



Maintenance Backlog  
Measurement,  
Interpretation and  
Management Guideline

Guidelines

Issue 02  
March 2022

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# Maintenance Backlog Measurement, Interpretation and Management Guideline

March 2022

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## List of Abbreviations

Abbreviations	Definitions
BEIS	(Department for) Business, Energy & Industrial Strategy
CM	Corrective maintenance
CMMS	Corrective maintenance management system
HSE	(the) Health and Safety Executive
KPI	Key performance indicator(s)
PM	Preventive maintenance
SECE	Safety and environmentally critical element(s)

## Introduction

In March 2021 OEUK arranged a workshop with representatives from North Sea operators, suppliers, HSE and BEIS in attendance to discuss the increasing trend of maintenance backlogs within the sector. Whilst backlogs increased sharply in the previous year due to the additional challenges introduced by COVID-19, this was seen to exacerbate the issue and was not a root cause of maintenance backlogs as they had been trending upwards for several years. At the workshop it was agreed that one of the barriers to reducing maintenance backlogs was the lack of a common suite of KPI definitions for the measurement and articulation of what backlog was and what it represented that could be applied across all operators. This lack of common definition had been a longstanding issue which presented a barrier to understanding amongst all interested parties and to the sharing of best practice. As a result, it was agreed that OEUK would facilitate the creation of an agreed industry wide suite of backlog KPI to remove these barriers.

These guidance notes are a supplement to the agreed definition of the backlog KPI (see Appendix C) and:

- Provide an overview of the underlying approach applied in the development of the OEUK Maintenance Backlog suite of KPI;
- Explain how to interpret the suite of KPI to get an understanding of the current maintenance backlog position across the industry; and
- Give guidance on how backlog should be managed within a maintenance management system.

The backlog KPI were developed in conjunction with the Maintenance Backlog Reduction Working Group. The working group was made up of a selection of North Sea operators shown in Appendix A and the Terms of Reference for the group can be found in Appendix B.

## 1 Causes of backlog

At the most basic level backlog is created as result of an organisation's work demand being higher than its capacity to execute.

This is as a result of:

- excessive work demand.
- insufficient resource.
- inefficient work execution.

In most instances it is a result of a combination of all of the above.

Irrespective of the reason, backlog represents a deviation from organisational intent. Put simply an organisation is not doing the work it said it would in order to ensure it is able to meet its business objectives.

## 2 KPI criteria

At the opening workshop for the development of the OEUK suite of backlog KPI it was agreed that the KPI should meet the following criteria:

- KPI should give an indication of deviation from intent. i.e., how much work have organisations themselves said they would execute but have not.
- Must be able to be supported by operators without unreasonable effort.
- Must be as simple as possible to ease understanding.
- Are intended to act as “datum” to allow all operators to explain their own KPIs to others easily.
- Will not be a suite of KPI that can be used for benchmarking.

The KPIs are not intended to drive absolute alignment at the most granular level across operators as this is not only extremely difficult to achieve but is also unnecessary for these KPI to achieve their purpose. They are also not the mechanism for fully articulating the risk management performance of the industry as the nuance of this cannot be achieved by a simple set of KPI. They are intended to allow the conversation to focus on how to understand and reduce the deviation from intent within the industry.

Put simply, they articulate how much work organisations said they would do but have not yet done and how well they understand what might happen as a result.

This then allows organisations to share best practice on what they are now going to do and for interested parties to have a conversation based on common understanding of backlog and what it represents.

## 3 KPI approach

The purpose of the OEUK suite of backlog KPI is to measure how much work has not been executed in line with the organisation’s original intent. To do so the KPI measure the volume of work that is open beyond the date originally specified that it must be completed by in order to:

- Be in alignment with its associated maintenance strategy.
- Avoid the likelihood of negative consequence occurrence becoming higher than the organisation was willing to accept at the point of identification.

Within this document this date is termed the ‘Original Key Risk Date’ and all work open beyond this date is considered to be backlog. It is this work and its associated risk that is being measured using the OEUK suite of backlog KPI.

