forthcoming. Likewise we await details on funding for the new Climate Change Program (funded through the output-based pricing system). In particular, we will be closely watching the provincial budget in the spring for investments across all departments.

Accountability Mechanisms:

We applaud the commitment to annual reporting. Further analysis can be found next to actions 67 & 68 below.

Investment in Outdated Industries:

This is the largest gap in the climate plan.

The government cannot claim it is serious about doing what it takes to address the climate emergency while they continue to allow and promote the destruction of wetlands, the development of projects like gold mines that threaten our freshwater, the renewal of coal mining approvals, fossil fuel projects such as LNG, and more. Taking the climate crisis

seriously could look like: legislating a ban on all future fossil fuel infrastructure development; fully implementing UNDRIP and the principle of free, prior and informed consent; immediately implementing a moratorium on clearcutting in our forests; and putting the needs and desires of communities before the profit motives of billionaire corporations.

Category	Actions	EAC response
Responding to Climate Impacts Increasing access to climate data and information	1. Build on the research findings of the climate change risk assessment to better understand the risks identified and research important data and information gaps.	Ensure that research and data continue to be made publicly accessible as developed. As identified, there is a significant gap in our understanding of climate changes effects on individual and community mental wellbeing – this should be an area of focus going forward, with resources dedicated to eco-grief counselling and mental health infrastructure.
	2. Improve municipal stormwater infrastructure by updating planning requirements and helping develop stormwater management plans.	Improving municipal stormwater infrastructure and further developing stormwater management plans is a great step. This should incorporate planning for both stormwater quantity and stormwater quality. The utilization and protection of green infrastructure and naturalization techniques should also be prioritized especially in areas of high and growing development.
	3. Improve the quality and availability of water-resource data for better water resource management and flood line mapping by upgrading provincial water monitoring networks.	This data should be updated regularly and accessible to the public. It should also prioritize watershed-based water resource management. This data should also map out fresh and saltwater wetlands across the province (including forested wetlands) and be used to monitor wetland loss. This monitoring of wetland loss would also help determine the effectiveness of the Nova Scotia Wetland Conservation Policy and its primary goal of no net loss of wetlands.
	4. Create a new fisheries and aquaculture climate change information hub to improve the sharing of	While it is good to see explicit recognition in the plan that the Province has a role in reducing the impacts climate change is already having on our aquaculture and fisheries sectors, there is very little concrete actions included to understand how they plan to do

	climate change adaptation and greenhouse gas emissions reduction data and information in the fisheries and aquaculture sector.	this. There are already clear lists of species and fisheries that could be named and prioritized for vulnerability assessments so we can understand now where species and their food are moving or how farmed species are reacting to already warming waters, for example, and the economic impacts such shifts are already having and will have on our coastal communities. The Province must take a lead role on this and work with their federal counterparts to ensure Nova Scotia's main species are prioritized, work is funded, and undertaken in short order.
	5. Help homeowners understand and respond to climate risks such as flooding.	Included in climate risk information should be a guide of best adaptation practices for homeowners – e.g. clarifying the damaging effects of seawalls and armour rocking on beaches and surrounding properties. This can also include informing homeowners about nature-based climate solutions (e.g., wetlands) that exist on their property that help with climate change adaptation.
	6. Review the infrastructure that Build Nova Scotia manages to assess climate risks and develop adaptation plans to reduce future damages from climate change.	This is a great initiative. We need to see the funding pathway for infrastructure upgrades and retrofits as funding has been a major barrier to adaptation efforts. Concentrate this funding on updating the most at-risk infrastructure first, with a focus on nature-based and hybrid solutions tailored to the site and specific risks.
Building capacity for planning and implementation	7. Increase climate change adaptation capacity across government by developing and implementing climate change adaptation strategies for all government departments.	Excellent plan – communities and provincial departments need funding and resources to develop adaptation strategies as soon as possible. We are curious to see what supports are planned, and what the timeline is for development and implementation of the strategies.

	<p>8. Increase climate change adaptation capacity in communities and business sectors by supporting them in hiring their own climate change coordinators to help develop and implement climate change adaptation strategies.</p>	
	<p>9. Support the fisheries and aquaculture sector to complete climate change vulnerability assessments on important infrastructure and develop sector specific adaptation plans.</p>	<p>As in number 4 above, while it is good to see explicit recognition in the plan that the Province has a role in reducing the impacts climate change is already having on our aquaculture and fisheries sectors, there is very little concrete actions included to understand how they plan to do this. There are already clear lists of species and fisheries that could be named and prioritized for vulnerability assessments so we can understand now where species and their food are moving or how farmed species are reacting to already warming waters, for example, and the economic impacts such shifts are already having and will have on our coastal communities. The Province must take a lead role on this and work with their federal counterparts to ensure Nova Scotia's main species are prioritized, work is funded, and undertaken in short order.</p>
	<p>10. Bring key partners together to plan for responses to multiple climate risks facing our natural, built, human, social, and financial systems.</p>	<p>This could be positive. We look forward to seeing further details on who the government sees as key partners, and what kinds of responses they are referring to.</p> <p>We would like to see a systems thinking approach within this group. This would further actions which consider adaptation efforts which also support mitigation and vice versa, and ensure adaptation or</p>

