RTMC
Technology Key Performance Indicator Handbook

V1.0

Table of Contents

Document Control

Document Title	RTMC Technology Key Performance Indicator Handbook
Author(s)	John Beavis (extracted from TechMAC MST)
Owner	Tod Wood
Distribution	Members of Performance Management Advisory Group, TechMAC and RTMC managers
Document Status	Live

Revision History

Version	Date	Description	Author
1.0	16/7/2012	1st version, extracted from TechMAC MST	John Beavis

Approvals

Name	Document Version	Approval Date
Tod Wood	1.0	16/7/2012

Indicator Ref. & Title	TKPI 1: Rectification of Hard Faults

Measure — **Maximise availability of Traffic Technology Systems**

Purpose / Description — To measure the efficiency and effectiveness of the Provider's fault rectification service. The *Provider* should rectify faults on the Area Network as quickly and effectively as possible in order to minimise any danger, disruption or delay to the public, or damage to the Area Network and / or local environment.

Indicators

TKPI 1A — Number of category A, B and P faults where service is restored within the Restore Service times stated in Annex SI 13, as a percentage of the total number of such faults.

TKPI 1B — Number of category C, D and E faults where service is restored within the Restore Service times stated in Annex SI 13, as a percentage of the total number of such faults.

Definitions

Fault — A disruption or potential hazard to the operation, safety and/or integrity of the Area Network (or adjacent land) that requires an immediate response by the *Provider*. The fault has to have existed in HALOGEN for a duration longer than 20 minutes.

Category — See Annex SI 13 Performance Requirements.

Data Source — Provider's FLOG (fault logging) database, HALOGEN

Data Input — Frequency / Reporting Period: Calendar month

Fields

Total Number of category A faults.	(A)
Total Number of category B faults.	(B)
Total Number of category P faults.	(P)
Total Number of category C faults.	(C)
Total Number of category D faults.	(D)
Total Number of category E faults.	(E)
Number of category A, B and P faults where Service is restored within the Restore Service times.	(F)
Number of category C, D and E faults where Service is restored within the Restore Service times.	(G)

Calculations (Individual Monthly Performance)

Measure	Calculation	Type	Decimals	Report
TKPI 1A (M)	(F/(A+B+P))*100	Percentage	1	G + T
TKPI 1B (M)	(G/(C+D+E))*100	Percentage	1	G + T

Calculations (Rolling 12 Month Performance) i.e. current month + preceding 11 months

Measure	Calculation	Type	Decimals	Report
TKPI 1A (A)	$(\sum F/(\sum A + \sum B + \sum P))*100$	Percentage	1	T
TKPI 1B (A)	$(\sum G/(\sum C + \sum D + \sum E))*100$	Percentage	1	T

Note: $\sum$ = the aggregation of input data for the current month and the preceding 11 months.
(M) Monthly indicator (A) Annual indicator

Indicator Ref. & Title	TKPI 2: Maintenance programme implementation

Measure **Provide Accurate Programme Information**

Purpose / Description To measure the *Provider*'s ability to schedule its works so as to be consistent with programmed schedules. The Provider should manage its resources to ensure all planned works are completed as programmed at the start of the year.

Indicators

TKPI 2A Number of Planned Maintenance activities, excluding electrical activities, completed in the year to date, as a percentage of the total Planned Maintenance activities, excluding electrical activities, in the Planned Maintenance Programme.

TKPI 2B Number of Planned Maintenance electrical activities completed in the year to date, as a percentage of the total Planned Maintenance electrical activities in the Planned Maintenance Programme.

Definitions

Planned Maintenance Routine activities that are frequently repeated and continuously ongoing throughout the year. These include inspections, cleaning and electrical testing.

Completed Work can only be considered to be completed when the entire scheme or activity has been carried out and the assets involved have been put into service.

Planned Maintenance Programme Defines what routine maintenance activities are to be carried out in the year, and when these should be performed.

