

MOVING TOWARDS A



BOLD
Green
Jobs
PLAN

FOR BC

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Reporting Out

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GREENJOBSBC
BUILDING A GREEN ECONOMY

Green Jobs BC exists to strengthen communication and cooperation between labour and environmental organizations, in order to advance economic and environmental initiatives that: provide good green jobs; are socially equitable; are ecologically responsible; and result in the reduction of GHG emissions.

These documents do not reflect official policy of **Green Jobs BC** member organizations, but rather indicate a way forward.

To get more involved, contact info@greenjobsbc.org

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Moving Towards a Bold Green Jobs Plan for BC

Reporting Out

Green Jobs BC (GJBC) drafted a **Bold Green Jobs Plan for BC** in 2013, just prior to the last electoral cycle. The Plan is a call to action and a pathway for good quality jobs that are socially equitable, ecologically responsible and result in the reduction of greenhouse gas emissions. Transitioning to a low carbon economy will mean more jobs, lots of them, if key policies are put in place.

The **Bold Green Jobs Plan** has 22 recommendations, supported by 85 specific policy actions in four core areas: Buildings, Energy, Transportation and Forestry. Still to consider are all the opportunities for GHG savings and good jobs in greening existing workplaces.

If the **Bold Green Jobs Plan** was implemented, our analysis shows an uptick of 47,500 new jobs in retrofitting alone. We could also add 20,000 jobs in forestry and 230,000 person years of employment in public transit and railway upgrades.

Put another way, each \$1 million invested in Forestry would mean adding 43.33 direct and indirect jobs. Each \$1 million invested in Electric Power Generation, Clean Tech and Building Retrofits would leverage 63.18 direct and indirect jobs.

To draft the **Bold Green Jobs Plan**, we convened panels of practitioners and policy analysts; we scoured reports; we organized a series of stakeholder forums; and we hosted a two day conference.

The **Bold Green Jobs Plan** is the result of discussions and on-line participation from more than 200 people.

We briefed all 4 political parties on our findings.

So, how did we do as a Province on those 22 policy asks? To gain an implementation picture, we surveyed our practitioner and policy panel members for their observations. We forwarded the survey to key Minister's offices as well, but we have yet to receive their responses.

Survey respondents reported observing a limited degree of uptake on 4 of the 22 policy asks (about 20%), with relatively strong support observed in only 1 (the tech sector).

Where progress has occurred, respondents noted that it is largely other bodies (such as the Federal government on the building code and municipalities on a range of green jobs policies) that have been the leaders inching the dial forward. Of the remaining 80%

of the **Bold Green Jobs Plan** policy planks, respondents identified very little or no progress.

In the *Buildings Section*, for example, respondents said:

- i. *"The Province has be almost completely absent. Very little progress has been made by the BC government [On Energy Efficiency Retrofit Financing]. Select local governments and Fortis BC have made some advancement with MURBS [Multi Unit Residential Buildings], but more action from the Province, particularly in the MURB area is critical. BC Hydro has been scaling down dramatically."*
- ii. *"The Province has gone backward on training."*
- iii. *"They have made some changes to the building code reflecting changes in the national building code which is something that is done every 5 years anyway."*

In the *Energy Section*:

"Overall the {technology} sector is doing reasonably well. Provincial support is sporadic, but not bad. However the Province is not growing support."

"We continue to make good investments in hydro-electricity – notwithstanding Site C's other controversial aspects – but are lagging behind in investing in other areas."

"Wrong direction. Government emphasis on Site C is good from a carbon perspective, but not in regards to environmental degradation, and first nation concerns."

In the *Transportation Section*:

While the Evergreen Line in Metro Vancouver has recently opened, the referendum on the Mayor's Council Transit Plan in Metro Vancouver met with little support from the Province and went down to defeat.

The situation for bus service *"has gotten worse, particularly with cuts to highway bus service in many areas. The only improvement I am aware of is the new bus service promised for the Highway of Tears."*

On the upside: *"BC Transit now boasts that 100% of urban centres have transit plans, up from only 29% in 2012/13. Many of these speak to density around transit hubs."*

In the Forestry Section

"Very little progress - Funds for product research provided through Forest Innovations program but any progress on this front has been undermined by raw log exports and the mills in the interior churning out lower value products to keep up with the high volume of pine beetle wood from the AAC [annual allowable cut] uplifts."

