






INTEROPERABILITY TEST "CIM FOR SYSTEM DEVELOPMENT AND OPERATIONS" 2010

APPENDIX C: TEST RECORD FORMS

PART 4

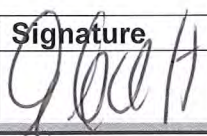
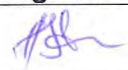
TOOL SUMMARY FORM (PER TOOL)

Vendor: Busarello + Cott + Partner AG		Tool: NEPLAN	
Witnessed by			
Name	Signature	Name	Signature
1. Oana Stanescu (Transelectrica)		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	
Performed tests			
Test No	Score	Test No	Score
1.2.1	Pass	1.2.16	Not done
1.2.2	Pass	1.2.17	Pass
1.2.3	Pass		
1.2.4	Pass		
1.2.5	Pass		
1.2.6	Pass with errors		
1.2.7	Pass		
1.2.8	Pass		
1.2.9	Pass		
1.2.10	Pass		
1.2.11	Pass		
1.2.12	Pass		
1.2.13	Pass		
1.2.14	Pass		
1.2.15	Pass		
Comments:			
For the rest of the test we will need some more implementation time. For dynamic export we would need 2 more days.			
An for the user defined dynamic model as well another 2 days.			
Date	Vendor	ENTSO-E	
16 July 2010	Name NEPLAN Giatgen Cott	Signature 	Name Charaldis Iakovou Signature 

SINGLE TEST RECORD FORM

Test No: 1.2.1	Tool: NEPLAN 5.4.4	Score: Pass
Test files		
Import	Export	
1. ENTSOE_16_BE_EQ	1.	
2. ENTSOE_16_BE_TP	2.	
3. ENTSOE_16_BE_DY	3.	
4. ENTSOE_16_BE_SV	4.	
1. ENTSOE_16_EU_EQ	5.	
2. ENTSOE_16_EU_TP		
Supplementary files:		
Date	Vendor	Test witness
12.July 2010	Name Giatgen Cott	Name Oana Stanescu
	Signature 	Signature

SINGLE TEST RECORD FORM

Test No: 1.2.2	Tool: NEPLAN 5.4.4.	Score: Pass
Test files		
Import		Export
1. ENTSOE_16_BE_EQ		5 files in Test-1.2.2
2. ENTSOE_16_BE_TP		
3. ENTSOE_16_BE_SV		
4. ENTSOE_16_BE_DY		
1. ENTSOE_16_EU_EQ		5.
2. ENTSOE_16_EU_TP		
Supplementary files:		
Date	Vendor	Test witness
12. July 2010	Name Giatgen Cott	Name Oana Stanescu
	Signature 	Signature 

#	Class	RDF ID	Description
1	GeneratingUnit	<u>1b8e9dd06a5711dfa90800059a3c7800 52A1</u>	Content for element 'cim:GeneratingUnit' is incomplete according to the DTD/Schema. Expecting: cim:GeneratingUnit.initialP.
2	SynchronousMachine	<u>1b8e9dd06a5711dfa90800059a3c7800</u>	Element 'cim:SynchronousMachine.baseQ' is unexpected according to content model of parent element 'cim:SynchronousMachine'. Expecting: cim:SynchronousMachine.type, cim:SynchronousMa....
3	GeneratingUnit	<u>1b8e9dc86a5711dfa90800059a3c7800 52A1</u>	Content for element 'cim:GeneratingUnit' is incomplete according to the DTD/Schema. Expecting: cim:GeneratingUnit.initialP.
4	SynchronousMachine	<u>1b8e9dc86a5711dfa90800059a3c7800</u>	Element 'cim:SynchronousMachine.baseQ' is unexpected according to content model of parent element 'cim:SynchronousMachine'. Expecting: cim:SynchronousMachine.type, cim:SynchronousMa....
5	TransformerWinding	<u>1b8e9e6b6a5711dfa90800059a3c7800</u>	Element 'cim:TransformerWinding.shortTerms'

			is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
6	TransformerWinding	1b8e9e6b6a5711dfa90800059a3c7800	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
7	RatioTapChanger	1b8e9e726a5711dfa90800059a3c7800	Content for element 'cim:RatioTapChanger' is incomplete according to the DTD/Schema. Expecting: cim:RatioTapChanger.tculControlMode.
8	TransformerWinding	1b8e9e746a5711dfa90800059a3c7800	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
9	TransformerWinding	1b8e9e746a5711dfa90800059a3c7800	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
10	TransformerWinding	1b8e9e596a5711dfa90800059a3c7800	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
11	TransformerWinding	1b8e9e596a5711dfa90800059a3c7800	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
12	RatioTapChanger	1b8e9e616a5711dfa90800059a3c7800	Content for element 'cim:RatioTapChanger' is incomplete according to the DTD/Schema. Expecting: cim:RatioTapChanger.tculControlMode.
13	TransformerWinding	1b8e9e636a5711dfa90800059a3c7800	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
14	TransformerWinding	1b8e9e636a5711dfa90800059a3c7800	The element 'cim:TransformerWinding.emergencyS'

			is used but not declared in the DTD/Schema.
15	TransformerWinding	1b8e9e476a5711dfa90800059a3c7800	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
16	TransformerWinding	1b8e9e476a5711dfa90800059a3c7800	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
17	RatioTapChanger	1b8e9e4f6a5711dfa90800059a3c7800	Content for element 'cim:RatioTapChanger' is incomplete according to the DTD/Schema. Expecting: cim:RatioTapChanger.tculControlMode.
18	TransformerWinding	1b8e9e516a5711dfa90800059a3c7800	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
19	TransformerWinding	1b8e9e516a5711dfa90800059a3c7800	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
20	TransformerWinding	1b8e9e7c6a5711dfa90800059a3c7800	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
21	TransformerWinding	1b8e9e7c6a5711dfa90800059a3c7800	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
22	RatioTapChanger	1b8e9e7f6a5711dfa90800059a3c7800	Content for element 'cim:RatioTapChanger' is incomplete according to the DTD/Schema. Expecting: cim:RatioTapChanger.tculControlMode.
23	TransformerWinding	1b8e9e816a5711dfa90800059a3c7800	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting:

			cim:TransformerWinding.ratedU, cim:Transformer....
24	TransformerWinding	1b8e9e816a5711dfa90800059a3c7800	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
25	TransformerWinding	1b8e9e836a5711dfa90800059a3c7800	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
26	TransformerWinding	1b8e9e836a5711dfa90800059a3c7800	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
27	RatioTapChanger	DA11-2E-F1-20000000000038393037	Content for element 'cim:RatioTapChanger' is incomplete according to the DTD/Schema. Expecting: cim:RatioTapChanger.tcUControlMode.
28	ShuntCompensator	1b8e9ec36a5711dfa90800059a3c7800	Element 'cim:ShuntCompensator.aVRDelay' is unexpected according to content model of parent element 'cim:ShuntCompensator'. Expecting: cim:Equipment.EquipmentContainer, cim:ShuntCom....
29	ShuntCompensator	1b8e9ec36a5711dfa90800059a3c7800	The element 'cim:ShuntCompensator.nomQ' is used but not declared in the DTD/Schema.
30	ShuntCompensator	1b8e9ec66a5711dfa90800059a3c7800	Element 'cim:ShuntCompensator.aVRDelay' is unexpected according to content model of parent element 'cim:ShuntCompensator'. Expecting: cim:Equipment.EquipmentContainer, cim:ShuntCom....
31	ShuntCompensator	1b8e9ec66a5711dfa90800059a3c7800	The element 'cim:ShuntCompensator.nomQ' is used but not declared in the DTD/Schema.
32	ShuntCompensator	1b8e9eca6a5711dfa90800059a3c7800	Element 'cim:ShuntCompensator.aVRDelay' is unexpected according to content model of parent element 'cim:ShuntCompensator'. Expecting: cim:Equipment.EquipmentContainer, cim:ShuntCom....

33	ShuntCompensator	<u>1b8e9eca6a5711dfa90800059a3c7800</u>	The element 'cim:ShuntCompensator.nomQ' is used but not declared in the DTD/Schema.
34	ShuntCompensator	<u>1b8e9ebd6a5711dfa90800059a3c7800</u>	Element 'cim:ShuntCompensator.aVRDelay' is unexpected according to content model of parent element 'cim:ShuntCompensator'. Expecting: cim:Equipment.EquipmentContainer, cim:ShuntCom....
35	ShuntCompensator	<u>1b8e9ebd6a5711dfa90800059a3c7800</u>	The element 'cim:ShuntCompensator.nomQ' is used but not declared in the DTD/Schema.
36	ShuntCompensator	<u>1b8e9ec06a5711dfa90800059a3c7800</u>	Element 'cim:ShuntCompensator.aVRDelay' is unexpected according to content model of parent element 'cim:ShuntCompensator'. Expecting: cim:Equipment.EquipmentContainer, cim:ShuntCom....
37	ShuntCompensator	<u>1b8e9ec06a5711dfa90800059a3c7800</u>	The element 'cim:ShuntCompensator.nomQ' is used but not declared in the DTD/Schema.

Equipment file validation

Test No:1.2.3

Score:Pass

Import

5 files in Test-1.2.2

2. ENTSOE 16 BE TP

3. ENTSOE_16_BE_SV

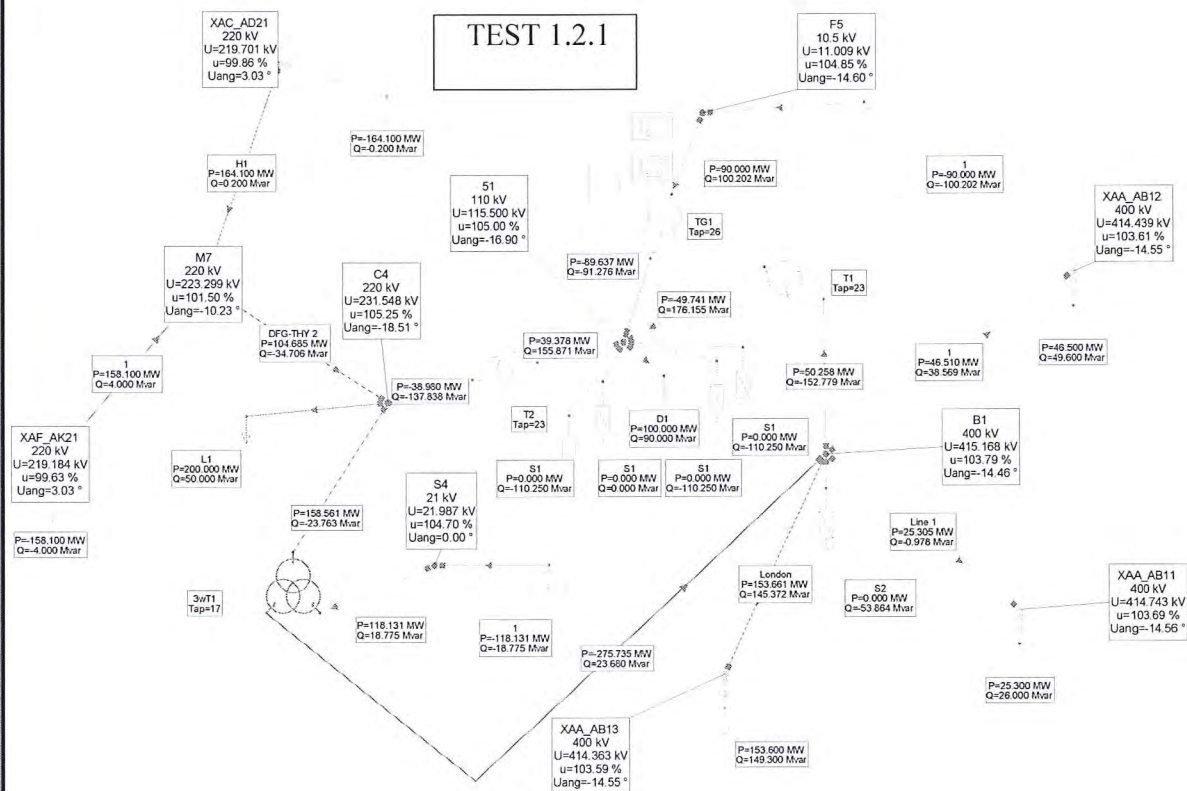
4. ENTSOE 16 BE DY

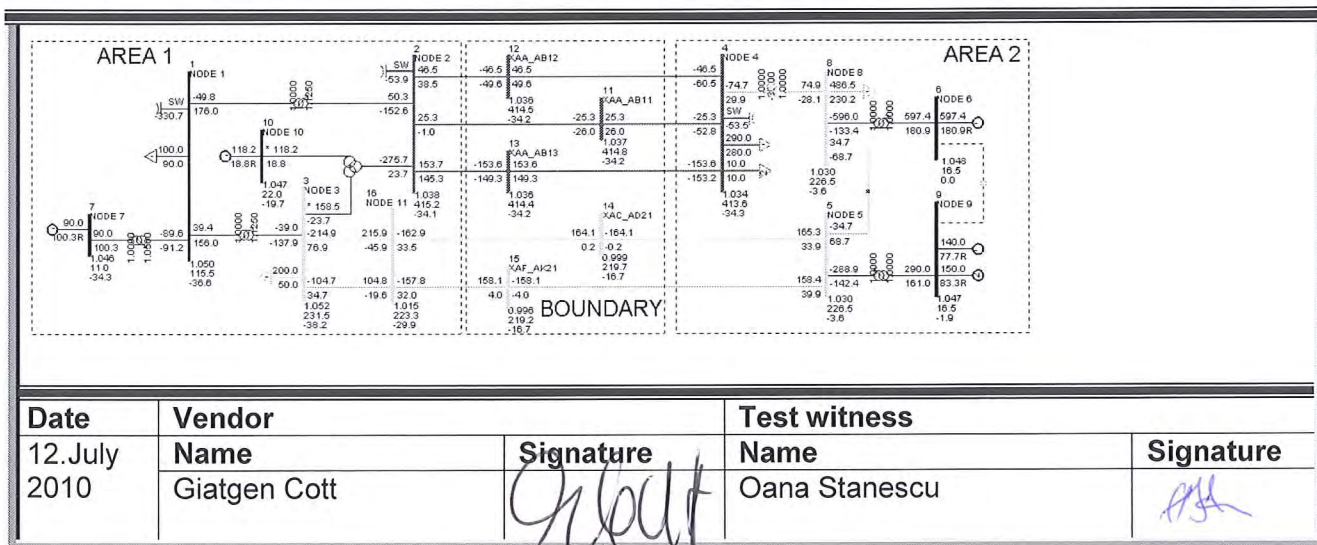
1. ENTSOE 16 EU EQ

5.

