

EDITOR'S PAGE

CAREFULLY WITH NONCONVENTIONAL FUELS

The nonconventional fuels world is booming, headlines in global media do not leave doubts about that. Uzbekistan plans a \$600 mil shale processing plant, PetroChina and Hess Corp sign a shale development agreement to build an oil shale block in the Santanghu basin in Xinjiang region of China, San Leon acquires assets in Morocco's Timahdit oil shale deposit, Enefit Jordan granted a license to build a 500 MW oil shale power station – these are just a few examples of news articles of the last months. US and Canada's recent success in shale gas production has ignited, besides expansion of the world shale gas development, also a gold rush to explore and exploit known oil shale reserves. Boom is understood, the first claimers tend to take the cream – get the rights to develop the most oil-richest reserves and by this making sure that productions and profits will be the highest compared to latecomers'.



At the same time, there are signals of setbacks in nonconventional fuels sector development due to difficulties in applying technologies proven in one area for other regions and types of shales, overestimation of the yields of reserves and, most of all, due to the strengthening of environmental regulations. Such regulations are mainly born from environmentalists and citizens' concerns over water contamination, biodiversity loss and adverse effects on climate due to the higher CO₂ footprint of the well-to-wheel cycle of nonconventional fuels compared to traditional oil. As Eesti Energia's CEO Sandor Liive, the runner of the oldest and most developed ex situ shale oil production technology Enefit, said at the International Oil Shale Symposium in Tallinn in June 2013: "Each oil shale is different and no one has yet succeeded in creating one technology that works perfectly with every oil shale. There is no off-the-shelf solution – we have enough experience to recognize that some steps in our process will need to be changed for other shale." The most recent signal of such a setback is withdrawal of the major player in the nonconventional fuels field, the Royal Dutch Shell, who announced that it would sell its 106,000-acre stake in the Eagle Ford shale formation in South Texas as reported by the Wall Street Journal in September this year.

Cold water on the overheated development plans of world shale reserves will be probably poured by the IPCC's Fifth Assessment Report *Climate Change 2013: The Physical Science Basis* Summary for Policymakers that leaves no room for doubts about the global CO₂ concentration increase in the atmosphere, global temperature rise and man-made origin of that regretful trend.

Yet one is clear, the closer the Peak Oil is approaching, the wider the use of nonconventional fuels in transition to non-oil and low-carbon future economy will probably be. Therefore the call to scientists to study properties of world oil shales and to engineers to develop technologies which would allow using oil shale and shale products with lesser impact on the environment is getting stronger. Also, the role of the journal *Oil Shale* in disseminating the best knowledge about oil shales globally is more important than ever before.

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