

ENERGY REGULATION BRIEF

September 2001

INVESTMENT-
RELATED
STRANDED COSTS
IN EUROPE*OSCAR ARNEDILLO*
ASSOCIATE DIRECTOR

On 25 July 2001, the European Commission approved the stranded costs compensation scheme for Spain.¹ Spanish companies first negotiated this compensation with the Ministry for Energy in late 1996, as part of the liberalisation package. The Commission stated that the scheme would be compatible with European legislation, even though it might contain elements of state aid. This decision does much to reduce the uncertainty that has hovered over the relevant companies for the past three years. However, whether the Spanish companies will now receive compensation for their stranded costs is still uncertain, as the government is under no legal obligation to set tariffs which include an allowance for the recovery of those costs. The details of the scheme have been subject to much debate, not all of it based on sound economic principles. Below, I explain the genesis of the scheme and discuss the economic arguments for recovering stranded costs.

The Background

The Spanish scheme for paying stranded costs was initially laid out in December 1996 in an agreement (“The Electricity Protocol”) between the Ministry for Energy and the Spanish electricity companies that operated under the pre-liberalisation regime, the “Marco Legal Estable” (MLE or “stable legal framework”). This agreement was reflected in the December 1997 Electricity Sector Law. Competition was introduced immediately for all MLE generation in January 1998, while retail competition has been phased in and eligibility will be granted to all consumers on January 2003.

Spain was the first European Union member state to introduce competition as a result of the 1996 Internal Electricity Market Directive. At the time, the transitional stranded cost mechanism was thought to be covered by article 24 of that Directive. No doubt this interpretation helped the government to gain the cooperation and support of the electricity companies in designing and drafting the changes to the rules that allowed competition to be introduced in only one year.

However, in July 1999, the Commission issued a Decision ruling stating that the stranded cost mechanism was not covered by Article 24 and that it should be analysed as potential state aid. The Spanish Government appealed this Decision to the Luxembourg Court of Justice, but the Court has not yet issued an opinion.

In 1998, as part of a package including the acceleration of the liberalisation calendar and a reduction in the maximum level of stranded cost compensation, the Spanish Government agreed that a portion of the remaining compensation would be recovered as a fixed surcharge on electricity tariffs. This would have allowed companies to securitise that portion and to reduce their leverage. In December 2000, the European Commission’s Director-Generals (DGs) for Fiscality and for

¹ The Commission approved the schemes for Austria and the Netherlands at the same time.

Consumption ruled that this fixed surcharge on tariffs was a parafiscal tax, leading the Spanish Government to abolish it. The ruling of the DGs left the companies with an accelerated liberalisation calendar, a lower maximum level of stranded cost compensation, and no fixed surcharge as compensation.

Finally, on 25 July 2001, the Commission ruled that, even though the Spanish stranded cost mechanism might contain elements of State aid, such aid could benefit from the derogations of article 87(3)c of the EC Treaty. This ruling was only possible after the Spanish Government had introduced changes to the stranded cost compensation mechanism that complied with the Commission's intended stranded cost methodology.²

In spite of having received the Commission's approval of the methodology and figures used to estimate stranded costs, disputes over the level of compensation are likely to persist. Perhaps surprisingly, the Spanish Government is under no legal obligation to set tariffs that include an allowance for stranded cost recovery. Any amount of stranded costs not recovered by the year 2010 is forfeited, so the Government keen to please consumers in the short-term has an incentive to set low tariffs now, and to let the entitlement to compensation lapse in 2010. However, as I explain below, general application of such policies is not in consumer's interests.

Recovery of Stranded Costs in Spain

The Spanish methodology has some good points and some bad ones and offers lessons for all.

On the positive side, the calculation of stranded costs was subject to consultations and agreement between the parties involved. All of the parameters, except for one, were fixed ex-ante. The only parameter fixed ex-post is the annual market revenues of each individual company, which are directly observable from data available to the Market Operator. Hence, the system should have been capable of administration without disputes arising.

On the negative side, two aspects stand out: the cap on the market revenues, and the fact that the government is under no legal obligation to set tariffs which allow for payment of the agreed compensation.

Market revenues are effectively capped at 6 Ptas / kWh since any excess is discounted from the remaining entitlement to compensation for stranded costs. In contrast, revenue shortfalls are *not* added to the remaining entitlements. This cap applies irrespective of the actual costs of meeting demand. As a result, the cap tends to distort the operation of the market.

Generators whose average revenues are already at the level of the cap actually lose money if they run plant with variable costs above 6 Ptas / kWh, even if that plant is actually necessary to meet demand. Such a move would be a rational response to regulatory incentives, not an abuse of market power. However, clearly, the Spanish system hasn't collapsed, presumably because the companies are wary of the political consequences of withdrawing essential plant.

Over the longer term, the cap may keep market prices below new entrant costs, thereby discouraging investment by new entrants. Such an impact would be potentially serious in Spain's rapidly growing market.

Furthermore, the price cap has so far impaired the development of a term contract market in Spain, since the cap stabilises the revenues of

² Commission Communication "relating to the methodology for analysing State aid linked to stranded costs".

companies. The incumbents then have no risks left to cover through term contracts. This experience matches that observed in the UK, when a similar price cap applied from 1994 to 1996.

Given the difficulty of negotiating and implementing a scheme for recovering stranded costs, regulators and consumers may wonder whether it is worth the effort. As I discuss below, regulatory economics says that it is.

