



Defence E&IG Equipment Records – Solar Panels

Definition

1.1 Solar Panels are a packaged, connected assembly of photovoltaic cells used to convert energy from sunlight into electricity. Groups of Panels connected together are called Arrays. The Estate Class ID for Solar Panels is E.EL.03.04.

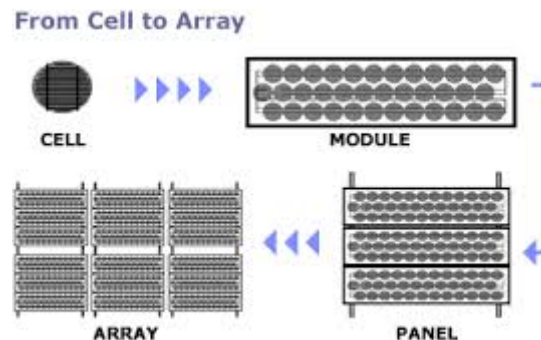


Figure 1 - From Cell to Array

Information Steward

1.2 In accordance with the EIG IM Framework, the Information Subject Area Steward for Equipment & Equipment System records is AS ESD, the Business Information Steward is Director DEPU.

Data Requirements

1.3 The recording granularity for Solar Panels is one record per array (group of panels) with the number of panels making up the array recorded in the quantity (weight) field in GEMS

1.4 All Solar Panel records will have a Physical Parent (Superior FLOC) of either a Property, a Building (recorded at lowest level possible, eg. Level or Space), an Infrastructure or a Land Space record. All Solar Panel records must have an applicable Equipment System – Electrical – Generation recorded as a Functional Parent.

1.5 Where there is a Warranty applicable to the item the following additional information applies:

- a. On creation of the record, the Master Warranty record for the array
- b. Set as inclusive in the Exclusive/Inclusive column
- c. Set the warranty period in days
- d. Associate the Master warranty to equipment record and set the start date

If one or more individual panels within the array are replaced while the original warranty period is current you will need to contact the GEMS Master Data team to update the record. This update cannot be done with the current GDL tool. Provide the information to the Master Data team in the format at Attachment 2. An example of the result in GEMS is below showing Panel 3 (the new panel) with a different warranty end date than the other panels

WarrResult	Item	Text	Service	T/E	OPR	WarrIt	Warranty_courser	Warr.description	Start date	End date	Start Wrrty/val.	DN	Adj date	Warrty/valueAdj	DN	End Warrty/value	DN	DeltaValueWrrty	DN
1	SOLAR PANEL 1 WARRANTY			I	ASD	1	1	12M_WARRANTY_DAYS	Warranty in number of days	19.02.2020	19.09.2020	0	Days	27.09.2020	90	Days	213	Days	213
2	SOLAR PANEL 2 WARRANTY			I	ASD	1	1	12M_WARRANTY_DAYS	Warranty in number of days	19.02.2020	19.09.2020	0	Days	27.09.2020	90	Days	213	Days	213
4	SOLAR PANEL 4 WARRANTY			I	ASD	1	1	12M_WARRANTY_DAYS	Warranty in number of days	19.02.2020	19.09.2020	0	Days	27.09.2020	90	Days	213	Days	213
5	SOLAR PANEL 5 WARRANTY			I	ASD	1	1	12M_WARRANTY_DAYS	Warranty in number of days	19.02.2020	19.09.2020	0	Days	27.09.2020	90	Days	213	Days	213
6	SOLAR PANEL 6 WARRANTY			I	ASD	1	1	12M_WARRANTY_DAYS	Warranty in number of days	19.02.2020	19.09.2020	0	Days	27.09.2020	90	Days	213	Days	213
7	SOLAR PANEL 7 WARRANTY			I	ASD	1	1	12M_WARRANTY_DAYS	Warranty in number of days	19.02.2020	19.09.2020	0	Days	27.09.2020	90	Days	213	Days	213
8	SOLAR PANEL 8 WARRANTY			I	ASD	1	1	12M_WARRANTY_DAYS	Warranty in number of days	19.02.2020	19.09.2020	0	Days	27.09.2020	90	Days	213	Days	213
9	SOLAR PANEL 9 WARRANTY			I	ASD	1	1	12M_WARRANTY_DAYS	Warranty in number of days	19.02.2020	19.09.2020	0	Days	27.09.2020	90	Days	213	Days	213
10	SOLAR PANEL 10 WARRANTY			I	ASD	1	1	12M_WARRANTY_DAYS	Warranty in number of days	19.02.2020	19.09.2020	0	Days	27.09.2020	90	Days	213	Days	213
11	SOLAR PANEL 3 WARRANTY NEW			I	ASD	1	1	12M_WARRANTY_DAYS	Warranty in number of days	19.02.2020	19.08.2022	0	Days	27.09.2020	90	Days	943	Days	943

