

Hellmut Wollmann

The involvement of the local authorities/ municipalities in the provision of energy/electricity
– an international perspective

The international section of ANNUAIRE 2007 is meant to provide some internationally comparative information and perspective to the France-related articles in this volume.

The authors who were invited to contribute to this international section dwell on *Great Britain, Norway, Sweden, Germany, Italy* and *Hungary*. By selecting these countries it is intended (and expected) to give an instructive, perhaps even representative overview of development and trajectories which the role and involvement of the municipalities have undergone in the energy sector whereby the focus of this section is directed at the provision of electricity. The comparative view should offer insights into similarities and dissimilarities and into the “convergence” or “divergence” of the national trajectories and into the reasons and factors that explain such variance.

The country reports of this section have been (co-)authored by Prof. John McEldowney (on Great Britain), by Prof. Harald Baldersheim and Dr. Dag Harald Claes (on Norway), by Dr. Jenny Palm (on Sweden), by Prof. Hellmut Wollmann (on Germany), by Dr. Andrea Prontera and Dr. Guilio Citroni (on Italy) and Dr. Pal Valentiny (on Hungary). I wish to extend Prof. Marcou’s and my thanks to the authors for contributing to this year’s issue of the ANNUAIRE.

This brief initiatory article will come in two parts. First, in introducing and referring to the individual country reports and their respective authors, a “broad brush” overview shall be given on the stages and features that the role of the municipalities has undergone in the three crucial components of the local provision of electricity, that is, in the production, transmission and distribution of electricity. Second, some other key approaches and strategies in which the local authorities have come to be engaged in the energy sector (for instance in energy saving and environmentally friendly energy strategies) shall be shortly addressed.

1. Developmental lines of the involvement of the local authorities/ municipalities in the provision of energy/electricity

In the following three developmental stages shall be distinguished in order to provide a “frame” for the information and arguments put forward by the country-related contributions to this section – with references to be made to the respective authors.

1.1. Historical background (“starting conditions”)

In all countries under consideration the provision of energy, that is, of gas and of electricity, for the local population as well as for the local industry, has become an early concern and responsibility of the municipalities. While the provision of gas and electricity became also sector of private investors and entrepreneurs, the municipalities were faced with the need to establish municipal corporations of their own, often in an effort to come in and “bail out” where private enterprises failed.

In *Great Britain* which was a European frontrunner in the industrialisation and urbanisation process, the engagement of the local authorities in the provision of energy dates back to the beginning of modern local government, at least since 1835, when energy was seen as falling to the local authorities as part of a wider functional profile. At that point of time the production of gas and electricity was often linked to local coal mines (see McEldowney in this section).

In *Germany* the provision of gas and electricity was also seen as an early responsibility of the municipalities and as essentially pertaining to what in German is called, in a difficult to translate term, “*Daseinsvorsorge*” (see Wollmann in this section).

In *Norway* the early engagement of the municipalities was conspicuously shaped by the very geographical features of the country with an abundance of waterfalls which, in an all but “path-dependent” manner, put the country on a “hydro-power” track and led many (small) municipalities, located in and isolated by fjörds, to have their own power station and local transmission grid for local supply. By an early legislative move (1906, 1917) Norway has a legal provision which discourages foreign investors from purchasing the financially attractive waterfalls and has given “public institutions (municipalities, counties and the state) complete control over the Norwegian energy sector” – ever since (see Baldersheim and Claes in this section).

In *Sweden*, too, energy provision was seen as a key responsibility of the municipalities, once Sweden's modern local government system was set up in 1862. As for geographic reasons hydro-power production was in the waterfall-rich mountainous North and taken on by large companies which also operated the long-distance high voltage lines, it became an (again all but "path-dependent") "Swedish" pattern (see Palm in this section) according to which the production of energy was largely left to the large companies (such as the State-owned Vattenfall which was established in 1907), while the local transmission grids and the distribution were, to a large extent, handled by the municipalities and their municipal energy corporations.

In *Italy*, in the late 19th century, many of the municipalities, even large ones, preferred to "outsource" the local energy provision to private enterprises. In doing so, they fell in line with a practice which was embarked upon by many (often also very small) municipalities in France. In 1903, in view of supply deficiencies arising from this system, national legislation was passed that set the legal frame for public utilities, including electricity, to be taken up and provided for by municipal (public law) corporations (*municipalizzate*) (see Prontera and Citroni in this section).

In a similar vain, *Hungary* which at that time was part of the Habsburg monarchy saw an expansion of municipally owned energy corporations, particularly in Budapest particularly in the period between 1900 and 1920 (see Valentiny in this section).

