
Work in a Warming World (W3) Presents

www.workinawarmingworld.yorku.ca

GREEN/ING JOBS:

**Definitions
Dilemmas
Strategies**

January 20, 2011



W³

Work in a Warming World

Green/ing Jobs is organised by Work in a Warming World (W3). Funded by the Social Science & Humanities Research Council, W3 works to address the challenge of climate change for Canadian employment and work, and the ways in which the work world can contribute to the struggle to slow global warming. W3 is affiliated to the Institute for Research and Innovation in Sustainability (IRIS) at York University.

YORK
UNIVERSITÉ
UNIVERSITY 

PROGRAM

Welcoming Remarks

LAUREL SEFTON MACDOWELL, *University of Toronto*

Introduction – Panel Chair

CHARLES CAMPBELL, *United Steelworkers*

Panel 1: Green/ing Jobs: Definitions and Dilemmas

CLARE DEMERSE, *Pembina Institute*

SARA LETOURNEAU, *BlueGreen Alliance (US)*

CARLA LIPSIG-MUMMÉ, *York University*

Discussion

Panel 2: Green/ing Economies: Strategies and Dilemmas

JOHN CARTWRIGHT, *Toronto and York Region Labour Council*

TONY CLARKE, *Polaris Institute of Canada*

MARJORIE GRIFFIN COHEN, *Simon Fraser University*

Concluding Remarks

CARLA LIPSIG-MUMMÉ, *York University*

Work in a Warming World (W3)

Institute for Research and Innovation in Sustainability | York University | 337 York Lanes
www.workinawarmingworld.yorku.ca | 416 736 2100 x44106 | w3info@yorku.ca

© 2011 Work in a Warming World

GREEN/ING JOBS: Definitions, Dilemmas, Strategies

CLARE DEMERSE

Associate Director of the Climate Change Program, Pembina Institute

Given the increasing interest in green jobs, it's now relatively simple to find working definitions of what they are. According to a 2008 report from UN Environment Programme, green jobs are "work in agricultural, manufacturing, research and development (R&D), administrative, and service activities that contribute substantially to preserving or restoring environmental quality." Robert Pollin and Jeannette Wicks-Lim (of the University of Massachusetts, Amherst) write that "a green job is one that is contributing to fighting global warming and building a green economy." ECO Canada, a non-profit organization supporting Canada's environmental sector, divides Canada's environmental sector into "environmental protection" and "resource management" sub-sectors, and concluded that 3.2% of all workers employed in Canada in 2007 worked in "the environmental industry."

But making use of these broad definitions to assess specific jobs quickly becomes complicated. Reaching a definition requires deciding:

- **Which sectors are "green":** While some sectors — renewable energy manufacturing, for example — could be deemed "green" without too much debate, others are less clear-cut. Compared to trucking, rail is a lower-emission way to move freight. Do all rail workers thus hold green jobs?
- **Which workers within a sector are "green":** Does the vice president of sustainability at an oil sands company hold a green job? What is the cutoff point for declaring that an autoworker is producing an efficient enough vehicle to be deemed "green"?
- **What fraction of a worker's time is "green":** Should we consider a construction worker who spent half the year building monster homes in the suburbs, and the other half on a LEED-certified office tower, as the holder of a partially green job?
- **What quality of job is "green" enough:** If a scrap metal recycler working in India is exposed to dangerous chemicals in the course of her work, can that job be deemed "green" or sustainable?

Rather than defining green jobs, some studies focus instead on estimating the potential job creation from green policies. For example, in a 2009 study of the employment effects of green energy investments in Ontario, Robert Pollin and Heidi Garrett-Peltier used input-output models to estimate the direct, indirect and induced employment that increased investment in clean energy would create (the figure they arrive at is 55,000 more jobs than under business as usual over a 10-year period). But not all of those jobs would be considered "green" under the definitions cited above. Increased spending on renewable energy induces job creation when employees spend their paycheques, but the "induced employment" could be in a Gap store at the local mall.

In October 2009, Pembina and the David Suzuki Foundation published a study that used economic modelling to project the consequences of achieving both the federal government's (then) national emissions reduction target and a more ambitious target. Under business as usual (BAU), overall national job growth was projected to

be 10.4% from 2010 to 2020. Under the climate policy scenarios, national job growth ranged from 10.7–11.0% over the same period. However, these employment gains would be distributed differently than under BAU, with Alberta's job growth dropping from 9.9% under BAU to between 6.5–8.2% under the climate policy scenarios. In contrast, Ontario's job growth is projected to be 14.5% under BAU and over 15% under all climate policy scenarios. (It's worth noting that these results are partially a reflection of the specific approach selected for returning the carbon pricing revenue our policy scenarios generated back into the economy.)