2. ENTSOE 16 EU TP

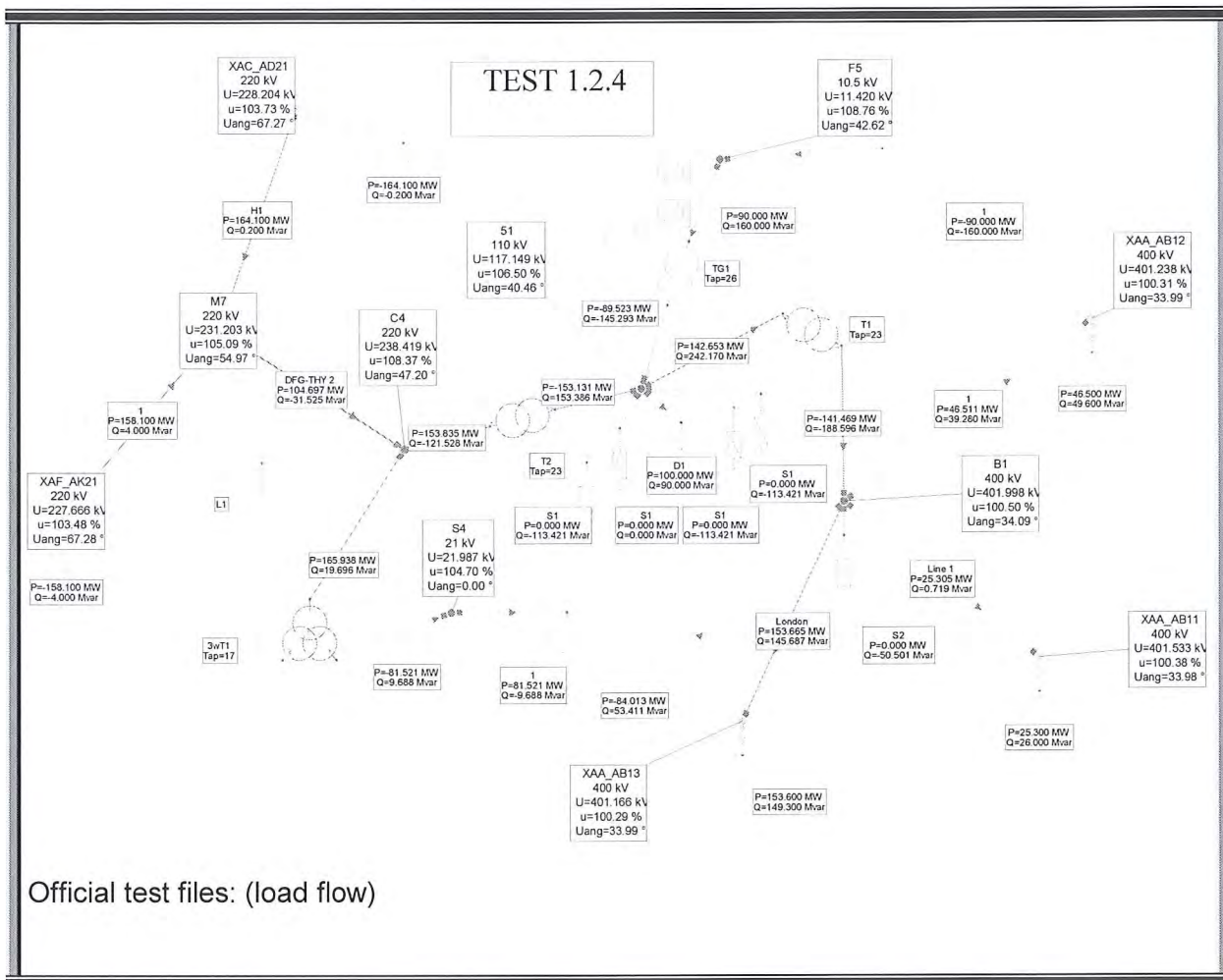
TEST 1.2.1

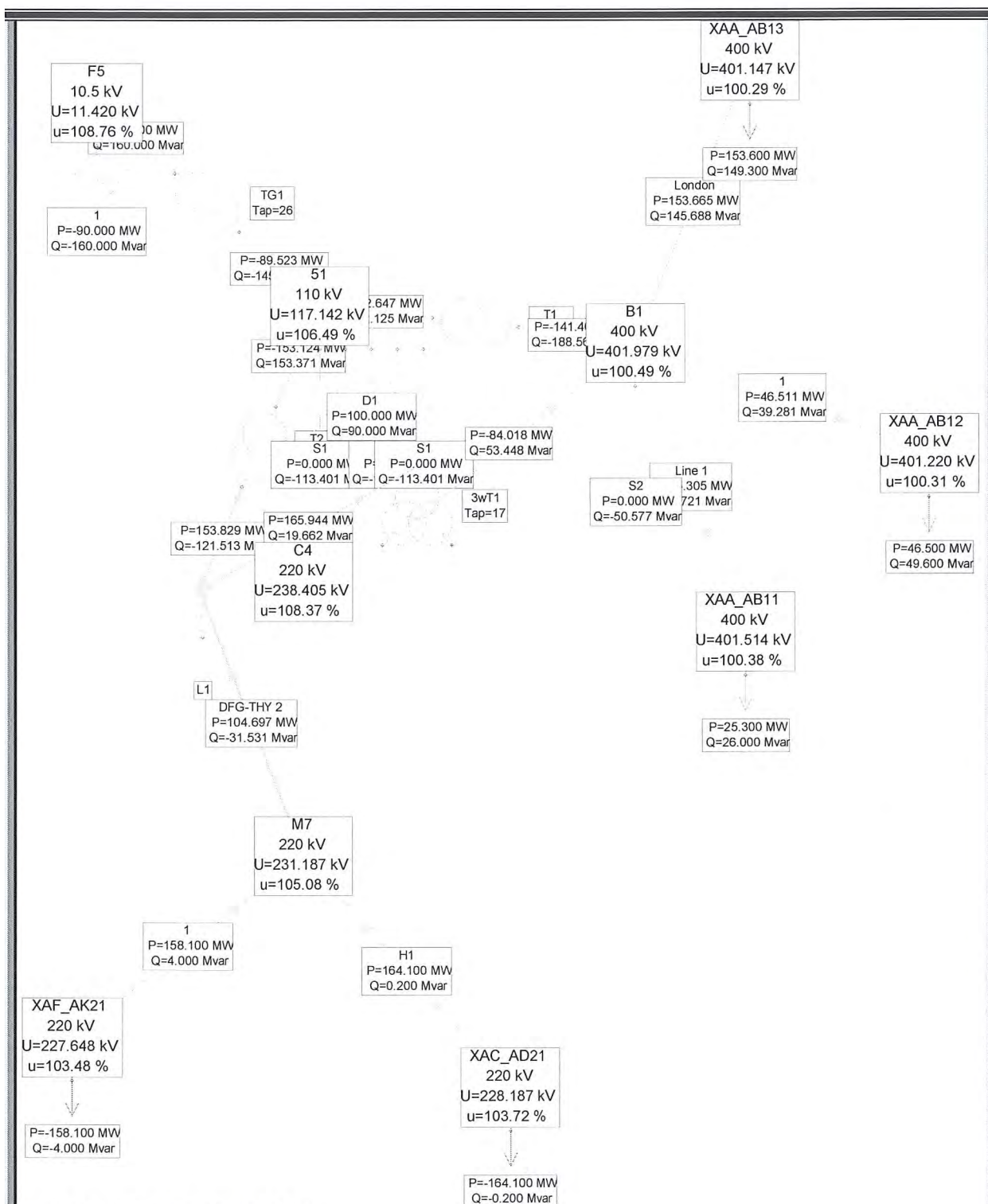


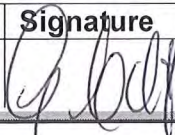



SINGLE TEST RECORD FORM

Test No:1.2.4	Tool:NEPLAN 5.4.4.	Score:Pass
Test files		
Import	Export	
1. ENTSOE_16_BE_EQ	2 files in Test-1.2.4	
2. ENTSOE_16_BE_TP	2 files in Test-1.2.4b	
3. ENTSOE_16_BE_SV		
4. ENTSOE_16_BE_DY		
+ Boundary		
5. 5 files from Test-1.2.2		
Comments/Results/Issues:		
Changed Topology off Load L1, _1b8e9d986a5711dfa90800059a3c7800		
Import only Topology: ok		
Import only SV File: ok		
Losses original network:		
Network MW losses = 4.930999		
Network Mvar losses = 142.890562		
Losses with topology changed:		
Network MW losses = 5.278505		
Network Mvar losses = 249.751653		
Export 1. TP and then SV.		
Validation of TP and SV file is OK!		
Supplementary files:		

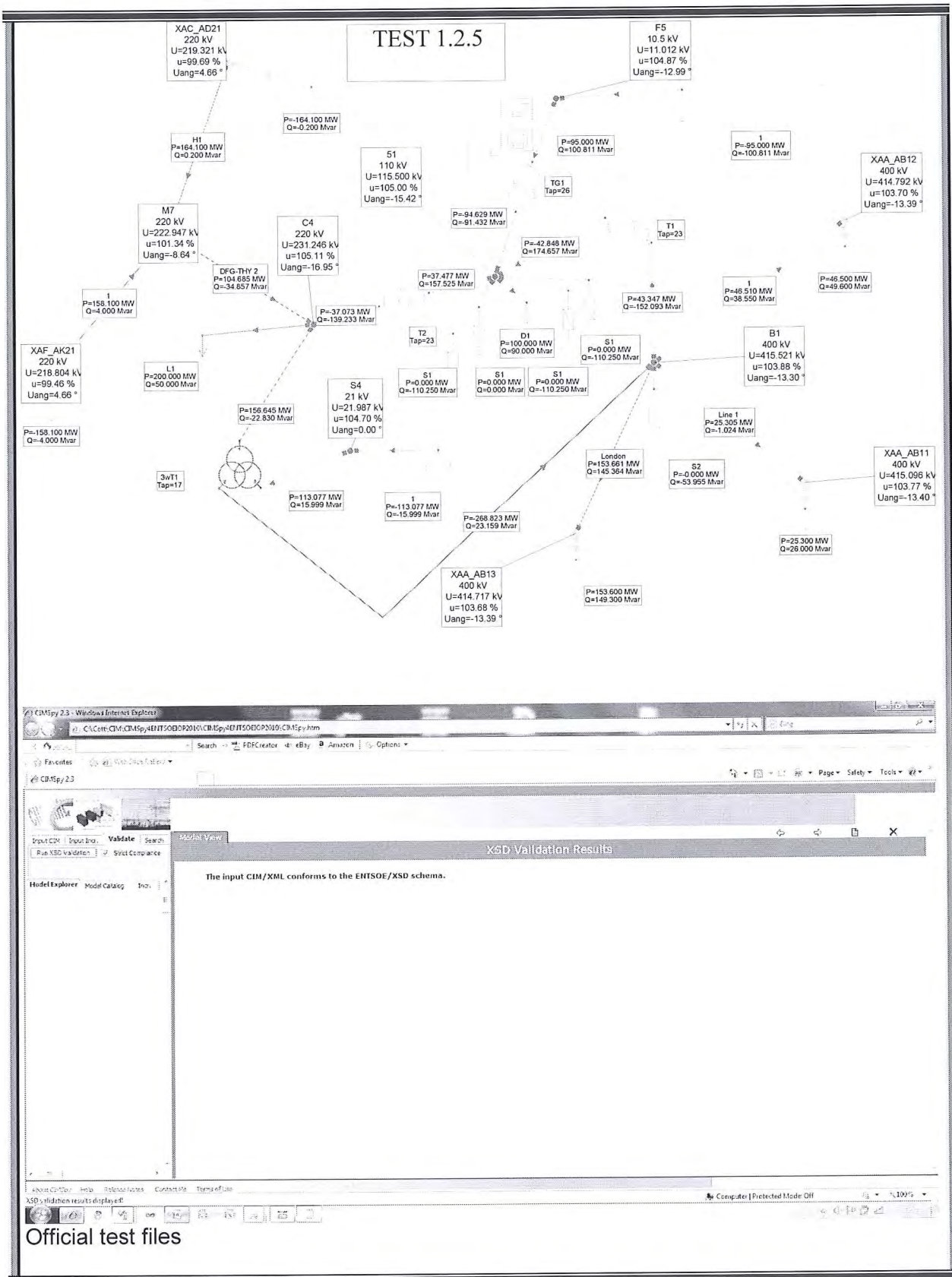




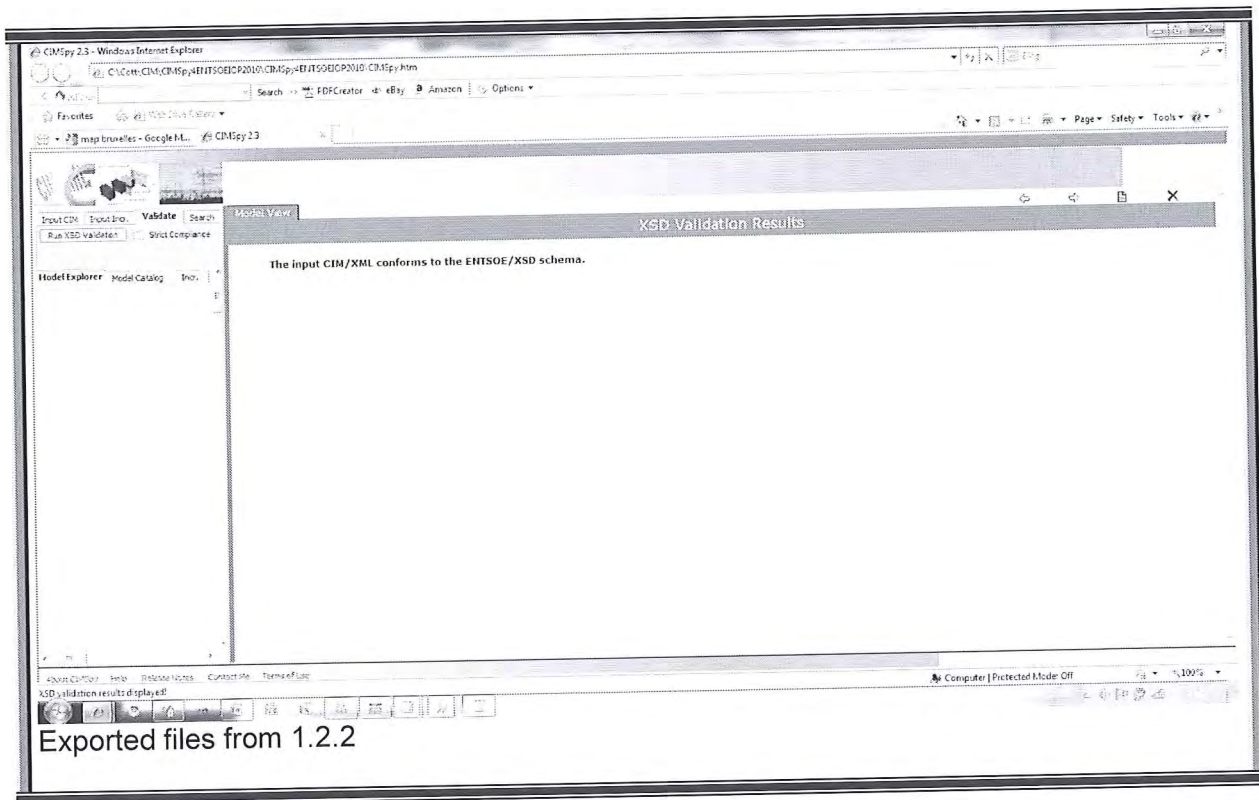
Date	Vendor	Test witness
12. July 2010	Name Giatgen Cott	Name Oana Stanescu
	Signature 	Signature 

