



The Prosperous Transition Plan

POLICY BRIEF

Fossil Fuel Industry Workers Calling For A Green Recovery

OVERVIEW

Canada's economy faces three challenges — recovering forward from the COVID-19 pandemic, decarbonizing our economy, and addressing inequality to ensure a prosperous future for all. **As fossil fuel industry workers, and friends and family of those in the energy industry, we know fossil fuels have contributed significantly to our lives and economy. We also know it's time to forge a sustainable energy future that creates over a million new careers.**

We have the skills needed to build the new, net-zero economy and kickstart Canada's recovery from the pandemic. That's why we have developed a four point plan to rapidly mobilize our workforce and upgrade our economy to meet the demands of this transition and recovery. **We are calling for a "prosperous transition", which we define as the process of upgrading our economy to achieve multi-generational prosperity for people and the planet.**

Iron & Earth is a worker-led not-for-profit with a mission to empower fossil fuel industry and Indigenous workers to build and implement climate solutions. Since our launch in 2016, we have been in continuous conversation with workers and industry leaders about how to transition Canada into a net-zero economy successfully. This policy brief synthesizes these insights, proposing four broad-reaching national initiatives to upgrade our workforce, businesses and infrastructure, while revitalizing our environment to meet the demands of this moment and the needs of future generations.

In order to create these jobs and ensure a green recovery, we need massive federal government investment now. We are asking the federal government to work shoulder to shoulder with us towards this vision of building back better from the COVID-19 pandemic, in part through an investment of **\$110 billion over 10 years (\$81B of which to be committed in the first five years) to facilitate a green recovery as outlined in Iron & Earth's four-point plan.** These investments will create at least one million new climate careers,

support up to 10,000 Canadian enterprises to reposition and retool into new markets, upgrade our country's infrastructure, and revitalize our natural environment.

If Canada implements this plan in full, we can once again be climate leaders and share our expertise with the rest of the world as other countries work to make their own transitions. This leadership position would create international demand for Canadian business expertise while further fostering international relationships.

Now is the time for bold federal policy to guide our economy into the future, by implementing the following four proposed national initiatives:

Economic upgrade	Policy recommendation	Federal investment required
 <p>1 - Workforce</p>	<p>A Business Upskilling Strategy to rapidly upskill fossil fuel industry and Indigenous workers for careers in the net-zero economy.</p>	<p>\$10 billion over 10 years to support rapid upskilling of over 1 million workers @ \$10k per trainee on average.</p>
 <p>2 - Businesses</p>	<p>A Business Repositioning Strategy to support businesses to retool manufacturing capacities and pivot business services to meet emerging demand in net-zero industries.</p>	<p>\$20 billion over 10 years to support the rapid repositioning of up to 10,000 Canadian Enterprises. A front-loaded provision to stimulate private sector funds.</p>
<p>3 - Infrastructure</p>	<p>A Business Retrofit & Repurpose Strategy to reduce the carbon intensity of long term infrastructure and repurpose old infrastructure.</p>	<p>\$10 billion equivalent in the form of incentives and tax offsets with [FY] to carbon-intensive industries investing in net-zero technologies.</p>
<p>4 - Environment</p>	<p>A National Nature-Based Solutions Initiative to support and strengthen the earth's ecosystems, carbon sinks and natural technologies.</p>	<p>\$22 billion over 10 years to expand carbon sinks and green infrastructure solutions, while revitalizing ecosystems and biodiversity.</p>

This call for investment reflects calculations in the Corporate Knights' \$110 billion recovery plan¹ “Building Back Better with a Bold Green Recovery” endorsed by 40 prominent business leaders (including Suncor Energy, Teck Resources, and Siemens Canada). This federal contribution would be front-loaded, with more than \$40 billion committed in the first two years and with half of the early funding earmarked to deliver broad and immediate job benefits. **Of this \$110 billion, \$61 billion should be invested as outlined in Iron & Earth's four-point plan.**

We also support the aligned call to action from the Canadian Labour Congress, the largest labour organization in Canada which represents more than 3 million workers across the country, for a federal commitment of \$81 billion over five years to expand renewable energy, home and building retrofits, public transit, and Just Transition measures to support workers and their families.

