TOOL SUMMARY FORM (PER TOOL)

Vendor/Tool: TNA- DMS&EKC	Profile edition No: 1

Witnessed by

Name	Signature	Name	Signature
1. Vladimir Milić		9.	
2. Oana Udrea	Udrea	10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Performed tests

Test No	Score	Test No	Score	Test No	Score	Test No	Score	Test No	Score
1	4								
2	4								
3	4								
4	4								
5	4								
7	4								
8	4								
9	4								

Comments:

Test No6 and No10 did not perform because of lack of time during the IOP

Date	Vendor		ENTSO-E	
15/7/2011	Name	Signature	Name	Signature
	Dragan Tomić DMS-EKC		Chavdar Ivanov	

SINGLE TEST RECORD FORM

Test No: 1	Profile edition No: 1	Tool: TNA - DMS&EKC	Score: 4

Test files:

Import	Export
ENTSO-E_Boundary_Set_4_May_2011_EU_EQ ENTSO-E_Boundary_Set_4_May_2011_EU_TP ENTSO-E16nodes_part_BE_v5July_EQ ENTSO-E16nodes_part_BE_v5July_SV ENTSO-E16nodes_part_BE_v5July_TP	

Comments/Results/Issues:

Imported the 3 *.xml files (1st Profile) and then the 2 files for Boundary.
Run load flow. Load flow converged.
Topological name was checked (instead two character it was put name with 8 character). The error with name was detected.

Screenshots are in the supplementary files.

Supplementary files:

- \\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test1.1\Test1.1_1st_TN_11j1330.jpg
- \\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test1.1\Test1.1_1st_TN_11J1335

Date	Vendor – DMS&EKC		Test witness	
	Name	Signature	Name	Signature
11.7.2011	Dragan Tomić		Vladimir Milić	

SINGLE TEST RECORD FORM

Test No: 2	Profile edition No: 1	Tool: TNA	Score: 4

Test files:

Import	Export
ENTSO-E16nodes_part_BE_v5July_EQ ENTSO-E16nodes_part_BE_v5July_SV ENTSO-E16nodes_part_BE_v5July_TP ENTSO-E_Boundary_Set_4_May_2011_EU_EQ ENTSO-E_Boundary_Set_4_May_2011_EU_TP	ENTSO-E16nodes_part_BE_v5July_TN_11J14h10_EQ ENTSO-E16nodes_part_BE_v5July_TN_11J14h10_SV ENTSO-E16nodes_part_BE_v5July_TN_11J14h10_TP

Comments/Results/Issues:

Exported (from original test files) 3 *.xml files (1st Profile)
3 exported files were imported in CIMDesk with Boundary files.
RDFids are the same in comparison with original test files.
It reports error on OperationalLimitType which is the same error reporting in the original file.

Screenshot is in the supplementary file.

Supplementary files:
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test2.1\Test2.1_1st_TN_11J1400

Date	Vendor		Test witness	
	Name	Signature	Name	Signature
11.7.2011.	Dragan Tomić		Vladimir Milić	

SINGLE TEST RECORD FORM

Test No: 3	Profile edition No: 1	Tool: TNA	Score: 4

Test files:

Import	Export
ENTSO-E16nodes_part_BE_v5July_EQ ENTSO-E16nodes_part_BE_v5July_SV ENTSO-E16nodes_part_BE_v5July_TP ENTSO-E_Boundary_Set_4_May_2011_EU_EQ ENTSO-E_Boundary_Set_4_May_2011_EU_TP	

Comments/Results/Issues:

Imported the 3 *.xml files (1st Profile) and then the 2 files for Boundary MAS.

We compare the load flow result from TNA – DMS&EKC with the result from ODMS (ODMS_Loadflow_BE.pdf).

The following node and line were checked:

		TNA	ODMS	delta
Node C4	U [kV]	231.6	231.6	0.0%
	angle [°]	-38	-38	0.0%
Line_1	P [MW]	25	25	0.0%
	Q [Mvar]	-1	-1	0.0%

The results are completely the same.

Supplementary files:

Date	Vendor		Test witness	
	Name	Signature	Name	Signature
12.7.2011.	Dragan Tomić		Vladimir Milić	

Test No: 4	Profile edition No: 1	Tool: TNA	Score: 4

Test files:

Import	Export
ENTSO-E16nodes_part_BE_v5July_EQ ENTSO-E16nodes_part_BE_v5July_SV ENTSO-E16nodes_part_BE_v5July_TP ENTSO-E_Boundary_Set_4_May_2011_EU_EQ ENTSO-E_Boundary_Set_4_May_2011_EU_TP	ENTSO-E16nodes_part_BE_v5July_TN_11J16h15_SV ENTSO-E16nodes_part_BE_v5July_TN_11J16h15_TP

Comments/Results/Issues:

Imported the 3 *.xml files (1st Profile) and then the 2 files for Boundary.
ACLineSegment with name 1 (alias name 10T-AT-DE-000061) has been disconnected from model with both terminals connected field set to false.
The exported file was check with CIMdesk. The result is shown in the attached file "CIMdesk_TP_Validation.jpg".