## 4 Original and latest key risk dates

When work has passed its Original Key Risk Date and enters into backlog it should ideally be assessed to understand the risk that has been introduced as a result of work non completion. This process is typically called a deferral process and is used to establish the new date by which the organisation believes the work should be complete. Within this document and KPI this date is referred to as the Latest Key Risk Date.

The assessment carried out during the deferral process should capture the consequence should the work not be complete and the likelihood of that consequence occurring. Any mitigation possible to reduce or eliminate the consequence or likelihood of consequence occurrence should be included during this assessment. This will then give a new date by which the risk of consequence occurrence increases to the point that the work should be complete or reassessed. This new date is termed the Latest Key Risk Date.

When a work order is first created, the Original Key Risk Date and Latest Key Risk Date will match. Once a work order has been subjected to the deferral process the Original Key Risk Date will remain the same and the Latest Key Risk Date should be updated to reflect the date determined during the deferral process. This is to ensure clear visibility within the CMMS of when the work must be complete by.

## 5 Deferred v undeferred

Undeferred backlog is work that is open beyond both its Original Key Risk Date and Latest Key Risk Date.

Deferred Backlog is work that is open beyond its Original Key Risk Date but has its Latest Key Risk Date in the future.

The ultimate objective is for all work to be executed ahead of its Original Key Risk Date. Having any work in backlog is undesirable however, the reality is that this can be difficult to avoid in some circumstances. As a result, it becomes essential to ensure that this work is being managed effectively.

One of the simplest and most reliable ways of ensuring a backlog is being managed is to measure the volume that is deferred v undeferred. The reason is that undeferred work represents work where the incurred risk as a result of work not being complete by its Latest Key Risk Date is not understood. If the incurred risk has not been assessed, then it is unknown and cannot be managed. Deferred backlog is work where the incurred risk has been assessed, mitigation identified, implemented where appropriate and a new date for completion set, hence, the work is being managed.

Using this simple approach, it is possible to quickly get an understanding of how much unknown risk exists as a result of work in backlog.

This is not to say that managing work by deferral is an efficient way to manage ongoing operations as the work is still not complete, however a robust deferral assessment would ensure that any associated risks have been reduced to ALARP levels.

## 6 “Keep visible or move”

Some operators may only have one date field as opposed to the two for Original Key Risk Date and Latest Key Risk Date. Only having one date field means that a decision has to be taken on whether:

- the date should remain static to allow visibility on when work was originally intended to be completed (in effect treated in the same way as the Original Key Risk Date); or
- the date field is updated to reflect the organisations revised view on when the work must be complete (in effect acting in the same way as the Latest Key Risk Date Field).

The information provided by both methods is essential to the effective management of maintenance backlogs. The loss of either results in a damaging loss of clarity. It is for this reason that the suite of OEUK backlog KPI (see Appendix C) asks for both sets of information to be captured.

## 7 Hours v work order count

For the OEUK suite of backlog KPI, the working group decided to measure backlog both in terms of work order count and associated hours.

The reason for reporting using both units of measure is that giving a count of work orders provides an indication of the number of individual instances of risk that are present within the backlog.

Giving the hours associated with those work orders gives an indication of the level of effort to liquidate the work.

## 8 Support trades

In the past reported backlog hours often only included the hours necessary to do the primary driver task associated with the work order. All hours to facilitate that work being complete i.e. scaffold erection, isolations, insulation removal etc) were removed. The reason for this was “to allow visibility of the main task to be executed”.

For the OEUK suite of backlog KPI the decision taken by the working group was to include all these supporting trades and hours if captured within the CMMS for a number of reasons.

- All hours and work on the work order are associated with the execution of the primary driver task of the work. As a result, they must be considered to get a true understanding of the ability of effort to execute.
- The removal of hours can often result in additional administrative effort with no real value.
- The removal of the hours can give a false impression of the scale of effort necessary.



