Julie T. Katzman
Executive Vice President and Chief Operating Officer (COO) of the Inter-American Development Bank

Prior to joining the IDB, Julie T. Katzman served as General Manager of the Multilateral Investment Fund, which provides grants that support private sector-led development benefiting low income populations. Earlier in her career, Katzman was a Managing Director at Lehman Brothers and a founder of Violy, Byorum & Partners, an investment bank focused on Latin America. As COO Julie T. Katzman is particularly focused on furthering the IDB’s emphasis on results and improving access and availability of these results as a way to bring the Bank’s achievements to a larger audience and strengthen the case for development.

Extract from Opening Remarks

Our **mission** at the Inter-American Development Bank is to support **poverty reduction**, **social inclusion** and economic **growth** in Latin America and the Caribbean. A dynamic energy sector is key to achieving these objectives. For that, well designed policies and a stable regulatory framework are a must for investment. To that end, one of the most effective tools at hand is capacity building through knowledge exchanges.

This study tour, organized thanks to our partnership with the Province of Alberta, is a step in that direction. It is a unique opportunity for our delegates, top energy officials and regulators from the region, to learn and share experiences with the private sector, academics, regulators, and government officials who have a hand in making Canada and Alberta among the world’s most dynamic energy markets.

It is our hope that the lessons learned and the friendships created will stand the test of time.

Julie T. Katzman
Dear Participants,

In the last decade, the province of Alberta has become the largest exporter of natural gas and crude oil to the United States of America. The growth of Alberta’s exports is of interest to the IDB because of the many similarities between this province and Latin America.

Alberta, Latin America and the Caribbean are rich in natural resources. In Alberta, the potential to develop natural resources for the good of the public has already been realized. The Energy Division of the IDB therefore organized this study tour to learn from this experience.

We are proud to have put together one of the most comprehensive study tours in the energy sector, and we are confident that the study tour will have lasting impact, because we have taken care to invite you—delegates of first order, leaders in the implementation of energy sector policies and programs in Latin America and the Caribbean.

Warm Regards,

Ariel Yépez-García
Energy Division Chief
Inter-American Development Bank

Link to opening remarks
SUMMARY OF KEY PRESENTATIONS

OCTOBER 20, 2014

UNIVERSITY OF CALGARY PRESENTATION

Allan Ingelson
Executive Director, Canadian Institute of Resources Law, University of Calgary
allan.ingelson@ucalgary.ca

Allan Ingelson is the Academic Director of the Haskayne Energy Management Program and an Associate Professor in the Faculty of Law. His research focuses on regulation of the Canadian and international energy and mining sectors.

- The laws and regulations in the energy sector in Alberta have responded to the history of the province and events of transcendental nature, and they have evolved accordingly.
- Historically the initial priority was to maximize the long-term production of natural resources.
- The legal system has evolved and keeps evolving considerably to deal with sour gas and flaring (Mines and Minerals Act and Critical Sour Gas Wells), conflicts with ranchers and farmers (Surface Rights Act), orphan wells (Orphan Wells fund) and a comprehensive oversight for oil, gas, and coal upstream activities (Responsible Energy Act).

Harrie Vredenburg
Academic Director Global Energy Exec MBA
harrie.vredenburg@haskayne.ucalgary.ca

Harrie Vredenburg is a non-executive member of the Board of Directors of Petrobank (TSX: PBG), a mid-cap international energy and technology company, of Kainji International, a privately-held West African-focused oil and gas company, and of several non-profits.

Governments in Alberta and Canada have put in place seed investment to promote the development of industries and resources that otherwise would not have been economically viable.

- Some national oil companies have been left without money from high oil prices to re-invest in production.
- Oil prices are important, but overall net profits are the complete picture. Price is just one component of the equation, the volume exported is a very important piece too, and even more important is the revenue stream dependent on the individual costs of each play.
Julie T. Katzman
Executive Vice President and Chief Operating Officer (COO) of the Inter-American Development Bank

- The IDB active portfolio in the energy sector of US$7.9 billion. Altogether, considering Sovereign and Non-Sovereign guaranties we count on over seventy projects covering all aspects of the energy sector.

- The population in Latin America is young, growing and the middle class is on the rise. Electricity consumption grew in tandem. The trend is expected to continue. Forecasts for electricity demand project it to almost double by 2030.

