**HUB PROGRAMME DELIVERY OFFICE**

**GUIDANCE NOTE 05/13**

**SFT Payment Mechanism Model**

**May 2014**

Contents

[Introduction 2](#_Toc384893119)

[Structure of the Model 2](#_Toc384893120)

[Calibration Process 3](#_Toc384893121)

[Inputting Information into the Model 3](#_Toc384893122)

[Calibration Principles in the Model 3](#_Toc384893123)

[Calculated Thresholds 7](#_Toc384893124)

[Appendix A – Schools Scenarios 8](#_Toc384893125)

[Appendix B – Health Centre Scenarios 9](#_Toc384893126)

[Appendix C – Input Requirements 10](#_Toc384893127)

# Introduction

The SFT Payment Mechanism Model has been developed to work in conjunction with the Standard Form Schedule 14 Payment Mechanism for both hub and NPD Projects. The Model has been developed to allow the calibration of the required inputs for both Schedule 14 and the Project Agreement relating to Performance and Availability deductions.

These items are:

* Schedule Part 14, Clause 2.1(a)
* Schedule Part 14, Clause 2.1(b)
* Schedule Part 14, Clause 2.1(c)
* Schedule Part 14, Clause 2.3
* Schedule Part 14, Clause 5
* Schedule Part 14, Service Unit Rate Definition
* Schedule Part 14, Deduction Period Definition
* Schedule Part 14, Minimum Availability Deduction Definition
* Schedule Part 14, Service Unit Rate Definition
* Project Agreement Clause 24.3.2
* Project Agreement Clause 40.1.8 & 24.3.1

# Structure of the Model

The model is based on 7 worksheets:

Summary – This worksheet summarises the inputs and outputs that are currently being used in the model. This sheet is used for the input of the project title (Cell A2).

Financial Scenarios – Allows for analysis of the effect in relation to differing level of deductions, gearing, Annual service payment and Indexation Factor.

Performance Failure Scenarios – Allows the input of Authority Performance expectations and tolerances used to derive the Warning Notice and Termination thresholds and the levels for Minor Deduction relief and Repeated Rectification. Summary tables along top summarise the number of failures in each scenario, the number of deductions and the number of deductions corrected for relief and ratchets.

Performance Scenario – Graphical representation of the corrected deductions levels for each scenario.

Gross Service Units – Allows the Authority to develop the Gross Service Units for the Facility

Availability Scenarios - Allows the input of Authority Availability expectations and tolerances used to derive the Warning Notice and Termination thresholds. This includes Scenarios for Unavailable but Used.

Threshold Model – Used to calculate the Thresholds and includes the 25 year model to include a correction for the deterioration of the threshold value over 25 years.

# Calibration Process

The calibration of the model is an iterative process based on establishing the base model with the necessary inputs then making adjustments in key areas until a position is achieved that is acceptable to the Authority and the Authority’s Advisers are confident demonstrates a marketable position.

It should be note that this is unlikely to be the final position as it might still be subject to negotiation from hubco/bidders and input from the Funders Technical Adviser. Figure 1.1 overleaf summarises the initial calibration process.

# Inputting Information into the Model

The Authority should work with their appointed Financial and Technical Advisers in developing the Payment Mechanism model for project specific use to ensure that the model is correctly calibrated, representing a realistic and equitable output. Where inputs are required from the Authority these cells are highlighted in yellow, all other cells are locked to prevent changes. The nature of the inputs required in each worksheet are set out in Appendix C.

# Calibration Principles in the Model

The aim of the calibration exercise is to establish fair and equitable deductions and Warning Notice and Termination thresholds for a project. To do this the Authority will need to adapt the model inputs to reflect the exact requirements and specification of their own project and undertake scenario modelling. The Payment Mechanism model is based on version 2 of the SFT Standard Form Schedule Part 14 Payment Mechanism.

For calibration purposes an Annual Service Payment (ASP) based on either the Stage 1 indicative ASP or in the case of NPD projects, the shadow bid model ASP, with the appropriate indexable portion from the same location.

1. **Performance Scenarios**

The Authority will need to determine its expectations of performance and tolerance for disruption throughout the contract. The template scenarios included with this guidance provide indicative numbers of failures for ‘good’, ‘fair’, ‘poor’ and ‘bad’ performance.

