



Sherry  
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10/02/2007 10:55 PM

To am.sahazizian@hydroone.com

cc rsnowell@southernco.com, stds-pes-scc@ieee.org,  
j.t.tengdin@ieee.org, Matthew  
Ceglia/STDS/STAFF/US/IEEE@IEEE

bcc

Subject Approval of Project - PC37.2

02 October 2007

Anne-Marie Sahazizian  
Hydro One Inc.  
483 Bay St. (TCT13)  
Toronto, Ontario M5G 2P5  
am.sahazizian@hydroone.com

Re: PC37.2 - Standard Electrical Power System Device Function Numbers, Acronyms and Contact Designations

Dear Anne-Marie:

I am pleased to inform you that on 27 September 2007 the IEEE-SA Standards Board approved the above referenced project until 31 December 2010. A copy of the file can be found on our website at <http://standards.ieee.org/board/nes/projects/C37-2.pdf>.

Now that your project has been approved, please forward a roster of participants involved in the development of this project. This request is in accordance with the IEEE-SA Operations Manual, Clause 5.1.2i under Duties of the Sponsor which states:

"Submit annually to the IEEE Standards Department an electronic roster of individuals participating on standards projects"

Rosters can be submitted in any format to the NesCom Administrator (nescom-admin@ieee.org). Please forward this list to the NesCom Administrator via e-mail at nescom-admin@ieee.org no later than 26 December 2007.

Or, for your convenience, you can manage your standards development roster in myProject. Instructions are as follows:

- Go to myProject - <https://development.standards.ieee.org/my-site>
- Login using your IEEE Web Account username and password.
- Once logged into myProject, go to "Manage Committees"
- Drill down to the project by clicking the (+) on the left to expand each level. The actual project will be highlighted in yellow
- Click "Manage Committees" for that project. A list of individuals enrolled in the Committee/Project will appear. On this screen you can assign whether a person is a Participant, a

Non-Voting Member or a Voting Member of the project group. You may also view contact information for that individual.

Please visit our website, IEEE Standards Development Online (<http://standards.ieee.org/resources/development/index.html>), for tools, forms and training to assist you in the standards development process. Also, we strongly recommend that a copy of your draft be sent to this office for review prior to the final vote by the working group to allow for a quick review by editorial staff before sponsor balloting begins.

If you should have any questions, please contact the NesCom Administrator via e-mail at [nescom-admin@ieee.org](mailto:nescom-admin@ieee.org) or via telephone at +1 732 562 3806.

Sincerely,

NesCom Admin  
Standards Activities  
Email: [nescom-admin@ieee.org](mailto:nescom-admin@ieee.org)

<b>PAR Request Date:</b> 20 August 2007	
<b>PAR Approval Date:</b> 27 September 2007	
<b>PAR Signature Page on File:</b> Yes	
<b>Type of PAR:</b> Modification to Approved PAR	
<b>Status:</b> Modification to a Previously Approved PAR for the Revision of a Standard - PC37.2, 16 March 2006	
<b>Root Project:</b> IEEE Std C37.2-1996	
<b>1.1 Project No.:</b> <b>C37.2</b>	
<b>1.2 Type of Document:</b> Standard	
<b>1.3 Life Cycle:</b> Full-Use	
<b>1.4 Is this document in ballot now?</b> No	
<b>2.1 Title</b> Standard Electrical Power System Device Function Numbers, Acronyms and Contact Designations	
<b>3.1 Working Group Name</b>	<a href="#">Committee 3, Task Force 5</a>
<b>Working Group Chair</b>	<a href="#">Tengdin, John T</a> Phone: 949-361-9595 Email: j.t.tengdin@ieee.org
<b>Working Group Vice Chair</b>	
<b>3.2 Sponsor</b>	<a href="#">IEEE Power Engineering Society Substations (PE/SUB)</a>
<b>Sponsor Chair</b>	<a href="#">Nowell, Robert S</a> Phone: 404 506 2735 Email: rsnowell@southernco.com
<b>Name of Standards Liaison Representative (if applicable)</b>	<a href="#">Sahazizian, Anne-Marie</a> Phone: 416-345-6657 Email: am.sahazizian@hydroone.com
<b>3.3 Joint Sponsor</b>	
<b>4.1 Type of Ballot:</b> Individual	
<b>4.2 Expected Date of Submission for Initial Sponsor Ballot:</b> October 2007	
<b>4.3 Projected Completion Date for Submittal to RevCom:</b> February 2008	
<b>5.1 Approximate number of people expected to work on this project:</b> 40	
<b>5.2 Scope:</b> This standard applies to the definition and application of function numbers and acronyms for devices and functions used in electrical substations and generating plants and in installations of power utilization and conversion apparatus.	<b>Old Scope:</b> The present scope of C37.2-1996 is "This standard applies to the definitions and application of function numbers for devices used in electrical substations and generating plants and in installations of power utilization and conversion apparatus." The scope will remain unchanged
<b>5.3 Is the completion of this document contingent upon the completion of another document?</b> No	