In short, in the development until the First World War, the countries, notwithstanding notable differences, showed a broad similarity in that the municipalities, operating either directly (en régie) or through municipal corporations, were engaged in the local provision of energy. While in Norway this responsibility fell almost entirely to the public sector, particularly to the municipalities, the other countries showed a mix of private corporations and municipal corporations.

1.2. Development after 1945: departure towards different trajectories

The development after 1945 was characterised by a sharp divergence of the trajectories, as some countries (at first Great Britain and later Italy and also, under glaringly different politico-economic circumstances, Hungary) embarked upon nationalising the energy sector,

while in the other countries (Norway, Sweden and Germany) the traditional involvement of the municipalities in local energy provision was retained and continued.

In the UK the Labour-led government that took office after 1945 made the nationalisation of the energy sector a crucial element of its all-out attempt to restructure the country's public sector and national economy (see McEldoney in this section). The 1947 Electricity Act transferred local power plants as well as private energy enterprises into a single nationalised industry. Later, under the Electricity Act of 1957, the Central Electricity Generating Board (CEGB) was established which was meant to create a unified system for the generation and transmission of electricity across the U.K. Thus, the historically grounded direct involvement of the local authorities in the energy sector came to an end.

In Italy, the post-war development was at first characterised by the „co-existence“ of private and public corporations, including municipal corporations (*municipalizzate*), in the provision of energy. In 1962, in a dramatic policy move, the Italian government embarked upon nationalising the energy sector by establishing ENEL as a public corporation which absorbed all private and public energy companies, with the exception of the companies owned by local authorities. So from 1962 on Italy's energy sector has been largely dominated by ENEL (see Prontera/Citroni in this section).

In this context mention should be made also of the case of *Hungary* where in 1948, following the Communist take-over, 137 power plants and 147 power supply companies, many of them in municipal ownership, were nationalised and integrated in the State Economy (see Valentiny in this section).

In the other countries under consideration here, the traditional functional and institutional pattern of local energy provision was largely followed after 1945.

Norway continued to be marked by the predominance of hydro-power based local power corporations and local transmission grids. In 1973 the local energy supply was largely provided by 337 distribution companies 76 percent of which had less than 5.000 consumers (see Baldersheim/Claes in this section).

Similarly *Sweden* further adhered to her „Swedish model“ (see Palm in this section) in that the production of electricity (as well as the long-distance transmission grids) were in the hands of a small number of large companies (with State-owned Vattenfall being writ large), while the distribution was handled by municipal corporations which also controlled the local transmission grids.

In *Germany* the energy sector was, on the one hand, dominated by private or public-private stock companies, such as RWE and Viag (which later became E.on), which held 80 percent of the energy production and owned 70 percent of the (long-distance high voltage) transmission lines. On the other hand, the local authorities and their corporations continued to play a significant role, with about 20 percent of the production and 30 percent of the distribution handled by them (see Wollmann in this section). It applies particularly to the so called „city works“ (*Stadtwerke*), that is, municipal corporations, traditionally „integrate“ a broad spectrum of public utilities and public services, including water, sewage, public transport and also, last not least, energy.

Notwithstanding country-specific peculiarities, a common feature of the involvement of the local authorities in the energy sector was that these local corporations tended to (and were keen to) “integrate“ („bundle“) at least two, if not all of the three crucial functional phases and components (production, transmission and distribution), particularly the latter two. It was particularly the ownership of the local transmission grid which made for a “natural monopoly” that local energy corporations were able to operate in a “closed” and “protected” local market. If, as it was the case of the German “city works”, the local corporation provided, besides energy, other local public services, it could use (and this was common practice of German “city works”) gains they made in one service (for instance water or energy) to support “deficient” services (such as public transport). It goes without saying that the “bundling” of energy provision functions, particularly the combination of the local transmission grid as “natural monopoly” with the distribution/trade function, ushering in “local protected markets” flew in the face of free market and free consumer choice concepts and beliefs. In a similar vein the practice of “cross-subsidizing” was bound to be at odds with “free competition” principles.

1.3. Deregulation and market-liberalisation since the 1980s and 1990s

Against this backdrop the traditional local provision of energy has come under increasing criticism since the 1990s. Its main thrust has been directed against the lack of competition which was seen as a main cause for production inefficiency as well as for price inefficiency. A key reason for the lack of competition was seen in the “integration” and “bundling” of the of the three crucial components and stages of production, transmission and distribution with its build-in „monopolies, particularly with the „natural monopoly“ of “owning” the transmission net.