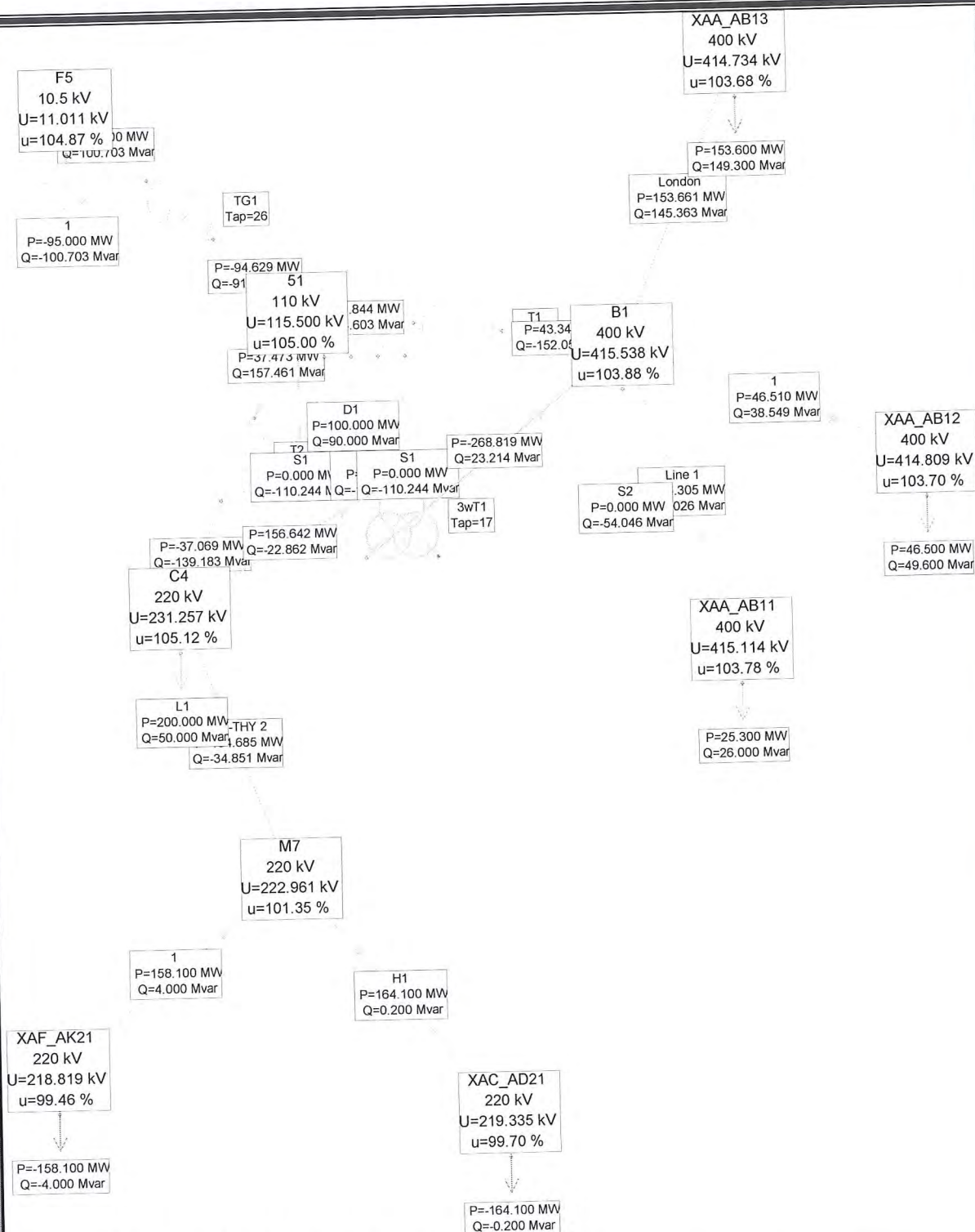
SINGLE TEST RECORD FORM

Test No:1.2.5		Tool:NEPLAN 5.4.4.	Score:Pass
Test files			
Import		Export	
1. ENTSOE_16_BE_EQ		1) 1 file in Test 1.2.5	
2. ENTSOE_16_BE_TP		2) 1 file in Test 1.2.5.b	
3. ENTSOE_16_BE_SV			
4. ENTSOE_16_BE_DY			
+ Boundary		5.	
+ 5 files from Test-1.2.2			
Comments/Results/Issues:			
<p>Generator 1 at node 7: Changed P from 90 MW to 95 MW</p>			
Supplementary files:			



Official test files



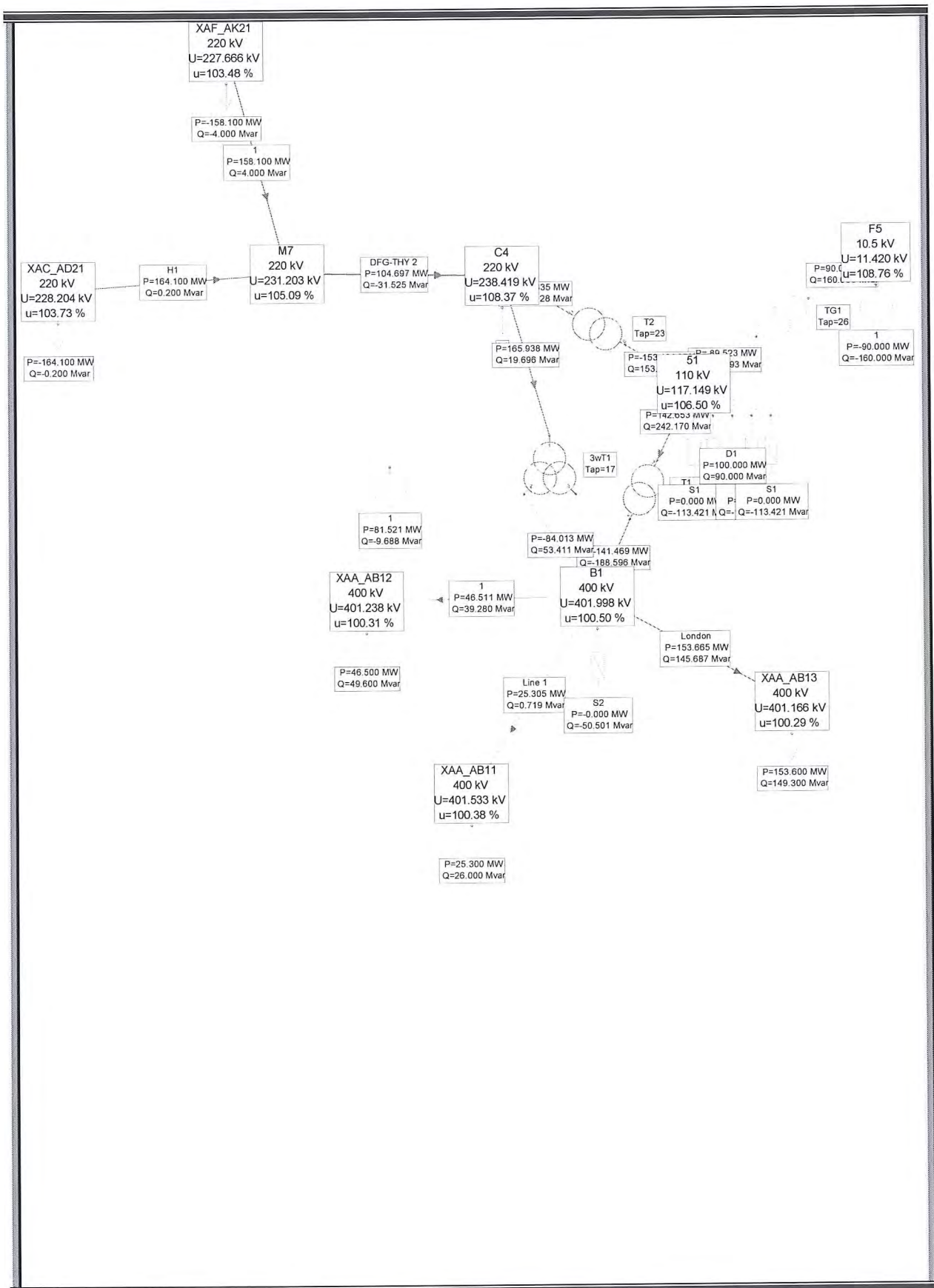




Imported from exported files from test 1.2.2 (loadflow)

Date	Vendor	Signature	Test witness	Signature
12.July 2010	Name Giatgen Cott		Name Oana Stanescu	

SINGLE TEST RECORD FORM

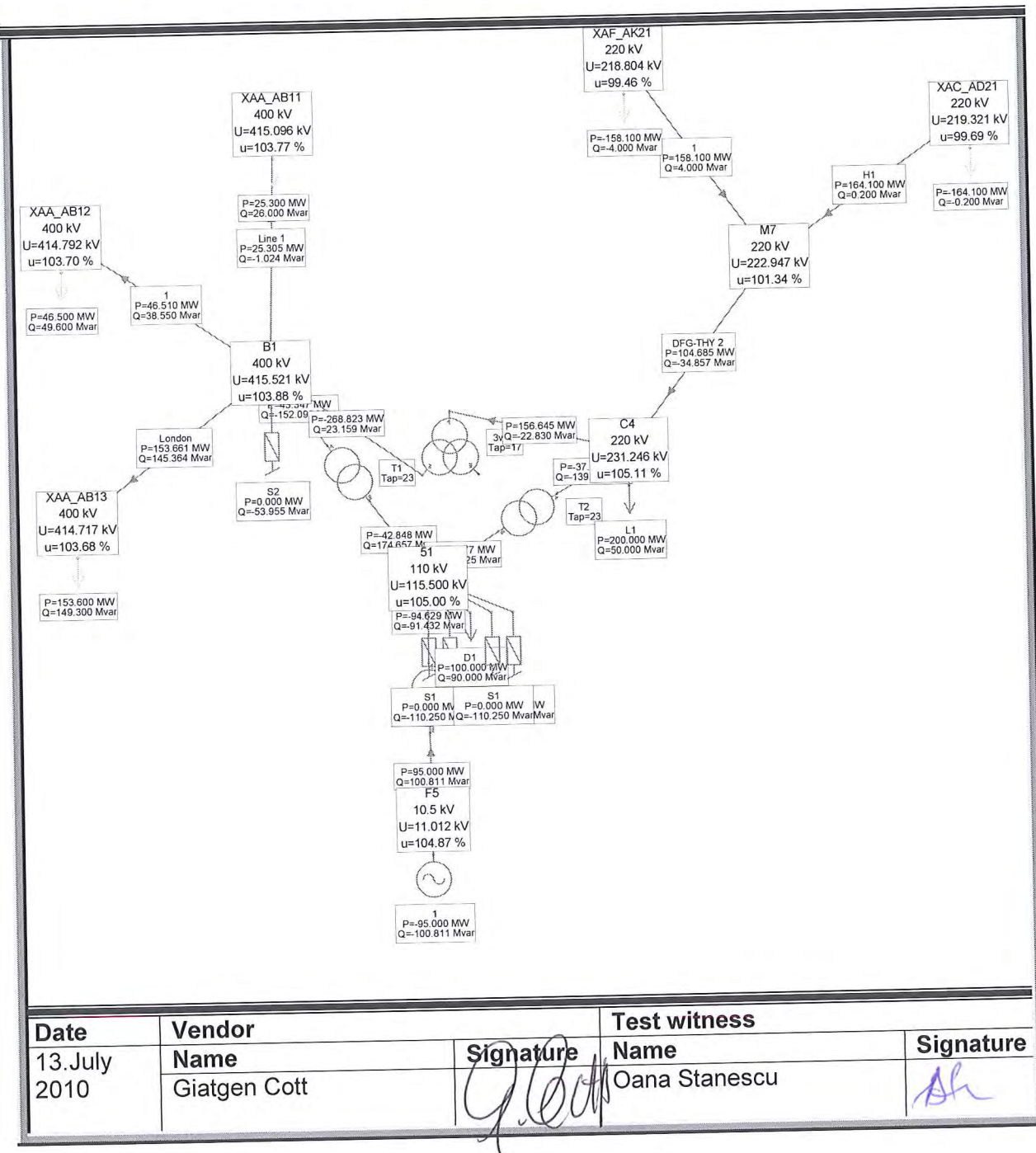
Test No:1.2.6	Tool:NEPLAN 5.4.4.	Score:Pass with errors
Test files		
Import		Export
1. Boundary		1.
2. ENTSOE_16_BE_EQ.xml		2.
3. 2 Files from Test 1.2.4		3.
4.		4.
5.		5.
Comments/Results/Issues:		
<p>- Import Ok but We had to change manually the Remote Controlled PV node of Generator _1b8e9dc86a5711dfa90800059a3c7800 and the reference voltages for the PV node and the slack of the 2 generators</p>		



Supplementary files:				
Date	Vendor		Test witness	
15.July 2010	Name	Signature	Name	Signature
	Giatgen Cott		Oana Stanescu	

SINGLE TEST RECORD FORM

Test No:1.2.7	Tool:NEPLAN 5.4.4.	Score:Pass
Test files		
Import	Export	
1. ENTSOE_16_BE_EQ	1.	
2. ENTSOE_16_BE_TP	2	
3.Topo-Official- 1.2.5/ENTSOE_16_BE_SV_NE_12J11h.xml	3.	
4. ENTSOE_16_EU_EQ.xml	4.	
5. ENTSOE_16_EU_TP.xml	5.	
Comments/Results/Issues:		
Loasses: Network MW losses = 4.876780 Network Mvar losses = 140.815250		
Supplementary files:		



Date	Vendor	Test witness	Signature
13.July 2010	Name Giatgen Cott	Name Oana Stanescu	Signature <i>[Signature]</i>

SINGLE TEST RECORD FORM

Test No:1.2.8		Tool:NEPLAN 5.4.4.		Score:Pass	
Test files					
Import			Export		
1.			1.		
1. ENTSOE_16_BE_EQ					
2. ENTSOE_16_BE_TP					
3. ENTSOE_16_BE_DY					
4. ENTSOE_16_BE_SV					
2.			2		
1. ENTSOE_16_EU_EQ					
2. ENTSOE_16_EU_TP					
3.			3.		
4.			4.		
5.			5.		
Comments/Results/Issues:					
<p>Comment:</p> <p>Are the x , x2, x0, r, r2, r0 values in pu?</p> <p>SC-Method:</p> <p>IEC 60909-2001</p> <p>SC done at node:</p> <p>_1b8e9d7b6a5711dfa90800059a3c7800</p>					

Synchronous Machine

Parameters

Name: _1b8e9dc86a5711dfa90800059a3c7800

Type: ...