Data Source Programme, work records

Data Input Frequency / Reporting Period: Calendar month

Fields

Number of planned maintenance activities, excluding electrical activities, completed in the current year to date.	(A)
Number of maintenance activities, excluding electrical activities, planned to have been completed in the current year to date	(B)
Number of planned maintenance electrical activities completed in the current year to date.	(C)
Number of maintenance electrical activities planned to have been completed in the current year to date	(D)

Calculations (Year to Date Monthly Performance)

Measure	Calculation	Type	Decimals	Report
TKPI 2A (M)	(A/B)*100	Percentage	1	G + T
TKPI 2B (M)	(C/D)*100	Percentage	1	G + T

Note: (M) Monthly indicator (A) Annual indicator

Indicator Ref. & Title	TKPI 3: Budget Management

Purpose **Provide Accurate Financial Management**

Description To measure the predictability of the *Provider*'s financial forecasting with respect to the monthly accruals and annual budget allocation for the overall area portfolio. Relates to the requirements of the Resource Accounting Manual to demonstrate the `proper handling and reporting of public money'.

Indicators

TKPI 3A Percentage variance between the actual and forecast value of work completed in the month (overall portfolio). (Value of all work excluding lump sum).

TKPI 3B Percentage variance between the actual and forecast value of work completed in the financial year (overall portfolio). (Value of all work excluding lump sum).

Definitions

Forecast value A disruption or potential hazard to the operation, safety and/or integrity of the Area Network (or adjacent land) that requires an immediate response by the *Provider*. The fault has to have existed in HALOGEN for a duration longer than 20 minutes.

Actual value See Annex SI 13 Performance Requirements.

Data Source HAMIS / SfM and / or Provider's records

Data Input Frequency / Reporting Period: Calendar month

Fields Forecast value of work planned to be completed in month (overall portfolio) (A)

Actual value of work completed in month (overall portfolio) (B)

Forecast value of work planned to be completed in the financial year (overall portfolio) (C)

Actual value of work completed in financial year (overall portfolio) (D)

Calculations (Individual Monthly Performance)

Measure	Calculation	Type	Decimals	Report
TKPI 3A (M)	(B-A)/A*100	Percentage	1	G + T

Calculations (Financial Year to Date)

Measure	Calculation	Type	Decimals	Report
TKPI 3B (A)	(D-C)/C*100	Percentage	1	G + T

Note: Σ = the aggregation of input data for the current month and the preceding months to and including April.

(M) Monthly indicator (A) Annual indicator

Indicator Ref. & Title	TKPI 4: Employee Safety

Measure **Ensure Safe Operations on the Network**

Purpose / Description To measure the effectiveness of the *Provider*'s safety processes by monitoring all accidents reportable under RIDDOR and all other recorded injuries within the *Provider*'s organisation.

Indicators

TKPI 4A Area RIDDOR Frequency Rate, based on all accidents reportable under RIDDOR.

TKPI 4B Area Accident Frequency Rate, based on the total number of 4A and all other recorded injuries.

Definitions

RIDDOR Reporting of Injuries, Diseases and Dangerous Occurrences Regulations.

Recorded Injuries All injuries recorded in Accident Books (or databases) covering the Agency's Area Maintenance contract (TechMAC).

Data Source *Provider*'s Accident Books / databases including RIDDOR forms.

Data Input Fields

Frequency / Reporting Period: Calendar month

Total number of hours worked in the month	(A)
Total number of all accidents reportable under RIDDOR in the month	(B)
Total number of recorded injuries in the month (Non-RIDDOR)	(C)
Total of all accidents reportable under RIDDOR and all recorded injuries in the month	(D) = (B) + (C)

Calculations (Rolling 12 Month Performance) i.e. current month + preceding 11 months

Measure	Calculation	Type	Decimals	Report
TKPI 4A (A)	$\sum B/\sum A*100,000$	Integer	2	G + T
TKPI 4B (A)	$\sum D/\sum A*100,000$	Integer	2	G + T

