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Title:

Contribution of nuclear energy to emphasizing global energy supply / Developing synergies between nuclear the oil industry: examples

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Abstract:

According to main energy institutional bodies (International Energy Agency, the World Economic council, US Department of Energy, ...), the pace of demand in the future world is going to be stressed by supply. This perspective brings several evolutions which are examined in the paper:

The historical competition between primary energies is not anymore to date.

Even more, the idea that they should join their R&D program and financing means is now processing.

Seen for an historical point of view, the dash for the highest market share in a limited demand context will belong to the past.

The paper is also summarizing the most consensual information on reserves (gas, coal, oil and uranium). It will remind uncertainties for their assessment. Il will highlight how a main nuclear actor, AREVA, proposing together nuclear power plants and the fuel for these plants, understands the 2030 global offer and demand adequacy.

It then quantifies how industrial synergies between nuclear and hydrocarbon industries could help to increase the energy global supply. Real opportunities such as the increase of Canadian oil sand production and its economics is presented.

The so-called nuclear renaissance is also a challenge for nuclear industries. The paper positions the milestones associated to this industrial target.

Finally, most observers now recognize that environmental concerns are becoming more critical for decision making in each energy related company, whether it is a major oil company, a coal mining industry, a large supplier country or a nuclear operator. Such criteria will be listed and their likelihood for the future will be compared.

The paper gives a strategic opinion of how the picture is going to move, and it proposes to launch initiatives for energy economics ready to deepen this analysis.

All these reasons are positioning nuclear technologies as a viable alternative providing competitive energy in a mixed supply combining all energies jointly produced.

The AREVA group, first nuclear power plants vendor during the past thirty years, is integrating this objective in its planning.