

# Smart Infrastructure Estate Works Program Addendum

## What is Smart Infrastructure?

The aim of Smart Infrastructure Manual: Design and Construction is to continuously improve the efficiency, effectiveness and sustainability of the Defence estate. Smart Infrastructure has a strong return-on-investment focus stipulating minimum design and construction requirements across energy and water efficiency, renewable energy and alternative water, energy and water metering, waste, pollution prevention, materials and smart procurement.

## Why is it being applied to the EWP?

Materials and equipment are a large component of projects in the Estate Works Program (EWP). While individual projects are smaller in budget compared to Defence's Major Capital Facilities Program, the rolling program contains a significant number of projects. Cumulatively these projects represent a sizeable portion of Defence's 'ongoing' infrastructure spend and opportunity to invest in efficient and effective infrastructure. Smart Infrastructure is being applied to the EWP to:

1. align Defence sanctioned principles, methodologies and accepted financial metrics for Whole-of-Life (WOL) analysis and Ecologically Sustainable Development (ESD) requirements across infrastructure programs
2. influence the planning and programming of the EWP so approaches that maximise WOL outcomes for the works being delivered are considered at the program level
3. provide guidance around assessing technologies to ensure that projects are procuring materials and technologies on a WOL basis
4. help minimize resource consumption across the estate while ensuring the equipment, facilities and infrastructure meet the user's need
5. improve the environmental and sustainable attributes of materials used while remaining fit for purpose.

## Applying Smart Infrastructure to the EWP

It is a Defence requirement that the applicability of Smart Infrastructure is assessed for projects within the EWP. The EWP Preliminary Assessment Matrix is to be used when scoping projects and completing the Phase 1 Scope and Feasibility report. Smart Infrastructure also targets the Design Phase (Phase 2) such that feasible requirements are translated into the construction outcomes at completion and handover.

The application of specific sections of Smart Infrastructure is at the discretion of the Project Delivery Service (PDS) Project Manager (or relevant scope manager).

Any decision to exclude Smart Infrastructure as a whole, or specific sections, is documented using the EWP Preliminary Assessment Matrix with sufficient justification (including application of the screening criteria when assessing project applicability) and filed together with the project documentation on Objective. The justification for exclusion shall be subject to scrutiny from Directorate of Energy Efficiency, Environmental Resource Management and Sustainability (DEEERMS) on behalf of the Technical Authority Assistant Secretary Environment and Engineering. Further detail is provided in the EWP Preliminary Assessment Matrix.

### WOL Assessment

The WOL assessment methodology and principles contained in Smart Infrastructure apply to activities undertaken by the National Program Services (NPS) (e.g. packaging work) and the PDS (e.g. defining project scope and design). Effective utility rates for major sites across the estate have been made available on the Defence Estate Quality Management System (DEQMS) [intranet](#) or can be provided on request by DEERMS via [Smart.Infrastructure@defence.gov.au](mailto:Smart.Infrastructure@defence.gov.au). These rates are updated and uploaded to DEQMS in November each year.

### Documentation and Reporting

The documentation and reporting requirements specific to the Estate Works Program are:

#### ***Project level documentation***

The applicability of Smart Infrastructure is assessed and documented using the EWP Preliminary Assessment Matrix during Phase 1 Scope and Feasibility. The EWP Preliminary Assessment Matrix is in two parts:

1. Project Screening – all projects (or groups of projects) complete this assessment
2. Assessment Matrix – completed **only** for projects applying Smart Infrastructure.

Any projects where an Assessment Matrix and/or Project Screening has been completed is captured centrally for reporting (refer below).

Documents are filed with the relevant project documentation allowing DEERMS to monitor the application of Smart Infrastructure, retrospectively in an audit capacity across priority EWP projects.

The Smart Infrastructure Manual Checklist is not a reporting requirement for EWP projects. No Smart Infrastructure related reporting elements during construction or post completion are required at this point in time.

#### ***Program level reporting***

The application of Smart Infrastructure across the EWP is reported by NPS to DEWPO and DEERMS six-monthly (end of January and July respectively). This reporting captures the number of projects that are applying relevant sections of Smart Infrastructure (as a proportional of total projects), as assessed and documented using the Assessment Matrix and/or Project Screening during Phase 1 Scope and Feasibility. PDS will consider including proven examples of innovation / continuous improvement based on the Smart Infrastructure outcomes in their annual Business Improvement Plans. DEWPO will provide these Plans to DEERMS annually.

### Energy and Water Metering

If project scope includes the installation of energy/water meters or a BMS then the PDS Project Manager is to make sure the project considers the thresholds in the National Sub-meter Program requirements to determine whether connection to the RDMS is required. Meters and monitoring systems shall be procured in accordance with the relevant hardware and connection specifications available on [DEQMS](#). Any new or replacement meters being connected to the RDMS need to have a New Meter Form and Meter Hierarchy submitted to the RDMS Program Manager. Further information is available on [DEQMS](#).

## Roles and Responsibilities specific to Smart Infrastructure

**DEEERMS** sponsor the Smart Infrastructure Manual on behalf of Technical Authority Assistant Secretary Environment and Engineering. DEEERMS is responsible for:

- overseeing the Manual's integration into Defence programs and processes
- reporting to Defence senior management the application of Smart Infrastructure
- undertaking audits of completed projects and the EWP Preliminary Assessment Matrix accordingly and
- providing support during the implementation of the Manual.

**Directorate of Estate Works Program Office (DEWPO)** is responsible for the overall administration of the EWP including the program level reporting as outlined above.

**NPS** is responsible for:

- supporting DEWPO to consolidate, plan and program estate works such that ESD and WOL outcomes are maximised during the delivery of the EWP and
- capturing Smart Infrastructure program level reporting and providing this to DEWPO and DEEERMS.

**PDS** is responsible for:

- determining the applicability of Smart Infrastructure during Phase 1, and ensuring the applicable requirements have been reflected through the design, procurement and contract documentation in order to be translated into the delivered outcome
- completing and documenting the relevant section(s) of the EWP Preliminary Assessment Matrix and loading the document onto Objective
- marking the 'check box' or equivalent, when the Assessment Matrix and/or Project Screening has been completed and where the project is applying elements of Smart Infrastructure, so the project is captured in project level reporting
- including any proven examples of innovation / continuous improvement based on the Smart Infrastructure outcomes as part of the Business Improvement Plans, or as requested and
- providing ongoing reporting twice a year (end of January and July) on projects that Smart Infrastructure has been applied to.

PDS responsibility pertaining to Smart Infrastructure concludes at the point of successful project handover and completion.

## Want to know more?

Visit the Smart Infrastructure page on the DEQMS website or for more information contact the Directorate of Energy Efficiency, Environmental Resource Management and Sustainability (DEEERMS) on:

t: (02) 6266 8045

e: [Smart.Infrastructure@defence.gov.au](mailto:Smart.Infrastructure@defence.gov.au)