Note: $\sum$ = the aggregation of input data for the current month and the preceding 11 months.
(M) Monthly indicator (A) Annual indicator

Indicator Ref. & Title	TKPI 5: Time and Cost Predictability

Measure Purpose / Description	**Provide accurate financial and programme management**
	This PI measures the accuracy of time and cost predictions, initially only on eligible schemes exceeding £100K in value. The indicators are designed to reflect the impact on customers and the HA of changes in predictions during the different
	phases of design and construction of these schemes. The PI is a measure on the whole of the delivery team including HA, TechMAC and the Supply Chain.
Milestones	A series of milestones throughout the Scheme are identified as defined in "Time and Cost Phases for PI 5", see Appendix 1.
	1. Commitment to detailed design
	2. Completion of detailed design
	3. Agreement of Cost
	4. Agreement of predicted start & finish dates
	5. Actual start of Construction
	6. Actual completion of Construction
	7. Agreement of final account at first valuation after completion
Indicators	
TKPI 5A	Variance between actual date at 2, compared to date at 2 as predicted at 1.
TKPI 5B	Variance between duration 5 to 6 as predicted at 4, compared to duration predicted at 1.
TKPI 5C	Variance between duration 5 to 6 as predicted at 4, compared to actual duration 5– 6.
TKPI 5D	Variance between duration 5 to 6 as predicted at 1, compared to actual duration 5– 6.
TKPI 5E	Variance between the sum of costs at milestone 3 compared to those costs predicted at milestone 1, as a percentage of costs predicted at milestone 1.
TKPI 5F	Variance between the sum of costs at milestone 7 compared to those costs predicted at milestone 3, as a percentage of costs predicted at milestone 3.
TKPI 5G	Variance between the sum of costs at milestone 7 compared to those costs predicted at milestone 1, as a percentage of costs predicted at milestone 1.
	NB: All measures only for Live Schemes where data is less than 365 days old.
Definitions	
"Live" Scheme	A Live scheme is determined by the age of the second of the two milestones that constitute the PI. This should be 365 days old or less to qualify as Live data.
Scheme Cost	The sum of all money managed by the *Provider* on behalf of the HA – including design, construction, statutory undertakers etc. This will not include land costs.
Eligible Scheme	Scheme currently approved by HA, with an estimated scheme cost over £100K at milestone 1.
Measure Period	Rolling 12 months [current month + preceding 11 months] (or year to date if less than 12 months data exists).
All Parties	HA, Designer/Project Manager, Constructor(s), TechMAC and Supply Chain.
Milestones	All milestones are defined in Appendix 1, "Time and Cost Phases for PI 5".
Data Source Methodology	*Provider*'s records, HA records and Contractor's records if applicable.
	<u>Scheme Data Flow</u>
	As part of preparing the annual programme, covering works funded for each
	financial year, a record for each Scheme is produced and relevant details recorded, including the predicted date for completion of detailed design,

predicted construction start and finish dates, and prediction of final cost (milestone 1).

When detailed design is completed relevant details are recorded and the variation from the prediction is calculated and recorded (milestone 2).

When all parties agree the construction costs (milestone 3), the *Provider* records the revised predicted final scheme cost and the date of this entry, against the project record.

Similarly, when all parties agree the construction dates – (during milestone 4) – the revised predictions for the start date for construction and completion date for construction, and therefore the construction duration are recorded.

The actual dates for Start and End of Construction are promptly recorded as they occur and at the End of Construction the construction duration is calculated and entered into the records (milestone 5 & 6)

Finally, the *Provider* records the projected final scheme cost, at the first valuation after the End of Construction (milestone 7) and the date of this entry, against the project record.

TKPI Calculation

Individual scheme data is then summarised to calculate the PIs. Only Live data is considered for each of the PIs. Each month, each PI is considered independently, so that data for a scheme may be eligible for inclusion in the calculation of some or all PIs.

