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# Power Law

Newsletter of the International Bar Association Legal Practice Division

**NO 1 SEPTEMBER 2013**





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## From the Chair

It is with great pleasure that I write to introduce the Power Law Committee’s first newsletter of 2013. Both the number of contributions and the geographic diversity of our contributors speak very highly of the Power Law Committee and it is something I do hope we can build upon. This newsletter features short articles on topical issues and recent developments and is an excellent way for you to both contribute to the International Bar Association and introduce yourself to the broad community of energy lawyers, to whom this newsletter is distributed.

Renewable energy and feed-in-tariffs feature strongly in this edition and

demonstrate the continuing importance of renewables in the supply mix; also discussed from a number of jurisdictions are some quite significant market reform initiatives, demonstrating the dynamic nature of the power sector around the world.

I would like to thank all our contributors and look forward to Boston where we can continue our exploration of these themes. The Power Law Committee will be conducting two panel sessions during the IBA Annual Conference and I look forward to seeing you then.

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## From the Editors

We are proud to present this new issue of the Power Law Committee newsletter.

This area of law is currently undergoing rapid reform and dynamic change. Environmental challenges are driving a shift in the energy matrix and new technologies are helping to develop innovative forms of generation through renewable energy sources. This issue showcases recent developments in this area in

several jurisdictions around the world. These and other interesting developments will be discussed during this year’s IBA Annual Conference in Boston.

We would like to thank our fellow Committee members who contributed to the newsletter. We hope to develop a rich list of contributors from all jurisdictions and to welcome you all to our sessions at our upcoming conferences.

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**Power Law Committee session**

**Monday 0930 – 1230**

**Cross-border inter-connection:  
global markets or national  
champions?**

*Presented by the Power Law Committee*

This is a continuation of Santiago conference discussions and will explore how, even though cross-border inter-connection may be a mechanism to tackle the risk of power shortages and high tariffs, there are many challenges still ahead.

**Tuesday 1430 – 1730**

**Deconstructing power purchase  
agreements: how to build up good  
indexation, termination and force  
majeure clauses to avoid litigation  
or arbitration**

*Presented by the Power Law Committee*

This panel will, in a case type analysis in which panellists will take sides, go over the main clauses of these contracts; clauses that are normally hard negotiation points. The panel will consider the owner's, lenders' and offtakers' positions.

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# Electric power: new remunerative regime of the generator agents in the wholesale market

**O**n 26 March 2013, the *Official Gazette* published Resolution No 95/2013 of the Secretariat of Energy (SE), by means of which the pricing regime of the generator, co-generator and self-generator agents of the wholesale electrical market (WEM) is modified, introducing relevant amendments to the marginal cost criteria in force since the privatisation of the industry in the early 1990s.

After the crisis of 2002, several emergency measures were adopted between the years 2002 and 2004 that de facto meant the abandonment or at least the freeze of the marginal cost system for the determination of spot prices in the WEM. However, said measures usually stated that they were temporary in nature and that once the crisis was overturned, the price regulations would return to the application of rules in force until 2002. In that sense, the most remarkable commitment was made in 2004 by the resolution 1427/04 of the SE. With this resolution, the government committed to set remunerative prices for the power generators according to the marginal cost system established in the rules governing the WEM in a free spot market considering the cost of the energy not supplied and with a price of the water according to the substituted fuel.

This new resolution moved forward a cost plus or rate of return regulation in accordance with an announcement made in August 2012. However, neither an explanation was given in the resolution on how the new prices were determined nor was an indication given regarding how and when they were adjusted.

Bi-national power plants and nuclear power generators are excluded from the application of the new regulation, as well as the prices of several power purchase

agreement (PPA) contracts entered into under some special regimes such as renewable energy (GENREN), delivery energy and energy plus, which were regulated by Resolution SE Nos 1193/05, 1281/06, 220/07, 1836/07, 200/09, 712/11 and 135/11.

The generator's remuneration according to the new resolution – applied as from the economic transactions of February 2013 – is divided into:

- remuneration of fixed costs, variable costs and additional remuneration according to the type of generation (thermal or hydroelectric (HI)); and
  - the fuel used (gas, coal, fuel oil or diesel oil).
- Also for this purpose, three thermal technologies are considered:
- gas turbines (TG);
  - steam turbines (TV); and
  - combined cycles (CC).

The generator agent shall receive 100 per cent of the power price, as set forth in chart I below, if:

- it complies with the target availability (the average availability of the last three calendar years);
- its availability is higher than 80 per cent of the historical average availability of the last three years; or
- it exceeds by five per cent its own historical average availability of the last three years.

If these goals are not met, the price of the remuneration will be reduced by up to 35 per cent.

For the purpose of the availability calculation, the hours out of service due to programmed maintenance authorised by CAMMESA (the company in charge of the dispatch and the administration of the WEM) are excluded.

Chart I

Type of unit	ARS \$/MW-hrp
TG < 50 Mw of power capacity (PC)	48.00
TG > 50 Mw PC	40.00
TV < 100 Mw PC	52.80
TV > 100 Mw PC	44.00
CC < 150 Mw PC	37.20
CC > 150 Mw PC	31.00
HI < 120 Mw PC	37.40
HI between 120 Mw and 300 Mw PC	20.40
HI > 300 Mw PC	17.00

US\$1 = ARS 5.24, as of 14 May 2013.  
2013 (official market)

The remuneration of the non-fuels variable costs will be determined on a monthly basis and will be calculated based on the power generated by the kind of fuel and according to Annex II of the Resolution (see chart II below).

Chart II

Type of units	Burning Natural gas	Liquid fuels	Coal
	ARS \$ / MWh	ARS \$ / MWh	ARS \$ / MWh
TG < 50 Mw PC	19.00	33.25	
TG > 50 Mw PC	19.00	33.25	
TG < 100 Mw PC	19.00	33.25	57.00
TG > 100 Mw PC	19.00	33.25	57.00
TG < 150 Mw PC	19.00	33.25	
TG > 150 Mw PC	19.00	33.25	
TG < 50 Mw PC	19.00	33.25	
HI < 120 Mw PC	17.00		
HI between 120 Mw and 300 Mw PC	17.00		
HI > 300 Mw PC	17.00		

CAMMESA will be in charge of the management and administration of the purchases of fuels. The current fuel supply contracts will remain in force until its termination.

A new concept of remuneration has been created and is called ‘additional remuneration’. This remuneration will be received according to the table set forth in chart III on a monthly basis and based on the calculation of the total energy generated.

This remuneration will be partially paid to each generator agent and the balance due corresponding to it will be allocated to a trust fund in order to be re-invested in the financing of new infrastructure projects in the

electric area.

Chart III

Type of units	Generators AS \$ / MWh	Trust fund \$ / MWh
TG < 50 Mw PC	8.75	3.75
TG > 50 Mw PC	7.50	5.00
TV < 100 Mw PC	8.75	3.75
TV > 100 Mw PC	7.50	5.00
CC < 150 Mw PC	8.75	3.75
CC > 150 Mw PC	7.50	5.00
HI < 120 Mw PC	63.00	27.00
HI between 120 Mw and 300 Mw PC	54.00	36.00
HI > 300 Mw PC	54.00	36.00

Likewise, as from the enactment of this Resolution, the incorporation of new PPAs in the long term market of the WEM will be temporarily suspended. Large consumers of the WEM, whose agreements terminate after the enactment of this Resolution, will be obliged as from such moment to purchase their demand of electric power from CAMMESA.



## Brazil

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# Hydroelectric plants – where is the (real) problem?

**T**he energy sector in Brazil is one of the most renewable in the world. The total energy sector matrix shows that more than 45 per cent of the energy consumed in the country is based on renewable sources, while a landmark region like Europe is struggling to meet the target of a 20 per cent renewable energy factor in their matrix by 2020. However, the rapid growth of the Brazilian power sector has unveiled some serious environmental challenges.

The Brazilian power sector is responsible for this impressive result. Throughout the 20th century, this sector grew with a unique focus on large hydroelectric power plants with large reservoirs. It is no secret that hydroelectric power is renewable, since it is based on the flow of rain water into the generators and the reservoirs are the instrument to tame such flow, so that one has control on the availability of water and, therefore, the availability of power through time. Indeed, hydroelectric plants respond for approximately 85 per cent of all power generated in Brazil. However, in the last few years the reservoirs have become the focus of discussion in view of environmental and social concerns.

It is undeniable that the large reservoirs do not come without their toll. They cover huge areas and with their creation in the deep regions of Brazil, several cities disappeared, the lives of millions of people were affected, forests were covered, animals were displaced and indigenous communities had to be relocated.

Before the development of the environmental laws (which in Brazil are currently very strict and rigid), old reservoir installation techniques did not require cleaning the area to be flooded by extracting trees beforehand, and they are likely to have generated greenhouse gas emissions with the decomposition of the forest that followed. There was inadequate care about the animals living in those areas as well.

Primarily after the enactment of Brazil's new Constitution (in 1988), environmental law started to develop with greater strength. Also, rights of indigenous peoples were recognised, together with the government's obligation to create and protect reservations

that allow them to keep their historical culture and way of life. The public information and awareness of the population in connection with these concerns grew exponentially. These changes generated waves of new requirements that led to a much more stringent system for the approval of any project in any region of the country and they certainly affected the development of hydroelectric power as well.

On the other hand, it is at least fair that we recognise that there is also a beautiful side of the Brazilian hydroelectric reservoir system. The reservoir of a hydroelectric plant is more than just a water container. The water kept by its dam is primarily an energy reserve. The older plants in the country were designed to hold enough water so that they could withstand several years of drought, so that the guarantee of energy supply would be kept unharmed.

As Brazil has a large territory, with different climate regions and with an almost complete interconnection by transmission lines that are operated centrally by a national independent system operator (known as 'ONS'), all the reservoirs in the country are operated as if they were one single gigantic reservoir. This fact allows ONS to promote the exchange of energy between dry and wet areas in a given season, distributing energy security throughout the country. As this exchange uses surplus and uncontracted energy coming from the wet regions during a given season, the cost associated with these exchanges is minimal. This impressive feature of the Brazilian power sector is only possible due to the energy saved in the form of water in the reservoir system.

The size of the hydroelectric plants also brings significant gains of scale, so that those plants are the least expensive source in the country and, therefore, are dispatched first according to a merit order that takes into consideration the operational costs of each plant. Other more expensive sources will be dispatched either after all hydroelectric alternatives are online or if ONS verifies that the level of the reservoirs is getting too low. The second alternative was created after



## BRAZIL – HYDROELECTRIC PLANTS – WHERE IS THE (REAL) PROBLEM?

the rationing faced by Brazil in 2001 and intends to mitigate the risk of failure to supply in dry scenarios.