		mitigation minimizes negative effects on vulnerable communities and don't exacerbate other social stressors.
	11. Raise awareness of climate risks and adaptation priorities across Nova Scotia through public education and engagement on the results of the climate change risk assessment and other important climate change data and information	This is important as Nova Scotians should know about the results of the Province's new climate change risk assessment and what it means for their everyday lives. We're curious to know how the provincial government will carry out widespread public education on this topic, and whether their work will include engagement with students in school, and through curriculum change.
Minimizing climate impacts by restoring natural areas and ecosystems	12. Strengthen and coordinate responses to coastal and inland flood risk by investing in natural flood protection and implementing new regulations under the Coastal Protection Act in 2023.	In addition, we need a follow-up to the Coastal Protection Act to address the thousands of residents in existing coastal communities, not just new development. There is a significant regulatory gap regarding the placement of on-site septic systems and wells that will also require updating their respective regulations to prevent inundation and erosion.
	13. Research natural carbon sinks to help offset any remaining greenhouse gas emissions needed to reach net-zero greenhouse gas emissions by 2050.	We would like to see a deeper understanding by the Province of Nature-based Climate Solutions (NbCS) rather than just viewing ecosystems as tools for carbon offsets. Any potential offsets from conserving or restoring natural ecosystems lose their validity as offsets if they are not protected in perpetuity, and are not additional to any other commitments already made to protect those areas.

	<p>14. Protect at least 20 per cent of Nova Scotia's total land and water mass by 2030 through a new protected area strategy.</p>	<p>This commitment is very good but was already made in EGCCRA. The strategy should be more advanced by now. It needs a specific process to quickly delineate and protect areas starting now in order to reach 20% by 2030 goal. Examples include: early identification of lands, interim moratorium on clearcutting, work in partnership with Mi'kmaq and conservation groups to identify areas for protection.</p>
	<p>15. Invest in infrastructure and natural systems to manage heat stress, such as tree planting in urban areas or heat pumps/cooling centres to lower exposure to high temperatures for vulnerable Nova Scotians, and invest in ecosystem-based responses like coastal wetland restoration to help manage flooding.</p>	<p>In addition to investing in ecosystem-based responses like coastal wetland restoration, a commitment to better protecting these ecosystems should also be included. Restoration is important but protecting these nature features in the first place is the most effective and least expensive way of harnessing their capacity to help communities adapt to climate change including preventing and managing flooding.</p> <p>Urban heat effect and urban flooding can be reduced by increased vegetation and canopy cover in our cities. So far, the Province has not supported efforts to maintain and add to urban forests, such as through the Urban Forest Master Plan for HRM (now 10 years old). Provincial investment should support only updated urban forest plans that have been adapted to our projected climate reality.</p> <p>Access to cooling centres is important. We hope to see cooling centres easily accessible by transit, with the most vulnerable and under-served communities being prioritized. This includes poorer neighbourhoods with less tree cover and access to green space.</p>
	<p>16. Plant 21 million trees across Nova Scotia in partnership with the federal government's 2 Billion Trees Commitment</p>	<p>This sounds good but it simply piggy-backs off the existing federal tree-planting program. It could be useful but it is not at all clear where all these trees will be planted and what will happen to them once they are. Will they be allowed to grow old and sequester carbon or will they be cut for short-rotation forestry? Government needs to restore <u>forests</u>, not just plant trees. Trees planted to restore forests must be protected or it doesn't work as a climate mitigation tool.</p>

<p>Reducing Our Greenhouse Gas Emissions Creating a clean electricity system</p>	<p>17. Create provincial regulations to phase out coal-fired electricity generation by 2030 with the goal of achieving at least a 90 per cent reduction in greenhouse gas emissions from the electricity sector by 2035</p>	<p>Happy to see increased ambition in the electricity sector as compared to commitment in EGCCRA. However, EAC and others have shown that we can get to 90 % reductions in the electricity sector by 2030. This goal does not meet the Federal goal to have a net zero grid by 2035, which provinces will be required to meet. More detail is needed on what coal regulation would look like. Who would be held to account under this regulation and how? Regulation should include intermediate targets. Clarity would also be beneficial on what will take the place of coal enabling us to reach these 2030 and 2035 targets.</p>
	<p>18. Increase the amount of renewable energy used for electricity generation by building at least 500 megawatts of new local, renewable energy by 2026 and an additional 50 megawatts of new community solar.</p>	<p>The 5 wind projects announced in summer 2022 will generate about 372 MW per year. We would like clarity on whether these are included in the 500 MW, as well as additional information on how projects to generate 500 MW to be selected.</p> <p>This must not include any more biomass or wood-based biofuels in order to do no further harm to ecosystems and biodiversity and to avoid pump more GHGs into the atmosphere. Biomass is NOT a climate solution.</p> <p>We would like to see an additional target that projects how much new renewable energy will come online between 2026 and 2030.</p> <p>How will the province enable new community solar? Will there be funding provided, support for communities who would like to engage in community solar?</p>
	<p>19. Provide funding support for farms and other businesses to adopt more solar power</p>	<p>This generally sounds positive. However, it would be helpful to have specific details on what the funding will look like, what goals and incentives there are for farms and businesses to take part, and a timeline on which we can expect this to occur.</p>

