

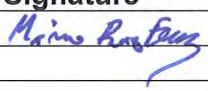

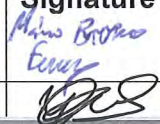



INTEROPERABILITY TEST "CIM FOR SYSTEM DEVELOPMENT AND OPERATIONS" 2010

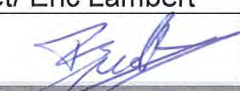

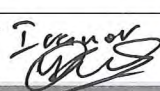
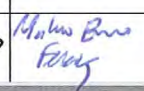
APPENDIX C: TEST RECORD FORMS

PART 3

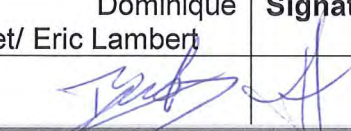
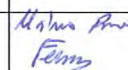
TOOL SUMMARY FORM (PER TOOL)

Vendor: Supelec/EDF R&D		Tool: CIMclipse	
Witnessed by			
Name	Signature	Name	Signature
1. Mário Ferreira		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	
Performed tests			
Test No	Score	Test No	Score
1_1	PASS		
1_2	PASS		
Comments:			
CIMclipse OCL Validator (http://www.di.supelec.fr/software/cimclipse) is a tool developed in the Computer Science Department of Supélec with funding from EDF R&D that aims to provide usage within or based on Eclipse or its plugins, used for CIM related tasks and released as Open Source.			
CimClipse can validate CimXml files against rules written in OCL (Object Constraint Language). These rules can correspond to a profile or can be defined by a company to enforce some business rules.			
Currently, CimClipse does not process incremental files. It is expected to add this functionality.			
Date	Vendor Supelec/EDF R&D		ENTSO-E
13.07.2010	Name Dominique Marcadet/ Eric Lambert	Signature 	Name Mário Ferreira Signature 
			

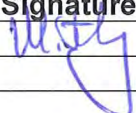
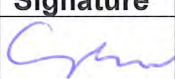

SINGLE TEST RECORD FORM #1

Test No: 1_1		Tool: CIMclipse		Score: Pass	
Test files					
Import			Export		
1. ENTSOE_16_BE_EQ.xml			1. none		
2. ENTSOE_16_BE_TP.xml			2.		
3. ENTSOE_16_BE_DY.xml			3.		
4. ENTSOE_16_EU_EQ.xml					
5. ENTSOE_16_EU_TP.xml					
6. ENTSOE_16_NL_EQ.xml					
7. ENTSOE_16_NL_TP.xml					
8. ENTSOE_16_NL_DY.xml					
9. ENTSOE_16_SV.xml					
Comments/Results/Issues:					
<p>In this test, CimClique intended to import and interpret the contents of above mention files verifying it according to the standard ENTSO-E CIM profile.</p> <p>No load flow was performed because this capacity is outside the valences and objectives of the tested tool.</p> <p>Concerning CIMSpy 2.2 tool a verification task was triggered and a minor bug was fixed at "rbvalidator" Jscript file by Power Info LLC.</p> <p>The global main statistic figures were in accordance with CIMSpy tool results. Concerning importing and validation task, some issues were referred and subject to agreement during the IOP test (please consult ResultsOfImportByCimClique.docx file):</p>					
Supplementary files:					
Please, refer to ResultsOfImportByCimClique.docx file (results, issues and ENTSO-E IOP agreements) that has been provided to Chavdar Ivanov and commented Tuesday morning					
Date	Vendor		Signature	Test witness	
13.07.2010	Name Dominique Marcadet/ Eric Lambert		Signature	Name Mário Ferreira	Signature
				Chavdar Ivanov 	Mário Ferreira 

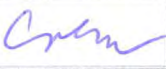

SINGLE TEST RECORD FORM #2

Test No: 1_2		Tool: CIMClipse		Score: Pass	
Test files					
Import			Export		
1. DlgSILENT files			1. none		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
Comments/Results/Issues:					
Basically repeating the previous procedure, with networks exported by DlgSILENT (Power Factory 14.1).					
A file with rdf resource were found ("") : Test.1.2.2 ENTSGE_16_Pf_13j08h ENTSGE_16_NL_EQ.xml					
The file exported at 13j15 corrects the problem.					
Supplementary files:					
Date	Vendor		Signature	Test witness	
13.07.2010	Name Dominique Marcadet/ Eric Lambert			Name Mário Ferreira	
				Signature 	

TOOL SUMMARY FORM (PER TOOL)

Vendor: FGH e. V.		Tool: INTEGRAL 7	
Witnessed by			
Name	Signature	Name	Signature
1. Marcel Forlong		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	
Performed tests			
Test No	Score	Test No	Score
1_1	Pass	10_2	Pass
1_2	Pass	10_3	Pass
2_1	Pass with Error	10_4	Pass
1_3	Pass	1_7	Pass
2_2	Pass		
1_4	Pass		
1_5	Pass		
1_6	Pass		
9_1	Pass		
10_1	Pass		
Comments:			
Development version Integral 07.03.081 used for testing			
<p>Test 1.2.4 – 1.2.7 were not performed since the tool cannot export and import only TP/SV files alone in the moment. Additional development is needed. Test 1.2.8 was not performed since the short circuit data in the Test model are not plausible. Test 1.2.11 – 1.2.14 were not performed since the tool cannot export and import difference files. Test 1.2.15 – 1.2.26 are not performed, since the tool does no dynamic calculations.</p> <p>It would be very useful if the profiles would be fixed several weeks before the IOP test to give the vendors enough time to securely implement all modifications. Some changes to the profile were made only a few days before the IOP test or even during the IOP test.</p>			
Date	Vendor	ENTSO-E	
	Name	Signature	Name
16/07/10	Cremer, Dirk		Charitar Ivanov 

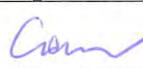
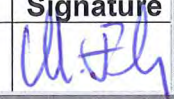
SINGLE TEST RECORD FORM

Test No: 1_1		Tool: Integral7		Score: Passed	
Test files					
Import			Export		
1. ENTSOE_16_NL_[EQ,TP,SV].xml			1.		
2. ENTSOE_16_EU_[EQ,TP].xml			2.		
3.			3.		
4.			4.		
5.			5.		
Comments/Results/Issues: Version_1_12July_SVInjection_signs, per_MAS used for Test					
Supplementary files: 1_1_ENTSOE_16_NL.pdf: Network graphic with power flow results					
Date	Vendor		Test witness		
	Name	Signature	Name	Signature	
16/07/10	Cremers, Dirk		Failland, Marcel		

SINGLE TEST RECORD FORM

[illegible]

SINGLE TEST RECORD FORM

Test No: 2_1		Tool: Integral7		Score: Passed with errors	
Test files					
Import			Export		
1. Network from Test 1_1			1. ENTSOE_16_NL_IN_13J16_[EQ,TP,SV].xml		
2.			2. ENTSOE_16_EU_IN_13J16_[EQ,TP].xml		
3.			3.		
4.			4.		
5.			5.		
Comments/Results/Issues: Version_1_12July_SVInjection_signs, per_MAS used for Test					
Supplementary files: Validation summaries: 2_1_EU_EQ_summary_CIMspy.pdf, 2_1_EU_EQ_validate_CIMspy.pdf, 2_1_EU_TP_summary_CIMspy.pdf, 2_1_EU_TP_validate_CIMspy.pdf, 2_1_NL_EQ_summary_CIMspy.pdf, 2_1_NL_EQ_validate_CIMspy.pdf, 2_1_NL_TP_summary_CIMspy.pdf, 2_1_NL_TP_validate_CIMspy.pdf, 2_1_NL_SV_summary_CIMspy.pdf, 2_1_NL_SV_validate_CIMspy.pdf,					
Date	Vendor		Test witness		
	Name	Signature	Name	Signature	
16/07/10	Cremers, Dirk		Ferlong, Marcel		

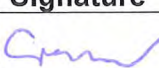
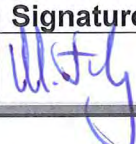
SINGLE TEST RECORD FORM

[illegible]

