UCE Data Request 3.3

Risk analysis: How does the Company analyze carbon risks associated with Front Office Transactions (FOTs) in its risk analysis?

Response to UCE Data Request 3.3

The Company develops resource portfolios using the System Optimizer model (SO Model) within a wide range of scenarios that include varying start dates and price points for prospective CO_2 price assumptions. The CO_2 price assumption for any given scenario is applied as a dispatch cost to fossil fuel generation resources in the development of wholesale electricity price forecasts produced with the MIDAS model as depicted in Volume I of the 2013 Integrated Resource Plan (IRP); specifically Figure 7.5. The basis for pricing front office transactions (FOTs) is the electricity price forecast for the specific delivery period (i.e. annual flat or third quarter heavy load hours), inclusive of the incremental cost for CO_2 emissions reflected in the electricity price forecast.

The same concept is applied in the Company's stochastic risk analyses using Planning and Risk (PaR) in stochastic model. In this phase of the IRP modeling process, carbon risk associated with FOTs is captured through scenario analysis, whereby three different CO_2 price assumptions (zero, medium, and high) are evaluated in the stochastic PaR simulations. In each of these PaR simulations, FOTs are priced inclusive of the CO_2 costs reflected in the associated electricity price forecast (i.e. the electricity price forecast varies among the zero, medium, and high CO_2 price scenarios). The price for FOTs is further subjected to the same Monte Carlo random sampling process that is applied to electricity prices that drive system balancing sales and purchases.