The privatisation and market-liberalisation drive of the 1990s was harbingered, in the *U.K.*, by the policy moves that were made by the Conservative government under Margaret Thatcher. After taking office in 1979, the Tories embarked upon neo-liberal policies in which market-liberalisation and competition were writ large. First attempts to liberalise the energy market (on the basis of the nationalised, that is, State-run energy sector) were made in the Energy Act of 1983 – with scarce results (see McEldowney in this section). Privatisation began with the British Gas Act of 1986 and was followed up by Electricity Act of 1989 which resulted in the establishment of private energy corporations. The 1989 legislation aimed, furthermore, at separating („unbundling“) the production, transmission and distribution functions of electricity provision with the regard to the newly created private energy sector. At the same time, however, the Electricity Act of 1989 opened up the opportunity for local authorities to promote the local supply with electricity which draws on more environmentally friendly sources such as renewable energy (see McEldowney in this section).

In 1990, *Norway* was set for a fundamental change in its traditional energy provision. On the one hand, the basic structure of hydro-power plans and local transmission grids owned and operated predominantly by the local authorities and their municipal corporations remained in place and unimpaired. On the other hand, however, the previous distribution system which still hinged on “local markets” has been profoundly revamped particularly on two scores. First, it was stipulated by law that the all energy companies which had so far „integrated“ („bundled“) the production and the transmission function were bound to split up into production and transmission companies. Second, by establishing a (state-run) exchange institution (Statnett), Norway’s electricity sector was turned in a (“nation-wide”) „market place where all producers deliver power into the (national) grid and all consumers use power without knowing where the power actually originates from“ (Baldersheim/Claes in this volume). In taking up this course, Norway became a front runner that anteceded the EU’s

deregulation policy which set in 1996, thus serving „as a model for a liberalised electricity sector“ (Baldersheim/ Claes in this section).

In 1992 *Sweden* embarked on a similar market-liberalisation course, probably drawing, to some degree, on the Norwegian example and also clearly ahead of the EU's market-liberalisation moves. (In fact, Sweden became a EU member in 1995). The Swedish 1992 legislation also aimed, as a first step, at increasing competition on the energy market. A second legislative round went into force at the beginning of 1996. In its immediate effect the “market opening” resulted (somewhat paradoxically) in a wave of concentration and mergers of energy corporations, as quite a number of municipalities, faced with the increased competition (and also giving in to mounting pressure from private large corporations that were eager to widen their market share and access to regional and local markets) began to sell their assets. So by 2004 86 percent of the production of electricity and 50 percent of the distribution were handled by the Big Three on the Swedish energy market, that is, E.on, Vattenfall and Fortum. Furthermore, the separation (“unbundling”) of the production and transmission functions has been stipulated. Similar to the Norwegian example a national grid (*Svenska Kraftnät*) has been created as a national energy exchange platform. Within the Swedish Energy Agency an Energy Market Inspectorate has been established with the mandate to regulate and supervise the energy sector (see Palm in this section).

In 1996 the EC came forward with its first Directive which obliged EU member countries to ensure price competition in the national electricity markets. In 2004 it followed suit with its Acceleration Directive which essentially aimed at ensuring the discrimination-free access to the transmission grids for all energy producers and consumers. In order to promote such “free access” the Directive stipulated the “unbundling” of the transmission function from the production and distribution functions.

Germany which, compared to Norway and Sweden, was remarkably late in opening her energy markets responded to the 1996 EC Directive by enacting the Energy Management Act of 1998. Like in Sweden, the immediate (and, again, somewhat paradoxical) effect was a concentration and merger process among energy companies with the Big Four on the German energy market, that is, E.on, RWE, EnBW and Vattenfall, expanding their dominant market position, with 80 percent of the production and the lion's share in long-distance high-voltage transmission grids. When the EC followed up and intensified its market-liberalisation drive by

issuing its Acceleration Directive of 2004, Germany came up with the 2005 amendment of the Energy Management Act which finally stipulated the separation („unbundling“) of the transmission function from the production and/or distribution function; yet, revealingly, the energy corporations with less than 100.000 clients (that is most of the „cityworks“!) have been exempted from the „unbundling“ rule (which mirrors the underlying legislative compromise and the political concession made to the municipalities). At the same time, the energy sector was put under the regulation and oversight of the Federal Net Agency which has also to approve (and control) the fees to be charged for using the transmission grids (see Wollmann in this section).

