

Opinion

Fossil Fuels, Let's Leave Them under Earth. Four Reasons to Vote "Yes" at the Italian Referendum on Drilling

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The referendum that will be held on 17 April 2016 is calling Italians to express their willingness on an aspect of licensing the sea drilling activities: The end of the licenses to the offshore exploitation of fossil fuel resources within the 12 miles from the coast. The new laws prohibit to assign new concessions offshore within the 12 miles while allowing to continue those previously authorised until the fixed deadline.

In case of a win of "Yes" party, at the natural deadline of concessions within the 12 miles, the drilling wells will be sealed, the infrastructures on the sea bottom will be removed, the platforms decontaminated and carried on dry land for demolition, independently from the potential to exploit further the available fossil fuels in the deposit site.

There are various reasons to vote "Yes" and all the reasons are linked to the necessity to give a turn to the energy policy of Italy, and of Europe and the whole world as well.

This may be a turning point that finally will create a large, functional infrastructure to produce energy from renewable sources, envisioning a transition to the use of electric energy for the main energy consumptions, and that maintain availability to the next generations fossil fuel reserves for the indispensable non energetic uses.

The Fight against Climate Changes Needs More Practical Actions, not only Words

As it appeared clear from the conference in Paris on climate changes, we are running short of time to exit the fossil fuels paradigm. The climate data accumulating each month indicate a speed up of the processes of climate changes even in respect to the models by IPCC. Therefore actions have to be taken rapidly, by creating, since now, a vast and functioning energy infrastructure based on renewable sources of energy.

In this process fossil fuels will not be necessary, but the major part has to remain underground, where no harm to environment is done. According to estimates recently published, if it is aimed to contain the increase in temperature below the 2 °C, as recommended by COP21 last November, one third of oil reserves and half that of gas reserves should not be extracted (in addition to 80% of coal reserves) [1].

The Italian reserves do not make any exception to this rule. Since COP21 has been approved, and Italy has signed the agreement, it has been decided to make all efforts possible to reduce the greenhouse gas emissions, and promote the transition to renewable energies, therefore to continue in exploitation of fossil fuels is contradictory and produce a break to the efforts needed. In the coming public consultation, the objective is whether it is allowed or not to extend the drilling operations in the future, not about a total block of drills. A debate would be necessary on how to use the residual fossil resources. In addition, it is necessary to remember that an international campaign is ongoing to avoid the extraction of fossil fuels and to preserve them in the deposits [2].

The Italian Reserves of Fossil Fuels are Scarce

It has been years that the debate on Italian reserves of fossil fuels make them appear as we had a Saudi Arabia-like treasure in the Mediterranean sea, to which renounce for futile reasons. The truth is that the natural resources, officially reported in the public documents by MISE, are from several years in the range of the value corresponding to a one and half year consumption of natural gas and two and half year consumption of oil [3].

The truth behind the advertising statements made by politicians and public relation agents representing oil companies pretending to appear as experts, shows that the wished increase in productivity could be maintained for a period not higher than 8 years, and probably lesser than 5 years. Our model published in October 2015 in the journal Sapere, shows that a supposed doubling of national production for five years (doubling that should bring national production from 10% to 20% of Italian consumption) would require even a doubling of fuel reserves presently ascertained [4].

But the doubling of reserves, due to conditions of exploitation of fossil fuel deposits in Italy, and the decrease in explorative drilling, seems quite unlikely [3].

It should be kept on mind that the national production of hydrocarbons, and especially those deriving from the platforms that are at risk to be closed, have already overcome the production peak, even before the 2000 [5].

Oil and Liquid Fuels have an Important Use as Raw Materials

The third reason is strategic, and relevant to the nature of hydrocarbons as raw materials.

Supposing that the exit from the fossil fuel era will not be immediate, the world history of fossil fuels shows that is not wise to extract all the resources rapidly.

It would serve as example the case of UK, that has literally sold off its own fuel reserves in last twenty years, when price for barrel were at the minimum, and now has become importer [6].

It has to be remembered that hydrocarbons do not have only use as energy source, but are raw materials in various application fields in oil industry, from production of polymers (plastics), to pharmaco industry to fertilisers. The transition towards efficiency and renewable energy sources will be maintained thanks to the non-energy uses of hydrocarbons.

Due to the scantiness of the residual fuel national resources, new policies for the preservation of spare strategic supplies should be timely and convenient, on which to count in future in case of needs, as it happens with Bank of Italy and its gold reserves. All the benefits relative to un-extracted hydrocarbons (change in occupation, and loss in fees to be used for the community) will be left to our descendants that will be glad for that.

The Negative Impacts would be of Minor Entity

The supporters of “No”, and generally, those supporting oil industry, make efforts to convince.