SINGLE TEST RECORD FORM

Test No: 2_2		Tool: Integral7		Score: Passed	
Test files					
Import			Export		
1.Network from Test 1_3			1. ENTSOE_16_IN_14J09_NL_[EQ,TP,SV].xml		
2.			2. ENTSOE_16_IN_14J09_EU_[EQ,TP].xml		
3.			3.		
4.			4.		
5.			5.		
Comments/Results/Issues:					
Version_2_13_July_PST corrected, per_MAS used for Test					
Supplementary files:					
Validation summaries: 2_2_EU_EQ_summary_CIMspy.pdf, 2_2_EU_EQ_validate_CIMspy.pdf, 2_2_EU_TP_summary_CIMspy.pdf, 2_2_EU_TP_validate_CIMspy.pdf, 2_2_NL_EQ_summary_CIMspy.pdf, 2_2_NL_EQ_validate_CIMspy.pdf, 2_2_NL_TP_summary_CIMspy.pdf, 2_2_NL_TP_validate_CIMspy.pdf, 2_2_NL_SV_summary_CIMspy.pdf, 2_2_NL_SV_validate_CIMspy.pdf,					
Date	Vendor		Test witness		
Name	Signature	Name	Signature		
16/07/10	Cremus, Dirk	[Signature]	Fordang, Marcel	[Signature]	

SINGLE TEST RECORD FORM

Test No: 1_4		Tool: Integral7		Score: Passed	
Test files					
Import			Export		
1. 1.2.2 ENTSOE_16_PF_13J16h (DIgSILENT)			1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
Comments/Results/Issues:					
<p>PhaseShiftingTransformer T3 in Substation PP_Amsterdam: RegulatingControlModeKind is set to voltage in the imported model instead of activePower</p> <p>After manually correction: Power Flow calculation brings the same results.</p>					
Supplementary files:					
1_4_ENTSOE_16_BE_(imported_from_DIgSILENT).pdf: Network graphic with power flow results					
Date	Vendor		Test witness		
	Name	Signature	Name	Signature	
16/07/10	Cremers, Dirk		Farbong, Marcel		



SINGLE TEST RECORD FORM

Test No: 1_5		Tool: Integral7		Score: Passed	
Test files					
Import			Export		
1. TEST 1.2.2\Per_MAS\BE (BCP)			1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
Comments/Results/Issues:					
<p>SvShuntCompensatorSection.continuousPosition manually converted to SvShuntCompensatorSection.continuousSections in the imported files.</p> <p>Power flow calculation shows difference of X-node voltages of up to 4 kV. Reason: Integral uses SvVoltage of X-nodes for parametering target voltage of extendedWard injections. Imported files do not contain SvVoltage for X-nodes.</p> <p>After removing the target voltages of extendedWard injections from the imported original data, the results between original data and import of the PCB files meet very well.</p>					
Supplementary files:					
Result tables of Power Flow calculation: 1_5_ENTSOE_16_BE_(imported_from_BCE)_Flows.pdf 1_5_ENTSOE_16_BE_(imported_from_BCE)_NodeVoltages.pdf					
Date		Vendor		Test witness	
Name		Signature		Name	
16/10/2010		Gremmen Dirk		Farlong, Marcel	



SINGLE TEST RECORD FORM

Test No: 1_6		Tool: Integral7		Score: Passed	
Test files					
Import			Export		
1. ENTSOE_16_BE_OD_12J14h_EQ.xml			1.		
2. ENTSOE_16_BE_OD_12J14h_TP.xml			2.		
3. ENTSOE_16_OD_12J15h_SV.xml			3.		
4.			4.		
5.			5.		
Comments/Results/Issues:					
Supplementary files:					
1_6_ENTSOE_16_BE_(imported_from_Siemens).pdf: Network graphic with Power flow results					
Date	Vendor		Test witness		
	Name	Signature	Name	Signature	
16/07/10	Cramer, Dirk	Cramer	Fatlong, Marcel	M. H.	

SINGLE TEST RECORD FORM

Test No: 9_1		Tool: Integral7		Score: Passed	
Test files					
Import			Export		
1. ENTSOE_16_NL_[EQ,TP,SV].xml			1.		
2. ENTSOE_16_BE_[EQ,TP,SV].xml			2.		
3. ENTSOE_16_EU_[EQ,TP].xml			3.		
4. Siemens export from test 1.2.4			4.		
5.			5.		
Comments/Results/Issues:					
Version_2_13_July_PST corrected, per_MAS used for Test					
<p>The two MAS were merged and after that a power flow calculation was performed. The active reactive power flow differs significantly from the target values in the ENTSO-E 16 node model description. This difference can be explained by the new model of the phase shifting transformer T3 (changes made on July 13th).</p> <p>Power flow results with the old phase shifting transformer T3 are presented in 9_1_comparison_with_old_transformer_T3.pdf</p> <p>For import of files resulting from test 1.2.4 the files exported by Siemens PTI were used: ENTSOE_16_NL_OD_13J12h_TP.xml ENTSOE_16_NL_OD_13J12h_SV.xml</p>					
Supplementary files:					
9_1_ENTSOE_16_PF.pdf: Network graphic with power flow results					
Validation summaries: 9_1_BE_EQ_summary_CIMspy.pdf, 9_1_BE_EQ_validate_CIMspy.pdf, 9_1_BE_TP_summary_CIMspy.pdf, 9_1_BE_TP_validate_CIMspy.pdf, 9_1_NL_EQ_summary_CIMspy.pdf, 9_1_NL_EQ_validate_CIMspy.pdf, 9_1_NL_TP_summary_CIMspy.pdf, 9_1_NL_TP_validate_CIMspy.pdf, 9_1_EU_EQ_summary_CIMspy.pdf, 9_1_EU_EQ_validate_CIMspy.pdf, 9_1_EU_TP_summary_CIMspy.pdf, 9_1_EU_TP_validate_CIMspy.pdf, 9_1_NL_EU_summary_CIMspy.pdf, 9_1_EU_SV_validate_CIMspy.pdf,					
9_1_ENTSOE_16_PF_with_Siemens_1.2.4.pdf: Network graphic with power flow results					
Date	Vendor		Test witness		
	Name	Signature	Name	Signature	
16/07/10	Cremers, Dirk		Teeling, Marcel		

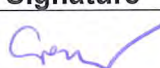
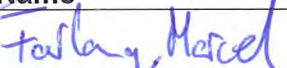
SINGLE TEST RECORD FORM

Test No: 10_1		Tool: Integral7		Score: Passed	
Test files					
Import			Export		
1. ENTISOE_16_BE_[EQ,TP,SV].xml			1.		
2. ENTISOE_16_NL_[EQ,TP,SV].xml			2.		
3. ENTISOE_16_EU_[EQ,TP].xml			3.		
4.			4.		
5.			5.		
Comments/Results/Issues: Version_2_13_July_PST corrected, merged used for Test					
Supplementary files: Tables with resulting node values and branch values: 10_1_ENTISOE_16_from_merged_Flows.pdf 10_1_ENTISOE_16_from_merged_Nodes.pdf					
Date		Vendor		Test witness	
		Name	Signature	Name	Signature
16/07/10		Cremer, Dirk		Forsberg, Marcel	

SINGLE TEST RECORD FORM

Test No: 10_2		Tool: Integral7		Score: Passed	
Test files					
Import			Export		
1. ENTSOE_16_BE_[EQ,TP,SV].xml			1.		
2. ENTSOE_16_NL_[EQ,TP,SV].xml			2.		
3. ENTSOE_16_EU_[EQ,TP].xml			3.		
4.			4.		
5.			5.		
Comments/Results/Issues: Version_2_13_July_PST corrected, own export from Test 1.2.9 used as Import					
Supplementary files: Tables with resulting node values and branch values: 10_2_ENTSOE_16_from_1.2.9_Flows.pdf 10_2_ENTSOE_16_from_1.2.9_Nodes.pdf					
Date		Vendor		Test witness	
Name		Signature		Signature	
16/07/10		Cremers, Dirk		Farlang, Marcel	