The scenario figures are expressed as the number of failures per annum, based on an average number of failures over a longer period. For example, for a given Performance Standard the expectation may be that the standard will not fail every year, rather that it may fail once in 4 years. Where this is the case, the scenario is expressed as a fraction e.g. 0.25 failures per annum.

The Authority may take a view that it would rather set out scenarios based on year one of the contract, rather than the averages used in the template scenarios. If this is the case then the Authority will need to review the template scenarios and adjust accordingly in conjunction with their Financial and Technical Advisers.

1. **Gross Service Units**

The Authority will need to set out its Gross Service Units for each Functional Area based upon the Schedule of Accommodation for the Facilities.

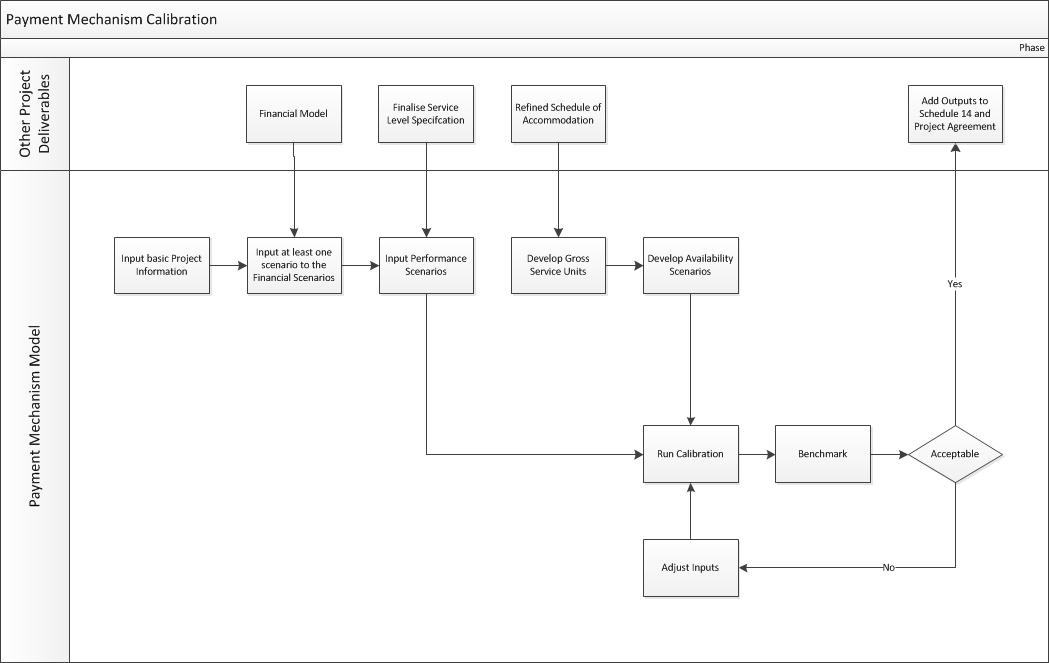
For simplicity the Authority should consider the priorities of the departments first, applying a weighting of 1-5 based on the departments criticality to the function of the Facilities. On some types of Facilities, it may not be appropriate to apply different weightings to individual departments, for example in schools. Where this is the case, it is recommended that larger groups of areas are created (distinct sections of a campus type Facility e.g. secondary school, primary school and sports facilities or the whole Facility grouped together) for the purposes of the payment mechanism with a weighting of 1 applied. This will allow the weighting differential to be determined by the application of the individual room weighting. Once this table has been completed each room within each department should then be assessed for criticality in a similar way.

Once complete the Authority should review the overall weightings generated and ensure that similar room types e.g. classrooms or consultation rooms, all have the same GSU value, likewise toilets and similar Functional Areas that do not have a distinct function that separates them from similar spaces.

1. **Termination and Warning Notice Principles**

Termination and Warning Notice thresholds are based on a percentage deduction from the Annual Service payment. Deductions can accrue through the Payment Mechanism for instances of Unavailability and / or Performance Failures. The mechanisms for calculating deductions are fully set out in Schedule Part 14 Payment Mechanism and are replicated in the model.

**Figure 1.1 - Calibration Process**



The model includes both Performance Failures and Unavailability in its calibration scenarios.