The public that the extraction activities are important either in terms of occupation as well as in royalties that public administrations, at various levels, get from oil companies thanks to their activity on the national territory.

Truly, a victory of the “Yes” at the referendum of 17th of April will affect slowly, progressively and in a limited manner the level of extraction of hydrocarbons in Italy. The deposits that will be affected are within the 12 miles, the first ones to have been extracted in Italy, therefore for the most part of them near the depletion, with drilling platforms with highly reduced activity. Only a limited number of concessions will decay in the next years, many have already requested an extension under the old rule, and will get it. Some of them have not asked for extension due to a closure of their activities. Totally, less than 26% of the natural gas production, and 9% for oil, will end to be closed progressively between 2017 and 2027 [5].

In economic terms, it is not easy to make an estimate of money loss for the community (taxation on the oil activities, royalties), but it is possible to individuate an estimate in excess.

Nomisma, a research study organization, with participation of banks and Italian industries, has calculated an overall economic gain from the hydrocarbon extraction sector of about one billion euro/year in the period 2000–2010.

In case of victory of the “Yes” at referendum, it will translate in a loss inferior to 170 million euro/year, in the first period, slowly to be decreased [7].

Considering the employment prospects, it has to be said that extraction activities are at highest capital intensity, and a lowest employment intensity. This should not be forgotten. To give an idea, the Foundation Eni Enrico Mattei estimated in about 1400 employment units, direct and indirect, in Val D’Agri, where it is extracted the 65% of the national oil [8].

To the quantitative limitation of the employment advantages from the extractive activities is has to be added their temporary limitation. It is known that only the initial phases of extractive projects observe an effective local increase in occupation, that, when the plants are at regimes is reduced up to disappear at the end of the life cycle of the deposit.

Even from this point of view the hydrocarbons are not renewable.

It has to be added that negative impacts on the environment exist (chemical and acoustic pollution) that are less debated but proven by limited monitoring made by ISPRA and diffused to the media by action of Greenpeace [9].

The Position of ASPO ITALIA

For this reasons ASPO Italia considers it is necessary a strategy to reduce the exploitation of national hydrocarbon resources. The instrument provided by this referendum, on 17 April, even with its limits, is a first real occasion to embark on this pathway.

27/3/2016, the Directive Committee, ASPO Italy

Conflicts of Interest: The author declares no conflict of interest.

References and Notes

1. Mc Glade, C.; Ekins, P. The geographical distribution of fossil fuels unused when limiting global warming to 2 °C. *Nature* **2015**, *517*, 187–190. [CrossRef] [PubMed]
2. Keep it in the Ground. Available online: <http://www.theguardian.com/environment/series/keep-it-in-the-ground> (accessed on 20 March 2016).
3. Faccini, D. La morte fossile dell’Italia, Blog “Risorse Economia Ambiente”. Available online: <https://aspoitalia.wordpress.com/2016/03/20/la-morte-fossile-dellitalia/> (accessed on 20 March 2016).
4. Pardi, L. Raddoppio dell’estrazione petrolifera in Italia. Modellizzazione e Scenari, Website ASPO Italia. Available online: <http://www.aspoitalia.it/attachments/article/351/Pardi%20-%20modello%20raddoppio%20estrazione.pdf> (accessed on 24 September 2015).
5. Faccini, D. Le bufale sul referendum del 17 Aprile, Blog “Risorse Economia Ambiente”. Available online: <https://aspoitalia.wordpress.com/2016/03/07/le-bufale-sul-referendum-del-17-aprile/> (accessed on 7 March 2016).
6. Faccini, D. Scozia Saudita e Bispensiero Petrolifero, Blog “Risorse Economia Ambiente”. Available online: <https://aspoitalia.wordpress.com/2014/09/13/scozia-saudita-e-bispensiero-petrolifero/> (accessed on 13 April 2014).
7. Nomisma Energia, Tassazione della Produzione di Gas e Petrolio in Italia: un confronto, Sito WEB MISE-UNIMG, 30/1/2012. The redistribution of missed economical gains for Italian State in case of victory of “Yes” has been calculated in proportion to the amount of energy fuels (26% gas and 9% petrolio) that will not be extracted.

8. Fondazione Eni Enrico Mattei, Attività estrattiva in Val d'Agri Analisi 2013 sulle ricadute economiche ed occupazionali, Website ENI. Available online: <http://www.eni.com/eni-basilicata/media/news/2014/2014-05-07-analisi-feem.shtml> (accessed on 7 May 2014).
9. Greenpeace, Trivelle Fuorilegge: uno studio sull'inquinamento provocato dalle attività estrattive in Adriatico, Website Greenpeace. Available online: http://www.greenpeace.org/italy/Global/italy/report/2016/Trivelle_Fuorilegge.pdf (accessed on 20 March 2016).



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