

INTERNATIONAL GREEN JOB MEASURES: LESSONS FOR CANADA?

ISSUE PAPER

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ISSUE

Environmental and climate change issues have seen newfound prominence on the public and political agendas. From an economic perspective, consumer demand appears to be shifting to more environmentally responsible products and there are global competitive pressures on businesses to operate 'leaner and greener'. There is evidence that the 'greening' of existing industries and the development of new environmental technologies will accelerate the growth of jobs in many fields such as energy, transportation, agriculture, manufacturing and other sectors. The effect of this trend is widespread, as both SMEs and large, established companies will require skilled workers to help them compete in a landscape of tightening environmental regulations and increasing energy costs.

The issue of green job creation has become an integral part of international responses to the global economic downturn. Green job measures are prominent in the American Recovery and Reinvestment Act (ARRA), in which \$500M is dedicated to fully fund the 2007 Green Jobs Act and provide training grants, research and LMI to prepare workers for green careers. The ARRA also dedicates many additional billions in investments to energy efficiency, a 'smart' electricity grid, public transit, and environmental remediation measures that will indirectly facilitate green employment. Stimulus plans in other countries have included such measures as energy-efficiency improvements (China), funding for mass transit (South Korea), zero-interest loans to environmentally-friendly companies (Japan), and electric-vehicle development (European Union), aimed at spurring green economic and employment growth.

Domestically, Budget 2009 invested \$2B in Green Infrastructure and Clean Energy, indirectly increasing the demand for green workers in retrofitting, compliance and "green construction" activities. Provinces have also acted on this issue. Ontario's recent *Green Energy Act (GEA)*, pledges \$5 Billion toward conservation measures, renewable energy sources and energy transmission upgrades, designed to make Ontario the leading green economy in North America and create 50,000 jobs over three years through attracting investment.

Concern for environmental issues and the development of clean technologies may have an impact on how the labour market will transform itself in years to come, and adds an additional layer of complexity as compared to previous recession/recovery cycles. For this reason, preparatory diagnostic/policy work in this area may prove extremely useful as we move forward.

SEB has an array of existing and potential mechanisms to help facilitate the transition of workers into a more sustainable economy. However, it would avail us to consider first what types of measures have been taken by other countries, states, provinces, etc. to encourage or adapt to green job growth.

OBJECTIVE

Based on existing knowledge and international practice the paper will explore the labour market potential of a greening economy and will draw out a possible approach to incorporate a green jobs lens in Canadian labour market policy/programming in the context of economic downturn and medium-term recovery.

CONTEXT / BACKGROUND

Canada has thus far lagged behind many other countries in terms of taking action to address the labour market effects associated with a growing concern for the environment. Federally, a limited amount of research and diagnostic work has been done by various sector councils on this issue. Some provinces have recently taken measures to include an employment component to environmental and energy initiatives (e.g. Hydro Quebec wind projects, Ontario's Green Energy Act).

According to the Canadian Labour Congress, a number of Green Labour Market Programs were set up in Canada during the early 1990's, when unemployment was high worldwide.

FRAMEWORK:

1. What do we know about the concept of green jobs?

- Definitional issues: what are the varying definitions, can they be resolved and is their resolution a necessary step for moving forward?

2. Framing green job development in labour market programming, in terms of:

- **Skills and learning** – what might the impacts be of new green jobs and the greening of existing employment on skills/educational requirements?

In 2005 the ECO Canada sector council and Royal Roads University collaborated to establish the Canadian Centre for Environmental Education (CCEE), which offers education and professional development opportunities for individuals working within, or interested in pursuing a career in, an environmental profession. The Centre's distance-based post-graduate Certificate in Environmental Practice (CEP) is designed specifically for individuals who already hold a university degree or college diploma. Designed in accordance with ECO Canada's National Occupational Standards for Environmental Employment, the CEP offers concentrations in areas such as environmental assessment, remediation, policy and legislation, pollution prevention, waste management, natural resources planning and management, environmental education and communication. The distance learning aspect of the Certificate Program makes it an ideal fit for mid-career professionals, and also allows employers to support their employees in career development and the acquisition of higher qualifications while still working.

The CCEE also provides online learning tools and links to environmental career services, as well as a Prior Learning Assessment and Recognition (PLAR) tool which enables students to gain course credits for work-related experience in the environmental field. One particular target population is that of newly-arrived immigrants and foreign professionals who are considering moving to Canada and who may be interested in pursuing or continuing a career in the

environmental sector. For these individuals the CEP offers a form of foreign credential recognition whereby credentials are assessed by Royal Roads University as part of the application process and effectively “Canadianized” upon completion of the Certificate. For this reason, ECO Canada's financial contribution to the project is funded by the Government of Canada's Foreign Credential Recognition Program.

- **Economic adjustment** – What role does green employment have in responding to the economic downturn and in providing opportunities for transition?

The Government of Canada, through the Canada-B.C. Labour Market Agreement (LMA), recently provided \$370,000 in funding for the Energy Efficiency Employment Development Initiative, which will create new sustainable employment opportunities for British Columbians in the province's green economy. The money will fund two energy efficiency training programs, the Residential Energy Efficiency Employment Development (REEED) program and the Industrial/Commercial/Institutional Energy Efficiency Employment Development (ICI EEED) program, which will combine to provide employment opportunities for 50 unemployed or underemployed people. The programs will train participants to conduct building energy assessments and recommend measures to improve energy efficiency. The federal ecoENERGY Retrofit program, B.C.'s Efficiency Incentive Program and other utility- and government-based incentives have created a growing demand for additional trained professionals in the energy assessment sector, and these training programs take steps toward addressing this gap. Funds provided through the LMAs are designed to increase access to training for individuals who are not EI clients.

- **Competitiveness** – Can green jobs provide a competitive advantage to Canada in an increasingly knowledge-based global economy?

3. What can we learn from existing international practices and developments?

- What types of ‘green’ training courses, apprenticeships, curriculum changes to existing programs, employer incentives, etc. have been most successful at improving labour market outcomes?
 - e.g. Germany's “Environment creates perspectives” initiative, which seeks to safeguard Germany's technological lead in the long term by means of an educational lead, and is particularly concerned with questions relating to the profiles of apprenticeship trades, the skills and competencies required by the environmental sector, the material taught at school and in industrial training.
- What types of active labour market policies, retraining programs and social protections have shown the greatest potential to mitigate the negative consequences of workers transitioning from sunseting industries/jobs to more sustainable ones?
 - e.g. Prior to 1996 Australia had a green labour market program that placed tens of thousands of unemployed workers to work in environmental remediation projects, eco-auditing, energy-efficiency and recycling programs.
 - e.g. *Spain*: national sectoral round tables to mitigate any negative competitiveness or workforce effects from environmental regulation; *Germany*: in-depth modelling and

econometric analyses of green job trends and of those jobs indirectly related to green industries, to assist in transitioning workers.

- American Recovery and Reinvestment Act of 2009 (Containing components of 2007 Green Jobs Act) – analysis of key components such as research, training grants, LMI, and projected labour market effects.

- What role, if any, have these policies had on international competitiveness and economic growth?

Green Responses to the Economic Crisis:

According to the eminent British economist Nicholas Stern, a recession is the ideal time to build a low-carbon future through measures that both boost demand in the short term and prepare for sustainable growth in the medium- and longer-term. While most of the investments will be made by the private sector, public sector incentives can create the necessary investment climate for green growth to occur. Stern argues that many investments in energy efficiency and clean technology are labour-intensive, available immediately, and sustainable in the longer term.¹

As mentioned previously, the American Recovery and Reinvestment Act (ARRA) dedicates \$500M in funding for the 2007 Green Jobs Act, and also includes substantial energy, transportation and infrastructure investments that will indirectly create green jobs. The Act aims to create 3 million new jobs by helping companies retool and retrain workers through on-the-ground apprenticeship and job training programs. The U.S. Department of Labour – Employment and Training Administration has also developed a Green Jobs framework or action that identifies elements necessary for greening the workforce system and for the timely development of new and existing green jobs across sectors.