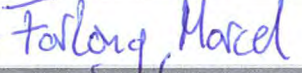
SINGLE TEST RECORD FORM

Test No: 10_3	Tool: Integral7	Score: Passed
Test files		
Import	Export	
1. ENTSOE_16_BE_OD_14J10h_[EQ,TP,SV].xml	1.	
2. ENTSOE_16_NL_OD_14J10h_[EQ,TP,SV].xml	2.	
3. ENTSOE_16_EU_[EQ,TP].xml	3.	
4.	4.	
5.	5.	
<p>Comments/Results/Issues:</p> <p>The files, Siemens exported in their Test 1.2.9, were used for the import. Since their export did not include the boundary MAS, the original boundary MAS was used.</p> <p>Compared with 1.2.9 ENTSOE_16_NL_BE_LDF_Results.wmf, generated from Siemens.</p>		
<p>Supplementary files:</p> <p>Tables with resulting node values and branch values:</p> <p>10_3_ENTSOE_16_from_Siemens_Flows.pdf</p> <p>10_3_ENTSOE_16_from_Siemens_Nodes.pdf</p>		
Date	Vendor	Test witness
	Name	Name
16/07/10	Cremu, Dirk	Forberg, Marcel
	Signature	Signature
		


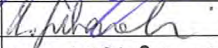
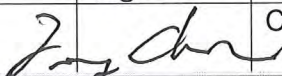
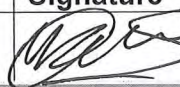
SINGLE TEST RECORD FORM

Test No: 10_4		Tool: Integral7		Score: Passed	
Test files					
Import			Export		
1. ENTSOE_16_BE_[EQ,TP]_CP_14J14h.xml			1.		
2. ENTSOE_16_EU_[EQ,TP]_CP_14J14h.xml			2.		
3. ENTSOE_16_NL_EQ_CP_RSB_14J14h.xml			3.		
4. ENTSOE_16_NL_TP_CP_14J14h.xml			4.		
5. ENTSOE_16_SV_CP_14J14h.xml			5.		
Comments/Results/Issues:					
The files, Open Grid Systems exported in their Test 1.2.9, were used for the import.					
Supplementary files:					
Tables with resulting node values and branch values:					
10_4_ENTSOE_16_from_OGS_Flows.pdf					
10_4_ENTSOE_16_from_OGS_Nodes.pdf					
Date	Vendor		Test witness		
	Name	Signature	Name	Signature	
16/07/10	Cremers, Dirk	[Signature]	Fallego, Marcel	[Signature]	

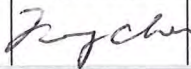
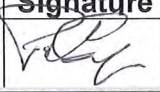
SINGLE TEST RECORD FORM

Test No: 1_7		Tool: INTEGRAL 7		Score: Passed	
Test files					
Import			Export		
1. FGH_DE_EQ.xml			1.		
2. FGH_DE_TP.xml			2.		
3. FGH_DE_PF_Export_SV.xml			3.		
4.			4.		
5.			5.		
Comments/Results/Issues:					
<p>The files imported in this test were exported by DIgSILENT</p> <p>After the import, the power flow calculation shows exactly the same active power flow as our original model. The difference in reactive power flow is less than 1% under the restriction that the asymmetrical equivalent branch from the original model cannot be modelled in ENTSO-E CIMXML profile.</p>					
Supplementary files:					
<p>1_7_Reimport_FGH_Testmodel_exported_by_DIgSILENT.pdf: network graphic with power flow results</p>					
Date		Vendor		Test witness	
		Name		Name	
16/07/10		Cremer, Dirk		Farlong, Marcel	
		Signature		Signature	
					

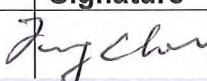
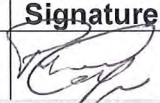
TOOL SUMMARY FORM (PER TOOL)

Vendor: GE Energy		Tool: Enterprise Gateway	
Witnessed by			
Name		Signature	
1. Pietro Capurso			
2. Adriano Gubernali			
3. Rimantas Rutkauskas		SEE test Record form	
Performed tests			
Test No	Score	Test No	Score
1	Pass	13	Pass
2	Pass		
3	Pass	15	Pass
4	Pass	16	Pass
5	Pass	15_2	Pass
6_3	Pass	16_2	Pass
7	Pass		
		27	Pass
9	Pass		
10	Pass	30	Pass
11	Pass	31	Pass
Comments:			
<ul style="list-style-type: none">• Didn't do the following because no model available: 12, 14, 18, 19, 21, 22, 24, 25• Didn't do the following because no one else did either (no comparison possible): 17, 20, 23, 1.26• Didn't do the following because no applicable (we are SCADA/EMS vendor): 28, 29• Didn't do the following because no clear information/data for test case (we do have tool to perform this test): 8, (the short circuit location is not specified in the model, also, data such as load sequence component is missing in profile)			
Test 30 procedure is not so clear to user, may need clearly mentioned a MAS is updated and use as import			
Date	Vendor	ENTSO-E	
July 15, 2010	Name	Signature	Name
	Feng CHEN		Chavdar Ivanov
			

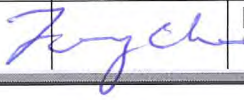
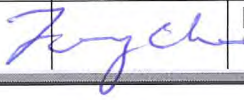


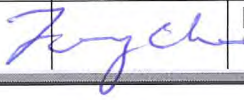

SINGLE TEST RECORD FORM

Test No: 1_1		Tool: Enterprise Gateway		Score: Pass	
Test files:					
Import			Export		
1. ENTSOE_16_NL_EQ.xml			1. N/A		
2. ENTSOE_16_NL_TP.xml			2.		
3. ENTSOE_16_NL_SV.xml			3.		
4. ENTSOE_16_EU_EQ.xml			4.		
5. ENTSOE_16_EU_TP.xml			5.		
Comments/Results/Issues:					
<p>The following items were checked:</p> <p>Load data of area NL</p> <p>Generation data of area NL</p> <p>Tie flow data between area NL and EU</p> <p>Phase Shifter settings of the Transformer between NODE 4 and NODE 8</p> <p>The power flow gave the same results as from the original data of the model.</p> <p>During the course, the tool needs generated temporary files to merge the EQ and/or TP model of EU and NL. The supplement files are listed as below.</p>					
Supplementary files:					
Merged EQ of EU and NL: eg_ENTSOE_16_EU_NL_test01_EQ.xml					
Merged TP of EU and NL: eg_ENTSOE_16_EU_NL_test01_TP.xml					
Screen shot: eg_test01_resolution_screen.doc					
Date	Vendor	Signature	Test witness	Signature	
July 12	Name GE Energy		Name Pietro Capurso		

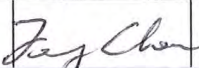
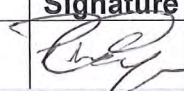
SINGLE TEST RECORD FORM

Test No: 2_1		Tool: Enterprise Gateway		Score: Pass	
Test files:					
Import			Export		
1. ENTSOE_16_NL_EQ.xml			1. eg_ENTSOE_16_NL_test02_EQ.xml		
2. ENTSOE_16_NL_TP.xml			2. eg_ENTSOE_16_NL_test02_TP.xml		
3. ENTSOE_16_NL_SV.xml			3. eg_ENTSOE_16_NL_test02_SV.xml		
4. ENTSOE_16_EU_EQ.xml			4.		
5. ENTSOE_16_EU_TP.xml			5.		
Comments/Results/Issues:					
<p>Cimspy was used to check all the instance counts and some instance details as below.</p> <p>Phase Shifter Tap position</p> <p>ControlArea</p> <p>GeographicRegion</p> <p>BaseVoltage</p> <p>VoltageLevel</p> <p>It is noted that the original model contains class of <i>OperatingParticipant</i> and <i>Zone</i>. These two classes are not in the July 12 2010 version of Entso-E profile. The exported files do not contain these two classes.</p> <p>rdf:ID are also checked between original models and exported models for most of the elements.</p>					
Supplementary files:					
Date	Vendor	Signature	Test witness	Signature	
July 12	Name		Name		
	GE Energy		Pietro Capurso		

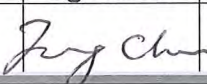
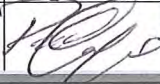
SINGLE TEST RECORD FORM

