# Cost Benefit Analysis of the North City Operations Depot (NCOD) Project

**Executive Summary** 

Report to Transformation Unit of Dublin City Council 24<sup>th</sup> October 2018



## **Executive Summary**

The existing Dublin City Council (DCC) depot network consists of 37 depots providing operations facilities for 1,400 staff and over 600 vehicles. The network has evolved over time, and today is spread across the city on disparate sites, some of which are inappropriately located. The facilities for staff are of varying quality and the existing depot network does not support the highest levels of operational efficiency.

Recognising the critical role played by operation depots and direct labour in the delivery of the City Council services, as well as the fragmented nature of the existing depot network, DCC established the Depot Consolidation Project. Following extensive analysis and consultation by DCC, a consensus emerged that all north city operations could be consolidated into a single North City Operations Depot (NCOD), situated on an existing Council-owned site in Ballymun (the NCOD Project). The consolidation of DCC's south city operations is also under review.

Consequent to the foregoing, the Council commissioned EY-DKM to prepare the Cost Benefit Analysis (CBA) for the project.

Based on DCC-supplied information, the following is a summary of the costs and benefits of the NCOD project, in 2018 money terms (summary spreadsheets are presented in the appendix):

- the estimated capital cost of the project is
- The opportunity cost of the Ballymun site is €4.5 million
- Vacated depots owned by the Council have a market value of approximately €59 million, while vacating leased premises will over time enable the avoidance of rental costs of €298,000 per annum
- Payroll savings will grow over time, from approximately €500,000 per annum to €2.25 million per annum. Additional payroll costs will arise for a new depot manager and three other staff, amounting to approximately €360,000 per annum. These values include 1% per annum growth in "real" wages, and payroll-related overheads
- Other savings (including energy and general depot costs) are estimated to amount to €867,000 per annum

Our analysis considered five options:

- Do Minimum (i.e. continue as is)
- Do NCOD Project
- Refurbish the existing network of depots
- Consolidate within the existing network of depots
- Relocate to a leased premises elsewhere

A high level Multi-Criteria Analysis (MCA) reduced this down to Do NCOD Project and Refurbish as being the most viable options, by reference to a range of criteria.

An Exchequer Cashflow Analysis and a Socio-economic Cost Benefit Analysis (CBA) were undertaken, in line with the Public Spending Code. These assess the project from the point of view of the public

sector and of society as a whole, respectively. In addition, a DCC cashflow analysis is undertaken, to assess the project from the perspective of DCC itself. This differs from the Exchequer cashflow analysis in terms of the cost of borrowing facing the project, the actual cash values realised and compensation for the vacated sites, and the fact that DCC cannot recover VAT.

Key evaluation outputs are:

- ▶ Net Present Value (NPV) the value in today's money of the net monetary flows
- ▶ Internal Rate of Return (IRR) the rate of return generated on the project
- ▶ Benefit Cost Ratio (BCR) the ratio of the benefits to the costs (in today's money)

The most important indicator is NPV, as this gives the net value in monetary terms of the project. It can be considered the Profit & Loss account for the project. IRR and BCR effectively give the ratio between benefits and costs. For options where costs are low, this can result in a higher IRR and BCR, but what this does not capture is that the option with the highest NPV - the highest net benefits to society - is then foregone.

The results of the Exchequer Cashflow Analysis can be summarised as follows:

## Results of Exchequer Cashflow Analysis

Option	NPV (€'000)	NPV Compared to Refurbish (€'000)	IRR	BCR
Do Project	49,422	64,411	19.6%	1.85
Refurbish	-14,989		-19.2%	0.00

The analysis indicates that the NCOD project is highly financially viable, returning a Net Present Value (NPV) of over €49 million over a 25 year timeframe. The Internal Rate of Return (IRR) meanwhile is just under 20%, compared to a cost of capital facing the project of 2.01%.

The results of the DCC cashflow analysis are as follows:

## Results of DCC Cashflow Analysis

Option	NPV (€'000)	NPV Compared to Refurbish (€'000)	IRR	BCR
Do Project	57,874	76,152	9.5%	1.91
Refurbish	-18,278		-19.3%	0.00

The NPV generated by the DCC cashflow analysis is higher than that generated by the Exchequer cashflow analysis, because although the former includes VAT and in some cases lower property valuations, it also utilises a lower interest rate (in fact, the DCC cost of borrowing is negative in real terms, as it is lower than the expected long term inflation rate (1.8% compared to 2%).

The results were then subjected to socio-economic CBA, using a societal discount rate of 5%, the results of which were as follows:

## Results of Socio-economic Cost Benefit Analysis

Option	NPV €′000	NPV Compared to Refurbish (€'000)	IRR	BCR
Do Project	38,267	54,745	19.6%	1.79
Refurbish	-16,478		n/d	0.00

<sup>\*</sup>n/d: not defined.