1. **Performance and Availability Scenarios**

For hub projects that are based upon the [standard design templates] for schools or health centres template scenarios for performance and availability based on the performance and availability standards set out in Section 1 of Part 12 of the Schedule (Service Level Specification). These template scenarios are set out in Appendix A and Appendix B respectively. The Authority should review these scenarios against the specifics of their projects, taking consideration of Response and Rectification Periods, Core Hours and budget considerations. The Authority should review these with their Technical Adviser to ensure they reflect the Authority’s requirements.

Any such derogation from the standard templates should be submitted to the SFT for review, as part of the overall KSR process for Stage 2.

For NPD projects, it is recommended that these are developed with the Authority Technical Adviser on a project specific basis.

The model uses scenarios that set out the number of failures against both the performance and availability standards per month that the Authority believes represents the following 4 levels of performance:

* Good;
* Fair;
* Poor; and
* Bad.

Using these performance and availability scenarios, the model calculates the level of deductions that would accrue for the Services in a month under each scenario. Each scenario should take cognisance of the potential for continued deductions where failures are not rectified in the allocated time.

1. **Performance Principles**

The principles upon which the template scenarios have been developed are that:

* The Authority is paying for and expects good performance but recognises that there are likely to be some Service Failure Points accrued under such a scenario. Where performance is bettered then relief is received through the Minor Deduction Relief;
* The Board does not believe that it is only paying for a Fair performance but recognises that there may be instances where the level of service delivered only represents Fair and in these circumstances would expect improvement. Improvement is encouraged through the Repeated Failure ratchet (Clause 5);
* The Board would not be satisfied with a Poor performance and would expect significant improvement in the situation where a Poor performance was being delivered. Three months of poor performance in a rolling 6 month period should result in a warning notice; and
* The Board would not be satisfied with a Bad performance and would want immediate improvement in the level of service being delivered. One month of bad performance should result in a warning notice and three months of bad performance in a rolling 6 month period should result in termination.

# Calculated Thresholds

The final thresholds the model generates take account of the impact of the differing levels of indexation applied to availability deductions performance deductions. The former is partially indexed in line with the Annual Service Payment while Performance Deductions are fully indexed.

The result of this is that the relative cost of deductions increases at a greater rate than the value of the thresholds. A suitable solution has been achieved in the market and has been implemented on a number of projects that have successfully achieved financial close.

# Appendix A – Schools Scenarios

Please refer to [SFT Payment Mechanism Model Guidance Appendices.xlsx].

Worksheets:

* HS Performance
* HS GSU
* HS Availability

# Appendix B – Health Centre Scenarios

Please refer to [SFT Payment Mechanism Model Guidance Appendices.xlsx].

Worksheets:

* HC Performance
* HC GSU
* HC Availability

# Appendix C – Input Requirements

This sections sets out the input requirements for each worksheet in the spreadsheet.

**Summary Sheet**

Most of the information on this worksheet is populated from information in other worksheets, the items below detail those limited inputs that are required and the effect that it has within the model.

Project Name (Cell A2) – The correct project title should be entered into the yellow box at Cell A2, this will carry through to all other sheets automatically.

Financial Scenario (Cell G6) – This allows the user to select the financial scenario inputs that are inputted in the Financial Scenarios worksheet. This will cause the model to update the inputs used in the calculations to reflect the chosen scenario and update the outputs to reflect the revised inputs.

SUR Calculation Basis (Cell 39) – The Standard Form Schedule 14 includes two calculation models for the Service Unit Rate (SUR). The first is based on the aggregate of TSD and SUF, the second is TAGSUF. The Former should be used where all areas are to be available for the same periods (the periods will be based on the Deduction Period determined for the project whether this is sessions or days) e.g. all areas open 5 days per week. The latter is used when different areas are used for different periods e.g. part of the facility is open 5 days per week the rest is open 7 days per week. Changing the value in this cell will adjust the calculation that the model uses to derive a value for SUR.

Schedule of Accommodation Version (Cell G60) – The version reference of the Schedule of Accommodation used in the Gross Service Units worksheet should be entered here and updated to reflect any amendments made. This will allow the checking process throughout the project life to work more smoothly.

**Financial Scenarios**

Allowance has been made for 10 scenarios to be reviewed

Scenario Name (Cells G11-J11) – name should be sensible and reflect the nature of the scenario so that it is easily identifiable from the Summary worksheet.

