

Opinion

Flaws and Drawbacks in Present Regulation and the Need to Take Action and Support the Renewable Energies Policies in Italy

Valeria Mezzolla ^{1,2}

¹ Bioesplora srl, c/o Ecotekne, via provinciale Monteroni Km 7, 73100 Lecce, Italy; valeria.mezzolla@gmail.com; Tel.: +39-388-8543607

² National Research Council, CNR-ISPA, via provinciale Monteroni Km 7, 73100 Lecce, Italy

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Renewable energies is an important sector that needs to be sustained and increased by the action of policies and economic support. Opponents to the extraction of fossil fuels justify their renounced use with the COP21 statements, signed by all the participating countries to implement the production of renewable energies and reduce the use of fossil fuels. In particular, the containment of release of greenhouse gasses, and a more favorable GHG emission balance are the major points to be considered.

The referendum to be held on 17 April 2016 is calling Italians to express their opinion on the extension of licenses to allow sea drilling offshore activities within 12 miles (22 km) from the coast, aimed to extract fossil fuels, mainly natural gas. The deposits affected are the oldest ones that have been extracted. Therefore, most of them are near to depletion, and their drilling platforms have highly reduced activity. The new laws established last year are prohibiting the assignment of new concessions offshore within 12 mile zone, while allowing the continuation of those previously authorized until the fixed deadline. For drilling outside the 12 mile zone, other laws have been approved, and therefore not included in the referendum.

In case of a victory for the No drilling party, at the natural conclusion of licenses, the drilling wells will be sealed, the infrastructures on the sea bottom will be removed, the platforms decontaminated and carried onto dry land for demolition, independently from the potential to exploit further the available fossil fuels still present in the deposit site.

The number of concessions for activities within 12 miles, whose licenses will expire between 2017 and 2027, is, in total, 17 [1]. In 2015 they produced 1.21 billion m³ of methane, about 17.6% of national production. Only four concessions contributed oil extraction activity of about 500,000 tonnes, which is 9.1% of national production. Figure 1 depicts a cartography map of the sea areas involved, and Figure 2 presents the data on the production of natural gas from concessions located within 12 miles that are still operative. Figure 3 shows the oil production from concessions operative in drilling offshore within the 12 mile zone. Concessions located more than 12 miles offshore will not be affected by the consultation. The licenses refer to 43 platforms, of which 31 are in production, that in 2015 produced 2.48 billion m³ of natural gas, 36% of national production.



Marine areas open to extractive activities ministerial
low D.M. 8/8/2013 (cartographic office DGRME) [1].

Figure 1. Production of natural gas from drilling concessions within 12 miles, with licenses expiring in the next years [1].

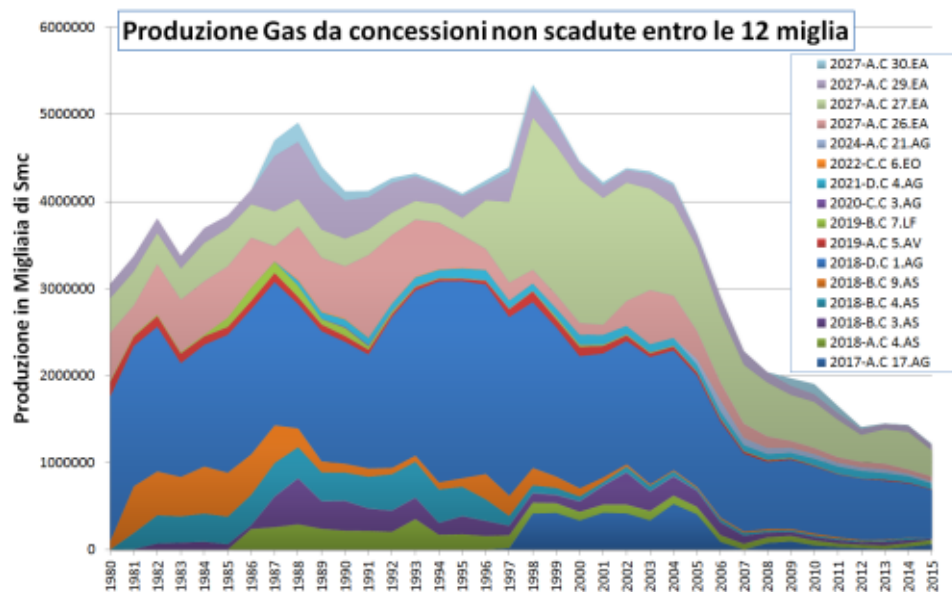


Figure 2. Production of natural gas from concessions located within 12 miles, still operative. The box on the right reports the concession code and the year when the license will expire [1].