The literature on job creation from climate action offers several policy-relevant themes that are relatively consistent. These include:

- Investing in clean power yields more jobs than investing in fossil fuels, as renewables are more labour-intensive while fossil fuels are more capital-intensive. So if a government wants to maximize job creation, it will need to choose wind and solar power over coal and natural gas.
- There are significant job gains in becoming an exporter of clean energy technologies, while importing these technologies from other countries usually means missing out on the associated manufacturing jobs.
- Climate change itself puts some jobs at risk. For example, the umbrella organization for British Columbia's credit unions published analysis that predicts the loss of over 20,000 jobs, directly and indirectly, in B.C.'s forestry sector in the next two decades due to a mountain pine beetle epidemic that has been sustained by warmer winters.

The number of green jobs that Canada will create over the next decades depends primarily on our governments' level of ambition in cutting GHG emissions. It also matters whether Canada acts quickly enough to capture any first-mover advantage relative to our international peers. And the kinds of transitional and support policies that governments put in place will also play a key role.

It's clear that we need better metrics to allow for year-on-year tracking of jobs in "green" sectors, and for comparison between countries. But ultimately, it may prove more useful to focus on the number of net new jobs a given green policy could create than on debating what constitutes a green job.

For the decision-makers we talk to in our role as climate policy advocates, job creation — especially at the regional or local level — is a top priority. Years of analysis about emission reductions have given the "climate community" a very good understanding of the kinds of policies we need to reach Canada's targets. To date, however, we have been far less successful in conveying the net employment benefits of those climate policies, particularly at a detailed and local level.

SARA LETOURNEAU

Director, Labour Climate Project, BlueGreen Alliance (US)

Background

The BlueGreen Alliance is a partnership of 9 major union – the United Steelworkers, the Laborers', the Communications Workers, the Service Employees, the Utility Workers, the American Federation of Teachers, the Amalgamated Transit Union, the Sheet Metal Workers, and the United auto Workers and four national environmental organizations – the Sierra Club, the Natural Resources Defense Council, the Union of Concerned Scientists and the National Wildlife Federation. With nearly 13 million members, we now touch virtually every community in our country. We have become one of America's leading advocates for global warming solutions and we believe that the benefits and economic opportunities will far outweigh the costs. Our goal is to turn every job in America into a green job and every green job into a union job.

What is a green job?

Defining a green job ought to be a simple task. However, I like many others have been in meetings where simply defining a green job has caused many arguments, debates, riffs, and more meetings. Many want green jobs to only pertain to those who are designing, manufacturing, installing, or repairing clean energy implements like wind turbines or solar panels. Others want the definition of green jobs to include research & development, marketing, and sales of clean forms of energy. Others believe that educators of clean technologies ought to be included.

At the BlueGreen Alliance we have a simple approach to this debate. We define a green job as any job that has a green purpose and that all jobs ought to be green jobs. We reject the notion that good jobs and the environment are at odds. We strongly hold the view that we must have both – good jobs that protect the environment.

Steel that is produced in the United States ought to be used for green products: the tower of a wind turbine. Those steel mill jobs are then Green Jobs. A building janitor who cleans offices during the day, saving energy, that is a green job. A glass manufacturing plant, whose glass is used in the manufacturing of solar panels, is a green job. A teacher, who is educating children about recycling and leads such a project, is a green job. An office worker, who implements a paperless accounting system, is a green job. A bus driver, who meets the needs of a commuting work force, is a green job. A construction worker building to LEED certified standards is a green job. And a nurse, who cares for asthma patients, is a green job.

Limitations of creating green jobs

In the United States there are several factors that limit our ability to create good green jobs. The first is that our political system is divided and the process to move legislation is at a stale-mate. In 2009 the House of Representatives passed a comprehensive climate legislation bill that included investment in clean energy technology, research and development, and creating jobs. However, in 2010 the Senate was unable to secure the votes they needed to pass a similar piece of legislation. The outlook for passing such legislation in the newly elected congress is unfavorable and has left many to create a new narrative of how to write and pass legislation that creates jobs and protects the environment.