## 9 Work types to be included

The working group decided that all work that is non-discretionary that is identified for execution within the CMMS should be included within the backlog hours reported.

This includes:

- Fabric maintenance.
- Inspection activity.
- Repair orders.
- Drilling maintenance.
- Subsea maintenance.

## 10 Why not used for benchmarking

Historically there has been a strong desire for the suite of OEUK KPI to be used for industry benchmarking purposes. The reality is that the nature of the industry regulation and legislation means that there are no mandated definitions at a suitably granular level to allow this to happen. For example, there is nothing that mandates if only the testing of SECE equipment is to be considered as “Safety Critical” or whether the maintaining of that equipment is also to be considered as “Safety Critical”. As a result, each duty holder will develop their own philosophy for what work is and is not to be considered “Safety Critical”. Each will have strong reasons for doing so, hence, are unwilling to change to meet any alternative definition.

This is only one example of the kind of variance that exists. As a result, without a mandate, it is extremely difficult to get to the point of universal agreement to the level that would permit meaningful benchmarking.

It is also acknowledged that individual operator context is so important to the interpretation of backlog levels that without that context being known, any benchmarking has the potential to lead to false conclusions being drawn and inappropriate actions being taken.

As a result, this was not attempted in the creation of this KPI as it was accepted that it is the trending of backlog that is important, as well as the common understanding of the terms “Backlog” “Undeferred Backlog” and “Deferred Backlog”. Creating a KPI on this basis recognises the individual decision-making authority of each duty holder whilst giving a basis for overall articulation of the backlog status.

## 11 Deferral of non-SECE work

Many operators opt not to mandate the use of a deferral process for their non-SECE related maintenance activity.

The reason is that any potential consequence incurred is likely to have a business impact as opposed to a safety or environmentally critical impact and therefore the administrative burden required to apply the same degree of rigour is not appropriate.

Whilst this is understandable, this does not mean that the risk incurred should not be assessed and understood.

Within the [Provision and Use of Work Equipment Regulations 1998](#) it is stated:

*all work equipment be maintained in an efficient state, in efficient order and in good repair; where any machinery has a maintenance log, the log is kept up to date; and that maintenance operations on work equipment can be carried out safely.*

As a result, while operators may choose not to apply the deferral process to non-SECE maintenance activity, they should ensure that a mechanism exists to meet the requirements of this clause. At minimum, it would be recommended that the Latest Key Risk Date is updated to clearly reflect within the CMMS when work must be complete based on any new risk assessment.

## 12 Interpreting KPI – volume

High levels of undeferred work is bad and should not be accepted as it is an unknown. In effect high undeferred backlog means an organisation is surrendering its outcomes to hope.

A high level of deferred backlog means that there is an excessive dependence on risk management versus risk elimination as work is not being executed by its Original Key Risk Date.

The use of these two in combination can give simple but powerful insight into how backlog is being managed or eliminated.

### 12.1 Low deferred + high undeferred

Work is not being assessed or managed effectively. This can either be as a result of a company policy not to defer, an unwieldy deferral process which restricts capacity to assess, or a sign that the volume of work going into backlog is too high for the process to keep up with. Irrespective of the cause, this is the worst backlog situation to be in and effort should be placed immediately on identifying and resolving the cause.

### 12.2 High deferred + low undeferred

Whilst work is not being complete by its Original Key Risk Date, it is at least being managed as it is being subjected to a deferral and has a Latest Key Risk Date set into the future. This is far from an ideal scenario as it means that risk is being managed as opposed to eliminated. It is also wasteful as it means effort is being expended assessing work that should be completed. If the volume of deferred work is particularly high, it is likely there is an excessive dependence on deferrals, with the potential that the process is too easy and readily accepted as a mechanism to manage backlog. In this scenario effort

should be made to understand the root cause of why work is unable to be executed by its Original Key Risk Date and steps taken to address.