		<p>Clarity is also needed regarding the size of solar projects this would allow (e.g., would the funding support projects larger than the 1000 KW cap currently placed on farms and wineries?), the types of businesses eligible for this funding, and the capacity for additional solar PV on certain grids throughout the province. New, publicly available studies on these matters would be helpful.</p>
	<p>20. Research how we can use battery technologies or electric vehicles for electricity storage and backup power supplies to make our electricity system more reliable.</p>	<p>Bidirectional charging and Vehicle to Grid (V2G) solutions have enormous potential to increase grid reliability in Nova Scotia and decrease the chance of blackouts or brownouts. Halifax is already a global hub for Lithium-Ion battery technology research.</p> <p>Deploying electric school buses equipped with V2G capabilities is a clear win. Electric School Buses on the market are already V2G ready. Full electrification of government-owned heavy-duty fleets (which includes over 800 provincially owned school buses) equipped with V2G capabilities could act as a significant source of backup power during outages, increase overall grid reliability, and shorten payback periods by providing a source of operating revenue. Collaboration between utilities, municipalities, and school boards will be needed. While demonstration projects are a positive step, the government needs to look past R&D and plan to deploy electric school buses at scale. We are moving far too slowly in this regard, and are in danger of being a laggard both nationally and within Atlantic Canada.</p> <p>Bottom line: This is positive, but we don't need to wait for more research. We should be commencing deployment of government owned vehicles equipped with this technology immediately. Further research should proceed in concert with these efforts.</p>
	<p>21. Work with our neighbouring provinces to transfer more electricity across Atlantic</p>	<p>We are happy to see that the province is still engaging with the federal government and others to move towards an agreement on the Atlantic Loop. However, Nova Scotians deserve clarity on the status of these discussions and a timeline for the release of a</p>

	<p>Canada and Québec through projects like the Atlantic Loop, Muskrat Falls, and stronger connections with New Brunswick.</p>	<p>decision. As much of our ability to phase out coal by 2030 relies on the success and timely build of the Atlantic Loop, we would like to know how the development of energy trade between provinces will be strengthened if the Atlantic Loop does not occur. What is our 'plan B' for hitting our goals?</p> <p>We would also like clarity on the projected need for additional interregional transmission and trade between provinces – including the potential for offshore wind generation to regional grids – along with information on economic costs and benefits. We would also recommend a working group on interregional transmission planning with active regional stakeholders in Canada and the U.S.</p> <p>Note: Although Muskrat Falls does not produce significant carbon emissions, it can never be considered truly “clean energy” because of the vast areas of Innu and Inuit territory that was destroyed in its construction, without free prior and informed consent. We cannot rely on destructive mega-dam projects in other people's territories to solve our electricity problems. This includes the proposed Gull Island mega-dam.</p>
<p>Reducing our demand for energy</p>	<p>22. Help Nova Scotians reduce their demand for electricity by continuing and expanding programs delivered by Efficiency Nova Scotia and their partners.</p>	<p>We are happy to see there are plans to expand the work of the efficiency utility, but how much more money will be budgeted in each of the next five years? What strategic areas will be supported? What new programs are planned? Budget and specific goals are needed.</p>
	<p>23. Support businesses and communities in reducing their energy demand by</p>	<p>What does “expanding access” mean in practice? Will these be provincial employees? Will there be wage subsidies so businesses and communities can hire their own energy managers? How much money will be budgeted for this? How many energy managers will be hired? What skills will they have and how will those be</p>

	expanding access to on-site energy managers and continuing support for energy efficiency programming for businesses.	developed? The lack of specifics make this action unclear, making it difficult to hold government accountable for it.
	24. Help new building developments install shared heating systems to make multi-building heating more efficient.	Who specifically will deliver this help? Will it be Efficiency NS? How will help be delivered? Does this mean rebates? Grants? How much funding will be budgeted for this labour-intensive work? Who will do this labour?
	25. Review energy efficiency programming in Nova Scotia to see where programming has gaps or can be made better.	We strongly support enhanced efficiency programming. The review mechanism should avoid political influence over Efficiency Nova Scotia and should include meaningful community input with an equity lens.
Helping Nova Scotians get off home heating oil and reduce home heating costs	26. Reduce heating oil use by at least 20 per cent by 2030 by helping retrofit 60,000 homes and piloting a new off-oil program for homeowners to completely replace oil heating equipment with electric ones.	If this is in addition to the federal grant just announced [for heating pumps in low-income households], it sounds like a positive step. But it is not very ambitious. There are nearly 400,000 households in the province, about 280,000 owned by individual homeowners and 120,000 by landlords. Even just focusing on homeowners, that leaves another 220,000 homes, many of which are still oil dependent. We would also like to see a separate program focused on landlords, who often have different motivations, different financial circumstances, and respond differently to incentives. Again, it is important to know the budget attached to this work, and who will do the work.
	27. Provide energy efficiency upgrades to more low-income households by	We are happy to see plans for more energy efficiency upgrades for low-income households, but how many? How much money will be budgeted for this work?