Test No: 3_1	Tool: Enterprise Gateway	Score: Pass								
Test files										
Import	Export									
1. ENTSOE_16_NL_EQ.xml (ver 12July)	1.									
2. ENTSOE_16_NL_TP.xml (ver 12July)	2.									
3. ENTSOE_16_EU_EQ.xml (ver 12July)	3.									
4. ENTSOE_16_EU_TP.xml (ver 12July)	4.									
5. ENTSOE_16_NL_SV.xml (ver 12July)	5.									
6.	6.									
7.	7.									
Comments/Results/Issues:										
<p>The comparison was made between the following tool in relation to the Test 01: SPIRA and Enterprise Gateway.</p> <p>All the results (Power Flow and Voltage) are comparable and mach in the engineering tolerance.</p>										
Supplementary files:										
Screen shot: EG_TEST03_1_SCREENSHOT.doc										
Date	Vendor	Test witness								
13 July	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name</td> <td style="width: 50%;">Signature</td> </tr> <tr> <td>GE Energy</td> <td></td> </tr> </table>	Name	Signature	GE Energy		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name</td> <td style="width: 50%;">Signature</td> </tr> <tr> <td>Pietro Capurso</td> <td></td> </tr> </table>	Name	Signature	Pietro Capurso	
Name	Signature									
GE Energy										
Name	Signature									
Pietro Capurso										

SINGLE TEST RECORD FORM

Test No:4_1		Tool: Enterprise Gateway		Score: Pass																			
Test files:																							
Import			Export																				
1. ENTSOE_16_NL_EQ.xml			1. eg_ENTSOE_16_NL_test04_TP.xml																				
2. ENTSOE_16_NL_TP.xml			2. eg_ENTSOE_16_NL_test04_SV.xml																				
3. ENTSOE_16_NL_SV.xml			3.																				
4. ENTSOE_16_EU_EQ.xml			4.																				
5. ENTSOE_16_EU_TP.xml			5.																				
Comments/Results/Issues:																							
The following Topology change is made: Change status of Breaker between NODE 8 and NODE 5 from Closed to Open Change status of Breaker between NODE 6 and NODE 9 from Open to Closed																							
<table> <tr> <td>Voltage</td> <td colspan="2">KV</td> </tr> <tr> <td>Node 4</td> <td>410.04</td> <td></td> </tr> <tr> <td>Node 5</td> <td>228.19</td> <td></td> </tr> <tr> <td>Node 6</td> <td>16.49</td> <td></td> </tr> <tr> <td>Node 8</td> <td>224.61</td> <td></td> </tr> <tr> <td>Node 9</td> <td>16.49</td> <td></td> </tr> </table>						Voltage	KV		Node 4	410.04		Node 5	228.19		Node 6	16.49		Node 8	224.61		Node 9	16.49	
Voltage	KV																						
Node 4	410.04																						
Node 5	228.19																						
Node 6	16.49																						
Node 8	224.61																						
Node 9	16.49																						
<table> <tr> <td>MW Flow</td> <td>MW</td> <td>MVar</td> </tr> <tr> <td>Node 8 -> Node 4</td> <td>74.7</td> <td>-28.3</td> </tr> <tr> <td>Node 6 -> Node 8</td> <td>561.3</td> <td>203.7</td> </tr> <tr> <td>Node 9-> Node 5</td> <td>323.6</td> <td>72.5</td> </tr> </table>						MW Flow	MW	MVar	Node 8 -> Node 4	74.7	-28.3	Node 6 -> Node 8	561.3	203.7	Node 9-> Node 5	323.6	72.5						
MW Flow	MW	MVar																					
Node 8 -> Node 4	74.7	-28.3																					
Node 6 -> Node 8	561.3	203.7																					
Node 9-> Node 5	323.6	72.5																					
The exported TP and SV file s include the boundary EU parts as well.																							
When topology change applied, the tool merged the Node 6 and 9 together as one TopologicalNode (_1b8e9d416a5711dfa90800059a3c7800 is not exported)																							
For the State Variable file, All the original information (rdf:ID) are updated, also, some other information such as SvPowerFlow, SvTapStep are added.																							
Supplementary files:																							
Power flow result: eg_test04_resolution_screen.doc																							
CimSpy data: eg_test04_validation_screen.doc																							
Equipment file: eg_ENTSOE_16_NL_test04_EQ.xml																							
Date	Vendor		Test witness																				
July 12	Name	Signature	Name	Signature																			
	GE Energy		Pietro Capurso																				

SINGLE TEST RECORD FORM

Test No: 5_1	Tool: Enterprise Gateway	Score: Pass																																		
Test files:																																				
Import	Export																																			
1. ENTSOE_16_NL_EQ.xml	1. eg_ENTSOE_16_NL_test05_SV.xml																																			
2. ENTSOE_16_NL_TP.xml	2.																																			
3. ENTSOE_16_NL_SV.xml	3.																																			
4. ENTSOE_16_EU_EQ.xml	4.																																			
5. ENTSOE_16_EU_TP.xml	5.																																			
Comments/Results/Issues:																																				
<p>The following StateVariable change is made: Change Load MW of "Load 2" at NODE 4 from 10MW to 50MW</p> <table style="width: 100%;"> <tr> <td style="width: 15%;">Voltage</td> <td style="width: 10%;">KV</td> <td></td> </tr> <tr> <td>Node 4</td> <td>413.32</td> <td></td> </tr> <tr> <td>Node 5</td> <td>226.46</td> <td></td> </tr> <tr> <td>Node 6</td> <td>16.51</td> <td></td> </tr> <tr> <td>Node 8</td> <td>226.46</td> <td></td> </tr> <tr> <td>Node 9</td> <td>16.49</td> <td></td> </tr> </table> <table style="width: 100%;"> <tr> <td style="width: 20%;">MW Flow</td> <td style="width: 20%;">MW</td> <td style="width: 20%;">MVA</td> <td style="width: 40%;"></td> </tr> <tr> <td>Node 8 -> Node 4</td> <td>114.7</td> <td>-29.9</td> <td></td> </tr> <tr> <td>Node 6 -> Node 8</td> <td>636.1</td> <td>132.6</td> <td></td> </tr> <tr> <td>Node 9-> Node 5</td> <td>288.9</td> <td>144.7</td> <td></td> </tr> </table> <p>For the State Variable file, All the original information (rdf:ID) are updated, also, some other information such as SvPowerFlow, SvTapStep are added.</p>			Voltage	KV		Node 4	413.32		Node 5	226.46		Node 6	16.51		Node 8	226.46		Node 9	16.49		MW Flow	MW	MVA		Node 8 -> Node 4	114.7	-29.9		Node 6 -> Node 8	636.1	132.6		Node 9-> Node 5	288.9	144.7	
Voltage	KV																																			
Node 4	413.32																																			
Node 5	226.46																																			
Node 6	16.51																																			
Node 8	226.46																																			
Node 9	16.49																																			
MW Flow	MW	MVA																																		
Node 8 -> Node 4	114.7	-29.9																																		
Node 6 -> Node 8	636.1	132.6																																		
Node 9-> Node 5	288.9	144.7																																		
Supplementary files:																																				
Power flow result: eg_test05_resolution_screen.doc CimSpy data: eg_test05_validation_screen.doc Equipment file: eg_ENTSOE_16_NL_test05_EQ.xml Topology file: eg_ENTSOE_16_NL_test05_TP.xml																																				
Date	Vendor	Test witness																																		
July 12	Name	Signature	Name																																	
	GE Energy		Pietro Capurso																																	
																																				

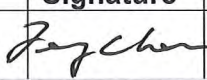
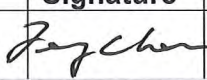
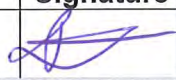
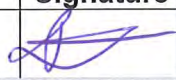
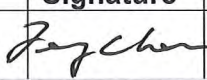
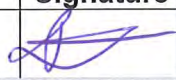
SINGLE TEST RECORD FORM