Supplementary files:

- Test4.1_1st_TN_11J15h55.jpg
- Test4.1_b_1st_TN_11J15h55.jpg
- Test4.1_c_1st_TN_11J15h55.jpg
- Test4.1 \IMdesk_TP_Validation.jpg

Date	Vendor		Test witness	
11/July/2011	Name	Signature	Name	Signature
	Dragan Tomić		Vladimir Milić	

Test No: 5	Profile edition No: 1	Tool: TNA	Score: 4

Test files:

Import	Export
ENTSO-E16nodes_part_BE_v5July_EQ ENTSO-E16nodes_part_BE_v5July_SV ENTSO-E16nodes_part_BE_v5July_TP ENTSO-E_Boundary_Set_4_May_2011_EU_EQ ENTSO-E_Boundary_Set_4_May_2011_EU_TP	ENTSO-E16nodes_part_BE_v5July_TN_12J10h45_SV

Comments/Results/Issues:

Imported the 3 *.xml files (1st Profile) and then the 2 files for Boundary MAS.

Active power load was raised from 200MW to 250MW in node C4.
Run a new load flow and exported the result.

The exported file was check with CIMdesk. The result is shown in the attached file.

No error was found.

Supplementary files:
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test5.1\Test5.1_a_1st_TN_11J10h45.jpg
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test5.1\Test5.1_b_1st_12J10h45.jpg
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test5.1\test 5.1 1st CIMDesk.jpg

Date	Vendor		Test witness	
	Name	Signature	Name	Signature
12.7.2011.	Dragan Tomić		Vladimir Milić	

Test No: 7	Profile edition No: 1	Tool: TNA	Score: 4

Test files:

Import	Export
ENTSO-E16nodes_part_BE_v5July_EQ ENTSO-E16nodes_part_BE_v5July_TP ENTSO-E_Boundary_Set_4_May_2011_EU.zip ENTSO-E_16_BE_OGS_12J15h_SV	

Comments/Results/Issues:

Imported the boundary zip file and then the BE MAS zip file.
The SV file was imported from Open Grid Systems (the result SV file from test 5).

We run a load flow calculation and compare the results from TNA – DMS&EKC with the results from Open Grid Systems (LoadFlowResultsProfile1ModifiedBE).

		TNA	OGS	delta
Node C4	U [kV]	231.5	230.96	0.1%
	angle [°]	-38.4	-38.4	0.0%
Line_1	P [MW]	25.3	25.3	0.0%
	Q [Mvar]	-1	-1	0.0%

The results are almost the same.

Supplementary files:
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test7.1\Test7.1_a_1st_TN_13J17h00
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test7.1\Test7.1_b_1st_TN_13J17h00
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test7.1\Test7.1_c_1st_TN_13J17h00

Date	Vendor		Test witness	
	Name	Signature	Name	Signature
13.7.2011	Dragan Tomić		Oana Udrea	

Test No: 8	Profile edition No: 1	Tool: TNA	Score: 4

Test files:

Import	Export
ENTSO-E16nodes_part_NL_v5July.zip ENTSO-E_Boundary_Set_4_May_2011_EU.zip	

Comments/Results/Issues:

Imported the boundary zip file and then the NL MAS zip file.

We run a short-circuit fault calculation (3 phase) and compare the results from TNA – DMS&EKC with the results from CESI - SPIRA (ShortCircuitoutputTest8_1).

		TNA	SPIRA	delta
Node D5	Ik" [kA]	163.4	165.49	0.1%
Node BB	Ik" [kA]	196.01	198.3	0.1%

Supplementary files:
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test8.1\Test8.1_a_1st_TN_15J12h20
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test8.1\Test8.1_b_1st_TN_15J12h20
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test8.1\Test8.1_c_1st_TN_15J12h20
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test8.1\Test8.1_d_1st_TN_15J12h20

Date	Vendor		Test witness	
15.07.2011	Name	Signature	Name	Signature
	Dragan Tomić		Oana Udrea	

Test No: 9	Profile edition No: 1	Tool: TNA	Score: 4

Test files:

Import	Export
ENTSO-E16nodes_part_BE_v5July.zip ENTSO-E16nodes_part_NL_v5July.zip ENTSO-E_Boundary_Set_4_May_2011_EU.zip	Assambled model Test9.1_1st_TN_13J14h05

Comments/Results/Issues:

Imported the boundary zip file, the BE MAS zip file and the NL MAS zip file.