### 12.3 High deferred + high undeferred

Whilst the deferral process is being utilised to assess the impact of work not being complete, the process is either unable to keep up with the volume of work going into backlog or is not being applied to all work. This means that there is a significant volume of activity which is unassessed.

This situation would strongly suggest that there is considerable imbalance between the workload demand and an organisation's execution capacity which should be investigated and addressed.

### 12.4 Low deferred + low undeferred

Whilst there is still some work that is unassessed, this scenario would suggest that workload is fairly well aligned with execution capacity.

## 13 Interpreting KPI trends

### 13.1 Deferred backlog trending up + undeferred trending down

This most likely signifies that the organisation is moving towards a more effectively managed backlog position where work that is undeferred is either being executed or deferred.

### 13.2 Deferred backlog trending up + undeferred trending up

This combination signifies clearly that execution capacity is unable to keep up with workload demand and the root causes for this should be identified and addressed. It also means that the unmanaged risk within the organisation is increasing so priority should be placed on the assessment and deferral of the undeferred backlog to ensure risk is understood and managed.

### 13.3 Deferred trending down + undeferred trending up

Signifies that unmanaged risk is increasing whilst managed risk is reducing which is an undesirable state.

### 13.4 Deferred trending down + undeferred trending down

This is broadly positive trending as it means overall backlog is reducing. However, depending on rate of reduction, effort should still be made to defer all undeferred work to ensure risk is being managed as the overall backlog level reduces.

## 14 Dealing with backlog

When experiencing high backlog levels there can be a temptation to expend considerable effort attempting to refine and perfect the KPI metrics in order to get increasingly accurate information. This is frequently a distraction from the main priority which is the management of the backlog and the resolution of its cause.

Undesirable levels of backlog should serve as a trigger for an organisation to:

- Identify and resolve the reasons that the original intent cannot be met; or
- Change its intent and update the CMMS to reflect this.

It must also be recognised that simply executing all the work in backlog may not be possible or even desirable.

As a result, the work in the backlog should be assessed to confirm it remains appropriate. If it does then it should be subject to a deferral. If it is not, then the organisational intent should be updated to reflect the work necessary to meet business objectives in the current context and the old work closed out as no longer relevant.

## 15 Backlog cleansing

### 15.1 Duplicate PM work orders

When multiple instances of the same activity are in backlog the newest work orders should be closed off and the oldest retained to give clear indication of when the work has been overdue from. Any work orders that are closed should include a reference to the one that has been retained for future clarity.

### 15.2 Duplicate CM

For duplicate corrective orders, ideally the oldest work order should be retained with any newer work orders closed. However, given the subjective nature of corrective maintenance prioritisation, as well as the variance in level of detail common with corrective work orders, the work order with the most comprehensive information should be retained. Any work orders that are closed should include a reference to the one that has been retained for future clarity.

### 15.3 Ageing work order

It had been common practice in the past to close out ageing corrective maintenance work orders, based on the logic that if no negative occurrence has happened to date then the work order can't be valid.

Given equipment will degrade over time and not improve without intervention, this is flawed logic therefore this approach is not recommended. Ideally the site of the ageing work orders should be revisited, the current situation reassessed to confirm if the issue still exists and what its current condition is. Should this not be possible then a review of the CMMS should be carried out to determine

if any more recent work has been carried out which would provide evidence that the older work order is no longer required.

If no system-based evidence can be found, then it should be assumed that the work order is still required so should be kept open and managed accordingly.

## 16 Backlog targets

When discussing maintenance backlogs there is always the question of “How much is too much?” Considerable care should be taken when answering this question to ensure that its implications are fully understood.

An organisation starts out by defining the maintenance strategies that it will apply to ensure that the equipment on an installation will deliver on its intended purpose. This in turn allows the full installation to deliver on its intended purpose. The definition for maintenance backlog being used in this document means that backlog represents a deviation from that intent. In effect, an organisation is not doing what it said it would do in order to ensure its objectives are met.

This means that setting a target on backlog is describing how much risk an organisation is willing to accept that its objectives will not be met as a result of equipment not being maintained. As a result, this is a decision that each organisation must make for themselves.