"Progress in the Great Bear Rainforest. There has been provincial research into having a cumulative impacts assessment approach to land management but it has not become policy."

Going Forward

British Columbia's early lead on climate leadership has dimmed in the wake of measures such as the Provincial cabinet designation of LNG as a clean energy fuel and the Provincial government's failure to adopt the full recommendations from the now disbanded Climate Leadership Team.

As one survey respondent noted, "When the province started discussing climate issues last year they could have moved forward with good options, but unfortunately in August they ended up with a huge missed opportunity."

While BC is leading Canada in new jobs, they are largely in the lower mainland and many of them are part-time.¹ The mid-year labour force analysis for BC showed part-time job growth outpacing full time significantly at 9.7% part time versus 2.2% full time and the most recent labour force report credits job growth fully to growth in part time jobs.² Millennials are feeling the full brunt of precarious employment.³ Meanwhile, GHG emissions have gone up 2.7% since 2011 and British Columbia is not on track to meet legislated climate targets.⁴

With 80% of the policy asks (18 of 22) languishing, there is enormous opportunity for capturing the jobs opportunity in a low carbon transition.

Opportunity lies in tomorrow's jobs. They will include the 23,200 jobs in the green buildings sector already identified by Pembina Institute in their 2015 Green Buildings

1 BC Stats, Labour Force Statistics Data, September 2016, Table 9.

2 Labour Market Bulletin, July 2013, LMI Division, Services Canada, BC.

3 The Urban Worker Project. (www.urbanworkerproject.ca)

4 "How Canada's Provinces are Tackling Greenhouse Gas Emissions," CBC News, April 14, 2015.

Map.⁵ And, they could include the 26,322 new person years of employment if the Mayor's Council Transit Plan in Metro Vancouver was supported by the Province. Jobs of tomorrow could also include more value-added jobs in forestry, clean energy and technology with the right policies in place.⁶

Labour force reports in the future will include these new jobs when Provincial policy makers show more robust green jobs leadership.

Opportunity knocks.

A Short List for Green Jobs Action from Survey Respondents

1. Set a target to derive 100% of the energy used in BC from renewable resources before 2050.
2. Develop 100% Renewable Energy Transition Plans for Transportation, Buildings and Industry.
3. Invest in value added manufacturing. Create a reforestation fund and program. Rewrite the FRPA [Forest and Range Practices Act]
4. Shift [transportation] investment to public transit, cycling and walking.
5. Work with BC's colleges and trades to prepare the workforce for the thousands of jobs [in renewable energy, retrofits, construction, and other GHG-reducing sectors that will be needed].

⁵ Green Building Map, Pembina Institute, December 2015.
(www.pembina.org/bcgreenbuildings/)

⁶ "Good Jobs, Clean Skies," Blue Green Canada and Green Jobs BC, March 2015.
www.greenjobsbc.org/resources

SURVEY RESPONSE APPENDIX

Comments from survey respondents are in italics. The *Buildings Section* below has five key policy asks.

1) Buildings, Energy Efficiency Retrofits

A. Scale up and/or develop energy efficiency retrofit financing and incentive programs for all types of BC residential and commercial buildings.

- i. *"We don't have government leadership on retrofits, though they could argue that they're requiring LEED Gold for new buildings. Some health authorities are retrofitting on their own."*
- ii. *"Very little progress has been made by the BC government. Select local governments and Fortis BC have made some advancement with MURBS. The Province has be almost completely absent. More action from the Province, particularly in the MURB sector (which has good cross over to affordability issues), is critical. BC Hydro has been scaling down dramatically."*
- iii. *"They haven't done anything to finance retrofit buildings. They exclusively depend on building codes and national codes. Leaving it to the national level for the solution. There have been substantial changes at the national level over the last 4 years and they are slow to react. They have moved from being leaders to being followers."*

B. **Invest more in greening public sector buildings, including schools, hospitals, office buildings and community centres.**

- i. *"I do not think they have done much at all on this front. This is a big area for potential job creation and for upgrading the energy efficiency of the public sector and should be a priority."*
- ii. *"Limited progress has been made by the province. Some progress made by other players."*
- iii. *"There is no policy in this regard. There is minimal to non-existing funding for this. If I was to mark them on a report card – they would get an F."*

C. Update the BC Building Code to require higher energy efficiency standards for new construction and for renovations of existing buildings.