With the recent addition of alternative energy sources such as biomass and wind farms, which usually bear smaller installed capacity, another interesting aspect of the reservoir system is highlighted. For instance, Brazil has a huge wind power capacity. Obviously there is no control on when the wind will blow, thus wind farms are always dispatched, but historically it is known that in Brazil the winds are stronger and steadier during the winter, which in most of the country is also the dry season.

Likewise, the most important source of biomass for power generation is agriculture and the most relevant biomass available today is the sugar cane bagasse. The sugar cane harvests are also carried out during the dry season, so that is the time when most of the biomass is available for power generation.

As the whole system is interconnected, ONS can save more water in the reservoir system during the dry period making use of the additional energy injection made by these sources. That means that the reservoir works as a massive battery for intermittent power sources, something not easy to achieve in systems where hydroelectric plants are less relevant. With this system, intermittent energy is transformed into firm energy.

Reservoirs are also a source of economic growth in the areas where they are built, promoting navigation, the fishing industry, tourism and other important positive side effects to regional development.

Thus, the reservoir system is a great feature of the Brazilian power sector, as it is a renewable source-based generation that, at the same time, helps using and controlling a variety of other natural resources. But due to the problems associated with the implementation of reservoirs discussed earlier in this article, this part of the sector has been suffering significant pressure towards reduction of the size of the reservoirs.

As a result of such pressure, the evolution of the accumulated volume of water reserve grew during the 20th century at a rate that was above the rate of growth of installed capacity. However, while the installed capacity is estimated to grow over 70 per cent between the years 2000 and 2017, the capacity to reserve water in the system is expected to grow by only 11 per cent in the same period.

In fact, recent hydroelectric projects have been forced to reduce the planned flooded

area, thus jeopardising their ability to operate during dryer periods. An internationally famous example is the project known as 'Belo Monte' in the north of the country, in the Xingu River. Belo Monte was first planned to take maximum advantage of the available geographical conditions, which would allow significant water reserve and generation capacity. However, the process to obtain an environmental licence ended up reducing the plant's reservation capacity significantly and as a result, Belo Monte, a plant that will be the second largest in Brazil and third largest in the world, an investment of almost US\$14bn, with an installed capacity of over 11.2 GW, will only be able to actually generate power during the rainy season, shutting down at dry periods, thus bringing its average generation capacity down to less than 4.6 GW.

With this reduction, Brazil is undoubtedly responding to the pressure derived from the environmental concerns related to the implementation of large hydroelectric plants and is thus reducing the impact of big hydroelectric projects to the nearby native forests, cities and indigenous communities.

However, the significant reduction of the water reservation capacity in the Brazilian power sector comes at a cost to the certainty of the supply. The system has been subject to more and more short-term variations. The protection that the reservoirs offered against dry years is no longer available and just one year without the expected volume of rains already forces ONS to dispatch more expensive plants and more pollutant sources in order to meet the consumers' demand.

Actually, due to the fact that the level of the reservoirs are now dangerously close to the levels that lead the country to ration in 2001, ONS has been forced to save water and, since October 2012, has been dispatching all other sources available, even the set of plants that were designed to be turned on only in short term emergency situations. This means that plants fuelled by natural gas, coal, oil and diesel oil are operating at full force. It seems that the situation will remain until the end of 2013, at an aggregate additional cost to the Brazilian consumers estimated at more than US\$7bn, half of Belo Monte's cost. But so far nobody has yet calculated the additional environmental impact that the continuous operation of these fossil fuel plants is causing.

There is no development without energy; and so far there seems to be no source of firm power without an environmental impact. Even wind and solar power have their own

impacts, in addition to the fact that they are intermittent and thus cannot be relied upon as the basis of the development of a country. The hydroelectric plants in Brazil are easy targets for local and international criticism, but it is time to gather information and make up our minds about where the real problem is and what is in the best interest of the people of the country.

There is no doubt that the laws and regulations in Brazil must always protect the environment and social interests of the

minorities, as this is a requirement for any modern democracy. Brazil and its people need to develop the ability to access projects and their impact on a more holistic level so that sovereign decisions really bring the best possible results from the point of view of energy security (which is also in the interest of the population) and the most adequate control of environmental impacts and a reduction of other social consequences. Among many others, this is one of the biggest challenges facing Brazil in the next few years.

## BRAZIL

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# Recent developments on the free energy market

**T**he constant economic growth experienced by Brazil over the last few years and the solid prospects for its future development, boosted by infrastructure investments and increased consumer consumption, have focused attention on the pressing need for investments in the power sector, especially for expansion of the generation capacity and the transmission systems.

While efforts to increase the amount of energy produced and transmitted are still undergoing – some at a much slower pace than anticipated, especially when it comes to construction of large hydropower plants and significant extension of transmission lines, projects which face many challenges, ranging from environmental to financing issues – the Brazilian industrial productive sector faces its own challenges with establishing efficient strategies in order to secure its power demand at reasonable prices.

Attracted by the possibility of flexible contracts and lower tariffs, a substantial portion of the electro-intensive base of industrial consumers has migrated from the regulated market – where the captive market is supplied by the local distribution company at regulated tariffs fixed and revised by the National Agency for Electric Power (ANEEL) – to the free market, where large consumers may freely negotiate the terms and conditions of their power supply directly with power producers and traders.

However, recently enacted regulation and repeated changes to the existing rules have affected the behaviour of a portion of this industry, which is either putting their migration plans on hold or assessing the conditions for a return to the captive market.

Among those changes is the highly debated Federal Law No 12.783, enacted 11 January 2013 (which is the conversion of Provisory Measure No 579/12), which issued new rules for the renewal of certain old concessions for energy generation, primarily from large hydropower plants (whose assets were perceived as almost entirely depreciated by the government), and altered some of the many sectorial charges that are due from energy consumers and other market players. While the new law's main goal (as expressly stated in the official statement of motivation for MP 579/2012)<sup>1</sup> was the pursuit of tariff affordability and the increase in competitiveness in the productive sector, the proposal for renewal of these concessions did not result in balanced benefits among the entire consumer market.

Although the reduction in sectorial charges<sup>2</sup> promoted by Federal Law No 12.783 applies generally to both free and captive consumers, the substantial reduction in the energy costs which will result from revised tariffs for renewed power generation concessions will be entirely captured by the captive market. In fact, Federal Law No 12.783 directs that all energy produced by



renewed concessions be divided in quotas and distributed among the energy distributors who supply only the captive market. Accordingly, free consumers will not have access to this lower cost energy.

With a significant block of the cheapest energy (precisely the energy produced by old hydropower plants with most of their assets already fully depreciated) out of the grasp of the free market, there is a clear tendency for escalation of prices for the now available mix of power for free consumers.

In addition, unfavourably hydrological conditions experienced at the beginning of 2013 forced the national system operator (ONS) to request thermo power plants (which are usually back-up plants) to generate constantly in order to meet demand. As thermo power plants require the use of fossil fuels such as coal, gas or oil, the energy price in this period was immediately impacted by a considerable increase.

While aggravated prices resulting from thermo power were usually passed through to all consumers by means of an increase in a specific sectorial charge (the 'ESS'), a recent resolution enacted by the National Council for Energy Policy (CNPE), Resolution No 3, enacted 6 March 2013, changed the criteria for splitting these costs among market participants.

Starting in April 2013, a higher percentage of these cost increases will be borne by the free market through an increase in the spot market price (PLD), which is the price for settlement of short-term transactions in the free market. Due to the fact free consumers may only negotiate their supply on the free market, it could be argued that they are more susceptible to being exposed to the PLD than consumers who receive energy at regulated tariffs and, therefore, that free consumers will bear a greater portion of the thermo generation costs.

All of those conditions are forcing free consumers to review their alternatives for energy supply and to seek long-term contracts, which are certainly less susceptible to price volatility but are also less flexible – and flexibility, being an invaluable characteristic for the industry, has always been one of the main attractions of the free market thus far. Securing long-term contracts, however, may not be an easy task due to the limited offerings for the currently inflated energy demand.

An alternative option would be for the free consumer to return to the captive market, where it will be subject to regulated tariffs and to the contractual structure of the local energy distribution utility company.

This option looks even more appealing after additional related regulatory changes were announced, such as the increased costs for the guarantees that consumers are obliged to present to the Chamber for Electric Energy Trading (CCEE) in order to participate in the free market (introduced by ANEEL's Resolution No 531, dated as of 21 December 2012) and the new rules that simplified the process for termination of membership rights of defaulting consumers with the CCEE (introduced by ANEEL's Resolution No 546, dated as of 16 April 2013).

Local distributors, however, are not obliged to accept the immediate return of a free consumer to its consumer base and may impose a waiting period of up to five years counted from the date of the consumer's official request. Since enactment of Federal Law No 12.783, the five-year prior notice for return to the captive market – which was already the rule for free consumers in general – is now also applicable to the 'special consumer', which is the consumer supplied by energy from incentivised sources.

Therefore, even after carefully weighing the advantages and disadvantages of contracting in the free market or being supplied under the regulated rules, the industrial consumer still might face a considerable delay in securing long-term contracts or returning to the captive market.

#### Notes

- 1 The relevant portion of the official statement of motivation for MP 579/2012 reads as follows: 'We submit to Your Excellency's high consideration a proposal for the elaboration of a Provisional Measure that changes provisions of the current legislation with the purpose of reducing the electric energy cost for the Brazilian consumer, seeking, thereby, not only to promote the tariffs' affordability and the guarantee of electric energy supply, but also to make the productive sector even more competitive, contributing for the increase in the level of employment and income in Brazil.'
- 2 Including: (i) extinction of the Fuels Consumption Account (*Conta de Consumo de Combustíveis – CCC*) from isolated systems; (ii) exemption from payment of the Global Reversion Reserve (*Reserva Global de Reversão – RGR*); (iii) reduction of the share in the Energetic Development Account (*Conta de Desenvolvimento Energético – CDE*) collected from the electric energy consumers; and (iv) decrease in tariff for use of the transmission system charged from consumers.

## COLOMBIA

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# An opportunity for electricity investments in the isolated Chocó province is pending

Last year, the Colombian energy sector announced plans to privatise several electricity assets – mainly generation and distribution companies – in order to raise approximately US\$1.5bn. This initiative was added to government plans to invest in the long-disadvantaged Chocó province's energy network. In order to solve the problems of energy generation and transmission in this area, around US\$300m investment is required.