	expanding on programs such as HomeWarming and the Affordable Multifamily Housing program.	A good opportunity to both increase ambition and increase cost savings for low-income households would be prioritizing specific support for deep energy retrofits. Would like to see an explicit expansion of the services offered and eligible under HomeWarming, with sufficient funding allocated.
	28. Continue with the Mi'kmaw Home Energy Efficiency Project and pilot a similar program for African Nova Scotian communities.	<p>It is good to see plans to pilot an efficiency project focused on African Nova Scotian communities.</p> <p>More information on how many homes would be covered by the initial pilot would be helpful to see. What plans would be in place for evaluation of the pilot and what decision points would there be to make choices as to whether the pilot would be scaled up? Completion of a successful pilot could be well in scope of timeline between now and 2030, so we would be eager to see thinking of next steps beyond the pilot, in consultation with communities who participated.</p>
Fast-tracking the transition to net-zero and climate resilient buildings	29. Ban installations of oil-fired heating equipment in new buildings by 2025.	Oil-based systems should be banned for all equipment installs, not just on new builds but also retrofits. British Columbia is doing this by saying all new equipment must be at least 100 % efficient. In BC this is also a requirement for retailers.
	30. Adopt the 2020 National Energy Code for Buildings and the 2020 National Building Code.	This only means the Province has committed to adopt the minimum tier. There is no indication of any plan to move toward a net-zero building code, which many other provinces, including New Brunswick, have done. The lack of a net-zero building code commitment is a big disappointment. They need to spell out how and when they will progress up the building code tiers in order to robustly tackle emissions from the building sector.
	31. Support the construction and renovation of net-zero homes and multi-unit residential buildings, including net-zero affordable housing	This is nice to see but again there are no specifics. There are 40,000 multi-unit residential buildings that with the proper investment could be brought to net-zero. How much will be budgeted for this work? What is the plan prepare the building industry for this kind of work? Support this construction how? By when?

		We are concerned about the contradictions by the current government. Elsewhere, the government has outlined their plan to fast-track 22,600 new residential units, with no mention of net-zero or affordability. Further detail is given in the "What's missing" section below.
	32. Help owners of commercial and institutional buildings better understand their energy performance and plan for energy efficiency upgrades through voluntary energy-use monitoring.	Why voluntary? All large buildings should be required to report energy usage and all sales of residential homes should require an energy label (like EnerGuide). New Brunswick has committed to this in its climate plan. New Brunswick is likely to surpass NS on the next energy scorecard based on the stark difference in their climate plans when it comes to efficiency.
	33. Require all new government buildings and major retrofits that enter planning after 2022 be net-zero energy ready and climate resilient, and prioritize leases on buildings that are committed to net-zero energy standards and climate resiliency starting in 2030.	This was already established with EGCCRA. It is a positive step for government. It should be regulated for all buildings, period.
	34. Launch the Green Choice Program in 2023, which will allow government to purchase 100 per cent renewable electricity for our	Seems generally positive. Will timelines be updated for 2023 for the Green Choice Program roll out? From their website, it looks like the first two points in timeline, Expression of Interest submissions and Expression of interest review are currently behind schedule. What is the timeline that the government will commit to for purchasing renewables from the Green Choice Program?

	operations as it becomes available	
Creating cleaner transportation options	35. Build more electric vehicle charging stations across the province so Nova Scotians can access them when and where they need to.	While this goal implicitly acknowledges the need for increased deployment of Electric Vehicle (EV) charging infrastructure of in Nova Scotia, it provides no specific targets or timelines for charging infrastructure deployment, and does not specify charger level (i.e. 1, 2, 3 or supercharger). Put simply, there is no possible outcome in which the government fails to deliver on this goal in terms timeline or scale of deployment, and no metrics by which they could be held to account.
	36. Increase the number of zero-emissions vehicles and e-bikes to meet the 2030 30 per cent zero-emissions vehicle sales target by continuing to offer rebates and continuing to provide education and outreach programs.	The government does not specify whether or not they intend to implement their proposed Zero Emissions Vehicle (ZEV) mandate, which has been legislated but remains unimplemented. The EAC's 2020 report on Electric Vehicle Adoption in Nova Scotia has modeled varying adoption scenarios, and concluded that the government cannot meet this target without the implementation of regulated sales targets as part of a provincial ZEV Mandate. We would also like to see the government raise their 2030 ZEV sales target, a request articulated in a recent letter from HRM Mayor Mike Savage to the Premier. A higher target would better position the province to compete for electric vehicle supply in the context of the anticipated Nation ZEV Standard, and require automakers to prioritize Nova Scotia in spite of BC and Quebec's respective regulated sales targets of 90% and 65% by 2030. Additionally, we would like to see the government prohibit the sale of gas cars by Jan 1, 2035. This goal would reflect federal targets and align with PEI's proposed Zero-Emissions Vehicle Act , tabled by PC MPP Sidney MacEwen
	37. Increase the number of zero-emissions medium- and heavy-duty, freight, and marine vehicles through new incentives.	The government has not articulated any timeline for implementing new upstream, midstream or downstream incentives, or articulated any specific incentive amounts. The EAC applauds the government's interest in decarbonizing heavy duty transportation, but would like to see specific timelines and specifics around the introduction of new incentives.