South Korea will invest \$38 B over the next four years in a series of environmental initiatives that are projected to create 960,000 new jobs and spur economic growth. Projects include the creation of green transport networks, the provision of two million energy-saving 'green homes' and the clean-up of the country's four main rivers.²

As part of its stimulus measures, Japan plans to expand its domestic 'green business' market and create up to 1 million new jobs through measures such as zero-interest rate loans for environmentally-friendly companies.³

¹ Stern, Nicholas. "Green Routes to Growth", *The Guardian*, October 23, 2008
<http://www.guardian.co.uk/commentisfree/2008/oct/23/commentanddebate-energy-environment-climate-change>

² "Japan and the Republic of Korea Launch Green New Deals," Press Release of the UN Environment Programme, January 9, 2009.
<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=556&ArticleID=6035&l=en>.

³ "Japan and the Republic of Korea Launch Green New Deals," Press Release of the UN Environment Programme, January 9, 2009.
<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=556&ArticleID=6035&l=en>.

- e.g. Germany, Japan, China, Brazil, and the United States play particularly prominent roles in renewable technology development, and they have so far garnered the bulk of renewables jobs worldwide.

- Eco-industries (including pollution control, wastewater and solid waste management, renewable energies and recycling) represent 2.1% of GDP in the EU's economy and are expanding at a rate of 5% per year, well above the economy's growth rate as a whole.
- The growth of the renewable energy sector within the European Union was largely based on environmental policies and supporting programmes and legislation. While an entire economic sector benefited from these policy frameworks, employment in traditional, not-sustainable energy production decreased. However, most studies demonstrate that there was a net gain in employment, and that these newly created jobs are long-term jobs for skilled workers

Relevant initiatives at the State level in the US:

- e.g. Green partnerships developed in collaboration with employers, workforce agencies, community organizations, labor unions, and community and technical colleges, have provided the leadership to build greener workforce development pathways. Some examples in the US where such work is underway, include: Building Greener Construction Careers in California; Iowa's Bio-Fuels Job-Training Bonds; Training Turbine Techs in Oregon; Pennsylvania's Green Reindustrialization; Michigan Green Jobs Initiative, etc.

Industry/PSE partnerships:

Michigan Technological University, the Engineering Society of Detroit and General Motors have partnered to offer a free class in hybrid and electric vehicle development to out-of-work engineers, which could become a model as Michigan tries to keep its skilled workforce from leaving the state. The class consists of lectures, homework and tests, and a final project in which teams of students compete to boost a current GM hybrid's fuel economy by one mile per gallon. Michigan Tech looked at the job requirements in this field and built a class around the interdisciplinary skills required of engineers working on hybrid and electric vehicles.

Provincial initiatives in Canada:

- e.g. Several Canadian provinces have initiated aggressive measures, such as mandatory or voluntary renewable electricity targets, request-for-proposals, government procurement, and standard-offer contracts for renewable electricity. Quebec and Ontario, for instance, have used requests for proposals as a means of increasing the electricity generation from renewable energy sources.

In February 2009 Ontario's Deputy Premier and Minister of Energy and Infrastructure introduced the *Green Energy Act (GEA)*, an Act that amends 15 existing statutes and proposes \$5 Billion in upgrades to energy transmission and distribution systems. The Ontario Government

believes the *GEA* will create 50,000 jobs for Ontarians in its first three years by attracting billions of dollars of investment in clean energy, making Ontario the leading green economy in North America.

The *GEA* is largely based on feed-in tariffs, government-set payments per kilowatt-hour for electricity generated from renewable resources. The rate is set higher than non-renewable technology to encourage investment and allow for small profit. The utility companies are forced to buy the renewable energy and costs are spread out among consumers. European examples (Germany in particular) have shown that feed-in tariffs have created hundreds of thousands of new jobs and are the most successful policy option for encouraging renewable energy.

Jobs will largely be created through efficiency retrofits, new technology that builds on the Smart Metering Initiative, domestic content requirements for renewable energy projects and helping local communities and First Nation and Métis communities to build, own and operate their own renewable energy projects. Employment is projected in the areas of domestic manufacturing, assembly, servicing, installation, engineering, trucking, computer software and hardware, and will require financiers, electricians, inspectors, architects and builders, among others.

Beginning in the fall of 2009, in an effort to develop more future environmental leaders, Ontario schools will begin implementing a new policy framework that embeds environmental education into all curricula, offers Specialist High Skills Majors related to the environment at over 25 schools and provides new courses in environmental science.

What are considered best practices internationally?

- A recent UNEP/ILO report finds that green markets have thrived and transformation has advanced most where there has been strong and consistent political support at the highest level, including targets, penalties and incentives such as feed-in laws and efficiency standards for buildings and appliances as well as proactive research and development.
- The United Nations Environment Programme and leading economists have called for a progressive “Green New Deal”. The UN Green Economy Initiative is aimed at giving nations the tools to shift to green economies through measures such as creating employment in renewable-energy technologies, ensuring that the value of natural services is included in economic accounting, and encouraging sustainable urban planning

4. Potential role for SEB/HRSDC

- Where possible, the paper will attempt to draw comparisons between international green jobs initiatives and potential levers within existing HRSDC programs and partnerships, such as in areas of LMI, workplace innovation, sector councils initiatives (existing or new), trades and apprenticeships, Aboriginal labour market programming, etc.

**MEMORANDUM TO THE SENIOR ASSISTANT DEPUTY MINISTER AND THE
ASSOCIATE ASSISTANT DEPUTY MINISTER OF THE SKILLS AND EMPLOYMENT
BRANCH**

**PUBLIC POLICY FORUM CONFERENCE
AND OTHER SEB ACTIVITIES RELATED TO GREEN JOBS**

FOR APPROVAL

SUMMARY

- The purpose of this memo is to seek your approval to proceed with the implementation of a proposed Summit on Green Jobs to be organized by the Public Policy Forum (PPF) in early June in Toronto. The event would be to explore the role of "green" jobs in the economy and implications for policy. The PPF's draft proposal is attached (Annex A).
- PPPC would like to support the "green jobs summit", as it would directly contribute to advancing work in this area within SEB and the Department. PPPC proposes to provide \$20,000 and assist PPF in shaping the event, in collaboration with others in SEB as well as with Strategic Policy and Research (SPR).
- The memo is also seeking your feedback and approval of a joint work plan (Annex B) that Horizontal Policy (HP), Program Policy, Planning and Coordination (PPPC) has developed with Labour Market Policy in SPR, as a follow-up to the DM and Others meeting held on March 9th. The workplan delineates key deliverables, responsibilities and timelines related to the green jobs file. Labour Market Policy is also sharing this work plan with the S/ADM of SPR.
- It is recommended that you approve our financial participation in the Green Job Summit. Once more information is available, we will also work jointly with SPR in preparing a note informing the Deputy Minister on this event.

BACKGROUND / CURRENT STATUS

Green Jobs Summit Proposal

The PPF recently approached the Senior Assistant Deputy Ministers of SEB and SPR with a preliminary proposal seeking our participation in a Green Jobs Summit, *Blue and White, Now with Shades of Green: Summit on the Greening of the Canadian Job Market*, to be held in June 2009.

The Summit, proposed for Toronto, would bring together stakeholders from all levels of government, industry and labour groups, the education sector and NGOs to develop a shared understanding of green jobs and their role in the current and future economy. Key areas to be examined, as outlined in this preliminary proposal, are the definitional debates around what should be considered a green job, major drivers for and barriers to green job growth, skills requirements and public policy implications. Following the event, the PPF will produce a report that will be made available to the conference's participants.

The PPF proposal is for \$70,000; PPC is willing to contribute up to \$20,000 to the event. It is still to be determined whether SPR will be providing financial support as well.

PPC would work with the PPF in shaping the agenda, ensuring that it addresses key departmental interests and questions.

The PPF is also proposing to hold a conference "Rebooting the Economy" on May 20-21, 2009 which will examine how to weather the recession; lay the foundation for future growth; and create a robust, productive and internationally competitive business environment. Active Employment Measures has prepared a separate memo on this conference.

Joint SEB/SPR Workplan on Green Jobs

Following the DM&O discussion on green jobs, SEB and SPR developed a joint workplan with a focus on the demand-side perspective of the issue. In preparation for a second discussion at DM&O, several activities are being undertaken including:

- Consultations with employers, educators, industry representatives and Sector Councils to obtain a better understanding of issues and pressures related to Green Jobs. These consultations will be conducted through a series of mechanisms including key informant interviews and exploratory roundtables. A more detailed proposal for these roundtables is being developed.
- Exploratory discussions with other federal departments with an interest in green jobs such as Industry Canada, Environment Canada and NRCan.
- A series of focused research pieces including an examination of possible approaches to integrate green jobs perspective into labour market programming.