With the new interconnection plans, a permanent electric flow around the Atrato and Darien zones will be offered, benefiting about 30,000 people. Among the several proposals that are being considered to illuminate this region is that of the Empresa Distribuidora del Pacifico SA ESP (Dispac), which is hoping to reach a contract to install the network connection for the San Miguel and Paimadó areas.

A diagnosis was made by the company several months ago, when reviewing the 2012–2022 Expansion Plan, according to which the national government is encouraged to allocate these resources as soon as possible in order to strengthen the electricity distribution process, which is currently overloaded and has a percentage of nearly 11.5 per cent in technical losses.

Meanwhile, the province's governor said a new green paper ('Conpes' document in Colombia) is required, not only to specify the use of interconnects and substations, but also the construction of some small hydropower stations (SHP). This shall benefit around 2,650 potential customers and requires an investment of US\$18m.

Other strategies that will be put in place are the construction of a complete connection to the national interconnected system (SIN in Spanish) of the Middle Atrato, through Quibdó, and providing electricity to Bojayá through a link between Murindó and Vigía del Fuerte, which has a cost of US\$5m.

The programme will have a positive impact on the province's economy since it seeks

to transport electric power permanently to the province's municipalities. Due to this programme, the agriculture, fisheries and tourism in the Chocó province will be reactivated since, due to the service's lack of constant supply, many entrepreneurs have been slowing their expansion and development plans.

For parties interested in participating as an electricity trader for this region in the future, they must take into account that according to a recent ruling, any electricity trader in Colombia must comply with the following provisions:

- be incorporated as a public utility entity under Article 15 of Law 142/1994 (electricity transmission agents may not be traders);
- maintain an accounting system independent from that of any other activities that it may carry out (eg, generation or distribution);
- prepare and publish a uniform conditions model contract (for regulated users);
- create a claims office to service customers;
- register as an electricity trading agent with the Administrator of the Commercial Exchange System (ASIC); and
- notify the commencement of activities to:
  - the utilities superintendence;
  - the Energy Regulation Commission; and
  - the Subsidy and Re-distribution Solidarity Fund of the Mines and Energy Ministry.

In addition, the network operator shall be solely liable for damages caused to users and third parties if it accuses a trader of a default and such accusation cannot be justified. Such act may be deemed only a restrictive trade practice.

The regulation also includes provisions on the effect of a trader's exit from the market and, in particular, which agent will be in charge of servicing those users who were previously serviced by the exiting trader.

Chocó is one of Colombia's 32 provinces, located in the north-west of the country in the Colombian Pacific region. It is the only province of Colombia with coasts on both the Atlantic and Pacific oceans and the ecoregion that has one of the highest rainfall levels on the planet.



# Electricity system reform

## JAPAN

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## Overview

On 2 April 2013, the Japanese cabinet adopted the Policy on Electricity System Reform (the ‘Policy’), which proposed, among other things, the full liberalisation of the retail sale of electricity in 2016 and the separation of power generation and power transmission between 2018–2020.

This article provides an overview of the Policy and briefly considers how the proposals in the Policy may affect the energy business in Japan.

## Background

Over the years, the Japanese electricity market has been almost completely monopolised by ten local electricity companies (the ‘General Electricity Utilities’) in the respective regions of the country. Although the retail market has been partially liberalised since 1995, the market share of the newcomers (the ‘Power Producers and Suppliers’, or the ‘PPSs’) is still very limited (3.6 per cent of the liberalised sector in 2011). Besides, there has been almost no competition across regional boundaries and the generation and delivery of electricity has generally been bundled together by the same General Electricity Utilities.

Looking at major advanced countries around the world, such as the nations of Western Europe and the US (excluding some states), the separation of power generation and transmission has been promoted. They have facilitated the participation of newcomers and market competition in the power generation sector while they regulate the power transmission sector, which is more public in nature, in order to maintain the stability of the electricity supply.

Since 2001, the Japanese government has also considered the possibility of separating electricity generation and transmission but this has been strongly resisted by the electricity industry.

In March 2011, the Great East Japan Earthquake and the accident at the Fukushima Nuclear Power Plant occurred, which added weight to arguments that Japan’s power system has significant problems. These include:

- The reliability of nuclear power plants, which had been regarded as a major source of energy in the future, was significantly reduced. The accident at the Fukushima Nuclear Power Plant forced the Japanese government to suspend the operations of the existing nuclear power plants and reconsider its policy for Japan’s energy mix, especially taking into account the necessity of increasing the market share of renewable energy.
- Supply and demand of electricity has basically been managed and controlled by the General Electricity Utility operating in each region, and has not been planned on a nationwide basis. There is also the fact that Japan’s power line frequency differs between eastern Japan (50 hertz) and western Japan (60 hertz) and the capacity of frequency converters is insufficient. As a result, if one area suffers a shortage of electricity, it is not easy for the other area to supply its surplus electricity to that area.
- The current approach – to supply electricity abundantly according to demand – will be impossible in the future. It is more important to restrain electricity costs by controlling the demand. However, the measures required to save electricity have not been implemented sufficiently strictly. Promoting a demand response to reduce electricity consumption at peak times and installing smart meters in households should be considered.

In January 2012, the Expert Committee on Electricity Systems Reform (the ‘Committee’) was formed under the Ministry of Economy, Trade and Industry, to consider the future electricity system in Japan.

In July 2012, after having several meetings, the Committee compiled the Basic Policy on Electricity System Reform.

In February 2013, following additional meetings, the Committee compiled a report on the electricity system reform.

On 2 April 2013, the Japanese cabinet decided to approve the Policy based on the report.

## Details of the Policy

At the beginning of the Policy it states that the Japanese government will review the previous energy policy from scratch in the light of

providing a stable supply of electricity and reducing energy costs, with promotion of the use of renewable energy as another objective.

The Policy then provides three purposes to be achieved by the electricity system reform:

- securing a stable supply of electricity;
- suppressing electricity prices to the maximum extent possible; and
- providing consumers with choice as well as business operators with opportunities to expand their businesses.

To achieve these goals, the Policy declared that dramatic reforms will be carried out, focusing on the three pillars discussed below.

### **Pillar 1 – Expanding the operation of wide-area electrical grids**

The Organisation for the Operation of Wide-area Electrical Grids (tentative name) is to be established to strengthen the nationwide supply-demand adjustment function. The role of this organisation would include:

- organising supply-demand plans and power system plans to strengthen the transmission infrastructure such as frequency converters and inter-region power lines;
- at normal times, controlling operations of wide-area electrical grids to balance supply and demand of electricity and adjust power line frequency in each region;
- in emergency situations, ordering an increase of power generation and the provision of electricity between regions; and
- accepting new electricity sources and publishing power system information neutrally.

The Policy also emphasised the necessity of strengthening electricity transmission infrastructure such as frequency converters and inter-region power lines in order to expand the operation of wide-area electrical grids.

### **Pillar 2 – Fully liberalising the retail market and power generation**

Full liberalisation of the retail electricity market will be implemented so that all electricity users, including households, will be able to choose the electricity supplier they prefer. The government and utility companies will proactively provide appropriate information and publications for electricity users to appropriately choose an electricity company, based on price and power source. The government will also promote installation of smart meters to facilitate free competition in the market.

On the other hand, the current price regulation will be maintained even after

the full liberalisation of the electricity retail market until the government confirms that the competition in the market has actually increased. Even after the cancellation of price regulation, the government will take measures to require power transmission companies to guarantee electricity supplies to end-users and stable electricity supplies to remote islands on the same terms as with the mainland.

The government will also consider the full liberalisation of the power generation market (ie, the cancellation of the electricity wholesale regulations), promotion of transactions in the electricity wholesale market and the establishment of an electricity futures transaction market.

### **Pillar 3 – Further securing neutrality of the power transmission/distribution sector**

The government will make sure that the neutrality of the power transmission/distribution sector is further secured so that power generation companies and electricity retailers are able to use the power transmission/distribution network fairly. Specifically, the power transmission/distribution department of each General Electricity Utility will be carved out to a separate company, although they are not prohibited from maintaining capital ties (the legal structural separation method).

On the other hand, the government will formulate necessary rules so that even after the implementation of the legal structural separation, power transmission/distribution companies will be able to take countermeasures against emergency situations and conduct supply-demand adjustments and power line frequency adjustments in concert with power generation companies.

The power transmission/distribution sector will continue to consist of regional monopolies. The government will guarantee a system in which the power transmission/distribution companies can recoup their investments in transmission/distribution power lines by a certain method of price regulation such as a fully distributed cost (FDC) method, a methodology to allocate the full cost of a service provider to individual services. The government will also impose an obligation on each power transmission/distribution company to maintain supply-demand balance in the whole system so that a high quality electricity supply, which is fundamental to economic activity, can be secured.



## Reform programme

The Policy provided that these three pillars will be implemented by dividing the process into three phases.

### Phase 1 – Establishing the Organisation for Operations of Wide-area Electrical Grids

The Organisation for Operations of Wide-area Electrical Grids is scheduled to be established in 2015.

On 12 April 2013, as phase 1 of the electricity system reform, the cabinet approved the Bill for the Act for Partial Revision of the Electricity Business Act and the bill was submitted to the current session of the Diet.

The bill provided that the government will take measures to promote operations of wide-area electrical grids by establishing the above organisation and reviewing electricity supply orders by the Minister of Economy, Trade and Industry. The bill also mentioned reviews of the self-use wheeling system and the order by the Minister of Economy, Trade and Industry to restrict uses of electricity.

### Phase 2 – Fully liberalising the electricity retail market

Full liberalisation of the electricity retail market is scheduled to be implemented in 2016. The bill for this phase is to be submitted to the ordinary Diet session in 2014.

### Phase 3 – Further securing neutrality of the power transmission/distribution sector; fully liberalising electricity rates

There will be further securing of neutrality of the power transmission/distribution sector through legal structural separation and by fully liberalising the electricity rate; these are scheduled to be implemented between 2018–2020. The bill for this phase is aimed to be submitted to the ordinary Diet session in 2015.

## Impact on the energy business

There seem to have been some difficulties breaking into the electricity retail market in Japan. For instance:

- the PPSs are only permitted to sell electricity to large and medium sized users, excluding small electricity users such as households;
- it would be difficult for the PPSs who do not have their own power generation capacity

to procure electricity from other electricity producers or the market due to the small amount of extra electricity; and

- the wheeling rate of electricity which the PPSs have to pay to the power transmission companies for the use of their power lines remains high.