Test No: 6_1		Tool: Enterprise Gateway		Score: <i>problem in input data</i>	
Test files:					
Import: BCP Busarello + Cott + Partner AG test 4			Export		
1. ENTSOE_16_BE_SV_NE_12J13h.xml			1. eg_ENTSOE_16_NL_test05_SV.xml		
2. ENTSOE_16_BE_TP_NE_12J13h.xml			2.		
3.			3.		
4. ENTSOE_16_EU_EQ.xml (official)			4.		
5. ENTSOE_16_BE_EQ.xml (official)			5.		
Comments/Results/Issues: Topo-Exported-1.2.4 has problem with the Topology file, it use a BaseVoltage as a TopologicalNode.ConnectivityNodeContainer, actually it is empty <u>Suggest to update the model to add actual rdf:resource</u>					
Supplementary files:					
Merge file: eg_ENTSOE_16_EU_BE_EQ.xml					
Date	Vendor		Test witness		
July 13	Name	Signature	Name	Signature	
	GE Energy	<i>Fug Chen</i>	Pietro Capurso	<i>Pietro Capurso</i>	



SINGLE TEST RECORD FORM

Test No: 6_2		Tool: Enterprise Gateway		Score: <i>Problem in input data</i>	
Test files:					
Import: SP test 2			Export		
1. eg_ENTSOE_16_NL_test04_TP.xml			1.		
2. eg_ENTSOE_16_NL_test04_SV.xml			2.		
3.			3.		
4. ENTSOE_16_EU_EQ.xml (official v1)			4.		
5. ENTSOE_16_NL_EQ.xml (official v1)			5.		
Comments/Results/Issues:					
<p>There is bad reference in EQ and TP file, which is not valid, the tool abort on that exception.</p> <p><u>Suggest to correct the model</u></p>					
Supplementary files:					
Merge file: eg_ENTSOE_16_EU_NL_SP_EQ.xml					
Date	Vendor		Test witness		
July 13	Name	Signature	Name	Signature	
	GE Energy	<i>Jay Chen</i>	Pietro Capurso	<i>Pietro Capurso</i>	

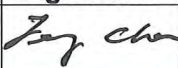

SINGLE TEST RECORD FORM

Test No: 6_3	Tool: Enterprise Gateway	Score: Pass								
Test files:										
Import: DlgSILENT test 2 and 4		Export								
1. ENTSGE_16_EU_EQ.xml		1.								
2. ENTSGE_16_EU_TP.xml		2.								
3. ENTSGE_16_NL_EQ.xml		3.								
4. ENTSGE_16_NL_TP.xml		4.								
5. 1.2.4 ENTSGE_16_PF_13J15h_SV.xml		5.								
Comments/Results/Issues:										
<p>The header information in the original files has issue, Have to remove the following item to continue process</p> <pre><md:Model.Version> <md:Description> </md:Description> </md:Model.Version></pre>										
Supplementary files:										
Merged EQ file: eg_ENTSGE_16_EU_NL_dig_EQ.xml										
Merged TP file: eg_ENTSGE_16_EU_NL_dig_TP.xml										
Screen shot from EG and DigSilent: eg_test06_3_resolution_screen.doc										
Date	Vendor	Test witness								
July 14	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name</td> <td style="width: 50%;">Signature</td> </tr> <tr> <td>GE Energy</td> <td></td> </tr> </table>	Name	Signature	GE Energy		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name</td> <td style="width: 50%;">Signature</td> </tr> <tr> <td>Rimantas Rutkauskas</td> <td></td> </tr> </table>	Name	Signature	Rimantas Rutkauskas	
Name	Signature									
GE Energy										
Name	Signature									
Rimantas Rutkauskas										

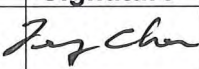
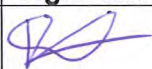
SINGLE TEST RECORD FORM

Test No: 7_1		Tool: Enterprise Gateway		Score: Pass	
Test files:					
Import: DlgSILENT test 2 and 5			Export		
1. ENTSOE_16_EU_EQ.xml			1.		
2. ENTSOE_16_EU_TP.xml			2.		
3. ENTSOE_16_NL_EQ.xml			3.		
4. ENTSOE_16_NL_TP.xml			4.		
5. 1.2.5 ENTSOE_16_PF_13J16h_SV.xml (NL)			5.		
Comments/Results/Issues:					
Use the SV for NL (+EU) only from DlgSILENT					
Corrected header issue (null value)					
<pre> <md:Model.Version> <md:Description> </md:Description> </md:Model.Version> </pre>					
Compared generation and transformer flow, the MW are the same, MVar are within tolerance.					
Supplementary files:					
Merged TP file: eg_ENTSOE_16_EU_NL_test07_TP.xml					
Power flow result screen shot from EG and DigSilent: eg_test07_resolution_screen.doc					
Date	Vendor		Test witness		
July 14	Name	Signature	Name	Signature	
	GE Energy		Rimantas Rutkauskas		

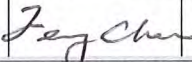
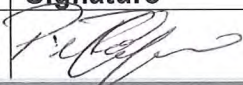
SINGLE TEST RECORD FORM

Test No:9_1		Tool: Enterprise Gateway		Score: Pass	
Test files: Base plus test 4 files					
Import			Export		
1. ENTSOE_16_NL_EQ.xml			1. eg_ENTSOE_16_BE_test09_Exp_EQ.xml		
2. ENTSOE_16_NL_TP.xml			2. eg_ENTSOE_16_BE_test09_Exp_TP.xml		
3. ENTSOE_16_NL_SV.xml			3. eg_ENTSOE_16_EU_test09_Exp_EQ.xml		
4. ENTSOE_16_EU_EQ.xml			4. eg_ENTSOE_16_EU_test09_Exp_TP.xml		
5. ENTSOE_16_EU_TP.xml			5. eg_ENTSOE_16_NL_test09_Exp_EQ.xml		
6. ENTSOE_16_BE_EQ.xml			6. eg_ENTSOE_16_NL_test09_Exp_TP.xml		
7. ENTSOE_16_BE_TP.xml			7. eg_ENTSOE_16_Merged_test09_Exp_SV.xml		
8. ENTSOE_16_BE_SV.xml					
9. eg_ENTSOE_16_NL_test04_TP.xml					
10. eg_ENTSOE_16_NL_test04_SV.xml					
Comments/Results/Issues:					
Use the files from Test 4, The following Topology change was made: Change status of Breaker between NODE 8 and NODE 5 from Closed to Open Change status of Breaker between NODE 6 and NODE 9 from Open to Closed					
During solution 2, it is found the update from test 4 is processed. The solution is converged and power flow changed from the base original model status, as expected.					
Supplementary files:					
Files during merging					
eg_ENTSOE_16_EU_NL_BE_test09_EQ.xml					
eg_ENTSOE_16_EU_NL_BE_test09_TP.xml					
eg_ENTSOE_16_EU_NL_test09_EQ.xml					
eg_ENTSOE_16_EU_NL_test09_TP.xml					
eg_ENTSOE_16_NL_BE_test09_SV.xml					
Solution snapshot file after merging and updating					
eg_test09_resolution1_screen.doc					
eg_test09_resolution2_screen.doc					
Files during updating					
eg_ENTSOE_16_EU_NL+_BE_test09_TP.xml					
eg_ENTSOE_16_NL+_BE_test09_SV.xml					
Date	Vendor		Test witness		
July 15	Name	Signature	Name	Signature	
	GE Energy		Pietro Capurso		

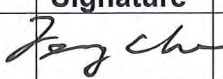
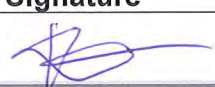
SINGLE TEST RECORD FORM

Test No: 10_1		Tool: Enterprise Gateway		Score: Pass	
Test files:					
Import: DlgSILENT test 9 V2 file			Export		
1. ENTSOE_16_EU_EQ.xml			1.		
2. ENTSOE_16_EU_TP.xml			2.		
3. ENTSOE_16_NL_EQ.xml			3.		
4. ENTSOE_16_NL_TP.xml			4.		
5.					
6.					
7. 1.2.9 ENTSOE_16_PF_13J16h_SV.xml			5.		
Comments/Results/Issues:					
<p>Corrected header issue (null value)</p> <pre><md:Model.Version> <md:Description> </md:Description> </md:Model.Version></pre> <p>Corrected the null reference issue such as below (for BE EQ):</p> <pre><cim:RegulatingCondEq.RegulatingControl rdf:resource="" /></pre>					
Supplementary files:					
<p>Merging temp file</p> <p>eg_ENTSOE_16_EU_NL_BE_test10_EQ.xml</p> <p>eg_ENTSOE_16_EU_NL_BE_test10_TP.xml</p> <p>eg_ENTSOE_16_EU_NL_test10_EQ.xml</p> <p>eg_ENTSOE_16_EU_NL_test10_TP.xml</p> <p>results snapshot from EG and tool B: DigSilent</p> <p>eg_test10_resolution_screen.doc</p>					
Date	Vendor		Test witness		
July 14	Name	Signature	Name	Signature	
	GE Energy		Rimantas Rutkauskas		