[**NB** As soon as completion of detailed design data is recorded for a scheme, that data is included in the subsequent calculation of 5A, at the end of the month. once this data is more than 365 days old (i.e. 12 months old) it is removed from the calculation of 5A, even though data from the same scheme may still be
eligible for the calculation of 5B, 5C and 5D that month.]

[**NB** As soon as cost data at milestone 3 is recorded for a scheme that data is included in the subsequent calculation of 5E, at the end of the month. Once this data is more than 365 days old (i.e. 12 months old) it is removed from the calculation of 5E, even though data from the same scheme may still be eligible for
the calculation of 5F + 5G that month]

For all Time Predictability PIs only positive variations (late completions) are added to the cumulative total, which is divided by the number of eligible schemes in the measure period to calculate the indicators.

As all deviations from predictions are undesirable for budgetary control, the Cost Predictability PIs consider the absolute value of cost variances as a percentage of the sum of the initial predictions. This avoids the potential for negative and positive differences, in separate schemes, to have a compensatory effect on the
indicators.

Compensation events will affect the actual recorded dates / scheme cost but the predicted dates / cost will not be amended to reflect compensation events. i.e. compensation events which affect the duration and overall cost of a scheme will have a negative effect on the result.

Until data is available for 12 months, the indicators are reported as Year to Date
(YTD).

Data Input Frequency / Reporting Period: Calendar month

Fields

Predicted date for completion of detailed design as made at milestone 1.	(A)	
Predicted date for start of construction as made at milestone 1.	(B)	
Predicted date for completion of construction as made at milestone 1.	(C)	
Predicted scheme cost as made at milestone 1.	(D)	
Actual date for completion of detailed design (milestone 2)	(E)	
Predicted scheme cost as made at milestone 3	(F)	
Date Milestone 3 was reached	(G)	
Predicted date for start of construction as made at milestone 4.	(H)	
Predicted date for completion of construction as made at milestone 4.	(I)	
Date Milestone 4 was reached	(J)	
Actual date for start of construction (milestone 5).	(K)	
Actual date for completion of construction (milestone 6).	(L)	
Predicted scheme cost as made at milestone 7.	(M)	
Date Milestone 7 was reached	(N)	
Variance calculation for 5E	(O)	(F) – (D)
Variance calculation for 5F	(P)	(M) – (F)
Variance calculation for G	(Q)	(M) – (D)
Live data for 5E	(R)	=IF[(TODAY –(G)) >365,0,1]
Live data for 5F and 5G	(S)	=IF[(TODAY –(N)) >365,0,1]
Live data for 5A	(T)	=IF[(TODAY –(E)) >365,0,1]
Live data for 5B	(U)	=IF[(TODAY –(J)) >365,0,1]
Live data for 5C and 5D	(V)	=IF[(TODAY –(L)) >365,0,1]
Predicted length of construction at Milestone 1	(W)	(C) – (B)
Predicted length of construction at Milestone 4	(X)	(I) – (H)
Actual length of construction	(Y)	(L) – (K)
Number of days variance for 5A	(Z)	(E) – (A)
Number of days variance for 5B	(AA)	(X) – (W)
Number of days variance for 5C	(AB)	(Y) – (X)
Number of days variance for 5D	(AC)	(Y) – (W)

Calculations (Individual Monthly Performance)

Measure	Calculation	Type	Decimals	Report
TKPI 5A (A)	IF(T=1),THEN($\sum$(Z>0))/$\sum$(T)	Integer	0	G + T
TKPI 5B (A)	IF(U=1),THEN($\sum$(AA>0))/$\sum$(U)	Integer	0	G + T
TKPI 5C (A)	IF(V=1),THEN($\sum$(AB>0))/$\sum$(V)	Integer	0	G + T
TKPI 5D (A)	IF(V=1),THEN($\sum$(AC>0))/$\sum$(V)	Integer	0	G + T
TKPI 5E (A)	for all Schemes where R=1 [($\sum$O)/$\sum$D]*100	Percentage	0	G + T
TKPI 5F (A)	for all Schemes where S=1 [($\sum$P)/$\sum$F]*100	Percentage	0	G + T
TKPI 5G (A)	for all Schemes where S=1 [($\sum$Q)/$\sum$D]*100	Percentage	0	G + T