In *Italy*, the electricity sector has come, in the wake of the 1962 nationalisation, under the sway of ENEL as the dominant State corporation (with municipal energy corporations, *municipalizzate*, playing a marginal role). Since the early 1990s steps were taken to somewhat redress this dominance. In 1992 ENEL was turned into a (still 100 percent State owned!) stock company. In 1997 an independent regulation agency (*Autorità per l' energia elettrica ed il gas*) was set up while ENEL continued to be the main player on the energy market. In 1999 legislation was adopted which resulted in widening the scope of activities of the larger municipal corporations (*municipalizzate*), while weakening the smaller ones (see Prontera/Citroni in this section). A handful of large *municipalizzate* (in big cities, such as Torino, Venezia, Brescia) are in 100 percent or majority ownership of their „parent“ city, in most other cases they have national or international energy corporations as co-shareholders.

Finally, in *Hungary*, after the downfall of the Communist regime and the dismantling of the State Economy, the energy sector, at first, remained in State ownership. In 1991 only 2 percent of the shares of the public (predominantly State) holding energy company were held by the local authorities. In 1995 legislation was passed according to which 25 percent of the shares of the electricity distribution companies should be handed over to the local authorities. When this transfer finally happened in 1997, most local authorities decided to sell their assets to (in most cases: foreign) companies – for lack of experience in handling such energy companies of their own and out of financial needs (see Valentiny in this section). At the same time, a large portion of the assets owned by the State were also sold to foreign investors. As a result, Hungary's electricity sector is predominantly owned and dominated by foreign energy companies (with German companies, such as RWE, EnBW, looming large) (for a listing of the energy companies see Valentiny in this section).

To summarize:

In the *UK*, as a result of the nationalisation of the energy sector (in 1948) and of its privatisation (in 1987), the local authorities have lost any direct connection with the production, transmission or distribution of electricity. The same holds true for post-communist *Hungary*. In *Italy* the 1962 nationalisation of the energy sector embodied in ENEL has recently been mitigated by advances of some “European (energy) champions” (such as Endesa and EdF), some private corporations and large municipal energy companies (*municipalizzate*).

Among the other countries *Norway* stands out a country in which, all but “path-dependently”, the (hydro-power based) electricity generation falls almost entirely in public (first of all *municipal*) ownership and control (while the private sector’s share is only 13 percent). access to the production So all together a mixed picture. In *Sweden* municipal corporations have still strong standing and hand in the energy distribution. In *Germany*, too, municipal corporations, primarily in the organisation form of “city works”, are still involved in (20 percent of) the production and in (30 percent of the) distribution of electricity.

Regardless of the ownership and operation of the energy companies the energy markets have, since the 1990s, been largely “liberalised” in terms of “unbundling” the transmission function from the other functions. Furthermore, regulatory agencies have been established with the mandate to regulate and control the “players” on the energy market. (Yet, the difficulties which, for instance in Germany, the newly responsible “network agency” encounters (particularly vis-a-vis the “Big Four” energy “giants”) in regulating, control and, last not least, enforcing the access fees and prices indicate that much still needs to be done).

2. *Other energy-related activities and strategies of the municipalities*

While this overview dwelled, in its first section, in some length on the direct energy provision role of the municipalities, in its following and concluding paragraph now (only very short) mention should be made of other energy-related activities and strategies that are also being addressed in the county-reports in this section.

Among these the following deserve being highlighted.

- Alternative environmentally friendly energy sources, such as Combined Heat and Power (CHP) technologies (for UK see McEldowney in this section, for Germany see Wollmann in this section).
- Waste disposal and waste treatment, including incineration and its potential for the generation of heat (for Sweden: see Palm in this section).
- District heating which has particular importance in Sweden and Norway because of the long duration of the cold season (see Palm in this section), but also for Hungary because of the natural abundance in hot springs (see Valentiny in this section);
- Energy conservation and saving strategies. As agreed upon in the Rio Conference under the label “Agenda 21”, such environmentally friendly activities and strategies have been put on the local agenda in many municipalities in practically all countries (on Sweden see Palm in this section).
- National governments have increasingly mandated the local authorities to pursue such “environmentalist” strategies and goals. For example, see the UK’s “Climate Change and Sustainable Energy Act” of 2006 (see McEldowney in this section) or Hungary’s “National Energy Savings and Energy Improvement Programme” of 1995 (see Valentiny in this section).

In the face of the spectre of the global Climate Catastrophe which has been conjured in the just published UN Report these complementary local strategies that are called for in a broad gamut of energy-related initiatives and measures are bound to become ever more mandatory and compelling.