

The European Commission's Mismanagement of State Aid Rules for Renewable Energy

Randy M. Mott JD

Warsaw, Poland

The European Community grew out of a generation-old dream to create a single market across numerous European countries. Explicit in this concept was the realization from the beginning that the various national governments in this community should be restrained from providing the traditional government assistance to their own businesses, which by its very nature weakened competition and created uneven playing fields across national boundaries in the community. The Treaty for the Functioning of the European Union in Articles 107 and 108 create a special role for the European Commission to review state aid to assure that such distortions of competition are minimized. State aid to promote renewable energy has been routinely reviewed by the Commission and since 2008, guidelines have been used to determine its compatibility with the treaty. This article describes how the latest changes to the guidelines have already lead to lower renewable energy investment, how they will likely be frustrated in their intent to provide more cost-effective support and how they impede other EC policies.

The European Commission revised state aid guidelines in 2014 (Guidelines on State aid for environmental protection and energy 2014-2020, 2014/C 200/01) mark a major departure from the policies used since 2008. Effective in 2017, they will generally require “competitive market mechanisms” for state aid to renewable energy.¹ The objective of the Commission’s new guidelines is to attempt to focus entirely on cost-effectiveness of support. “*The selection process should lead to the selection of beneficiaries that can address the environmental or energy objectives using the least amount of aid or in the most cost-effective way.*” *Id.* at par. 99. In their opinion, this can be in the form of auctions for feed-in premiums or technology-neutral certificates. The biggest change is their reversal of the presumption that support should be leveled by each technology’s production cost. The Commission now assumes that technologies can be supported by a technology-neutral system, subject to some exceptions. But by combining this presumption of uniform support instruments with the new block grant exemption rules² (which exempt technology-neutral auctions from notification), the Commission is pushing its

¹ “In order to incentivise the market integration of electricity from renewable sources, it is important that beneficiaries sell their electricity directly in the market and are subject to market obligations. The following conditions apply from 1 January 2016 to all new aid schemes and measures:

(a) Aid is granted as a premium in addition to the market price (premium) whereby the generators sell its electricity directly in the market.

(b) Beneficiaries⁶⁶ are subject to standard balancing responsibilities, unless no liquid intra-day markets exist.

(c) Measures are put in place to ensure that generators have no incentive to generate electricity under negative prices.” Guidelines, *supra*, par. 125.

² Commission Regulation (EU) No 651/2014, June 17, 2014.

policy on Member States previously allowed by the RES Directive to have wide latitude in implementing their support schemes.

The changes come on the heels of major pressure from conventional energy utilities in several Member States. See EuroElectric, "[Renewable Energy And Security Of Supply: Finding Market Solutions](#)," October 2014.³ Unfortunately, the European body charged with enforcing unfair and anticompetitive practices has failed to scrutinize complaints from the large European utilities about RES support. The portions of the new Guidelines for State Aid for Environmental Protection that deal with renewable energy seem ideally suited to promote energy market share for the bigger players, while doing a "hatchet job" on distributed energy. Once fully implemented by 2017, these new rules may have little effect on lowering the cost of renewable energy, but they will shape the renewable energy sector in ways that will undermine competition and hurt consumers.

The rationale

Push back on renewable energy has come from two directions: (1) increases in electricity prices in some countries due to over-compensation of renewable energy producers; (2) changes in the role of traditional electricity producers in the supplying base-load due to the preference for renewables. These arguments have been adopted pretty much in their entirety by the DG Competition in the new state aid guidelines. Unfortunately, their solutions to these demands will not help resolve the claimed problems and in some ways will aggravate the problems.

It is quite ironic that the Commission found that over-compensation of renewable energy was a problem in its explanation of the new guidelines, since virtually every RES system of support has been reviewed for potential over-compensation and each was approved by the Commission.⁴

³ This parallels EuroElectric's "European Commission's Public Consultation on the Renewable Energy Strategy," February 2012 (which has language nearly identical to the April 2014 guidelines in many respects).

⁴ it is clearly possible to abuse the support system, especially feed-in tariffs, in a manner that causes over-compensation and higher prices to electricity customers. Some RES programs offered support at levels above the cost of production, including more than a reasonable margin of profit. German solar producers got between 46-57 Euro cents per kilowatt, while the Polish system to date, for example, offers about 11.5 Euro cents (if Green Certificates are at 100% value). German biogas plants got between 25 and 40 Euro cents per kilowatt, again compared to 11.5 cents in Poland. Because of the higher feed-in tariffs, much more PV capacity was built in Germany than predicted when the impact of consumers was initially projected: for example, in 2010, "7,400 MW of solar panels were installed; six times as much as estimated in the reference scenario used by the environment minister." [Daniel Wetzel, [Die Welt](#), October 25, 2012]. Similarly, in Spain, the solar subsidies got adjusted to a level that proved excessive to consumers. "The payment for PV solar was set at 41.4 eurocents per kWh, with the Spanish government anticipating 400 MW of installed PV solar between 2007 and 2010. However, the high rate that was set for PV solar spurred developers to install 344 MW of PV solar in the first nine months of 2007 alone." Environmental and Energy Study Institute (2012). "Due to the Spanish government's subsidization of electricity, there was a cost to Spanish taxpayers totaling over \$1.4 billion. In response, the Spanish government imposed a cap of 500 MW for PV solar in 2009 and reduced the payments to 32-34 eurocents per kWh." *Id.* The Czech solar subsidies were also excessively high (\$700 MWhr or 55 Euro cents a kilowatt hour) and resulted in a disaster to consumers of electricity: "The result was a more than 24,000 percent increase in Czech solar energy plants, from nine in 2005 to more than 2,230 by January 2010, making the Czech Republic the third-largest solar energy producer in Europe, despite the country's relatively small size." Prague Post, March 24, 2010. One of the challenges has been the declining cost of PV energy and the failure of the support systems to make stable and predictable

If over-compensation was problem, each support system approved by the Commission was found to have means to adjust the support. Many Member States have done so, albeit often in erratic ways that have caused market distortion in themselves. There is really no basis for now claiming that feed-in tariffs or certificate systems must inherently result in over-compensation and therefore need to be replaced with auctions.⁵

Ultimately, the Commission was on the right track under the old rules, still effective until 2017, requiring a levelized support system that did not theoretically over-compensate some technologies beyond a reasonable profit margin. If anything, the Commission has lacked the political will to single out over-compensation or under-compensation. Member States are free under the RES Directive to select their own means of reaching the 2020 targets. They submit National Renewable Energy Action Plans to achieve the numbers by specific assumptions about the technologies that will be developed. This critical point is ignored by the DG Commission in looking at support systems. While every Member State did not provide an adequate margin of profit in its support system for biogas [70% fail to do so], for instance, the technologies specified in the National Action Plan should be compensated consistent with their actual costs of production, including means to adjust this for new facilities as those costs may change over time. For about fourteen years, the DG Commission has followed this approach of levelization, but has never applied it strictly to the technologies enumerated in the national plans.