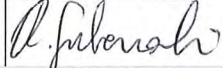
SINGLE TEST RECORD FORM

Test No: 11_1		Tool: Enterprise Gateway		Score: Pass	
Test files:					
Import			Export		
1. eg_ENTSOE_16_NL_test02_EQ.xml			1. eg_ENTSOE_16_EU_NL_test11_Exp_diff.xml		
2. eg_ENTSOE_16_NL_test02_TP.xml			2. eg_ENTSOE_16_EU_NL_test11_Exp_TP.xml		
3. eg_ENTSOE_16_NL_test02_SV.xml			3. eg_ENTSOE_16_EU_NL_test11_Exp_SV.xml		
4. ENTSOE_16_EU_EQ.xml			4.		
5. ENTSOE_16_EU_TP.xml			5.		
6.					
7.					
8.					
Comments/Results/Issues:					
<p>The following changes are made:</p> <p>Add a station with name "EG test",</p> <p>Changed the Phase Shifter (Transformer T3) Stepsize and Reactance</p>					
Supplementary files:					
Merged EQ file: ENTSOE_16_EU_NL_test11_EQ.xml					
Merged TP file: ENTSOE_16_EU_NL_test11_TP.xml					
Solution result screen shot: eg_test11_resolution_screen.doc					
Cimspy validation: eg_test11_validation_screen.doc					
Date		Vendor		Test witness	
July 13		Name		Name	
		Signature		Signature	
		GE Energy		Pietro Capurso	
					

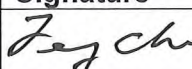
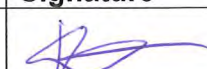
SINGLE TEST RECORD FORM

Test No:13_1		Tool: Enterprise Gateway		Score: Pass	
Test files: GE test 11 files + base EQ					
Import			Export		
1. ENTSOE_16_NL_EQ.xml			1. eg_ENTSOE_16_Full_test13_Exp_diff.xml		
2. ENTSOE_16_NL_TP.xml			2. eg_ENTSOE_16_Full_test13_Exp_TP.xml		
3. ENTSOE_16_NL_SV.xml			3. eg_ENTSOE_16_Full_test13_Exp_SV.xml		
4. ENTSOE_16_EU_EQ.xml			4.		
5. ENTSOE_16_EU_TP.xml			5.		
6. ENTSOE_16_BE_EQ.xml					
7. ENTSOE_16_BE_TP.xml					
8. ENTSOE_16_BE_SV.xml					
Comments/Results/Issues:					
<p>The following change is made</p> <p>Add new station "EG Test2"</p> <p>Changed Line Resistance and Reactance for Line "DFG-THY 2"</p> <p>Change Load Mw value from 100MW to 120MW for Load "D1"</p>					
Supplementary files:					
Merged base system file: eg_ENTSOE_16_All_test13_base_EQ.xml					
eg_ENTSOE_16_All_test13_base_TP.xml,					
eg_ENTSOE_16_All_test13_base_SV.xml					
Solution result screen shot: eg_test13_resolution_screen.doc					
Validation screen shot: eg_test13_validation_screen.doc					
Date	Vendor	Signature	Test witness	Signature	
July 15	Name	Name	Name	Signature	
	GE Energy		Rimantas Rutkauskas		

SINGLE TEST RECORD FORM

Test No: 15_1		Tool: Enterprise Gateway		Score: Pass	
Test files:					
Import			Export		
1. ENTSOE_16_NL_EQ.xml			1. eg_ENTSOE_16_NL_test15_DY.xml		
4. ENTSOE_16_NL_TP.xml			2.		
5. ENTSOE_16_NL_SV.xml			3.		
4. ENTSOE_16_NL_DY.xml			4.		
5.			5.		
6.					
7.					
8.					
Comments/Results/Issues:					
We did test 15 and 16 together, the exported file is from test 16					
Supplementary files:					
eg_test15_16_validation_screen.doc					
Date	Vendor		Test witness		
July 13	Name	Signature	Name	Signature	
	GE Energy		Adriano Gubernali		

SINGLE TEST RECORD FORM

Test No: 15_2		Tool: Enterprise Gateway		Score: Pass	
Test files: ABB User-defined model					
Import			Export		
1.Export_ENTSO- E_16_MergedMAS_EQ_BM_14JUL10h.xml			1. eg_ENTSOE_16_ABB_NM_test15_DY.xml		
2. Export_ENTSO- E_16_MergedMAS_TP_BM_14JUL10h.xml			2.		
3. Export_ENTSO- E_16_MergedMAS_SV_BM_14JUL10h.xml			3.		
4. rt_ENTSO- E_16_MergedMAS_DY_BM_14JUL10h.xml			4.		
5.			5.		
6.					
7.					
8.					
Comments/Results/Issues:					
We did test 15 and 16 together, the exported file is from test 15					
Supplementary files: eg_test15_16_validation_screen.doc					
Date	Vendor		Test witness		
July 15	Name	Signature	Name	Signature	
	GE Energy		Rimantas Rutkauskas		

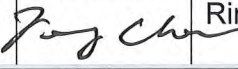
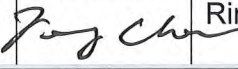


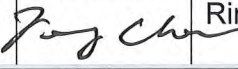

SINGLE TEST RECORD FORM

Test No: 16_1	Tool: Enterprise Gateway	Score: Pass
Test files:		
Import 1. ENTSOE_16_NL_EQ.xml 4. ENTSOE_16_NL_TP.xml 5. ENTSOE_16_NL_SV.xml 4. ENTSOE_16_NL_DY.xml 5. 6. 7. 8.	Export 1. eg_ENTSOE_16_NL_test15_DY.xml 2. <i>-EQ.xml</i> 3. <i>-TP.xml</i> 4. <i>-SV.xml</i> 5. 	
Comments/Results/Issues:		
We did test 15 and 16 together, the exported file is from test 16		
Supplementary files:		
eg_test15_16_validation_screen.doc		
Date	Vendor	Test witness
July 13	Name	Signature
	GE Energy	<i>[Signature]</i>
	Name	Signature
	Adriano Gubernali	<i>[Signature]</i>

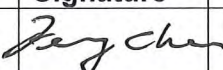
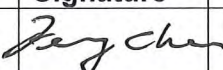
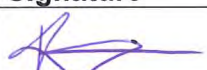
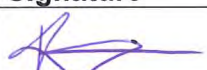
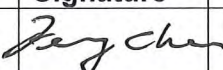
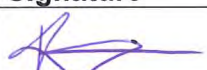
SINGLE TEST RECORD FORM

Test No: 16_2	Tool: Enterprise Gateway	Score: Pass
Test files: ABB User-defined model		
Import		Export
1.Export_ENTSO- E_16_MergedMAS_EQ_BM_14JUL10h.xml		1. eg_ENTSOE_16_ABB_NM_test16_DY.xml
2. Export_ENTSO- E_16_MergedMAS_TP_BM_14JUL10h.xml		2. <i>-EQ.xml</i>
3. Export_ENTSO- E_16_MergedMAS_SV_BM_14JUL10h.xml		3. <i>-TP.xml</i>
4. rt_ENTSO- E_16_MergedMAS_DY_BM_14JUL10h.xml		4. <i>-SV.xml</i>
5.		5.
6.		
7.		
8.		
Comments/Results/Issues:		
We did test 15 and 16 together, the exported file is from test 16		
The snapshot file include instance data from import, export and validation with Cimsy		
Supplementary files: eg_test15_16_validation_screen.doc		
Date	Vendor	Test witness
July 15	Name GE Energy	Name Rimantas Rutkauskas
	Signature <i>[Signature]</i>	Signature <i>[Signature]</i>

