

SPAIN



Energy transition, second time round

Will Spain's energy transition be a job creator or destroyer? asks Maria Kielmas.

In late November last year, when Spain's Ministry of Ecological Transition approved an environmental impact assessment by Sociedad de Hidrocarburos de Euskadi (Shesa) to drill for gas in Ávala Province south of Bilbao, it set in progress a series of reactions that illustrated the ambiguities and misunderstandings of the country's second attempt at an energy transition.

Founded in 1983 and 100% owned by Ente Vasco de la Energía (EVE), the Basque Country's regional government energy agency, Shesa's mission has been to explore for and provide oil and gas to its region. The planned Armentia-2 well is to be drilled conventionally, to a depth of between 4,993–5,540 metres at a cost of €27mn. But this drilling programme has been interpreted locally as fracking and has triggered numerous protests by local environmental groups. These claim also that it counters Spain's national energy strategy to be carbon neutral by 2050.

Juantxo López de Uralde, a member of the Congress of Deputies, the lower house of Spain's legislature for the leftist Unidos Podemos, the junior partner in Spain's fragile governing coalition, has demanded that the

'nonsense' of Armentia exploration should be stopped 'once and for all'. It is not possible to talk about an energy transition and proceed with gas exploration, he says.

Draft climate law

In May 2020, the government presented a draft law that would cut Spain's net carbon emissions to net zero by 2050. This includes a ban on all coal, oil and gas projects. State and public institutions will have to divest from all activities related to the refining, processing and production of fossil fuels. Nine of 14 coal plants will be closed over the next few years and, after 2030, the last nuclear plant goes offline. But since the closure of mining basins in León Province at end-2018, Spain has been importing coal-fired electricity from Morocco via the subsea power link.

Spain currently imports over 95% of the fossil fuels it consumes, notably natural gas through two pipelines from North Africa to its southern coast, and through an interconnection with France in the north. Natural gas is broadly envisaged as the transition fuel in the country's decarbonisation programme. But this depends on the share it will maintain in both the power generation and the transportation sectors. Nearly half of Spain's power generation is gas-

fired. As gas replaces coal in power generation, gas prices effectively govern wholesale electricity prices.

Gas supplies

In May this year the US became the leading gas supplier, increasing its LNG exports to Spain by 467% year-on-year while pipeline imports from Algeria fell by 30%. Between January and March 2020 Spain imported 20.25 TWh of gas from the US and 19.75 TWh from Algeria. Algerian gas to Europe sold at \$6/mn Btu but oversupply from the US and Qatar pushed the market down to \$2/mn Btu. As a result, Barcelona-based Naturgy – formerly Gas Natural Fenosa – the main importer of gas from Algeria, saw its profits fall by 44% over 1H2020 compared with the same period in 2019. Naturgy is now in talks with Algerian state Sonatrach over changes to its gas supply contract. Both companies say they hope to avoid international arbitration.

The draft climate law follows an interim strategy, the National Integrated Energy and Climate Plan (PNIEC), first proposed in January 2020. This sets out the energy transition over the period 2021–2030 when renewable energy will represent 74% of total power generation, paving the way for a 100% renewables share by 2050. According to Manuel Monge,

EVE/Enegas Bahia de Bizkaia regasification plant, Bilbao

Photo: Sedigas

Associate Professor of Financial and Energy Economics at Universidad Francisco de Vitoria in Madrid, this will need a total investment of €240bn over the period, of which electricity distributors must invest €23bn. This is a key enabler of other high added value investments related to the energy transition. The European Union's Green Deal and recovery fund will also be additional fundamental tools to a post-COVID-19 recovery, Monge adds.

Economic slump

Spain's economy slumped 18.5% in 2Q2020 and by 22% compared with 2Q2019. An August report from the Bank of Spain forecast that government debt could reach 125% of GDP next year. This will cause a liquidity trap in the future as the government will issue bonds that effectively crowd out private sector debt issues. So, utilities may find the financing of investment problematical. Unemployment is expected to reach 21.7% by end-2020, the second highest in the eurozone after Greece.