Note: $\sum$ = the aggregation of input data for the current month and the preceding 11 months. This data is deleted after 12 months inclusion in the results, see definition of live data.
(M) Monthly indicator (A) Annual indicator

Indicator Ref. & Title	TKPI 6: Data Management

Measure   **Maintain accurate data and inventory records**
Purpose / Description   To ensure that all assets maintained by the *Provider*, as well as all fault data, are recorded in the TPMS asset database. This allows the *Provider* to calculate and monitor asset availability, condition, faults and residual life, and so be better equipped to manage the assets under its control.

Indicators

    TKPI 6A   Percentage of TPMS populated

Definitions

    TPMS   Technology Performance Management System.

Data Source   Scheme data, TPMS, HALOGEN

Data Input   Frequency / Reporting Period: Calendar month
Fields   To be agreed   (A)
                                                  (B)
                                                (C)

Calculations (Individual Monthly Performance)

Measure	Calculation	Type	Decimals	Report
TKPI 6A (M)	TBA	Percentage	1	G + T

Calculations (Rolling 12 Month Performance) i.e. current month + preceding 11 months

Measure	Calculation	Type	Decimals	Report
TKPI 6A (A)	TBA	Percentage	1	G + T

Note: Σ = the aggregation of input data for the current month and the preceding 11 months.
(M) Monthly indicator   (A) Annual indicator

Indicator Ref. & Title	TKPI 8: Quality Management

Measure	**Ensure effective business processes and resource management systems**
Purpose / Description	To assess how closely the *Provider* is complying with its contractual requirements, and how effectively it deals with instances of non-conformance.
Indicators	
TKPI 8A	Number of Quality Management Points at start of the month.
TKPI 8B	Number of Quality Management Points cleared in the month.
TKPI 8C	Number of Quality Management Points accrued in the month.
TKPI 8D	Number of Non-conformities overdue (cumulative) at end of the month.
Definitions	
Quality Management Points	Awarded to the *Provider* in accordance with the Quality Table in the Contract Data.
Non-conformity	Can occur without management points being awarded, so long as the necessary reports are raised to correct these, hence why these are measured as well as the number of management points awarded.
Data Source	*Provider*'s register of Quality Management Points, Quality Management System, Non-Conformity Reports
Data Input	Frequency / Reporting Period: Calendar month
Fields	Number of Quality Management Points at start of the month. (A)
	Number of Quality Management Points cleared in the month. (B)
	Number of Quality Management Points accrued in the month. (C)
	Number of Non-conformities overdue (cumulative) at end of the month. (D)

Calculations (Individual Monthly Performance)

Measure	Calculation	Type	Decimals	Report
TKPI 8A (M)	(A)	Integer	0	G + T
TKPI 8B (M)	(B)	Integer	0	G + T
TKPI 8C (M)	(C)	Integer	0	G + T
TKPI 8D (M)	(D)	Integer	0	G + T

Note: (M) Monthly indicator (A) Annual indicator

Indicator Ref. & Title	TKPI 9: Availability of Traffic Technology Systems

Measure   **Maximise availability of Traffic Technology Systems**

Purpose / Description   To provide a measure of the proportion of Technology Assets maintained by the *Provider* that are available for providing a service to the road user.

Indicators

TKPI 9A	Actual Operational Availability of technology system.
TKPI 9B	Contract Operational Availability of technology system.

Definitions

Technology system   The above measures are calculated for each of the following technology systems maintained by the *Provider*:-
- Emergency Roadside Telephones
- Signs
- Signals
- CCTV
- Midas

Actual Availability   All faults, irrespective of responsible party, are included in calculating this measure of availability.