NEXT STEPS

Following your approval:

- We will keep you informed of progress in planning SEB's involvement in the PPF event and as more information becomes available.
- PPPC will work together with Labour Market Policy in SPR as well as with the Sector Council Program and Active Employment Measures as the proposal moves forward.
- Once more information is available, a note will be prepared for the Deputy Minister on the PPF Summit.

RECOMMENDATION

- It is recommended that you approve our participation in and contribution of \$20, 000 to the PPF event.
- It is recommended that you approve the joint SEB/LMP work plan.

Lorri Biesenthal (819-997-0037)

I concur,

Frank Vermaeten
Senior Assistant Deputy Minister

Paul Thompson
Associate Assistant Deputy Minister

Attachments: 2

c.c.
Eric Parisien
John Atherton



Blue and White, Now with Shades of Green: Summit on the Greening of the Canadian Job Market

Draft Proposal

March 19, 2009

1. Introduction

The Public Policy Forum (PPF) proposes to coordinate and facilitate a **multi-stakeholder policy “summit” on the role of “green” jobs in the economy, what role they might play in the future, and the implications for public policy.** The event would take place in Toronto in early June 2009.

2. Background

Concern over climate change is driving a growing global consensus around the need to begin a transition toward a low-carbon economy. In the past, the debate hinged on a perceived trade-off between economy and environment. However, the discussion is shifting toward an acknowledgment that the benefits of early action outweigh the long-term costs; and, moreover, that the shift to a low-carbon economy will present significant economic opportunities.

This was essentially the case made by the Stern Review on the Economics of Climate Change: that de-linking GHG emissions from economic growth can be profitable. Markets for low-carbon technologies, the Review concluded, are likely to be worth at least \$500-billion (USD) by 2050.¹ Already, the economic footprint of the “global low-carbon economy” is estimated to be roughly \$6-trillion.² And, according to ECOCanada, there are about 530,000 “environmental employees” in major industries in Canada – this represents 3.2 percent of workforce, of which 42 percent works in Ontario. These figures will likely grow, as responding to the climate crisis will require massive transformation in the way energy is produced, transmitted, and consumed.

This climate crisis recently has been joined by a global financial crisis, which has turned into a broader economic crisis; the result has been the evaporation of jobs across the country. 295,000 jobs have been lost Canada since October 2008.³ In the United States, the picture is just as grim: 3.5 million jobs have been lost since September 2008.⁴ This combination of crises has prompted some politicians and governments to look to the so-called “green” economy as a pathway back to prosperity.

¹ *Stern Review: The Economics of Climate Change*, p. xvi.

² “Building a Low-Carbon Britain,” Press Release, Department for Business Enterprise and Regulatory Reform, March 9, 2009.

³ “Latest Release from the Labour Force Survey,” Statistics Canada Report, March 13, 2009 (<http://www.statcan.gc.ca/subjects-sujets/labour-travail/lfs-epa/lfs-epa-eng.pdf>)

⁴ “Employment Situation Summary,” Bureau of Labour Statistics Report, March 6, 2009 (<http://www.bls.gov/news.release/empsit.nr0.htm>)



In the United States, President Obama campaigned on a pledge to invest \$150-billion in alternative energy and to create “5 million green jobs that can’t be outsourced”. The U.S. stimulus package included roughly \$80-billion in spending, loan guarantees, and tax incentives aimed at improving energy efficiency, promoting clean energy, and mass transit. The Center for American Progress, in recommending such a spending program in September 2008, argued that the “a strategy to invest in the greening of our economy will create more jobs, and better jobs...”. The US budget continued on this path: “If we lead the world in the research and development of clean energy technology, we can create a whole new industry with high-paying jobs that cannot be shipped overseas. Some compare the promise of this sector to information technology. The difference is that with clean energy we can bring new jobs to rural areas long left behind in economic growth.”⁵

The United Kingdom is another country that has embraced the shift toward environmental sustainability as the source of job creation and longer-term economic recovery. “Low carbon is not a sector of our economy,” said Business Secretary Peter Mandelson. “It is, or will be, our whole economy, and a global market. A low-carbon industrial strategy must seize the opportunities that will come with change; that requires a new industrial activism for a new green industrial revolution.”⁶

The UK Low Carbon Industrial Strategy has four main areas of focus, each targeted towards spurring growth, cutting costs and reducing emissions of carbon. Many of these areas are similar to the focus areas in the U.S. and Canada. They are:

- [Improving] energy efficiency to save businesses, consumers and the public services money;
- Putting in place the energy infrastructure for the UK's low-carbon future in renewables, nuclear, Carbon Capture & Storage, and a 'smart' grid;
- Making the UK a global leader in the development and production of low-carbon vehicles; and,
- Ensuring skills, infrastructure, procurement, R&D, demonstration and deployment policies make the UK the best place to locate and develop a low-carbon business and to ensure that international business recognizes that.⁷

In Canada, there is also much attention being given to generating sustainable jobs of the future, both federally and in the provinces. The federal budget is targeted more toward specific environmental challenges, but no less enthusiastic about helping create jobs while also working to mitigate environmental damage. The Budget lays out specific commitments for \$1 billion in helping to construct “green infrastructure,” \$1 billion to aid in the transition to cleaner sources of energy, \$1 billion to help retrofit social housing to make these houses more energy efficient, and a \$300 million tax credit to help individual homeowners also improve energy efficiency. Whether it is support to research and implement carbon capture technologies in Saskatchewan and Nova Scotia, or helping to retrofit social housing in Vancouver and Toronto, this money will be going towards the creation of “green jobs.”

⁵ “A New Era of Responsibility: Renewing America’s Promise” – Overview Document; US Government; pg. 21 (<http://www.gpoaccess.gov/usbudget/fy10/pdf/fy10-newera.pdf>)

⁶ “Building a Low-Carbon Britain”, British Government Press Release, March 9, 2009 (<http://www.hmg.gov.uk/lowcarbon>)

⁷ *ibid*



Ontario – the home of approximately 42 percent of existing “green jobs” – has also recognized the economic, and environmental, importance of promoting the further development of green technology and by extension, greener jobs. “There exists today a global race to establish the policies, attract the investment and build the foundation for the green economy that is sure to sustain future prosperity and progress,” says George Smitherman, Deputy Premier and Minister of Energy and Infrastructure. “It is a race Ontario is determined to win. This proposed legislation would help Ontario become the preferred destination for green jobs, green investment and green energy.”⁸

Whereas the federal government has targeted funds to invest in green projects, the Ontario government has proposed sweeping regulatory and policy reform with the intent of encouraging investment and private development of sustainable technologies, and mandating conservation. These measures are contained in the *Green Energy Act*, introduced in February 2009. Once passed, the Act will create a “pricing system for renewable energy” which will “guarantee rates and help spark new investment in renewable energy generation.” The hope is that entrepreneurial businesses, aboriginal groups, and individual landowners will be encouraged to build sustainable power generation infrastructure (i.e. wind farms, solar farms, biofuels, etc.) which could then feed into Ontario power grid, and help to generate additional income for the providers.

When combined with the conservation measures in Act – strengthening the Energy Star brand, home energy use audits, changing the Ontario Building Code, improving efficiency of government buildings – the impact on Ontario’s job market will be province-wide. In cities, there will be additional demand for certified inspectors, engineers and trades people in order to meet the Act’s conservation requirements. In rural Ontario, there will be increased demand for materials required to develop renewable energy capacity and the labour required to install these technologies, as private investors enter into the power generation market. The Ontario government projects that the changes introduced by the Act will encourage the creation of 50,000 new, green, jobs within three years.

Another indication of the shift toward a “greener” workforce is the proliferation of Web sites dedicated to connecting people to available green jobs. Canada, the U.S. and Britain all have sites, with varying levels of sophistication. These sites are also a reflection of the fact that for some, “green employment” is more than simply an economic decision; it is also a values-based one. It would seem that, if given the option, many Canadians would prefer an environmentally sustainable job over an analogous, traditional one.