These results indicate that, in socio-economic terms, Do Project is highly worthwhile, and returns an NPV of over €38 million or almost €55 million higher than the alternative option of Refurbish.

These results were subjected to scenario analysis, as follows:

## Scenario Analysis Tests

Factor	Base Value (used in CBA)	Scenario Analysis Value
Discount rate (net of inflation)	2.01% (Exchequer cashflow) -0.2% (DCC cashflow) 5% (socio-economic CBA)	Base x 1.5 applied to rate before inflation adjustment
Upfront capital expenditure	As per Chapter 4	Base x 1.5
Valuation of benefits	As per Chapter 4 & 5	Base x 0.5

In addition, the cash realised from the sale of depots includes sales of some depots which are not dependent on the relocation to NCOD, namely Cromcastle Court, Stanley Street, Gulistan Terrace and O' Rahilly Parade. Almost €38 million is expected to be realised from their sale or reuse. It is important to assess how sensitive our results are to the inclusion of these proceeds. The results of these tests are presented below.

## NCOD Project Scenario Analysis - Exchequer cashflow

Scenario	NPV €′000	NPV Compared to refurbish €′000	IRR	BCR
Do Project, Base Case	49,422	64,411	19.6%	1.85
Discount rate plus 50%	37,649	51,339	19.6%	1.65
Capex plus 50%	24,608	43,142	6.4%	1.30
Benefits minus 50%	-13,578	1,411	-1.2%	0.77
Exclude Depots not Relocating to NCOD	13,767	28,757	4.3%	1.24

## NCOD Project Scenario Analysis - DCC Cashflow

Scenario	NPV €′000	NPV Compared to refurbish €'000	IRR	BCR
Do Project, Base Case	57,874	76,152	9.5%	1.91
Discount rate plus 50%	46,848	64,104	9.5%	1.73
Capex plus 50%	28,805	51,235	2.8%	1.31
Benefits minus 50%	-16,906	1,372	-2.7%	0.73
Exclude Depots not Relocating to NCOD	19,929	38,207	1.8%	1.31

#### NCOD Project Scenario Analysis - Socio-economic CBA

Scenario	NPV €'000	NPV Compared to refurbish €'000	IRR	BCR
Do Project, Base Case	38,267	54,745	19.6%	1.79
Discount rate plus 50%	25,009	39,625	19.6%	1.50
Capex plus 50%	7,324	28,222	6.4%	1.09
Benefits minus 50%	-25,040	-8,562	-1.2%	0.60
Exclude Depots not Relocating to NCOD	-4,316	12,162	4.3%	0.93

## The tables indicate that:

- A higher discount rate reduces the NPV significantly, but Do Project remains highly positive, whether from the Exchequer cashflow, DCC cashflow or socio-economic CBA perspective
- Increasing the capital cost of the project by 50% likewise has a significant negative impact, from the Exchequer, DCC and socio-economic perspectives, but again Do project remains highly viable
- A scenario was undertaken whereby the benefits (including the proceeds of sites sales) turn out to be half the expected value. This greatly reduces the project viability, to the point of turning the NPV negative, reflected in the fact that the IRR goes below the cost of borrowing/discount rate, from all three perspectives. This is a very severe test, and the fact that it turns the NPV negative is therefore perhaps not surprising. However, so long as the actual benefits turn out to be at least 74% of the level expected in the socio-economic CBA (65% in the Exchequer cashflow analysis, 67% in the DCC cashflow analysis), the Project will break even
- Finally, excluding depots not to be relocated to NCOD has a substantial negative impact on the project's financial viability, cutting the NPV by over €40 million in the socio-economic CBA. The NPV becomes negative in the Socio-economic CBA under this scenario; however it remains preferable to the alternative of a refurbishment of the existing depots

It is also worth bearing in mind that the analysis undertaken here has erred on the side of caution in that a number of benefits have not been valued, including:

- By virtue of the constrained conditions in many of the existing depots, there is a risk of health and safety management issues arising, for both staff and the public. Likewise, the Council operates under the ongoing risk of injunctions against the continuing operation of many of the depots, given that they are not compliant with zoning, and are in inappropriate, built-up locations. Relocation would generate amenity benefits in these locations
- Significant social benefits can be expected from repurposing the existing network of sites to higher value, more appropriate, planning-compliant uses. This will generate the opportunity to address a number social priorities via the release of these sites from the current usages, most notably addressing the serious shortage of housing (particularly social housing) in the city.
- Avoided costs in rented depots to be vacated include rent and management fees, but exclude other charges such as service charges, stamp duty, and indemnity. The risk that rents might increase from current levels, going forward, was also not taken into account
- One-off saving in stock-holding on consolidation has not been evaluated

In summary, based on the analysis in this report, the NCOD project exhibits strong financial viability, and is robust to significant downside risks.

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