## Sub Working Group: Power Systems

## Task Register Reference

* 2.2.2 – Guidance on commissioning of equipment.
* 5.1.2 - Review of IALA documents (ref ENG1 input paper on document ownership).

## Summary

A guideline on commissioning has been concluded for review and approval.

Progress has been made with improvements to the IALA solar model. This is still ongoing and will continue until the workshop.

We have identified some additional heading to add to guidelines 1067. These heading have been add and ongoing work to update the 4 documents is progressing. This will continue until the workshop.

## Activity

During the session work has been done on the following documents as part of the review and updating process:

* **Created** – a new guideline on commissioning
* **Update** 1067-0 Ed1.1 - Selection of Power Systems for AtoN and Associated Equipment\_Jun2011 to create this as an overview document to power system design and review and remove the annex
* **Update** 1067-2 Ed1 Power Sources\_May2009 and review the current document and add information about designing other types of power generation system.

No work was planned to be done on the following:

* **Update** 1039 Ed1 Designing Solar Power Systems for Aids to Navigation\_Dec2004 – The instruction on use of the solar size program will need to be update to reflect changes in the tool (see below).
* **Update** 1008 Ed2 Remote Control and Monitoring\_Jun2009 – as this will need to be review and updated to reflect current approaches.

Anticipated actions on Tools (Calculators):

* 1039 Solar size program-2004 – Review and update the program to reflect areas of identified improvements. This is ongoing.



## Timetable to Actions

| Action | What | Who | Progress | Complete by |
| --- | --- | --- | --- | --- |
|  | ~~Consider the creation of other support and design tools, such as wind generator and generator set use.~~ |  | Following review of the IALA solar model, it was felt that this should remain a simple solar model only. More complete hybrid models are publicly available such as RETscreen. | Done |
|  | Consider the creation of other support and design tools such as battery sizing. | Peter Dobson | Input paper ENG3-10.18 was reviewed and felt not to be of benefit to other members at this time. | Done |
|  | Compare the performance of the above tool (Solar) against RETscreen calculator | Leif Larsen & Peter Dobson | Worked on at ENG3.  Reviewed input papers. Compared RETscreen to other models and the results that it provided were more optimistic than the IALA solar model | Done |
|  | Add all tools to the IALA Wiki | Jorg Unterderweide | **On going** | On going |
|  | **Merge** 1011 Ed1.1 - A standard Method for Defining & Calculating the Load Profile of AtoN\_Dec2005 and 1067-1 Ed1 - Total Electrical Loads of Aids to Navigation\_May2009 | Jorg Unterderweide | The two document have already been merged in 2009. | Done |
|  | **~~Merge~~** ~~1044 Ed1 - Secondary Batteries for Aids to Navigation\_Jun2005 and~~  **Review** 1067-3 Ed1 - Electrical Energy Storage for Aids to Navigation\_May2009 | Peter Dobson | 1067-3 is being reviewed and will be completed following the workshop | ENG7 |
|  | **Update** 1067-0 Ed1.1 - Selection of Power Systems for AtoN and Associated Equipment\_Jun2011 to create this as an overview document to power system design and review and remove the annex | All | 1067-0 is being reviewed and will be completed following the workshop | ENG 7 |
|  | **Update** 1067-2 Ed1 Power Sources\_May2009 and review the current document and add information about designing other types of power generation system. | Ronan Autret & Peter Dobson | 1067-2 is being reviewed and will be completed following the workshop | ENG7 |
|  | **Review / update 1067-1** Total Electrical Loads of Aids to Navigation\_May2009 | All | 1067-1 is being reviewed and will be completed following the workshop |  |
|  | **Update** 1008 Ed2 Remote Control and Monitoring\_Jun2009 – as this will need to be review and updated to reflect current approaches. | Leif Larsen | This will be started at ENG5 | ENG6 |
|  | **Cross reference** 1036 Ed1 Environmental Considerations in Aids to Navigation Engineering\_Dec2004 - Just needs checking for on-going relevance. | James Collocott | Input from James was received and reviewed at ENG3. | Done |
|  | **Cross reference** 1077 Ed1 Maintenance of Aids to Navigation\_Dec2009 – If this is to be discontinued then a new maintenance document needs to be created reflecting the maintenance required on power systems. | All | This has been discussed and any maintenance guidance relating to power systems is to be included within 1067. | Done |

## Intersessional Actions

* Jorg Unterderweide to check the night hours’ calculation detailed in 1067-1
* All to review 1067-1 and submit changes and/or additions to the calculation for ENG 5
* All to review 1067-2 and submit changes and/or additions to the calculation for ENG 5
* Note – 1067-3 and 1067-0 will be worked on at ENG5 and intersessionally before workshop / ENG6

## Actions

* Action - The secretariat is to withdraw the following guideline from the IALA website:
  + 1011 – A standard method for defining and calculating the load profile of Aids to Navigation.

This guideline has been replaced by 1067 - 1