The other leg of the case for reform is the argument that renewable energy is distorting the market to the detriment of conventional energy producers. By pre-empting the base load, renewables have cut into the utilization rates of coal-fired and gas-fired plants. The state aid guidelines do not directly address this issue. Since the mandate for renewable energy from the European Parliament requires widespread deployment of renewable energy in any event, the role of marginally competitive traditional energy will be challenged under any system. In fact, competition between renewable and conventional energy has created some downward pressure on end-users prices that actually mitigates much of the cost of the support system. So critics argue at the same time that RES is too expensive and that it is too cheap.

Competitive Procedures?

The theory embraced by the Commission is that competitive procedures allow the Member State to specify how much renewable energy they want at a given time and what the maximum price will be.⁶ This can extend to “banded” technology specific auctions as well as “free-for-all” of competing technologies. The setting of the reference price, the pre-qualifications and potential

adjustments or predictions that kept prices in balance. The history of PV auctions offers little comfort that suddenly government agencies can set the reference prices at precisely the magic point.

⁵ In fact, a majority of the Member States appear not able to meet the 2020 targets for RES, suggesting that over-compensation is not a general problem from most European countries. See Keep on Track (2014).

⁶ “Market instruments, such as auctioning or competitive bidding process open to all generators producing electricity from renewable energy sources competing on equal footing at EEA level, should normally ensure that subsidies are reduced to a minimum in view of their complete phasing out.” Guidelines at par. 109. The phasing out assumption is only accurate as to certain technologies that are projected to achieve parity with conventional prices in the future. No such projection is possible for biogas, for example, yet it is doubtful that the Commission intends for support for biogas to simply end. See par. 110 (technology-specific tenders suggested).

penalties for failure to deliver on a winning bid are critical to the outcome. Without sufficient prequalification requirements (such as building permits, environmental and planning approvals, etc.) as well as penalties for failure to construct facilities that win the auction, most projects historically do not get built at all. Low bidders gamble on winning while figuring out if they can proceed after the auction. On the other hand, extensive prequalification requirements (often can require 24-36 months of preparation) and substantial penalties for non-performance can lead to insufficient bidders to create any competition or to no bidders at all. As we will discuss below, most auctions in the RES sector have resulted in one or the other undesirable outcomes. A small minority have actually worked according to the theory. EcoFys in their report for the Commission in January 2014 reached a conclusion at odds with the Commission's ultimate guidelines: "***At present, RES-support with auctions is still undergoing a learning phase...***" Supra, page 73 (emphasis added). Even auction advocates concede that "[d]ue to negative past experiences with a third instrument (auctions), this instrument has been broadly dismissed in academics..." Del Rio et al, "Back to the Future," Renewable and Sustainable Energy Reviews 35 (2014). Although the overwhelming majority of attempted RES auctions have had major problems to date, the Commission is pushing to expand the experiment to the whole EU-28.

The basic problem described above, i.e. "threading the needle" between lowering the burden of bidding to encourage competition in bids and more restrictive pre-qualifications so that winning projects are actually built, has seldom been done successfully. In a report prepared for the European Commission, EcoFys et al noted in January 2014: "...*finding a compromise between encouraging high implementation rates without reducing the number of market participants too much proved to be a difficult task.*" Design features of support schemes for renewable electricity, January 2014, p. 5.

One irony is that auctions have not necessarily lower costs. Some auctions have resulted in no major savings, since bidders must add the risk factor to their financial projection.

"Compared to feed-in systems, the auction introduces additional elements of uncertainty for project developers regarding revenues and the future realization of committed projects. This in turn makes planning more difficult and can in some cases lead to higher risk premiums." EcoFys, supra, page 45.

Thus, Germany actually recently had comparable or lower support for PV than the French achieved in their auctions. "*The price of PV in French auctions (red line) fell from around 23 cents per kilowatt-hour to around 17 cents during 2012-13, whereas German feed-in tariffs (orange line) brought prices down from just under 25 cents to below 14 cents during the same timeframe.*" Morris, "Actual outcomes of auctions in France, Brazil, and the Netherlands," June 15, 2014. There is substantial doubt that an auction by using maximum bid prices or reference prices can hit the right market price any better than other support mechanisms. In Brazil, [a PV auction ended with no bids](#): "*It should also be pointed out that the round of bidding in the fall of 2013 did not elicit a single submission for photovoltaics because the starting price was far too low.*"

Auctions have also notoriously failed to assure that projects actually get built.⁷ Firms bid the project to later find it is not economically possible to proceed or that they have failed to secure necessary steps that make completion impossible. At one point, only 8 % of biogas projects in the Netherlands that won bids were actually built.⁸ Brazil had an auction where none of the winning projects were later built.⁹ Heavy penalties for unbuilt awards may be avoided by simply bankrupting the bidding firm. Projects also under-produce the bid electricity output (especially in wind and solar projects where projections are more difficult).

“While auctions aim for a specific amount of electricity to be produced or capacity to be installed, empirical experience has shown that a shortfall of the auctioned amount is a rather common phenomenon. This is mainly due to ‘underbidding,’ which results in economically non-feasible projects.” EcoFys, supra, page 45.

“A tender scheme creates competition between bidders and, thus, inherently encourages them to bid as low as possible. However, the evidence in France, Portugal, Nova Scotia, U.K., India, China and Brazil shows that they may overestimate their capacity factors, underestimate their costs (because, for example material costs turn out to be higher than they were expected to be) and follow strategic behavior in bidding (i.e., win the bid, then adjust).” Del Rio, supra, page 51.

*“Empirical evidence indicates that **low implementation rates** caused, e.g. by underbidding or the existence of non-cost barriers, are one of the main drawbacks of auctions used for RES-support.....**it remains to be seen whether auction schemes can eventually achieve the desired effectiveness.**”* EcoFys, supra, page 72 (emphasis added).

This problem completely undermines the assertion that auctions allow countries to specify the amount of renewable energy they want and to specify a maximum price. The process more typically resembles a “wish-list” than a real “shopping cart.” The period between auctions, given the need to publish in advance the reference prices and other terms, may actually not provide any advantage in adjusting the compensation to fit the investor’s expectations and the public’s limits. Other systems may, in fact, have quicker response times to adjust for the right fit in support levels.

⁷ Many auctions for RES support in the world would not meet the Commission’s definition: “‘*competitive bidding process*’ means a non-discriminatory bidding process that provides for the participation of a sufficient number of undertakings and where the aid is granted on the basis of either the initial bid submitted by the bidder or a clearing price. In addition, the budget or volume related to the bidding process is a binding constraint leading to a situation where not all bidders can receive aid.” Section 1.3(43).

⁸ “The Dutch are having trouble simply getting stuff built. Only eight percent of the biogas projects awarded contracts since 2011 have been completed – and a whopping 98 percent of the PV projects that won auctions last year were apparently not built even though they had to be completed within a few weeks in compliance with auction rules.” Craig Morris, [The Energie Wende Blog, June 25, 2014](#).