- The IDB is an enabling partner for projects in Latin America and the Caribbean. It contributes with a variety of financial instruments as well as capacity building and knowledge dissemination. A great example of the latter is the Energy Database created by the Energy Innovation Center. This innovative database presents complex quantitative and qualitative information in an interactive, user-friendly, and visually compelling format.
The AER provides policy implementation and assurance. It also regulates over 180,000 operating oil and natural gas wells, oil, gas and coal facilities, processing plants and pipelines.

The approach of the AER is one province, one energy regulator for the assessment, exploration, development, operations, closure and reclamation of a project.

There is a sustained effort to continuously improve regulation. Some examples are:

- The new rules for interwellbore communication.
- The rules for hydraulic fracturing-subsurface integrity.
- Play-based regulations.
ELECTRICITY WORKSHOP: ROUNDTABLE WITH ALBERTA ELECTRIC SYSTEM OPERATOR (AESO)

David Erickson
President and CEO
david.erickson@aeso.ca

Before joining the AESO, David Erickson was the CFO for the former Transmission Administrator of Alberta. He played an integral role during the integration of the former Power Pool and Transmission Administration organizations, ensuring a smooth and efficient transition.

Mike Law
Vice-President, Market Services
mike.law@aeso.ca

Michael Law was appointed Vice-President, Marketing Services for the Alberta Electric System Operator (AESO) in January 2014. He joined AESO as Vice President of Operations in December 2009. Prior to joining AESO Mr. Law held leadership positions at Direct Energy Marketing Limited.

- The Electricity Market in Alberta transitioned in 1996 from a regulated market with three private companies vertically integrated to a wholesale electricity market where generation is private and the market sells energy and not capacity. Transmission and Distribution are regulated (cost of service).

- There have been 16 billion dollars invested in Alberta in electricity generation since 1996 without government intervention, investment or central planning. Power producers are private companies that own 100% of the investment risk.

The AESO designs the growth of the transmission system based on a “non-congestion” policy which has helped the growth of wind energy (14,000 Mw installed). Also, AESO was the first entity to set technical requirements for wind energy, which has helped to forecast electricity generation from wind.

▶ Link to AESO Presentation
▶ Link to AESO Annual Market Statistics
▶ Link to AESO Long-term Outlook
▶ Link to Long-term Transmission Plan
Introduction to the Core Research Centre, the process of collecting core samples and tour reports. The Core Research Centre provides information to companies through the viewing of core and drill cuttings. The Center requires companies to send core samples below a certain depth. They are submitted once the well is finished.

Tour reports have to be submitted during well drilling with information on procedures to facilitate the Core Research Centre’s tracking of well development. Submissions go through with compliance. Information on tour reports can be found in Directive 59.

INSTITUTIONAL NOTE: The Core Research Centre is an 18,000 sq. meter facility located in University Research Park. The current inventory provided for research consists of approximately 1.8 million meters of core, 19.5 million drill cutting samples, representing an estimated 83 million meters drilled and 400,000 tour reports.
EDMONTON WASTE MANAGEMENT CENTRE

Roy Neehall
General Manager Waste RE-solutions
roy.neehall@edmonton.ca

▪ A video presentation on the process of collecting, transporting, recycling and composting of waste at the Waste Management Centre focuses on how diverting waste to landfills can lower the impact on the environment.

▪ Tour of the entire Waste Management Centre including the Waste-to-Biofuels and Chemicals Facility. This is the world’s first industrial scale facility of its kind to turn household garbage into biofuels and biochemicals.

INSTITUTIONAL NOTE: The Edmonton Waste Management Centre (EWMC) is a unique collection of advanced waste processing and research facilities. Owned and operated by the City of Edmonton Waste Management Services, the EWMC is an integral part of Edmonton’s sustainable approach to waste management.
Andrew Leach
Associate Professor Alberta School of Business
andrew.leach@ualberta.ca

Andrew, in his own words is an environmental economist, energy enthusiast, and passionate advocate for good environmental policy (read: passionate critic of bad policy).

- **Stringency of Policy** - Think about the **benchmark**. What are we trying to achieve and against which benchmark? How is that benchmark related to your country and the state of development of your country? Key stringency test: If everyone did what we are doing, what would we achieve?

  Standing - When weighing the benefits and the costs of externalities and projects, the pressing question is benefits and cost to whom? Who counts? For example: proponents of projects will sum benefits without splitting benefits from domestic stakeholders to foreign stakeholders. Similarly, opponents of projects will sum costs to the world without looking at benefits.