Annual Service Payment (ASPo) (Cells G12-J12) – For the purposes of calibration this value will come from the Financial Model derived either by hubco or by the Authority’s Financial Adviser on NPD projects. At later stages additional scenarios may be developed with an adjusted ASP to reflect live bids or updated cost information. This is used in the calculation of the Service Unit Rate and the percentage values for Warning Notice and Termination Thresholds.

Indexable Factor (IF) (Cells G13-J13) - For the purposes of calibration this value will come from the Financial Model derived either by hubco or by the Authority’s Financial Adviser on NPD projects. At later stages additional scenarios may be developed with an adjusted ASP to reflect live bids or updated cost information. This is used in the Threshold model to understand the impact of indexation over the 25 year period.

Sessions Per Day (Cells G17-J17) – For the majority of hub projects this should be set to 1 to reflect that the deduction period is calculated in days. Where an Authority believes it is more appropriate to divide the day up to reflect the nature of the facility then this should be discussed with Financial and Technical Advisers along with the SFT.

Estimated Profit and Risk Margin on MSP (Cells G21-J21) – This is an indicative value and should be based on benchmark information from the Authority’s advisers. This is used in the testing of the Warning Notice and Termination Thresholds to give an indicative test against.

Assumed RPI (Cells G23-J23) – This is the indicative indexation level and should align with assumptions made elsewhere in the Financial Models. This is used in the Threshold model to understand the impact of indexation over the 25 year period.

Performance Failure Deductions (Minor, Medium and Major) (Cells G28-J30) – Performance Failure Deductions should be set based on the scale of the projects, the specific nature of the project and the level of incentive that the Authority wishes to generate. These should be benchmarked against similar projects to ensure that they are considered reasonable and equitable.

Repeated Failures Ratchet (Cells G32-J32) – This Ratchet will be applied to deductions associated with a particular Performance or Availability Standard when the number of failures of the same standard exceeds a certain level over a pre-defined period. This is typically 1.5. Ratchet should be set based on the scale of the projects, the specific nature of the project and the level of incentive that the Authority wishes to generate. These should be benchmarked against similar projects to ensure that they are considered reasonable and equitable.

Ratchet Rolling Period (Cells G33-J33) – This is the rolling period over which the criteria for the above ratchet is measured. This is typically 3 months. This should be set based on the scale of the projects, the specific nature of the project and the level of incentive that the Authority wishes to generate. These should be benchmarked against similar projects to ensure that they are considered reasonable and equitable.

Gearing Applied to Gross Service Units (Cells G37-J37) – For hub projects this should be set to 100%. For NPD projects alternative levels should be considered based on the scale of the projects, the specific nature of the project and the level of incentive that the Authority wishes to generate. This should be benchmarked against similar projects that have achieved Financial Close to ensure that they are considered reasonable and equitable.

Minimum Availability Threshold (Cells G38-J38) – This establishes the approximate percentage of Functional Areas that the Minimum Availability Deduction should apply to and is used to calculate the level of the minimum deduction based on the calculations in the Gross Service Unit worksheet. For larger projects with significant numbers of rooms then this number will typically be higher than for smaller projects.

**Performance Failure Scenarios**

The majority of this worksheet is based upon calculations that run from the scenarios input within the columns headed Authority Inputs (per annum basis). The model is based upon the Standard form Schedule Part 12 Service Level Specification Performance Standards.

Failures per Year (Columns J,K,L,M) – This sets out, against each performance standard, the number of failures per annum that the Authority believes represents Good, Fair Poor, and Bad service provision. The template scenarios should be applied here as a starting consideration with adjustments made to reflect project specifics. The number of failures should take consideration of the Performance Monitoring Period, e.g. a standard that is monitored on an annual basis can only fail once per year. Fractions should be used where it is considered that a failure may only occur once every few years.

Average Rectification Deductions Periods (Columns O,P,Q,R) - This sets out, against each performance standard, the average number of Deduction Periods that the Authority believes represents Good, Fair Poor, and Bad service provision. The template scenarios should be applied here as a starting consideration with adjustments made to reflect project specifics. The number of failures should take consideration of the Remedial Period.

Relief and Ratchet Thresholds, Manual Thresholds (Cells Z10–Z13) – The model will calculate values for the Relief and Ratchet Thresholds automatically based upon the performance scenarios input. This allows these calculated thresholds to be manually overridden if it is felt that the calculated values are inappropriate.