		<p>Other Medium-Heavy Duty Vehicle (MHDV) incentive programs in Canada</p> <ul style="list-style-type: none"> - B.C. operates the <i>Specialty Use Vehicle Incentive Program (SUVI)</i>, where purchasers of eligible vehicles can receive a rebate for up to 33% or \$100,000, whichever is lower. - Quebec's <i>Écocamionnage</i> program provides a range of financial support for vehicle purchases, technology upgrades, and fleet logistics, but the vehicle purchase incentive operates as a <i>rebate after purchase</i> [downstream] rather than an upfront voucher, reducing the overall capital cost - The federal <i>Medium- and Heavy-Duty Zero-Emission Vehicles (iMHZEV) Program</i> offer incentives of up to \$200,000 (total of \$547.5M of funding over four years)
	<p>38. Develop a greening fleets strategy for government vehicles.</p>	<p>The EAC applauds this initiative, which would – among other things – provide a mandate for the purchase of battery electric school buses. We would impress upon the government the need to release this strategy in advance of the Council of Atlantic Minister of Education and Training (CAMET) annual bulk school bus purchase in June 2023. Any further delay in the release of this strategy could jeopardize the purchase of electric school buses this year for deployment in 2024. This strategy should mandate an immediate end to the purchase of diesel school buses, and articulate a pathway for full fleet decarbonization by 2030 at the latest, thereby ensuring that procurement officials begin making annual purchases in order to facilitate fleet decarbonization on a feasible timeline.</p> <p>We would like to see commitment to when the green fleet strategy would be developed and implemented. The city of Halifax's HalifACT:2050 Climate Plan has a target to "Achieve net-zero municipal operations by 2030" which is inclusive of electrifying the municipal fleet. We would like to see the province set a similar target.</p>

	<p>39. Increase access to community transportation services for all communities outside of the Halifax Regional Municipality and Cape Breton Regional Municipality.</p>	<p>This is positive: but we would like more details on how this will be achieved. Individual communities lack the enabling policy and finances to provide regional transit. A provincial transit agency, like Metrolinx or BC Transit, could be beneficial.</p> <p>Access needs to be defined. Most communities are served by community transit providers that require trips be booked at least 24 hours in advance. Trips that cross municipal or county boundaries often require booking trips with 2 or more community transportation services, and coordinating passenger transfers at the boundary of their respective service zones. Policy enabling community transit services to operate across multiple jurisdictions would simplify booking and providing regional trips.</p> <p>Most Maritime Bus routes operate once daily (or less), which provides little scheduling flexibility for the communities it does connect. Funding for more frequent inter-community transit service would compliment</p>
	<p>40. Electrify public transit across the province by partnering with municipalities and the federal government.</p>	<p>The EAC applauds the government's interest in the electrification of public transportation, but would like to see specific timelines for decarbonization and increased provincial funding allocation.</p>
	<p>41. Explore opportunities for electric school buses through a strategic pilot project.</p>	<p>PEI is on track to decarbonize 25% of its school bus fleet in 2022, with full fleet electrification by 2032. The NS government should focus on large scale electric school bus procurement in 2023, and pilot specific initiatives concurrently including Vehicle-to-Grid (V2G) projects to understand the role that electric school buses can play in increasing grid reliability and providing access to battery storage within rural communities during power outages. The utilization of school buses for rural public transportation should also be considered, but such efforts should not impede the immediate, large-scale deployment of electric school buses. The exploration of new opportunities around ESB deployment and large-scale</p>

		deployment efforts are being undertaken concurrently in PEI, and NS should follow suite.
	42. Make transportation easier by developing new transportation efficiency strategies and reducing single-person vehicle trips.	<p>This is positive and we would like more details about which department is responsible for this. Alongside car share and ride share initiatives, this should also include support for bike, e-bike and other micro-mobility share programs.</p> <p>We'd like to see measures EV car share initiatives that incorporate government owned vehicles. Such an initiative could be modeled on the SAUVeR program in New Brunswick</p> <p>The electrification of existing carshare initiatives in NS will require further specifics around the government timelines for public charging infrastructure deployment (see comments on goal 35).</p>
	43. Create more active transportation options in Nova Scotia by developing a provincial active transportation strategy and continuing to work on the Blue Route.	<p>We look forward to the upcoming Provincial Active Transportation Strategy. We are seeking an ambitious strategy with clear targets and funding to get us to the EGCCRA goal of "complete core active transportation networks that are accessible for all ages and all abilities in 65% of the province's communities by 2030".</p> <p>This plan clearly identifies active transportation as an important part of climate change mitigation and wellbeing factor for Nova Scotians and acknowledges that access to transportation options has greater impacts on youth, African Nova Scotian and poor/income inequity groups.</p> <p>The Blue Route, along with existing community active transportation networks and plans has laid a solid foundation. Now is the time to fund the planning and construction of active transportation infrastructure to achieve this goal.</p>
Seizing Opportunities for a Cleaner Sustainable Economy Building on and expanding	44. Work with subject matter experts and industry leaders to develop tools,	This is positive, but would be important that this is a transparent and inclusive process.

partnerships with experts	programs, and supports for those looking to invest in the clean economy.	
	45. Support youth-centred climate actions and learn from youth through a new youth climate change advisory committee.	The intent of this is very positive and important; however, we would like to see details.
	46. Make sure that diverse voices from across Nova Scotia and abroad are advising government on climate adaptation research, planning, outreach, and strategy.	The intent of this is very positive and important; however, we would like to see details. Climate adaptation and mitigation research, planning outreach and strategy should take into consideration co-benefits of solutions which can support adaptation, mitigation and climate resilience within Nova Scotia.
	47. Support and fund solutions that address systemic inequities and discrimination related to climate change	The intent of this is very positive and important; however, we would like to see details.
Developing skills for the clean economy	48. Support the education of youth by updating school curriculums with the knowledge and teachings of <i>Netukulimk</i> and support youth professional development programs to develop new skills and experiences.	Including environmental education in the grade school curriculum has been needed for years, for broader societal need than just skills for the clean economy. The Province should work with Mi'kmaq and non-Indigenous partners on this goal in order to benefit from the extensive knowledge, networks, and resources that already exist on these topics. We hope that the Province is now truly open to swift and substantial change in the curriculum, since it is a long time coming.

