



Italian National Agency for New Technologies,
Energy and Sustainable Economic Development

Biomass Gasification for Power Production Country Report – Italy Updating

Task IEA 33

Skive – 23 October 2017

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Energy and Environmental Strategies at National Level

Between June and August 2017, the Ministry of Economic Development (MED) and the Italian Ministry for the Environment, Land and Sea (IMELS) launched the public consultations on the documents about:

- the National Energy Strategy (Strategia Energetica Nazionale, SEN)
- the National Strategy to Counteract the Climate Changes (Piano Nazionale Adattamento ai Cambiamenti Climatici, PNACC)

discussing the actions to be undertaken at national level to achieve the EU target by 2030.

The former was closed on 12 September 2017. It is expected to be released in the final version by the end of November 2017.

The second is still in progress. The consultation will close on 31 October 2017.

The National Energy Strategy: some relevant items

By 2030:

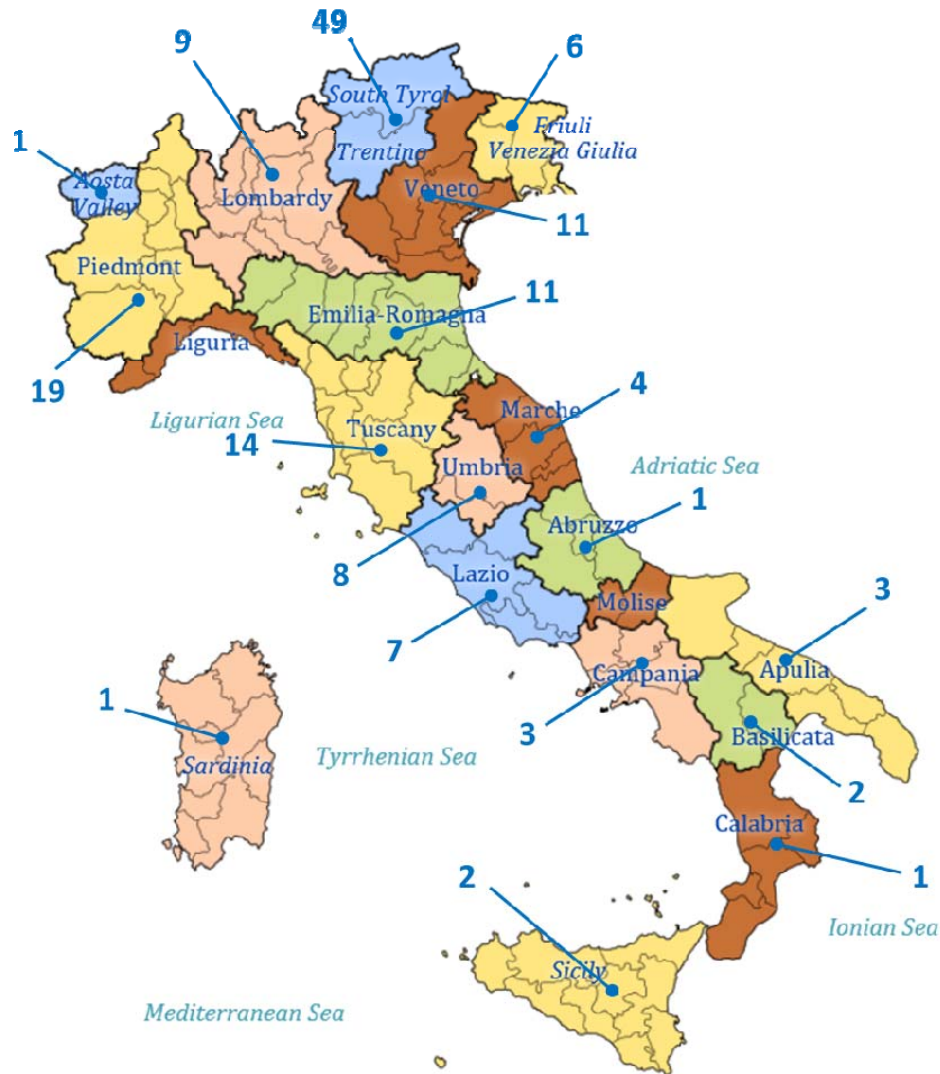
- Coal phase-out;
- Increase of the share of RES up to 27%, vs 24% originally fixed. In the electrical sector, this new target will result in covering at least 50% of consumption by RES;
- In the field of Bioenergy, attention will be devoted to the development of the Biomethane value chain^{*)}. It will be intended for in-grid injection and as a biofuel in the transport sector (Compressed and liquified CH₄).
At EU level, Italy is the Country with the largest number of methane vehicles (~ 1M). The substitution of NG with biomethane will help Italy in achieving the the EU target in the transport sector.
- Support to the production and marketing of advanced biofuels to gradual replacement of the fossil ones.