Another factor is that green jobs is a myth to many and that rhetoric takes hold when middle America is seeing more and more jobs move out of their towns and overseas. The reality is different. In 2009 almost \$80 billion was directed into a 25-fold increase in clean energy investment in residential weatherization, advanced energy manufacturing tax credits, the expansion of renewable energy, high speed rail, advanced auto technology, green jobs training programs and much more. We have seen this investment pay off with the creation of 17,000 jobs in advanced energy manufacturing projects; the solar industry grew by 34% creating nearly 18,000 jobs; \$450 million in retrofit Ramp-up grants were rewarded to jump start large-scale energy efficiency projects, employing 30,000 construction workers; and over 10,000 new megawatts of wind capacity was installed, making 2009 the biggest year yet. This is a good start, but much more needs to be done.

With these limitations we find opportunities, opportunities to bring unlikely groups together to work for a future that protects the environment and creates good jobs. We are building coalitions to find common ground amongst labor organizations, environmental groups, community based organizations, faith, and investors of clean technology. We are educating rank and file union members on their role as the first line of defense to environmental protections. We are working with environmentalists about the need to fight back against the attack on public sector workers. We are making the connection between investors of renewable energy and local elected officials around the need to support green initiatives so we can solve our unemployment crisis. If we can get the policy and investment right today, then we'll create the jobs needed to give our children the world they deserve tomorrow.

CARLA LIPSIG-MUMMÉ

Principal Investigator, Work in a Warming World (W3) and Professor, Work and Labour Studies, York University

Greening Jobs and Work: Slowing Global Warming and the Canadian Economy

One of the strangest contradictions in the language wars around defining green jobs is the contrast between the enthusiasm with which very different political constituencies have embraced the idea; the confusion of what a green job means; and the challenge of making the definition of green jobs into a strategic opportunity to slow global warming.

The proliferation of definitions of green jobs—ranging from the overly broad to the overly narrow—also carries with it some dangers. *First*, there is the risk that the public gets turned off—too broad a definition creates confusion and exposes green jobs to ridicule, playing into the hands of the climate skeptics and leading to strategic paralysis.

Next, because of the breadth of the current disagreement on the definition of a green job, it's difficult if not impossible to track achievements and identify obstacles, or compare what a country or a region is achieving with other countries or regions. On this score, it is very promising that the EU has asked Canada and the US to begin ongoing information sharing on green transitions.

The third danger associated with the lack of a common definition for green jobs: it is far too easy to argue that greenish job creation = progress being made, congratulate ourselves, and not focus on the more tangled issues.

It may be that defining green jobs is like counting angels on the head of a pin: seemingly valuable, impossible to do, and a distraction from the main game. *It is important not to lose sight of the main game: the main game is slowing global warming*, and an essential part of the slowing process is reducing greenhouse gas emissions by *adapting existing jobs*. *Far from being a job destroyer, greening production is a job creator and a protector of employment. But it requires a particularly creative and interventionist role for government*. So far we've mainly focused on defining green jobs. I'm going to shift to defining '*greening work and employment*'.

Let me give you an upfront summary of what I'd like to argue today:

- The main tool in the struggle to slow global warming is reduction of greenhouse gas emissions.
- The world of work is a major producer of greenhouse gasses. It can also be a major reducer of GHGs.
- By world of work I mean three things: *the job* (employment); *the work processes*, producing goods, services or ideas; and *the physical environment* in which the work is done.

- It should go without saying that the need for paid employment is not going to disappear. Presently existing jobs are the vast majority. Newly created jobs are and will remain a minority. It makes sense to focus on greening the world of work as a whole, existing jobs plus new jobs.
- In the struggle to slow global warming, the world of work has been neglected. But *adapting work* can be made into a major arena for reducing the production of GHGs, and protecting employment levels.
- In other words, in the struggle to slow global warming, we need to focus on reducing greenhouse gas emissions, and that means greening the world of work as well as creating green jobs. In other countries, the outcomes are measurable. The results should also be publicly available.

Greening work and employment

One of the problems in the current efforts to define green jobs lies in is the differing mix of objectives of the different actors. I am proposing this change of focus, from defining green jobs to defining the process of greening all work and employment, for two basic reasons:

First, I believe this permits us to focus on the greening of existing jobs (the vast majority) and at the same time focus on new climate-adaptation jobs to be created, some number of which will be directly involved with the transition to greener practices in the existing-job majority. Second, it will assist us in arriving at a common definition in which green jobs are an important part of a larger strategic package, which focuses on the transition of the world of work to producing fewer greenhouse gas emissions over time, with measurable outcomes.