	<p>49. Increase the representation of racialized and Indigenous workers in the energy efficiency and clean technologies sector.</p>	<p>The intent of this is very positive and important; however, we would like to see details. Would specific funding be allocated? How would communities be engaged in shaping capacity building strategies and opportunities?</p> <p>We'd like to see specific outreach and training programs in place for these communities including African Nova Scotians and New Canadians, as well as First Nations.</p>
	<p>50. Make sure professionals across Nova Scotia understand how they can participate in the clean economy and grow their businesses through new specialized training programs.</p>	<p>In addition to specific training programs for work directly in the clean economy, communication, funding, and education on how to reduce emissions across sectors in which Nova Scotians work would support emissions reductions and building resilience to climate change across our communities.</p> <p>The province needs to work with diverse communities to understand barriers they face. It also needs to work with employers on removing those barriers and addressing implicit bias in their operations.</p>
	<p>51. Develop new industry training for advanced building techniques for engineering and design professionals to make sure these professionals are ready to build to new national energy and building codes.</p>	<p>The intent of this is very positive and important; however, we would like to see details. Who will the province work with to deliver this training? NSCC may be a good partner on this, but what options is the province considering?</p> <p>Additionally ensure that nature-based climate solutions are central to professional development and training.</p>
	<p>52. Make sure we have the trade professionals needed and that they are prepared to meet the demands of the clean economy by</p>	<p>This is positive, but again we need more details on the budget, timeline, and process of this modernization. Who will be engaged in planning on what modernization will look like?</p>

	modernizing the Nova Scotia apprenticeship program.	
Helping our communities take action on climate change	53. Provide funding through programs like the Sustainable Communities Challenge Fund and support new community-based climate change coordinators to help municipalities, Mi'kmaq, and African Nova Scotian communities respond to their climate priorities.	In order for funding like this to be transformative, it needs to be administered in a way that is flexible and culturally appropriate, with government agencies willing to proactively engage with communities to understand and respond to their needs at their own pace. This is especially true for Mi'kmaq and African Nova Scotian communities, who often face complex systemic barriers to accessing these resources. We would like to know more information about how much funding will be made available, and how the province plans to implement simplified and flexible processes to make the funding equitably accessible.
	54. Provide funding to help more communities across Nova Scotia complete clean energy projects in areas such as buildings, transportation, electricity, and capacity building through programs like the Low Carbon Communities program and the Halifax Climate Investment, Innovation, and Impact (HCi3) Fund.	<p>Good to see mention of the Low Carbon Communities program, but would like to see more information on how much funding will be available for communities in the coming years, and what additional support would be available to support communities in developing applications and implementing projects.</p> <p>We would like to see a strengthening of this statement relating to support for programs such as the Halifax Climate Investment, Innovation and Impact (HCi3) Fund. This fund is administered through the federal government, but projects often need matching funding commitments in proposals to HCi3. A commitment of a specific amount per year in matching funding to projects that are seeing funding from HCi3 would show strong support for delivery of innovative clean energy projects in Nova Scotia.</p>
	55. Continue to support federal-provincial	Funding has been the major barrier in the development of infrastructure projects throughout the province. Time is of the essence to identify the most at-risk areas and implement adaptive

	<p>partnerships on large infrastructure projects throughout Nova Scotia through programs like the national Investing in Canada Infrastructure Program (ICIP).</p>	<p>infrastructure. Looking forward to seeing how the funds will be distributed, and if this includes the Chignecto Isthmus Flooding infrastructure project.</p>
	<p>56. Create a new funding navigator at the Department of Environment and Climate Change to connect Nova Scotians to climate change funding opportunities.</p>	<p>Depending on how this is set up, it could be very positive. For example, many municipalities are struggling with similar issues and should be working together and given support for coordination in order to respond to funding calls for climate action.</p>
<p>Supporting sustainable growth in innovative clean technologies and services</p>	<p>57. Develop a clean investment plan that takes deliberate and strategic actions to ensure the Nova Scotia economy is prepared to respond to the needs of a low carbon economy.</p>	<p>We are broadly supportive but substantive analysis would require more details.</p> <p>We will note that as part of preparing for a low-carbon economy, robust transportation modelling is required as there will be a significant cost to upgrading the power grid once we reach a certain threshold of high penetration of electric vehicles.</p>
	<p>58. Create a green hydrogen action plan by 2023 to support the development of the green hydrogen sector in Nova Scotia.</p>	<p>This was announced previously. We repeat the call for the hydrogen innovation program, as well as the green hydrogen action plan, to be developed with a variety of stakeholders, including academics and other experts, indigenous groups, civil society including those representing communities where green hydrogen infrastructure would be built. As hydrogen should not play a large role in decarbonization of Nova Scotia- it can have impacts in several hard to abate sectors- and is not expected to be cost competitive for use in many of these sectors in the coming decades, other measures to</p>

