IEC 61850 Certificate Level A[1]

No. 74104881-MOC/INC 13-3100

Issued to:

For the client system:

Smarter Grid Solutions
Corunna House
39 Cadogan Street,
Glasgow, G2 7AB
United Kingdom

sgs commshub with IEC 61850 Driver
Version 2.2.0
Hardware: HP Proliant DL385p Gen8 with
Windows Server 2008 R2 64-bit

Issued by: **KEMA**

The client system has not shown to be non-conforming to:

IEC 61850 First Edition Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1

Communication networks and systems in substations

The conformance test has been performed according to IEC 61850-10 and UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL[2] version 1.2 with client system's protocol, model and technical issue implementation conformance statements: "Protocol Implementation Conformance Statement for the IEC 61850 interface in sgs comms hub v2.2", "Model Implementation Conformance Statement for the IEC 61850 interface in sgs comms hub v2.2", "TISSUES Implementation Conformance Statement for the IEC 61850 interface in sgs comms hub v2.2" and product's extra information for testing: "Protocol Implementation eXtra Information for Conformance for the IEC 61850 interface in sgs commshub IEC 61850 Client v2.2".

The following IEC 61850 conformance blocks have been tested with a positive result (number of relevant and executed test cases / total number of test cases):

1	Basic Exchange (19/22)		12a	Direct Control (6/7)
2	Data Sets (5/9)		12b	SBO Control (8/9)
3	Substitution (1/3)		12c	Enhanced Direct Control (6/7)
5	Unbuffered Reporting (15/18)		12d	Enhanced SBO Control (8/9)
			13	Time Synchronization (1/4)

This certificate includes a summary of the test results as carried out at KEMA in the Netherlands with UniCA Multi IED Simulator version 3.27.02 and UniCA 61850 Analyzer version 5.27.04. This document has been issued for information purposes only, and the original paper copy of the KEMA report No. 74104881-MOC/INC 13-3099 will prevail.

The test has been carried out on one single specimen of the client system as referred above and submitted to KEMA by Smarter Grid Solutions. The manufacturer's production process has not been assessed. This attestation does not imply that KEMA has approved any product other than the specimen tested.

Arnhem, September 4th 2013

M. Adriaensen
Director Intelligent Networks & Communication

R. Schimmel
Certification Manager

Applicable Test Procedures from the UCA IUG Conformance Test Procedures for Client System with IEC 61850-8-1 interface, revision 1.1 with TPCL version 1.2

	Conformance Block	Mandatory	Conditional
1:	Basic Exchange	cAss1, cAss2, cAss3, cAss4, cAssN1, cAssN4, cAssN5, cAssN6	cAssN7 cSrv1, cSrv2, cSrv3, cSrv4, cSrv5, cSrv6, cSrv7, cSrvN3, cSrvN4, cSrvN5
2:	Data Sets		cDs1, cDs2, cDs3, cDs5, cDsN2,
3:	Substitution	cSub1	
5:	Unbuffered Reporting	cRp3, cRp4, cRp5, cRp8, cRp9, cRp10, cRpN2, cRpN3, cRpN7, cRpN8	cRp1, cRp2, cRp6, cRp7, cRpN4
12a:	Direct control	cCtl4, cCtlN1 cDOns1, cDOns2	cCtl1, cCtl3
12b:	SBO control	cCtl4, cCtlN1 cSBOns1, cSBOns2, cSBOns3	cCtl1, cCtl3, cSBOns4
12c:	Enhanced Direct Control	cCtl4, cCtlN1 cDOes1, cDOes2	cCtl1, cCtl3
12d:	Enhanced SBO control	cCtl4, cCtlN1, cSBOes1, cSBOes2, cSBOes3	cCtl1, cCtl3 cSBOes4
13:	Time sync	cTm1	