

# PGC D LNG 2012-2015

## Opportunities for Small Scale LNG in Portugal



1<sup>st</sup> meeting, October 2–4 2012, The Hague

# PGC D Opportunities for SSLNG in Portugal

## 1. State of the art

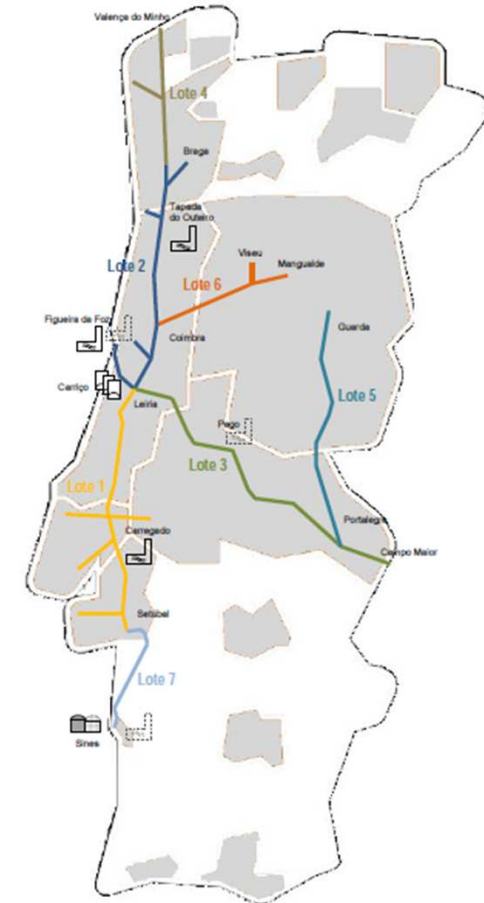
Portugal has a good infrastructure on LNG. Receiving terminal of Sines is well organized and access to the infrastructure is provided from the independent operator REN.

## 2. Origin

Portuguese NG imports are around 6 bcm, divided in some 3,5 bcm on LNG coming from Nigeria and Trinidad e Tobago and 2,5 bcm on gas coming inside Medgaz pipeline from Algeria.

## 3 . Market

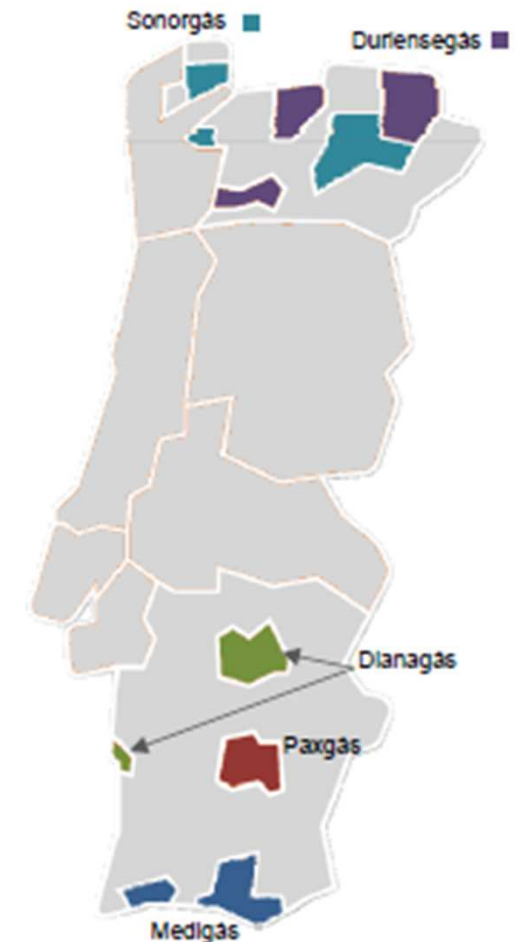
The market is divided: 2 bcm for power generation, 1,5 bcm for industries and 2,5 bcm for distribution.



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## 4. Opportunities for LNG

- i) Sines terminal is used above the capacity. The capacity used can be increased.
- ii) There are about 30 Satellite plants that use around 0,1 bcm/y, supplied by LNG trucks.



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## 4. Opportunities for LNG

iii) New projects on small and micro scale are being implemented:

- Small satellite plants for industries;
- Small satellite for NGV and LNGV
- Micro satellite for household



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## 5. Case study on Mirandela LNG Satellite plant



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## Opportunities for SSLNG in Portugal

### 5. Case study on Mirandela LNG Satellite plant

The satellite plant has a 80 m<sup>3</sup> LNG tank, and four uses:

i) Gasification and distribution for neighbour industry.

ii) NGV dispensers.

iii) Liquid NGV dispenser (very first one in Portugal).

iv) Liquid transfer for small truck that delivers to micro satellite plants.



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## 5. Case study on Mirandela LNG Satellite plant