The Economics of Stranded Costs

Stranded cost compensation are intended to recover the *sunk costs* of investments and other commitments authorised (and thus deemed prudent) under the previous regulatory regime. To prevent investors from recovering these costs would represent a transfer of income from one group of citizens (shareholders) to another (consumers). It is often tempting for regulators to present such transfers as a benefit to consumers. However, the mere *transfer* of income is a matter of income distribution and has no role in the economic regulation of the power sector. It is therefore wrong to class simple transfers as some kind of economic or social benefit.

Furthermore, preventing shareholders from recovering sunk costs (or creating unnecessary risk over the extent to which such costs can be recovered) calls into question the credibility of future promises by the regulatory authorities. If regulators' commitments lack credibility, investors will be discouraged from investing unless allowed returns increase substantially. Consumers would therefore suffer from a lower quality (if they don't invest) or higher cost of service (if allowed returns rise).

The policy of allowing recovery of sunk costs is supported by numerous examples in the US where competition has been introduced into privately owned generation sectors. Many schemes for the recovery of stranded costs are intended to compensate utilities for opening up their networks for others to use. However, the regulators involved have often made explicit their desire to abide by previous regulatory agreements, in order to maintain the integrity of their future commitments.³

Since the stranded cost compensation represents only sunk costs, there ought to be little doubt over cost to be recovered. Sunk costs are not affected by the level of demand, or efficiency gains, or other variations in conditions. The amount of the actual compensation, however, may depend on actual or forecast revenues from other sources. These revenues can be defined ex-post (i.e. based on the actual observed market price) or ex-ante (i.e. based on an agreed forecast of the market price). With the ex-post approach there is no risk of under-recovery by generators or over-payment by consumers, but the utility's incentive to behave efficiently in response to market prices may be reduced. On the other hand, with the ex-ante approach, the utility's response to market signals will not be affected by the fixed payment, but there is a risk of under-recovery by generators or over-payment by consumers.

The method for recovering the stranded costs should also seek to minimise any reduction in the efficiency of consumers' decisions. This means that the cost recovery should be effected through a non-avoidable charge on consumers. If the charge is avoidable, then consumers will tend to distort their behaviour to avoid that charge, but their actions would be inefficient and would lead to higher costs or a lower level of social welfare. Furthermore, the level of stranded costs does not depend on the choice of supplier made by individual consumers. If some consumers can avoid making their contribution to stranded cost recovery by switching supplier,

³ In the US, utility investors are protected from regulatory pressure to deny cost recovery by various Supreme Court and other cases, setting out the need for responsible regulators to give investors the opportunity (though not a guarantee) to earn a rate of return that is comparable with that in other sectors (*Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, 1923) after recovering depreciation and operating costs (*Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 391, 1944). Recent experience in California also shows the dangers to preventing utilities from recovering costs for any period.

the remaining customers will have to increase their contribution. Such switching is both inefficient and potentially divisive; to avoid such effects, charges for stranded costs need to be levied on all customers, regardless of their supplier.

The Approach of the Commission and the Spanish Government

The Commission's approach is generally in line with the above principles, though some confusing text remains and a lot of details are still to be defined. This will allow each country to some freedom in proposing mechanisms which are suited to its local conditions, but also leaves open the door to disputes over which the Commission will have to issue interpretations. The approval of the Austrian, Dutch and Spanish stranded costs will provide some useful precedents for discussion of stranded costs in other regimes.

Unfortunately, the Commission focused on avoiding excessive compensation to companies, and did not comment on the need to protecting them from regulatory discretionality. The Spanish Government is under no legal obligation to allow companies to recover stranded costs through future tariffs.⁴ According to the Protocol, the payment can be lower than the maximum if the companies' market revenues exceed 6 Ptas/kWh. However, as a result of poor drafting of the 1997 Electricity Law, the amount of stranded cost compensation is only defined as a maximum, without specifying the conditions that would lead to payment of less than the maximum. This leaves open the possibility that the Government may only allow companies to recover a smaller amount, by setting tariffs lower. At one point the regulator argued that that "smaller amount" should be zero. The Commission could have furthered the case of liberalisation by devoting some time to the rights of companies to cost recovery.

Conclusions

The European Commission ruling and its general approach ought to reduce suspicion of measures to introduce competition that would otherwise put at risk the recovery of investments made under the previous regulatory regime. However, the decision leaves much work to be done. Whilst the Commission appears to have accepted regulatory principles of cost recovery, national regulators are not all bound to abide by them. The Commission has allowed local flexibility in the design of cost recovery mechanisms, presumably to allow local factors to be taken into account. However, it might have been useful to establish at the same time some universal principles that would constrain the design of all such national schemes, to ensure the recovery of stranded costs is both effective and efficient.

⁴ In Spain, it is the Government, and not the Energy Commission, which sets tariffs.

n/e/r/a

NATIONAL ECONOMIC RESEARCH ASSOCIATES

NEW YORK

*National Economic Research Associates
50 Main Street
White Plains, New York 10606
Telephone: (+1) 914 448 4000
Fax: (+1) 914 448 4040*

LONDONs

*National Economic Research Associates
15 Stratford Place
London W1C 1BE
Telephone: (+44) 20 7659 8500
Fax: (+44) 20 7659 8501*

OFFICES ALSO AT:

*Washington, DC • Los Angeles • Cambridge, MA • Philadelphia • San Francisco • Chicago
• New York, NY • Ithaca, NY • Sydney • Madrid • Brussels*