All work practices and every job can reduce the GHGs they produce. Collectively and specifically, this is a transitional process—over time-- of working differently. It is also a process whose outcomes can be made measurable and publicly available. *A working definition of greening work and jobs might be this: It is a process of society-wide transition to jobs and work practices in the public and private sectors that steadily reduces the GHG emissions produced.*

‘Greening’ concentrates on transitioning both existing jobs (the majority) and new jobs (a minority of all jobs). ‘Greening’ requires education and training, widespread environmental literacy, and requires that every workplace, big and small, undertakes a green shift in production. Greening requires governmental regulation, as well as market incentives. ‘Greening’, in this definition, is therefore outcome-oriented: it produces measurable evidence that fewer GHGs are being produced. This represents a change in processes and practices:

- Is the product produced with fewer GHGs than it did at a benchmark earlier time?
- Have the work practices and processes changed so as to reduce the emission of GHGs over a defined period of time?
- Does the job entail spending more than 50% of the worker’s time in emissions-reduced work, ie producing a product which has reduced its GHG emissions, or working to transition to GHG-reduced production?

- Has the GHG footprint of the employer shrunk over a defined period of time?

It is important to be clear that some sectors will shrink or migrate geographically, some jobs will be lost, or lost to the communities they were part of. However *not* responding to global warming by greening work and employment will destroy more jobs than it protects.

It is heartening, however, that our recent research on the impact of climate change on employment and work in key Canadian sectors¹ found that greening work processes in existing industries, and job-creation to carry out climate adaptation work, are likely to lead to a modest growth in employment. There will be growth, but there will also be a lot of job churning. A 2007 European Union study also predicted job churning and modest job growth in certain sectors, but warned that without activist government incubation and regulation and funding of active labour market transitions, the social costs of climate change would be unacceptably high².

In sum, the work world can be a key site for slowing global warming. Greening employment and work deploys a mix of strategies, including job creation for climate adaptation work, and adapting the work practices of every kind of existing job in order to reduce the production of greenhouse gases. While a consensual definition of a green job continues to elude us, it is possible to put numbers to the outcomes of the strategy-mix we call 'greening jobs and work'. Perhaps focusing on transforming the world of work into a key actor in slowing global warming is the most effective way we can move forward, at this critical juncture.

¹ *What do we know? What do we need to know? The state of Canadian research on work, employment and climate change* . www.workinawarmingworld.yorku.ca.

² S. Dupressoir et.al 2007. *Climate Change and Employment. Impact on employment of climate change and CO2 emission reduction measures in the EU-25 to 2030*.

JOHN CARTWRIGHT

President, Toronto and York Region Labour Council

Green Jobs are the Future

A decade ago the world's leaders gathered in Rio de Janeiro to talk about the environmental crisis created by pollution, deforestation, and climate change. Their concerns led to the creation of the Kyoto protocol on the reduction of greenhouse gases - in which nations committed to reduce the amount of carbon dioxide flowing into the atmosphere. These measures were immediately opposed by the multinational oil cartels, and their massive funding of George Bush's election resulted in the United States attempt to sabotage the Kyoto process.

In Canada powerful corporate voices cried about possible job loss and economic costs in an effort to derail the signing of the accord. Their rhetoric about "job-killing" has a familiar ring - they use it to oppose every policy that restricts their ability to exploit man or nature. The labour movement, on the other hand, has started to advocate that we can have both jobs and a healthier environment. In 1999, the Canadian Labour Congress adopted a resolution to develop a strategy on "green jobs", and a special conference looked at what it would take to create truly sustainable communities and green jobs.

Sustainability is defined as practice which meets the needs of the present without compromising the ability of future generations to meet theirs. Green jobs can include everything from restoring forests and wetlands to teaching children how to be environmentally responsible. Here in Toronto we have had two outstanding examples initiated by unions:

The construction trades in Toronto actively pursued work in retrofitting buildings as a way to provide jobs for their members during the bleak days of the 90's recession. Through the City's "Better Buildings Partnership, hundreds of jobs were created, while building owners saved 30-50% on utility and energy costs.. CO2 emissions were significantly reduced and air quality in offices often improved.