As important as “green” jobs may be to the future of the Canadian – and global – economy, and as much as “green” jobs may be preferred jobs for many Canadians, governments also need to ensure that education and skills development policies are properly aligned to address this shift. Many green jobs require at least modest training in new methods and in using new technologies. However, because “green” jobs are a part of several job sectors, the

⁸ “Ontario’s Bold New Plan for a Green Economy” – Press Release; Ontario Government, February 23, 2009 (http://www.mei.gov.on.ca/english/news/?page=news-releases&body=yes&news_id=28)



new skills required to become a “green-collar worker” will certainly vary. And while workers currently in the job market may need to ameliorate their credentials, so too must schools (universities, colleges, trade schools, etc.) recognize the transformation and adjust their programming to respond, lest new graduates graduate unable to secure the jobs of tomorrow.

One of the biggest challenges to the green job market is the higher cost of “green” materials. Whether it is solar panels, wind turbines, energy efficient insulation or fuel cell busses, these products are typically sold at a premium. At a time when all governments are facing serious financial woe, there are questions about whether investment in green industries will provide the same level of stimulus to overall employment if much of the money is going toward the high cost of materials.

In this respect, there might be lessons to learn from the Clinton Global Initiative and the consultancy firm McKinsey. In the U.S., a number of major cities sought to improve the sustainability of their infrastructure and transit systems. Individually, they each faced prohibitive production costs. However, to better exploit economies of scale, CGI and McKinsey recommended that these cities pool their resources in order to coordinate demand and provide larger and more sustained contracts.⁹ The cities benefitted from a lower unit cost, while the producers benefitted from increased demand. Jobs were created, while money was saved. Pooling resources across jurisdictions is one example of creative solutions to market-related problems, there are certainly others worth consideration and examination.

The rise of green jobs presents some challenges (and opportunities) for policymakers, which this event will address:

- **Definitional:** What is a green job? What are the variations? In which sectors are green jobs being created? What kinds of skills are needed?
- **Drivers:** Where are green jobs coming from (i.e. environmental policies, public investment, business competitiveness, consumer demand)?
- **Current state:** What is the current state of green jobs in Canada?
- **Barriers/ Solutions:** What are the barriers impeding the growth of the green job market in Canada? What are some solutions?
- **Public Policy Implications:** What are the skills required in this new market? Are there skill shortages? How should educational institutions, governments and businesses respond?

3. Objective

The event, to be held in early June 2009, will bring together stakeholders from federal and provincial governments, industry, labour and other non-governmental organizations for a deliberative session that would seek to:

⁹ “*This is Not Charity*”; Atlantic Monthly, October 2007



- Develop a shared understanding of “green” jobs, as well as the challenges and implications for all stakeholders in developing the green economy
- Identify priorities for next steps, including further research and collaboration as well as identifying unique regional challenges
- Galvanize stakeholders around necessary actions

4. Approach

For more than twenty years, the Forum has gained a reputation as a trusted, non-partisan facilitator of multi-stakeholder dialogue on a wide range of challenging public policy and public management issues. The PPF has no stake in the eventual outcome of the discussions, but plays an important role in creating the right conditions for effective dialogue. The PPF approach to convening policy discussions embraces four principles:

- The discussion is conducted in a neutral manner.
- The discussion is based on shared information, including identifying key stakeholders, highlighting relevant research, and drawing attention to areas of disagreement.
- The right players are around the table.
- The results of the dialogue are communicated to key decision-makers and stakeholders to help mobilize action.

The proposed summit has four components.

- 1) **A keynote dinner speaker** will be invited to speak the night before the Summit to help frame some of the broad issues for following day’s discussion. A regular feature of past PPF events, a keynote dinner speaker the night before an event also provides the opportunity for Summit participants to meet one another and build a rapport for the following day. In the past, the PPF has invited a very senior (i.e. government minister, international guest, etc.) to speak on an issue and help provide some interesting points for discussion the following day.
- 2) **A series of presentations from experts** would open the day’s event – and comprise a mix of panel discussions and possibly an opening high-profile speaker who would frame the issue and set the agenda for the day’s discussion.
 - The panels would examine some of the specific issues of current and emerging importance on the topic of green jobs. Examples could include panels answering the questions “What sectors are implicated in this transformation?” or “What lessons can be learned from around world?”
- 3) **A prominent keynote speaker** would present during lunch and could discuss some of the policy implications inherent in this transformation.
- 4) **A series of breakout discussions involving participants** would close out the event. These would be held according to “Chatham House Rule” (i.e. PPF captures what was said to prepare a summary report, but comments are not attributed to individuals), in order to generate a candid and constructive conversation. The PPF has expertise in facilitating discussions like these, but depending on the size and number of the breakout sessions, the PPF may also explore creative ways to involve



the conference participants/morning panellists in marshalling these conversations. Sessions would be based on the content from the morning's presentations, but could also specifically canvass participants on particular issues of interest (e.g. participants' definition of a "green job," perspective on labour market implications, suggestions for future government action – if any).

5. Our Understanding of the Work

Working with project partners, PPF will:

- 1) Design a Summit agenda that will focus on practical recommendations for government and industry;
- 2) Prepare all necessary background materials;
- 3) Identify and invite speakers and participants;
- 4) Coordinate event logistics; and,
- 5) Draft a report that will summarize the event proceedings and outline the recommendations.

Human Resources and Skills Development Canada will assist PPF in identifying possible sources of funding, recommend materials for consideration in preparation of background material, review the agenda and participants lists, and comment on the draft report. The final report will be a public document that can be used by any and all participants but will remain a PPF report.

Budget

PPF estimates that the total cost for a one-and-a-half day event of this scope in Toronto would cost approximately \$70,000. A detailed budget is in development.

Green Jobs Work Plan**OVERVIEW:**

Work	Partners	Lead	Timing
Overview/Summary on Demand Side			
Deck Outline <ul style="list-style-type: none"> • Provide demand side context for green jobs 	SEB	LMP	April
Draft deck, including: <ul style="list-style-type: none"> • Industry/occupational context for green jobs • Determine likely skills mix • Project green job growth • Government/HRSD role 	SEB	LMP	Mid-June
<ul style="list-style-type: none"> • Summary of consultations with employers and Sector Councils (as annex/supplementary document to deck) 	LMP	SEB	Mid-June
Research			
Develop Input-Output (I/O) Model to project potential green job growth and likely occupations	SEB, PRCD, IC	LMP	Mid-May
Policy Papers			
LMI paper <ul style="list-style-type: none"> • Comparative paper reviewing LMI for green jobs best practices in US, UK and Australia 	SEB (Labour Market Integration Directorate)	LMP	April
<ul style="list-style-type: none"> • SEB issue paper on adjustment and green jobs (<i>International Green Job Measures: Lessons for Canada?</i>) 		SEB	April
Env. & Resource sector paper		LMP	TBD
Energy sector paper		LMP	TBD
Consultations			
External to Government:			
<ul style="list-style-type: none"> • Public Policy Forum: Summit on the Greening of the Canadian Labour Market. <ul style="list-style-type: none"> ○ Could include possible side meeting with key experts and senior management. 	LMP	SEB	Early June
<ul style="list-style-type: none"> • Consultations with employers/businesses, to understand demand-side context 	SEB	LMP	April-May
<ul style="list-style-type: none"> • Series of 2 exploratory roundtables with industry, education and Sector Councils, to understand demand-side context 	LMP	SEB	April-May

Green Jobs Work Plan

Work	Partners	Lead	Timing
Internal to Government:			
Collaborative work with other government departments (regarding existing work supporting green initiatives, definitional challenges, etc.), including: <ul style="list-style-type: none"> • Potential for including green jobs in the HRSDC-Industry Canada MOU; • Bilateral discussions with other interested departments (i.e. NRCan, Environment Canada, Industry Canada); and • Exploring potential to create an interdepartmental table 	LMP	SEB	April-May to initiate; on-going

Green Jobs Work Plan

DETAILS:

Overview/Summary on Demand Side

Demand-side Deck

- Establish demand-side context for green jobs
 - Industry level
 - Occupational level

- Identify the types of skills required by employers to exercise green job duties based on existing sources of information, notably US (e.g. California and Washington State).
 - Identify skills mix for some consensus “green” occupations (e.g. electrician).
 - Related type of training and estimated duration of training.

- Projected growth in green jobs
 - Tied to industry?
 - Evolutionary (i.e. existing jobs ‘going green’)?
 - Is skill development to obtain certification different from what is required for traditional occupations?
 - How will skills change as a result of new technologies, new processes and new materials?

- Government and HRSD role
 - Government sponsored training or reskilling? Or supporting employer-sponsored on-the-job training?
 - Developing LMI for green jobs? Developing competency models?