These investments must come with “green strings” attached to ensure that investments align with Canada's climate and workforce priorities. We support the International Institute for Sustainable Development's principles and conditions for a green recovery.²

¹https://www.corporateknights.com/wp-content/uploads/2020/09/2020-09-14-Building-Back-Better-with-a-Bold-Green-Recovery_FINAL_enfr.pdf
² <https://bit.ly/3iBtP7j>

The Four Point Plan



1 - WORKFORCE A NATIONAL UPSKILLING INITIATIVE



A **National Upskilling Initiative** would rapidly upskill fossil fuel industry and Indigenous workers for careers in the net-zero economy. It would offer training that enhances the skills of direct and indirect workers in the fossil fuel industry, including prioritizing access for Indigenous workers and workers who currently face barriers to participating in the industry. Upskilling should be designed to match emerging demand in net-zero industries, ensuring employability of the trainees while also ensuring employers have access to the skilled workforce they require for their projects.

Map job sectors forecast to emerge between 2020 and 2030 as the world pursues decarbonization and resilience objectives (across the full value-chain spectrum).

Identify transferable skill sets in the fossil fuel industry that map onto new jobs and skill classifications that will be created in existing industries.

Develop and deliver short-duration upskilling programs to prepare fossil fuel industry and Indigenous workers for roles in the net-zero economy.

A National Upskilling Initiative needs buy-in from all sectors including existing industries embracing technologies and practices for decarbonization, renewable energy companies, and companies active across the zero-emissions value chain. Each will be called upon to create the 'pull' to facilitate the transition of skilled fossil fuel industry workers into new fields that are aligned with their skills. Studies point to the benefits of short, targeted training modules that enable workers to tailor their transition, creating waypoints in their personal journey.

In order to be successful, the National Upskilling Initiative must also take the shifting geographies of job creation into account. Notably, we can expect job distribution to change as particular industries diminish, as

we have seen in sectors such as coal where whole towns that were once centred around a local mine must adapt or disappear. Therefore, an additional challenge will be to introduce new vibrancy to existing communities through community energy projects and localization of services. It will be important to predict geographical growth areas and identify communities that are particularly at risk in the new economy.



2 - BUSINESS A NATIONAL REPOSITIONING INITIATIVE



A National Repositioning Initiative would support businesses to retool manufacturing capacities and pivot their services to meet emerging demand in net-zero industries.

Retooling programs and policies would support manufacturers to retool and upgrade their facilities to extend production capability into the net-zero markets.

Identify projected growth areas in manufacturing between 2020 and 2035. Define the emerging supply chain in detail, including projected growth in demand for strategic production to achieve national resilience.

Develop a national inventory of manufacturing capability to identify and classify manufacturers with existing technology, equipment and infrastructure that is either transition-ready or able to respond to the emerging market through different degrees of retooling and upgrading.

Work with manufacturers to identify equipment and technology upgrades required to compete locally and globally in new manufacturing sectors.

Establish policy incentives, retooling grants and financing programs to support the country's strategic retooling of manufacturing capacity.

Pivoting programs and policies would support contractors and service providers to position themselves competitively in the net-zero economy:

Identify service sectors that will emerge to prominence between 2020 and 2035 and map probable trajectories for the various sectors.

Identify the stakeholder mix that will service the needs of an emerging market and identify fossil fuel industry and Indigenous organizations that have expertise compatible with the needs of the market.

Develop and provide support programs that will help these stakeholders incorporate climate mitigation into their scope of work.