Rating

Ur .. kV: 10.5

Sr .. MVA: 300 ...

Pr .. MW: 300 ...

Cos(phi): 1

Short Circuit

xd sat. ... %: 180 x(0) .. %: 59.8639 pUr .. %: 0

xd' sat. ... %: 0 RG .. Ohm: 0 Ikk .. kA: 0

xd'' sat. ... %: 54.4217 X/R: 0 ... mue: 0

x(2) .. %: 62.5850 Tdc .. s: 0 Ufmax/Ufr: 1.3 ▼

Rotor type: Round Rotor ▼

☐ Amortisseur winding

☐ Unit generator

☐ Motor acc. to IEC/ANSI

Earthing

☐ direct Re .. Ohm: 0

☐ impedance Xe .. Ohm: 0

☒ isolated Active .. %: 100

Copy Paste Library Export OK Cancel Color Help

Synchronous Machine

Parameters

Name: _1b8e9dd06a5711dfa90800059a3c7800

Type:

Rating

Ur .. kV: 21

Sr .. MVA: 300

Pr .. MW: 300

Cos(phi): 1

Short Circuit

xd sat. ... %: 180 x(0) .. %: 14.2857 pUr .. %: 0

xd' sat. ... %: 0 RG .. Ohm: 0 lkk .. kA: 0

xd'' sat. ... %: 13.6054 X/R: 0 mue: 0

x(2) .. %: 14.9659 Tdc ... s: 0 Ufmax/Ufr: 1.3

Rotor type: Round Rotor

☐ Amortisseur winding

☐ Unit generator

☐ Motor acc. to IEC/ANSI

Earthing

☐ direct Re .. Ohm: 0

☐ impedance Xe .. Ohm: 0

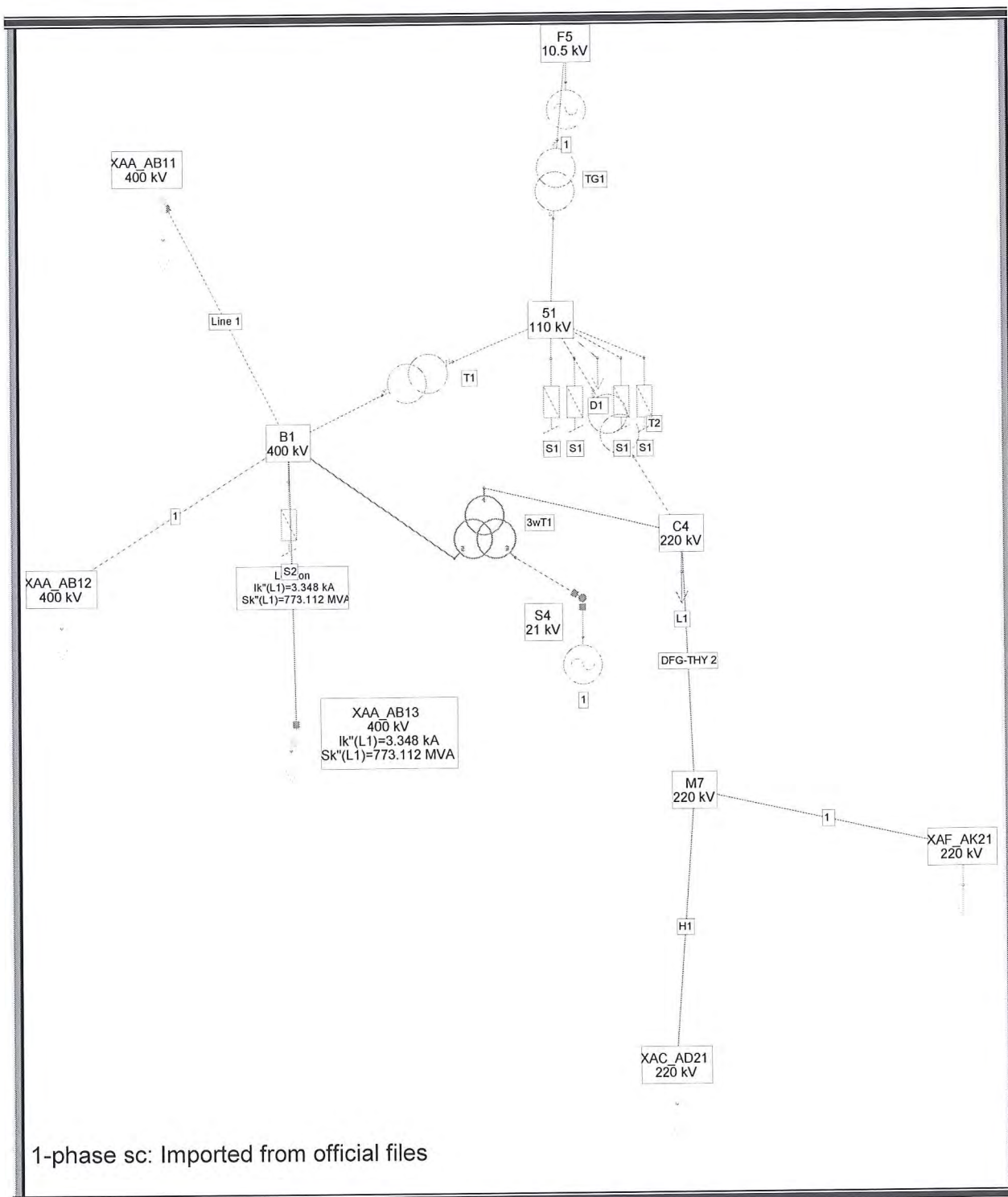
☒ isolated Active .. %: 100

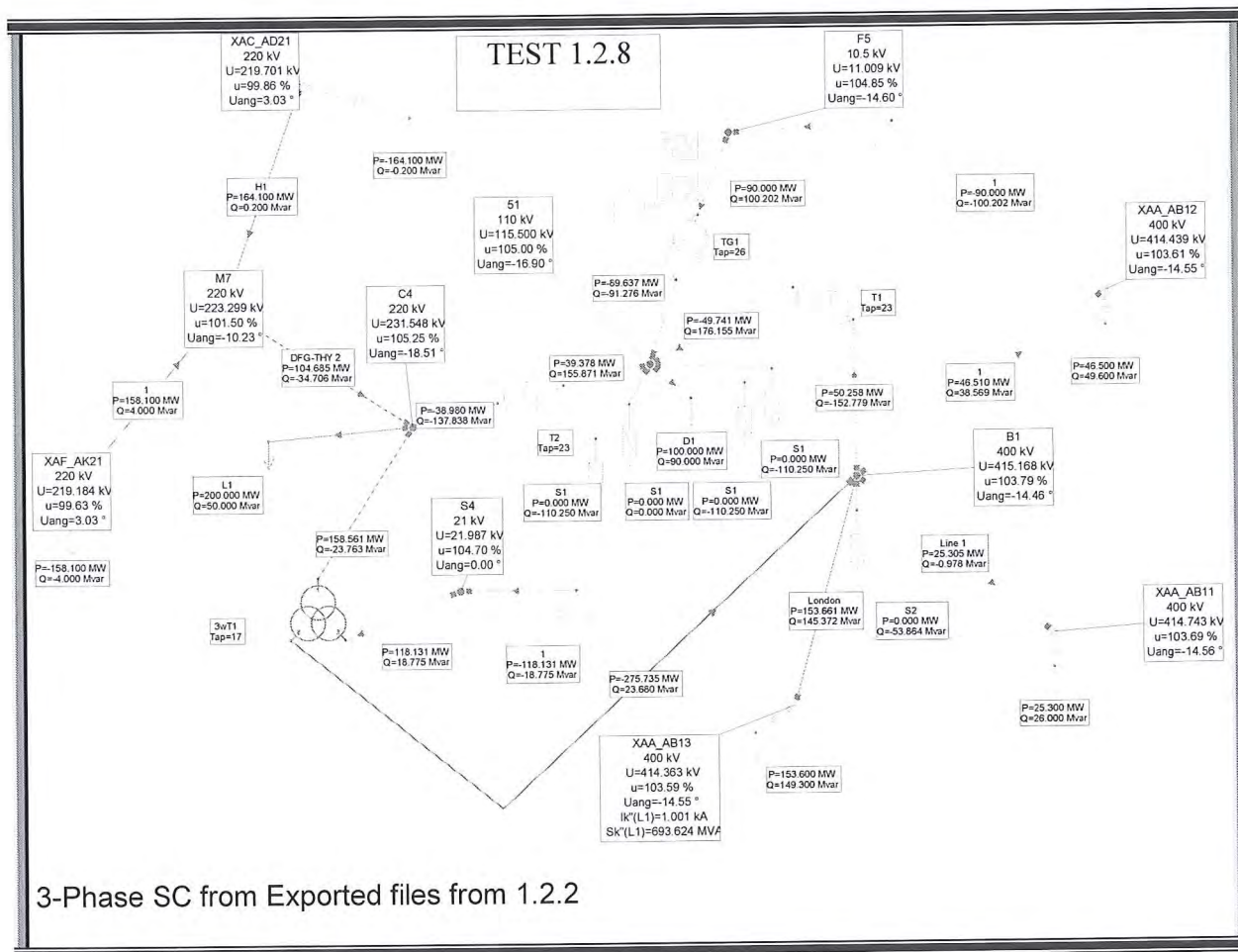
Copy Paste Library Export OK Cancel Color Help

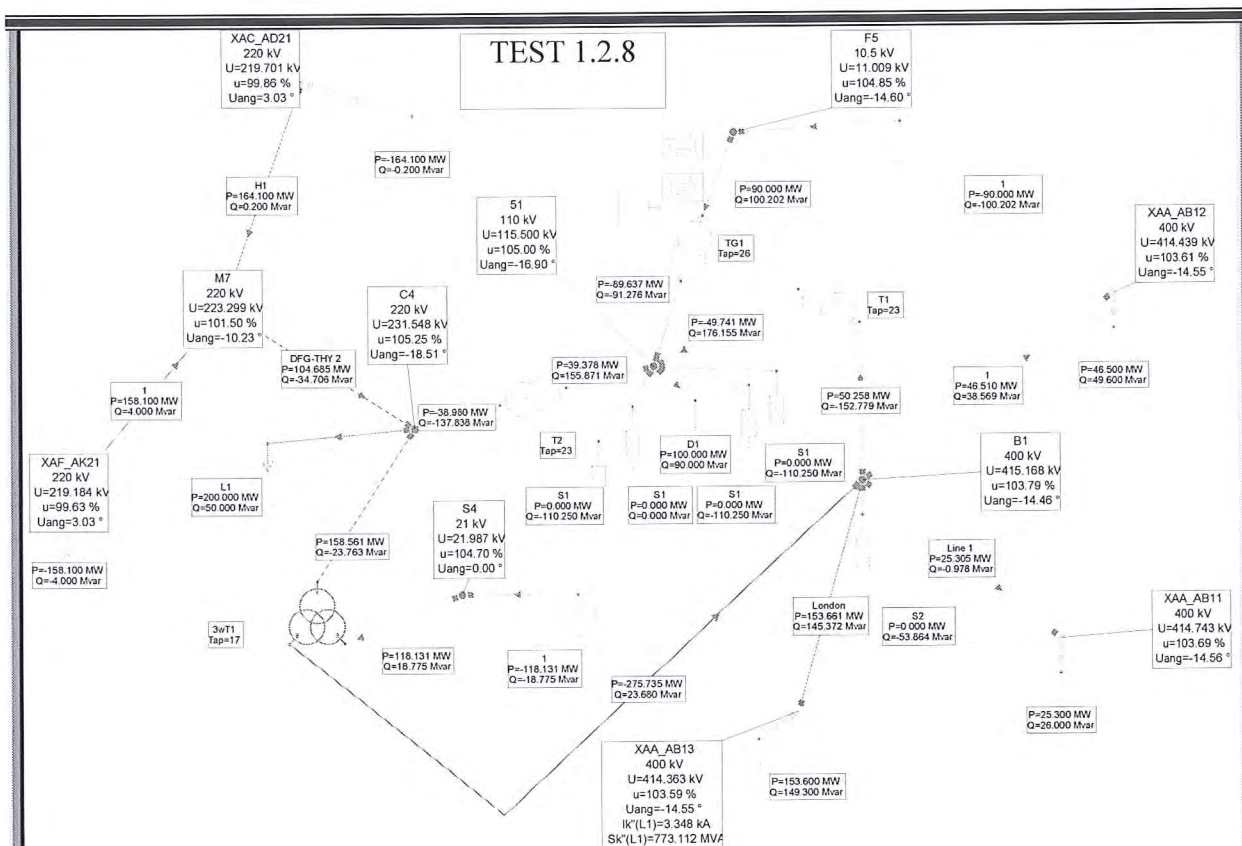
Data used for SC calculation, might be not enough in the profile.
(see NEPLAN data for SC above)