CUPE 416 and the Toronto Environmental Alliance co-sponsored a proposal for recycling and composting that would have diverted 72% of Toronto's solid waste from landfills, and created 900 new jobs. It was ignored until the Adams Mine fiasco, when it finally became the basis for the Mayor's Task Force 2010 report.

Throughout Europe, the labour movement is involved in many such initiatives. In some cases their standards, such as chlorine-free bleaching for pulp and paper, have forced Canadian mills to upgrade. In Finland, the Hotel and Restaurant Workers have implemented an eco-audit at hotels, resorts, and campgrounds. The process resulted in changes to purchasing practices, energy and water consumption, waste management, and food preparation.

Perhaps the most inspiring example is the Blue-Green Alliance in the U.S., headed up by Steelworker Dave Foster. Its efforts helped create hundreds of new jobs in

Pennsylvania by tying energy policy into local production of wind turbines. At their recent conference entitled "Good Jobs, Green Jobs" corporate executives and union leaders agreed that we all need to embrace the environmental imperatives of the new economy. They were brought to their feet by Van Jones, a community organizer from California whose vision of green jobs for inner-city youth showed clearly that equity must also be part of the answer.

In fact, there are examples in enough areas to provide the basis for a comprehensive program of green redesign of every major facet of our economy. In the process, however, some jobs will be displaced. Labour has a strong position on "Just Transition", which calls for funding to provide adequate protection for workers and communities affected by environmental change. The Communications, Energy and Paperworkers Union, which represents thousands of members in the energy sector, supports Kyoto as long as such just transition is included. It concludes that more jobs will be created in alternative energy production than will be lost in the "carbon economy".

Rebuilding our economy into a sustainable one can create jobs - in every sector. From resource extraction to public transit. From redesigning industrial processes that "close the loop" to different crops and food production. From water treatment to demand side management for electricity. The list goes on and on. It benefits the public sector, by making facilities and services more cost effective. That includes the use of "full cost accounting" to measure what is truly good or bad about a particular activity. It includes making our private sector industries more capable of surviving the future challenges as resources shrink and pollution is curtailed. And it will begin to unleash the tremendous economic potentials of environmental technologies.

Can we bring all of these ideas into a campaign that creates the momentum towards real alternatives? Decades ago social movements pushed the political agenda for change, and thousands of activists developed a "world view" that refused to accept the power structure as it stood. Construction workers marched for peace, autoworkers fought apartheid, and steelworkers stood up for women's rights - all because we saw these things as part of the struggle for true social justice.

A new "green" world view could help to inspire the same kind of passion and commitment that are required to challenge the current system. And it could give young activist something to struggle for - jobs and justice, interlinked with saving the ecology of our planet.

TONY CLARKE

Director, Polaris Institute of Canada

My work over the past few years has been focused on developing transition strategies to a green economy in Canada. In doing so, operational definitions of what constitutes 'green jobs' and 'greening jobs' is an ongoing question. While this debate continues, our aim has been to develop the process of working on transition strategies to a green economy in this country.

1. General Strategic Assumptions

The following are some basic strategic assumptions that lie behind our work in facilitating a transition to a green economy future.

- **Triple 'E' Challenge:** At Polaris, our work on transition strategies for a new green economy has been based on what we call the triple 'e' challenge, namely, the fact that we are living in a period where we have an ongoing economic crisis that is compounded by a deepening environmental crisis which, in turn, is compounded by an energy crisis. Simultaneously, all three crises are occurring in the current historical moment to the point where one cannot be resolved without the other two.
- **National Paralysis:** At the national level, the Harper government has failed to acknowledge, let alone take action, with regards to this triple 'e' challenge. The federal government has no strategy to shift the economy's dependency on dirty fossil fuels to clean, renewable energy. Nor is there any strategy in place for building a new green economy in this country. While some provinces have initiated policies and programs on these fronts, federal government leadership and action is essential.
- **Civil Society:** Given the lack of concerted political vision and leadership needed to bring about the transition to a green economy, it's time for civil society to step up to the plate. This transition, after all, requires making a 'cultural' along with a 'political' and 'economic' shift in society's values and priorities. It's strategically important, therefore, that a common front of civil society organizations be formed to develop and advocate a vision for a green economy future.
- **Economic transformation:** The transition to an authentic green economy implies a transformation in the fundamentals of our economic system. Our current economic model, based on limitless growth, depletion of natural resources, and profit maximization is on a collision course with a sustainable future. Profound changes in our modern industrial model of production and consumption will be needed if this country is going to measure up to the triple 'e' challenge.
- **Means of Production:** Access to the means of production is a key factor in bringing about a transformation of the economic model or system. The best hope of gaining progressive access to the means of production for

making the transition to a green economy lies with labour, rather than capital. In effect, workers in general and unions in particular, especially unions with a progressive vision, hold the keys that could unlock the door to the building of a green economy future in this country.