3 - INFRASTRUCTURE A NATIONAL RETROFIT & REPURPOSE INITIATIVE



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A National Retrofit & Repurpose Initiative envisions creating the conditions and commitments to advance near and mid-term goals for the energy transition by building on existing infrastructure to reduce the emissions footprint of operational assets or to put redundant or at risk assets into the service of the net-zero economy.

These projects would include:

1. **Retrofitting** all existing infrastructure to minimize greenhouse gas emissions
2. **Repurposing** underutilized or abandoned infrastructure for new net-zero projects.

Retrofitting

Identify carbon-intensive infrastructure in early and mid-life that can reduce carbon intensity through complementary zero-emissions technology.

Work with industry, municipalities and businesses to identify the most cost-effective infrastructure retrofit projects, e.g. energy efficiency or carbon abatement.

Develop policies and programs to streamline and accelerate retrofits of carbon-intensive infrastructure to ensure industry, municipalities and businesses must implement retrofits at scale.

Repurposing

As the gradual decline of the oil & gas industry unfolds, there will be an increased need to repurpose assets for the net-zero economy. Existing pipeline networks are examples of potential early-stage repurposing—these pipelines can be used for transporting hydrogen to truck refuelling nodes. Other examples include the use of abandoned well pads for solar energy projects, thereby enabling the use of otherwise fallow land and bringing focus to the remediation of orphan wells.

Identify climate solutions that will be implemented as nations pursue their net-zero emissions targets.

Determine what existing fossil fuel industry infrastructure could be re-utilized (e.g. using abandoned oil well sites or decommissioned mines for renewable energy projects).

Develop policies and programs to mandate and facilitate the utilization of existing fossil fuel infrastructure for climate mitigation projects.

4 - ENVIRONMENT

A NATIONAL NATURE-BASED SOLUTIONS INITIATIVE



A **National Nature-Based Solutions Initiative** would scale up projects ranging from forest protection and restoration initiatives to projects that incorporate natural ecosystems into industrial operations. Oil-producing countries are well suited to implement a range of nature-based solutions (NBS) because fossil fuel industries have, for many decades, been mandated to reclaim and restore natural areas following the extraction of natural resources. Therefore, a large workforce of environmental service providers can diversify and pivot into a range of growing NBS projects.

Ecosystem stewardship

Develop a database of potential projects through a call for proposals that would outline the scope, cost and estimated benefits of specific ecosystem stewardship projects.

Determine projects for which workers and businesses can be rapidly upskilled and diversified to deliver ecosystem stewardship projects.

Commit funding to support rapid and long term implementation of ecosystem stewardship projects.

Green/Blue Infrastructure

Provide opportunity mapping support for businesses to embed nature-based solutions within corporate operating philosophies, creating legislation and incentive to choose green/blue infrastructure over grey.

Identify levers that will motivate cities, municipalities and private companies to adopt nature-based solutions that effectively mitigate climate factors.

Commit funding to support rapid and long term implementation of green infrastructure projects and related programs. Include funding for diverse pilot projects that create incentives to adopt existing green infrastructure techniques and innovative solutions.

Our Vision: A Prosperous Transition To Net-zero

A [prosperous transition](#) is the process of upgrading our economy to achieve multi-generational prosperity for people and the planet. Therefore, this transition must strive for equity, fairness and well-being for all workers, families, communities *UbX* the natural environment. Many of the solutions required to power the transition are already available and ready to scale. Our challenge is to create and implement a blueprint to rapidly upgrade the world's workforces, manufacturing facilities, businesses, infrastructure and environment to support these solutions and streamline the transition. Along the way, we must ensure that those who are currently the most vulnerable and marginalized within our current energy economy can meaningfully participate in, and benefit from, this transition.