		<p>decarbonize should be prioritized with time and funding above this planning process.</p> <p>Additionally, green hydrogen should not be considered for use within this action plan to supplement natural gas in existing natural gas infrastructure. The reduction in gas use which can result in blending with hydrogen –typical blending ratios are 20/80 hydrogen/gas- is only a distraction which can be used as an excuse to prolong the use of gas. Funding in Nova Scotia should be used to transition off gas, not on new technologies and methods which can results in slight decreases which would work to justify continued use.</p>
	<p>59. Issue leases for five gigawatts of offshore wind energy by 2030, with a first call for bids by 2025.</p>	<p>This was announced previously and no new information is provided here. We would like to assert that offshore wind development should be prioritized first for use as a direct electricity source for Nova Scotians – which will be needed as we double or triple our electricity needs in Nova Scotia as we move towards net zero- first, for its potential as a source of energy to trade with regional neighbours, above use for hydrogen production, whether this is used domestically or for export to international markets. Additionally, the province must ensure offshore wind developments benefit neighbouring communities, and these communities are meaningfully consulted throughout the project phases, and impact on sensitive ecosystems and active fishing grounds should be considered. See our offshore wind position statement for more detail.</p>
	<p>60. Create a clean fuels fund to support industries and businesses in adopting low-carbon and renewable fuels such as green hydrogen, renewable natural gas,</p>	<p>We were disappointed to see a goal providing specific funding to so-called renewable and green fuels. None of the fuels listed should fall within our energy mix if the Nova Scotia government is serious about decarbonisation and getting to net zero by 2050.</p> <p>No government subsidies or programs should be used to finance, assist or promote the use of forest biomass, in order to do no further harm to ecosystems and biodiversity and to avoid pump more GHGs into the atmosphere. Biomass is NOT a climate solution. It</p>

	<p>biofuels, and sustainable biomass.</p>	<p>should immediately be removed from the Renewable Electricity regulations and the carbon released when burning biomass should be counted in Nova Scotia's GHG reporting.</p> <p>We are disappointed to see support within the goal for renewable natural gas as renewable natural gas- or natural gas produced from biomass such as crop residue or landfill gas. In addition to costs associated with collection and processing these gases, burning gas from a waste product does not make it renewable. Emissions associated with renewable natural gas have the same potency as traditional fossil gas and are not a climate solution, and therefore support should not be received by the provincial government to enable use of renewable natural gas.</p> <p>The adoption of green hydrogen as a renewable fuel, where it would be blended with natural gas only acts to prolong the lifetime of natural gas production in Nova Scotia, and distracts from the goal of transitioning off natural gas. Production of green hydrogen is not cost effective, and adding new renewables- such as solar and wind- to the grid are much more economical than investing in hydrogen. Therefore, support for green hydrogen should not be included within the clean fuels fund.</p>
	<p>61. Implement the Innovation Rebate Program and pilot a low carbon stream of the Early Stage Commercialization Fund through Invest Nova Scotia to create an environment that supports innovative businesses.</p>	<p>No analysis at this time</p>

	<p>62. Modernize the environmental assessment process to consider climate change impacts, cumulative effects, diversity, equity and inclusion, the role of independent review, and <i>Netukulimk</i> more fully.</p>	<p>This reiterates a commitment that was already made in EGCCRA, but modernization needs to be broader than what is stated here. In addition, to be aligned with the intent stated here, the environmental assessment process would need to be radically changed to have the power to stop projects because of their detrimental climate effects, cumulative effects, violation of <i>Netukulimk</i>, or negative impacts on marginalized communities. We would like to know if this is what the province actually intends.</p>
	<p>63. Invest in research needed for new clean technologies and practices to help us meet our net-zero by 2050 target.</p>	<p>We support this action if it refers to independent, peer-reviewed research and research of best climate action practices in place in other jurisdictions.</p> <p>We would like to see details about the scope of investment, who will be doing the research and when, and what the objectives are.</p> <p>Research on areas missing in this plan that should be incorporated into Nova Scotia's climate action, such as circular economic principles, would be beneficial.</p>
	<p>64. Launch the Green Choice Program in 2023, which will allow large industrial energy consumers to purchase 100 per cent renewable electricity as it becomes available.</p>	<p>What assurances would we have that large industrial energy consumers would buy into the Green Choice Program? What will regulations under this program look like that would incentives or punitive measures look like for industrial energy consumers to buy into (or don't) this program and purchase renewables?</p> <p>It must not include biomass or biofuels because, in addition to increasing GHGs into the atmosphere without counting them it would undermine the credibility of the whole program.</p>
	<p>65. Extend the Clean Technology for</p>	<p>Due to high demand, the Clean Technology for Agriculture Program was suspended prematurely in March 2022. It is clear that Nova Scotia farmers, agri-food businesses, and agri-food processors want</p>

	<p>Agriculture Program to allow more farmers to adopt clean technologies that support more sustainable farming.</p>	<p>to reduce emissions. Although we are pleased to see an indeterminate extension of the Clean Technology for Agriculture Program, this is not enough. Producers, agri-food businesses, and agri-food processors must be continually supported to adopt clean technologies. Transition needs will remain high in the decade to come. The Province should work with producers, processors, and businesses to regularly assess the adoption and use of clean technologies in the agri-food sector and to offer ongoing transition funding support.</p>
	<p>66. Create a new fisheries and aquaculture energy efficiency innovation fund and new fisheries and aquaculture climate change adaptation fund to help prepare the fisheries and aquaculture sector to reduce their energy use and better prepare for the impacts of climate change.</p>	<p>This fund lacks details. It is a missed opportunity to signal the incentives and investments they are willing to make to transform our sectors and keep our coastal communities thriving in the face of our changing ocean. They could, for example, include commitments to electrify the trucks and distribution networks for processing and shipping our seafood; support electrify inshore boats and set up onshore charging; and support small, low emission aquaculture farms that have market support to distribute locally.</p>
<p>Reporting and Evaluating Progress</p>	<p>67. Report annually on progress and impacts of the actions in the climate change plan.</p>	<p>The commitment to annual reporting is positive. In addition, we would like to ensure adequate information and transparency from the annual reporting:</p> <ul style="list-style-type: none"> • Specific information on GHG inventories, such as sectoral emission reduction • Specific information on pathways, such as the emission projection per year to the Net Zero 2050 goal that includes information on absolute emission reduction projections and offsets used to achieve this target