2. Specific Strategic Initiative

Here are a few points outlining a specific initiative we have been undertaking a new civil society initiative for a green economy future in which unions play a key role.

- **Canadian Experiment:** Drawing in part on the inspiration of the Blue-Green Alliance in the US, Polaris conducted a series of consultations with several of the major unions, environmental and social justice organizations in the country in 2009. In September 2009, 25 organizations met in a round table that lay the groundwork for the formation of what was later called the Green Economy Network [GEN]. Since then, GEN has developed a vision statement and begun a plan of action for transitioning to a green economy.
- **Common Platform:** Recently, the GEN has been putting together a common platform that initially involves a three-pronged program of action by governments: [i] a program for expanding public transit in urban areas and developing intra-city high speed rail; [ii] a program of public investment in the development of a clean, renewable energy future; and [iii] an energy efficiency program through retrofitting residential, industrial and commercial buildings across the country.
- **Operating Criteria:** Although this common platform is still in the drafting stage, it includes data and projections on: [a] the number of jobs to be created by the year 2025; [b] the amounts of carbon reductions to be achieved by each program; and [c] the kinds of equity measures required to ensure a more just transition. As well, this common platform will include data on the projected costs of these programs and proposals on how the required revenue can be raised by governments.
- **Community Action:** When it comes to launching this common platform, the GEN will aim to put a human face on the transition to take place. This means that the action programs being proposed must be grounded in communities across the country. In short, the local economy becomes central to strategies for making the transition to a green economy future. Before launching the platform, therefore, strategic links will be developed with local community groups and related community-based campaigns
- **Sticky Issues:** As can be imagined, there are many 'sticky issues' to be resolved in this process. They include making distinctions between a green economy and a green society, definitions of green jobs and greening jobs, and debates over whether the public sector or the private sector should be taking the lead in making the transition to a green economy. To work on these and other 'sticky issues, the GEN has set up a committee to define

and propose specific issues for discussion, debate and, if possible, resolution.

- **Purposeful Work:** Regardless of having precise definitions in place concerning 'green jobs' and 'greening jobs,' making the transition to a green economy future can provide workers with a greater sense of purpose and meaning in the work they do. Any contribution that workers can make in resource, manufacturing, transportation, construction and service industries to 'greening' the model of production and the building of a 'greener' economy and society can make a major impact on the 'dignity of work' itself.
- **System Change:** Finally, to use the phrase coined by the climate justice movement, the objective is not 'climate change' but 'system change.' As noted above, nothing less than a fundamental transformation of our economic model and system will suffice. In other words, the capitalist system as we know it, based on limitless growth and profit maximization, cannot adequately measure up to the triple 'e' challenge.

The GEN includes the following civil society organizations: Canadian Labour Congress, Canadian Auto Workers, Canadian Federation of Students, Canadian Union of Public Employees, Canadian Union of Postal Workers, Canadian Youth Climate Coalition, Columbia Institute, Communication Energy & Paperworkers, Climate Action Network, Council of Canadians, David Suzuki Foundation, Greenpeace, Green Communities Canada, International Assoc. Of Machinists, KAIROS --- Canadian Ecumenical Justice, National Union of Public Government Employees, Pembina Institute, Polaris institute, Public Service Alliance of Canada, Service Employees International Union, Sierra Club of Canada, Toronto Labour Council, and the United Steel Workers

MARJORIE GRIFFIN COHEN & JOHN CALVERT

Professor, Department of Political Science, Simon Fraser University

Strategies and Challenges for Green/ing Jobs in Canada's Energy Production Sector

A focus on employment issues in the energy sector is significant for two main reasons. First, the production of energy is a major source of greenhouse gas emissions in Canada, contributing to 37.4% of Canada's total. Major changes need to occur in this sector to have effective reduction in GHG emissions in the country. Second, public policy in various jurisdictions is beginning to focus on the ways that some energy production, most specifically electricity generation, could become more reliant on renewable resources (or green energy). Electricity production currently contributes 16% of Canada's total GHG emissions (primarily from coal-fired generation), and oil and gas production contributes 21% of the total.

