

## Europe's Energy Supply: On the Way to California

by Lothar Komp

Italy is in an energy emergency. For the first time since the end of the Second World War, the Italian energy system stood on the verge of collapse at the end of June. In order to avert the worst, the manager of the national energy grid was forced to impose targetted blackouts on several sections of Rome and other parts of Italy. There was no time for advance warnings. Thus, on June 26, thousands of Italians were suddenly in the dark; on the roads, chaos broke out on account of the disconnected traffic lights, and throughout Rome, people were locked in traffic jams, and had to be freed with help of the Fire Department. Altogether, 6 million Italians were temporarily cut off from electric power. Alberto Clo, managing director of the energy firm ENI, commented: "That the sixth-most powerful economy in the world cannot supply itself with sufficient energy, is absurd and pitiable."

Since the partial privatization of Italy's electricity sector (see article following), assured supply to the population is no longer the highest priority for the stockmarket shares of the competing power generators. Now each puts the blame on the other; besides, they say, "The national emergency was recognized for a long time."

### Problem Is Europe-Wide

No one should think that Italy, even for now, is an isolated case. Everywhere in the European Union—from nation to nation—the energy sectors have, for several years, been hit with a whirlwind of confusion, as a consequence of managed *deregulation* at varying tempos. National suppliers were privatized; monopolies were broken up; and the electricity markets opened up even to foreign producers. All this, according to the theory, promoted competition and promised households, as it did businesses, low energy prices.

In practice, it then appears to have turned out otherwise, unfortunately. First of all, suddenly, a cross-border takeover

battle has broken out in the European energy markets, just like in the telecom sector. Companies encumber themselves with debts, or go to the stock exchange in order to absorb smaller rivals. At the same time, the companies occasionally offer a ruinous price war, so that in the first two or three years after the beginning of deregulation in one area, the price of electricity actually declines. Thus the maxim holds: Whoever invests, loses. Capital expenditures in the safety and delivery capacity of electrical systems are reduced to a minimum; there are no capital expenditures on new units after the one time when they are built.

Very quickly, then, a small group of market-dominating big companies have become more and more ubiquitous, and those low prices are now a thing of the past.

Altogether, by this means, the precious reserve capacities for peak consumption periods have been driven down in the afflicted economic systems; and in some nations, even in normal times, the energy supply has been made dependent on buying considerable additional supplies from foreign countries. Finally, all that is needed now is an unusually cold Winter, or an unusually hot June or July, and catastrophe strikes.

### Energy Crisis in the Land of Milk and Honey

The Scandinavian example: Norway is in a virtual paradise, with a wealth of energy production permitted. That nation is, after Saudi Arabia, the second-largest oil and gas exporter in the world. Moreover, there is an enormous potential in hydropower, so that today, 99% of Norway's own electricity requirement is generated from water. In addition to this, Norway exports electricity from hydropower on a large scale to neighboring Scandinavian countries. Norway ranks near Switzerland and a few sheikhdoms, among the nations with the highest per-capita income in the world.

Yet, in the past Winter, elderly Norwegians died in freez-



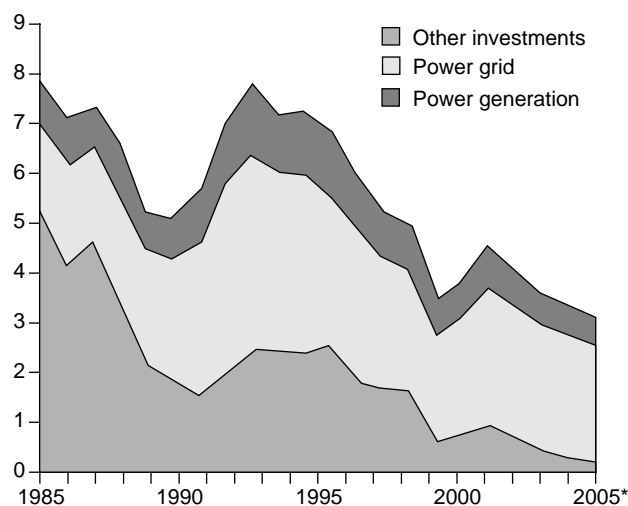
West Germany has built one of the technologies critical to global economic recovery, and one most demanding of a rapidly growing and reliable electricity grid—the magnetic-levitation railroad. The Transrapid is shown here with closeup of the electromagnets which levitate it off its track. Yet as in other European countries, investment in the nation's power grid has been falling precipitously, as shown in Figure 1.