^{*)} Biogas and related Biomethane are already in progress and supported with incentives. Still nothing on BioSNG (≡ biomethane from gasification) due to gaps in CEN standards on in-grid injection and transport specifications.



Status of Gasification in Italy

Gasification plants across the Italian «boot»

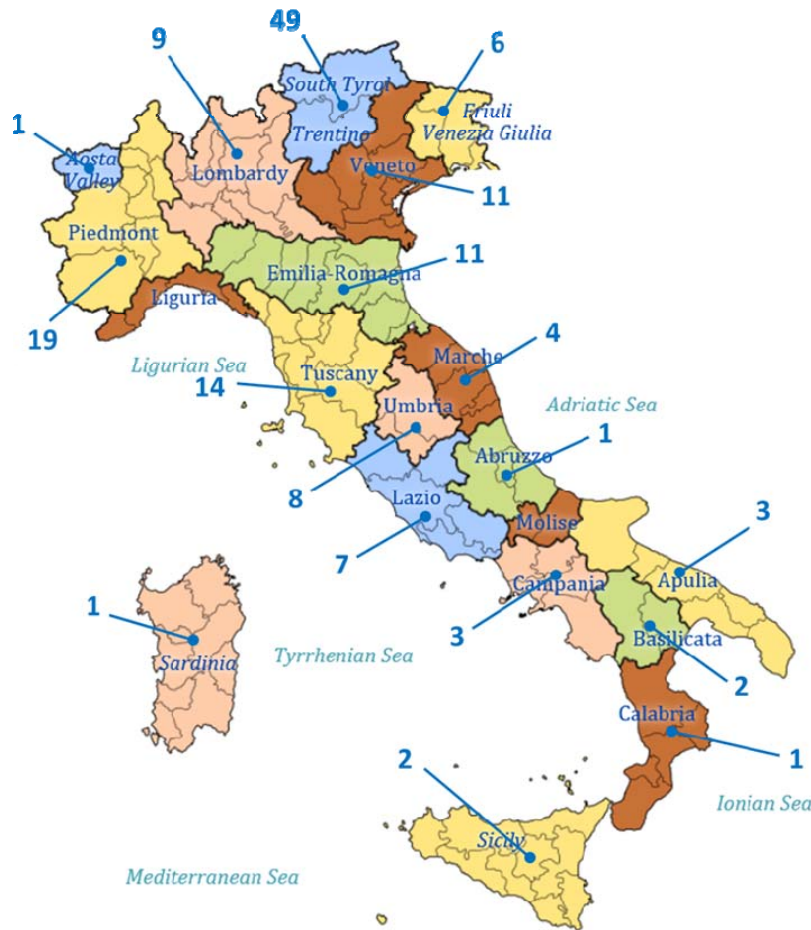


Year 2015-2016
 Total Power: 30978 kWel.
 Total Num.: 152*

| Region | % el. |
|-----------------------|-------|
| TRENTINO SOUTH TYROL | 31,6 |
| PIEDMONT | 17,5 |
| LOMBARDY | 8,4 |
| EMILIA ROMAGNA | 8,0 |
| TUSCANY | 7,3 |
| FRIULI VENEZIA GIULIA | 6,4 |
| VENETO | 5,6 |
| UMBRIA | 4,7 |
| SICILY | 3,4 |
| LAZIO | 1,8 |
| APULIA | 1,4 |
| BASILICATA | 1,3 |
| CAMPANIA | 1,1 |
| MARCHE | 0,9 |
| SARDINIA | 0,3 |
| AOSTA VALLEY | 0,2 |
| ABRUZZO | 0,1 |
| CALABRIA | 0,1 |

* Census based on the comparison of different sources.