Summary of consultations with employers and Sector Councils

- Evergreen document providing an overview of key themes and issues arising from external consultation processes.

Research - I/O Model

- Develop assumptions re: drivers of green job growth
 - Government investment (e.g. hypothetical examples for program funding; Budget 2009 provisions; funding for related programs administered by NRCan or EC).
 - Domestic/Foreign business investment.

- The I/O Model to predict the impact of increased demand for ‘green’ goods and services on job growth in direct and upstream industries will be based on a model developed by the Political Economy Research Institute (PERI) of the University of Massachusetts, Amherst. The model could be conducted within HRSD or could be contracted out to a consulting firm. Which organization (HRSDC or private sector) will develop the model remains to be determined.

Green Jobs Work Plan

- The I/O model will be secondary to the deck, but its findings would be included in the final version of the deck.

Topic-related Policy Papers¹

LMI for Green Jobs

- A review of LMI initiatives with a demand-side focus
 - Develop a review of LMI for green jobs best practices in US, UK and Australia with the purpose of describing what each country is doing and how each country is conducting this work.
 - The research could be conducted within HRSD or could be contracted out, depending on financial and human resource capacities.

SEB Issue Paper on Labour Market Adjustment and Green Jobs (International Green Job Measures: Lessons for Canada?)

- An issue paper which will discuss the topic of labour market adjustment associated with the rise of green industries/jobs, including a review of provincial/territorial and international experiences.
- Based on existing knowledge and international practice the paper will explore the labour market potential of a greening economy and will draw out a possible approach to incorporate a green jobs lens in Canadian labour market policy/programming in the context of economic downturn and medium-term recovery.

Green Jobs in Environmental and Resource Sectors

- Contract research to determine what is the link between the environmental and resource sector.
 - Is there any predictable pattern? How does this link affect other sectors of the economy, notably manufacturing and service sectors?

Green Jobs in the Energy Sector

- What is the growth potential for clean energy sector in Canada (e.g. wind; hydro; tidal)? What are major barriers to continued growth of this industry?
- What are the skills being demanded by employers in this industry based on the technology that is currently being commercialized? Is PSE responding?

¹ **Note:** Policy papers will be part of ongoing research over the following months. The issue paper on labour market adjustment and green jobs is currently underway. Additionally, policy papers providing in-depth information on green jobs related to the environmental, resource and energy sectors will be started at a later date, perhaps in response to issues addressed at DMO in future.

Green Jobs Work Plan

Consultations

External to Government:

Proposed activities include:

1. Proposed - Public Policy Forum: Summit on the Greening of the Canadian Job Market
 - The summit would bring together stakeholders from federal and provincial governments, industry, labour and NGOs for a discussion aiming to:
 - Develop a shared understanding of green jobs focusing on challenges and implications for all stakeholders in the move to a greener economy.
 - Identify priorities for next steps (e.g. more research) and unique regional challenges.
 - Galvanize stakeholders around necessary actions.
 - The event will address challenges policy-makers face with green jobs including:
 - Definitional issues (e.g. in which sectors are green jobs created; what kinds of skills are needed?).
 - Drivers
 - Current state of green jobs in Canada
 - Barriers/solutions to growth of green jobs
 - Public policy implications (e.g. are there shortages; how should government, PSE institutions and firms respond?)
 - The result of the summit will be a report summarizing the event and outlining the recommendations for policy-makers.
2. Consult with employers and businesses regarding strategies to tap into the emerging green economy and current/forecasted demands for green workers. This could also involve consultations with various Sector Councils and industry leads.
 - Barriers to innovation, commercialization and green job growth.
 - Companies to consult include innovative firms, based in Canada, who display leadership in corporate social responsibility and are moving toward the adoption of sustainable consumption and production practices:
 - E.g. Suncor, Encana, Research in Motion, Interface Flooring, BCE, Transalta Corp., PotashCorp Saskatchewan Inc. and Biovail Corp. among others.
 - Clean energy technologies are driving discussions around the transition to a green economy. Therefore, firms exercising business activities in this domain may be best suited to discuss emerging green jobs and skilled worker needs.
3. Series of 2 ½ day facilitated exploratory roundtables to consult with industry, education sector and Sector Councils to get a better understanding of issues and pressures related to Green Jobs. One roundtable would be focused on those in current (traditional) green sectors and the other focused on sectors where greening is “up and coming”. A more detailed proposal is being developed.

Internal to Government:

Proposed activities include:

Green Jobs Work Plan

- Work collaboratively with other government departments (e.g. IC; NRCan; EC) to assess the work that is being undertaken to encourage green industry and green job growth, and identify areas in which there are knowledge gaps. Discussions could also include approaches to resolving definitional debates around green jobs, and potentially coming up with a GoC-wide definition.
- Explore including green jobs as a topic on the 2009-10 work plan for the Industry Canada-HRSDC MOU working group.



2009 HR-NHQ 013939

MAY 19 2009

MEMORANDUM TO THE DEPUTY MINISTER OF HRSD

**STATEMENT OF US SECRETARY OF LABOUR BEFORE SENATE HELP
COMMITTEE ON GREEN SKILLS TRAINING**

(FOR INFORMATION)

SUMMARY

- On April 21, 2009 the US Secretary of Labour testified before the Senate Committee on Health, Education, Labour and Pensions (HELP) (see Annex A) regarding activities being undertaken at the Department of Labour to promote green jobs skills training for workers.

Implications for HRSD

- In the United States, a part of the promotion of green jobs is to move lower-skilled, vulnerable workers to mid- or high-skilled jobs with more stable career trajectories, i.e., to address the structural dimension and a shrinking middle-class.
- Additionally, the testimony illustrates the importance of cooperation between departments to strategically coordinate stimulus investments in infrastructure and research and development with job training and job placement strategies.
 - The Canadian equivalent might be to have a green skills dimension to infrastructure or major projects. One advantage of this approach is that it might ease skills bottlenecks that could otherwise hamper project development.
- The inclusion of requirements for community engagement, local and regional partnerships, and the targeting of programming to under-represented groups in grant application guidelines, demonstrate the continued use of programming to support communities and under-represented groups in a recession to promote labour force attachment.

Background

- The Department of Labour will use \$500 million from the Recovery Act to provide grants for research, labour exchange (e.g. job search assistance, referral and placement; reemployment services; and, recruitment services to employers with job openings) and training to prepare workers for green careers in energy efficiency and renewable energy.

Canada

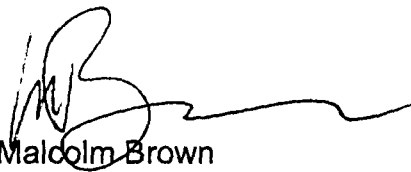
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- Grant guidelines will require community engagement, local and regional partnerships, and identified leveraging of additional funds.
 - Departmental evaluation criteria will ensure grants are awarded with the goal of targeting communities most in need through green training investments.
 - Features will ensure priority access to training programs to low-income workers, unemployed youth and adults, high school dropouts and other under-represented groups in areas experiencing high poverty.
- The US Department of Labour has commenced work to promote green jobs across all workforce investment programs by:
 - providing funding through the Recovery Act to federal programs for projects that could create green jobs (e.g. renewable energy; advanced vehicle manufacturing);
 - issuing guidance to states indicating that energy efficiency and renewable energy offers opportunities that may require additional training or certification;
 - encouraging states to expand existing training programs, such as registered apprenticeship programs, to prepare workers for green jobs; and,
 - encouraging states to identify regional environmental resources, businesses and pre-apprenticeship programs promoting green jobs and projects providing youth with summer work experience in green jobs.
 - Accordingly, the Department of Labour has issued a policy guidance letter to state workforce agencies and administrators, and state and local workforce boards with recommendations for the implementation of Recovery Act funding initiatives, including those promoting green jobs.
 - The ETA recommends using stimulus funds to leverage new and existing registered apprenticeship programs to create and coordinate skills development and reemployment strategies with green stimulus investments, which target industries that traditionally draw on registered apprenticeships (e.g. construction).
 - The ETA suggests using funding to incorporate green work experiences into youth summer jobs programs, like conservation and sustainability projects that provide existing green work experience and training in retrofitting, solar panel installation, and energy-efficient public housing construction.
 - The department is leveraging existing program resources to promote green jobs:
 - the Office of Apprenticeship amended the Advancing Registered Apprenticeship grant guidelines, which supports the development and adaptation of national guideline standards for apprenticeships, to include green jobs and skills training;
 - the Bureau of Labour Statistics is developing approaches to measure green jobs, including surveying firms in industries with expanding green activities;
 - occupational researchers within the ETA are beginning to define green jobs and understand how green technologies will affect occupational requirements; and,
 - future construction and repair of Job Corps facilities will incorporate green technologies, and develop and implement green curricula at all centers.