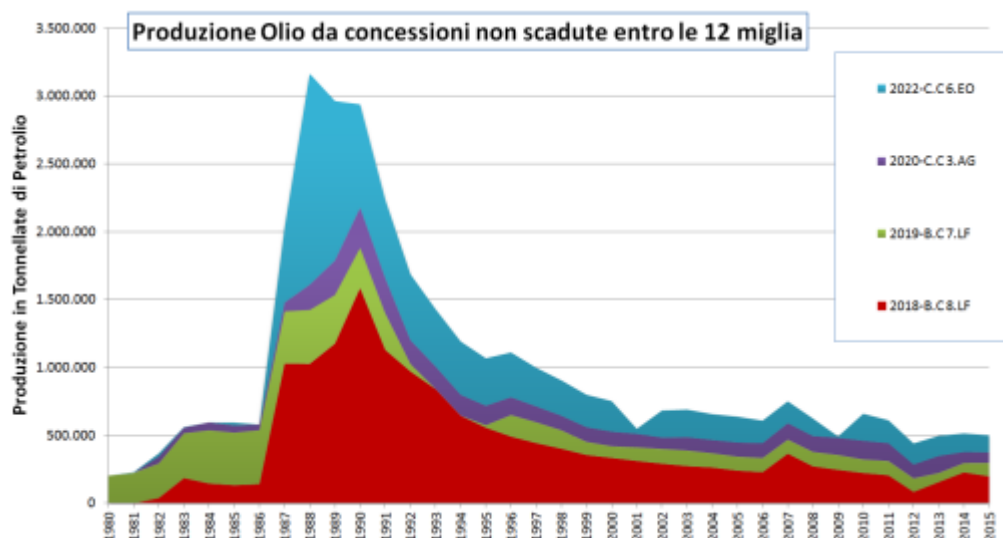


Figure 3. Oil production from concessions still valid for drilling offshore within the 12 mile zone (on the right, expiration year shown for each license). The concessions are ordered from bottom to upper side according to the order of termination period. Four drilling licenses extract oil with a constant production rate that seems capable of continuing the trend in the next years. X axis: year of report. Y axis: oil amounts in tons [1].

Four Reasons to Support the Extension of Licenses for Exploitation of Natural Gas

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

Among the concessions that will come to an end in the coming years, many have already requested an extension under the old legislation, and will get it. Some of them have not asked for an extension due to a closure of their activities. It has been estimated that around 26% of natural gas production, and 9% of oil production, will be closed progressively between 2017 and 2027.

At the date when the drilling activity on the presently productive deposits will come to an end, around 2020, it has been calculated that 3500 workers or more will have been made unemployed. Some reports talk of about 10,000 workers in total, but some of them will be employed in other activities. Therefore, these unemployed workers will cost the community as much as 105 million euro/year, in addition to costs for formation and re-employment, or for pension costs.

If the Italian government and majority of representatives would have taken action to reduce the high costs of the national debt interests, a new cost due to unemployed workers would have been better accepted. Then, a new tax will have been raised to pay this additional cost to the community. The present economy balance is still not sustainable.

2. It is not easy to make an estimate of money loss for the community (taxation of the oil activities, royalties). Nomisma, a research study organization, with the 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. A victory of the “Yes” vote at the referendum will translate in a loss of about 170 million euro/year.
3. It has been reported that some negative impacts on the environment (chemical pollution) will be caused by random monitoring activity made by ISPRA Institute. However, where platforms on sites are already exhausted, no pollution is present, and the marine parks around the area are enriched in fishes (nursery), since fishing boats need to stay at a distance of 1 km from the platforms. Therefore, no harm is foreseen to the marine life. Where drilling operations are still

present, a possibility for pollution is envisaged as a potential risk, but contingency plans are in force for a containment of the chemicals. Around the drilling platforms, mussel fishing is abundant: mussels have grown in the area during their life cycle due to the spatial residence on the site. Healthy mussels at these sites are larger than those at any other aquaculture site.

4. Finally, since the oil released from oil ships presents a much higher threat to the seas, the vote for “No extension to drilling licenses” will result in an increase in transport of oil and natural gas by sea, which will increase imports to sustain the demand for fossil fuels in the immediate period.

Environmental protection agencies should take into consideration the competitiveness of Italy's neighbor states, such as Croatia. In 2016, their Ministry for Economy approved new rules for the exploitation of Adriatic sea deposits of fossil fuels. Ten licenses are operative for drilling activities offshore. The plan has attracted six oil companies, Marathon Oil, OMV, ENI, MedOilGas and INA, for an extension of 15 areas. Licenses for exploration are valid for 5 years. Croatia hopes that Adriatic sea fossil fuels will bring revenues of 2.5 billion dollars in the next five years.

Therefore, we will not be able to control the environment of the coasts, since neighbor states are so flexible in releasing licenses for exploitation of fossil fuels by offshore drilling.

Conclusions

The Italian consultation may have an impact on the present market of fossil fuels in the region of about 360 million dollars for natural gas and 180 million dollars for oil. It will also affect revenues for the community for about 170 million euros in taxes. It will affect the employment of more than 3500 workers, and will translate in terms of unemployment into costs of 105 million euro/year.

We need to take the lead and try to increase the renewable energies produced, establishing a more effective action on climate change containment. We need to optimize the use of fossil fuels, we need to increase the rate of contribution of renewable energies to the total energy produced, we need to introduce electric cars and less transport by vehicles on the roads. We need to improve the costs of energy plants, to increase the investments in technologies and biotechnologies related to bioeconomy, such as bioreactor fermentations, feedstock biomasses and tobacco seed oil for biofuel production [2]. In this way, we may implement and boost processes to produce renewable energies with a more favorable GHG footprint.

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

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