ing cold in their homes, because they were terrified of high electric bills! The immediate cause was a particularly warm and dry Summer in 2002, followed by a dry Autumn, so that the water level of the reservoirs fell. The Winter was especially cold, and even the water supply in the reservoirs of the hydroelectric power plants froze. An energy emergency has erupted throughout Scandinavia. The prices in the northern energy Exchange North Pool tripled within a few days. In Sweden, energy prices rose 260% compared to the previous year. In Norway itself, the price of electricity exploded in February 2003 to 87 öre, while during the typical year 2002, it was around 20 öre. In some districts in the middle of Norway, the local authorities even terminated energy distribution. Since the reservoirs are for the near future almost empty, emergency gas power plants must now be built from the ground up, on an urgent basis.

In Norway in particular, the energy crisis provoked displeasure at the market-determined energy supply. The conservative *Aftenposten* itself demanded a reversal of energy policy, and characterized the extreme deviations “politically explosive.” Thousands of Norwegians demonstrated in front of Parliament for government intervention; for instance, by



FIGURE 1  
**Investments by German Power Utilities**  
(Euro Billions)



\*After 2002, Planned Investments.

Sources: IFO Institute; EIR.

setting maximum prices or granting government subsidies for heating repairs to low-income families. The Homeowners Association, which organized the demonstration, warned of “Russian conditions” in Norwegian energy supplies.

At the beginning of the 1990s, Norway and Sweden jointly deregulated their energy sectors. Since then, electricity supply and demand alone have regulated the price. That is also to say, however, that the energy providers only make money, if the electricity each company and each private household requires to survive, is kept in short supply—“California style.” Thus, the Norwegian energy companies were blamed, when, in the Summer and Fall of 2002, as the calamity in the coming Winter was already in sight, they continued to direct undiminished exports to Sweden—so that the water



*Germany, like Britain, the Scandinavian countries, and others, is implementing "California-style" deregulation, leading to many electricity "providers," reduced capacity, and rising prices. Now every electronics assembly plant—indeed, every electric fan—is pushing the grids toward shortages, brownouts, and worse.*

levels of Norway's reservoirs were deliberately allowed to fall to record lows.

In Sweden, electricity prices were hiked up in the Winter not only because of the dependence on imports from Norway. In some parts of Sweden, including Stockholm's Kista suburb—the Swedish "Silicon Valley"—there were, in addition, power shortages due to defective maintenance of the electric grid. Here, re-regulation and investments in new energy generating facilities are being considered now, along with the division between sense and nonsense about nuclear power. The cancellation of the nuclear power plant Barsebäck 2 has been deferred for the second time. The opposition demands that the Swedish law that prohibits the construction of new nuclear plants be rescinded. Finland recently declared that it wanted to build a fifth nuclear reactor.

### **When Will the Lights Go Out in Britain?**

The deregulation of the energy sector in Great Britain—measured in electricity prices—was extremely successful, in striking contrast to the previously mentioned examples of the Italians and Scandinavians. The only problem is: It was so

successful, that the largest British power producer, British Energy, has been put into bankruptcy by it, and in Autumn 2002, only a last-minute rescue package by the government saved it from going under.

British Energy, which was privatized in 1996, manages 15 nuclear plants, of which eight are in Great Britain. A quarter of all British private households get their power from British Energy. In the course of the early deregulation, numerous foreign firms, not the least of which were EON and Rheinisch-Westfälisches Elektrizitätswerk (RWE) from Germany, had bought themselves into the British electricity market. In the meantime, the wholesale prices for power had fallen by more than a third, and quite obviously below the cost of production. At the beginning of September 2002, British Energy announced that it had indebted itself so much, by problems at home and for its companies abroad, that without an immediate government rescue, it would have to file bankruptcy. The stock price of British Energy collapsed 65% within one day. The bonded debt was downgraded to "junk." The market value of the firm crashed to one-ninth of the value immediately after privatization. In the end, the government offered a financial injection in the sum of 650 million Euros for the short-term survival of the company.

