

7. RISK ANALYSIS

7.1 INTRODUCTION

This Chapter of the OBC details the risk analysis of the short-list options undertaken by PriceWaterhouseCoopers. The work was completed with the full input from the Trust and its advisors. The methodology used follows that described in the PFI Good Practice Guidance. Full details of the analysis and the risk matrix are provided in Appendix 14 and 15.

7.2 THE PROJECT RISKS

The key project risks have been identified as:

- Planning risks.
- Design risks.
- Construction and development risks.
- Availability and performance risks.
- Variability of revenue risks.
- Operating cost risks.
- Termination risks.
- Technology and obsolescence risks.
- Control risks.
- Residual value risks.
- Land sales and receipts risk.
- Medical equipment risks.

7.3 METHODOLOGY USED TO QUANTIFY THE RISKS

For each key project risk a number of specific risks were identified. For each risk the three scenarios were identified, Best, Medium and Worst. For each scenario an impact cost and its probability were identified. These values were then summed to produce an expected risk cost. A separate assessment of each risk was made for each option to take into account the differences between the options. This analysis is detailed in the risk matrix, see Appendix 15.

The assessment process was conducted using a series of workshop sessions attended by the Trust and the technical advisors. Where actual data or evidence on a particular risk was available this was shared with the assessment teams.

7.4 RISK COSTS

The expected cost of each risk has been plotted over the periods it would occur and discounted at 6% to give the Net Present Cost (NPC) for each option. The results show the ECH option has the lowest risk cost. See Table 56.

Table 56 – Assessment of Risk (NPC @ 6% discount rate)

	ECH Option (£000)	PDH Option (£000)	Do Min Option (£000)
Construction Risks	20,336	25,803	19,673
Operating Risks	45,146	49,787	55,856
Total Risk Cost	65,482	75,590	75,529
Ranking	1	3	2

7.6 SENSITIVITY TESTING

The NPC of the risk costs have also been assessed at a discount rate of 3.5% in accordance with the revised Green Book. The results show the ECH option still has the lowest risk cost although the relative positions of the other two options change. See Table 57.

Table 57 – Assessment of Risk (NPC @ 3.5% discount rate)

	ECH Option (£000)	PDH Option (£000)	Do Min Option (£000)
Construction Risks	22,030	28,079	21,522
Operating Risks	79,948	88,469	99,298
Total Risk Cost	101,978	116,548	120,820
Ranking	1	2	3

7.7 MANAGEMENT OF THE RISK RETAINED BY THE PUBLIC SECTOR

The risks retained by the public sector will be limited to:

- Trust changes.
- Variations in Trust income.
- Variations in activity levels.
- NHS specific changes in legislation.
- Control of clinical services.