Supplementary files:











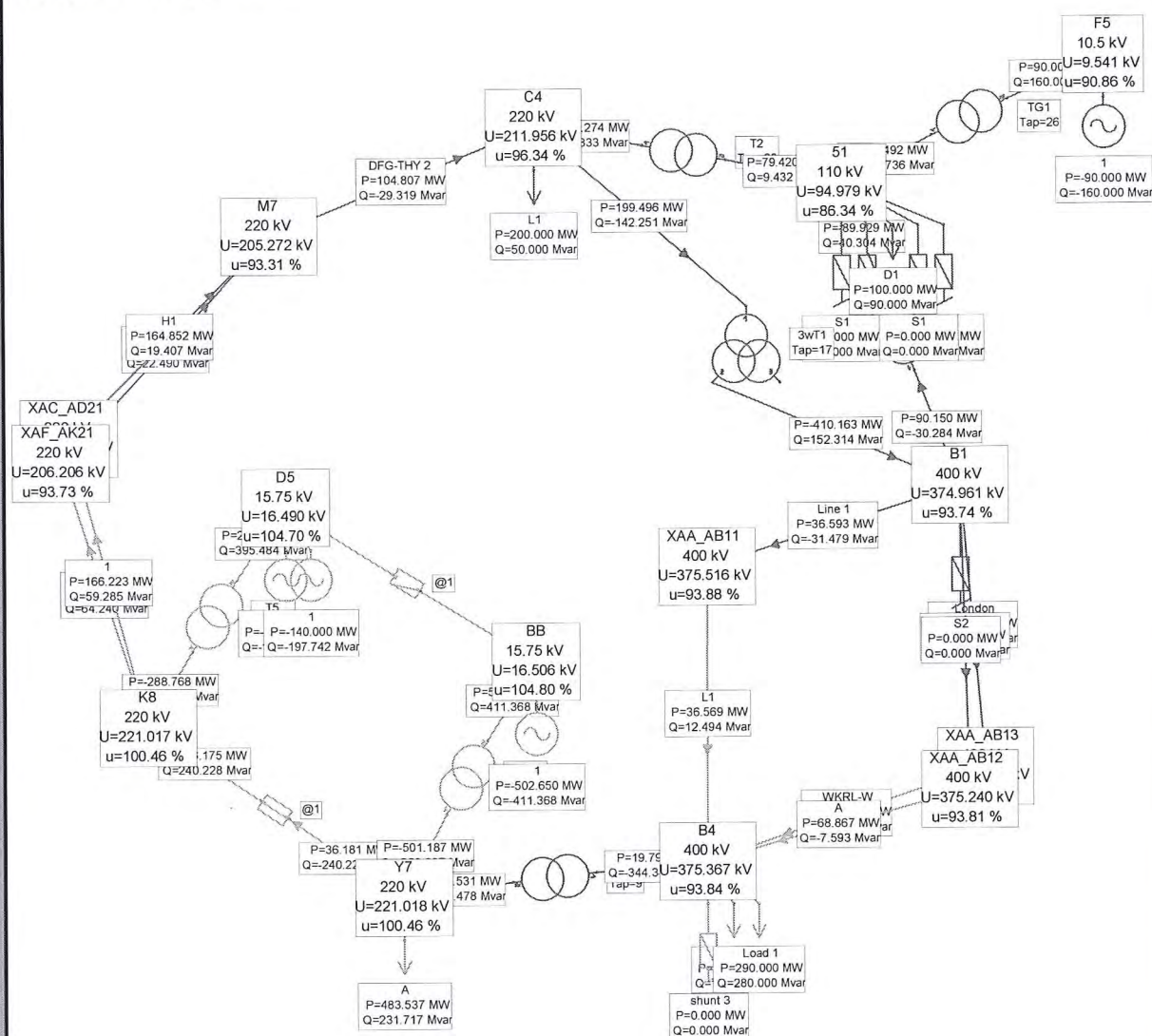
1-Phase SC from Exported files from 1.2.2

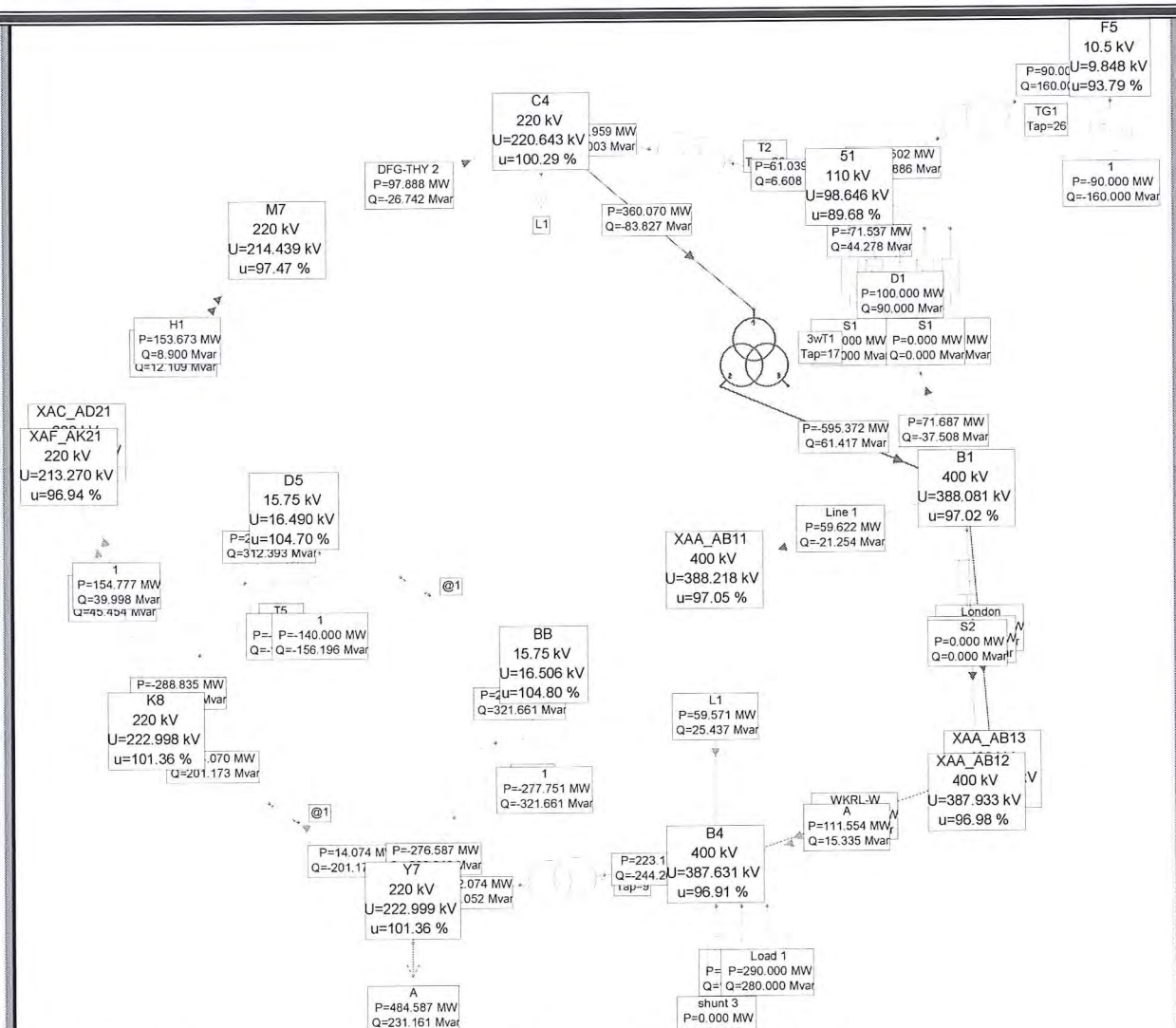
Date	Vendor	Test witness
12.July 2010	Name Giatgen Cott	Signature 
		Name Oana Stanescu
		Signature 

SINGLE TEST RECORD FORM

Test No:1.2.9	Tool:NEPLAN 5.4.4.	Score:Pass
Test files		
Import		Export
1. ENTSOE_16_BE_EQ, ENTSOE_16_NL_EQ		1. 7 Files in Test-1.2.9
2. ENTSOE_16_BE_TP, ENTSOE_16_NL_TP		2.
3. ENTSOE_16_BE_DY, ENTSOE_16_NL_DY		3.
4. ENTSOE_16_BE_SV, ENTSOE_16_NL_SV		4.
5. ENTSOE_16_EU_TP, ENTSOE_16_EU_EQ		5.
For test b) Topo-Exported-1.2.4		
Comments/Results/Issues:		
<p>Problem if you import from Per_MAS: There are 2 slack nodes defined. Results see below</p> <p>//test a with 2 slacks!! Load Flow converged after 10 iterations. Network MW losses = 12.847348 Network Mvar losses = 373.296617</p> <p>//Test b Load Flow converged after 9 iterations. Network MW losses = 13.419160 Network Mvar losses = 281.809924</p> <p>Violated Lower Voltage Limits -----</p> <p>Violated Upper Voltage Limits -----</p> <p>_1b8e9d266a5711dfa90800059a3c7800 (ID=9393) u% = 110.15 BE ELIA</p>		

Supplementary files:





After import of topology and state variable files of 1.2.4 with 2 slack

Topology for a): OK

State Variable File for a): OK

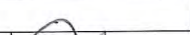

#	Class	RDF ID	Description
1	GeneratingUnit	1b8e9db26a5711dfa90800059a3c780052A1	Content for element 'cim:GeneratingUnit' is incomplete according to the DTD/Schema. Expecting: cim:GeneratingUnit.initialP.
2	SynchronousMachine	1b8e9db26a5711dfa90800059a3c7800	Element 'cim:SynchronousMachine.baseQ' is unexpected according to content model of parent element

			'cim:SynchronousMachine'. Expecting: cim:SynchronousMachine.type, cim:SynchronousMa....
3	GeneratingUnit	<u>1b8e9db86a5711dfa90800059a3c780052A1</u>	Content for element 'cim:GeneratingUnit' is incomplete according to the DTD/Schema. Expecting: cim:GeneratingUnit.initialIP.
4	SynchronousMachine	<u>1b8e9db86a5711dfa90800059a3c780052A1</u>	Element 'cim:SynchronousMachine.baseQ' is unexpected according to content model of parent element 'cim:SynchronousMachine'. Expecting: cim:SynchronousMachine.type, cim:SynchronousMa....
5	GeneratingUnit	<u>1b8e9dc06a5711dfa90800059a3c780052A1</u>	Content for element 'cim:GeneratingUnit' is incomplete according to the DTD/Schema. Expecting: cim:GeneratingUnit.initialIP.
6	SynchronousMachine	<u>1b8e9dc06a5711dfa90800059a3c780052A1</u>	Element 'cim:SynchronousMachine.baseQ' is unexpected according to content model of parent element 'cim:SynchronousMachine'. Expecting: cim:SynchronousMachine.type, cim:SynchronousMa....
7	TransformerWinding	<u>1b8e9e986a5711dfa90800059a3c780052A1</u>	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
8	TransformerWinding	<u>1b8e9e986a5711dfa90800059a3c780052A1</u>	The element 'cim:TransformerWinding.emergencys' is used but not declared in the DTD/Schema.
9	RatioTapChanger	<u>1b8e9e9f6a5711dfa90800059a3c780052A1</u>	Content for element 'cim:RatioTapChanger' is incomplete according to the DTD/Schema. Expecting: cim:RatioTapChanger.tcuiControl Mode.
1	TransformerWinding	<u>1b8e9ea16a5711dfa90800059a3c780052A1</u>	Element

0	ng		'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
11	TransformerWinding	<u>1b8e9ea16a5711dfa90800059a3c7800</u>	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
12	TransformerWinding	<u>1b8e9ea96a5711dfa90800059a3c7800</u>	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
13	TransformerWinding	<u>1b8e9ea96a5711dfa90800059a3c7800</u>	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
14	RatioTapChanger	<u>1b8e9eb06a5711dfa90800059a3c7800</u>	Content for element 'cim:RatioTapChanger' is incomplete according to the DTD/Schema. Expecting: cim:RatioTapChanger.tcuControlMode.
15	TransformerWinding	<u>1b8e9eb26a5711dfa90800059a3c7800</u>	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
16	TransformerWinding	<u>1b8e9eb26a5711dfa90800059a3c7800</u>	The element 'cim:TransformerWinding.emergencyS' is used but not declared in the DTD/Schema.
17	TransformerWinding	<u>1b8e9e876a5711dfa90800059a3c7800</u>	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....