Spain's last attempt at an energy transition ended with the 2008 financial crisis, but up to that point, was no job creator. According to a 2009 report by researchers at Universidad Rey Juan Carlos in Madrid, in 2000 Spain spent €571,138 to create each green job, including €1mn per wind industry job. Only one out of 10 of these jobs was permanent. One quarter were in administration and marketing and project engineering, while two-thirds were in construction, fabrication and installation. This spending hindered Spain's way out of the 2008 crisis, the report noted.

The current COVID-19 crisis differs from the 2008 financial crisis in that it has affected all countries. So, the energy transition could be delayed for a number of reasons, says Monge. These include a drastic change to energy use and supply shock to the world economy caused by population confinements and sanitary measures. Firms have seen their incomes fall over this period due to reduced consumption and this could affect future investments. In Spain, the coronavirus pandemic caused a 12.7% fall in electricity demand in the industrial and services sector between March and June, while gas demand fell 15.5% over the same period.

Green deal

The EU Green Deal foresees spending of €260bn/y to meet a carbon emissions reduction target of 40% vis-à-vis 1990 by 2030. But this implies that the EU Commission is effectively imposing



Combined cycle power plant in Malaga, operated by Naturgy

Photo: Naturgy

an energy policy on member states, says Samuele Furfari, Professor of the Geopolitics of Energy at the Université Libre de Bruxelles. 'They will stifle the economies of member states,' he says. This policy is contrary to both Article 194 of the 2007 Lisbon Treaty, which states that energy policies are the responsibilities of member states, and to the 1994 Energy Charter Treaty (ECT), whose aim is the protection of fossil fuel investments, continues Furfari. It promotes energy efficiency but not renewable energy. The ECT has a total of 54 signatories of whom only 27 are EU members, and a further 33 observer countries. 'Nobody outside of the EU wants to change the charter,' Furfari says. An EU withdrawal from the ECT would not mean the other countries would withdraw, but could create significant problems for oil and gas exporting signatories and observers, especially former Soviet republics in Central Asia, as well as an overall legal imbroglio.

Transmission problems

The EU budget and €750bn recovery fund have slashed earlier planned financing of climate goals. These will receive only €17.5bn from the recovery fund and budget, down from an earlier €37.5bn. InvestEU, another pot of money to help green goals, also suffered a cut. This will now be €4bn down from an earlier €31bn and is unlikely to help finance urgently needed additional power transmission capacity. Access to overloaded power transmission grids for burgeoning new renewables capacity is a problem that Spanish utilities, like their counterparts in Germany and Sweden, are reluctant to talk about. Grid operator Red Eléctrica de España has performed well throughout the crisis, but faces an impossible task

without major new grid expansion. Requests for renewables access to the grid totalled 430,000 MW over recent years while the grid itself has only a capacity of 105,000 MW.

This situation would be worse if Catalonia had a less restrictive legislation on the location of renewable energy projects. The problem is Catalonia's high population density and the perceived overall environmental impact of renewables on the agricultural sector, especially around the Ebro and Empordá river basins. Practically no new renewable projects have been installed over the past decade and the region holds just 5% of Spain's installed renewable capacity.

Decentralised projects and smart grid development are difficult in Spain. Five large corporations – Endesa, Iberdrola, Repsol, Naturgy and Electricidade de Portugal – control 70% of power generation and 90% of sales. A country with year-round sun, Spain has just 10,000 sun-roofs with solar panels compared with 1.4mn in Germany. Furfari takes a caustic view of the EU's lack of transmission capacity. 'A few years ago people were confident that they could invest millions in smart grids. But now no one really wants to invest. They can't find the funds,' he notes.

Seeking compensation

Spain will receive €140bn from the recovery fund and Green Deal, equivalent to 11% GDP in 2019. This will be divided into €72.7bn direct transfers over 2021–2024. This amounts to 10 times what Spain received in cohesion funds over 2014–2020. However, provinces dependent on fossil fuels are lining up for compensation.

In the north of the country some 25% of the province of Asturias GDP depends on industry, mainly coal-fired energy and steel making that depends on coal. The energy transition could remove most of this.

In the south in Almería, local councillors stress that the MedGaz pipeline from Algeria is part of the region's basic infrastructure. Diversification of Spanish gas supplies hurts the region's economy. Endesa has made a €213mn provision for 577 voluntary redundancies caused by the decommissioning of coal-fired power plants.

The question overhanging Spain's energy transition is: Will it create more employment than it destroys? ●