Challenges: The challenges in 'greening' the energy sector are considerable. Unlike other major producers of energy, Canada is not experiencing a decrease in the production of oil and gas, as is occurring on other parts of the world, a factor that affects the shift toward a focus on green energy. Even more disturbing is that new sources of Canadian oil and gas are more environmentally damaging than are the conventional sources. These are the extraction of oil from the tar sands in Alberta (which now constitutes more than half of Canada's oil production), and the new practices of extracting gas from unconventional sources such as tight gas, shale gas and coalbed methane (which now accounts for 33% of Canadian gas production, but is expanding rapidly). The continued expansion in demand for all types of energy produced in Canada means the economic drivers will remain significant in determining the nature of production in the oil and gas sectors. The major drivers of demand are for exports and increased domestic demand for every type of energy produced.

A serious obstacle to GHG reduction in the energy sector is the very soft climate change policy of the Canadian government and its view that markets, rather than public policy and public planning, should shape how Canada responds to global warming. Until Canada has a rigorous GHG reduction policy, market demand will continue to encourage the increased use of energy either domestically or for export.

Energy Jobs/Green Jobs/Good Jobs

Large-scale investments in oil and gas create relatively few jobs compared to other sectors of the economy. While the energy production sector has a major impact on Canada's economy, direct employment in the sector provides only a small share of the nation's jobs. Total direct employment is slightly under 300,000 workers, or roughly 1.8 percent of Canada's 17 million employed workforce in 2009. Only employment in coal mining is declining. Employment impacts tend to be concentrated in the planning, exploration, development and construction of energy projects and related pipeline and other infrastructure, as well as in the transportation requirements associated with building and servicing these projects.

These jobs are mostly short term in nature, with long-term employment in energy construction contingent on continuing expansion of energy projects. Manufacturing linkages for materials and equipment, as well as related administrative and technical services, do provide some additional employment, particularly in Alberta, Ontario and Quebec. But imports meet the largest share of the demand for manufactured goods needed in the energy sector. The federal and provincial governments have been reluctant to adopt policies requiring more value added processing and manufacturing within Canada and have watched passively as energy companies outsource more of their work to international suppliers.

Like oil and gas, Canada's electricity production is capital intensive, creating relatively few permanent jobs compared with other sectors of the Canadian economy. Electricity production is dominated by large hydro (58%) with coal (17%), nuclear (15%) and natural gas (6%) playing lesser, but still significant, roles in some provinces. Despite the increased focus on new sources of "green" energy, large hydro remains the predominant source of renewable electricity in Canada. So far, new renewable electricity is still a relatively small contributor to overall energy supplies. Wind energy, the fastest growing and largest part of the renewable sector, accounts for less than 1% of electricity output. Despite the attention given to the need to expand the role of new renewables in Canada's energy mix, they are unlikely to make a major impact in replacing fossil fuels or nuclear generation the near future, however desirable this objective may be in reducing GHG emission.

An added challenge in the new 'renewable' sector is the private nature of this production. Unfortunately, the policies of most provincial governments have tended to support these new types of production as private initiatives, rather than assuming the responsibility for alternate green development as an integrated part of the energy mix within existing publicly owned utilities. As a result, these new jobs are not the secure, highly paid unionized jobs that are characteristics of government owned utilities in Canada. So far, none of these new jobs are organized by trade unions. Currently about 73% of the workers in electricity in Canada are in trade unions, so the shift to private electricity will have a big impact. Associated with this private nature of production are the constraints this puts on requirements for local production. Ontario, for example, has substantial performance requirements for manufacturing as a condition of accessing subsidies for 'renewable' energy. This, however, is encountering a serious trade challenge at the WTO from Japan, the US, and the EU.

The oil and gas sectors have much lower rates of unionization (12.3%) than do other sectors of the Canadian economy (32%). The reasons for this have to do with the hostility of the Alberta government to trade unions, making any organizing difficult. But also the characteristics of the work affect it as well. Numerous small operators characterize the exploration and drilling sector. Small employers tend to be hard to unionize in all sectors of the economy, but the highly dispersed – and mobile - character of these operations makes it even more difficult. Rapid labour turnover also makes organizing and servicing members a major challenge for unions.

