Power and Water in the GCC: The Struggle to Keep Supplies Ahead of Demand

Description:

We provide a comprehensive overview of recent developments in the power and water generation sector and assesses the outlook for the sector up to 2015.

The GCC utility sector is entering a critical phase. Four years of strong economic growth has fuelled demand growth of about 10 per cent a year for electricity and 8 per cent a year for desalination. A lack of investment in the first half of the decade has meant that reserve power capacity has fallen significantly in all bar Abu Dhabi, raising the prospect of power shortages especially in Kuwait, Dubai and parts of Saudi Arabia. With little prospect of a regional economic slowdown, as a result of oil prices and investment levels remaining high, the GCC is facing an unprecedented capacity building programme. An estimated 60,000MW of new capacity, representing 80 per cent of current installed capacity, will be required by 2015, while desalination capacity will have to double to over 5,000 million gallons a day (g/d) to meet the projected demand. The actual capacity requirements will be even greater if planned decommissioning of existing capacity takes place on account of its age. In relative terms, Dubai faces the biggest new-build programme, with both power and desalination capacity forecast to triple in size to 16,000MW and 800 million g/d by 2015. In absolute terms, the highest new investment requirements will be in Saudi Arabia, where 15,000MW and about 1,000 million g/d of new capacity will be required. Based on 2007 unit costs, the GCC power sector will require about $50bn of investment in new power generating capacity and $20bn in desalination. However, a tightening engineering, procurement and construction (EPC) market, on account of the high volume of work and the limited pool of major contractors, is likely to see unit costs continuing to rise over the short term. The role of developers will expand further, with 2008 set to be the first year that new capacity contracted from the private sector exceeds that awarded on an EPC basis. All the major clients in Saudi Arabia are now committed to private power and desalination, leaving just Dubai and Kuwait following the traditional method of procuring new capacity. While Kuwait is unlikely to embark on the private route, as a result of political opposition in parliament, Dubai may, especially if developers can assist in securing new feedstock allocations. The most pressing issue facing the GCC utility market is obtaining new and competitively priced gas allocations. With competition for gas increasing from the oil sector and new industry, utilities are no longer assured of feedstock allocations. The tight gas market will have major cost implications for generators, which are likely to be hit on the one hand by higher gas prices, and on the other by the need to use more expensive liquid fuels. The gas situation is forcing utilities to assess for the first time the use and cost of new technology and alternative energy production, such as coal, nuclear and solar. However, none will provide a quick-fix solution to the capacity question, nor challenge the dominance of gas-fired generation in the medium to long term. Rising generation costs will increase pressure for a hike in customer tariffs, which in virtually all the GCC states are set well below the cost of production and distribution. With governments reluctant to sanction tariff increases for their own populations, non-national consumers will bear the brunt of any increases. Far more attention will have to be placed on demand supply management in the GCC in the coming years. Conservation measures, such as energy efficient buildings, district cooling, metering and grid interconnections, are slowly moving up the agenda but will need to be pursued and enforced much more rigorously. Public awareness campaigns also have a big role to play in curbing demand, as was proved in Kuwait in the summer of 2007, when a sustained programme by the government, highlighting the very real threat of impending power outages, resulted in peak demand actually falling by 10 per cent.
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