However, if the proposed full liberalisation of the retail market is implemented, the PPSs would be able to sell electricity to households, which would be a great expansion of their potential customers.

Also, if the electricity wholesale market is invigorated and the amount of transactions in the market increases, it would become much easier for the PPSs to procure electricity through such a market.

Furthermore, if as a result of the separation between the power generation sector and the power transmission/distribution sector, the latter sector becomes more neutralised and the wheeling rate of electricity is reduced, the PPSs would be able to sell electricity at a more competitive price.

Accordingly, it can be expected that more and more companies which have not been engaged in the electricity business would consider entering the electricity retail market to seek new business opportunities.

The proposed separation between the power generation and transmission sectors would change the electricity generation market as well. Since the partial liberalisation of the power generation sector was implemented in 1995, some trading houses, gas companies and manufacturers have launched renewable energy businesses and cogeneration businesses. However, the high wheeling rate of electricity has discouraged the development of renewable energy businesses and cogeneration businesses. If such companies' accesses to the power transmission/distribution network became easier, it would help them sell electricity at more competitive prices.

As a matter of fact, the number of the PPSs jumped from 53 at the end of March 2012 to 81 at the beginning of April 2013, seemingly because of the expectations for electricity system reform.

## Conclusion

Although we have to watch carefully whether and how the reform provided in the Policy will be implemented, the direction of this reform should be appreciated by those who have made or are considering investments in the energy industry of Japan.



## MEXICO

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# Landfills: an opportunity for investment?

In Mexico, according to data provided by the National Institute of Statistics, Geography and Informatics (known by its acronym in Spanish, INEGI), approximately 41,062 million tons of urban solid waste (USW) was generated during 2012, of which 26,136 was located in landfills. In this regard, it is also important to state that these quantities are due to the demographic rise of the country. Therefore, in our country, just like in the majority of the country members of the Organisation for Economic Co-operation and Development (by its initials in Spanish, OCDE), the generation of wastes has raised in lineal scale with the increase in the final consumption and the gross national product.

USW can be defined according to the General Law for the Prevention and Integral Management of Waste (by its initials in Spanish, LGPGIR) as those wastes generated in households as a result of the disposal of materials used in household activities (eg, consumer products and their packages and containers). USW can also be generated from other activities conducted inside the facilities or in public spaces, with household features, or in public areas provided that USW cannot be considered as other types of waste.

In other words, USW is waste mainly comprised of:

- textiles;
- metals;
- plastics;
- glasses;
- food waste;
- waste derived from gardens and similar organic waste; and
- paper, carton products, etc.

According to the data given by the INEGI, the three main USW generators in the Mexican Republic are the state of Mexico, the Federal District and Jalisco and in this regard it is important to clarify that these are the places where the highest concentration of the population in Mexico are located.

## Landfills

As mentioned before, 26,136 million tons of garbage is located in final waste disposals

that are commonly known as 'landfills'. This kind of place can be defined as the infrastructure location that involves special methods of engineering for the final disposal of USW and their special handling, with the aim to control, through compression and with the aid of additional infrastructure, the environmental impacts of a specific zone.

Nowadays, there are many experts who consider the construction of landfills in Mexico harmful. Their theory is based on the generation of pollution in the soil and underground water bodies where landfills are located. Such pollution is caused primarily by the generation of leachates, which are the liquids that are formed due to the reaction, dragged or filtrated by the materials that conform the waste and that contain in a dissolved or suspended shape, the substances that can be filtered through the soil or can spill out of the landfill, provoking soil and water bodies pollution, which represents a potential threat to human health and living organisms. As a result of the huge impact that the spill of leachates can cause to the environment, many developed countries discouraged the use of landfills as final disposal sites for USW.

Without regarding that stated above, there are other experts who consider that the cause of the soil and water pollution is due to the inaccurate fulfilment of the dispositions contained in environmental law, related to the specifications of landfill construction. In this sense, is worth noting that the Official Mexican Standard NOM-083-SEMARNAT-2003 issued by the Ministry of Environment and Natural Resources provides the environmental specifications related to the site selection, design, construction, monitoring closure and complementary works of a final disposal site for USW (NOM-083).

Adding up to this, we have to mention that inside landfills, the biogas – which is a mixture of the result of the anaerobic decomposition of the organic fraction of the USW and is mainly comprised of methane and carbon dioxide – generated can be burned with the purpose to mitigate the environmental impacts or it can be exploited in order to produce electric energy through



## MEXICO – LANDFILLS: AN OPPORTUNITY FOR INVESTMENT?

the introduction of the biogas into engines and/or machines of internal combustion, which activate electric generators that produce electricity. In this regard, we have to mention that biogas treatment brings out as immediate consequences:

- biogas – methane and carbon dioxide – control at landfills;
- reduction of emissions of greenhouse gases (GHG); and
- in case it was considered as a project of clean development mechanisms (CDM projects), municipalities can obtain additional financial resources through the emission and commercialisation of certified emissions reduction (CERs) in international markets.

### Kyoto Protocol

As its known, the Kyoto Protocol ('Protocol') and the 2012 Doha Amendment – derived as a result of the 2012 United Nations Climate Change Conference – have as a main objective the emission limitation and reduction of GHG generated by the countries included in Annex I of the United Nations Framework Convention on Climate Change ('Annex I Countries'). Likewise, this Protocol sets out in Article 12 the basis on which CDMs can operate. In this regard, is worth noting that CDMs are created with the aim of:

- helping countries that are not listed in Annex I to achieve its sustainable development via mitigation projects that are financed by Annex I Countries; and
- helping Annex I Countries to fulfil its commitment related to the emissions limitation and reduction of GHG.

We have to highlight that CDMs allow Annex I Countries to finance mitigation projects with the purpose of reducing GHG emissions in developing countries, enabling them to receive CERs for an amount, equivalent, to the amount of GHG that were not released into the atmosphere as a result of such mitigation project.

As a result of the above, many Annex I Countries and particularly many foreign companies find CDM projects an attractive opportunity to invest, because:

- the acquiring country of the CERs can use them to fulfil its obligations under the Protocol or can reserve it, in order to trade them with other Annex I Countries; and
- prospective investors can participate in CDM projects, with the aim to commercialise CERs obtained in international markets.

In addition to the above, it should be noted that the rules issued by the CDM executive board determined as authorised categories for the development of CDM projects the following:

- renewable and non-renewable energy projects; and
- most importantly, the handling and final disposition of wastes.

However, in Mexico there is a marked tendency to register as CDM projects the exploitation of biogas produced by landfills. This fact implies the potential interest to market CERs in order to obtain profits derived from its commercialisation. In other words, what the state and/or prospective investors require to finance CDM projects in non-developing countries is the establishment of a regulatory framework that encourages the investment over this type of projects, giving legal certainty to prospective investors. And most important of all, there is a need to comply with the bases laid down in Article 12(5) of the Protocol, plus the establishment of clear provisions related to reductions in emissions that are additional to any that would occur in the absence of a project of this nature.

### Legal framework

According to the Political Constitution of the United Mexican States, municipalities in Mexico shall be in charge of providing public services related, among others, with the cleaning, collection, transportation, treatment and final disposition of waste. In this regard, we have to consider the following:

- municipalities are allowed by the Mexican Constitution to manage their assets on their own, according to the respective laws;
- all or each one of the public services mentioned above, can be subject to a concession system, in which private entities can become holders of such concessions; and
- there are no legal restrictions to private entities to design, build and operate municipal landfills.

In a more specific way, and taking into account the faculties that the Mexican Constitution granted to municipalities, landfills are specifically ruled by two types of provisions: (i) the first one that we considered as 'the main provision' because of its specificity on the regulation of landfills; and (ii), that acts as a complement of the first, ruling the exploitation of biogas generated on landfills in order to burn it or to produce power energy.

### Main provision

This is comprised by those regulations that rule in a specific manner on all the steps that are necessary in order to build and operate a municipal landfill. In this regard, the LGPGIR regulates municipal landfills in compliance with the following axis:

- *First axis:* It is constituted by the right stated in LGPGIR in favour of municipalities in which they are allowed to authorise concessions related with the management of USW, where we find final disposition waste.
- *Second axis:* Formed by the right stated in LGPGIR in favour of states, related to the faculty to submit into the consideration of the Ministry of Environment and Natural Resources, the programmes that should be followed for the construction and operation of landfills, with the purpose of receiving technical assistance from the federal government.
- *Third axis:* This states the observance that should be followed with the provisions set out on the Official Mexican Standard, since such provisions rule the location of the site, the design, construction and operation of landfills, as well as the cases in which it would be allowed to be used for biogas generation.

This is how – based on the last axis – the aforementioned NOM-083 finds its sustentation. In this regard, we have to remind that the Official Mexican Standard has as its main objective to set the terms and conditions related to the construction of municipal landfills.

### Secondary provisions

These are comprised by those regulations related to the use that can be given to the biogas produced on a municipal landfill (we have to remind the reader that biogas can be used in generating electricity or can simply be burned in compliance with environmental laws). In this regard, we found applicable the provisions stated in the Electrical Energy Public Service Law and its regulations (by its initials in Spanish, LSPEE), and the General Ecologic Balance and Environmental Protection Law and its regulations (by its initials in Spanish, LGEEPA).

In this regard, we have to highlight that:

- LSPEE can rule landfills, only to the extent related to the generation of electric energy. In virtue of that, such law establishes the modalities by which concessionaries will be able to participate in the production of

electric energy, as long as these modalities do not constitute under any circumstances a public service that according to the Mexican Constitution, only the Mexican state has the right to produce electric energy for public service purposes by means of the Federal Electricity Commission (by its initials in Spanish, CFE). Under the modalities stated in the LSPEE, the self-consumption constitutes the most used modality over landfills projects.

- The self-consumption according to the LSPEE will be designed with the purpose to satisfy the necessities of individuals or private entities, which are the holders of a permit granted by the Regulatory Energy Commission (by its initials in Spanish, CRE). Such modality can be exercised under the following two schemes:
  - co-ownership of the generating station
    - in this case it would be the landfill
    - knowing that such permit would be granted by CRE to all co-owners; or
  - the incorporation of a ‘self-consumption’ company, the purpose of which shall be the generation of electric energy for the satisfaction of electric energy supply to its partners; in other words, the partners of such a company will be the only beneficiaries of the electric energy produced by the landfill.