Contract Availability   Only faults attributed to *Provider* responsibility are included in calculating this measure of availability.

Operational Availability   Lost hours of service are deducted from potential total hours of asset availability in order to calculate available hours. Degraded hours of service are not deducted. For definitions of "lost" and "degraded", see MCH1867B, Table A4.

Data Source   To be agreed

Data Input   Frequency / Reporting Period: Calendar month

Fields   Technology system Actual Operational Availability.   (A)
Technology system Contract Operational Availability.   (B)

Calculations (Individual Monthly Performance)

Measure	Calculation	Type	Decimals	Report
TKPI 9A (M)	(A)	Percentage	2	G + T
TKPI 9B (M)	(B)	Percentage	2	G + T

Note: (M) Monthly indicator (A) Annual indicator

Indicator Ref. & Title	TKPI 11: Asset Condition

Measure	**Maximise availability of Traffic Technology Systems**
Purpose / Description	A measure allowing the technology area team to monitor and manage long-term asset performance so as to maintain a satisfactory level of service provided to the road user.
Indicators	
TKPI 11A	Percentage of technology assets registered within TPMS with an RDL below 2 years.
TKPI 11B	Percentage of technology assets registered within TPMS with an APIC score below 3.

Definitions

Technology system	The above measures are calculated for each of the following technology systems maintained by the *Provider*:- • Emergency Roadside Telephones • Signs • Signals • MIDAS • CCTV.
TPMS	Technology Performance Management System.
RDL	Residual Design Life. Number of years left before an asset should be replaced (according to the manufacturer) without taking into consideration that asset's past performance or current condition.
APIC	Asset Performance Indicator Classification. One of the technology Key Performance Indicators calculated within TPMS. A score for each asset of 0-10 is calculated, made up of the following weighted components:- • Asset Condition Rating • Residual Design Life • Reliability (How frequently an asset develops faults) • Maintainability (Time required to repair an asset's faults) • Obsolescence
Methodology	A high score for 11B would indicate that the condition of technology systems is in need of review, and suggest that renewal investment and planning is required. A high score for 11A should prompt the *Provider* to closely monitor APIC scores, but would not necessarily mean a high score for 11B.
Data Source	TPMS
Data Input	Frequency / Reporting Period: Calendar month

Fields		
	Total number of technology system assets registered within TPMS	(A)
	Number of technology system assets of (A) with an input RDL	(B)
	Number of technology system assets, of (B), with an RDL < 2 years	(C)
	Number of technology system assets, of (A), with a calculated APIC	(D)
	Number of technology system assets, of (D), with an APIC < 3	(E)

Calculations (Individual Monthly Performance)

Measure	Calculation	Type	Decimals	Report
TKPI 11A (M)	(C/A)*100	Percentage	1	G + T
TKPI 11B (M)	(E/A)*100	Percentage	1	G + T

Note: (M) Monthly indicator (A) Annual indicator

Indicator Ref. & Title	TKPI 12: Fault Analysis

Measure   **Maximise availability of Traffic Technology Systems**

Purpose / Description   To assess the quality and reliability of technology infrastructure, and the *Provider*'s efforts to improve this performance. To assess the effectiveness and efficiency of the *Provider*'s fault rectification.

Indicators

TKPI 12A   Number of category A, B and P faults where service is restored within the Restore Service times stated in Annex SI 13, as a percentage of the total number of such faults.

Definitions

Technology Infrastructure	Encompasses NMCS2, COBS, and sub-systems such as MIDAS and CCTV
NMCS2	2nd generation National Motorway Communications System. Provides facilities for Regional Control Centres to operate motorway devices.
COBS	Control Office Based System. A computer system sitting within Regional Control Centres allowing the operation of all roadside equipment.
Hard Fault	A disruption or potential hazard to the operation, safety and/or integrity of the Area Network (or adjacent land) that requires an immediate response by the *Provider*. The fault has to have existed in HALOGEN for a duration longer than 20 minutes.
2_{nd} Response	Effort to fix a re-occurring fault that has the same symptoms as the original fault initially thought to have been rectified.