There is also the question of how much backlog can be allowed to build before the original maintenance strategies are accepted as being unable to be executed by the organisation.

Ultimately maintenance backlog, using the definition of this document, is undesirable and should be eliminated if possible. There are only two options to do so.

- Complete the work; or
- Accept the work will never be completed, close it out and then describe what will be done in its place.

The figure of having six to eight weeks work of backlog has often been stated as desirable within the industry. This goal is essentially based on a different definition for backlog as is being used in this document and is set using a definition of backlog that comes from manufacturing, which is that backlog is all live work to be executed. As a result, this can only be applied to corrective maintenance. Using this definition six to eight weeks’ worth of work is desirable as any less means it is difficult to plan and schedule effectively, and your organisations risks becoming too reactive. Any more than eight weeks means that backlog is becoming too high, and your organisation runs the risk of under maintaining

## Appendices

### A Working group attendees

Organisation	Organisation
BP	Petrofac
CNOOC	Repsol Sinopec
EnQuest	Serica
Equinor	SRCN Solutions Limited
Harbour Energy	Shell
Ithaca	Spirit Energy
Neptune Energy	TAQA
ODE Asset Management	TotalEnergies
Perenco	Wood

### B Maintenance Backlog Working Group – Terms of Reference

#### Role & purpose

The role of the maintenance backlog working group is to develop a unified understanding of maintenance backlog, its current status and improvement intentions across the sector. An agreed set of KPI, their intent and reporting mechanism will be created to support this objective which will allow each operator to articulate their control and improvement mechanisms in common terms.

The purpose of this activity is to remove the enduring barriers to collaboration and the sharing of best practice whilst also allowing the industry to provide clear assurance to regulators and other interested parties that the risk inherent with maintenance backlog is under control.

#### Term

The working group is intended to be in place for six months, at which point it should be reviewed in relation to its efficacy in delivering its objectives.

#### Membership

Will be made up of any operator with assets in the UKCS who wished to participate.

#### Roles & responsibilities

The membership of the working group will commit to:

- Attending all scheduled working group sessions.

- Acting as “owner” for the working group material and objectives within their own organisations.
- Support any reasonable requests for meeting requests outside of core working group sessions.
- Will work toward pragmatic, timely solutions that can be applied by all and avoid individual philosophical entrenchment.
- Provide any data requested in support of the working group activity in a reasonable timescale
- Make timely decisions and taking action to avoid delaying the working group in its objectives.

Members of the working group can expect:

- Any requests for information will purely be to support delivery of the working groups stated role & purpose.
- Timescales for the return of data will be reasonable.
- Any conversations held and data provided shall be confidential.

### **Working group sessions**

All working group sessions will be chaired by OEUK’s HSE Director.

They will last no longer than two hours and held not more frequently than once per month.

Decisions will be made by consensus whereby members are satisfied with the decision even though it may not be their personal preference. If consensus is not possible the working group session chair will make the final decision.

## **C KPI guidance notes (from overleaf)**

# OEUK backlog KPIs

Detailed definitions



# KPI Philosophy

- This suite of backlog KPIs are intended to give an indication of deviation from intent.  
*i.e. how much work have organisations themselves said they would execute but have not.*
- They are designed to be supported by operators without unreasonable effort.
- Intended to be as simple as possible to ease understanding but also give reasonable insight.
- Are intended to act as “datum” to allow all operators to explain their own KPIs to others easily.
- Are not a suite of KPIs that can be used for benchmarking.

# Concept

1. Measure everything open beyond it's original key risk date (backlog).
2. Break this down into assessed (deferred) vs unassessed (undeferred).
3. Count by hours (to give an indication of level of effort to execute) and by work order (to give an indication of the number of individual scopes).
4. Provide split between preventative & corrective maintenance.
5. Show total volume as well as SECE broken out.

# Definition – Key Risk Date

## Basic Premise

This is the date beyond which the risk of consequence occurrence as a result of non completion is deemed to be unacceptable.