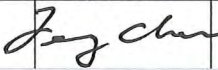

SINGLE TEST RECORD FORM

Test No: 27_1	Tool: Enterprise Gateway	Score: Pass								
Test files: GE operational model										
Import		Export								
1. ge1_EQ.xml		1. eg_EntsoE_ge1_EQ.xml								
2. ge1_TP_v2.xml		2. eg_EntsoE_ge1_TP.xml								
3. ge1_SV.xml		3. eg_EntsoE_ge1_SV.xml								
4.		4.								
5.		5.								
6.										
7.										
8.										
Comments/Results/Issues:										
<p>This test import GE SCADA/EMS model in the CPSM IOP12, run power flow, then export a Entso-E strictly compliant model.</p> <p>The snapshot file include instance data from import, export and validation with Cimsy for Equipment, Topology and State Variables profile</p>										
Supplementary files:										
eg_test27_validation_screen.doc										
Date	Vendor	Test witness								
July 15	<table border="1"> <tr> <td>Name</td> <td>Signature</td> </tr> <tr> <td>GE Energy</td> <td></td> </tr> </table>	Name	Signature	GE Energy		<table border="1"> <tr> <td>Name</td> <td>Signature</td> </tr> <tr> <td>Rimantas Rutkauskas</td> <td></td> </tr> </table>	Name	Signature	Rimantas Rutkauskas	
Name	Signature									
GE Energy										
Name	Signature									
Rimantas Rutkauskas										

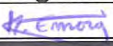

SINGLE TEST RECORD FORM

Test No: 30_1	Tool: Enterprise Gateway	Score: Pass								
Test files: Official plus change										
Import	Export									
1. ENTSOE_16_NL_EQ.xml	1. eg_ENTSOE_16_EU_NL_BE+ test30_exp_EQ.xml									
2. ENTSOE_16_NL_TP.xml	2 eg_ENTSOE_16_EU_NL_BE test30_exp_TP.xml									
3. ENTSOE_16_NL_SV.xml	3 eg_ENTSOE_16_NL_BE test30_exp_SV.xml									
4. ENTSOE_16_EU_EQ.xml										
5. ENTSOE_16_EU_TP.xml										
6. ENTSOE_16_BE_EQ.xml										
7. ENTSOE_16_BE_TP.xml										
8. ENTSOE_16_BE_SV.xml										
9.										
10. eg_ENTSOE_16_BE_test30_upd_EQ.xml (update)										
Comments/Results/Issues:										
<p>In Equipment model: Add a Station called "EG Station" Change ThermalGeneratingUnit "Unit G1" _1b8e9dcb6a5711dfa90800059a3c7800 High limit and rate from 200 to 250</p> <p>Verified the change are in the merged model through Cimsy</p> <p>Another vendor B may import the change ENTSOE_16_BE_test30_upd_EQ.xml to their base model and verify the update is there</p>										
Supplementary files:										
eg_test30_validation_screen.doc										
Date	Vendor	Test witness								
July 15	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name</td> <td style="width: 50%;">Signature</td> </tr> <tr> <td>GE Energy</td> <td></td> </tr> </table>	Name	Signature	GE Energy		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name</td> <td style="width: 50%;">Signature</td> </tr> <tr> <td>Rimantas Rutkauskas</td> <td></td> </tr> </table>	Name	Signature	Rimantas Rutkauskas	
Name	Signature									
GE Energy										
Name	Signature									
Rimantas Rutkauskas										

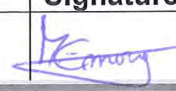
SINGLE TEST RECORD FORM

Test No: 31_1	Tool: Enterprise Gateway	Score: Pass
Test files:		
Import: DlgSILENT test 2 export files 1.2.2 ENTSOE_16_PF_13J16h.zip	Export	
1. ENTSOE_16_EU_EQ.xml	1.	
2. ENTSOE_16_NL_EQ.xml	2.	
3.	3.	
4.	4.	
5.	5.	
Comments/Results/Issues:		
<p>In the header the Model.Version is like below which contains no actual (null) data.</p> <pre><md:Model.Version> <md:Description> </md:Description> </md:Model.Version></pre> <p>Tool reported "Error null" message.</p> <p>Suggest to either put actual data in or remove the class item Model.Version</p> <p>For the tool, will add message information to tell the user more detail about the error exception such as which class.</p>		
Supplementary files: eg_test31_error_screen.doc		
Date	Vendor	Test witness
July 14	Name GE Energy	Name Rimantas Rutkauskas
	Signature 	Signature 

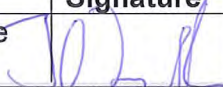
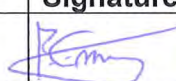
TOOL SUMMARY FORM (PER TOOL)

Vendor: Intercompro AG		Tool: ISPEN	
Witnessed by			
Name	Signature	Name	Signature
1. Marc Emery		9.	
Performed tests			
Test No	Score	Test No	Score
1_1	PASSED		
2_1	PASSED		
2_2	PASSED		
4_1	PASSED		
5_1	PASSED		
9_1	PASSED		
Comments:			
<ol style="list-style-type: none"> 1. The most meaningful comparison between the load flow calculation and the official results, page 11 of <i>ENTSO-E IOP "CIM for System Development and Operations" 2010 ENTSO-E 16 nodes model – description</i> showed that ISPEN could perfectly reproduce the results of Belgium and Boundary (Test 2) and Belgium, Netherlands and Boundary (Test 10). 2. Test 2 was performed twice: once using the Official Test Models (_1), once using the files exported by Busarello + Cott + Partner (_2). 3. The following tests were not performed: <ul style="list-style-type: none"> • Tests 3, 6, 7 and 10 (comparison between tools) because of remaining differences in interpretation between tools. • Test 8 because ISPEN does not perform short circuit calculations. • Tests 11, 12 and 13 because, especially due to the continuous profile change, the time for producing such difference files is not ripe. • Tests 15 thru 26, because ISPEN does not perform dynamic calculations. • Tests 27 thru 31. 			
Recommendation: We strongly recommend to freeze the profile at least one week before the test starts, which would greatly improve the interoperability .			
Date	Vendor	ENTSO-E	
16.7.2010	Name	Name	Signature
	Ingemund Nordanlycke	Chardar Ivanov	

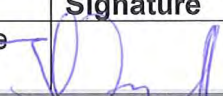
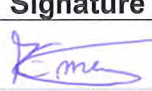
SINGLE TEST RECORD FORM

Test No:1_1		Tool:ISPEN		Score:Pass	
Test files					
Import			Export		
1.ENTSOE_16_BE_EQ.xml			1.		
ENTSOE_16_BE_SV.xml					
ENTSOE_16_BE_TP.xml					
2. ENTSOE_16_EU_EQ.xml			2.		
ENTSOE_16_EU_TP.xml					
3.			3.		
4.			4.		
5.			5.		
Comments/Results/Issues:					
<p>Supplementary files:</p> <p>ENTSOE_16_instance_IS_14J13h.txt This file comprises the export of the file in the 'old' UCTE DEF format. With this file, the instances check was performed: we compared the parameters of a couple of lines and transformers.</p> <p>ENTSOE_16_load flow results_IS_14J13h.txt This file comprises the full load flow results obtained with ISPEN, which were checked.</p>					
Date	Vendor		Signature	Test witness	
	Name		Name	Signature	
16.7.2010	Ingemund Nordanlycke		Marc Emery		

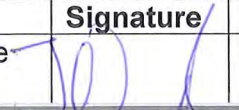
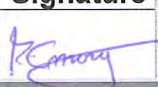
SINGLE TEST RECORD FORM