- i. *"They have made some changes to the building code reflecting changes in the national building code which is something that is done every 5 years anyway."*
- ii. *"Little progress made of any substance."*
- iii. *"This has come about with the upgrades to the National Building Code and the National Energy Code. It is natural outcome to upgrade the building code – it is in process."*
- iv. *"The BC building code is still status quo, but the exciting thing there is work [in the non-governmental organization community] on an energy step code that local governments can voluntarily adopt. We want local governments to adopt the highest tier asap and we want BC to adopt the step code as the next code cycles industry can expect; eliminating the song and dance negotiating requirements between each code cycle, giving certainty to industry and supply chain, etc."*

D. Invest in quality training, apprenticeships and education for the green building sector that meet CSA Standards and can be integrated with Red Seal trades certification.

- i. *"The Province has gone backward on training. Moreover the limited training initiatives that it is now sponsoring are all for developing the skills to work on major resource projects such as LNG [liquid natural gas] plants, new mines etc. What we need instead, is a major initiative to train workers to carry our comprehensive retrofitting of the buildings in BC. But this is not happening. Also, apprentices need more classroom time to acquire the skills necessary to perform low carbon construction and this is not happening."*
- ii. *"Limited progress made."*
- iii. *"There is no policy on this. Only one trade has done this – the Insulation Trade and they did it internally. They are talking about provincial procurement to those who hire apprentices, but it isn't policy."*
- iv. *"Re: Training – BCIT just opened their high performance building lab with funding from BC government. Government also gave a grant for Passive House training but it's likely not at scale with what we need to see. Some ICE*

[Innovative Clean Energy] funding toward research and development of high performance windows, but we need other components. Nothing on accelerating the transition, as far as I know."

E. Support research, product development and 'Made in BC' manufacturing of energy efficiency equipment and materials.

- i. *"I am not sure what they have done on this issue."*
- ii. *"No progress made."*
- iii. *"They have done nothing."*

F. Accelerate the transition from demolition to deconstruction in the construction industry.

- i. *"This is being driven by municipalities only, it is not a Provincial direction. The City of Vancouver is the best example and is setting an example for the rest of the Province. They have set this as a priority – examples are Yale Town and Gastown; saved wood and metal are used for other construction purposes. Other examples are North Vancouver and Langley."*
- ii. *"Limited progress made."*
- iii. *"As long as it is cheaper to demolish rather than deconstruct buildings, we will not see any change in this area. The province can take measures to regulate building deconstruction and to provide ways of ensuring that recycled items are actually being marketed in the province. Assistance with marketing may be essential to making deconstruction a viable option."*
- iv. *"The Climate Leadership Plan announced a design incentive program for buildings, but we don't know how much and it seems to imply for new buildings."*

2) Energy, Conservation

There are 5 policy asks in this section of the **Bold Green Jobs Plan**.

A. Prioritize conservation and efficiency as the lead strategy for meeting BC's energy needs.

- i. *"Some progress on energy efficiency and buildings. Overall, [the Province is] shifting to more supply of energy, for example with Site C, and less on efficiency."*

ii. *"Nothing."*

B. Invest in an environmentally and economically sustainable electricity system.

i. *"Wrong direction. Government emphasis on Site C is good from a carbon perspective, but not in regards to environmental degradation, and first nation concerns. There are better options out there."*

ii. *"Nothing."*

C. Accelerate the transition from fossil fuels to renewable energy use in BC.

i. *"Some pockets of progress, but overall moving in the wrong direction, for example, with LNG."*

ii. *"Nothing."*

iii. *"When the province started discussing climate issues last year they could have moved forward with good options, but unfortunately in August, they ended up with a huge missed opportunity."*

D. Support growth and job creation in BC's low-carbon clean technology and green manufacturing sectors through tax incentives, research and development support, regulatory incentives, supportive financing options and public procurement.

i. *"Overall the sector is doing reasonably well. Provincial support is sporadic, but not bad. However the Province is not growing support."*

E. Looking forward: Key Opportunities

i. *"(1) Transportation: cleaner fuels, more efficient systems; (2) Natural Gas Sector; and (3) Buildings: Energy Efficiency"*

ii. *"[There are] Enormous Opportunities..."*

- *[Set] A 10% Renewable Energy Act*
- *Set a target to derive 100% of the energy used in BC from renewable sources before 2050*
- *Develop a 100% Renewable Energy Transition*
- *[Make] Plans for BC's electricity (relatively easy)*

- *Develop a 100% Renewable Energy Transition Plan for BC's transportation*
- *Develop a 100% Renewable Energy Transition for buildings*
- *Develop a 100% Renewable Energy Transition for BC's industry*
- *Work with BC's colleges [and the trades] to prepare the workforce for the thousands of jobs that will be needed."*

3) Transportation Policy

There are 7 key policy asks in this *Bold Green Jobs Section*.