⁹ Even in normal auctions in Brazil, “a large share of the selected **projects are heavily delayed**, thereby negatively affecting the **effectiveness** of the auctions” EcoFys, supra, page 53. In the Netherlands: “The realisation rate of projects so far amounts to roughly 40% of the projects that were committed in 2011...” EcoFys, supra, page 57.

Anti-competitive Impacts

Next, there is abundant evidence that the auction process favors large utilities that have lower cost of capital and a tolerance for lower levels of return on investment. Ironically, this actually lowers long-term competition. The Commission is pushing this process even in Member States where there is already very dominant market control in the electricity market by a few major players (for example, in France- EdF and in Poland- PGE and Tauron and other state-owned firms). These conditions will add to the historical anti-competitive bias of auctions. Distortion in the form of barriers to SMEs is a common result from auction systems:

“[S]maller players have apparently been excluded from auctions in Brazil. Despite the initial transaction costs for the qualification phase not being excessive, they have excluded smaller actors. This can partly be attributed to the fact that the required bid bonds have posed significant barriers for smaller (and for local) potential bidders. And local bidders participating in the auctions have largely not been able to compete with the underbidding strategies of international investors.” EcoFys, *supra*, page 52. [they note that big international players seem to be bidding below costs to achieve market position].

Similarly in China, EcoFys noted , *supra*, page 66 [only large state-owned firms met prequalification terms]. *“Only little interest of private investors in state-company dominated market has been observed....these lessons could apply for incumbent players in liberalized markets with high market concentration. Participation of smaller actors should be facilitated.”* *Id.* page 67. But the auction mechanism does not provide the means to do this.

The problem is not limited to the countries where state-owned companies dominate the sector. Large international firms have often exercised similar influence in auctions.¹⁰ While the Commission recognized the problem with small players and small projects, it failed to adjust the guidelines to fit the real world realities:

“Unfriendly for small projects and actors. A major empirical lesson of tenders is that they are unsuitable for small installations and smaller actors. Competition may thus be affected. It has been argued that some of the afore mentioned factors and, namely, information failure and difficult access to finance, have a disproportionately negative impact on small actors and, thus, that the instrument is not suitable for small actors, suggesting that smaller projects should be promoted with a different instrument.” Del Rio, *supra*, page 52.

The Commission’s approach to this issue to to provide for some discretion to exempt small projects from auctions. Their exclusion from competitive procedures is discretionary and limited to 1 MW for non-wind projects. *“Aid may be granted without a competitive bidding process as described in point (127) to installations with an installed electricity capacity of less than 1 MW...”* Guidelines, par. 128. There is no indication that there is any factual basis for the 1 MW

¹⁰ Morris writes in [The Energie Wende Blog, on June 23 2014](#): *“In Germany, normal citizens and energy co-ops accounted for nearly half of the installed capacity in renewables and a third of the capital invested as of 2012. A switch to reverse auctions would therefore gradually revert ownership back to conventional utilities.”* This may, in fact, be the real objective of the Commission’s new policy.

size ceiling.¹¹ The presumption made by the Commission should be reversed: small projects less than 5 MW should be presumed to be unsuitable for competitive bidding procedures based on the history of auctions. See *infra*, p. 5-6.

The most tenacious and intractable problem is that auctions generally only select based on price. This not only results in support going to a couple of lower cost production schemes, but restricts the quality of projects in terms of collateral benefits, such as levels of environmental protection and public health. Relying solely on the price of electricity ignores the Commission's own policy of balancing support with environmental benefits.¹² Noise, odor and emissions controls are frequently sacrificed for the need to keep the investor rate of return high enough and still win auctioned support. Long-term advantages of more expensive technologies like biogas used for organic waste management will also not get any priority or consideration in auctions.¹³ Even targeted goals for biogas infrastructure will be outside the scope of a "technology-neutral" auction. Multiple experiences in nations doing auctions support this conclusion:

*"The SDE+ is organised in such way that only established, low-cost technologies will receive support. The Netherlands argue that it will be too expensive to reach the 2020 renewable energy target with innovative projects and technologies. It is however questionable if the target will be reached with only low-cost technologies." EcoFys, *supra*, page 56.*

¹¹ The Commission recognizes that "[f]or installations which are deemed to be of a size where it cannot be presumed that a bidding process is appropriate." Guidelines at par. 111. But it sets the small project ceiling at 1 MW (except for wind) which is, for example, lower than the average size of biogas plants in Poland. The most cost-effective support for biogas is for plants from 1-2 MW (according to the Commission's own funded research). *"At status quo the eight demonstration plants could produce electricity at a level of 17.2 €Cent per kWh in average."* [EU Agro-Biogas, European Biogas Initiative to improve the yield of agricultural biogas plants, Deliverable 22 \(2010\)](#), page (enclosed). Their study looked at ways to optimize biogas production at various plant sizes and reported the lowest cost per kilowatt at the larger plants 1-2 MW. See also [Doehler and Patterson](#), "Improvement of the technical, economical and ecological efficiency of biogas production -future challenges for the agricultural engineering sector," Club of Rome (2011).

¹² The Commission recognizes that market distortion must be evaluated in light of the environmental benefits. *"When assessing the potential negative effects of environmental aid, the Commission will take into account the overall environmental effect of the measure when looking at its negative impact on the market position, and thus on the profits, of non-aided firms. In doing so, the Commission will consider in particular the distortive effects on competitors that likewise operate on an environmentally friendly basis, even without aid. Likewise, the lower the expected environmental effect of the measure in question, the more important the verification of its effect on competitors' market shares and profits in the market."* Guidelines, par. 90. Yet the auction mechanism only evaluates the price of electricity offered, not the other environmental benefits (biogas has the most environmental benefits which then get systematically excluded from the decision-making in violation of this principle.

¹³ This is apparently a contradiction from the Commission's intent to promote innovation and to not allow aid to some firms to restrict RES development. *"That might lead to a situation where, due to the aid granted to some firms, more efficient or innovative competitors, for example competitors with a different, possibly even cleaner technology, that would otherwise be able to enter and expand are unable to do so. In the long run, interfering with the competitive entry and exit process may stifle innovation and slow down industry-wide productivity improvements."* Guidelines, par. 91.

China: “Similar to the auctions for wind, underbidding has been a problem in the Chinese PV auctions. In addition, realised projects have been characterized by a low quality of power plants.” EcoFys, supra, page 66.