- **Means of application** - Decentralized methods to pay for externalities or to impose costs on industry i.e. carbon tax, etc. OR Regulation that sets standards to reduce pollution. While decentralized methods such as Carbon Pricing could be the most efficient way to achieve emission reductions, that does not mean that it will be the most effective.

- **Reserves are not physical assets**; they are in summary a production forecast for approximately 30 years from now.

- When thinking about **finite resources**, it is important to consider the boundaries set by the definition of the resource, the methods of accounting and the role that energy efficiency, innovation and substitutes play.

  ► **Link to Andrew’s blog**

  ► **Link to Andrew’s Publications on Mcleans**

**Recommended Books:**
The Coal Question, A Thousand Barrels A Second and The End of Energy Obesity
The Integrated Resource Management System (IRMS) offers a new and comprehensive approach to natural resources management. It includes planning - through a lengthy consultation process involving communities - setting objectives, measuring and reporting the outcomes by an arm’s length organization, and taking managerial decisions related to the outcomes and objectives.

IRMS is different from other planning instruments as it relies heavily on science to monitor compliance with objectives, in other words if the desired balance in development is being met.

IRMS also stands out due to its heavy social component. It includes communities in the benefits of development, through education, training, employment, exchange of information as well as financial resources.

▶ Link to Further information about the IRMS
▶ Link to Alberta Environmental Monitoring, Evaluation and Reporting Agency
▶ Link to Economic Dashboard
SUSTAINIVAL PRESENTATION

Antoine Palmer
Co-Founder, COO, Sustainival
antoine@sustainival.ca

- Sustainival is an eco-friendly carnival that combines the rides and excitement of carnivals with educational information on sustainable energy, ecology and clean technology.

- Sustainival is a recent start-up and has attracted over 9,000 people at its fairs.

INSTITUTIONAL INFORMATION: Sustainival is the world’s first green carnival. We dream of a day when sustainable food, energy, and waste solutions are an integrated part of everyday life. Sustainival is our contribution to the vision of a future where our children thrive in fully realized sustainable communities that enrich both the quality of our lives and the ecosystems that host us.

OCTOBER 23, 2014

WORKING BREAKFAST WITH INDUSTRY
Roundtable: Hydrocarbons    Roundtable: Electricity

ROUNDTABLE WITH THE NATIONAL ENERGY BOARD (NEB)

Jim Fox
Strategy and Analysis Business Unit Leader
jim.fox@neb-one.gc.ca

Jim Fox is currently Business Leader of the NEB’s Strategy & Analysis Business Unit after starting his career with the NEB 21 years ago as a regulatory economist. Jim has been a leader in several Business Units and has extensive experience leading teams and projects dealing with the physical and financial regulation of pipelines, developing regulations, guidelines, and regulatory documents, and managing NEB administrative issues. Jim is in charge of the Board’s processes regarding energy imports and exports, as well as the NEB’s Energy Information Program.

- In the 60s and 70s examining tolls for pipelines was done on a “cost of service” basis, in a process that took 3 years, mostly benefitting one party.

In the 80s there was an attempt to introduce negotiated settlements, but the rules and exceptions created a complex system based on generic cost of capital. It was not until the early 2000s when pipelines were approved prior agreement from all parties. If no agreement was reached, a toll hearing would be held and procedural justice would determine the final outcome.

- The National Energy Board (NEB) facilitates the market’s work. The NEB is now interested in exploring how to generate a cultural change regarding safety.
CLOSING REMARKS

REQUESTS FROM PARTICIPANTS TO THE IDB

a. To distribute information about the presentations, the presenters and the participants including contact information.

b. To organize specific workshops in LAC on:
   i. Pipelines (regulation regarding tolling and pipelines in general)
   ii. Losses reduction
   iii. Capacity building

c. To create knowledge exchanges.

d. To provide support in policy design to develop natural resources.

WHAT IS NEXT?

a. The IDB will distribute information about the workshop among participants as requested.

b. The IDB will assess the requests in the medium-term to determine areas to which the IDB can add the most value and articulate appropriate mechanisms.

c. The IDB encourages the participants to continue the dialogue initiated during this Study Tour with the IDB’s Energy Specialist in their countries.

d. The IDB is very interested in promoting knowledge exchanges in the LAC region to contribute to improved regulation and regulators in the energy sector.