Indigenous Economic Leadership and Self-Determination

The new economy must be grounded in recognition of Indigenous peoples' right to be self-determining over their own lands and resources. Indigenous and non-Indigenous communities have an opportunity to build a prosperous transition together, one that is based on a principled, rights-based approach. Indigenous communities are already at the forefront of the energy transition, drawing on traditional knowledge about living in balance and abundance on the land while applying new skills and innovations to meet the challenges of our times. The journey to deliver decentralized, independent zero-emission energy offers an opportunity for Indigenous communities to attain energy sovereignty and new prosperity grounded in self-determination.

Shovel-Worthy Net-Zero Solutions

Achieving a net-zero world will call for a vast array of technologies and nature-based solutions, from emerging zero-emission energy sources to 'negative emission technologies' that remove existing atmospheric carbon. Many transformational solutions are already available to us, including those rigorously vetted by [Project Drawdown](#). In addition, the Energy Futures Lab has identified [five 'shovel-worthy' technologies](#) well suited to mobilize fossil fuel industry workers, stakeholders and infrastructure as a foundation of the transition. Although many of these solutions are being implemented around the world, they require policies, strategies, and above all vision and leadership, to introduce them into the mainstream at scale.

Achieving net-zero requires us to understand the interconnectedness of social and economic factors and the varied characteristics of our geographic regions. The pathway to net-zero must be paved with realistic, pragmatic, and intersecting steps. The journey will be decades-long but the groundwork, in terms of investment in technology, infrastructure, manufacture and training, must begin immediately with stimulus funding focused towards a green recovery.

Prosperity for All Workers

Re-envisioning and re-shaping the world's energy infrastructure to deliver net-zero by 2050 calls for bold action that will create many millions of new jobs, even as traditional jobs are gradually superseded. The drive toward net-zero will also create demand for expertise in new sectors with entirely new job descriptions, requiring workers to adjust to this dynamic environment. As such, it is critical to illuminate pathways for change, supporting workers undergoing transition, and enabling them to thrive and support

others, in turn, to make the switch. The urgent nature of the transition cannot rely solely on ‘organic’ job growth or purely market-driven mechanisms—clean energy roles must instead be created by a series of measures that are calibrated, cooperative and comprehensive.

Prosperity for Families

The global pandemic has given us fresh insights into the value of the diverse skills that contribute to our economy and we must strive to ensure that all workers earn a fair, living wage that is sufficient to support a family. In a transforming economy, we must adopt new and more relevant metrics to assess the well-being of society, measures that give us insights of far greater value than gross domestic product. And, as jobs evolve, we must ensure prioritization of continuous skill development, along with equal opportunity and access to secure, well-paid and durable jobs, so that no family gets left behind. Existing studies point to the potential marginalization of Indigenous, immigrant and racialized groups, and also of women unless equity is made a central priority of social and economic transition from the outset. It bears repeating that ‘equity for all’ is a lens through which we must view all proposed recovery measures.

Prosperity for Communities

A prosperous transition would enhance the quality of life and the cohesion of communities through projects providing decentralized power, localized agriculture, urban greening, zero-emission transportation and more. Development planning should ensure that knowledge and skills are imparted to community members to a degree that enables members to secure employment on projects within or near their community. Additionally, projects should include community benefits agreements and provisions for community ownership where possible. The energy transition can potentially enable more uniform distribution of opportunity that builds resilience and restores community pride.

The COVID-19 pandemic has exposed the fragility of our globalized supply chains. In order to ensure that the global economy will not break under the strain of future global emergencies, the supply chains of individual regions need to be diversified and strengthened. Therefore, national and community resilience must be at the forefront of our planning for the net-zero economy.

Prosperity and Stewardship of the Environment

A prosperous transition must be framed around maintaining the thresholds of the 9 key [planetary boundaries](#), including:

1. Climate change
2. Ocean acidification
3. Stratospheric ozone depletion
4. Bio-geochemical flow (Nitrogen and phosphorus cycle)
5. Global freshwater use
6. Change in land use
7. Biodiversity loss
8. Atmospheric aerosol loading
9. Chemical pollution