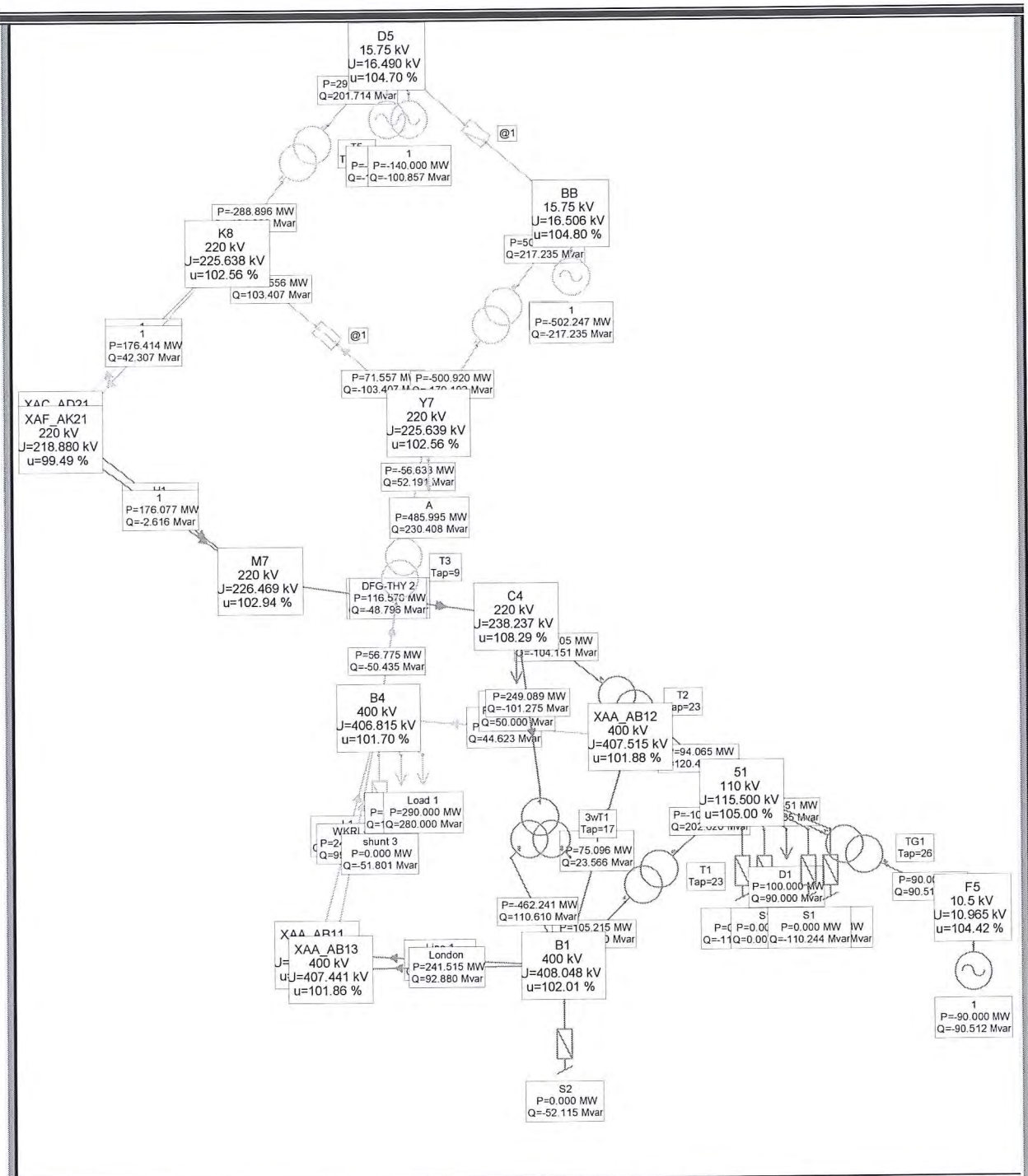
1 8	TransformerWinding	<u>1b8e9e876a5711dfa90800059a3c7800</u>	The element 'cim:TransformerWinding.emergencys' is used but not declared in the DTD/Schema.
1 9	TransformerWinding	<u>1b8e9e906a5711dfa90800059a3c7800</u>	Element 'cim:TransformerWinding.shortTermS' is unexpected according to content model of parent element 'cim:TransformerWinding'. Expecting: cim:TransformerWinding.ratedU, cim:Transformer....
2 0	TransformerWinding	<u>1b8e9e906a5711dfa90800059a3c7800</u>	The element 'cim:TransformerWinding.emergencys' is used but not declared in the DTD/Schema.
2 1	ShuntCompensator	<u>1b8e9eb96a5711dfa90800059a3c7800</u>	Element 'cim:ShuntCompensator.aVRDelay' is unexpected according to content model of parent element 'cim:ShuntCompensator'. Expecting: cim:Equipment.EquipmentContainer, cim:ShuntCom....
2 2	ShuntCompensator	<u>1b8e9eb96a5711dfa90800059a3c7800</u>	The element 'cim:ShuntCompensator.nomQ' is used but not declared in the DTD/Schema.

Equipment File NL

Date	Vendor		Test witness	
13.July 2010	Name	Signature	Name	Signature
	Giatgen Cott		Oana Stanescu	

SINGLE TEST RECORD FORM

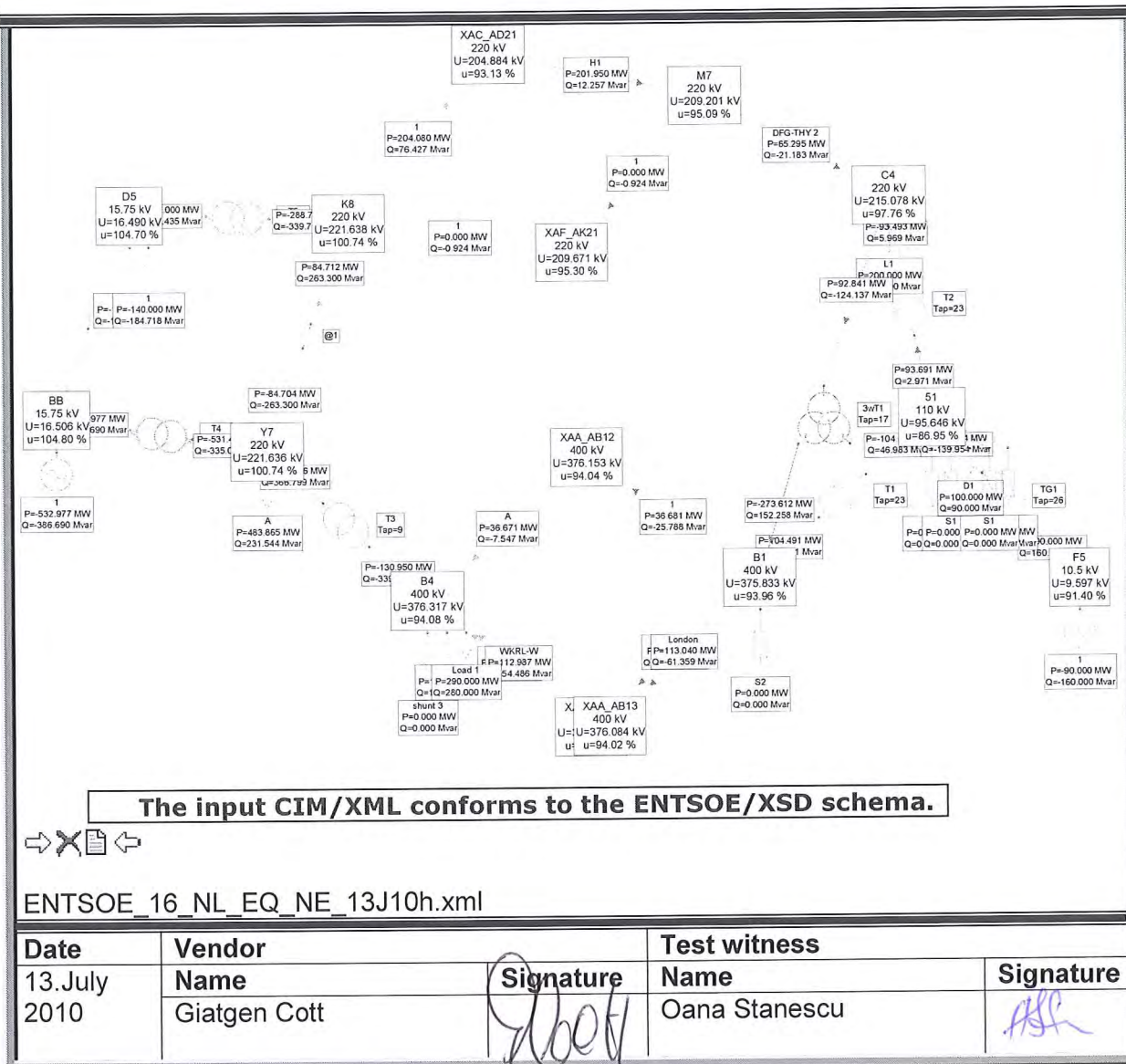
Test No:1.2.10	Tool:NEPLAN 5.4.4.	Score: Pass
Test files		
Import	Export	
1. 7 files from Test-1.2.9	1.	
2.	2.	
3.	3.	
4.	4.	
5.	5.	
Comments/Results/Issues:		
<p>Load Flow converged after 6 iterations. Network MW losses = 12.489049 Network Mvar losses = 355.079150</p>		
Supplementary files:		



Date	Vendor	Test witness	
13.July 2010	Name Giatgen Cott	Name Oana Stanescu	Signature

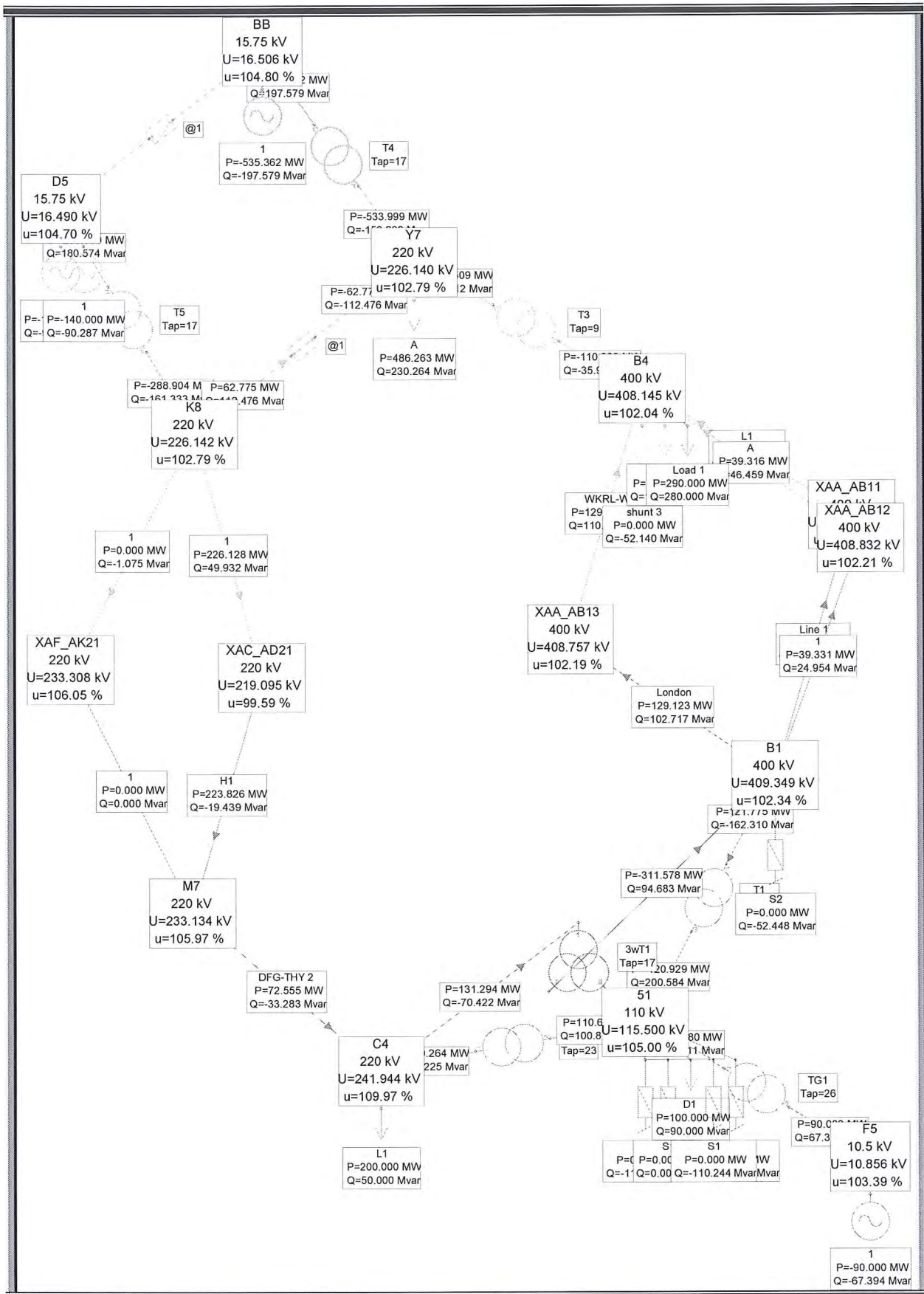
SINGLE TEST RECORD FORM


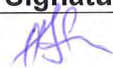
Test No:1.2.11	Tool:NEPLAN 5.4.4.	Score:Pass
Test files		
Import		Export
1. 7 files from Test-1.2.9		1. 7 files in Test-1.2.11-only-Difference-Data
2.		2. 7 files in Test-1.2.11-All Data
3.		3.
4.		4.
5.		5.
Comments/Results/Issues:		
<p>Open line: _1b8e9e1d6a5711dfa90800059a3c7800</p> <p>Changed line length of _1b8e9e156a5711dfa90800059a3c7800 From 22 to 22.555 km</p> <p>Load Flow converged after 10 iterations. Network MW losses = 11.681168 Network Mvar losses = 306.700658</p> <p>NEPLAN Project must be saved and loaded to detect the differences in the project.</p> <p>We have exported 2 cases: 1) changed network with all data (directory: Test-1.2.11-All Data) 2) only the changed elements have been exported (Test-1.2.11-only-Difference-Data)</p>		
Supplementary files:		



SINGLE TEST RECORD FORM

Test No:1.2.12	Tool:NEPLAN 5.4.4.	Score:Pass
Test files		
Import	Export	
1. Diff files from Test-1.2.11	1.	
2. Saved NEPLAN Project from 1.2.9 without changes (as imported from 1.2.9)	2.	
3.	3.	
4.	4.	
5.	5.	
Comments/Results/Issues:		
<p>Load Flow converged after 6 iterations. Network MW losses = 11.092016 Network Mvar losses = 279.358113</p> <p>We used the saved NEPLAN project from 1.2.9 and imported only the differences of the EQ and TP file.</p>		
Supplementary files:		

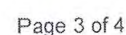


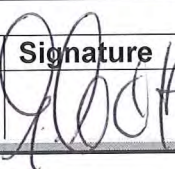
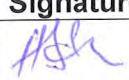
Date	Vendor		Test witness	
13.July 2010	Name	Signature	Name	Signature
	Giatgen Cott		Oana Stanescu	

SINGLE TEST RECORD FORM

Test No:1.2.13		Tool:NEPLAN 5.4.4.	Score: Pass
Test files			
Import		Export	
1. The 9 full merged official files		1. 7 files in Test-1.2.13-only-Difference-Data	
2.		2. 7 files in Test-1.2.13-All Data	
3.		3.	
4.		4.	
5.		5.	
Comments/Results/Issues:			
<p>1) Import the 9 full merged official files</p> <p>2) saved the NEPLAN project</p> <p>3) Open the NEPLAN project</p> <p>4) Apply the changes:</p> <p>Open switch of _1b8e9e156a5711dfa90800059a3c7800</p> <p>Change the line length of _1b8e9e356a5711dfa90800059a3c7800 from 22 to 22.555</p> <p>Load Flow converged after 6 iterations.</p> <p>Network MW losses = 6.356430</p> <p>Network Mvar losses = 204.843804</p> <p>We exported 2 cases:</p> <p>1) One with the changes but with all data.</p> <p>2) one with only the changed data, in our case 2 lines</p>			