There is little indication that the auction mechanism can be implemented in 28 Member States without them experiencing the same degree of problems that have occurred in the past.¹⁴ The fundamental premises of the Commission’s move to auctions are faulty. There is no flat cost-curve for most of the technologies involved. Setting reference prices and technology bands to assure that a sufficient number of bids occur and that projects are actually built will be quite problematic.¹⁵ One of the major pro-auction academic reports (Del Rio et al, supra) observes from a study of dozens of RES auctions:

“Unfortunately, these theoretical advantages of auctions come at a cost. Due to the complexity of the bureaucratic procedures, and also to the planning required ahead, auctions have higher transaction costs which, together with uncertainties on the final price and the tendering schedule, deter participation by smaller firms, resulting in a low degree of competition and creating opportunities for market power. In turn, this may eliminate the higher theoretical efficiency of this instrument.”¹⁶

The EcoFys report in 2014, just a couple of months before the Commission approved the new guidelines, and other thorough studies completely contradict the optimism about this device expressed by the Commission. At best, EcoFys found auctions to be an experimental tool with some future promise but many limitations and risks. Compelling all future support schemes to use this approach seems irresponsible and unwise.

Missing 2020 Targets

One of the most perplexing things about the new state aid guidelines is why they were pushed into effective just three years before the 2020 deadline. Changes in RES support systems have notoriously influenced the schedule and timing of investment and project development, both positively in the case of high PV FITs and negatively in the case of announcements of downward

¹⁴ Recent auctions in the UK and elsewhere that claimed a large number of bids and low prices were not technology neutral and also still have an open question over how many projects will actually be realized.

¹⁵ “The initial ceiling price significantly influences the level of competition and thus the number of bids that will be received in an auction: if it is set too high, auction results might be inefficient, since bidders might collectively be tempted to bid well above their lowest possible profit margin. If it is set too low, only few bidders will enter into the auction, leading to undersupply and a lack of competition.” EcoFys, supra, page 53. In Brazil, [a PV auction ended with no bids](#): “It should also be pointed out that the round of bidding in the fall of 2013 [in Brazil] did not elicit a single submission for photovoltaics because the starting price was far too low.” This is not unusual!

¹⁶ The Commission’s policy recognizes the problem of state aid enhancing market power. “Aid may also have distortive effects by strengthening or maintaining substantial market power on the part of the beneficiary. Even where aid does not strengthen substantial market power directly, it may do so indirectly, by discouraging the expansion of existing competitors or inducing their exit or discouraging the entry of new competitors.” Guidelines, par. 92. The Commission just ignores this effect in its advocacy of auctions. Experience indicates that auctions normally enhance market power, not competition.

adjustments. With the majority of Member States not on track to meet the mandatory 2020 targets for RES,¹⁷ the rationale for throwing a huge dose of uncertainty into the RES market in Europe seems highly problematic. The move to any new system makes investment more risky and creates financial uncertainty. In the home stretch to 2020, requiring a new system that does not guarantee support for projects that have permits, land agreements, and other approvals in hand can only dampen the enthusiasm of investors.¹⁸ Doing so with the avowed intent of lowering the level of support offered can only have one outcome: fewer projects and more problems meeting mandatory EU targets.

The industry that is expected to invest billions in this sector has identified the problems that have caused so many countries to be lagging in RES development:

“The most important category across all sectors relates to the political and economic framework: it gathers 357 barriers out of 780. This category mainly refers to the existence and reliability of a general RES support scheme, access to finance and the remuneration level of existing support schemes.” Keep on Track 2014, p. 13.

The new guidelines are not helping: *“The newly adopted State aid guidelines are limiting the member states’ freedom of choice of support schemes that have proven to be effective.”* Keep on Track 2014, p. 17. *“Stop-and-go policies and disruptive changes are currently jeopardising the achievement of the 2020 targets.”* *Id.* *“Since the announcement of new state aid guidelines, many potential investors fear less stable conditions. In case the guidelines are implemented as announced, investments will drop to a much lower level.”* *Id.* page 20 (emphasis added).

The negative effect of the new guidelines on RES investment has, in fact, already started in 2014, as **European RES investment has fallen 44%**. Bloomberg New Energy Finance, Global Trends In Renewable Energy Investment (2014) prepared for the United Nations Environmental Program, page 11.¹⁹ As more Member States juggle their systems to meet the new rules, it is unlikely that this trend will reverse itself.²⁰ Delays and transition periods as well as uncertainty will cause further disruption of new RES investment.

¹⁷ “In the RES-E sector, 12 Member States overachieved on their 2011 target, 16 underachieved.” Keep On Track, 2014 report. “Out of the 27 Member States analyzed in this publication, [only] nine are expected to meet their 2020 targets (Austria, Bulgaria, Cyprus, Denmark, Estonia, Italy, Latvia, Romania and Sweden). Nineteen EU Member States will not achieve their mandatory targets for renewable energy by 2020, a fact made more likely by the Commission’s actions!

¹⁸ There is only so much wind or biomass available in a country. Multiple bids with resources legally committed to each bid automatically mean that resources tied to unsuccessful bids will not be utilized at that point in time. This hardly looks like a formula to correct underutilization of renewable energy resources (the prevalent problem in the EU-28).

¹⁹ The impact on investment is disproportionately felt by start-ups and SMEs that rely on external equity funding. “Venture capital and private equity investment in specialist renewable energy companies slumped 46% to \$2 billion, the lowest figure since 2005...” *Id.* Larger utilities with a lower cost of capital then receive a disproportionate boost in the market as potential competitors fade out of the picture. The DG Competition rules by creating enormous uncertainty in the sector have an anti-competitive effect, which they never acknowledge.

²⁰ Ironically, EuroElectric claimed that the guideline changes were needed to increase RES investment, a claim boldly unconnected with reality.

The negative effect on RES investment from the new state aid package is occurring when most Member States were already off-track to meet their obligatory 2020 targets. It is hard to see the logic of “avoiding over-compensation” when support was already too low to trigger the RES investment necessary in most Member States. This is more puzzling when mechanisms to avoid instances of over-compensation were supposed to be engrained in all of the national support schemes to begin with.

Technology Neutrality

The Commission has moved from requiring levelized RES support that differentiates based on technology to a preference for technology neutrality. This shift is central to the new guidelines and the new GBER exemptions. The premise of technological neutrality is also fundamentally wrong.

The entire basis for technology-neutrality is flawed: the Commission moved from adjustments of support levelized across technologies to these “free-for-all” auctions with no factual basis for their decision. In fact, one of the reports probably originally intended to provide support for changes (EcoFys, January 2014), came out with the opposite conclusion in discussing auctions: *“At present we consider the cumulated cost-potential curve in the EU28 to be too steep for technology-neutrality...”* Design features of support schemes for renewable electricity, January 2014, p. 23 (emphasis added). As EcoFys noted, *“[i]n case of a rather flat cost-resource curve, there might not be a need differentiation, since deployment of the most cost-effective plants is encouraged....”* Id. But they did not find the necessary “flat cost-curve” to be present in Europe.