Test No:2_1		Tool:ISPEN		Score:Pass	
Test files					
Import			Export		
1.ENTSOE_16_BE_EQ.xml ENTSOE_16_BE_SV.xml ENTSOE_16_BE_TP.xml			1.ENTSOE_16_SV_IS_14J14h.xml		
2. ENTSOE_16_EU_EQ.xml ENTSOE_16_EU_TP.xml			2. ENTSOE_16_TP_IS_14J14h.xml		
3.			3. (ENTSOE_16_BE_EQ.xml)		
4.			4. (ENTSOE_16_EU_EQ.xml)		
5.			5.		
Comments/Results/Issues: ISPEN can change the topology, the tap positions or the loads/injections, but not the equipment data. Therefore ISPEN only modifies the SV and TP files; the output 'EQ' file is the same as the input 'EQ' file. The exported files are for the whole grid (BE and Boundary) and not only for one MAS.					
Supplementary files: ENTSOE_16_instance_IS_14J17h.txt This file comprises the export of the file in the 'old' UCTE DEF format. With this file, the instances check was performed: we compared the parameters of a couple of lines and transformers. ENTSOE_16_SV_IS_14J16h.gif ENTSOE_16_TP_IS_14J16h.gif These files are printscreens from CIMSpy that prove that both exported files were validated.					
Date	Vendor		Test witness		
	Name	Signature	Name	Signature	
16-7-2010	Ingemund Nordanlycke		Marc Emery		

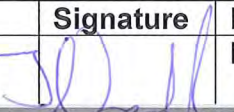

SINGLE TEST RECORD FORM

Test No:2_2		Tool:ISPEN		Score:Pass	
Test files					
Import			Export		
1. ENTSOE_16_BE_EQ_NE_14J10h.xml ENTSOE_16_BE_SV_NE_14J10h.xml ENTSOE_16_BE_TP_NE_14J10h.xml			1. ENTSOE_16_SV_IS_16J10h.xml		
2. ENTSOE_16_EU_EQ_NE_14J10h.xml ENTSOE_16_EU_TP_NE_14J10h.xml			2. ENTSOE_16_TP_IS_16J10h.xml		
3.			3. (ENTSOE_16_BE_EQ_NE_14J10h.xml)		
4.			4. (ENTSOE_16_EU_EQ_NE_14J10h.xml)		
5.			5.		
<p>Comments/Results/Issues:</p> <p>ISPEN can change the topology, the tap positions or the loads/injections, but not the equipment data. Therefore ISPEN only modifies the SV and TP files; the output 'EQ' file is the same as the input 'EQ' file.</p> <p>The exported files are for the whole grid (BE and Boundary) and not only for one MAS.</p> <p>The files exported by NEPLAN were imported.</p>					
<p>Supplementary files:</p> <p>ENTSOE_16_instance_IS_16J10h.txt This file comprises the export of the file in the 'old' UCTE DEF format.</p> <p>ENTSOE_16_SV_IS_16J10h.gif ENTSOE_16_TP_IS_16J10h.gif These files are screenshots from CIMSpy that prove that both exported files were validated.</p>					
Date	Vendor		Test witness		
	Name	Signature	Name	Signature	
16.7.2010	Ingemund Nordanlycke		Marc Emery		

SINGLE TEST RECORD FORM

Test No:4_1		Tool:ISPEN		Score:Pass	
Test files					
Import			Export		
1.ENTSOE_16_BE_EQ.xml ENTSOE_16_BE_SV.xml ENTSOE_16_BE_TP.xml			1.ENTSOE_16_SV_IS_14J17h.xml		
2. ENTSOE_16_EU_EQ.xml ENTSOE_16_EU_TP.xml			2. ENTSOE_16_TP_IS_14J17h.xml		
3.			3. (ENTSOE_16_BE_EQ.xml)		
4.			4. (ENTSOE_16_EU_EQ.xml)		
5.			5.		
Comments/Results/Issues:					
<p>The files from 1.2.1. were used. The topology change required by the witness was to put out of operation the transformer BGENT_51 -00- BGENT_11.</p> <p>ISPEN can change the topology, the tap positions or the loads/injections, but not the equipment data. Therefore ISPEN only modifies the SV and TP files; the output 'EQ' file is the same as the input 'EQ' file.</p> <p>The exported files are for the whole grid (BE and Boundary) and not only for one MAS.</p>					
Supplementary files:					
<p>ENTSOE_16_SV_IS_14J17h.gif ENTSOE_16_TP_IS_14J17h.gif These files are printscreens from CIMSpy that prove that both exported files were validated.</p> <p>ENTSOE_16_load flow results_IS_14J17h.txt This file comprises the full load flow results obtained with ISPEN, where it was checked that transformer BGENT_51 -00- BGENT_11 was out of operation.</p>					
Vendor		Test witness			
Name		Signature		Signature	
16.7.2010 Ingemund Nordanlycke				Marc Emery 	

SINGLE TEST RECORD FORM

Test No:5_1		Tool:ISPEN		Score:Pass	
Test files					
Import			Export		
1.ENTSOE_16_BE_EQ.xml ENTSOE_16_BE_SV.xml ENTSOE_16_BE_TP.xml			1.ENTSOE_16_SV_IS_15J10h.xml		
2. ENTSOE_16_EU_EQ.xml ENTSOE_16_EU_TP.xml			2. (ENTSOE_16_TP_IS_15J10h.xml)		
3.			3. (ENTSOE_16_BE_EQ.xml)		
4.			4. (ENTSOE_16_EU_EQ.xml)		
5.			5.		
Comments/Results/Issues:					
<p>The files from 1.2.1. were used. The change required by the witness was to modify the load in BGENT_5 from 100 MW/90 MVar to 150 MW/110 MVar.</p> <p>ISPEN can change the topology, the tap positions or the loads/injections, but not the equipment data. Therefore ISPEN only modifies the SV and TP files; the output 'EQ' file is the same as the input 'EQ' file.</p> <p>The exported files are for the whole grid (BE and Boundary) and not only for one MAS.</p>					
Supplementary files:					
<p>ENTSOE_16_SV_IS_15J10h.gif ENTSOE_16_TP_IS_15J10h.gif</p> <p>These files are printscreens from CIMSpy that prove that both exported files were validated.</p> <p>ENTSOE_16_load flow results_IS_15J10h.txt</p> <p>This file comprises the full load flow results obtained with ISPEN, where it was checked that load in BGENT_5 was changed from 100 MW/90 MVar to 150 MW/110 MVar.</p>					
Vendor		Test witness			
Name		Signature		Signature	
Ingemund Nordanlycke				Marc Emery	
16.7.2010					

SINGLE TEST RECORD FORM

Test No: 9_1	Tool: ISPEN	Score: Pass
Test files		
Import	Export	
1.ENTSOE_16_BE_EQ.xml ENTSOE_16_BE_SV.xml ENTSOE_16_BE_TP.xml	1.ENTSOE_16_SV_IS_15J14h.xml	
2. ENTSOE_16_NL_EQ.xml ENTSOE_16_NL_SV.xml ENTSOE_16_NL_TP.xml	2. ENTSOE_16_TP_IS_15J14h.xml	
3. ENTSOE_16_EU_EQ.xml ENTSOE_16_EU_TP.xml	3. (ENTSOE_16_BE_EQ.xml)	
4.	4. (ENTSOE_16_NL_EQ.xml)	
5.	5. (ENTSOE_16_EU_EQ.xml)	
Comments/Results/Issues:		
<ol style="list-style-type: none"> 1. Only Solution 1 was performed. 2. ISPEN can change the topology, the tap positions or the loads/injections, but not the equipment data. Therefore ISPEN only modifies the SV and TP files; the output 'EQ' file is the same as the input 'EQ' file. 3. The exported files are for the whole grid (BE, NL and Boundary) and not only for one MAS. 4. In order to obtain load flow results very near to the chart of page 11 of <i>ENTSO-E IOP "CIM for System Development and Operations" 2010</i>, the tap position of the PST device had to be changed. 		
Supplementary files:		
ENTSOE_16_SV_IS_15J14h.gif ENTSOE_16_TP_IS_15J14h.gif These files are printscreens from CIMSpy that prove that both exported files were validated.		
ENTSOE_16_load flow results_IS_15J14h.txt This file comprises the full load flow results obtained with ISPEN where it can be seen that the results are almost perfectly in line with <i>ENTSO-E IOP "CIM for System Development and Operations" 2010</i> .		

Vendor		Test witness		
	Name	Signature	Name	Signature
16-7-2010	Ingemund Nordanlycke		Marc Emery	