rate that is close to base load throughout the year, with the remaining demand requirements to be supplied from either Delimara 3 or the interconnector (as a fast acting balancing tool).

The Implementation Agreement does provide Enemalta the flexibility to profile quantities on a monthly basis through the monthly process. However this is 2 months ahead of when the gas or power is to be lifted and there are restrictions in the rate at which gas and power can be lifted. This, along with the obligation for Enemalta to take delivery of Enemalta Take or Pay Quantity, and unnecessary exposure to price volatility within the traded power market as well as the need for a secure supply for the Maltese power market, means that it is highly likely that Delimara 4's role will be to supply baseload power to the Maltese power market, with the interconnector's role being as a flexible mean of balancing the market.

9.1.4.2 Competition from the Interconnector

The annual Take or Pay quantity set out in the Implementation Agreement is 14 MMBtu of LNG, which would provide sufficient gas for the generation of just under 2 TWh/y of electricity, requiring both plants to operate at full load for 5540 hours per year (i.e. 63 % of the time). Combined with increasing volumes of generation from renewable energy sources, this would significantly reduce the use of the interconnector.

The Power Purchase Agreement (PPA) allows Enemalta to dispatch the D3 and D4 plants as necessary to match supply and demand for the electricity system as a whole. Recent history has shown that Enemalta will maximise its electricity purchases from the Italian electricity market whilst prices there are low, with the interconnector running at almost full capacity (averaging 88 % for the first nine months of 2016), despite the potential risk of a trip on the interconnector resulting in an island-wide blackout.

With LNG priced at 9.4 €/MMBtu during the five years of the initial, Fixed Price Period, the cost of generation at both D3 and D4 plants, excluding the fixed capacity component, would be about 72 €/MWh[1]. This would be more expensive than the average cost of electricity via the interconnector in 2015 of 58 €/MWh (2014 was 81 €/MWh, and 2016 to September was 46 €/MWh). At these recent price levels the economic incentive for Enemalta, were it not for the TOP obligation, would be to use the interconnector rather than run the D3 and D4 plants. The difference is significant (see Figure 9-3). Economic dispatch of D3 and D4, ignoring TOP, would result in operation for only 500-600 hours per year (highlighted by the red circle on the chart), consuming only 1.3-1.4 million MMBtu. The concern is that Enemalta would have direct evidence of the extra costs incurred by buying LNG at a high price (in today's market) – would have been €11 million in 2015 – which could provide an incentive to renegotiate terms.

[1] D4 generation cost is based on the PPA terms, assuming LNG price 9.4 €/MMBtu and average efficiency of 51.7 % over the first five years, plus 4.10 €/MWh variable operating cost. D3 generation cost is based on the GSA terms to calculate gas price, which is the LNG price plus €0.07/MMBtu variable operating cost of the regasification facilities, combined with estimated average efficiency of 49 % and 4 €/MWh variable operating cost for the power plant. Half the units in D3 are dual-fuel; ignition is provided by a pilot fuel, gasoil or HFO. The amount of pilot fuel is equivalent to approximately 5% of the fuel energy input at full engine load.