### A renewable source of energy?

It is well known that renewable energy constitutes a response to fossil fuel energy system that currently dominates world electric power generation. Furthermore, the marked tendency of a large number of developed and non-developed countries regarding the promotion in the use of such type of energy has brought a series of first-generation energy reforms that encourages the elimination of economic barriers that impedes the cash flow of economic resources by private investors.

With the Mexican Energy Reform of 2008, Mexico intends to diversify the energy supply that is currently based on fossil fuels into a renewable energy system. A renewable energy system can be transformed into usable energy (like electricity) due to the fact that in physics, the ‘energy cannot be created or destroyed, only converted from one form to another’.<sup>1</sup> So that’s the main importance of the regulation of renewable energy, because it constitutes an exhaustible source of electricity generation.

In other words, renewable energy can be defined as energy, the source of which lies in



natural phenomena, processes or materials that may be transformed into energies usable for mankind. They regenerate naturally, so their availability is continuous. They are based in implicit flows and cycles of nature. Their proper use has a favourable environmental impact, something that today becomes an invaluable tool given the need to decrease the emission of greenhouse gases around the world.

It is worth noting that Article 3 of the Law for the Use of Renewable Energy and Financing of Energy Transition (LAERFTE is the Spanish acronym) defines renewable energies as those whose source lies in natural phenomena, processes or materials that may be transformed into usable energy and that may derive among others from:

- wind;
- solar radiation, in all kinds;
- water movement in natural or artificial channels;
- energy derived from the oceans like tidal, thermal, waves, etc;
- heat from geothermal reservoirs; and
- bio-energy.

In view of the above mentioned, it is worthy of note that bioenergy is defined as the ‘fuel obtained from the biomass that comes from organic matters derived of the following activities: agriculture, livestock, forestry, aquaculture, algae culture, fishing residues, domestic, commercial, industrial, of microorganisms and enzymes, and derivatives thereof, produced for sustainable technologies processes established by competent authorities...’. Therefore, if landfills comply with Mexican environmental laws, it can be assumed that the energy produced in such type of facilities shall have to be considered as bio-energy and in consequence a renewable source of energy.

Likewise, it is worth noting that the LAERFTE establishes the faculties that the renewable energies the CRE will assume, among which we found the issuance of rules, guidelines, methods and other administrative provisions governing the generation of electricity from renewable energy sources. In this sense, and in open connection with such faculties, the Regulatory Energy Commission Law sets out in Article 3 section XIII, the faculty imposed to said Commission in order to approve and expedite all types of adherence agreements for the realisation of the ‘regulated activities’, among which we found the generation of electric energy produced by private entities or individuals.

### **Steps to be followed in the construction and operation of a landfill in Mexico**

The steps that prospective investors should follow, in order to build and/or operate a landfill in Mexico, are described briefly in the following items:

#### *Negotiation phase with the municipality*

- concession over the final disposal of USW as a public service and for the exploitation and/or burning of biogas;
- incorporation of a Mexican company under the provision of the General Corporations Law, in which the partners shall be the prospective investor and the municipality (‘Company’);
- in order to comply with the provisions of the LSPEE, the corporate purpose of the Company shall include the generation of electric energy for the benefit of its partners (in this regard, please refer to the above); and
- the sub-lease of the site in which the landfill is located, prior to its disincorporation of the public domain.

#### *Paperwork to incorporate a self-consumption company*

- the LSPEE do not have a restriction to incorporate any type of company (limited liability stock corporation or limited liability company that are the structures most used in Mexico); in this regard, and attending to LSPEE, the corporate purpose of such corporation shall be the generation of electric energy with the aim to satisfy the needs of power supply to its partners; and
- the incorporation of the company shall be executed in compliance with the terms and conditions stated in the General Corporations Law.

#### *Negotiations at CRE*

Regarding this, the following paperwork must be obtained, among others:

- self-consumption for electric energy permits granted by CRE in favour of the company (in this regard, such company will act as concessionaire).

#### *Negotiations at CFE*

Regarding this, the following paperwork must be obtained:



- interconnection contracts that have the main purpose to realise and maintain during the term of such contract, the interconnection between the national electric system and the location where the electric energy is produced (energy source); and
- electric energy transmission contracts, that have as their main purpose to state the proceedings, terms and conditions by which CFE shall provide to concessionaire, services related to the transportation of the electric energy produced in the ‘energy source’ and delivered to point of charge of such concessionaire.

#### *Negotiations at SEMARNAT*

Regarding this, the following paperwork must be obtained:

- environmental impact manifesto particular and/or regional;
- preventive report;
- change soil right of forestall land (if applicable);
- wildlife use report (if applicable);
- environmental licence; and
- annual operational licence.

#### *Paperwork required by the municipality*

- permit to work;
- land right licence;
- feasibility of sewage, drink water and residual water treatment;
- civil protection permit; and
- building licence.

#### *Other paperwork required for this process*

- related with the compliance of the specifications stated in NOM-083.

#### **Mexico and new opportunities in the renewable energy sector**

Mexican President Enrique Peña Nieto has stated in various forums the necessity of promoting a second generation energy reform (the ‘Reform’) that would have a direct impact on the manner in which Mexico will face climate change and the use of renewable energies as a measure of control. The Reform is intended to be discussed by the Mexican Congress in the second half of 2013.

Some proposed aspects of the reform have been outlined, of which the following stand out:

- increase investment, research and development of renewable energy projects, specifically wind and solar energy;
  - improve the infrastructure used for the capture and storage of rainwater;
  - increase the number of desalination plants in Mexico; and
  - improve the infrastructure used for collection, removing and recycling in order to harness the potential of waste in Mexico.
- If Mexico wants to compete internationally in this type of industry, it needs to increase fiscal incentives in order to attract foreign investors for the purpose of developing renewable energy projects. The legal engineering is working; now it is the time for Mexican government to make things happen.

#### **Note**

- 1 The conservation of energy principle.



# Wind generation incentives and the financial crisis: what will happen to offshore wind?

## Renewables policies – 20-20-20 evolution

Investment in renewables is deemed a powerful instrument for diversification of the energy mix and for the reduction of external energy dependence. Following Directive No 2009/28/EC of the European Parliament and of the Council of 23 April 2009 (the ‘Renewables Directive’), setting forth an EU-wide 20 per cent objective for the share of renewable energy in final energy consumption by 2020 (generally known as the ‘20-20-20’ target), Portuguese policies initially set this target at 20.5 per cent in 2005 and with its successful implementation, the target was increased to 31 per cent in 2010, to be reached by 2020.

For ease of assessment of the necessary national effort to meet this voluntarily increased goal of 31 per cent, the national energy sector is required to reach 60 per cent of electricity supply generated from renewable energy sources (ie, wind, solar, small hydro, biomass, biogas and urban solid waste). Numbers from the national association for renewable energies (APREN) provide that, in May 2012, 37.7 per cent of the final energy consumption in mainland Portugal was of renewable origin, against 46.2 per cent in 2011, external dependence having also increased by more than 13 per cent in 2012, up to 18.6 per cent. Pursuant to the same source, the direct renewables contributing to the GDP amounted to €1.7bn out of a GDP of circa €165.387bn.

It is a fact that Portugal achieved a remarkable development of wind power generation, bringing it to the top of the rankings of countries with both high growth rates and accumulated operational wind capacity.<sup>1</sup> The increase of the global installed wind power capacity from 1,063MW in 2005 to 4,525MW in 2012 (1.6 per cent of the world total)<sup>2</sup> presents enough evidence of the strong development of this industry in Portugal in the last few years. Such investment and development led Portugal to become one of the leading countries in Europe in

terms of wind power penetration in power consumption, reaching 16.8 per cent in 2012 (only surpassed by Denmark).

To meet the self-imposed 31 per cent target by 2020, the Portuguese government – through both the National Renewable Energy Action Plan for 2020 (‘NREAP 2010’) and the National Strategy for Energy for 2020 (‘ENE 2020’),<sup>3</sup> both issued in 2010 – planned to pursue a global increase of wind power capacity to 6,875MW and forecasted an additional capacity installation of 3,000MW by 2020, through public tenders and including offshore wind generation. However, additional capacity would depend on several factors, namely the evolution of electricity demand, capacity to transfer consumption in peak demand periods to off-peak periods, technical feasibility and costs associated with offshore wind power technologies.

Like most other EU Member States, the growth of electricity generation from renewable sources was and had to be incentivised by the government to allow market entry, considering the – at the time – recent and expensive technologies, the novelty and electricity generation uncertainty of such projects together with the practiced market electricity prices compared to the well-known and reliable fossil origin energy.

## Feed-in tariffs (FIT)

In light of the above, one of the most common policy measures in Europe for renewable energy development is the state-based FIT. Similarly, Portugal applied FIT as the main support instrument. The Portuguese tariff system is combined with tendering schemes and has proven to be effective, as it is believed to have led to the very steep growth of installed capacity and electricity generation between 2005 and 2010. The use of a mixed tariff-based and tendering process for attribution of capacity rights, in fact, enabled the wind sector to benefit from stable market conditions. Both the scheme and the tariffs applied were continuously monitored against the level of market prices.<sup>4</sup>

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In 2005 – looking at adjusting the incentivisation scheme – changes to the regulatory framework were introduced, limiting FIT to cover either the first 33GWh of electricity generated/MW installed or the first 15 years of operation, whatever occurs first, then aiming at providing investment recovery and minimum economic return.

Though prior governmental efforts to reach the EU base target are to be recognised, Portugal aimed too high. The current international financial crisis caught governments and markets by surprise, clearly impacting the national energy sector revenues and policies. Portugal was living above its possibilities and saw its financial situation significantly deteriorate during the last decade. Distortions caused by such state incentivisation have occurred with the rush to gold in the form of ‘wind’ and to project financing based on stable market conditions with as little as ten per cent of stakeholder financing having been granted to project promoters in several cases. The national electricity system (NES) tariff debt grew to unbearable levels and it was necessary to revise the scheme.

As such, the 2011 IMF-EU bailout imposed several constraint measures to structural Portuguese economic sectors – the national energy sector being part of this rule.