Only a few weeks later, TXU Europe ran out of money. The company operated three coal power plants in Great Britain and provided four million customers with power. Here, too, the government was called on for help. In the middle of October 2002, a liquidity crisis escalated in the power company UK Coal, so that the management, in a kind of panic reaction, suddenly halted all coal deliveries to the biggest British power plant, AES Drax in North Yorkshire.

On July 1, 2003, the British Institution of Civil Engineers published an alarming study, in which it said that projecting present trends, by 2020 at the latest the lights could literally go out in Great Britain. The study reported that coal and nuclear shutdowns will make 80% of the of the energy supply of Great Britain depend on gas pipelines from politically "unstable" regions of the world: "If future gas supplies were interrupted, this country would have major difficulty in keeping the lights on . . . What would happen then? Under current plans, with no gas, this country would have no electricity."

### **German Electric Price in Updraft**

Energy market "liberalization" began in Germany in April 1998. In that country, somewhat differently than in Great Britain, state regulating authority is supposed to be renounced, and all matters are supposed to be decided through self-regulation and free agreement among associations. Here also, at first, the electricity price clearly went down, at least for industrial users. The immediate result was a dramatic clearing-out of the workforce. Altogether, within a few years, about 40,000 jobs—that is, one-quarter of the workforce of the electricity production and distribution sector—were wiped out. Meanwhile, the concentration process advanced

so rapidly through countless takeovers and mergers, that the electricity price rose again, across a broad front, in the Summer of 2000. Among private households, taxes for the support of renewable energy resources and other extra energy taxes and fees had already long since eaten up the price decreases. For this year, the Electric Power Association expects an increase in average electricity costs of about 6% for Germany's private households.

Much worse, is the fact that in Germany, as in almost all other European nations, the energy infrastructure is becoming obsolete, because the investment-hostile phase of deregulation followed upon more than a decade of already-existing drops in investment in production sites and distribution networks. Thus, the yearly investment level of electricity provid-

ers in the country, since the middle of the 1980s, was halved from a barely sufficient 8 billion euros, to 4 billion euros now. Only in the first three years after reunification of East and West Germany in 1990, did the level of electricity industry investment manage a brief pickup.

For the coming years, according to energy firms' existing plans, a further drop in annual investment to 3 billion euros is foreseeable.

Up to the beginning of the next decade, one coal- and gas-fired power plant after another will have to be replaced by new capacity. Starting in 2005, on top of this, the politically motivated removal from the electricity grid of 19 nuclear energy units—which presently provide one-third of Germany's supply—is supposed to take place. To maintain the Ger-

## Why Italy's June Blackout?

An electricity crisis hit Italy in the last week of June. On paper, the country has a capacity of 77,000 megawatts-electric (MWe) to cover a demand of up to 52,000 MWe. But as the temperature increased in the second part of June, causing more use of air conditioning both in private and in industrial consumption, the supply proved insufficient to cover normal peak demand. The national electricity provider was forced to impose 1.5- to 2-hour blackouts in *all* Italian cities on June 26-27. Moreover, the warning of more blackouts, if electricity use is not curtailed, continues for the weeks to come.

The crisis is the result of environmentalist, fiscal austerity, and deregulation policies. The process started with an anti-nuclear referendum in 1987, which brought to a halt all existing nuclear plants, and enacted localist legislation which has virtually blocked construction of "conventional" coal and gas power plants as well. As a result, Italy imports—from France, Switzerland, and Slovenia—16% of its electricity needs, most of it nuclear-produced!

Additionally, in recent years a deregulation process has forced national electricity producer ENEL to reduce its market quota to 50%, which was partly done through closing old plants and partly through sales. In turn, purchasers of plants decommissioned by ENEL closed them in order to upgrade them. On top of all this, France suddenly announced June 24 that it was cutting 800 MW of its export to Italy, due to increased domestic demand relative to its own supply.