- The department and other federal agencies are coordinating work to strategically implement programs that ensure interaction between investments in infrastructure and research and development on one side, as well as job training and worker placement on the other.
- The Secretary indicated that future links could be made between green jobs and the recovery of communities affected by high unemployment, particularly those dependent on the auto sector, where workers may be retrained for a green economy.

Next Steps

- We will continue to monitor and keep you informed on developments regarding green jobs training initiatives at the US Department of Labour.



Malcolm Brown

Key Contact: Allen Sutherland
819-994-1913

Attachment: 1

cc. Frank Vermaeten
Paul Thompson



2009 HR-NHQ 026785

MEMORANDUM TO THE MINISTER OF HRSD

SEP 17 2009

**APPROVAL OF PROJECT FOR THE NAMED GRANT TO THE
ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

FOR DECISION

(requested by September 23, 2009)

SUMMARY

- This note seeks your final approval to make a grant of €35,000 (approximately \$55,017CAD) to the Organisation for Economic Co-operation and Development (OECD) for a policy project entitled: *The jobs potential of shifts towards a low-carbon economy*. This project will likely be discussed during the OECD Employment Ministerial Meeting on September 28-29 which I will be attending.
- Based on your initial concurrence regarding this proposal (2009 HR-NHQ 023335), departmental officials have discussed project outcomes and timelines with the OECD and have negotiated Human Resources and Skills Development Canada's (HRSDC) contribution to the project. See Annex A for the detailed project proposal.
- This OECD project will aim at clarifying the relevant concepts related to "green jobs" and identifying the analytical framework to assess the jobs potential of a shift towards a low-carbon economy, as well as the role of labour market policies in promoting its development. The results of this project will help policy development in Canada as we continue to study the impact of the low-carbon economy in a Canadian context.
- The project will be funded through the Named Grant to the OECD (Vote 5) which enables HRSDC to make grants to the OECD up to a maximum of \$300K per year to fund policy research that is linked to the Department's policy priorities. This is the first project submitted for your approval under the Named Grant this fiscal year.

BACKGROUND:

HRSDC received the authority from Treasury Board in 2003 to fund OECD research through grants up to a maximum of \$300K per year. These grants enable the Department to participate in OECD policy research projects that are linked to HRSDC's priorities.

Since 2003, the Department has funded over 20 OECD projects which have helped develop evidence-based policies in Canada.

.../2

Canada

Funded projects have ranged from the integration of immigrants in local labour markets to policies to facilitate school-to-work transitions and improve youth employment prospects to improving the employment perspective of older workers.

CONSIDERATIONS:

This project proposal was assessed to determine that it was aligned with departmental priorities. Consideration was also given to the project cost, outcomes and timelines.

RESOURCE IMPLICATION:

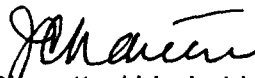
The total cost of this proposed project is €35,000 (approximately \$55,017CAD) to be paid out this fiscal year. It is the first project submitted for your approval under this Named Grant this fiscal year. Additional projects will be sent for your approval in the coming months.

NEXT STEPS:

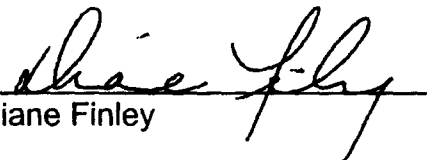
Should you approve this project, HRSDC will sign the funding arrangement with the OECD and move forward with the project.

RECOMMENDATION:

It is recommended that you approve this OECD research project proposal.


Janice Charette / Linda Lizotte-MacPherson
Executive Head: Malcolm Brown
Tel. 819-953-3729

- I would like an oral briefing
- I would like _____ of my staff to be briefed
- No briefing required

I concur: 
Diane Finley _____
Date _____

Attachment: 1

**OECD NAMED GRANT
PROJECT PROPOSAL FORM**

PROJECT NAME: Explanatory Analysis: The jobs potential of shifts towards a low-carbon economy

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT:

- Employment, Labour and Social Affairs Committee (ELSAC)**
 Education Policy Committee (EDPC)
 Local Economic and Employment Development Committee (LEED)
 Centre for Educational Research and Innovation (CERI)
 Programme for the International Assessment of Adult Competencies (PIAAC)
 Other: _____

VALUE OF CANADIAN CONTRIBUTION TO THE PROJECT:

35,000 € EUR / approximately 55,016.50 \$ CAD (based on September 9, 2009 exchange rate)
 To be paid out in 1 instalment in fiscal year 2009-2010.

PROJECT DESCRIPTION:

Green jobs and/or the low-carbon economy have gained increased importance in the discourse of governments around the world, especially as many countries tailored elements of their stimulus packages to focus on a green recovery. However, significant uncertainty still surrounds the precise definition of "green jobs" as well as the potential net employment impact of a shift towards a low-carbon economy in the different OECD countries. It also remains unclear what specific role labour market policies can play in promoting such a shift and assisting workers in their transition to new green jobs.

In this context and as a result of the OECD Employment Ministerial Meeting which will be held on September 28-29, 2009, the OECD intends to undertake an explanatory analysis aimed at clarifying all the relevant concepts and identifying the analytical framework to assess the jobs potential of a shift towards a low-carbon economy, as well as the role of labour market policies in promoting its development.

Providing that the explanatory analysis yields solid analytical and policy-relevant results, the OECD will also be proposing a second phase of further research to assess: 1) the expected gross and net employment changes associated with a shift towards a low-carbon economy as well as the expected cost per job created in different sectors; 2) the possible effects on the composition of employment and the required reallocation across firms and sectors; and 3) the key labour market and training policy challenges to promote the reallocation of labour towards greener activities and upgrade workers' skills.

At this point, Canadian support would be limited to the explanatory analysis with an option to make an additional research grant to the second phase should the initial study yield beneficial results for the department's policy priorities.

LINK TO HRSDC PRIORITIES & BENEFITS TO THE DEPARTMENT:

Link to HRSDC Priorities:

The Government of Canada has made substantial investments that can be defined as green over the past year: from its ECOACTION plan, to funding carbon capture and storage research and development, to providing financial incentive to retrofitting of homes to conserve energy. HRSDC has been tracking this issue for quite some time in an attempt to better understand the labour market implications of a greening economy. This is an evolving issue that could provide Canada with opportunities for economic growth and the creation of quality jobs (innovative, environmentally sustainable).

There is on-going policy work and interest in the department to clarify the definitional issues surrounding green jobs, identify methods of forecasting demand for green employment and related skills set, analyze the relative balance between upskilling of existing jobs versus the creation of completely new occupations, explore the perspective of various stakeholders, including employers, and assess existing and potential policy tools. The OECD project will complement the work of the department.

The OECD project will not only help develop a better understanding of the impact of a low-carbon economy on the labour market, but it may also help to inform demand-side analysis. The Department has been conducting exploratory analysis on the extent to which there will be demand for these jobs in the future.

During the OECD Employment Ministerial on September 28-29, 2009, HRSDC will be attending a working luncheon on *Beyond the Crisis: What is the Jobs Potential of Shifting towards a Low-Carbon Economy?* Canada expects to play a key role in that discussion where Ministers will exchange views on the potential for green technologies to create new jobs, and the challenges of ensuring that the workforce has the right skills to take advantage of the employment opportunities that will arise as the global economy recovers. This proposed project will build on the Ministers' discussions.

Benefits to the Department:

The Department's contribution to this OECD project would help develop a better understanding of the impact of a low-carbon economy / green jobs on the labour market, thus helping policy development within HRSDC and the Government of Canada. The project would be an asset as this issue continues to increase in importance domestically and internationally.

The topic of "green jobs" is expected to be increasingly discussed at upcoming international meetings (i.e. G8 and G20 meetings). Gaining a better understanding of the relevant concepts, the jobs potential of a shift to a low-carbon economy, the role of labour market policies and the implications for skills development and training will allow Canada to better participate in and influence these international discussions.