The days of FITs for renewable electricity generation above market prices are thus numbered, with a new legal framework having been enacted. This new framework<sup>5</sup> sets forth that, as from the term of the referred initial FIT period, electricity generated from renewable sources and injected into the grid shall be repaid pursuant to market prices and to the income perceived from the sale of green certificates.<sup>6</sup>

Under this revised generation remuneration regime, alternate remuneration options may be chosen by wind generation undertakings upon completion of the initial FIT-covered period. Non-hydro generation projects already in the exploitation phase before 17 February 2005 shall maintain their (FIT-based) remuneration regime for a period of 15 years from that date forward and the remaining generation undertakings benefitting from the FIT regime up to 15 years following the date of attribution of the respective exploitation licence. At the end of these delays, a tariff to be defined by ministerial order shall apply for an additional five-year term. This tariff was previously set at a stable FIT for wind electricity of

€74/MWh–€75/MWh (average indicative tariff) and the new tariff has not been enacted yet. Wind farm projects covered by the legal regime prior to 17 February 2005 may choose additional alternate regimes to endure for another period of five or seven years. These alternate options entail an eight-year payment, from 2013, by the benefitting generator of an annual compensation to the NES, based on reference values of €5,000 or of €5,800, both per MW of installed capacity of the generation undertaking.

Wind generators opting for the lowest NES referred compensation shall see generated electricity purchased for a five-year term at a rate, pursuant to market prices, ranging from €74/MWh to €98/MWh or at a minimum market corresponding tariff of €60/MWh. Should the highest NES referred compensation be chosen, wind generation undertakings may benefit from an additional seven-year term market price based or market corresponding minimum tariff within the same ranges as above. If such undertakings do not opt for any additional remuneration regimes as proposed above, electricity will be purchased at a rate equal to the tariff rate set forth for the first five-year term and not yet enacted. This scheme consequently provides for wind generated electricity tariffs’ stability whilst mitigating the impact of additional annual costs in the final electricity bill – NES debt – resulting in the incentivisation schemes in place.

### Offshore wind generation

The numbers on targeted capacity above mostly refer to onshore wind electricity generation. However, offshore wind generation represents an essential component of Europe’s binding 20-20-20 target.<sup>7</sup> In this regard, Portugal has a global offshore 2012 and cumulative installed capacity of 2MW, only 27MW of the final forecasted wind power capacity (5,300MW, under the NREAP 2013 – see below) pertaining to offshore wind generation (ie, 75MW out of the predicted 6.875MW).<sup>8</sup>

Exploitation of offshore wind generation should actually have a reduced contribution to electricity generation in the next few years as it still depends on technological development and commercial feasibility. Nonetheless, Portugal is taking steps on offshore wind generation. An impressive full scale 2MW floating prototype (‘Windfloat’ – Portugal’s first offshore wind turbine) was



successfully installed and is currently being tested, presenting a good performance to date. Continuity of this project is assured through the envisaged installation of additional 27MW, which will essentially serve investigation, technological development and pre-commercial demonstration objectives. Financing through NER300 (financing instrument managed jointly by the European Commission, European Investment Bank and Member States) was already granted for such purpose.

Generally, the European offshore wind industry is at risk considering the lack of funding and the insufficient return on investment. As for Portugal, it created a specific tariff for offshore wind electricity generation in 2011. Until then, offshore wind power undertakings were applied the same tariff as onshore wind generation, too low considering offshore generation associated over costs and experimental technologies. Unfortunately, this offshore generation specific tariff remains aspirational and has not been applied to date.

### **Budgetary crisis and offshore wind generation**

Since 2010, there has been limited clarity on the future of the tariff and support schemes for renewables, namely with the referred IMF-EU bailout of 2011, implemented with the execution of a Memorandum of Understanding (MoU) between the Portuguese government and the IMF, the ECB and the European Commission, setting forth relevant changes to energy policy whilst revealing a great concern with over costs and overcompensation of generators.

The core measures of the MoU include the need for a review of efficiency of support schemes for renewables and the assessment of the possibility of agreeing a renegotiation of existing contracts in view of a lower feed-in tariff. As to the new contracts in renewables, a downwards review of the FITs and ensuring that these do not over-compensate generators for their costs, continuing to provide an incentive to reduce costs further through digressive tariffs, was expressly set forth (development of alternative mechanisms of more mature technologies, such as feed-in premiums, was also outlined). The MoU also set out that decisions on future investments in renewables, in particular in less mature technologies, will be based on a rigorous analysis in terms of its costs and consequences for energy prices.

It is evident that the topic of ‘over costs’ goes hand-in-hand with FIT scheme issues. The future of FITs in Portugal has led to a strong political and public debate, as short-term actions were used to meet budgetary obligations which may affect long-term investment priorities.

Compliant with the MoU, by means of the recent National Renewable Energy Action Plan for 2013–2020 (‘NREAP 2013’),<sup>9</sup> the Portuguese government hampered the execution of prior ambitious measures. Under the current international financial assistance scenario, the NREAP 2013 reformulates the energy policy, considerably reducing renewable energy targets (reducing installed capacity by 3,214MW up to 2020). As such, the revised target sets 5,300MW of wind capacity by 2020, representing a reduction of 22 per cent of the 2010 forecasted 6,875MW. Portugal started to fall behind on its wind power capacity trajectories in line with the EU trend.<sup>10</sup> The mandatory MoU guidelines to stop incentivisation through the state’s budget will certainly worsen this scenario.

Diversification of the renewable energy portfolio through investment in mature technologies is one of the focus areas under the NREAP 2013. With wind power capacity increases, excess generation occurred in off-peak demand periods. To reach 5,300MW of outlined installed power capacity, around 1,000MW additional generation capacity is required. A substantial part of this capacity is to be contracted by public tenders where lower tariff rates are offered.

Decree-Law No 215-B/2012, of 8 October 2012, introduced an imperative innovation – considering the current policies – by generally providing that renewables may trade at market terms (in organised markets or over the counter) envisaging a liberalised market behaviour.

It is of note that Portugal’s FITs are 15 per cent below the EU average which may allow us to conclude that the impact of FITs to a country’s achievements on wind power is relative – at least when experimenting with different technologies.

It seems inevitable that current budgetary constraints impose a rethinking of the national energy policy to replace prior state support with a progressive self-initiative scheme where stakeholders take a high share of the risk. This will most certainly challenge stakeholders, especially when investing in offshore wind power. The budget crisis also brought bankability criteria revision, to say the least.



Raising financing for new technology projects is harder by the day and the energy sector and tariff related policies are not construed to ease such tasks – this fact alone could, as such, constitute a barrier for offshore wind generation development in Portugal.

#### Notes

- 1 See: [http://repositorio.ineg.pt/bitstream/10400.9/1171/1/Artigo\\_offshoreLNEG\\_VF.pdf](http://repositorio.ineg.pt/bitstream/10400.9/1171/1/Artigo_offshoreLNEG_VF.pdf).
- 2 See: [www.gwec.net/wp-content/uploads/2012/06/Annual\\_report\\_2012\\_LowRes.pdf](http://www.gwec.net/wp-content/uploads/2012/06/Annual_report_2012_LowRes.pdf).
- 3 Approved by the Resolution of the Council of Ministers, No 29/2010, of 15 April 2010.

- 4 See: [www.irena.org/DocumentDownloads/Publications/IRENA\\_GWEC\\_WindReport\\_Portugal.pdf](http://www.irena.org/DocumentDownloads/Publications/IRENA_GWEC_WindReport_Portugal.pdf). The first FIT for wind power was introduced in 1999. In 2001, the feed-in tariff formula was adjusted by introducing a coefficient 'Z' differentiating the environmental savings considering each generation technology and/or source.
- 5 Decree Law No 35/2013, of 28 February 2013.
- 6 As provided in the recitals of EU Renewables Directive No 2001/77/CE, revoked by the Renewables Directive.
- 7 See: [www.gwec.net/global-figures/global-offshore/](http://www.gwec.net/global-figures/global-offshore/).
- 8 NREAP 2010.
- 9 Approved by the Resolution of the Council of Ministers No 20/2013, of 10 April 2013.
- 10 See: [www.ewea.org/fileadmin/files/library/publications/statistics/Wind\\_in\\_power\\_annual\\_statistics\\_2012.pdf](http://www.ewea.org/fileadmin/files/library/publications/statistics/Wind_in_power_annual_statistics_2012.pdf).

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# Renewable energy: reducing subsidies discouraging investment

## Current subsidies for renewable energy

In October 2011, Romania implemented one of the most attractive support schemes for renewable energy in Europe, especially for wind and solar energy. Romania has one of the highest wind energy potentials in Europe, estimated at 14,000MW and also a high solar potential, being located in an area with approximately 210 sunny days per year, top areas being mainly distributed along the southern regions and a biomass and geothermal energy potential which should not be ignored by potential investors.

In order to benefit from this significant renewable energy potential, Romania has implemented several subsidies for the production of electricity from renewable energy sources (RES), aimed at increasing Romania's attractiveness for renewable energy investors. Currently, such subsidies are granted a pursuant support scheme provided by Law No 220/2008 concerning the promotion of electricity production from renewable sources ('Law 220/2008') in the form of green certificates (GCs) issued to the energy producers. The GCs support scheme implies that a specific quota of the gross national electricity supplied to consumers must be produced from RES. The electricity suppliers must yearly attest the fulfilment

of such obligation by acquiring a certain number of GCs.

Based on this scheme, the producers receive between one and six GCs, depending on the source of energy they have used. For example, one GC is granted for each MW/h supplied into the grid by hydroelectric stations having an installed power between 1–10MWh, two GCs are granted to the wind energy producers (scheduled, under the current scheme, to be reduced to one GC starting with 2018), and to the producers from biomass, biogas, bio-liquid, gas of offal fermentation, geothermal energy and to associated fuel gas producers. Due to the higher costs of technology, solar energy benefits from the most generous subsidy: six GC for each 1MWh supplied into the grid.

## Envisaged measures discouraging investments in renewable energy

Given the political events of February 2013 in the neighbouring Bulgaria which caused the resignation of the Bulgarian government due to protests initiated by citizens discontent with the sudden rise in power prices attributable to subsidies paid for renewable energy, and given pessimistic estimations of analysts predicting a similar rise of power price, currently the Romanian authorities are working on



several amendments to the support scheme provided by Law No 220/2008, aimed to significantly cut the incentives applicable in Romania for renewable energy following a report recently published (29 March 2013) by the Romanian Energy Regulatory Authority (ANRE) attesting to the existence of overcompensation in relation to certain types of energy sources and technologies. ANRE's report provides that amendments are necessary in respect to wind energy (which has been the main focus of investors over the past three years), solar energy (which benefits from the most generous subsidy and which was the main focus of investors at the current time) and for hydro-energy produces in plants with an installed power  $\leq 10$  MW.

As such, ANRE's report recommends that the number of GCs be reduced to 1.5 GC/MWh instead of two GCs/MWh for wind energy, to three GCs/MWh instead of six GCs/MWh for solar energy and to 2.3 GCs/MWh instead of three GCs/MWh for micro-hydro stations.

