Monday May 28 2007

Mainland to push solar energy schemes

Eric Ng in Beijing

Beijing plans to make a major push to develop solar energy projects this year in a bid to meet its 2010 target and it is likely to award projects by open bidding to keep costs down, according to a policymaker.

Shi Lishan, director of the renewable energy bureau at policy-setter National Development and Reform Commission (NDRC), told an energy conference over the weekend that his bureau planned soon to meet local authorities nationwide on solar energy development.

'Last year, we held a meeting to push biomass power generation; this year we will push solar,' Mr Shi said.

The central government plans to make renewable energy account for 16 per cent of the country's total energy consumption by 2020 from 7.8 per cent last year, as part of efforts to cut pollution emitted by coal-fired plants.

Mr Shi said Beijing was preparing pilot projects of 50MW each for the sunlight-rich Inner Mongolia and Xizang autonomous regions as well as Gansu province in the west and the north.

Solar energy is considered one way to power up remote and sparsely-populated rural regions that are under-served by electricity power grids.

The development will be complemented by a mandatory solar panels mounting policy on high-rise buildings in Beijing, Guangzhou and Shanghai. 'Some sort of initiatives will be launched to coincide with the Beijing Olympics,' he said without disclosing the timetable or scope of the impending policy.

Mr Shi said the solar power tariff for commercial projects was likely to be determined by open tender. 'There should be proper competition,' he said. 'But basically we'll approve projects by investors with sufficient funds in areas with the right resources.'

The central government's target is to raise the nation's solar generation capacity from the current 80MW to 300MW by 2010, and 1,800MW by 2020. This would be partly achieved by mounting 150 square metres of roof-top solar panels atop city buildings by 2010, which will be doubled to 300 square metres by 2020. One-third to half of the 300MW target for 2010 will come from rural or uninhabited regions, with the rest from urban areas.

According to Li Junfeng, deputy director of the NDRC's Energy Research Institute, China has 1.3 million square metres to 1.4 million square metres of open land suitable for large-scale solar power development.

Based on an industry standard that 1,000MW of solar generation capacity can be built for every 100,000 square metres of open area, this could potentially be developed into 13,000MW to 14,000MW of solar capacity.

Solar energy's exploitation in China has been held back by insufficient infrastructure in solar-rich remote areas and high equipment costs. At an average investment cost of US$6 million per MW, solar capacity is about 12 times as expensive as coal-fired power plants to build.

Tariffs vary from 20 US cents to 50 US cents per kilowatt-hour in the United States, five to eight times the current average power tariff in China, according to Mr Li.

This means a combination of mandatory usage and subsidies are needed for the government to

realise its solar development goal.

'The cost of solar energy is too high and in the short term it won't fall much,' said Wang Zhongying, director of the Energy Research Institute's renewable energy development research centre. 'But by 2040 or 2050, solar will definitely be mainstream - a renewable energy with some of the best development potential ... at least it is more reliable than wind energy.'

To make renewable energy projects viable, Beijing passed a national renewable energy law early last year stipulating that power distribution companies must buy all the power produced by generators.

It also provided that the excess of renewable energy tariffs over the average coal-fired power tariff would be subsidised by tariff increases.