11th Coal Dialogue

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Spanish Coal Industry and the power stations
Coverage od the electricity demand. 2014 2013

2014 and 2013 have had a very similar thermal gap. In 2015 the thermal gap has increased a 80% in contrast with 2014.

In 2014...Coal Will Be Green
Variability of the renewable energy. Role of coal

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In 2014...Coal Will Be Green
Security Supply: coal vs gas natural
Staid Aids:
P.S.O. Royal Decree 134/2010
Council Decision 787/2010
Capacity Mechanisms
Public Service Obligation.

- It is a PSO (Public Service Obligation), governed by successive European Directives Electricity. Article 14.5

- A Member State may, for reasons of security of supply, direct that priority be given to the dispatch of generating installations using indigenous primary energy fuel sources, to an extent not exceeding, in any calendar year, 15% of the overall primary energy necessary to produce the electricity consumed in the Member State concerned.

- Duration 2010-2014:

- Royal Decree For up to 23 TWh./Annual.

  - Successive stoppages, claims, interim measures, have caused that added to the low thermal gap has not been consumed than expected in recent years.

- All precautionary and demands in European and Spanish courts have given good the RD 134/2014.

Article 3.

a) The operation of the coal production units concerned must form part of a closure plan deadline of which does not extend beyond 31 December 2018.

If the coal production units to which aid is granted pursuant to paragraph 1 are not closed at the date fixed in the closure plan as authorised by the Commission, the Member State concerned shall recover all aid granted in respect of the whole period covered by the closure plan.

Carbunion considers that those production units that have achieved competitiveness by the end of the regulation cannot be forced to close, something that has been endorsed by the European Parliament and the Economic and Social Committee in their respective opinion reports.
**New Spanish Coal Plan . Main Features**

- A New Coal Plan (2013-2018) was designed by the Government and, in this sense, the role of coal in the generation mix for the following years will be critical.

- Regarding coal, subsidies under Article 3 of the European Decision have already being reduced by 83% compared to 2011. The quantity foreseen:
  - 55 millions for 2013
  - 39 millones for 2014
  - 30 million aprox for 2015.

- In 2015 the open cast mines does not received Staid Aids working competitively-output. The output form opencast is the 60% of the total production.

- The government considers that the Decision 787/2010 of the Council of the EU is a firm decision and decided modify the closure plan submitted to the European Commission.

- Spain's government is negotiating these days, take opencast mine closure plan and make long-term planning to recover the aid granted.

- Spain has granted 79 million Euros over the years to open pit mining. Some mines have been closed, other production units have been liquidated after bankruptcy, then possibly amount to be returned is less than 45 million Euros.

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Capacity Mechanisms.

- Capacity mechanisms are those measures adopted by Member States to ensure generation adequacy, i.e.:
  - to ensure that the installed generation capacity exceeds demand under almost every circumstance
  - to avoid black-outs

- Rationale:
  - overcome shortcomings of market structures and incentivise the development or retention of sufficient capacity
  - avoid the risk of abuse of producers' market power (high prices, under-investment)
  - ensure security of energy supply in particular when intermittent RES constitute a significant share of the generation mix
Increasingly used in the UE

- Key Member States already implementing or planning CM or similar forms (e.g. Belgium, France, Germany, Italy, Portugal, Spain, Sweden, UK)

- Different forms:
  - Centrally procured capacity removed from market and only used in extreme situations (e.g. Belgium, Germany, Sweden, Italy)
  - Market wide mechanisms that allow willing providers to offer reliable capacity and are orvided with incentives to do so (e.g. UK, France)

- Open for specific technologies nuclear, fossil fuels, wind, hydro, and solar, geothermal and other RES)

- Most not open to generation from outside the Member State (except Germany)
The Issues

- CMs constitute a form of state intervention which can “severely distort the functioning of the market and lead to higher energy prices both for households and businesses” if not designed carefully (Commission Communication, 5 November 2013)

- Diversity of mechanisms obstructs cross-border trading

- Impact on EU energy market integration?
Three Communications announced on 15 February 2015

- **Energy Union** *(A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy)*
  - an integrated continent-wide energy system where energy flows freely across borders, based on competition and the best possible use of resources, and with effective regulation of energy markets at EU level where necessary

- **Electricity Interconnection** *(Achieving the 10% electricity interconnection target Making Europe's electricity grid fit for 2020)*
  - Investing in infrastructure that connects countries will make energy flow, improve energy security, lessen dependency on imports and prepare networks for renewable energy

- **Climate Change** - The Paris Protocol *(A blueprint for tackling global climate change beyond 2020)*
We need new thermal capacity (4000MW).
It is cheaper to invest in DeNOx technologies that to built new capacity (natural gas). 250K€/MW/ vs 750K€/MW
Power Station that could benefit from capacity mechanisms

<table>
<thead>
<tr>
<th>Power Station</th>
<th>Total MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.T. Andorra</td>
<td>1055.77 MW</td>
</tr>
<tr>
<td>C.T. Puente Nuevo</td>
<td>299.76 MW</td>
</tr>
<tr>
<td>C.T. Soto de la Ribera</td>
<td>346.25 MW</td>
</tr>
<tr>
<td>C.T. Narcea</td>
<td>347.47 MW</td>
</tr>
<tr>
<td>C.T. Guardo</td>
<td>342.24 MW</td>
</tr>
<tr>
<td>C.T. La Robla</td>
<td>355.10 MW</td>
</tr>
<tr>
<td>C.T. Compostilla</td>
<td>995.58 MW</td>
</tr>
<tr>
<td>C.T. IGCC Elcogas</td>
<td>296.48 MW</td>
</tr>
</tbody>
</table>

Total MW ............4.038,8 MW

Total payment 90.000 €/MW

Coal To buy 6.000.000 TermiasPCS/MW

Investment: 363.5 millones €

For Tons: 5.2 millon tn.

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In Spain energy from domestic coal plants it is very necessary, to cover peak demand and to cover the zonal power demanded by the country's capital, which has no generation in the vicinity of Madrid.

Besides the domestic coal plants they are inside, and usually consume anthracite.

The plants burning anthracite, are condemned to buy a very specific coal mines (Ukraine), which added to the logistical difficulties, it is debilitated Security supply.
Thank you very much for your attention.

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