

Sunny Nice, capital of French contradictions

France, which used to be a pioneer in solar technology, produces only a fraction of the solar output of market leader Germany. But new, attractive feed-in tariffs are changing the solar landscape drastically.

| by Yves de Saint Jacob

Monday morning, November 3rd, the region around Nice and Monaco, one of the wealthiest areas in the world, was left without electricity for 90 minutes. Lifts were jammed, traffic lights put out of action, computer screens remained blank, kitchens out of use. But it came as no surprise. For years it had been known that the capital of the Côte d'Azur is an "electric island", at the mercy of failures in the high tension power lines that feed it from areas to the north and around Marseille. A victory by ecologists

announced that a new thermal solar energy project would be built. It will be located near Nice airport, in the "Vallée du Var", an area that is being developed as a showcase for new environmental technologies and that has already been dubbed "Eco-Vallée". The solar power plant will only be a prototype, with a capacity of just 1.2 MW, for a new "low temperature" technology, but it confirms the priority the French government is giving to the development of solar energy in thermal form.

a region like the Côte d'Azur. Estrosi and the government have reached agreement to increase that to 15% by 2012 and 25% by 2020. 'Solar power is the obvious source of local energy, which represents a revolution compared to the old centralised concept of bringing in energy from outside. It's like the internet, which has drastically altered social relationships,' Thierry Lepercq, chairman of SolaireDirect, one of the rising stars of photovoltaic solar power in France, tells EER.

The problem of peaks in consumption? 'In the south-east, it is in the summer that most peaks occur, not the winter,' he replies.

So why then did EDF build new thermal power stations in the Marseille region to send electricity to Nice? 'These plans were made four years ago, they are coming to fruition. It's like an ocean tanker, it needs a certain amount of time in order to stop,' says Lepercq, underlining that EDF's renewables subsidiary "Energies Nouvelles" is becoming highly active in the area.

The French solar power industry is still in its infancy. It is the fourth largest in Europe, but 50 times smaller than in Germany. From 6MW in 2006, it should reach 170MW in 2008, with a target of 5,400MW in 2020. Jean-Louis Borloo,

'It would not be surprising if we saw a wave of speculation to get a foothold in the network'

in overturning plans to run a power line through the spectacular Vernon gorges has played no small part in the present situation.

Mayor Christian Estrosi, a close ally of President Nicolas Sarkozy, went off the deep end. His pressure led the French government to announce the building of 225kV underground power lines and an improvement in the connection with the Italian grid. In addition, Estrosi

France was a pioneer in this technology, with the celebrated Odeillo unit, in the Pyrenees, which opened as early as 1983, but was closed down three years later. Now the thermal process is back in fashion. A "national demonstration plant" is already under construction in the Alps above Nice, at Aspres sur Buëch. With a capacity of 12MW, it should be operational in 2010.

Local energy production currently represents only 10% of consumption in

Minister for Sustainable Development, has said that each of France's 26 regions will have at least one largescale solar park by 2011, for a total power capacity of 300MW. The south of France will be the most targeted, but some more northerly regions are already very active. The biggest solar park will be built in the Rhone-Alps region, near Chambéry.

Households and small companies are rushing to take advantage of new feed-in tariffs the government has put in place. They can sell their power to EDF for 57 eurocents per kWh, one of the most attractive rates in Europe. With tax credits at the outset, and credit available over 20 years, solar systems can be set up at no cost. Large enterprises get 45 eurocents per kWh, also a very attractive proposition in relation to the average production cost, which is estimated at

between 30 and 40 eurocents. 'It is not surprising that demand is snowballing, but there is a risk of congestion in the network and a high inflation of margins, from producer to distributor to installer,' says Stéphane Meunier, associate director of consulting company Sia Conseil. 'It would not be surprising if we saw a wave of speculation to get a foothold in the network. But there are limits because too much photovoltaic production can pose problems of integration in the grid, particularly in the local distribution network.'

Some critics believe that rather than subsidising solar power, taxes on energy should be raised and the insulation of buildings made obligatory. Jean-Marc Jancovici, an engineer close to the ecological movement, accuses minister Borloo of 'playing to the gallery' in order

not to have to take decisions which might hurt. 'Photovoltaic electricity represents 1/10,000th of the energy consumed in the world at present. But even if it were to develop at the rate of 30% a year, it would not begin to compensate for the expected fall in the supply of oil. And that is true for all energy from renewable sources,' he says.

There are also those who warn that the installation of large solar power plants could create conflicts of interest over agricultural land. One photovoltaic plant at Vinon sur Verdon covers 10 hectares. It would take 350 such solar plants to produce the equivalent of a new generation nuclear reactor. The problem of density and power is a delicate one in a country like France where tourism is a major industry and part of the national heritage. ■

Solar power station at Odeillo-Font-Romeau in France's Eastern Pyrenees. Photo: Science Photo Library

