



Pacific Institute
for Climate Solutions
Knowledge. Insight. Action.

PICS News Scan – 15 November 2011

Produced by [ISIS, Sauder School of Business, UBC](#)

Authors: [Chris Kantowicz](#), [Calyn Shaw](#), [Neil Salmond](#)

Editors: [James Tansey](#), [Robyn Meyer](#)

The PICS News Scan is a weekly summary of the major climate-change related science, technology, and policy advances of direct relevance to the BC provincial and the Canadian federal governments and more generally to businesses and civil society. The News Scan focuses on cutting edge climate issues and solutions gathered by the fellows and faculty of [ISIS, a research centre at the Sauder School of Business](#), in partnership with the [Pacific Institute for Climate Solutions \(PICS\)](#). Access to some referenced articles may require a journal subscription or purchase of the article, and appropriate links are provided for this purpose. To be added to the News Scan distribution list or to provide content feedback and/or suggestions about interesting news items, please email picsscan@uvic.ca.

Complementing the News Scan is the [PICS Briefing Note Service](#). This service provides timely and concise analysis, as well as suggested policy action, on issues related broadly to BC climate change mitigation and adaptation.

Research Theme I: The low carbon emissions economy

Fracking impacts on water, hydro power and climate

November 9, 2011. A [new study](#) from the [Canadian Centre for Policy Alternatives](#) (CCPA) raises concerns about the impacts of British Columbia's (BC's) growing shale gas industry. CCPA argues that hydraulic fracturing (fracking), the process used to extract unconventional natural gas from shale formations in northeastern BC, will put significant stress on the province's water resources and jeopardizes its climate change policies. The study, undertaken in partnership with the [Wilderness Committee](#), argues that unconventional gas is not a green alternative to other fossil fuels because the escalation of fracking activities will result in the doubling of the natural gas industry's greenhouse gas (GHG) emissions by 2020. This increase would mean other industries would have to make deeper emissions cuts if the government is going to meet its climate action targets. The study also notes that there are concerns because shale gas is primarily shipped to Alberta to power oil sands extraction. Conversely, if shale gas was used to displace coal-fired power generation, it could have a significant positive impact on emissions reductions in North America.

This study follows a report from the Pembina Institute published in September 2011 at the



[risks shale gas poses to BC's climate action objectives](#). While both reports were prepared by NGO's with a strong position on climate policy, both groups consulted widely and made a number of recommendations: develop a management strategy (with a potential cap on annual production); update the [Climate Action Plan](#) to account for increases in shale gas extraction; end subsidies to the industry; require carbon capture and storage technology to be implemented; and broaden the application of carbon pricing to cover process emissions. According to the CCPA study, these, and other, policy recommendations would create a more environmentally responsible industry that doesn't undermine BC's climate action objectives. What the report doesn't say is whether there is the political will to make such changes. The natural gas industry in BC [generated \\$365 million in revenue](#) to the province in the 2010-2011 fiscal year, a number expected to rise rapidly as prices rise and extraction expands.

<http://www.policyalternatives.ca/newsroom/news-releases/bc%E2%80%99s-climate-goals-hydro-and-water-resources-risk-shale-gas-fracking-industry>

Australian Senate Backs Carbon Tax, Seeks International Links

November 8, 2011. With the passage of new legislation last week, Australia will join the 25 countries of the European Union, New Zealand and the state of California in [implementing a carbon market](#). The scheme begins with a carbon tax of AUS\$23 per tonne (close to BC's CAD\$25/tonne) on July 1, 2012, which will be replaced with allowance trading in 2015. Following the vote, it was revealed that Australia had already begun [discussions with the European Union and New Zealand](#) over linking its carbon market to theirs. California and the other Western Climate Initiative members have not yet been mentioned, but would be natural additions to a market in which global pollution allowances were traded.

British Columbia should applaud Australia's bold move, and continue to lead on climate policy. Indeed, as described in [a previous News Scan](#), British Columbia has taken a leadership role in carbon pricing: the province has been designing its carbon market for the past four years. However, implementation remains pending, and mixed signals have not yet provided the policy certainty that investors and businesses in British Columbia need to make long-term, climatically responsible investments. In May 2011, the Premier stated "[we will work to achieve our targets to reduce carbon emissions](#)" but in September [the Jobs Plan strongly supported large natural gas development](#), which inevitably increases provincial emissions. These conflicting positions need to be reconciled.

<http://www.theglobeandmail.com/report-on-business/economy/economy-lab/daily-mix/australia-passes-carbon-tax-laws/article2228985/>

Research Theme II: Sustainable communities

Reducing BC's reliance on California produce should be a priority, report says

November 2, 2011. A new research paper from PICS highlights the vulnerabilities and uncertainties in British Columbia's food systems. By tracking the imports and exports of fish, meat, fruit and vegetables through the lens of climatic change, the authors of the report - [Climate Change and Food Security in British Columbia](#) – hoped to predict the future impacts

of climate change on the province's food supply. The researchers found a startling lack of research on the expected impact of climate change on BC's agricultural productivity, especially compared to the research available in developing countries located near the equator. However by mapping the trade flows, they noted extreme weather events would likely impact BC's coastal agriculture and imports from California, on which BC is heavily dependent.

