



**Australian Government**  
**Department of Defence**  
Estate and Infrastructure Group

# Smart Infrastructure Manual and the Estate Works Program

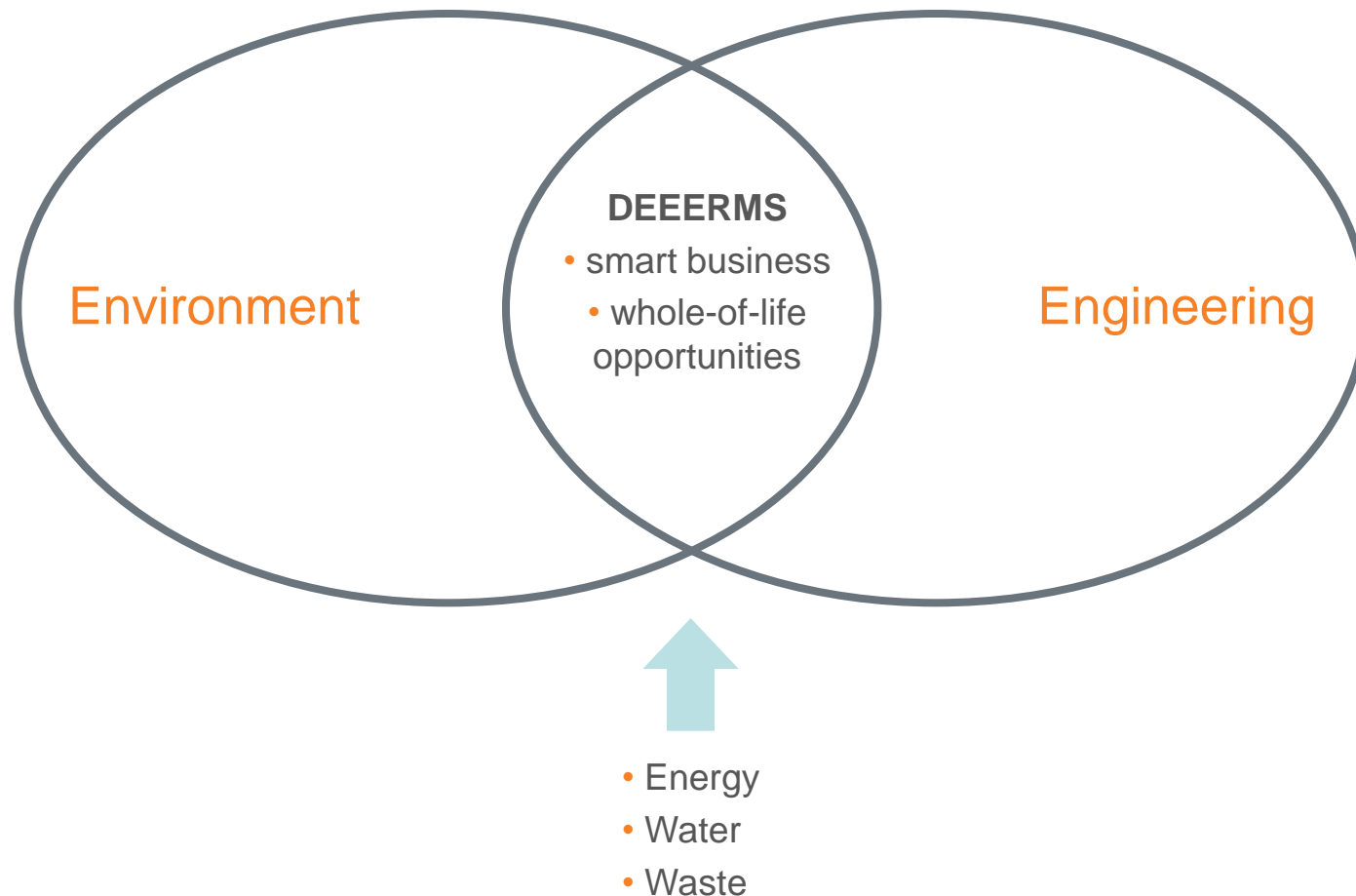
## Training and Awareness Sessions

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(DEEERMS)

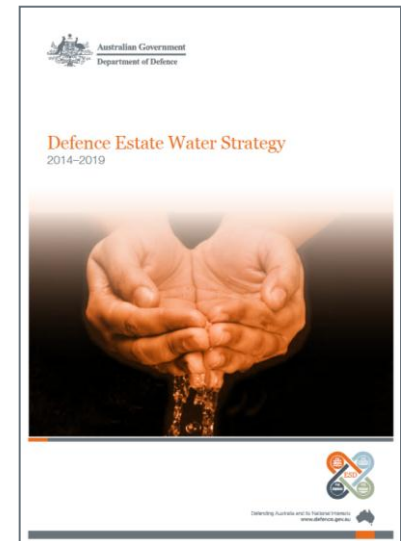
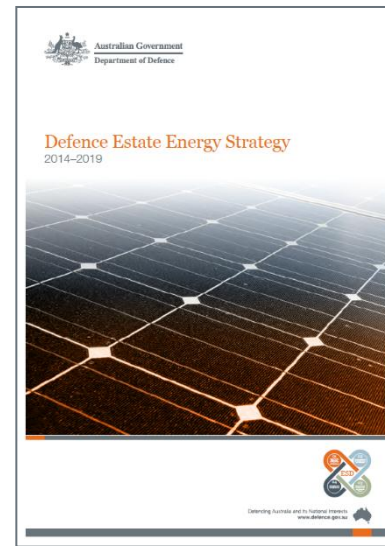


