



Pacific Institute
for Climate Solutions
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PICS News Scan – 13 September 2011

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In the spirit of continuous improvement we kindly ask that you take 30 seconds to answer five short questions about the news scan - [Your questions are here!](#)

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

California moves to avoid Europe's perils in encouraging green power

August 31, 2011. California utilities will be required to issue calls for clean power twice a year under a new policy called the [Renewable Auction Mechanism](#). This policy is similar to British Columbia's Power Purchase Agreements – although California has several electricity utilities, where BC has just one – and is expected to pass on to consumers the lower costs of improved solar technology more quickly than fixed feed-in tariffs would. The utilities must choose the lowest cost bids that meet transparent eligibility criteria, including professional experience of the board and options on land and infrastructure licenses.

British Columbia and California are partners in the [Western Climate Initiative](#), but have very



different economies, both in terms of scale and the carbon intensity of various sectors. BC's electricity sector is not a major source of carbon emissions, so that the primary motivation for power purchase agreements is [export development](#), not de-carbonization. However, it will be interesting to monitor the success of California's policy – with its clear schedule for auctions and transparent viability criteria – compared to [BC's changeable and uncertain policy environment](#), which has caused many private power developers to abandon the province after the [last clean power call in 2008](#). British Columbia's [feed-in tariff](#), if adopted, is also borne of very different motivations from other jurisdictions, in that it is intended to encourage development of pre-commercial technologies only.

<http://insideclimatenews.com/news/20110830/california-feed-in-tariff-auction-europe-spain-germany-solar-power>

Insurance companies unprepared for climate change, report says

September 2, 2011. Statistical analyses of climate-model results (eg. Min et al., *Nature*, 470, February 17, 2011) have shown recently that the intensity of precipitation extremes is increasing, likely as a direct consequence of global warming. The economic costs of heavy precipitation events have been rising in recent years. For example, Hurricane Irene, which intersected the US northeast last month, is the costliest natural disaster in history, largely due to flood damage. But even before Irene hit the US, insurance losses in 2011 had been 40% higher than the previous year. [According to a recent report by Ceres](#), a national coalition of investors and environmental organizations focused on sustainability, insurance companies are ill prepared to deal with changing risk models and increasing payouts, despite the observed trends in precipitation extremes. Based on surveys of insurance companies in six US states, “only one in eight companies have formal climate change policies in place”. The report also highlighted that, even for those companies who have considered climate change risks, the scope is too narrow with policies focusing primarily on coastal areas.

The results of this study could suggest that the lack of preparedness of insurance companies may be symptomatic of a larger shortfall in foresight and planning when it comes to adapting to climate change, in particular for businesses. [BC's Climate Change Adaptation Strategy](#) focuses primarily on the province's two key resource sectors, forestry and water, but little is said about the impacts of climate change and extreme events for other sectors. While the strategy identifies the adverse impacts expected to occur, it does not stress the need to quantify the likelihood of occurrence or extent of the damage. From an economic perspective, engaging the insurance sector's risk assessment capabilities will aid the financial planning processes of companies, should they wish to insure operations against climate change related risks. New products within the insurance sector would also generate additional revenue for the local economy, create jobs and provide further clarity in terms of the uncertainty BC faces as our climate continues to change.

<http://www.climatecentral.org/news/insurance-companies-unprepared-for-climate-change-says-report/>

Research Theme II: Sustainable communities

52% of municipal utility executives unsure who owns smart meter data

September 6, 2011. Smart meters are just one aspect of the smart grid, but for municipal utilities, they are often the cornerstone of smart grid deployment. Earlier this year, [GTM Research surveyed approximately 100 municipal utility executives](#) at the inaugural [Municipal Smart Grid Summit](#) held in Bonita Springs, Florida about their current and future smart grid deployment plans. More than half the executives said they are unsure who owns the granular consumer energy data. A quarter of respondents said it belonged to the customers, and 23 percent said it belongs to the utility. [Privacy concerns in Europe](#) forced the Netherlands to scale back their national smart meter plans, and the UK is establishing a central agency to oversee all of the data, so that it does not sit with the utilities.

Critics of smart meter installation in BC also raised concerns about data security. Concern was such that in July of this year, BC's privacy commissioner [launched an investigation](#) into BC Hydro's Smart Meter program. Resolving concerns about data security is in the interests of everyone in the province and BC Hydro says [consumption data will remain secure and private at all times](#). Ultimately, smart meters and a shift to a smart grid to manage energy use is an important component in managing BC's energy consumption, which is undoubtedly linked to the province's [climate action targets](#). The [BC Energy Plan](#) calls for increases in alternative energy and smart meters offer greater consumption information and control to the consumer.