The report makes seven recommendations to policymakers:

1. Facilitate partnerships (between agriculture, health) that ensure effective food policies.
2. Promote healthier and environmentally sustainable diets
3. Promote local agriculture.
4. Collect more data regarding the emissions associated with food supply chains.
5. Develop climate scenarios to help guide the BC agriculture industry.
6. Reduce emissions from cattle farming and manure.
7. Anticipate rising food prices with social support policies.

From a policy perspective, these recommendations involve moving upstream to tackle the embedded emissions in everyday food products. Having stronger evidence of this, along with a better understanding of how climate change will affect local agricultural productivity, will enable policymakers to identify alternative supply chains that offer the greatest food security while lowering GHG emissions.

http://pics.uvic.ca/assets/pdf/publications/WP_Food_Security_November2011.pdf

Water and energy conflicts in the Intermountain West

November 3, 2011. A recent [report](#) by the Pacific Institute highlights the increasing conflicts for water resources within the US Intermountain West, an area bounded by the Rocky Mountains to the east and the Sierra Nevada and Cascade Mountains to the west. The study's authors note the intimate relationship between climate change and water levels and the implications this holds for energy generation by reducing both hydroelectric capacity and the availability of water for fossil fuel extraction. Increasing population growth in the region puts further pressure on scarce water resources and further increases demands for electricity. The study suggests that water-energy risk can be reduced by increasing information and education on impacts, investing in technological solutions for improved water and energy efficiency, increasing renewable energy solutions and switching certain uses to waste water or industrial water sources.

BC's Interior is a geographical continuation of the area identified in the American paper and shares the same water management challenges including climate change, land and resource development and population growth. The province has identified a need for better water management planning and embarked upon [modernizing its Water Act](#) in December of 2009. A year later it released a [Policy Proposal on British Columbia's new Water Sustainability Act](#) which suggests a range of tools including increased regulation of groundwater and surface water, introduction of incentives for improving water use efficiency, the creation of Agricultural Water Reserves, and improved measurement and reporting regulations. The sheer number of responses and requests for participation in this report have delayed action. The province is

planning to hold further consultation in 2012 before finalizing draft legislation to be introduced into the Legislature. As the province consider future commitments in terms of climate policy, this report will help identify some of the linkages with water use decisions.

http://www.pacinst.org/reports/water_for_energy/

Research Theme III: Resilient ecosystems

Biodiversity can promote survival on a warming planet, mathematical model shows

November 6, 2011. A new mathematical model reveals that the ability for a species to evolve in order to adapt to climate change may depend on the biodiversity of its community. The [findings](#), determined using a model stimulating the effects of climate change on flowering plants and their insect pollinators, is important because anthropogenic (man-made) climate change poses different challenges to species evolution than previous historical, climate change events. Species that rely on one another, known as “mutualists,” face extinction if climate change rapidly alters the timing of their life cycle and they are unable to adapt in order to remain in sync with each other. Researchers found that this ability to adapt was influenced positively by the biodiversity of their surroundings.

Understanding these interactions will help researchers to identify those mutualisms at highest risk from climate change. But what does this mean for policymakers in BC? The important point is that this is another study to add to the growing number of reports and papers stressing the importance of biodiversity in combating and adapting to climate change. If biodiversity helps bees and flowers adapt to climate change, what else can be assisted by protecting, or even enhancing, biodiversity? According to [Biodiversity BC](#), the provincial government took a number of recent initiatives aimed at conserving biodiversity - the [Mountain Pine Beetle Action Plan](#), [Forests for Tomorrow](#), [Climate Change Action Plan](#), [Future Forests Ecosystems Initiative](#), [Invasive Alien Species Framework for BC](#), [Conservation Framework](#), [State of British Columbia's Forests](#), and [BC's Coastal Environment Report](#) – but the growing pressure of rapid climate change requires further and continued attention.

<http://www.sciencedaily.com/releases/2011/11/111106151459.htm>

Research Theme IV: Social mobilization

Survey: US government focus on fossil fuels and nuclear is out of touch with mainstream America

November 3, 2011. The results of [a new poll](#) released by the Civil Society Institute (CSI) indicates that 60 percent of American voters are against government support for fossil fuel power, and that view is consistent across the political spectrum. ORC International (on behalf

of the nonprofit and nonpartisan CSI) telephoned 1,049 adults living in the continental US between October 21-24, 2011, and asked "Do you support federal subsidies for oil and gas, coal, natural gas and other fossil fuel companies?" The response was described as strikingly uniform, with 59 percent of Republicans, 65 percent of Independents, 59 percent of Democrats, and 59 percent of Tea Party members opposing federal fossil fuel subsidies. Most Americans also support loan guarantee support for renewables, and said they wanted America to make the investments required to be a global clean energy leader.

This survey adds to consistent polling across North America showing generalized support among the electorate to reduce GHG emissions. Despite this consistency, it is still common to hear that public opinion is divided on climate policy. The attitudes in this survey are reflected in Canada and BC: [78% of Canadians](#) want Canada to be a leader in the global fight against climate change, and [70% of British Columbians](#) in turn support the province's leadership on climate policy.

<http://www.civilsocietyinstitute.org/media/110311release.cfm>



This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 2.5 Canada License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/2.5/ca/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.