**Gross Service Units**

This worksheet requires a significant level of input from the Authority depending on the complexity of the project and its associated payment mechanism inclusions. To ease this the worksheet has 4 key areas of input requirements as follows:

* Department Table
* Weighting Adjustment Table
* Main GSU Table
* Consequential Unavailability Modelling

Buttons are provided to allow users to add additional rows (one at a time or ten at a time) to the model if more are required, these buttons will ensure that formulae are carried through as necessary.

1. **Department Table**

Department (Cells B10-B28) – This column should list the departments within the Facility.

Comments (Cells C10-C28) – This allows the Authority to annotate the departments to highlight anything relevant.

Department Priority (Cells D10-D28) – This sets out the priority based on a 1-5 score with a score of 5 representing departments that are most critical to the facility.

Days (Cells E10-E28) – This sets out the number of days the department operates and the Payment Mechanism should apply.

Sessions (Cells F10-F28) – This sets out the number of Deduction Periods per day that the Department will operate. For hub projects this should be 1 to represent Days rather than Sessions unless otherwise deemed required and agreed.

1. **Weighting Adjustment Table**

This table allows the separation of the calculated weightings to be adjusted to manipulate the deduction levels for each weighting band.

Weighted (Cells I10-I23) – Sets out the range of adjusted weightings, these should be reviewed in conjunction with the Authority’s Technical and Financial Advisers.

1. **Main GSU Table**

The Main GSU Table makes allowances for up to 150 separate Functional Area types, should additional rows be required this should be discussed with the SFT.

Ref (Column A) – This column should be populated using referencing that can tie the Functional Area(s) back to other documentation such as the Authority Construction Requirements, Schedule of Accommodation and Environmental Matrices for ease of identification.

Sub Area (Column B) - This column should be populated if the scale of the building warrants it but should tie the Functional Area(s) back to other documentation such as the Authority Construction Requirements, Schedule of Accommodation and Environmental Matrices for ease of identification. This may represent FM spaces in a department or similar sub groupings.

Room Name (Column C) - This column should be populated using room naming that tie the Functional Area(s) back to other documentation such as the Authority Construction Requirements, Schedule of Accommodation and Environmental Matrices for ease of identification.

Department (Column D) - This column should be populated using the department names that tie the Functional Area(s) back to other documentation such as the Authority Construction Requirements, Schedule of Accommodation and Environmental Matrices for ease of identification.

No of Rooms (Column E) – This column should be populated with the number of instances of that Functional Area type within the Facility e.g. 20 Classrooms or 8 Consulting Rooms.

Room Priority (Column F) - This sets out the room priority within the department based on a 1-5 score with a score of 5 representing rooms within a department that are most critical to the facility.

Paymech Room No. (Column G) – This column should be used to identify the reference to be used for a Functional Area for Payment Mechanism purposes, this should replicate the Ref column except where rooms have been grouped together into a single functional area (e.g. vestibule and changing room, or dedicated waiting area and consulting room) where one of the Ref values should be selected to identify the space.

Consequential Areas (Column H) – This should set out, using the Ref values of the appropriate areas, the areas that would be deemed to be consequentially unavailable as a result of the Functional Area being deemed Unavailable.

1. **Consequential Unavailability Modelling**

This table is to be used where Consequential Areas have been established in Column M. The Initial Room name should be entered into cells in row 38, with a 1 entered below this for each Functional Area that is deemed to be consequentially Unavailable.

This allows Authority’s to assess the impact that consequential unavailability will have in terms of deduction levels and assess these against warning notice and termination triggers.

**Availability Scenarios**

This worksheet is used to calculate nominal scenarios for the purposes of establishing the Authority’s expectations in terms of Unavailability and Unavailable but Used. The process uses a process of surrogate scenarios rather than establishing a full set of scenarios against each space. For example scenarios may be based around a toilet being out, this is not to suggest that this specific Functional Area will be Unavailable/Unavailable but Used for the number of occasions specified more that rooms of an equivalent priority/deduction level are Unavailable/Unavailable but Used for that number of occasions.

The template scenarios should be applied here as a starting consideration with adjustments made to reflect project specifics. Inputs should be based on an annual basis.