## Original Key Risk Date

For preventative maintenance this is the date work must be complete in order to be in alignment with the maintenance strategy without any tolerance of frequency included.

For corrective maintenance this is the date first derived at the point of work validation beyond which the risk of consequence occurrence as a result of non completion is deemed to be unacceptable.

This should be post mitigation.

## Latest Key Risk Date

The new date derived following assessment of work open beyond it's Original or Latest Key Risk Date to identify the new date beyond which the risk of consequence occurrence as a result of non completion is deemed to be unacceptable.

# Abbreviations

- CMMS - Computerised Maintenance Management System
- SECE - Safety and Environmentally Critical Element(s)

## Detailed clarifications

### Question

Hours reported are to include all hours associated with the complete execution and close out of the maintenance activity.

All non discretionary activity captured within the CMMS is to be included in reporting. (e.g. Fabric Maintenance, Inspection, Wells, Drilling, Subsea, Pipe Spool Replacements, etc).

# KPI Definitions

# KPI name: Preventative maintenance backlog - hours



## Objective :

To provide an indication of how much preventative maintenance is open beyond the execution date necessary to be in alignment with the maintenance strategy.

The measure also gives insight into how effectively the organisational intent is being met in relation to the execution of its maintenance strategies.



## Definition :

A measure of the volume in hours of preventative maintenance still open beyond it's associated Original Key Risk Date



## Calculation :

Sum of all outstanding preventative maintenance hours against work orders that are open beyond their associated Original Key Risk Date



## Detailed Requirements :

Original Key Risk Date < Current date

Work Status ≠ Complete/Closed

Order type = Preventative

Hours = Total number of workhours required to execute the activity

## Data Source :

CMMS

## Unit of Measure :

Hours

# KPI name: Preventative maintenance backlog - work order count



## Objective :

To provide an indication of how many individual preventative maintenance work scopes are open beyond the execution date necessary to be in alignment with its associated maintenance strategy.

The measure also gives insight into how effectively the organisational intent is being met in relation to the execution of its maintenance strategies.



## Definition :

A measure of the volume of preventative maintenance work orders that are open beyond their associated Original Key Risk Date.



## Calculation :

Total number of all Preventative Maintenance work orders that are open beyond their associated Original Key Risk Date .



## Detailed Requirements :

Original Key Risk Date < Current date  
Work Status ≠ Complete/Closed  
Order Type = Preventative

## Data Source :

CMMS

## Unit of Measure :

Work Order Count



# KPI name: Undeferred SECE preventive maintenance backlog - hours



## Objective :

To provide an indication of how much unassessed SECE preventative maintenance risk exists within the business and an indication of the level of effort to execute.

The measure also gives insight into how effectively the organisational intent is being met in relation to the execution of its SECE maintenance strategies.



## Definition :

A measure of the volume in hours of SECE preventative maintenance not yet executed that is beyond it's associated Latest Key Risk Date .



## Calculation :

Sum of all SECE preventative maintenance hours against work orders that are open beyond it's associated Latest Key Risk Date



## Detailed Requirements :

Latest Key Risk Date < Today

Work Status ≠ Complete/Closed

Order type = Preventative

Activity Included = Any maintenance to verify or ensure SECE equipment is able to meet it's primary function.

Hours = Total number of resource hours required to execute the activity

## Data Source :

CMMS

## Unit of Measure :

Hours

# KPI name: Undeferred SECE preventive maintenance backlog - work order count



## Objective :

To provide an indication of how much unassessed maintenance risk exists within the business as well as an understanding how effectively the organisational intent is being met in relation to the execution of its SECE maintenance strategies.



## Definition :

A measure of the volume of SECE preventative maintenance work that are open beyond their associated Latest Key Risk Date .



## Calculation :

Total number of all outstanding Preventative Maintenance work orders that are open beyond their associated Latest Key Risk Date .