A. Expand public transit capacity and infrastructure for all BC communities

- i. *"Poor to mediocre [performance by the Province]. The best example of inadequacy is the lack of integrated and comfortable transit service between Victoria and Vancouver. It should be possible to purchase a single ticket that includes bus, ferry and SkyTrain services; transit tickets should be sold in the ferry gift shops; all ticketing should be pre-paid so passengers load directly rather than requiring drivers to sell and check tickets; and bus services should be frequent enough that most passengers can sit without being crowded by luggage. Similarly, to improve mobility and reduce congestion and accident risk on the Malahat there should be frequent bus services (less than 30 minute headways during peak hours, and less than 60 minute headways during off peak, with service at least from 6am and 8pm) between Victoria and Duncan/Nanaimo. Part of the problem is that provincial transportation funding practices invest far more in highways than in walking, cycling and public transit."*
- ii. *"In BC Transit, the primary focus is on efficiency, revenue increases, and cost-efficiency. Fleet replacement is underway, with 50% of the fleet being replaced over the next 5 years, but expansion seems to be modest. The province has pledged to spend \$246 million on transit in the lower mainland in the next 3 years, combining with federal and municipal funding to pursue the first three years of the Mayor's Councils 10 year vision. Some have criticized the province's hesitation in committing long-term, stable funding or for refusing to commit more funds to transit, leaving it to the federal government to do so."*

iii. *"Little or no progress, transit capacity seems to be falling behind population growth."*

B. Support the revitalization and expansion of BC's highway bus and passenger rail systems, and ensure fares are affordable and equitable.

i. *"Situation has gotten worse, particularly with cuts to highway bus service in many areas. The only improvement I am aware of is the new bus service promised for the Highway of Tears."*

ii. *"Least cost planning" means that alternative modes and demand management strategies are funded if they are more cost-effective overall than conventional solutions such as highway expansions. This principle is not being applied, resulting in underinvestment in alternative modes and TDM solutions. Affordable fares are good, but true affordability requires creating communities where residents can reduce their vehicle ownership, so pedestrian and cycling improvements, and compact neighborhood development, are as important as low transit fares."*

C. Create incentives and improved infrastructure to move goods by rail and other efficient, low carbon modes of transportation

i. *"Little or no progress. Infrastructure spending is still predominantly directed to high-carbon modes such as highway expansion for trucks."*

ii. *"The carbon tax could help encourage small shifts from resource-intensive modes (automobile and truck) to resource-efficient modes (rail and marine; and more efficient trucking), but true freight efficiency will also require efficient road tolls. This will encourage shifts from trucking to efficient freight modes, and reduce traffic congestion to truck transport, increasing efficiency."*

D. Invest in infrastructure and provide incentives for increased electrification and use of lower emissions technologies in public transit, freight and passenger rail, private automobiles and other vehicles currently running on high GHG emission fuels.

i. *"Little or no progress. Misinformation about the carbon footprint of LNG as a motor fuel is confusing the issue (LNG has about the same carbon footprint as diesel fuel)."*

- ii. *"Although there are some examples of successful Transit-Oriented Development and Smart Growth, much more can be done. For example, many urban jurisdictions could invest more to improve neighborhood walkability, allow more compact housing types (townhouses and multi-family) in existing residential neighborhoods and parking requirements can be significantly reduced."*
- iii. *"BC Transit greenhouse gas emissions per service hour have increased modestly since 2012/13. Some vehicles have been replaced with natural gas vehicles, which reduce emissions but nonetheless come from fossil fuels."*

E. Balance BC's role as an international import/export gateway with an increased emphasis on regional economic development and transportation links.

- i. *"Little or no progress."*
- ii. *"I think that BC does a good job of supporting economic development overall - we have a diverse and growing economy. There may be justification for some rural highway improvements to support specific resource projects but most future economic development is likely to be urban, so the greatest economic returns are likely to result from urban transport improvements and affordable infill housing development."*

F. Make public transportation more viable and efficient across the province by helping BC communities implement smart growth principles, including better planned, more compact neighborhoods.