ANTICIPATED OUTCOMES AND PROJECT TIMELINES:

- Literature review: November – December 2009
- Scoping paper which will clarify relevant concepts and include a proposed framework for future work: January – June 2010
- Dissemination of information to the department – June 2010

TARGET START DATE:	November 2009	TARGET END DATE:	June 2010
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ADDITIONAL HRSDC CONTRIBUTION TOWARDS THIS PROJECT:

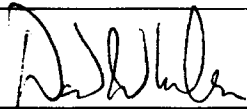
In-Kind Support

HRSDC will dedicate human resources that will work with the OECD to influence the outcomes of the project in order to ensure its relevance to the Department and ensure that the Canadian perspective is integrated in the OECD project.

RESPONSIBLE BRANCH & KEY CONTACT:

Louise Galarneau, Director, International Relations, 819-994-0707

Approved by:



David Whillans, Director General
Intergovernmental Relations

Date: Sept 10-09

2009 OECD EMPLOYMENT MINISTERIAL MEETING

Working Lunch

Beyond the Crisis: What is the Potential of Shifting to a Low-Carbon Economy?

Tuesday, September 29, 12:30-14:30

Session Objective

The working lunch will provide an opportunity for Ministers to discuss measures to promote investment and policies that will help facilitate a shift to a lower carbon producing economy. Guest speaker Dr. Alex Bowen from the London School of Economics' Grantham Research Institute will present on the design of policy regimes for tackling climate change. Recent "green" investments and how these investments will impact employment and labour market conditions in the context of economic recovery will be the main discussion points.

Ministers will also exchange views on the potential for green technologies to create new jobs and the challenges ensuring that the workforce has the right skills to take advantage of the employment opportunities that will arise as the global economy recovers. Ministers will be invited to share their views on which policies will enable governments and workers to derive opportunity from new "green" technologies, and the shift to a low-carbon economy.

Canadian Objectives for the Session

- As chair, Canada will set the context and lead the discussion. Following opening remarks and comments from the Secretary General, guest speaker, Dr. Alex Bowen will present on climate change and public policy.
- Share with Ministers the Canadian approach to labour market policies and exchange with ministers on the development of longer-term strategies for a low-carbon economy.
- Call upon countries that are at the forefront of the "green jobs" discourse (such as Korea and the USA) to discuss stimulus measures that have been put in place to address the current economic downturn that will also have a positive impact on lowering carbon production.

Session Format

The working lunch will take place on the second day of the Ministerial. As chair for the lunch your role will be to make a short opening statement (see Annex A for speaking points) and lead the discussion between ministers. The Secretary General will launch the luncheon by saying a few words, likely linking the luncheon with the OECD's other work on the transition towards a lower-carbon economy. He will then turn to you to make opening remarks. Once completed, you will introduce guest speaker Alex Bowen, London School of Economics.

Dr. Alex Bowen is the principal research fellow at the Grantham Research Institute, London School of Economics. Dr. Bowen is an expert on the macro economic aspects of climate change and has conducted research on recession and the green economy. He will be speaking about the opportunity for governments to commit public spending on plans that stimulate economic recovery and lay the foundations for sustainable low-carbon growth.

Following Dr. Bowen's presentation, you will invite Mr. Young Chul Shin, Deputy Minister for Employment Policy, Ministry of Labor, Korea to be the first speaker given their strong support for the OECD's work on the transition to the low-carbon economy. Following Korea's remarks, you will moderate the discussion. The following questions have been circulated in advance by the OECD to guide ministers' interventions at the lunch:

- *Which measures to support green growth are likely to have the greatest employment impact in the short and longer-term?*
- *Are there specific labour market policies – beyond those included in the Reassessed Jobs Strategy – that can best contribute to promote shifts towards a low-carbon economy?*

Further questions that may prompt discussion are included in your speaking points:

- *Have there been any specific investments in skills and training to support the establishment of more "green jobs" in your country?*
- *Understanding that we are at the early stages of developing labour market policies for more "green jobs," what are the best practices and lessons learned that have emerged thus far in your country?*

To close the lunch you may wish to make a brief summary statement based on the outcomes of the discussion and highlight the contribution of countries who are taking a lead role in the development of "green jobs" discourse at the ministerial. HRSDC and OECD officials will be on hand to support you throughout your chairmanship of the lunch.

Approach to the Discussion

In many of the fiscal stimulus packages OECD countries have introduced to spur growth, there are considerable investments for energy conservation, alternative energy production and low-carbon public infrastructure projects. Many of these investments seek to position governments for a more permanent shift to greener technologies with potentially long-lasting effects on the labour market.

While there is much debate on the definition of “green jobs” and how to capture accurate labour market information for these positions, governments are eager to highlight low-carbon initiatives as means to develop the labour market. Renewable energy production, public transportation, water and sanitation projects are just some of the stimulus initiatives that will contribute to job creation – many of which will be labelled “green jobs”.

Your opening remarks will serve to:

1. Prompt discussion on the common policy challenge of developing labour market policies that are in step with a shift to a low-carbon economy;
2. Profile recent Canadian investments in green infrastructure, clean energy and skills; and,
3. Outline Canada’s support for the OECD’s project assessing the labour market and skills impacts of the shift towards a low-carbon economy.

OECD and ILO perspectives on Green Jobs:

The OECD states that the shifts towards a low-carbon economy may well require new skills and competences, as well as enhanced labour mobility across occupations and sectors, posing new demands to the skills development and training institutions as well as to labour market policies. In some cases, additional jobs will be created – as in the manufacturing of pollution-control devices added to existing production equipment. In others, some employment will be substituted – as in shifting from fossil fuels to renewable energy sources, while in other cases certain jobs will be eliminated in the longer-run without direct replacement. But many existing jobs will also be transformed and redefined as day-to-day skill sets, work methods and profiles will adjust to the needs of greener technologies and lower-carbon processes.

Canada is working with the OECD to help define the parameters of a research project on employment changes associated with a shift towards a low-carbon economy, the effects on the composition of employment and the required reallocation across firms and sectors; and labour market and training policy challenges to promoted the reallocation of labour towards greener activities and upgrade workers’ skills. You will outline our financial support for this project in your remarks.

The 2008 International Labour Organization study on *Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World* provides a policy rationale for balancing environmental action and employment. The study recommends facilitating green job creation by:

- Encouraging green innovation so businesses adopt cutting-edge technologies that will allow them to create and retain employment; and,
- Implementing training programs incorporating green technology to train new workers and retrain displaced workers from older, polluting industries.

While the transition to a low-carbon economy would promote economic development and job creation, it would redefine current skill sets; substitute jobs as fossil fuels are replaced by renewable energy; and eliminate jobs. Consequently, the study states that public policy must mitigate the adverse effects of this shift in communities that are dependent on fossil fuels.

The study identifies that active labour market policies and broad social protections will be essential to ensure a fair and smooth transition to a green economy. As such, the strategy of shifting to a green economy must include access to (re)training and educational opportunities, as well as income protection and mobility assistance.

OECD Economy and Finance Ministers, at their June 2009 Ministerial Council Meeting, adopted a Declaration on Green Growth which aims at fostering a closer coordination of green growth measures with labour market and human capital formation policies in order to support the development of green jobs.

Green Jobs in Canada

There is no single definition, but there is a consensus that a “green job” is work with a positive environmental impact or which reduce the environmental impact of enterprises and economic sectors to levels that are ultimately sustainable. Green jobs are cross-sectoral and can include work in energy, construction, transportation, primary industries, manufacturing as well as services. ECO Canada estimates that there are 530,000 workers in green occupations such as health and safety officers and civil engineering technicians, but this may exclude jobs such as plumbers and construction workers installing green technology for home retrofits.

Green jobs are found in various occupations and skill levels. A majority (50%) of green jobs covered by ECO Canada’s 2007 survey are in trades and technical jobs. These jobs require post-secondary education and are generally stable. Despite measurement challenges, skills shortages are apparent in certain industries. The Electricity Sector Council reports current and future skills shortages due to retirements and the up-skilling required to adapt to green technologies. The renewable energy sector attributes shortages to competition for skilled workers and few graduates due to limited training by universities/colleges.

International Examples Promoting Green Jobs

Approaches to promoting “green jobs” and a shift to a low-carbon economy vary by country: some countries are emphasizing the importance of employment creation with respect to the environmental measures in their recovery packages, while others are looking beyond this to assess the long-term labour market implications of a low carbon economy.