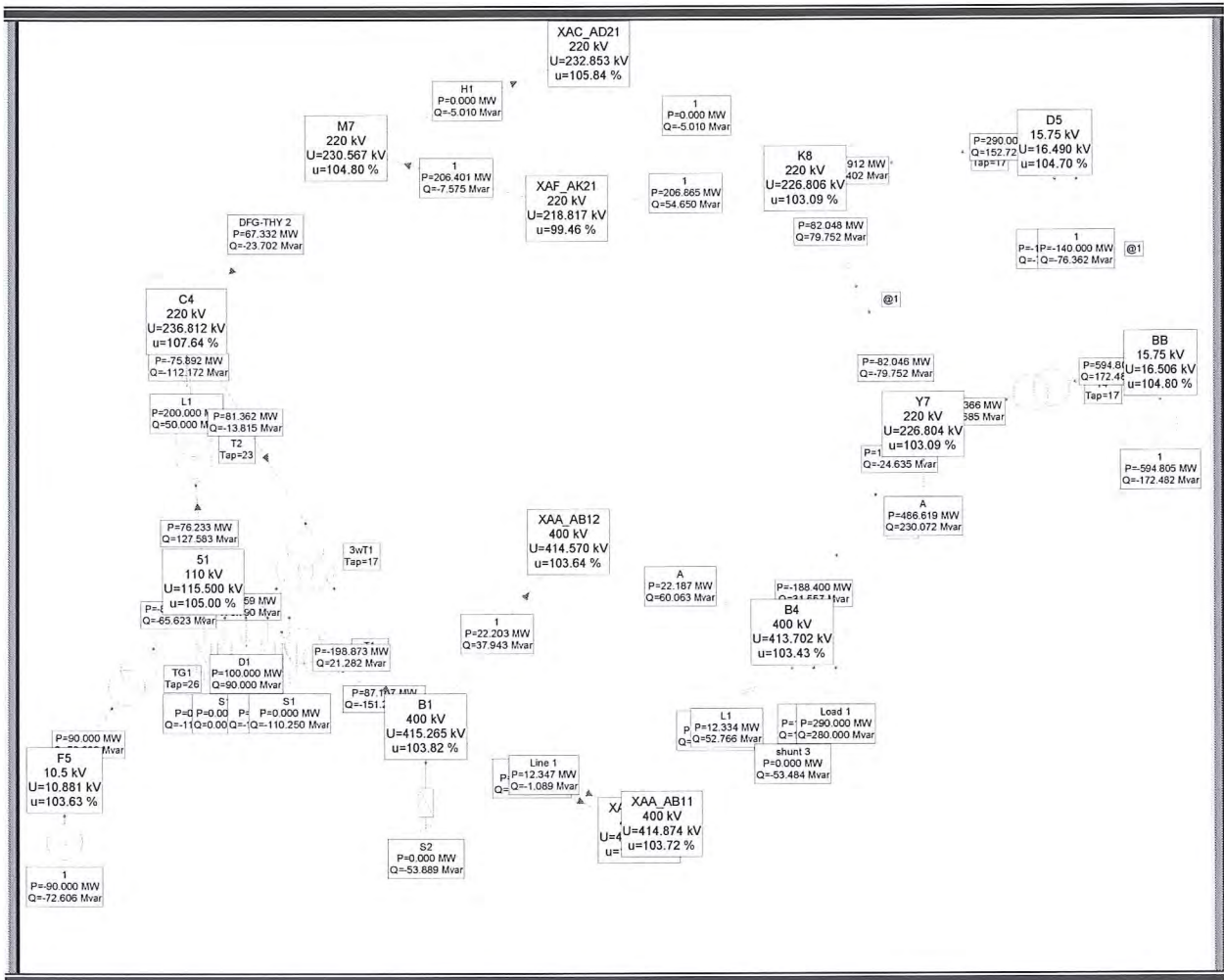
Supplementary files:



With applied changes			
Date	Vendor	Test witness	
13.July 2010	Name Giatgen Cott	Name Oana Stanescu	Signature
			

SINGLE TEST RECORD FORM

Test No:1.2.14	Tool:NEPLAN 5.4.4.	Score:Pass
Test files		
Import	Export	
1. Saved NEPLAN Project from Test 1.2.13 as imported from the full merged official test model from test 1.2.13	1.	
2. Exported Diff files from Test-1.2.13 directory	2	
3.	3.	
4.	4.	
5.	5.	
Comments/Results/Issues:		
<p>Load Flow converged after 6 iterations. Network MW losses = 6.356266 Network Mvar losses = 204.843704</p>		
Supplementary files:		



Line
X

- Parameters
- Line Sections
- Line Loads
- Pylons
- Protection
- Quick Edit
- Reliability
- Harmonic Analysis
- Other Analysis
- Info
- More...
- User Data

Parameters

Name:

Type:

Length .. km: Units:

Number of lines:

R(1) .. Ohm/km:	<input type="text" value="0.0969095"/>	R(0) .. Ohm/km:	<input type="text" value="0.1014554"/>
X(1) .. Ohm/km:	<input type="text" value="3.1168501"/>	X(0) .. Ohm/km:	<input type="text" value="3.1213954"/>
C(1) .. uF/km:	<input type="text" value="0.0133478"/>	C(0) .. uF/km:	<input type="text" value="0.0289372"/>
B(1) .. uS/km:	<input type="text" value="4.193"/>	B(0) .. uS/km:	<input type="text" value="9.091"/>
G(1) .. uS/km:	<input type="text" value="0"/>		

Ir max (low) .. A:

Ir max (med) .. A:

Ir max (high) .. A:

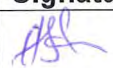
Reduction factor:

I_{Er} max .. A:

☐ Cable
 ☐ Overhead

☐ Asymmetric Pi with sections

Copy
Edit
Library
Export
OK
Cancel
Color
Help

Date	Vendor	Test witness	Signature
13.July 2010	Name	Name	Signature
	Giatgen Cott	Oana Stanescu	

SINGLE TEST RECORD FORM

Test No:1.2.15	Tool:NEPLAN 5.4.4.	Score:Pass																																																						
Test files																																																								
Import	Export																																																							
1. Full merged official model	1.																																																							
2.	2.																																																							
3.	3.																																																							
4.	4.																																																							
5.	5.																																																							
Comments/Results/Issues:																																																								
<div style="border: 1px solid black; padding: 5px;"> <p>Regulator and Turbines</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Select Controller TURBINE IEEE G3 2005</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Variables</th> <th>Name</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>1</td><td>UC</td><td>0.20000</td></tr> <tr><td>2</td><td>UC</td><td>-0.20000</td></tr> <tr><td>3</td><td>TG</td><td>1.00000</td></tr> <tr><td>4</td><td>TP</td><td>0.04000</td></tr> <tr><td>5</td><td>PMAX</td><td>1.00000</td></tr> <tr><td>6</td><td>PMIN</td><td>-1.00000</td></tr> <tr><td>7</td><td>SIGMA</td><td>0.05000</td></tr> <tr><td>8</td><td>DELTA</td><td>0.52000</td></tr> <tr><td>9</td><td>TR</td><td>9.19000</td></tr> <tr><td>10</td><td>TV</td><td>1.84000</td></tr> <tr><td>11</td><td>BTURB</td><td>0.50000</td></tr> <tr><td>12</td><td>ATRUB</td><td>-1.00000</td></tr> <tr><td>13</td><td>KTURB</td><td>1.00000</td></tr> <tr><td>14</td><td>DB1</td><td>0</td></tr> <tr><td>15</td><td>EPS</td><td>0</td></tr> <tr><td>16</td><td>DB2</td><td>0</td></tr> <tr><td>17</td><td>GV1</td><td>0</td></tr> </tbody> </table> </div> <div style="width: 50%;"> <p>Name and Type</p> </div> </div> <div style="margin-top: 10px;"> <p>Inertia: Inertia-Name <input type="text"/> ...</p> </div> <div style="text-align: right; margin-top: 10px;"> <input type="button" value="OK"/> <input type="button" value="Cancel"/> <input type="button" value="Help"/> </div> </div>			Variables	Name	Value	1	UC	0.20000	2	UC	-0.20000	3	TG	1.00000	4	TP	0.04000	5	PMAX	1.00000	6	PMIN	-1.00000	7	SIGMA	0.05000	8	DELTA	0.52000	9	TR	9.19000	10	TV	1.84000	11	BTURB	0.50000	12	ATRUB	-1.00000	13	KTURB	1.00000	14	DB1	0	15	EPS	0	16	DB2	0	17	GV1	0
Variables	Name	Value																																																						
1	UC	0.20000																																																						
2	UC	-0.20000																																																						
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12	ATRUB	-1.00000																																																						
13	KTURB	1.00000																																																						
14	DB1	0																																																						
15	EPS	0																																																						
16	DB2	0																																																						
17	GV1	0																																																						
Data of Turbine: _CCD1CF3A-755B-4336-BAFE-DB7842873583																																																								

Regulator and Turbines

Select Controller
EXCITER AC4A

Variables

	Name	Value
1	TR	0.01000
2	VIMAX	0.10000
3	VIMIN	-0.10000
4	TC	1.80000
5	TB	8.50000
6	KA	250.000
7	TA	0.07000
8	VRMAX	5.00000
9	VRMIN	-4.85000
10	KC	0.05000

Node, Element, Regulator

Port

Name and Type

PSS

	Name	ID
1		11579

Add

Delete

Inertia: Inertia-Name

Under Exciter Limit: SWU

OK Cancel Help

Exciter data of : _D90C00BA-7D64-41B5-879F-006F05F8E55C

Regulator and Turbines

Select Controller

SYSTEM STABILIZER - PSS2B

Variables

	Name	Value
1	TW1	2.00000
2	TW2	2.00000
3	TW3	2.00000
4	TW4	0.00000
5	TW6	0.00000
6	KS2	0.31000
7	TW7	2.00000
8	KS3	1.00000
9	KS1	8.00000
10	T1	0.12000
11	T2	0.02000
12	T3	0.35000
13	T4	0.02000
14	VSTMIN	-0.10000
15	VSTMAX	0.10000
16	M	5.00000
17	N	1.00000

Node, Element, Regulator

Port

Name and Type

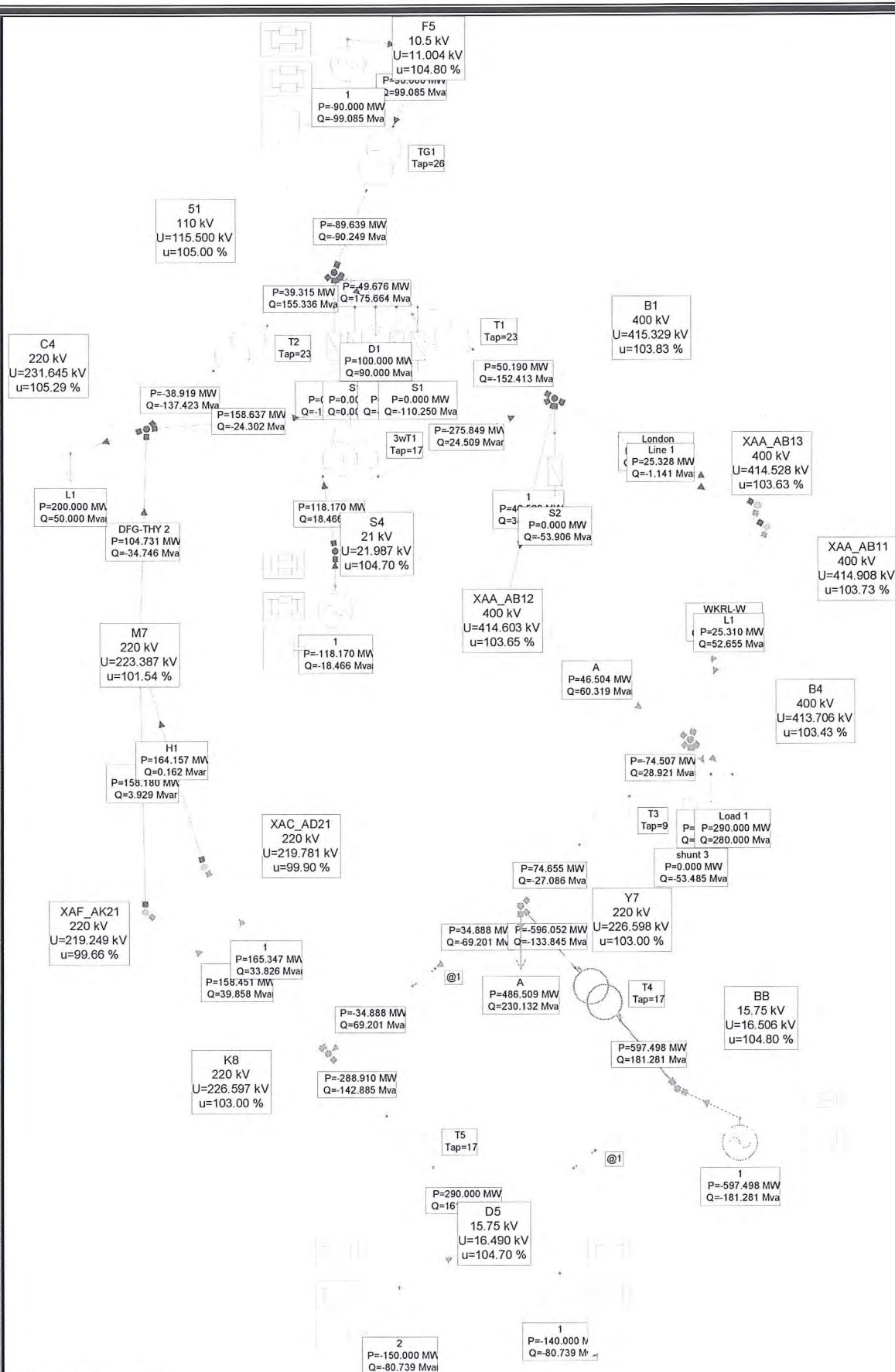
OK

Cancel

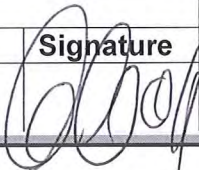

Help

PSS data of:
_9BA88800-B504-449D-AAD2-F51F741C2E4C

Supplementary files:

