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ENERGYPOLIS SEMINAR

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Implementation of bioenergy in oil-producing countries: Is it possible?

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Global warming represents a very concerning issue which is threatening humankind. Fossil fuel combustion is considered one of the main culprits of global warming. Therefore, it is demanding to substitute traditional fossil fuel energy sources for carbon neutral sources. In fact, there has been significant research related and there are promising ongoing projects. Some countries has been implementing new policies and technology to substitute fossil fuel utilization in electricity production, domestic heating and even transport. On the other hand, the authorities of oil-producing countries are reluctant to establish restriction policies of fossil fuel use (e.g. carbon road taxes). Even in countries like Norway, the tendency of implementing bioenergy and other alternative energy sources has been much lower compared to other Nordic countries. Actually, Karlsen et al (2011), in cooperation with CleanTech Mid-Norway, studied the possibilities of establishing a bioenergy cluster in the Trondelag region and they found big challenges. Fortunately, SINTEF (the main research institution in Scandinavia, mainly located in Trondheim) has recently received lots of money for bioenergy R&D. In addition, Norwegian authorities like to reduce significantly carbon dioxide emissions by 2020. Furthermore, countries with huge oil reservoirs like Canada and Venezuela have many issues to keep exploiting their heavy and extra-heavy oil reservoirs. As a result, bioenergy or other carbon neutral energy sources might be attractive even in oil-producing countries.

References:

Karlsen, A., Sanchez, C., Lebre, E., Kaliba, M. & M. Beyene (2011). "An Assessment of the Bio Cluster Initiative in the Trondelag Region". Norwegian University of Science and Technology (NTNU), Trondheim-Norway

CV: Carlos Sanchez

Born in Merida-Venezuela. Carlos Sanchez graduated with a BSc in Chemical Engineering from the University of Los Andes (ULA) in Merida-Venezuela 2003. Then he graduated with MSc degree in Natural Gas Technology from NTNU in Trondheim-Norway in 2012. Nowadays, he is a PhD candidate in Chemical Engineering at the University of Alberta in Canada. He also has lecturing career in Chemical Engineering at ULA-Venezuela. His research, lecturing career and studies cover a varied spectrum of topics in Chemical Engineering from fluid mechanics, oil & natural gas processing to thermodynamics.