Figure 2 - Warranty set up in GEMS

If one or more individual panels within the array are replaced after the original warranty period has expired you will need to contact the GEMS Master Data team to update the record. This update cannot be done with the current GDL tool. Provide the information to the Master Data team in the format at Attachment 2.

1.6 All Solar Panel records must contain all the relevant information as defined in ERIM, the attributes are outlined in Table 1 in Attachment 1

1.7 All data supplied for create, change/update and disposal of solar panel records in GEMS must be in the GDL format.

1.8 All Solar Panel records are expected to have an Objective folder created in the Estate Management hierarchy, which will be available as a direct link from the SAP record. The GEMS Master Data Team will facilitate the creation of this folder for new records.

Naming Convention

1.9 Solar Panel records will be named 'Solar Array #####'. The ##### is optional text and can be any additional descriptor to identify the record, eg the Array identifier on any monitoring equipment, a local Array number. The maximum field length for the name of the asset (Short Description) is 40 characters.

Examples

1.10 Figure 3 below shows a large scale solar farm with panels grouped in multiple arrays. In this example we would expect one record per distinct group per row. That is, 4 records per row in the photo.



Figure 3 - Large Scale Solar Farm

1.11 Figure 4 below shows a smaller roof mounted array with panels grouped in multiple arrays. In this example we would expect one record per distinct array. That is, 3 records, 1 per row (array) in the photo.



Figure 4 - Small Roof mounted Array

Spatial Requirements

- 1.12 Solar Arrays should be identified on the Master Site Plan in accordance with the SDMP.
- 1.13 Other drawings or plans may be required in accordance with contract specifications.

Attachment 1 – ERIM Field Extract

Field Name	ERIM ID	Field Description	Data requirements	Source System
Functional Parent	1011	The estate element within which this item provides functionality. Recorded as the unique id of functional parent item.	Must be an ES.EL.G item	SAP – GEMS
Physical Parent	1012	The estate element this item is located within. Recorded as the unique id of physical parent item. GDL Field – Functional Location	Allowed Physical Parent types are Property, Building (To be recorded against level or space if applicable), Infrastructure or Land Space	SAP – GEMS
Authorization Group	1017	This field represents one of the regions the asset is to be created for. Aligns with EMOS contracts. This field should be entered or checked by EMOS		SAP – GEMS
House Number	1018	The street number applicable to the item	Information Rule 001 – Address Standards	SAP – GEMS
Street Name	1015	The name of the street where the item is located	Information Rule 001 – Address Standards	SAP – GEMS
Suburb	1016	Suburb for the facility, typically building and non-networked infrastructure. Equipment will typically inherit suburb from the building in which it is located. Equipment GDL Field (City)	Information Rule 001 – Address Standards	SAP – GEMS
State	1095	State of Australia in which the asset is located (International for overseas locations). In GDL/GEMS this is the field named REGION	Information Rule 001 – Address Standards	SAP – GEMS
Postcode	1019	Postcode relevant to the Suburb	Information Rule 001 – Address Standards	SAP – GEMS
Country	1021	Country where the asset is located	Information Rule 001 – Address Standards	SAP – GEMS
Asset Description	1020	The name of the asset in accordance with the Naming Convention in para 1.8 (GDL field - Description of Technical Object)	Asset Naming Standard and conventions	SAP – GEMS
Equipment Category	1023	This field shows a list of equipment categories. It is automatically derived from Estate Class 2 for equipment		SAP – GEMS
Object Type	1024	The object type is derived from the Estate Class 3 for Equipment items and EC 2 for Estate items (EC1 used if no EC2). Applicable to all EC's		SAP – GEMS