In accordance with legislation already in force, the amendments to the support scheme proposed through ANRE's report should be applicable only for new projects (entered into use and/or finally accredited by ANRE after 1 January 2014) and given that Romanian authorities intend to enforce a broader reduction of the aid granted to the renewable energy producers, a draft government Emergency Ordinance Amending Law No 2200/2008 has been proposed for public consultation (the 'Draft GEO') which aims to establish additional cuts of the subsidies for renewable energy and lead to reductions to be applied also to current producers.

The additional cuts envisaged through the Draft GEO are envisaged to be enforced as 'postponements' of the issuance of a certain number of GCs to be applied to all producers of energy from renewable sources starting from 1 July 2013. The temporarily postponed GCs for each 1MWh produced and delivered by the producers of electricity from renewable sources shall amount to one GC for micro-hydro-electric power plants, one GC for wind power plants and two GCs for solar power plants.

The producers shall be entitled to recover the 'postponed' GCs only after 1 January 2017 for micro-hydropower installations and solar installations, and after 1 January 2018 for wind energy installations, pursuant to a methodology to be further established by ANRE. The lack of methodology is an

additional factor of distress for investors and anxiety for the market especially among investors which have already invested large amounts of money into renewable energy. Banks and other financiers are also worried about potential consequences on the business plans of the current operational projects. The expected methodology should contain a very complex calculation formula and conditions given that the 'postponed' value corresponds to an amount of GCs which are currently tradable at market price between a minimum of €28.8 and a maximum of €58.8.

Considering the similar experiences encountered by the investors in the Czech Republic and in Bulgaria and the legal recourse some of them applied to, should the methodology to be further enacted in Romania contain insufficient compensation for the losses encountered by the Romanian investors, it is expected that many investors will try to obtain compensations in court for the corresponding value of the 'postponed' GCs.

In relation to the accreditation procedure for the application of the support scheme, the Draft GEO established additional possibilities for ANRE to limit the subsidies for renewable energy according to which ANRE shall have the option to issue such accreditations only up to the maximum installed capacity provided by the National Action Plan concerning renewable energy. In case the maximum installed capacity has been reached, ANRE shall suspend the accreditation process until new possibilities to comply with the National Action Plan concerning renewable energy appear.

The Draft GEO also aims (just like the subsidies' direct reductions mentioned above) to reduce costs of energy for consumers, and establishes that the value of non-purchased GCs, for which the suppliers shall pay a penalty to ANRE, cannot be included in the invoice issued to the final consumers. Also, the Draft GEO provides that 50 per cent of the quantity of electricity delivered to final consumers having an annual consumption over 150,000MWh shall be exempt from the envisaged amendments, provided that these final consumers have prepared and filed with ANRE annual or multi-annual programmes concerning the raising of energetic efficiency aimed to justify such exemption.

Another important proposed amendment potentially discouraging investors in new production facilities consists in introducing the grid operators' right to request financial guarantees prior to issuing the

grid connection permit. The value of such financial guarantees shall be established by secondary regulations to be issued by ANRE.

Apart from the envisaged amendments of the Draft GEO, producers of conventional energy and major consumers are also pushing for the elimination of the favourable status of the renewable energy in peak-power reduction schemes and also on exempting the suppliers from the obligation to purchase GCs for the energy supplied to major consumers.

Despite the reduction of the subsidies for renewable energy, the Draft GEO also contains a positive aspect, consisting in a partial withdrawal of the current interdiction for the producers of renewable energy to conclude direct power purchase agreements (PPAs) with any third parties. As such, producers owning production plants of a maximum 5MW shall be entitled to conclude direct PPAs without being forced to sell energy on the regulated energy markets.

Currently, based on the provisions of the new energy law which entered into force in July 2012, the direct trade of energy by concluding PPAs is not possible, irrespective of the installed power. According to the new energy law, transactions must be concluded in a public, centralised, non-discriminatory and transparent manner, on the centralised energy market – OPCOM.

Up to the beginning of May 2013, the Draft GEO has not been approved. The final wording is still subject to vivid debates and pressure from all parties involved in the energy market.

#### Note

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# Incentives for renewable power generation: the ‘feed-in tariff’

## Electricity sector overview

Uganda’s electricity industry is regulated by the Electricity Regulatory Authority (ERA), established by the Electricity Act of 1999. ERA’s duties include the regulation and issuance of licences for the generation, transmission, distribution, sale, export and import of electrical energy.

The electricity generation sector has several independent power producers, whose energy is purchased by the government owned Uganda Electricity Transmission Company Limited (UETCL). UETCL is the transmission system operator and single bulk purchaser of electricity, which is distributed by Umeme Limited, a private company that holds the concession for the distribution of power.

## Introduction of renewable energy feed-in tariffs

To promote increased private sector investment in power generation from renewable sources, Uganda adopted the renewable energy feed-in tariffs (REFIT) in 2007. The REFIT is a mechanism that offers developers of energy from eligible renewable sources guaranteed off-take of generated energy under long term contracts at a predetermined price that is linked to the cost of production attributed to such technology. Uganda’s REFIT was established through the Uganda Renewable Energy Policy of 2007. It is managed by ERA, whose responsibilities in that regard include the issuance of REFIT guidelines, establishment and review of the tariff structure and administration of the feed-in tariff.

In the first couple of years following its introduction, the REFIT had limited success



in attracting developers. It has, as a result, been revised and updated at intervals in a bid to boost its fortunes. A revision carried out in 2010 marked the start of what is now referred to as Phase 2 of the REFIT, with the introduction of REFIT Guidelines and a revised tariff that is based on updated levelised costs of production. On 15 November 2012, the REFIT Guidelines were revised by ERA which issued the Uganda Renewable Energy Feed-in Tariff Phase 2 Guidelines (‘the 2012 Guidelines’), which currently provide the applicable policy framework.

### Principles of the REFIT

The main principles and characteristics of the REFIT under the 2012 Guidelines include the following:

- a fast tracked application and administrative process;
- a guaranteed purchase price for a fixed duration and a stepped tariff for different priority technologies;
- a gradual tariff reduction for new projects on account of learning effects and cost reductions;
- guaranteed access to the transmission grid and an obligation to the system operator (UETCL) to purchase and discharge the power generated;
- establishment of maximum annual capacity allocations for specified technologies; and
- use of a standardised power purchase agreement (PPA).

### Determination of feed-in tariffs

The tariffs for each technology are determined using a US\$/kWh levelised approach that is based on the electricity generation costs for different renewable energy sources. The inputs for tariff determination include:

- investment costs for the plant;
- grid connection costs;
- operation and maintenance costs;
- fuel costs (in respect of biogas and biomass);
- interest rates for invested capital; and
- profit margin for investors.

The tariff is paid for a guaranteed period of 20 years with annual adjustments for inflation.

### Eligibility of projects

The 2012 Guidelines maintain the requirement for eligible projects to be located in Uganda and to comprise small scale

renewable energy plants. Small scale energy plants are defined as energy systems of a minimum installed power capacity of 0.5MW and maximum of 20MW. The 2012 Guidelines further provide that the energy plant may include additional capacity resulting from modernisation, repowering and expansion of existing sites, but excluding existing capacity and on condition that the additional generating capacity is ring-fenced.

An eligible project must fall under the priority renewable technologies designated for Phase 2 of the REFIT. Under the 2012 Guidelines these include:

- small hydropower;
- geothermal power;
- bagasse power;
- land fill gas power;
- biogas;
- biomass/municipal solid waste; and
- wind.

The 2012 Guidelines have eliminated a further category of technologies for which the levelised cost of energy is deemed significantly above the avoided cost, which were in the previous 2010 Guidelines.

Eligible projects under the REFIT remain subject to all other technical, legal and regulatory requirements under the various laws and regulations applicable to energy projects. In addition, applicants are required to post a performance bond, which is released upon achievement of the commercial completion date. However, to reduce the overall project processing time, a REFIT application can be processed concurrently with the required application for an ordinary generation licence.

### Challenges and opportunities

Whereas the REFIT provides a good incentive for increased private sector investment in renewable energy sources, better and quicker results may arise if this is supported by measures to address concerns certain developers may have on the long term credit and liquidity risk of most PPA off-takers in developing African countries.

The credit risk of several PPA off-takers has in the past been eroded by a dependence on subsidies to cover costs they assume but are unable to pass through and recover under a fully cost-reflective end-user tariff. This may include costs arising from fuel prices and forex risk arising from holding foreign currency denominated PPA obligations against local currency consumer payment.

In Uganda, there are currently efforts underway and a consultation process to introduce a cost-reflective end-user tariff.

A project specific ‘incentive’ that could address credit and liquidity risk would be for Uganda to put in place a programme-wide partial risk guarantee package (PRG) with development finance institutions, for the benefit of participants in the REFIT. PRGs can provide cover for project developers against any risk of default in PPA payment obligations. The negotiation and adoption of such product under a standardised format for any eligible renewable energy projects may address a key risk that comes to the mind of project developers upon securing long term commitments from a government owned PPA off-taker.

In a recent development, that should boost efforts to promote the use of feed-in tariffs as an investment incentive, a group of international institutions has developed the Global Energy Transfer Feed in Tariff Programme (‘GET FiT Programme’) as a mechanism to support countries pursuing

climate resilient low-carbon development. The GET FiT programme is to be implemented in Uganda in conjunction with ERA under a pilot scheme that will cover only a limited number of projects that are to be selected using processes outside the REFIT framework. Participating projects would benefit from a premium payment that is above the current REFIT levels. The successful implementation of this programme will, in addition to providing greater interest in participation in the REFIT, also provide practical lessons for the continued improvement and implementation of the REFIT and other incentives.

On the whole, Uganda has demonstrated a commitment to the implementation of the REFIT as an incentive for increased investment in renewable energy sources. It has spent some time endeavouring to streamline the applicable framework. The process could only stand to benefit from the consideration of supportive measures that address risks currently associated with long term energy projects in developing countries.

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# Wind farm wars: localism, centralism and law – the High Court judgment in *R (RWE Npower Renewables Ltd) v Milton Keynes Council*\*

**W**ind turbines generate passionate argument as well as energy; lawyers involved in renewable energy disputes know only too well the truth of these opening words by Deputy Judge John Howell QC in his judgment of 22 April 2013.<sup>1</sup> Development of onshore wind turbines is a source of growing controversy in UK politics, controversy that has increasingly spilled over into the courts. Local and central government consents for development of wind farms are now routinely challenged by local opponents.