Numerous studies have supported the EcoFys conclusion that the RES technologies found in Member States are not based on comparable cost-curves. The Institute for Renewable Energy in Poland did a 2013 study for the Polish Ministry of Economy for the expressed purpose of determining the differentials in the levelized cost of providing electricity. They found a spread in the necessary support of a factor of more than five across technologies. These included only the technologies called for in the Polish National Action Plan. IEO, *Analysis on the Possibility Of Determining the Necessary Amount of Support For Individual Res Technologies in the Context of The Implementation of the "National Action Plan For Renewable Energy,"* (July 2013).

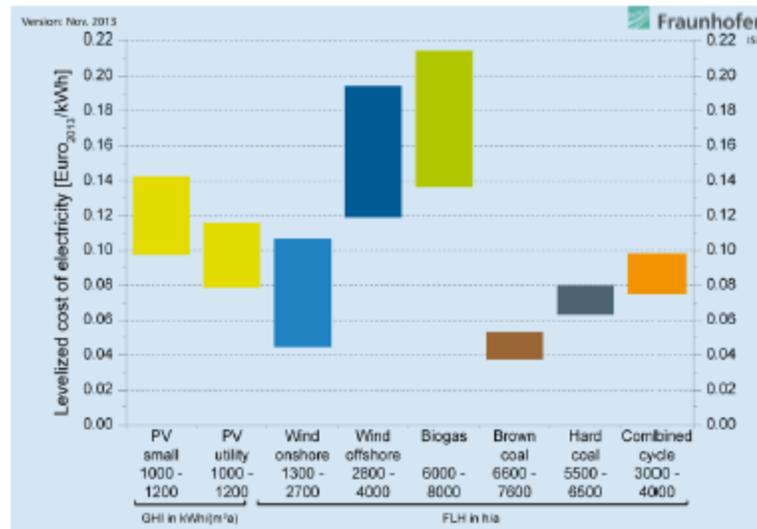


Figure 1: LCOE of renewable energy technologies and conventional power plants at locations in Germany in 2013. The value under the technology refers in the case of PV to the insolation global horizontal irradiation (GHI) in kWh/(m²a), for the other technologies it refers to the number of full load hours (FLH) for the power plant per year. Specific investments are taken into account with a minimum and maximum value for each technology.

Fraunhofer, LCOE RES (Nov. 2013) [Germany 2012 data].

A recent calculation of the levelized cost of production of renewable energy technologies done by the Institute for Solar Energy Systems in Germany (above) also illustrates the vast disparity still remaining between the various technologies. No data from a credible source has been published that suggest all of these technologies faced similar cost-curves. As we noted below, they will need to be grouped by cost in both separate auctions by technology bundles or exempted from auctions by their small size.

Auction advocates ironically use the argument that its mechanism is better than some other systems to adjusting to diverse costs of production by “banding,” having separate auctions by technology or cost of production grouping. *See Del Rio, supra.* The Commission has also consistently made the same finding in reviewing individual Member State RES plans. *See UK decision, July 2014.* Yet each use of a band by technology undermines the principal assumption of an auction (increased competition), although banding will be inevitably necessary given the disparities in costs of production and national goals in RES technology policies. The results will still be problematic. Banding also does not eliminate the key problem of under-bidding or over-pre-qualification. It may, in fact, enhance it since there is a smaller pool of players involved.²¹

What technologies need to be supported? The Commission has ignored the mandates of the RES Directive which required that National Action Plans be approved by the Commission, including the technology mix to be supported. Article 4, Directive 2009/28/EC, requires that

²¹ The Polish Government has set up a small auction for sources under 1 MW and in the Senate debate of the bill, the responsible Ministry official stated that there would be more support being auctioned (25% of the total) than they expected in bids. He noted that the maximum price would be the support level awarded. Most small projects will not get that far to begin with, which is why the bidders will win and why there will be little or no competition.

“Each Member State shall adopt a national renewable energy action plan. The national renewable energy action plans shall set out Member States’ national targets for the share of energy from renewable sources consumed in transport, electricity and heating and cooling in 2020....” These plans were developed using a [mandatory template](#) from the Commission, including specification of the technologies that would be relied upon. Plans had to be approved by the Commission. Inadequate progress toward the 2020 mandatory targets could require the Commission to recommend changes in the plan. *Id.* If a technology is included, it should be fairly supported by law.

Member States should be compelled to produce support systems that credibly promote the development of the technologies included in their Commission-approved National Plans. It is not a question as most commentators assert of support for “less mature” technologies (the faulty assumption there being that all mature technologies will have comparable costs per MWhr). It is an issue over the inability of the single variable of cost per MWhr of electricity to provide the entirely basis for a policy decision on what should be built. Biogas with a higher cost per MWhr (see Fraunhofer on previous page) may be required for organic waste management plans or regulations (like the Animal Byproducts Regulation). It offers benefits that greater exceed the production of green electricity. But biogas costs of production are not going down as PV and wind technologies are doing. The issue is not support of “less mature” technologies (assuming that this is a surrogate for cost of production), but the issue is simply the relative cost of production. The existing state aid rules get it right and the new guidelines get lost in a somewhat naïve infatuation with so-called competitive procedures (which have normally ended up being anti-competitive in practice).

The Commission’s approval of the UK auction plan involving “contracts for the difference” still involved separate auctions in three groups based on levelized cost of production as well as an exclusion of all projects under 5 MW. See State aid SA.36196 (2014/N) – United Kingdom Electricity Market Reform - Contract for Difference for Renewable, July 23, 2014. The Commission did not consider the UK National Action Plan in this decision, which would require sufficient support for each technology included to satisfy both the DG Competition’s state aid rules and the DG Energy’s RES Directive.

The technology neutral auction has proven to be problematic in terms of its results as well:

*“Thus, technology-neutral auction design tends to provide only very limited development possibilities for less mature technologies (low dynamic efficiency) and can **limit the variety of market participants**, since smaller actors may not be able or willing to bear the transaction costs of participating in an auction”If a technology-neutral design is selected, implementing additional measures to stimulate less mature technologies and smaller-scale technologies should be considered.”* EcoFys, [supra](#), page 73.

The technology-neutral auction has the greatest chance of being anti-competitive and unfair to smaller players, yet the Commission new policy makes this the “default setting:”²²

²² The block grant exemption repeats this theme, although technology specific auctions can be justified as well. GBER Regulation, Article 42(3), discussed here on page 12.

“The bidding process can be limited to specific technologies where a process open to all generators would lead to a suboptimal result which cannot be addressed in the process design in view of in particular:(i) the longer-term potential of a given new and innovative technology; or(ii) the need to achieve diversification; or (iii) network constraints and grid stability; or (iv) system (integration) costs; or (v) the need to avoid distortions on the raw material markets from biomass support Member States shall carry out a detailed assessment of the applicability of such conditions and report it to the Commission according to the modalities described in Article 11 (a). Art. 42(3), Commission Regulation (EU) No 651/2014, June 17, 2014.