Run a load flow calculation and exported the result.

The exported file was check with CIMdesk. The result is shown in the attached file.

No error was found.

Supplementary files:

\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test9.1\Test9.1_1st_TN_13J14h00
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test9.1\Test9.1_1st_b_TN_13J14h00
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test9.1\Test9.1_1st_c_TN_13J14h00
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test9.1\Test9.1_1st_d_TN_13J14h00
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\1st_Profile\Test9.1\CIMDesk_Test9.1_1st_TN_merged

Date	Vendor		Test witness	
	Name	Signature	Name	Signature
13.7.2011	Dragan Tomić		Oana Udrea	

TOOL SUMMARY FORM (PER TOOL)

Vendor/Tool: TNA – DMS&EKC	Profile edition No: 2

Witnessed by

Name	Signature	Name	Signature
1. Vladimir Milić		9.	
2. Oana Udrea		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

Performed tests

Test No	Score	Test No	Score	Test No	Score	Test No	Score	Test No	Score
1	4								
2	4								
3	4								
4	4								
5	4								
6	4								
7	4								
9	4								
10	4								
11	4								
12	4								
13	4								
14									
31	4								
32	4								

Comments:

Test No14 could not be completed because other vendors used old name spaces in difference files and because of that there is no score for this test.

Test No28 could not be performed because a large number of non existing TopologicalNode.ConnectivityNodeContainer references in operational model.

Other tests did not perform because of lack of time during the IOP

Date	Vendor		ENTSO-E	
15/7/2011	Name	Signature	Name	Signature
	Dragan Tomić DMS-EKC		Chavdar Ivanov	

SINGLE TEST RECORD FORM

Test No: 1	Profile edition No: 2	Tool: TNA - DMS&EKC	Score: 4

Test files:

Import	Export
• \\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\5_Official_Test_Models\Profile_Edition_2\ENTSO-E_16\12_11July2011\ ENTSOE_16_BE.zip • ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip	

Comments/Results/Issues:

Imported the boundary zip file and then BE zip file.
Run load flow. Load flow converged. Result is shown in the attached file.

Comparison between power flow in tool and in CIMdesk.

Screenshots are in the supplementary files.

Supplementary files:

- \\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\2st_Profile\Test1.1\Test1.1_a_2sc_TN_11J1715.jpg
- \\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\2st_Profile\Test1.1\Test1.1_b_2sc_TN_11J1715 .jpg

Date	Vendor – DMS&EKC		Test witness	
11.07.2011	Name	Signature	Name	Signature
	Dragan Tomić		Vladimir Milić EMS	

SINGLE TEST RECORD FORM

Test No: 2	Profile edition No: 2	Tool: TNA	Score: 4

Test files:

Import	Export
• \\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\5_Official_Test_Models\Profile_Edition_2\ENTSO-E_16\12_11July2011\ ENTSOE_16_BE.zip • ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip	ENTSOE16_BE_TN_11J17h30.zip ENTSOE16_Boundary_TN_11J17h30.zip ENTSOE_16_BE__TN_11J17h35_EQ.xml ENTSOE_16_BE__TN_11J17h35_SV.xml ENTSOE_16_BE__TN_11J17h35_TP.xml ENTSO-E_Boundary_Set_28_June_2011_2ndEdition__TN_11J17h35_EU_EQ.xml ENTSO-E_Boundary_Set_28_June_2011_2ndEdition__TN_11J17h35_EU_TP.xml

Comments/Results/Issues:

Exported boundary zip file and then the BE zip file.
The exported files were checked with CIMdesk. The result is shown in the attached file.
The file is correct.

The same processes was done with export unzipped 3 xml files and unzipped 2 xml boundary files. The result is the same.

Supplementary files:
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\2st_Profile\Test2.1\Test2.1_a_2sc_TN_11J17h30 .jpg
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\2st_Profile\Test2.1\Test2.1_b_2sc_TN_11J17h30.jpg
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\2st_Profile\Test2.1\Test 2.1 exported files in CIMDesk.jpg
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DMS_Group_EKC\2st_Profile\Test2.1\test 2.2 exported files in CIMDesk.jpg

Date	Vendor		Test witness	
12.07.2011	Name	Signature	Name	Signature
	Dragan Tomić		Vladimir Milić EMS	