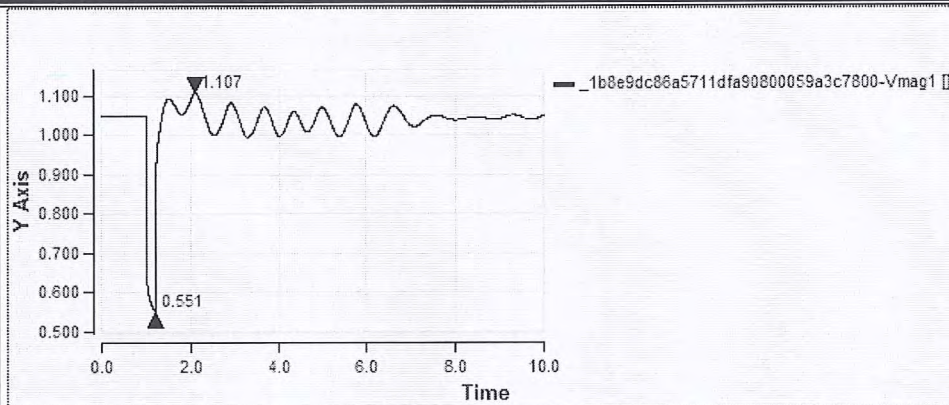


Initial Load flow

Date	Vendor	Test witness		
13.July 2010	Name Giatgen Cott	Signature 	Name Oana Stanescu	Signature 

SINGLE TEST RECORD FORM

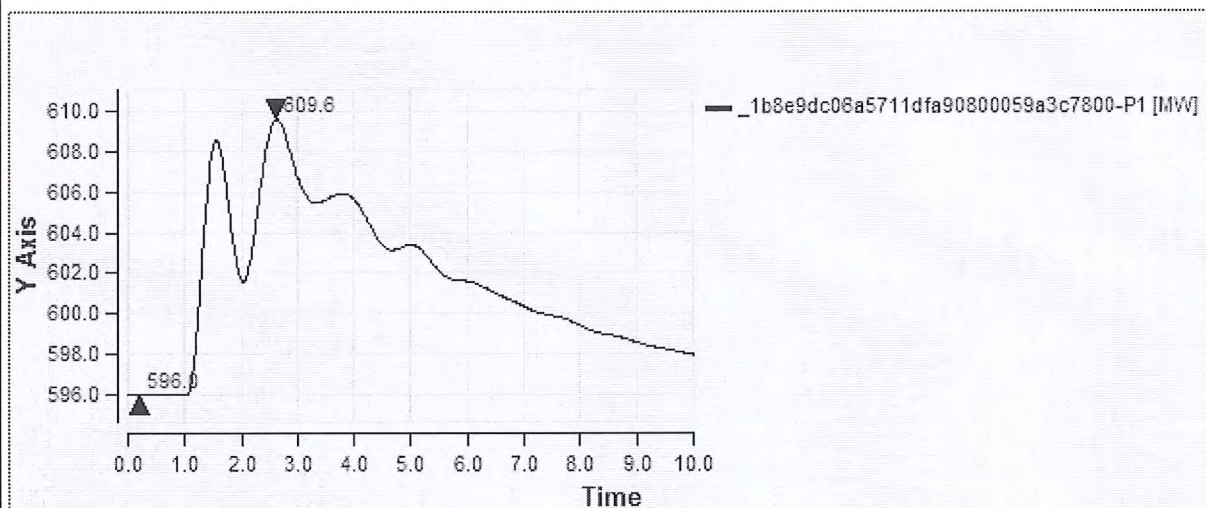
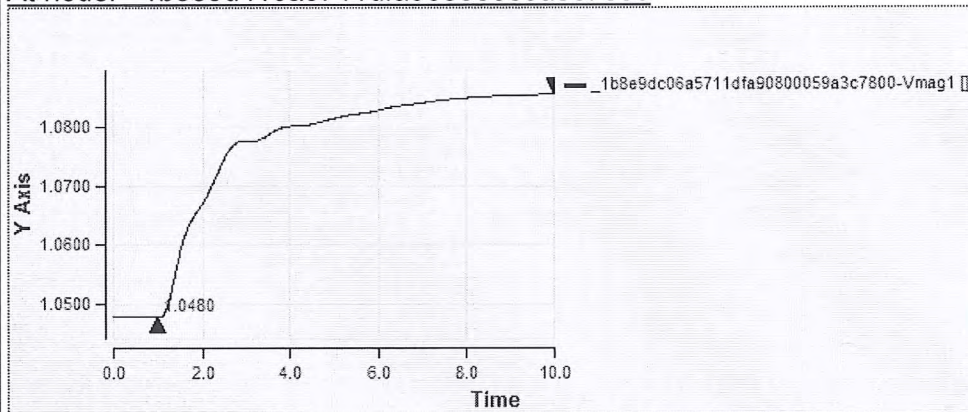
Test No:1.2.17	Tool:NEPLAN 5.4.4.	Score: Pass
Test files		
Import	Export	
1. Files from test 1.2.15	1.	
2.	2.	
3.	3.	
4.	4.	
5.	5.	
Comments/Results/Issues:		
 Event: Vref + 5% At node: _1b8e9d496a5711dfa90800059a3c7800 (Node: F5)		

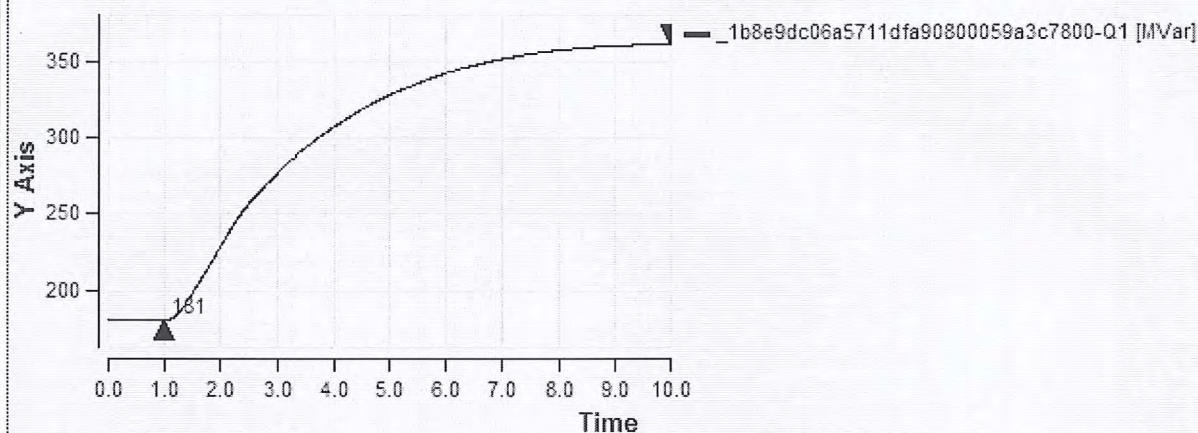


Signal Plotted for Generator : `_1b8e9dc86a5711dfa90800059a3c7800`

Event: Vref + 5%

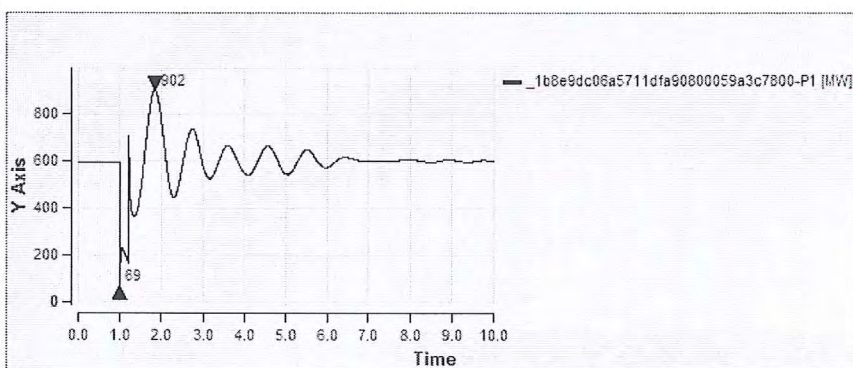
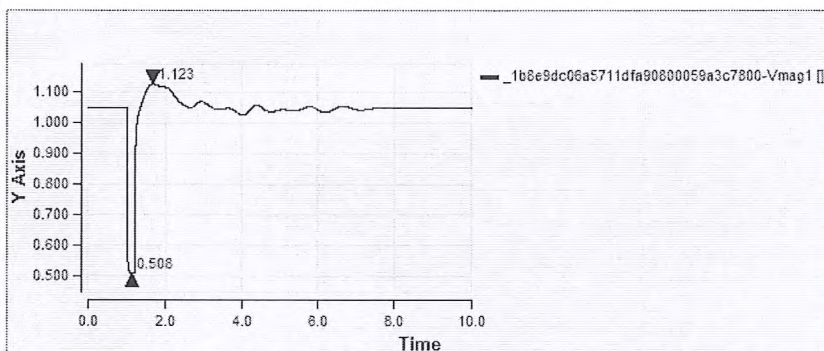
At node: `1b8e9d416a5711dfa90800059a3c7800`

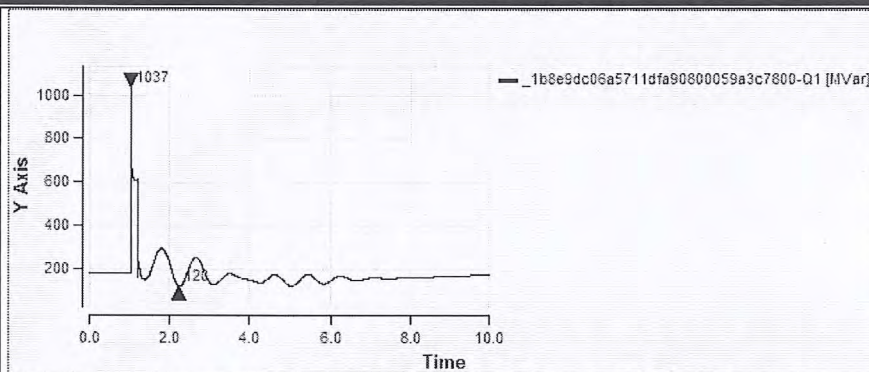




Signal plotted for Slack-Generator:
`_1b8e9dc06a5711dfa90800059a3c7800`

SC-Test



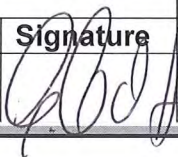
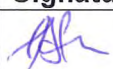


3-Phase SC at node: _1b8e9d676a5711dfa90800059a3c7800

Signal plotted for Slack-Generator:

_1b8e9dc06a5711dfa90800059a3c7800

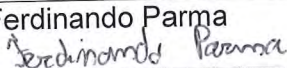
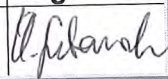
Supplementary files:

Date	Vendor		Test witness	
13.July 2010	Name	Signature	Name	Signature
	Giatgen Cott		Oana Stanescu	

TOOL SUMMARY FORM (PER TOOL)

[illegible]

SINGLE TEST RECORD FORM

Test No:15	Tool: SICRE v.6.31.0	Score: Pass
Test files		
Import	Export	
1. ENTSOE_16_BE_DY.xml (version 2)	1.	
2. ENTSOE_16_BE_EQ.xml (version 2)	2.	
3. ENTSOE_16_BE_TP.xml (version 2)	3.	
4. ENTSOE_16_SV.xml (version 2)	4.	
1. ENTSOE_16_NL_DY.xml (version 2)	1.	
2. ENTSOE_16_NL_EQ.xml (version 2)	2.	
3. ENTSOE_16_NL_TP.xml (version 2)	3.	
4. ENTSOE_16_EU_EQ.xml (version 2)	4.	
5. ENTSOE_16_EU_TP.xml (version 2)	5.	
Comments/Results/Issues: <p>The following items were checked:</p> <ul style="list-style-type: none"> Load data of area NL and BE Voltage on the electrical nodes Generation data of area NL and BE Power flows data between area NL and BE <p>The power flow gave the same results as from the original data of the model. The input data for Sicre (network description and state variables) was translated by Creso because they shared the same proprietary data format. Also the XML dynamic files have been translated in proprietary format by Creso. In the future the Sicre and Creso environment will be integrated.</p>		
Supplementary files: Generation_Status.txt (import) Load_Status.txt (import) Power_flows.txt (load flow) Belgium_Network.pdf (display of the network) Netherlands_network.pdf (display of the network)		
Date	Vendor	Test witness
14 July	Name Ferdinando Parma 	Name Adriano Gubernali Signature 

SINGLE TEST RECORD FORM

Test No:17	Tool: SICRE v.6.31.0	Score: Pass with errors		
Test files				
Import		Export		
1. ENTSOE_16_BE_DY.xml (version 2)		1.		
2. ENTSOE_16_BE_EQ.xml (version 2)		2.		
3. ENTSOE_16_BE_TP.xml (version 2)		3.		
4. ENTSOE_16_SV.xml (version 2)		4.		
5. ENTSOE_16_NL_DY.xml (version 2)		5.		
6. ENTSOE_16_NL_EQ.xml (version 2)		6.		
7. ENTSOE_16_NL_TP.xml (version 2)		7.		
8. ENTSOE_16_EU_EQ.xml (version 2)		8.		
9. ENTSOE_16_EU_TP.xml (version 2)		9.		
Comments/Results/Issues:				
<p>The following simulations have been performed</p> <ul style="list-style-type: none"> • Three-phase short-circuit on tie line • Reference voltage step increase of 5% <p>The main variables (generators active and reactive power) have been recorded</p> <p>Results show some differences respect to expected responses. Dynamics models in Sicre will be revised in order to match ENTSO-E modelling requirements, in particular regarding the voltage compensation and the excitation limits.</p>				
Supplementary files:				
Descriptions and screenshots of the faults performed; Belgium_Network.pdf (display of the network – initial load-flow); Netherland_network.pdf (display of the network – initial load-flow);				
Date	Vendor		Test witness	
16 July	Name	Signature	Name	Signature
	Ferdinando Parma <i>Ferdinando Parma</i>		Adriano Gubernali	<i>A. Gubernali</i>