There is no clear basis for shifting from levelized support policies to uniform support policies when the underlying technologies still have more than a five-fold difference in cost of production. Member States can elect to use two or three of the cheapest technologies in their National Action Plan under the RES Directive (as Sweden has) but it is generally not possible for Member States to meet 2020 targets without a more diverse mix of technology. Most Member States are already set up for failure in 2020 and inadequate support for diverse technologies (even those in their National Action Plans) is the leading reason.

The guidelines still allow Member States to make determinations to avoid auctions altogether under certain circumstances described in par. 127:

Aid is granted in a competitive bidding process on the basis of clear, transparent and non-discriminatory criteria, unless:(i) Member States demonstrate that only one or a very limited number of projects or sites could be eligible; or (ii) Member States demonstrate that a competitive bidding process would lead to higher support levels (for example to avoid strategic bidding); or (iii) Member States demonstrate that a competitive bidding process would result in low project realisation rates (avoid underbidding).”

The fact is that virtually all of the above exceptions in the Commission’s text are the rule for auctions done to date. They are not sporadic artifacts of poorly conceived auctions, but the dominant characteristics of auctions done to date. Low project realization rates are a nearly universal problem. It has been corrected most frequently by imposing pre-qualification requirements that result in a very low number of bidders, generally rewarding market concentration. EcoFys conclusion in the Commission-funded report earlier in 2014 is striking: ***“it remains to be seen whether auction schemes can eventually achieve the desired effectiveness*** (emphasis added).”

Member States’ burden to demonstrate a problem with underbidding to avoid using the auction procedure is also a tautology. Competitive bidding procedures have normally resulted in “low project realization rates.” How will a Member State prove that a prospective auction will have this problem, other than to draw on the past experiences elsewhere? Competitive bidding with restrictive pre-qualifications (to address underbidding) leads to higher bids due to increased risks for the bidder. This normally results in bid prices that could have been readily achieved with a fixed instrument (no savings) or in no bids at all (no savings and no projects). The Commission does nothing to resolve the historical problems of auctions, while making them the presumptive norm.

Exemption from Notification

But those electing to avoid auction problems will have to notify and await Commission approval. The exemption from notification requires:

“Aid shall be granted in a competitive bidding process on the basis of clear, transparent and non-discriminatory criteria which shall be open to all generators producing electricity from renewable energy sources on a non-discriminatory basis.” Art. 42(2), Commission Regulation (EU) No 651/2014, June 17, 2014.

Members States wishing to invoke the exceptions in the state aid guidelines from Section 127 will be compelled to submit a notification package and await approval. So the GBER exemption is being used as a bludgeon to pound Member State’s into auction procedures. While the basis for a notification exemption for auctions is fundamentally wrong, the applicability of the exemption will undoubtedly prove to be problematic. How small projects are handled, what bands are used by technology, how reference prices are set, what technologies are exempted, and other procedures will all raise issues that normally would be part of the DG Competition’s review of the state aid involved. It is dubious that simply announcing that auctions that are transparent and open to all bidders will satisfy all of the competition and fairness concerns. Complaints can be expected that will have the effect of getting the Commission into these issues even where a Member State tries to claim a block grant exemption.²³ All of this increases uncertainty and further impairs the investment climate.

Certificates

The Guidelines also allow certificate systems to continue, although they have more restrictions than in the past. Section 3.3.1.4. (“Aid granted by way of certificates”) provides the guidance.

(136) Member States may grant support for renewable energy sources by using market mechanisms such as green certificates. These market mechanisms allow all renewable energy producers to benefit indirectly from guaranteed demand for their energy, at a price above the market price for conventional power. The price of these green certificates is not fixed in advance, but depends on market supply and demand.

²³ Poland, for example, is proposing only a 60 day notice of reference prices before the auctions. Projects under 1 MW are not exempt from the auction, but will have a separate auction. Existing facilities will have their own optional auction using the average uniform value of Green Certificates in prior years, regardless of the costs of production of the technologies involved. Existing facilities can opt to continue Green Certificates or go to an auction (however, the Green Certificates were never notified and approved by the Commission and have not been leveled). So the “fruit of the poisonous tree” (unnotified, non-leveled aid) will creep into the decision whether to bid or not, basically making the decision a product of the past market distortion [over 70% of the certificates have gone to co-firing and old hydro, each will huge problems under the state aid rules]. This destroyed the value of the certificate by as much as 70% at one point and it still has not recovered. 10 TW of certificates have accumulated and are unused, still distorting the market. The auction threatens to simply extend the distortion of the market, regardless of its “technology-neutrality.”

Certificate systems have enjoyed Commission support in the past precisely because their market value floats with supply and demand. This is also a huge potential draw back if the scheme is not done in a way to limit distortion of the market. Generally, the distortion has occurred because some technologies have a significant price edge and end up with a lion's share of certificates, which especially if accumulated year-to-year, can cause an over-supply that destroys the certificate value.

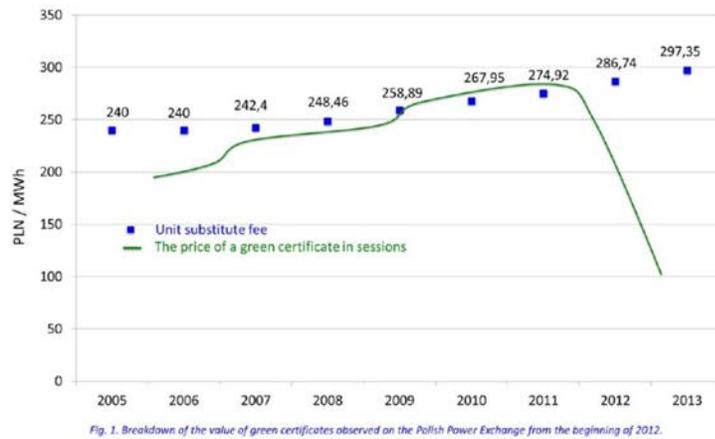


Fig. 1. Breakdown of the value of green certificates observed on the Polish Power Exchange from the beginning of 2012.

Left: Polish Economic Chamber for Renewable Energy graphic, from Detailed Paper on Green Certificates.

Poland is a classic case of this effect: The practice of co-firing biomass with coal and old hydro plants received the same support (one certificate per MWhr) as other technologies, leading to the collapse of the market, especially since certificates have been allowed to

accumulate. Over 70% of the certificates are going to these suppliers (mostly state-owned companies).²⁴

Despite the huge problems caused in Poland by the single certificate value as late as 2014, the Commission is now pushing the idea of a single value in the hopes of creating competition. “*The Commission considers in particular that no differentiation in support levels through green certificates may be applied unless a Member States demonstrates the need for a differentiation....*” Guidelines, par. 138. This is, of course, a complete reversal of the rules in the 2008 guidelines that required differentiation to levelize support across technologies. Community Guidelines on State Aid For Environmental Protection, section 109 (2008/C 82/01).²⁵ See

²⁴ The Polish Ministry of Economy explained: “*Multi-fuel co-firing plants contributed the most to the rapid increase in the volume of electricity production from renewable energy sources which in recent years recorded the highest growth (which is related to low expenditure necessary to run this type of production and high revenues generated by this practice).* As recently as [July 2, 2014](#), the Polish Government still criticized the uniform support system noting that “*technology showing the lowest cost of power generation received unjustified support.*” Regulatory Impact Analysis, July 23014 bill, p. 21. The current Polish system is the subject of a Commission investigation, SA.37224 (2013/CP) — *Polish system of green certificates for co-firing coal plants.* See also [Uzasadnienie. Projekt ustawy z dnia 12.11.2013 r.](#) (justification for draft law of November 11, 2013).

