Economics and Politics of Unconventional Oil- The Case of the Canadian Oil-Sands

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Abstract

Overview

The soaring crude oil price since 2002 has significantly improved the competitiveness of unconventional fossil fuels like the Canadian oil-sands. As a consequence, the oil-sand industry plans to extend production from 1.2 million barrels per day (mbd) to about 5 mbd in 2020. Oil-sand has become an interesting alternative to investments in conventional oil and is attracting awareness and capital of almost all international oil companies. Since long-term investment in mining and upgrading is still connected with considerable risk, realizing the expansion plans requires appropriate political basic conditions. Furthermore, an effective strategy is needed to avoid serious environmental damages, especially climate impacts. The paper discusses the cost dynamic and current competitiveness of the oil sand industry and asks whether politics on the provincial and federal level are suitable to support the intended expansion of oil-sand production and simultaneously ensure an effective internalization of external costs.

Methods

Data of the production cost of different mining and in-situ technologies are considered. Government action in different fields of

- R&D
- Licensing mineral rights and projects
- Taxation
- Pollution control

is examined. It is asked whether politics are suitable to reduce risk and cost of oil-sand production, to ensure an efficient allocation of mineral rights among firms and in the same time provide sufficient incentives to reduce environmental impacts.

Results

It is shown that

- R&D politics play an important role to lower production cost, e.g. by developing cost efficient in-situ production technologies

- Licensing of oil-sand projects changed from a restrictive approach (promoting conventional oil and gas production) to a strategy encouraging investments in oil-sands
- the oil-sands fiscal system turned from a regressive to a progressive tax system providing significant incentives for investments
- Pollution control has been considerably enhanced with regard to acid emissions but is still insufficient with respect to greenhouse gas emissions..

Conclusions

Sustainability of oil sand production is less an issue of lacking technological options but of applying appropriate politics. It is shown that a system of tradable emission rights can be considered as an effective and efficient approach to meet the commitments of the Kyoto Protocol.

References

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