## Detailed Requirements :

Latest Key Risk Date < Current date

Work Status ≠ Complete/Closed

Order type = Preventative

Activity Included = Any maintenance to verify or ensure SECE equipment is able to meet its primary function.

## Data Source :

CMMS

## Unit of Measure :

Work Order Count

# KPI name: Total deferred SECE preventive maintenance backlog - hours



## Objective :

To provide an indication of how much SECE Preventative Maintenance remains open beyond it's Original Key Risk Date but has been assessed and assigned a new Latest Key Risk Date in the future. This also provides an indication of the level of effort required to liquidate.

This is to give insight into how effectively the organisational intent is being met in relation to the execution of its SECE maintenance strategies.



## Definition :

A measure of the volume of SECE Preventative Maintenance work still open beyond it's Original Key Risk Date but has a Latest Key Risk Date set in the future.



## Calculation :

Sum of all outstanding SECE Preventative Maintenance hours against open work orders whose Original Key Risk Date is in the past and whose Latest Key Risk Date is in the future



## Detailed Requirements :

Original Key Risk Date < Today

Latest Key Risk Date > Today

Work Status ≠ Complete/Closed

Order type = Preventative

Activity Included = Any maintenance to verify or ensure SECE equipment is able to meet its primary function.

Hours = Total number of resource hours required to execute the activity

## Data Source :

CMMS

## Unit of Measure :

Hours

# KPI name: Total deferred SECE preventive maintenance work - work order count



## Objective :

To provide an indication of how much SECE Preventative Maintenance remains open beyond it's Original Key Risk Date but has been assessed and assigned a new Latest Key Risk Date in the future.

This is to give insight into how effectively the organisational intent is being met in relation to the execution of its SECE maintenance strategies.



## Definition :

Total number of SECE Preventative Maintenance Work Orders still open that have been assigned a new Key Risk Date (KRD) and with the Latest Key Risk Date set in the future.



## Calculation :

Sum of all open SECE Preventative Maintenance Work Orders whose Original Key Risk Date is in the past and whose KRD does not equal the Original KRD and whose Latest Key Risk Date is in the future.



## Detailed Requirements :

Original Key Risk Date < Today

Latest Key Risk Date > Today

Work Status ≠ Complete/Closed

Order type = Preventative

Activity Included = Any maintenance to verify or ensure SECE equipment is able to meet its primary function.

## Data Source :

CMMS

## Unit of Measure :

Work Order Count

# KPI name: Total corrective maintenance backlog - Hours



## Objective :

To provide an indication of how much corrective maintenance has not been executed by the Original Key Risk Date defined when the work was identified.

The KPI also gives an indication of the level of effort required to liquidate.



## Definition :

A measure of the total volume in hours of Corrective Maintenance work that is open beyond it's associated Original Key Risk Date.



## Calculation :

Sum of all Corrective Maintenance hours on work orders that are open beyond their Original Key Risk Date.



## Detailed Requirements :

Original Key Risk Date < Today

Work Status ≠ Complete/Closed

Order type = Corrective & Breakdown

Hours = Total number of resource hours required to execute the activity

## Data Source :

CMMS

## Unit of Measure :

Hours

# KPI name: Total corrective maintenance backlog - work order count



## Objective :

To provide an indication of the volume of individual Corrective Maintenance work scopes that have not been executed by the Original Key Risk date defined when the work was identified.



## Definition :

A measure of the total volume of Corrective Maintenance work orders that are open beyond their associated Original Key Risk Date.



## Calculation :

Sum of all Corrective Maintenance Work Orders that are open beyond their Original Key Risk Date.



## Detailed Requirements :

Original Key Risk Date < Today

Work Status ≠ Complete/Closed

Order type = Corrective & Breakdown

## Data Source :

CMMS

## Unit of Measure :

Work Order Count

# KPI name: Undeferred SECE corrective maintenance backlog - hours



## Objective :

To provide an indication of how much unassessed and potentially unmitigated corrective maintenance risk exists within the business as well as an understanding of how effectively SECE corrective Maintenance is being managed in line with it's assessed risk.