²⁵ This was summarized by the head of the Polish Office of Competition in a June 5, 2012 letter to the Ministry of Economy: *the Commission notes whether it is necessary to ensure the viability of energy production, does not provide overcompensation for the production costs' of energy (proportional size of the planned instruments is relation to actual costs) and does not dissuade producers of energy from increasing competitiveness. In order to demonstrate this, it is necessary to provide the Commission with a detailed justification of the necessity and proportionality of the envisaged measures. In particular, it is necessary to analyze the markets in which the beneficiaries operate for the planned measures, the real costs of energy production incurred by them depending on*

C(2010)2211, State aid No N 65/2010 - United Kingdom Amendments to the Renewables Obligation Certificates (ROCs) scheme, March 30, 2010 (“...levelised costs matching the midpoint of the predicted revenues... will therefore prevent overcompensation in the aggregate of the different producers”); C(2005)480, State aid No N 362/2004 – United Kingdom Renewables Obligation Order 2005, November 23, 2005; C (2011) 4938, State aid SA. 33134 2011/N– RO, Green certificates for promoting electricity from renewable sources, July 13, 2011

At this point, the Commission will only allow differentiation of certificate values (levelization) after 2017, based on the same criteria for technology banding of auctions:

“(i) the longer-term potential of a given new and innovative technology; or (ii) the need to achieve diversification; or (iii) network constraints and grid stability; or (iv) system (integration) costs; or (v) the need to avoid distortions on the raw material markets from biomass support.” Guidelines, supra, par. 137.

The need to achieve diversification can presumably be justified by the technology mix contained in the National Renewable Energy Action Plan for the RES Directive. So the bar may not be set very high here for a program to institute or maintain differentiated certificates. However, it remains mysterious as to what changed in the market over a relatively few number of years that requires the Commission to turn its presumption on the need to levelize on its head. Changes in the cost of RES in some technologies, such as wind and in the future PV, clearly show that the need for huge support levels is diminishing. But the fixed value systems (FITs and FIPs) can also reflect that development as can adjusted certificate coefficients. While the absolute cost per MWhr of some technologies is falling, the differential between technologies including some that will be necessary to meet National Action Plans for 2020 have not shrunk. They may be, in fact, growing as wind and PV prices come down.

The failure to levelize can still cause all of the adverse effects on competition that the Commission has strived to eliminate in the past. Nothing on the ground has changed fundamentally to alter this fact. Yet the Commission is erecting barriers to Member States doing what was previously viewed as legally obligatory until the new rules. There is no GBER exemption for certificate programs, even single value certificates. See Article 42, Commission Regulation (EU) No 651/2014, June 17, 2014. In reality, the policies involving certificates have been sorted out in several Commission decisions and are relatively straight-forward compared to the procedures that should be used in auctions and their potential problems. The fact that auctions which would superficially meet all of the GBER exemption tests have nevertheless resulted in market concentration would seem to undermine the whole new structure.²⁶

the type of RES and CHP technology in relation to the achievable rates the sale of the energy and the rate of return on investment for different types of RES and CHP technologies” OCCP to Min. of Economy, June 5, 2012.

²⁶ See examples cited earlier from Brazil and China. The GBER definitions as well as the state aid guideline definitions are far too ambiguous to provide clear policy guidance on what auction mechanisms and procedures will be fair to competition and avoid market distortion. As has been the case with public tendering, pre-qualification rules can be used to dictate just about any result the organizers want to achieve. Par. 131 on pre-qualifications seems to leave the door open and even the items explicitly mentioned can be used unfairly.

Balancing

There is a big emphasis in the new guidelines on balancing obligations.²⁷ The Guidelines, as EuroElectric urged, seek to impose “*standard balancing responsibilities mean non-discriminatory balancing responsibilities across technologies which do not exempt any generator from those responsibilities.*” Section 1.3(38). The Guidelines provide that “Beneficiaries [of RES support] are subject to standard balancing responsibilities, unless no liquid intra-day markets exist.” *Infra*, par. 125(b). The balancing issue will be one of the major controversies over the next decade. However, the auction mechanism is not particularly well-suited to impose balancing obligations (the short-fall between contracted power and produced power). Moreover, other provisions of the guidelines actually impede broader balancing in the system of demand and supply.

“One usually cited disadvantage of auctions is that they do not give the right market signals to RE producers, which are therefore not encouraged to produce in peak times, to focus maintenance on lower demand seasons, or, generally, to increase operational efficiency. Del Rio, supra. They propose using feed-in premiums to correct this flaw. Their solution of contracts for the difference may work to encourage meeting demand curves,²⁸ but there is no inherent requirement that the support awarded in an auction differentiate between peak and non-peak hours, just as there is no requirement in most FIT systems. The solution funneled through grid sales will likely be more complex, less flexible and more unfriendly to smaller players than simply allowing direct sales of electricity to end-users. Distributed energy offers a solution that is far more direct, manageable and flexible. It is noteworthy, that while the European Union has championed “distributed energy” for years,²⁹ that the Guidelines do not use the term anywhere in their text. If critics wonder about the influence of the large conventional utilities on the DG Competition, they need look no further than this fact. Only very small players will be allowed to directly sell electricity, taking other natural distributed energy producers such as biogas from local organic wastes out of the picture. This is quite deliberate and quite bad public policy. Dozens of major reports in the last year have announced that distributed energy will be the new

²⁷ The Guidelines provide that “‘balancing responsibility’ means responsibility for deviations between generation, consumption and commercial transactions of a BRP within a given imbalance settlement period.” Section 1.3(37). BRP means Balancing Responsible Party.

²⁸ “Contracts may differ depending on the technology: when it is interesting (and feasible) for the technology to receive the electricity market signal so that it can improve its operational efficiency, then it could be a contract-for-differences, cleared at an annual basis. This way the RE producer ensures receiving a guaranteed income, while simultaneously encouraging him/her to operate when the system needs it most (i.e., at peak times, when electricity prices are higher). An alternative is to use a fixed tariff with the obligation to pay balancing costs, or as a take-or-pay contract. The contracts should include minimum and maximum levels of electricity generation (as in Brazil), again to ensure a correct performance and integration into the system.” Del Rio, *supra*, page 53.