# Environment and Engineering Branch



# Overview

- Renewable Energy Program
- ESD Program
  - Delivered through EWP
- Resource Data Management System (RDMS)
  - Energy, water and waste
- Smart Infrastructure
  - MCFP and EWP



## Purpose of today

- Overview of Smart Infrastructure
- Application to the Estate Works Program
  - Process
- Monitoring
- Resources on DEQMS and ongoing support from DEEERMS

# Principles

1. Reducing Whole-of-Life (WOL) cost
2. Building corporate knowledge

16-vehicle wash point, Enogerra, Gallipoli Barracks, Queensland



## What is it?

- Manual, EWP Addendum and Preliminary Assessment Matrix on DEQMS
  - Design and construction minimum requirements
  - ESD and WOL guidance
- Endorsed by FASI and Deputy Secretary

# Smart Infrastructure Manual: Design and Construction



## Application to the EWP

- Alignment of WOL and ESD requirements across infrastructure programs
- Inform assessment of technologies and materials such that procurement occurs on a WOL basis
- Minimise resource consumption while meeting users' needs
- Improve the environmental attributes of materials used while remaining fit for purpose.



## Principles of application

- Principles are captured in the Smart Infrastructure EWP Addendum
  - Requirement that applicability of Smart Infrastructure is assessed for projects in the EWP
  - Any decision to exclude is documented using the EWP Preliminary Assessment Matrix with justification
  - Justification for exclusion is filed on Objective.

## EWP Preliminary Assessment Matrix

- Applied during Phase 1
- Two parts:
  1. Project Screening (Table 1) all projects complete
  2. Assessment Matrix (Table 2) completed only for projects applying Smart Infrastructure

## Project Screening (Table 1)

- Intent: high level project screen
  - Criteria:
    - Project size
    - Scope of works not applicable
    - Limited impact on resource consumption (i.e. energy, water or material use) or waste diversion

## Assessment Matrix (Table 2)

- Only for projects applying Smart Infrastructure
  - Work elements
  - Reference to sections, clauses in Smart Infrastructure
  - Applicability
    - Justification only required if 'N'

## Interim Checklist

- Will be replaced by check box in GEMS
  - In the interim PDS to track if the project is applying Smart Infrastructure

*Outcome:*

*DEERMS to understand number of projects applying and not applying Smart Infrastructure*

# Program Initiation

Project Identification	Identify possible projects where Smart Infrastructure needs to be considered, default is that all projects are to be considered by PDS	<b>NPS</b>
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Project Identification



# Program Development

Phase 1 Scope and Feasibility	1) Complete Project Screening (Table 1) 2) ONLY IF applying complete Assessment Matrix (Table 2) 3) Mark Y/N in interim Checklist*	Upload Table 1 (and Table 2 if applying) to objective	<b>PDS</b>
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\* Checklist will eventually be replaced by GEMS

Phase 1 Scope and Feasibility



# Program Development

Phase 2 Design	Requirements assessed as applicable are translated into the delivered outcomes	Reflected in procurement and contract documentation	<b>PDS</b>
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Phase 2 Design





# Reporting

Project level application	Number of projects applying and not applying Smart Infrastructure	Six-monthly report (end of January and July respectively)	<b>PDS</b>
Business Improvement Plans	Include examples of innovation / continuous improvement	Annually	<b>PDS</b>
Program level report	Collation of above PDS Checklist	Six-monthly (as above)	<b>NPS</b>



# Monitoring and evaluation (DEEERMS)

## Monitoring

- Number of projects applying Smart Infrastructure
- Audits of completed projects and documentation on objective (i.e. Tables 1 and 2) by exception
  - e.g. checking justification for exclusion
- **Measurement and verification using the Resource Data Management System**

## Evaluation

- DEEERMS ongoing review of application and outcomes
  - Feedback from PDS and NPS
  - Continuous improvement

## Roll out

- Applied from the next tranche or project release Oct-Nov 2016 onwards
- Documentation:
  - Smart Infrastructure on [DEQMS](#)
  - EWP Addendum, Matrix and Interim Checklist
  - WOL Assessment guidance
    - Effective utility rates on DEQMS [intranet](#)
  - National Sub-meter Program (NSP) on [DEQMS](#)
  - RDMS on [DEQMS](#)

## ESD and WOL opportunities?

- Either:
  - [Smart.Infrastructure@defence.gov.au](mailto:Smart.Infrastructure@defence.gov.au) OR
  - If you have access to the RDMS then entering a Sustainability Action Plan (SAP):

<http://www.defence.gov.au/estatemangement/Support/RDMS/Default.asp>

## Questions?

- Happy to help  
[Smart.Infrastructure@defence.gov.au](mailto:Smart.Infrastructure@defence.gov.au)



Natural lighting and high efficiency lighting, Warehouse,  
RAAF Base Amberley