



MONASH  
University

MONASH  
BUSINESS  
SCHOOL

**Department of  
Econometrics &  
Business Statistics**

☎ (03) 9903 4416  
✉ [BusEco-Econometrics@monash.edu](mailto:BusEco-Econometrics@monash.edu)

ABN: 12 377 614 012

# Capital Delivery Model Data Analysis

**Arindom Baruah**

Master of Business Analytics, Monash University

Report for

Melbourne Water Corporation, Monash University

**20 July 2024**



## Table of contents

1	List of abbreviations and terminologies	2
2	Executive Summary	3
3	Data Source	3
4	Introduction	3
5	Relevance of the current study	4
6	Methodology	4
7	Results and Discussion	4
8	Conclusion	4

## 1 List of abbreviations and terminologies

The analysis report will use numerous abbreviations and terminologies at various stages. This section will serve as a reference for what do these abbreviations mean alongwith their definitions.

1. **BNI** : Business Need Identifier
2. **PBC** : Preliminary Business Case
3. **BCA** : Business Case Approval
4. **Stage 1** : First stage of project completion
5. **Stage 2** : Second stage of project completion
6. **Stage 3** : Third stage of project completion
7. **FFC** : Final forecasted cost of project
8. **ID** : Unique identification for each individual project
9. **Owner group** : The division within Melbourne Water Corporation responsible for completing the particular project
10. **Delivery Program** : The subdivision within Melbourne Water Corporation responsible for completing the particular project

Table 1: Project data

ID	FFC	Delivery Program	Tender Closed	Owner Group	BNI
Q05388	2359288.6	Major Works - Framework	NA	Corporate Services	5/02/2016 5:00:00 P
Q05640	2066075.6	Major Works - Framework	NA	Corporate Services	11/07/2016 5:00:00
Q05641	1066164.9	Major Works - Framework	NA	Corporate Services	24/06/2016 5:00:00
Q05643	1122487.0	Major Works - Framework	NA	Corporate Services	11/07/2016
Q05664	636484.8	Major Works - Framework	NA	Corporate Services	11/07/2016 8:57:00
Q05666	906031.7	Major Works - Framework	NA	Corporate Services	8/07/2016 8:58:00 A

2 Executive Summary

The purpose of this study is to outline the methodology and guidelines for conducting the Capital Delivery Model project data analysis. This analysis aims to develop a reproducible framework that compares the current delivery model with past models, providing valuable insights to enhance future delivery models planned for years between 2026 to 2031.

By systematically examining past and present performance, the aim is to identify key trends, strengths, and areas for improvement, ensuring that future projects are executed more efficiently and effectively.

For the purpose of the current analysis, Melbourne Water Corporation’s project data with business need identifier (BNI) dates between 2008 to 2024 were analysed. The major areas of focus for the current analysis are delineated as follows:

- 1. Distribution of the projects in each delivery model based on the overall valuation of the projects as determined by the final forecast cost (FFC).
- 2. Distribution of the projects in numbers for each delivery model.
- 3. Distribution of project duration based on their overall valuations.
- 4. Project approval duration distribution across different stages of approvals.
- 5. Forecasted number of projects in the future delivery period from 2026 to 2031.

Confidentiality statement

To comply with Melbourne Water Corporation’s confidentiality requirements, the data has been de-identified and includes only the relevant fields necessary for obtaining insights for the intended evaluation purpose.

3 Data Source

4 Introduction

## **5 Relevance of the current study**

## **6 Methodology**

## **7 Results and Discussion**

## **8 Conclusion**