²⁹ See The European Economic and Social Committee, “Changing The Future Of Energy: Civil Society as a Main Player In Renewable Energy Generation,” EESC study on the role of civil society in the implementation of the EU Renewable Energy Directive, Final Report (January 2015). This is a thorough and complete endorsement of distributed energy that will largely be banned by the new state aid guidelines.

model for the future. It will be cheaper, more secure and cleaner.³⁰ It will be so valuable that it is rationed in Europe.

Certificate systems can now allow for direct sales to occur³¹ and these schemes can continue under the new guidelines, but only if they go through elaborate efforts at notification. The Guidelines would require that certificate programs meet the Section 125 requirements that include sale of electricity on the general market. *Infra*, Section 138 (“where technically possible”).

The major savings for renewable energy in the lower run is its ability to provide “distributed energy” in the local communities where the energy is used. By moving closer to the energy user, this type of RES can reduce distribution charges that account for 30-50% of the end-user’s bill. Distributed energy is supported by Commission in theory and then undermined by Commission in the state aid guidelines by apparently forcing sale to grid.³² By eliminating direct sales to end users except for very small installations, the guidelines restrict distributed energy by definition. Direct sales can achieve consumer savings and higher margins for RES producers without additional government support. Local use of energy lowers distribution prices. If the objective of the state aid package was to reduce the adverse impact on RES support on end-user prices, then the Commission could not have made a more irrational decision.³³ The discrimination against small facilities from auctions³⁴ will hurt distributed energy, but the requirement to connect to the grid cuts off a major market mechanism that could provide for more cost-effective support.

³⁰ “*Distributed generation (DG) will play a key role in this novel concept. This covers a broad range of technologies, including many renewable technologies that provide small-scale power at sites close to users. The greatest potential market for DG is displacing power supplied through the grid. On-site production minimises the transmission and distribution losses as well as the transmission and distribution costs, a significant part (above 30%) of the total electricity cost.*” European Commission, “European Distributed Energy Research Projects.” 2004. The work at MIT is among the most impressive: “The Utility of the Future” (2014). See Electric Power Research Institute, “The Integrated Grid: Realizing the Full Value of Central and Distributed Energy Resources,” January 2014. In the EU, “smart energy networks are a priority of the Energy Theme of 7th Framework Programme (FP7).” http://ec.europa.eu/research/energy/eu/index_en.cfm?pg=research-smartgrid [includng ddistributed electricity].

³¹ The language about sale of the electricity on the market might mean the Commission wants to prevent sales to end-users. But this would make little sense if they goal is more competition and lower prices for electricity.

³² “*In order to incentivise the market integration of electricity from renewable sources, it is important that beneficiaries sell their electricity directly in the market and are subject to market obligations.*” Guidelines, par. 125. The context appears to define “market” as only the grid. See par. 126, exempting facilities under 500 kW. The language here comes directly from EuroElectric. If this means no direct sales to third-parties, then it is obviously anti-competitive and placed in the rules to restrict an open market, not to create one!

³³ The principal parties hurt by distributed energy are the large traditional utilities, leading some to suggest that the Commission’s guidelines were simply intended to buffer the effects of RES aid on traditional energy providers by actually distorting competition the other way around.

³⁴ Del Rio, page 52: “*Larger installations facilitate economies of scale in production but a model of distributed generation calls for smaller plants scattered around the territory.*” Of special interest to biogas and other technologies is the fact that the guidelines exempt 1 MW projects from the auction, but exclude up to 6 MW for wind projects. There is absolutely no justification for this distinction and it distorts competition in violation of the Treaty.

A major way that renewable energy can promote energy security is through dispersed generation into local grids or direct to users. Biogas has one of the highest potentials for this application, since it can take organic wastes from food and meat processing and directly sell the energy back to the waste producer. This is also a vital way to create incentives for more sound waste management practices. Biogas can be stored over-night and generation increased in the day during peak hours. So in the right support scheme, biogas can not only balance itself, but improve the net grid balance. This also provides improved revenue for market sales during peak hours. This creates better incentives to invest in such projects without raising the support levels or impacting consumer prices negatively. Obstructing such developments is a major distortion of the market to favor the big utilities and to do so in a way that offers no advantages to consumers. Section 125 makes community-based biogas far more difficult when combined with the 1 MW ceiling on exception from auctions. It is pretty obvious that the only reason for these restrictions is to limit competition not to protect it.

Energy Storage

Storing energy to make it more available to meet the demand schedule is a pillar of EU policy for the future.³⁵ Yet the new stated aid guidelines when fully implemented may make this impossible in practice. The definitions provide that “*energy from renewable energy sources*’ means energy produced by plants using only renewable energy sources, as well as the share in terms of calorific value of energy produced from renewable energy sources in hybrid plants which also use conventional energy sources and it includes renewable electricity used for filling storage systems, but excludes electricity produced as a result of storage systems.” Par. 11. Moreover, the electricity going into storage would not be put “on the market” and would also not receive support under paragraph 125. So the new guidelines basically make support for energy storage impossible.

Conclusion

The European Commission is given the task of assuring fair competition within the community. One important part of that is to provide assurances that state aid has the smallest impact on competition necessary to achieve the common goals of European legislation. For many years the Commission fought to levelize support across technologies, avoid discrimination against new RES technologies, and encourage small and medium enterprises to enter the energy market.

Yet in the new state aid guidelines and GBER regulation, the Commission departs from consistent positions taken in the past. The mechanism for awarding support would be the procedure most favorable to large utilities, the scheme most likely to discourage small projects and small developers. The support for various technologies would be flattened, not levelized, dropping to the lowest denominator. Distributed energy would be limited to sources of 500 kW

³⁵ “*Cost effective energy storage will be a key enabling technology for the stable operation of the network (including mikrogrids) and for the integration of renewable energy sources (RES)*” European Commission (website) Research and Innovation, Energy Storage. See DG Energy, “The Future Role and Challenges of Energy Storage.”

assuring no serious market threat to the major utilities. The pace of RES investment will be slowed considerably.

The Guidelines make biogas treatment of organic wastes more economical difficult for a variety of reasons. At the same time, that the DG Environment and the European Parliament are calling for more and more organic wastes to be managed in this fashion.

The Guidelines restrict the sources of distributed energy to very small producers by limiting direct sale of electricity to end-users in most cases. This approach is inconsistent with the European Community announced efforts to support distributed energy as more efficient, secure and cleaner.

The Guidelines make energy storage problematic; they allow energy going into storage to be considered renewable, but not energy going out. Since support for renewable energy is contingent upon it being placed “on the market,” the stored energy will not qualify for support.

The guidelines frustrate most European Union policies and directly contradict the treaty provisions on competition, the RES Directive, and other community instruments. The guidelines are only guidelines and in the end they can be challenged case-by-case as new Member State schemes come into play. Despite the depressing thought of delayed justice, it may also be that the European Court is destined to sort out the issues. In the interim, there is an effort to push for their revision to reflect these concerns.