COMMISIONING DOCUMENT

USAGM Udon-Thani, Thailand

Project : SWGR replacing battery

Location : SWGR room T&A building

1. Unpack inspection, lead, body, etc. ❑ Yes ❑ No .....
2. Terminal torque .....ft.lb ❑ Yes ❑ No .....
3. Battery alignment, space, etc. ❑ Yes ❑ No .....
4. Battery polarity conection ❑ Yes ❑ No .....
5. Initial charge 24 hr. [1] ❑ Yes ❑ No .....
6. Battery connection resistance [2] ❑ Yes ❑ No .....

Cell	μ-Ω	Cell	μ-Ω	Cell	μ-Ω	Cell	μ-Ω	Cell	μ-Ω	Cell	μ-Ω
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= .....

7. Specific gravity ❑ Yes ❑ No .....

Cell	Sp.Gr.	Cell	Sp.Gr.	Cell	Sp.Gr.	Cell	Sp.Gr.	Cell	Sp.Gr.	Cell	Sp.Gr.
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= .....

8. Float voltage ❑ Yes ❑ No .....

Cell	Vdc	Cell	Vdc	Cell	Vdc	Cell	Vdc	Cell	Vdc	Cell	Vdc
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= .....

9. Temperature ❑ Yes ❑ No .....

Cell	F	Cell	F	Cell	F	Cell	F	Cell	F	Cell	F
1		12		24		36		48		60	
6		18		30		42		54		-	

Temp.= .....

10. Internal ohmic value ❑ Yes ❑ No .....

Cell	Ω	Cell	Ω	Cell	Ω	Cell	Ω	Cell	Ω	Cell	Ω
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= .....

11. Capacity test [3] ❑ Yes ❑ No .....

1 hr.

Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= ..... End voltage = ... Kc = ...

2 hr.

Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= ..... End voltage = ... Kc = ...

3 hr.

Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= ..... End voltage = ... Kc = ...

4 hr.

Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= …… End voltage = …… Kc = ……

5 hr.

Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= …… End voltage = …… Kc = ……

6 hr.

Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= …… End voltage = …… Kc = ……

7 hr.

Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= …… End voltage = …… Kc = ……

8 hr.

Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= …… End voltage = …… Kc = ……

9 hr.

Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= …… End voltage = …… Kc = ……

10 hr.

Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l	Cell	Vdc,l
1		11		21		31		41		51	
2		12		22		32		42		52	
3		13		23		33		43		53	
4		14		24		34		44		54	
5		15		25		35		45		55	
6		16		26		36		46		56	
7		17		27		37		47		57	
8		18		28		38		48		58	
9		19		29		39		49		59	
10		20		30		40		50		60	

Temp.= …… End voltage = …… Kc = ……

12. % capacity calculation follow IEEE450

13. Approve by

Test engineer (Contractor)	USAGM inspect.	USAGM sup.
……	……	……
(……	(……	(……)
Engineering license No. ……		

Note : [1] If lower charge that will extend the duration the initial charge to as mach as 72 hr. or by manufacturer.

[2] Test data refer IEEE450 annex F

[3] Test data refer manufacturer, if tool has automatic data locker function, please attach the result data.