## Definition :

A measure of the total volume in hours of SECE Corrective Maintenance work that is open beyond it's Latest Key Risk Date.



## Calculation :

Sum of all SECE corrective Maintenance hours on work orders that are open beyond their Latest Key Risk Date



## Detailed Requirements :

Latest Key Risk Date < Today

Work Status ≠ Complete/Closed

Order type = Corrective & Breakdown

Activity Included = Any maintenance to rectify degradation of SECE Equipment to ensure it is able to meet its primary function.

Hours = Total number of resource hours required to execute the activity

## Data Source :

CMMS

## Unit of Measure :

Hours

# KPI name: Undeferred SECE corrective maintenance backlog - work order count



## Objective :

To provide an indication of how many individual unassessed and potentially unmitigated corrective maintenance risks exist within the business as well as an understanding of how effectively SECE corrective Maintenance is being managed in line with it's assessed risk.



## Definition :

A measure of the number of SECE Corrective Maintenance Work Orders open beyond their associated Latest Key Risk Date.



## Calculation :

Sum of all outstanding corrective Maintenance work orders open beyond their Latest Key Risk Date



## Detailed Requirements :

Latest Key Risk Date < Today

Work Status ≠ Complete/Closed

Order type = Corrective & Breakdown

Activity Included = Any maintenance to rectify degradation of SECE Equipment to ensure it is able to meet its primary function.

## Data Source :

CMMS

## Unit of Measure :

Work Order Count



# KPI name: Deferred SECE corrective maintenance backlog - hours



## Objective :

To provide an indication of how much SECE corrective Maintenance open beyond it's Original Key Risk Date but has been assessed and assigned a new Latest Key Risk Date in the future . It also provides an indication of the level of effort required to liquidate.

This is to give insight into how effectively corrective maintenance risk is being managed.



## Definition :

A measure of the volume in hours of SECE corrective Maintenance work open beyond it's Original Key Risk Date that has been assessed and assigned a new Latest Key Risk Date set in the future.



## Calculation :

Sum of all Open SECE Corrective Maintenance hours against work orders whose Original Key Risk Date is in the past and whose Latest Key Risk Date is in the future



## Detailed Requirements :

Original Key Risk Date < Today

Latest Key Risk Date > Today

Work Status ≠ Complete/Closed

Order type = Corrective & Breakdown

Activity Included = Any maintenance to rectify degradation of SECE Equipment to ensure it is able to meet its primary function.

Hours = Total number of resource hours required to execute the activity

## Data Source :

CMMS

## Unit of Measure :

Hours

# KPI name: Deferred SECE corrective maintenance backlog - work order count



## Objective :

To provide an indication of how many individual SECE corrective Maintenance workscopes are open beyond their Original Key Risk Date but has been assessed and assigned a new Latest Key Risk Date in the future.

This is to give insight into how effectively corrective maintenance risk is being managed.



## Definition :

Total number of open SECE corrective Maintenance Work Orders open beyond their Original Key Risk Date that has been assessed and assigned a new Latest Key Risk Date set in the future..



## Calculation :

Sum of all open SECE Corrective Maintenance Work Orders whose Original Key Risk Date is in the past and whose Latest Key Risk Date is in the future



## Detailed Requirements :

Original Key Risk Date < Today

Latest Date Key Risk Date > Today

Work Status ≠ Complete/Closed

Order type = Corrective & Breakdown

Activity Included = Any maintenance to rectify degradation of SECE Equipment to ensure it is able to meet its primary function.

## Data Source :

CMMS

## Unit of Measure :

Work Order Count



[oeuk.org.uk/guidelines](https://oeuk.org.uk/guidelines)

**Offshore Energies UK Guidelines**

Member companies dedicate specialist resources and technical expertise in developing these guidelines with OEUK with a commitment to work together, continually reviewing and improving the performance of all offshore operations.

**Guidelines are free for our members and can be purchased by non-members.**

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