		<ul style="list-style-type: none"> • In addition to a progress report, require Minister to address and provide reasons for failure to meet any of the goals set out in EGCCRA and the climate plan, and how the deficit will be accounted for and adjusted in forthcoming years • Require the Minister to consult and include advice from the Round Table on Environment and Sustainable Prosperity in the annual report
	68. Review and renew the climate change plan within five years of its release.	This is positive. Climate policy, technology, and science are changing rapidly. The plan will need to adapt.

What's Missing?

Category	Our suggestion for Action	Details
Circular Economy	Move to a circular use of resources and stop harmful practices that are solely focused on unending growth	<p>This plan references the EGCCRA goal of encouraging the growth of the circular economy, but no other mentions of how to do this are made.</p> <p>A continued focus on growth, as this report presents, doesn't confront the worldview that growth is the primary objective of the economy, the government, and society.</p>
Netukulimk	Use the concept of Netukulimk as a guide for all climate actions, not just as an aspiration	<p>Beyond making reference to <i>Netukulimk</i>, the actions in this plan do little to show an understanding of the concept.</p> <p>For example, gold mining is in direct conflict with <i>Netukulimk</i>, which states that we must only take what we need and not harm our environment for future generations. We don't need gold, and gold mining creates substantial long-lasting harm.</p>

<p>Food</p>	<p>Create a Climate Emergency Food Strategy to ensure Nova Scotians can access food during extreme weather events, extended power outages and supply chain disruptions.</p> <p>Ensure climate actions in the forthcoming Provincial Food and Beverage Strategy</p>	<p>While the plan acknowledges that climate change will negatively impact food system activities such as storage and distribution, there are no details or actions for adapting to this reality.</p> <p>There is a critical need for a strategy to unite efforts to anticipate and prepare for food needs during emergencies and crises, as demonstrated in the wake of Hurricane Fiona. Provincial and municipal governments must come together to create a Climate Emergency Food Strategy. We also expect the forthcoming Provincial Food and Beverage Strategy will be positioned to provide climate-focused food system solutions.</p>
<p>Housing</p>	<p>Build in place-based climate education and literacy to support Nova Scotians in the transition to a sustainable future.</p> <p>Follow healthy development patterns such as building complete communities, densifying already serviced areas and developing brownfield sites first.</p> <p>Integrate net-zero and affordability targets into current housing strategies and stop expediting housing development on</p>	<p>One of the pillars in this plan is 'identifying how Nova Scotians can partner with each other and their communities to prepare for and respond to the impacts of climate change,' and there is language around helping homeowners, businesses, and new building developers.</p> <p>We would like to see more on how the government will support Nova Scotians in this transition from a social and cultural standpoint, such as: building in general place-based climate education and literacy, including what specifically Nova Scotians can gain and what they are fighting not to lose in the transition, and painting a clearer picture of the positive future that this plan will enable.</p> <p>This government's housing strategy contradicts the principles of 'clean growth' and 'sustainable development' outlined in this plan. This can be seen in huge growth targets for people and profits to grow Nova Scotia's population to two million by 2060; a plan to fast-track 22,600 new residential units with no mention of net-zero or affordability; and the acceleration of housing development at all</p>

	<p>important natural areas that should be protected.</p>	<p>costs, seen in actions to designate 'special planning areas' and expedite housing development on important nature areas. The loss of urban green space will further exacerbate climate impacts and biodiversity loss.</p> <p>Instead, building complete communities with a range of affordable housing options, access to transit and options for cycling and walking, green infrastructure and access to nature will foster more resilient communities.</p>
<p>Bad Stuff</p>	<p>Commit to stopping investments in outdated industries.</p>	<p>This government cannot claim to be addressing the climate emergency seriously while at the same time allowing and promoting the destruction of wetlands, the development of projects like gold mines that threaten our freshwater, the renewal of coal mining approvals, fossil fuel projects such as LNG, and more.</p> <p>For example, the renewal of the industrial approval for the continued operation of the Donkin coal mine runs counter to the spirit of decarbonization of the bulk power grid as articulated in this plan. The burning of coal extracted from the mine is projected to emit 8 million tons of carbon dioxide, equivalent to the annual energy use of roughly 1 million homes. While the coal is not intended for domestic use in Nova Scotia, it will contribute to carbon emissions which are exacerbating climate change on a global scale.</p> <p>Taking the climate crisis seriously could look like: legislating a ban on all future fossil fuel infrastructure development; fully implementing UNDRIP and the principle of free, prior and informed consent; immediately implementing a moratorium on clearcutting in our forests; and putting the needs and desires of communities before the profit motives of billionaire corporations.</p>