Field Name	ERIM ID	Field Description	Data requirements	Source System
Description	1025	A free text field for recording important information not covered by other attributes within the register. This field should be read as a comment field		SAP – GEMS
Plant Section	1026	Region that the asset is in		SAP – GEMS
Work Centre	1027	Identifies the main group that will undertake activities on the object which is broken down by region and product.		SAP – GEMS
GEMS Systems ID	1035	This is the SAP Equipment number. It is created by the GEMS Sustainment Team		SAP – GEMS
Estate Business Identifier	1040	The Business (common) identifier for the item. For older items this can be the ID from Legacy systems (DEMS and/or IBIS). The EBI is printed on the label if one is required. In GEMS this is the Sort Field		SAP – GEMS
ABC Indicator	1041	A maintenance liability threshold for which Defence is liable under the EMOS contract for asset defect correction.		SAP – GEMS
Pricing Id	1042	Pricing group used as part of the EMOS-EU contract. Generally as defined in the ERIM and estate class specific but modified based on functional parent. Full listing providing in the SDT.	This is an EMOS-EU only reference	SAP – GEMS
Country Of Manufacture	1052	Country where the asset was manufactured		SAP – GEMS
Maintenance Strategy	1055	A high-level classification of the asset's maintenance strategy.		SAP – GEMS
Maintenance Responsibility	1060	The method or contractual element used to deliver the Maintenance Strategy.		SAP – GEMS
Target Condition	1065	The target condition of the element of the estate in accordance with EA Policy.	EA Policy	SAP – GEMS
Criticality	1075	Is the item a critical item in terms of capability or continuity. Critical items require a spares plan and critical down-time plan.		SAP – GEMS
Tax Code	1085	Applicable tax code relating to Defence's ability to claim input tax credits, determined by a combination of Type Category and location. Applies to all items associated with buildings and Equipment within buildings. P1 is the default. P3 is used for Off Base Accommodation providing permanent/long term residential accommodation (no claimable input tax credit) P1/P3 Combination is used for on base LIA providing permanent/long term residential accommodation (reduced claimable input tax credit). P4 is used for overseas facilities (Region = Overseas), where GST is not applicable		SAP – GEMS
Installation Build Date	1100	The date the asset was installed/built.		SAP – GEMS

Field Name	ERIM ID	Field Description	Data requirements	Source System
Start-Up Date	1105	The date when the asset was commissioned		SAP – GEMS
Decommissioning Date	1110	The date when the asset was decommissioned and no longer used		SAP – GEMS
Asset Status	1115	The status of the asset from a pre-defined list. In GEMS and GDL field may be called EQUIPMENT STATUS, ASSET USER STATUS, etc	Information Rule 002	SAP – GEMS
Ownership Lifecycle	1120	The stage in the asset lifecycle through planned acquisition to disposal	Information Rule 002	SAP – GEMS
Remaining Life	1210	The useful remaining life of an asset.		SAP – GEMS
Contribution Factor	1215	A rating of 1 (high) to 5 (low) defined by Defence as the Contribution Factor (CF). The rating differentiates the role and importance played by an asset in supporting and contributing to Defence capability.		SAP – GEMS
Target Functionality	1220	A measure of the requirement for the facility to perform its primary function that is, the level at which the asset is required to operate	EA Policy	SAP – GEMS
Criticality Factor	1225	An assessment of the criticality of the element on the estate in accordance with EA Policy.	EA Policy	SAP – GEMS
Design Life	1235	The design life of an asset based on the asset's expected utility.		SAP – GEMS
Estate Appraisal Frequency	1285	The maximum period of time in years between physical appraisals on the Defence Estate in accordance with EA policy. In certain circumstances the frequency is determined by parent (functional) system or physical building, or legislative requirement for Defence policy.	EA Policy	SAP – GEMS
Month Of Manufacture	1378	Enter the Month of Manufacture (EQ)		SAP – GEMS
Valid From Date	1388	The date the record is created. Records (transactions, plans, etc) can be assigned to the record from this date forward		SAP – GEMS
Year Of Manufacture	1390	Enter the Year of Manufacture (EQ)		SAP – GEMS
Quantity	2050	The number of items. In GEMS, for equipment items this information is held in the Weight field	Qty of panels in the Array	SAP – GEMS
Manufacturer	2135	Manufacturer name		SAP – GEMS
Model Number	2140	Equipment Model number		SAP – GEMS
Serial Number	2145	Equipment serial number.		SAP – GEMS
Equipment Input Power (kW)	2215	The electrical input power to the Equipment.		SAP – GEMS
KVA Rating	4405	Power value of a device		SAP – GEMS
Kw Rating	4410	Power requirement or supply of a device (kW)		SAP – GEMS
Associated Asset ids	7700	This field is to record an asset that is related or connected to the asset in order for it to be operational. It does not have to be part of the		SAP – GEMS