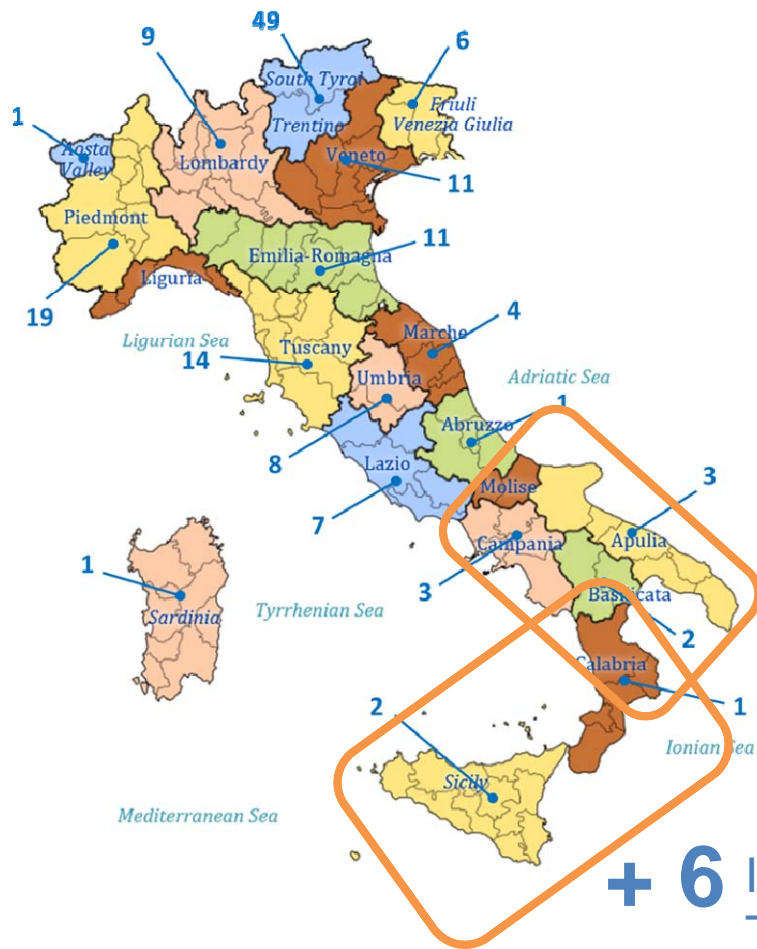
Technology companies/suppliers



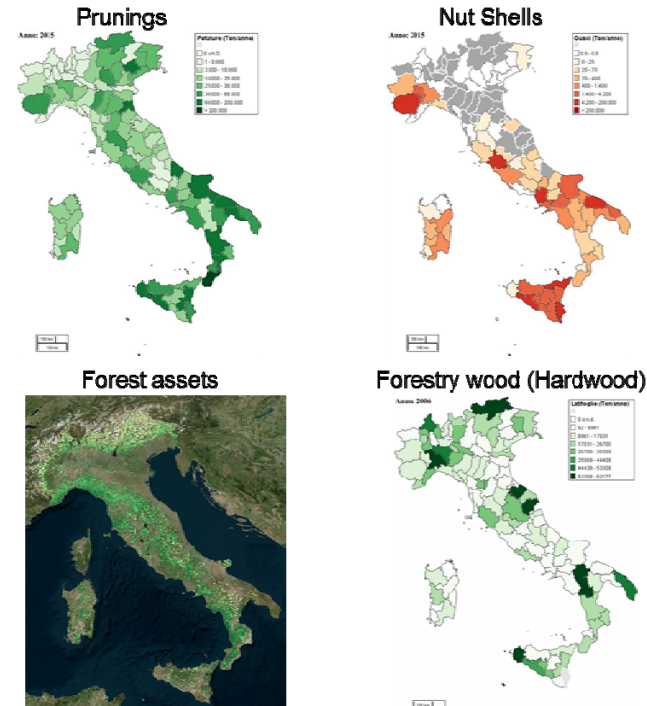
Two new players supplying gasification technology based on downdraft reactors



Biomass availability in Italy



+ 6 In Sicily by SITE SpA.
 The new plants were commissioned by ENEL and are expected to come in operation by the end of 2018.



Source: <http://atlantebiomasse.brindisi.enea.it/atlantebiomasse/>

**Thank you for
attention**



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