Data Source   HALOGEN fault logs, TPMS

Data Input   Frequency / Reporting Period: Calendar month

Fields   Number of responses to hard faults   (A)

Number of 2_{nd} responses to hard faults initially occurring no more than 1 calendar month beforehand   (B)

Calculations (Individual Monthly Performance)

Measure	Calculation	Type	Decimals	Report
TKPI 12A (M)	(B/A)*100	Percentage	0	G + T

Note: (M) Monthly indicator   (A) Annual indicator

Indicator Ref. & Title	TKPI 13: Internal customer satisfaction.

Measure
Purpose / Description

Operate as an integrated team

To ascertain how well the *Provider* is meeting the needs of its internal customers, and therefore the needs of road users.

Indicators

TKPI 13A

Average of satisfaction scores awarded to the *Provider* by its internal customers.

Definitions

Internal Customers

Organisations that the *Provider* works with and behalf of. These include:
- Managing Agent Contractors (MAC)
- Regional Control Centres (RCC)
- National Traffic Control Centre (NTCC)
- National Roads Telecommunications Services (NRTS)

An internal customer is likely to express dissatisfaction when it receives negative feedback from road users. In this way, internal customer satisfaction can be seen to be an indirect measure of road user satisfaction.

Satisfaction Score

Awarded by respondents to a short questionnaire undertaken quarterly that is used by the *Provider* to find out how it is perceived by its internal customers.

Methodology

13A will be calculated quarterly, as opinions are unlikely to change significantly from month-to-month, and form filling on a monthly basis could be overly burdensome on respondents. The questionnaire will try to establish how well the *Provider* has listened to, communicated with and understood the customer, the quality and promptness of the *Provider*'s work, and any specific problems that the customer has with the *Provider*.

Data Source

Customer satisfaction forms

Data Input

Frequency/Reporting Period: Quarterly

Fields

Total of questionnaire scores awarded to *Provider* in last quarter (A)

Number of questionnaires completed and returned to *Provider* in last quarter (B) (B)

Calculations (Individual Monthly Performance)

Measure	Calculation	Type	Decimals	Report
TKPI 13A (Q)	A/B	Integer	2	G + T

Note: (Q) Quarterly indicator

APPENDIX 1- Time and Cost Phases for TKPI 5

Time ⟶

Design Phase			*Possible delay between completion of works info and start of pricing*	Pricing Phase				*Possible delay between agreement of target price and start of construction*	Construction Phase			
Commitment to detailed design	Design	Completion of detailed design		Pricing	Agreement of cost	Agreement of predicted start and finish dates			Actual start of Construction	Construction	Actual completion of Construction	Agreement of final account at first Valuation after completion
1		2			3	4			5		6	7

Milestone

Milestone Definitions

Design Phase
1. Commitment, after final VM, to completion dates and initial *scheme cost*. These dates are drawn from a programme covering works funded for a financial year, to be compiled and agreed by 31st March, for all *eligible schemes*. For schemes issued after 31st March the earliest possible dates and *scheme cost* are to be agreed within the team.
2. Completion of detailed design as evidenced by the availability of a COMPLETE design package (this may not coincide with the issue of the design package, subject to programme and unforeseen delays in starting pricing).
Any issue of additional information would put back the end of the design stage. If the HA request a hold on pricing then the end of the design stage is the stage at which the complete package is ready for issue.

Pricing Phase
3. Agreement of Cost (e.g. Target Cost, Derived Price, Task Order Agreement and Tender price agreement)

Construction Phase
4. Point at which an agreed construction programme is published. This will normally coincide with *milestone* 3.
5. Actual start of works on site including any traffic management.
6. Completion as defined under the Contract and including removal of all traffic management.
7. Agreement of final account at first valuation after completion.