United States:

Green jobs are a priority for the White House and for the US Department of Labor as means of ensuring that US has the skills needed to meet growing demand from greening sectors. The economic recovery package includes \$500M for training grants, research and LMI to prepare workers for green careers.

On March 2, 2009 the White House released the Middle Class Task Force’s overview paper *Green Jobs: A Pathway to a Strong Middle Class*. The Task Force recognizes green jobs provide a win-win solution that may facilitate the growth of the middle class by providing green jobs training to help workers obtain long-term employment that offers career ladders. The report highlights the need for a whole of government approach to support green jobs, as financial support and environmental regulatory action is critical. Indeed, the policy best practices presented show that human resource strategies are embedded in larger projects to improve the environment and local economy.

Korea:

Korea is committed to addressing environmental challenges and last year, President Lee Myung-bak proclaimed "Low Carbon, Green Growth" as Korea's new national vision. News reports state that 80% of South Korea's \$38 billion stimulus package has been earmarked for green investments as part of their “Green New Deal”. Indeed, the most recent announcements from Korea promise \$85 billion more over 5 years to encourage the growth of green industries and technologies (equivalent to 2% of the nation's total GDP).

Korea has been a major driver of the “green jobs” agenda at the OECD. In June, Korean Prime Minister, H.E. Han Seung-Soo chaired the OECD Ministerial Council Meeting and underscored the importance of addressing economic recovery and climate change.

Other countries:

The **UK** Climate Change Act will introduce stringent carbon targets, measures on biofuels and financial incentives for household waste. This will promote a shift toward a low-carbon economy with corresponding green jobs.

Germany commands close to half the global solar photovoltaics installations market and is also a leading producer of solar cells, along with Japan and China. At 57,000 jobs, Germany accounts for the bulk of European photovoltaics -related jobs. The German Alliance for Work & Environment apartment retrofitting program created 25,000 jobs and saved 116,000 jobs between 2001 and 2004. Program created an estimated 145,000 full-time equivalent jobs in 2006.

As a means of reducing emissions, **Australia** is offering free insulation for 2.2 million homes, which will employ trades people in green activities.

Your role as Chair:

- *Following the Secretary General's opening statement, you will make opening remarks that set the stage for discussion and profile the Canadian experience on "green jobs" to date;*
- *Then you will introduce guest speaker Dr. Alex Bowen, London School of Economic;*
- *Following Dr. Bowen's presentation, you will ask the Korean Deputy Minister to profile Korea's approach to the shift towards a low-carbon economy;*
- *You will then open the floor to ministers who would like to intervene.*

Opening Remarks:

- Thank you Secretary General for your kind words and your hospitality.
- I am very pleased to be chairing our working lunch on the shift to a low-carbon economy. I would like to thank the OECD for hosting this luncheon on this very topical issue.
- Since the beginning of the global economic crisis, many countries have taken the opportunity to focus economic stimulus measures to address climate change and the environment.
- As our economies recover, our governments share a common challenge to ensure that labour markets are flexible enough to adjust to technological change resulting from the shift toward a low-carbon economy.
- I know all our governments are committed to developing a highly skilled workforce and equipping workers with the skills they need as technology changes and we shift toward a low-carbon economy. Accordingly, governments may help ensure that the workforce is equipped to take advantage of emerging employment opportunities related to the green economy.

- While we may still not agree to a single definition of what are “green jobs”, there is a consensus that a “green job” is work with a positive environmental impact. Green jobs are cross-sectoral and can include work in energy, construction, transportation, primary industries, manufacturing and services.
- Investing in clean energy, developing more green infrastructure and helping our workers train and gain skills for a greener economy is part of many of our countries’ economic stimulus measures. The United States is making major investments in the development of “green jobs” and “green-collar jobs” as a means to help private industry innovate and manufacture new technologies that will add new jobs to the economy and help with recovery.
- At this time of economic crisis and relatively high unemployment, the momentum for moving towards low-carbon economy requires a dynamic labour market to take full advantage of new ways of working and new technologies.
- Korea is also making progress in “green jobs” and is advancing the agenda in multilateral forums and at home. By investing the equivalent of 2% of GDP in the “Green New Deal”, Korea is demonstrating global leadership and a commitment to their national vision of “Low Carbon, Green Growth.”
- Canada’s Economic Action Plan outlines green growth stimulus measures that are targeted and timely such as grants for making housing more energy efficient; and long-term investments in green infrastructure that will have positive environmental impacts.
- Canada is building on its leadership role in the development of new, clean technologies to fight climate change by helping found a new global partnership to advance carbon capture and storage technologies, namely the Global Carbon Capture and Storage Institute. Clean energy technologies such as carbon capture and storage are an integral part of the Government of Canada’s aggressive plan to achieve an absolute reduction of 20 percent in Canada’s greenhouse gas emissions below 2006 levels by 2020.

- EcoACTION is Canada's strategy for Action on Climate Change and Air Pollution. Reducing greenhouse gas emissions in all major industrial sectors is a priority, and goes hand in hand with measures to reduce vehicle emissions, increase energy efficient products and improve the air we breathe.
- Clean energy has immense potential to drive investment and create new jobs while contributing to our environmental objectives. We are investing \$1 billion to support the development of sustainable and clean energy technologies, and \$1 billion for the Green Infrastructure Fund.
- The EcoENERGY Retrofit programs for homes and social housing projects will improve the energy efficiency of Canadians' homes and, at the same time, support local businesses and employment in the construction sector and the trades. An additional \$300 million over two years has been provided for the ecoENERGY Retrofit - Homes program.
- Our discussion today is more than simply looking at the jobs crisis through a green lens. We are setting the foundation to a new approach to the labour market – one that will hopefully optimize positive environmental impacts and secure a low-carbon economy for the future.
- In this regard, I am very pleased that the OECD has taken the initiative to propose a study that will analyse the labour market and skills impact of the shift towards a low-carbon economy. I sincerely believe the OECD can significantly contribute to this study and am please to announce that Canada will be making a financial contribution to help launch the project.
- I would encourage all of you to give serious consideration to this project as I believe it is a worthwhile endeavour that can help us all build stronger "green" labour market and skills policies.

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- Now, turning to our guest speaker, it is my pleasure to introduce Dr. Alex Bowen, who is one of the leading thinkers on the relationship between macroeconomics and climate change. As Principal Research Fellow at the Grantham Research Institute at the London School of

Economics, he has been conducting research and making the case for 'green' stimulus.

- We are pleased to have you join us today, Dr. Bowen, and look forward to hearing your ideas on policy approaches that can promote economic recovery at the same time as laying the foundations for a low-carbon economy.

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- Thank you Dr. Bowen for your insightful comments and analysis.
- I would now like to invite my colleague from Korea, Mr. Shin to make an opening statement. As we have heard, Korea has been one of the leaders amongst us on the transition to the low-carbon economy. It is with great pleasure that I invite my esteemed colleague to give us an overview of Korea's action plan.

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- Thank you Mr. Shin. I believe we can learn a great deal from what Korea has done. I know I will continue to look to your country as it continues to implement its many initiatives to see what we in Canada can learn from your experience.
- I now open the floor to my other colleagues to share their countries' experiences in transitioning to a low-carbon economy. Specifically, I would be very interested in hearing about your initiatives, your early successes and how you have built your "green" employment and skills policies to support green growth.

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Additional questions you may wish to ask Ministers:

- Which measures to support green growth are likely to have the greatest employment impact in the short and longer-term?

- What are the specific labour market policies that can best contribute to promote shifts towards a low-carbon economy? Have there been any specific investments in skills and training to support the establishment of more “green jobs” in your country?
- Understanding that we are at the early stages of developing labour market policies for more “green jobs,” what are the best practices and lessons learned that have emerged thus far in your country?

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Concluding remarks:

- Thank you all for outlining contributing to this enriching discussion. I have truly appreciated our discussion and have learned a number of things that I will take back with me. The transition towards a low-carbon economy and the growth of “green jobs” is an issue that continue to be important for all of us.
- As our economies recover over the coming months and years, it is heartening to note that environmental priorities are fully integrated into stimulus measures and long-term plans. The promotion and growth of “green jobs” will contribute to stronger economies and a more environmentally sustainable future.
- Let me close, by once again thanking the OECD for organizing this luncheon and encouraging all of you to consider contributing to the OECD’s important work on this issue.

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