The interest value in the *RWE Npower* decision is that, for the first time in a wind energy case, the High Court was concerned not with an individual consent but a local authority’s development policies.

RWE Npower Renewables Limited (RWE), a well-known wind developer and operator, brought a successful claim for judicial review of a supplementary planning document (SPD) adopted by Milton Keynes Council, a local authority covering a mostly rural area of 308 km<sup>2</sup> in southern England. The Council’s existing local plan favours renewable energy





development unless it would cause ‘significant harm to the amenity of residential areas’. It also states: ‘wind turbines should, in addition... be sited at least 350m away from any dwellings’. The SPD imposed larger separation distances between wind turbines and dwellings. It prescribed a minimum 350m distance for turbines measuring 25m to blade tip. It then imposed a sliding scale so that a 100m turbine would have to be sited at 1km, and a 125m turbine 1,217m, from the nearest dwelling. RWE – which has two proposals under consideration in Milton Keynes – feared this would effectively sterilise the Council’s entire area for commercial-scale wind development.

### The English policy framework

Under the English system, construction of an onshore wind generating station with output capacity up to 50MW requires planning permission from the local authority. Planning decisions are taken against a complex background of national and local policies. Key to decision-making is the ‘development plan’: under section 38(6) of the Planning and Compulsory Purchase Act 2004, a decision must be taken in accordance with this plan ‘unless material considerations indicate otherwise’. The central component of the plan comprises ‘development plan documents’ (DPDs). Each local authority adopts a set of DPDs under a lengthy procedure that includes examination in public by an inspector appointed by the Secretary of State. The inspector must assess whether the proposed DPD is ‘sound’.

There is also an overlay of national policy. In England, this is chiefly the National Planning Policy Framework (NPPF), issued in March 2012. Separate national policies apply in the other parts of the UK – Wales, Scotland and Northern Ireland. The NPPF includes guidance about climate change and renewable energy, strongly supportive of onshore wind as part of the renewables mix. Local authorities are advised to ‘have a positive strategy to promote energy from renewable and low-carbon sources’. The NPPF cross-refers to other national guidance making plain that the acceptability of visual and noise impacts of turbines should be judged on a case-by-case basis. None of this is surprising when set against the background of national energy policy designed to meet EU and international obligations. As readers will know, the EU Renewable Energy Directive

2009/29/EC requires Member States to derive 15 per cent of their gross energy consumption from renewable sources by 2020. The UK government’s ‘Renewable Energy Roadmap’, published in 2011 and recently updated, quantifies the required contribution for 2020 at 234 TWh of which onshore wind is expected to provide up to 32 TWh.

The NPPF advises that one of the criteria of a DPD’s soundness is that it be ‘consistent with national policy’. The NPPF is non-statutory but ranks as an important ‘material consideration’ in decision-making. To complicate things further, local authorities can adopt policy documents which are not part of the development plan but which also count as ‘material considerations’ in decision-making. SPDs fall into this category. Because SPDs do not carry the same legal weight as DPDs, they are adopted following an abbreviated consultation procedure that involves neither examination in public nor a ‘soundness’ test. The corollary is that SPDs are not allowed to conflict with documents that have been subject to examination. Regulation 8(3) of the Town & Country Planning (Local Planning) (England) Regulations 2012 provides that ‘any policies contained in a [SPD] must not conflict with the adopted development plan’.

### The decision

The High Court judgment is lengthy, running to 218 paragraphs plus an annex. In short, the claim succeeded on a single ground: the minimum separation distances set by the SPD were in conflict with the adopted development plan (see above), breaching regulation 8(3) of the 2012 Regulations. The judge ruled that while the meaning of the two documents was a question of interpretation for the Court, the question whether they were in conflict was initially one for the Council’s judgment, subject to review on rationality grounds (known in English law as the *Wednesbury* test). Here, the only conclusion a rational local authority could have reached was that the SPD’s minimum separation distances were in conflict with the adopted plan. However, other minor elements of the SPD policy – including guidance on separation distance to footpaths, bridleways and fuel pipelines – were not in conflict with the plan.

RWE also complained that the Council had wrongly deviated from national policy: instead of inviting a case-by-case assessment

of impacts, the SPD imposed an arbitrary, one-size-fits-all formula, far from a ‘positive strategy’. But the judge rejected that part of the challenge. He commented that RWE’s argument was ‘based on too narrow a conception of what local planning policies may do’; the question whether particular local policies sufficiently encouraged wind energy was a matter of judgment for the local authority, not the Court. He also rejected an argument that the Council should have adopted its policy not as an SPD but as a DPD amending its existing local plan, subject to examination in public.

Despite the limited basis of his decision, the judge could not be sure the Council would have adopted an SPD containing only the lawful parts of its policy. Nor could the Court edit the SPD’s supporting text to remove the parts relating to residential separation distances; so he quashed the whole SPD. The Council has appealed, arguing that the judge should only have quashed the unlawful parts of the SPD, leaving the other, minor elements intact. But there is no appeal against the central finding of conflict between the SPD’s rigid separation distances and the more flexible policy in the development plan.

### Why does it matter?

UK climate change campaigners and the renewables industry will have breathed a sigh of relief at this decision. There were concerns that if the Milton Keynes SPD had been found lawful, other local authorities would have followed suit. Any future attempt by an English council to impose greater restrictions on wind development than appear in its adopted development plan will almost certainly have to proceed by DPD rather than SPD. Examination in public and the ‘soundness’ test are likely to pose an obstacle to policies which fail the national policy test of encouraging onshore wind – though it remains to be seen exactly how far inspectors, and possibly the courts, will treat criteria based solely on distance as consistent with policy. Here, the judge thought that national policy permitted distance-based criteria to determine when consent would be granted, but not when it would be refused; the SPD wording, he observed, did not fall foul of this.

But what about the wider implications of this saga? On one level, the High Court’s decision turns on a rather parochial point of English local government law. But on another, it underlines the broader importance, as

a legal topic, of the way in which national rules apportion policy-making competence between central and local authorities, each of whom may take a different view of how best to strike the balance between development of renewable energy resources and conserving the appearance and amenity of rural areas. The tension between local and central influence over policy is particularly acute in relation to onshore wind: the benefits of commercial scale turbines are globalised in the sense that all or most of the power generated is sold into the national grid, but their localised impacts are significant.

This has been a particular source of conflict in the UK. England, especially, is a geographically small country with few remote undeveloped areas and high urban energy demand. The issue has become highly politicised, not least because the Conservative party controls local authorities in many rural areas suitable for wind development, while participating at national level in a Coalition government which shows no sign of diluting its strong policy support for renewables. Indeed the government has opposed two parliamentary bills introduced by Conservative peer Lord Wray seeking to introduce minimum separation distances. So the Coalition’s faultlines on energy policy are left to express themselves at local level, as manifested by the Milton Keynes SPD, which closely resembled Lord Wray’s proposals.

However, the potential for similar tension is present in every system in which development decisions, and policies, are distributed among several tiers of government – in France, for example, where there is a complex relationship between national, regional and *commune* – level plans. In 2008, several members of the senate tabled proposals to require local referendums before prefectural approval of wind turbines over 50m high. The major recent court battle, though, has focused on the question whether the government’s system of financial incentives for wind-generated electricity constitutes unlawful state aid.<sup>2</sup> In 2011, the Centre for Economic Studies published a useful comparative analysis of the planning regimes for wind energy in the Nordic countries,<sup>3</sup> focusing on the degree of discretion left to the local tier of decision-makers and seeking to link this to the rate of installation of new capacity in each territory.

Inevitably, the administrative law of each jurisdiction will need to arrive at its own solution to the question of conflict between



policies at each level. But there are likely to be some common threads, illustrated by the issues the High Court had to consider in *RWE*. For example, a lower-tier authority is likely to have some, but not unlimited, discretion to determine whether its plan is consistent with higher-tier plans. Given the nature of development policies, a court is likely to prefer to treat this, as in *RWE*, as a question of judgment rather than one of pure interpretation.

Where legislation requires a lower-tier authority to submit its plan for consideration or approval by a higher-tier authority, the courts will need to consider how far the lower-tier authority can be permitted to circumvent the process by purporting to issue informal guidance or the like rather than adopting a formal plan. In *RWE*, the court rejected a direct allegation that the Council had used the SPD procedure to circumvent examination of a DPD. But the result was effectively the same: because the Council could not lawfully adopt an SPD in conflict with its own existing plan, it could only change its policy by bringing forward a new plan, subject to examination by a government-appointed inspector. These issues are of importance from the standpoint of administrative law because approval procedures are likely to be designed, among other things, to ensure transparency and public participation in the plan-making process. In *RWE Npower*, the Court acknowledged this aspect of the examination procedure. Indeed, in federal

jurisdictions or those with a strong ethos of devolved local government, that may be an even weightier imperative than ensuring consistency of approach between different tiers of government.

Finally, one issue not litigated in *RWE*, but likely to arise within the EU before too long, is the compatibility of local policies restrictive of wind energy development with the EU Renewable Energy Directive. Article 13 requires Member States to ensure that any ‘national rules’ concerning ‘authorisation... and licensing procedures’ for renewable generation are ‘objective, transparent [and] proportionate.’ On ordinary principles, a local policy based on arbitrary criteria – such as fixed minimum separation distances regardless of local circumstances – is unlikely to be proportionate. That leaves the interesting question whether a provision of local planning policy is a ‘national rule’. But that is an issue for another day.

#### Notes

- \* *R (RWE Npower Renewables Ltd) v Milton Keynes Council* [2013] EWHC 751 (Admin).
- \*\* **Gordon Nardell QC** is a barrister at Thirty Nine Essex Street Chambers in London specialising in disputes arising out of energy and infrastructure projects. Gordon and his colleague James Burton represented RWE NPower in the High Court.
- 1 See: [www.bailii.org/ew/cases/EWHC/Admin/2013/751.html](http://www.bailii.org/ew/cases/EWHC/Admin/2013/751.html).
- 2 Conseil d’Etat, 15 May 2012, *Association Vent de Colère! et autres*, No 324852 – preliminary reference to CJEU: [www.conseil-etat.fr/fr/selection-de-decisions-du-conseil-d-etat/ce-15-mai-2012-association-vent-de-colere-n324852.html](http://www.conseil-etat.fr/fr/selection-de-decisions-du-conseil-d-etat/ce-15-mai-2012-association-vent-de-colere-n324852.html).
- 3 See: [www.cesifo-group.de/DocDL/dicereport411-rm2.pdf](http://www.cesifo-group.de/DocDL/dicereport411-rm2.pdf).