In the short and medium term, Italy's government is speeding up legislation to enforce construction of 19 approved plants, as well as partially giving up environmentalist regulations to allow reactivation of obsolete plants

and discharge of waste water at higher temperatures by electricity producers. In the longer term, a serious energy plan must be implemented.

The positive aspect of the crisis is that it has forced a debate on whether Italy should not review the insane decision to abandon nuclear energy. Lower House chairman Pierferdinando Casini and Vice Minister Adolfo Urso are among the prominent personalities who have called for such a review.

Formally, Italy does not even need a referendum to change policy, since the 1987 referendum only abolished a law that gave financial bonuses to municipalities which offered sites for nuclear plants. To bridge the current electricity gap, Italy could just restart one nuclear plant, in Caorso, and immediately have 850 MW more of energy available.

An example of the insanity of the energy policy followed since 1987 is the case of the former nuclear plant in Montalto di Castro. When the referendum was voted up, the 4,000-MW plant in Montalto, which had cost the equivalent of 5 billion euros (at that time) was ready. All that remained was to put the uranium bars in. But it was "reconverted" into a combination of thermoelectrical and small turbogas plants producing a only 3,200 MW—at an additional cost of another 5 billion euros! To supply the new plant with fuel, a pipeline was built from Civitavecchia: cost, another 2.5 billion euros. Finally, it was decided to run the plant with natural gas, which is cheaper, but cuts down efficiency. Result: the Montalto plant runs today like a Fiat 500, but consumes like a Ferrari!

To compensate the state electricity concern ENEL for the losses it sustained in the nuclear business, after the referendum decision, the state paid (and is still paying, with taxpayers' money) more than 4.5 billion euros. One of the promoters of the referendum, Chicco Testa, sits now on the ENEL board.

—Claudio Celani

man electricity supply under these circumstances, gigantic investments by the energy firms—for the most part already highly indebted—will be necessary. An explosion of electricity prices were the likely result then.

However, the reliability of the energy supply is already in danger in Germany now. It appears paradoxical, but, with every new electric fan that is turned on in Germany, the danger of uncontrolled power cutoffs, like those in Italy and Russia, increases.

Electricity is no ordinary commodity. Once produced, it can be stored only in very limited quantities. On the other hand, the exact amount of electricity must continuously be fed into the electric grid to match the exact amount required by users, so that the grid frequency always remains around 50 Hz. Otherwise, if fluctuations in frequency occur, anything can happen—from local interruptions of power, to blackouts in large sectors. However, since the wattage of an electric fan, as everybody knows, fluctuates between 0% and 100% output, and, in practice, cannot be known, for every megawatt in an installed electric fan, one must at the same time hold an additional megawatt of electrical generating capacity in reserve. Thus, the electric fans themselves are already a subsidized business, and must be subsidized on an ongoing basis by taxpayers and electricity consumers.

### **Reregulate, Return to Reality**

The North German Refinery (Norddeutsche Affinerie, NA), Europe's greatest copper producer, wants to redeploy half of its total 3100 workforce into a service business, because the company would otherwise have to pay out 4.5 million euros—almost a quarter of its annual profit—for special eco-electric fees. Only if one spins off the labor-intensive part of a German company, does it fall under the hard-case provision of the Renewable Energy Law (Erneuerbare-Energien-Gesetzes-EEG). NA Chief Werner Marnette said: "If this ideologically-driven nonsense does not cease, soon the raw materials industry in Germany will no longer have a chance."

It is high time to rethink the politics of energy in Europe. Decades-long neglect of investments in infrastructure; the ecological-ideological aberrations of the '70s and '80s; and, finally, the deregulation experiments of past years, have undermined the reliability of the European electricity supply to an unparalleled extent. Reregulation is necessary, to stop extreme fluctuations in the price of electricity, and make the reliability of the electricity supply again the top priority. After that, massive investments in new energy plants are needed, in which the emphasis must be placed on the most advanced technologies, including nuclear energy. At the same time, the European nations must quadruple their efforts to develop the energy production of the future—nuclear fusion power.

By carrying on with current policies, Europe will soon be subject to California conditions on a daily basis, with catastrophic consequences for workplaces and income.