Field Name	ERIM ID	Field Description	Data requirements	Source System
		integrated system to which the asset belongs. For example used to associate a fuel tank (the associated asset) with the Generator that it supports.		
Company Code	NA	This field is always defaulted to 1000		SAP – GEMS
Controlling Area	NA	This field is always defaulted to CA01		SAP – GEMS
Inactive System Status	NA	This indicator is used in conjunction with the disposal marker to deactivate items withing the system on disposal		SAP – GEMS
Maintenance Planning Plant	NA	This field is always defaulted to 1000		SAP – GEMS
Maintenance Plant	NA	This field is always defaulted to 1000		SAP – GEMS
Plant associated with Main Work Centre	NA	This field is always defaulted to 1000		SAP – GEMS
Voltage	2200	Voltage rating of the estate element in Volts		SAP – GEMS
Warranty Data Fields to be populated if applicable			See para 1.5	
External Warranty Number	1391	If a Warranty Identifier has been issued by the manufacturer		SAP – GEMS
Indicator: Pass On Warranty	1392	Indicates if the object has a warranty to pass on to children objects. Enter Y if the warranty applies to the downstream fitout or components of the asset or the integrated system (ie its children).		SAP – GEMS
Inherit Parent Warranty	1393	Indicates if the object inherits warranty information from the parent or not		SAP – GEMS
Warranty Counter	1394	Records the unit of measure for counting of warranty period. Will always be DAYS in GEMS		SAP – GEMS
Warranty Short Description	1395	A description of the master warranty		SAP – GEMS
Warranty Type	2150	Determines the type of warranty, Default value is Vendor Warranty		SAP – GEMS
Counter Link	NA	Is used for when there are more than one counter to determine when the warranty ends. In most instances the counter will be 'AND'		SAP – GEMS
Warranty Long Text	1200	Anything pertinent to the DLP/Warranty that is not captured in other fields		SAP – GEMS
Warranty Start Date	1170	The start date of the Defects Liability Period or the individual Warranty		SAP – GEMS
Warranty End Date	1175	The end date of the Defects Liability Period or the individual Warranty		SAP – GEMS
Warranty Contractor Name	1180	This is the name of the vendor supplying the warranty		SAP – GEMS
Warranty Contractor Phone	1185	Vendor contact land line number		SAP – GEMS

Field Name	ERIM ID	Field Description	Data requirements	Source System
Warranty Contractor Mobile	1186	Vendor contact mobile number		SAP – GEMS
Warranty Contractor Email	1190	Vendor contact email address		SAP – GEMS
Warranty Contractor Terms	1195	Contract terms relating to the DLP/Warranty. Link to document.		SAP – GEMS

Table 1 – Data Requirements for Solar Panel ECID E.EL.03.04

Attachment 2 – Updated Warranty Information format

GEMS Equipment ID	
GEMS Master Warranty No	
Current Warranty Start Date	
Quantity of Panels in array	
Current Warranty End Date	
Panel Numbers Replaced	
New Panel Warranty Start Date	
New Panel Warranty End Date	
New Panel Warranty Vendor details (if different to existing warranty details)	Name – Phone Number – Email -