<http://www.greentechmedia.com/articles/read/stat-of-the-day-52-of-muni-utility-execs-unsure-who-owns-smart-meter-data/>

Research Theme III: Resilient ecosystems

From dust in Asia to snow in California

August 31, 2011. A multi-year research study in California is suggesting that atmospheric dust may have a significant influence on precipitation in the state. [The study, known as CalWater](#), has been monitoring ground stations to record precipitation and using aircraft to study particles arriving from Asia. Researchers were able to identify correlations between atmospheric dust arriving from Asia and ice in clouds or snowfall amounts in California, including one specific dust event that increased the snowpack by 16 inches. This research suggests that there are more complex interactions between climate change, dust and other forms of pollution, which "may influence regional and worldwide climate modelling".

BC could be affected in much the same way as California by dust and atmospheric clouds moving across the Pacific Ocean, impacting snowpack, climate and precipitation in the province. There are a number of regional and national bodies developing climate change models, including the [Canadian Centre for Climate Modelling and Analysis](#) and a consortium of centres in the [Canadian Climate Change Scenarios Network](#). The model results are applied by regional tools such as [ClimateBC, developed by researchers at UBC](#) and the [Regional Analysis Tool developed by the Pacific Climate Impacts Consortium at UVic](#). Much

of BC climate research focuses on the impacts of a changing climate on forestry and hydrology over time. Given the importance of forestry for the economy and water resources for power production, the research from CalWater may impact regional climate models and future decisions in these fields.

<http://pubs.acs.org/cen/news/89/i36/8936news7.html>

Trees pull nitrogen from rocks and microbes

September 7, 2011. All plants need nitrogen to grow and [a new study found that some plants](#) get this nutrient from a previously discarded source. Until recently, experts believed that nitrogen for plants originates in the air and is converted by microbes in the soil into a usable form. But a new report in the journal *Nature* finds that some nitrogen comes directly from local rocks like mica schists, where it resides as ammonium ions in interlayer sites in the rock. This newly-recognized source helps to supply nitrogen thereby facilitating sequestration of CO₂ from the atmosphere. Scientists speculate that, as climate change warms the earth and creates more erratic rainfall, bedrock will erode at a faster pace, providing an increased release of nitrogen into the soil. This could increase the rate of uptake of carbon into biomass.

For those in BC working to understand the nutrient cycles of plants, the new findings increase by about one-third the amount of nitrogen thought to be available to terrestrial plants. This shift in thinking adds an extra layer of complexity to studies and renders many textbooks on the subject outdated. Different rocks contain different levels of nitrogen, calling for detailed studies on the [different types of bedrock we have under our forests in BC](#), and how nitrogen can be more efficiently released from the rock to encourage tree growth. BC may in fact be underestimating the ongoing ability of its forests to act as carbon sinks, given that ‘bedrock nitrogen’ has not been previously factored into biogeochemical models used to estimate uptake of CO₂ during photosynthesis.

<http://www.scientificamerican.com/article.cfm?id=trees-pull-nitrogen-from-rocks-and-microbes>

Research Theme IV: Social mobilization

Gore's message about climate change grows in urgency

September 7, 2011. Former Vice President Al Gore is shifting his climate change fight from rallying support to passing legislation in the US – an effort that resulted in a near miss in Congress – to an emphasis again on reaching everyday people. The move comes as critics who insist warming of the planet is not a problem continue to barrage the public with their view through talk radio shows, op-ed pieces and other outlets. Gore believes the current US Congress is paralyzed by politics and it is time to go back to the grassroots and convince as many people as possible of the reality of what’s going on. His first action is on September 14-15, when the Nobel laureate and author will host “24 Hours of Reality” to give a live, round-the-clock, global look at what is happening with climate. The event, streamed online in one-hour segments at climaterealityproject.org, will begin at 7 pm Central Time in Mexico, moving around the globe.

Gore's message is becoming more urgent because it is clear in many jurisdictions, including Canada, that climate action is taking a back seat to other concerns, predominately the economy. Canada continues to [fall well short of its international commitments](#), making it even more important for BC to continue to show the leadership it has so far. Gore's message is sure to reach a Canadian audience; policy-makers should expect a social response from this renewed public engagement. Presenters from "24 Hours of Reality" will be streamed to the world from such locations as Tonga; Cape Verde; Jakarta; Victoria, BC; and London before ending in New York City.

<http://www.tennessean.com/article/20110907/NEWS11/309070107/Al-Gore-s-message-about-climate-change-grows-urgency>



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