- i. *"BC Transit now boasts that 100% of urban centres have transit plans, up from only 29% in 2012/13. Many of these speak to density around transit hubs."*
- ii. *"The government has made vague allusions to incentivizing development of new housing near transit hubs – mostly to address housing costs – but details are still to come."*

G. Improve pedestrian and cycling infrastructure across the province, and introduce cycling education in public schools.

- i) *"Little or no progress."*
- ii) *"Although walking and cycling serve 15-20% of total local trips, and play an important role in creating an efficient and equitable transport system,*

the province currently invests less than 1% of its transportation budget on active modes. It should provide much more leadership and invest much more in these modes."

H. Looking forward

- i. *"Shifting investment to public transit, cycling and walking would both reduce climate pollution and create more jobs per dollar invested."*
- ii. *"The first step is accurate information, and the provincial government is spreading disinformation about the climate impact of urban highway expansion. A prime example is their claim that the 10-lane \$3.5 billion+ Massey Tunnel replacement would reduce climate pollution."*
- iii. *"(1) Significantly improve walking and cycling conditions, and public transit service quality, and allow new transportation services (e.g., more bus rapid transit, allow ride hailing services); (2) Do more to support transit-oriented development; (3) Introduce distance-based vehicle insurance (insurance premiums are prorated by annual mileage), so motorists pay lower premiums when they reduce their mileage. This provides a significant new incentive to reduce mileage and provides large safety benefits, since higher-risk drivers have a greater incentive to reduce their mileage; (4) Introduce efficient road pricing on existing highways, and continue to increase carbon taxes."*
- iv. *"Regional economic modelling indicates that expenditures on vehicles and fuel provide fewer jobs and support less regional economic productivity than most other consumer goods. This is particularly significant in BC because this province produces little petroleum, has no refineries, and has no motor vehicle manufacturing. As a result, transportation and land use policies that help reduce per capita vehicle ownership and use, and therefore vehicle and fuel spending, benefit the province's economy, in addition to environmental benefits."*

"For example, residents of transit-oriented developments tend to own about half as many vehicles and drive half as many annual kilometers as they would if located in sprawled, automobile-dependent areas, and so save about \$2,000 on fuel and \$4,000 on vehicle expenditures, money that they can reinvest in more locally produced goods. These impacts are generally ignored in provincial policy analysis and transportation project evaluation."

4) Forestry Policy

There are five policy asks in this *Bold Green Jobs* section:

A. Make increasing jobs per cubic metre harvested a guiding economic principle of BC forestry policy.

- i. *"No progress.*
- ii. *"Nothing."*

"Provide support and incentives for increasing manufacturing and other value added activities in the forest sector, as well as product diversification.

- i. *"Very little."*
- ii. *"Very little progress - Funds for product research provided through Forest Innovations program but any progress on this front has been undermined by raw log exports and the mills in the interior churning out lower value products to keep up with the high volume of pine beetle wood from the AAC uplifts."*

C. Invest in the future of BC forests through expanded reforestation and revitalized public oversight and management.

- i. *"Reasonable in regards to expanded reforestation, but not much done in regards to revitalized public oversight and management."*
- ii. *"No progress."*

D. Restore the capacity of the BC Forest Service and strengthen the office of the Chief Forester.

- i. *"No progress."*
- ii. *"Not much done to restore the capacity of the BC Forest Service. Reasonable work done to strengthen the office of the Chief Forester."*

E. Ensure the recovery, long term health and resiliency of BC forests through improved stewardship and management.

- i. *"Haven't improved, but doing reasonably well in this area."*
- ii. *"Progress in the Great Bear Rainforest. There has been provincial research into having a cumulative impacts assessment approach to land management but it*

has not become policy. There has been climate adaptation research but I am not sure if there have been any policy changes coming out of it."

"I believe the majority of their focus has been on developing Asian markets for lower value commodity or raw wood products."

F. Looking forward

- i. *"1. Investment/policy support for value added manufacturing concurrent with a decrease in AAC."*
 - "2. Rewrite FRPA so that it actually requires good forest practices (strong legal requirements without hundreds of loopholes."*
 - "3. Create a reforestation fund and program."*
 - "4. Reallocate chart area and tenures based on different royalty/rent structure in order to encourage better forest practices not driven by requirement to meet an excessive AAC. 5. Potentially make volume allocations contingent on proving a certain amount of the volume will be sold to value added manufacturers in BC."*
-