## Sub Working Group: Power Systems (5.1.2.)

## Task Register Reference

* 5.1.2 - Review of IALA documents (ref ENG1 input paper on document ownership).

## Summary

Progress was made in assigning documents to review intercessionally and agreeing timelines to achieving the update to documents identified.

## Activity

Review of the suit of IALA documents occurred with a focus on power systems. A summary of the finding is detailed below:

Anticipated action on documents to update:

* **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

* **Merge** 1044 Ed1 - Secondary Batteries for Aids to Navigation\_Jun2005 and

1067-3 Ed1 - Electrical Energy Storage for Aids to Navigation\_May2009

* **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.
* **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 other power sources.
* Consider the creation of other support and design tools, such as wind generator, battery sizing and generator set use.
* Add all tools to the IALA Wiki

Cross reference

* 1036 Ed1 Environmental Considerations in Aids to Navigation Engineering\_Dec2004 - Just needs checking for on-going relevance.
* 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.



## Timetable to Actions

| Action | What | Who | Progress | Complete by |
| --- | --- | --- | --- | --- |
|  | 1039 Solar size program-2004 – Review and update the program to reflect other power sources. | All | Reviewed at ENG 2 with actions for ENG3 and Batt workshop | ENG 7 |
|  | **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). | Jorg Unterderweide | Input paper for ENG 6 | ENG 7 |
|  | Consider the creation of other support and design tools, such as wind generator and generator set use. |  | Considered at ENG2 with actions for input to Batt workshop |  |
|  | Consider the creation of other support and design tools such as battery sizing. | Peter Dobson | Input paper to ENG3 | ENG 4 |
|  | Compare the performance of the above tool against RETscreen calculator | Leif Larsen & Peter Dobson |  | ENG4 |
|  | Add all tools to the IALA Wiki | Jorg Unterderweide | Pages to be produced by ENG 3 | 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 | Initial review as an input paper for ENG 3 | ENG6 |
|  | **Merge** 1044 Ed1 - Secondary Batteries for Aids to Navigation\_Jun2005 and 1067-3 Ed1 - Electrical Energy Storage for Aids to Navigation\_May2009 | Peter Dobson | Initial review as an input paper for ENG 3 with a possible action for the Heat workshop. | ENG5 |
|  | **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 | Initial review as an input paper for ENG 4 | 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 | Initial review as an input paper for ENG 3 | ENG7 |
|  | **Update** 1008 Ed2 Remote Control and Monitoring\_Jun2009 – as this will need to be review and updated to reflect current approaches. | Leif Larsen | Initial review as an input paper for ENG 3 | ENG6 |
|  | **Cross reference** 1036 Ed1 Environmental Considerations in Aids to Navigation Engineering\_Dec2004 - Just needs checking for on-going relevance. | James Collocott | Checking for ongoing relevance and provide an input paper | ENG3 |
|  | **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 | Maintenance of power systems needs to be addressed. The question is, in which document it should appear?  The text of Annex 5 was reviewed at ENG 2 with recommended changes. See working paper ENG2-???? | ENG3 |

## Intercessional Actions

* Review the documents assigned in the table above to identify areas for removal, addition or change.
* These changes are to be sent to Jorg Unterderweide who will add them to the IALA Wiki for group editing.
* Jorg Unterderweide to submit an input paper to ENG3 summarising these changes.