Strategies

Medium-term Strategies:

- Ensure that new renewable electricity production occurs as part of existing public utilities.
 - This will be essential to maintain the high rates of unionization, and consequently good pay and working conditions in this sector
 - This will also be key to renewing the skills in this sector through their support for apprenticeship and training programs
 - This will also lessen the ability of foreign corporations to challenge provincial requirements for local manufacturing.
- Eliminate expansion of existing pipelines that are focused on either exports, or supplying gas for the tar sands production.
- Curtail the use of unconventional oil and gas sources.
- Ensure that provincial energy plans contain substantial integration of all the stages of the production process, particularly with regard to the manufacture of the hardware associated with 'renewable' energy production.
- The government of Canada needs to mount strong defenses with regard to challenges to integrated planning for local needs in the energy sector.
- Strong equity initiatives need to be instituted in the energy sector to encourage a more integrated labour force.
- Adopt policies designed to keep more of the value added manufacturing, assembly and construction work done within Canada

Long-Term Strategies:

- Canada needs a serious climate change policy that would begin to address the problems associated with oil and gas production. Any serious carbon-reduction strategy shift the economy from one that is capital intensive, with very high-energy use, to one that is more labour intensive.
 - This would need to be coordinated through all levels of government, an exercise that will be extremely difficult, considering the constitutional rights of provinces to control energy issues.
 - This would also require shifting from the current export-led policy for oil and gas and expansion in this area, to one that is domestically oriented.
 - It might also entail fairly strict use of carbon resources, or a rationing system to lessen domestic demand.
 - A comprehensive labour transition strategy to give workers the training and skills to move into areas of energy production that generate fewer GHG emissions per unit of energy produced or to move into jobs in other areas of the economy that promote conservation.

SPEAKERS

LAUREL SEFTON MACDOWELL is a Professor of History at the University of Toronto. She specializes in Canadian working class history and North American environmental history. Her interdisciplinary focus led to her association in the graduate programs of the Centre for Industrial Relations and Human Resources and the Centre for the Environment. Laurel MacDowell is also the co-ordinator of the Nuclear International Research Group.

CHARLES CAMPBELL is head of the Research Department for the United Steelworkers Canadian National Office in Toronto. He has helped develop the union's initiatives, through the "Blue Green Canada" alliance with Environmental Defence, to promote job-creating solutions to the challenges of climate change. Previously, Campbell has served as a researcher for the Ontario Environmental Assessment Board and as Washington-based National Environment writer for the Associated Press news agency.

CLARE DEMERSE is the Associate Director of the Climate Change program at the Pembina Institute. Clare is responsible for researching and analyzing government policies to address climate change, and regularly acts as a spokesperson for the media.

SARA LETOURNEAU is the Director of the Labour Climate Project for the BlueGreen Alliance (US). The Labour Climate Project educates union members on the importance of developing clean energy in America. Prior to her position with BlueGreen Alliance (US), Sara was a health care organizer with the Service Employees International Union for 14 years.

CARLA LIPSIG-MUMMÉ is Professor of Work and Labour Studies at York University, Canada. She is principal investigator of the Tri-Agency research project 'What do we know? What do we need to know?' and principal investigator of the CURA research programme, 'Work in a Warming World'. Her research focuses on factoring work and employment into the struggle to respond to climate change, the future of work in developed societies, trade unions in a globalising era, regulating professions, emerging labour relations regimes.

JOHN CARTWRIGHT is the President of the Toronto and York Region Labour Council. He is responsible for promoting the adoption of a green jobs strategy by the Canadian Labour Congress in 1999. John has an extensive history in Union

representation, ranging from the Carpenters Union to the Central Ontario Construction Trades Council.

TONY CLARKE is the Founder and Director of the Polaris Institute of Canada, through which he co-launched the Green Economy Network for the Polaris Institute. Tony serves as a Board Member of the Canadian Centre for Policy Alternatives, and is the author and co-author of 10 books, including *Tar Sands Showdown* and *Inside the Bottle*.

MARJORIE GRIFFIN COHEN is a professor of Political Science and Women's Studies at Simon Fraser University. She has written in the areas of public policy and economics with special emphasis on issues concerning electricity and energy deregulation, labour, women, international trade agreements, and the Canadian economy. She was the principal investigator of a five-year major CURA project entitled "Re-defining Public Services in British Columbia: Challenges to Economic Security and Alternative Possibilities."