**5.4 Purpose:** Revised New Purpose: "A device function number, with an appropriate prefix and appended suffix (or an acronym) is used to identify the function(s) of each device installed in electrical equipment. These numbers and acronyms are to be used in drawings, elementary and connection diagrams, instruction books, publications, and specifications. The device number or acronym may be physically placed on, or adjacent to, each device on the assembled equipment.

**Old Purpose:** Old Purpose: "A device function number, with an appropriate prefix and appended suffix, is used to identify the function(s) of each device installed in electrical equipment. This includes manual, partial-automatic, and automatic switchgear. These numbers are to be used in drawings, elementary and connection diagrams, instruction books, publications, and specifications. In addition, for automatic switchgear, the device number may be physically placed on, or adjacent to, each device on the assembled equipment. This will enable the device to be readily identified."  
**New Purpose:** "A device function number, with an appropriate prefix and appended suffix, is used to identify the function(s) of each device installed in electrical equipment. These numbers are to be used in drawings, elementary and connection diagrams, instruction books, publications, and specifications."

**5.5 Need for the Project:** Revised need statement: There are over ten new functions not now represented by function numbers in C37.2, and the definitions of several function numbers are now inadequate, incorrect or obsolescent. There is no way to represent, using existing function numbers, the Ethernet communications networks now being installed in substations. This revision will fill that gap. The function numbers in IEC 61850 are now cross referenced to C37.2 function numbers. The proposed table will cross reference C37.2 function numbers and acronyms to the IEC logical nodes. The addition of the proposed table, cross-referencing IEC 61850 logical nodes to C37.2 function numbers, will provide information not now available in any standard.

**5.6 Stakeholders for the Standard:** The stakeholders of this standard are protection and control system engineers who now use IEEE C37.2 and are seeking methods to represent new functions not presently included in the standard.

**6.1.a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes Presented Date: 2007-06-27**

If no, please explain:

**6.1.b. Is the Sponsor aware of any copyright permissions needed for this project? No**

If yes, please explain:

**6.1.c. Is the Sponsor aware of possible registration activity related to this project? No**

If yes, please explain:

**7.1 Are there other standards or projects with a similar scope? No**

If yes, please explain:

**Sponsor Organization:**

**Project/Standard Number:**

**Project/Standard Date:** 0000-00-00

**Project/Standard Title:**

**7.2 Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? ? Do not know at this time**

**Technical Committee Name and Number:**

**Contact person:**

**Contact person Phone Number:**

**Contact person Email Address:**

**7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety? No**

**7.4 Additional Explanatory Notes:**

Early in the project, an Email survey was conducted, using IEEE Strategic Research and Planning services, to explore the current usage of some very old function numbers, and whether or not they could be retired and reused. There were almost 1900 responses, with considerable open ended feedback. The conclusion from the survey was that many of these old function numbers are still in use, so the WG decision was to use acronyms for many new functions. This was not contemplated in the original PAR submission, hence this PAR revision of the title, scope, purpose and need.

**8.1 Sponsor Information:**

Is the Scope of this project within the approved scope/definition of the Sponsor's Charter? Yes

If no, please explain:

[Email This Letter](#)

16 March 2006

Anne-Marie Sahazizian  
Hydro One Inc.  
483 Bay St. (TCT13)  
Toronto, Ontario M5G 2P5  
AM.Sahazizian@HydroOne.com

Re: PC37.2 - Standard Electrical Power System Device Function Numbers and Contact Designations

Dear Anne-Marie:

I am pleased to inform you that on 16 March 2006 the IEEE-SA Standards Board approved the above referenced project until 31 December 2010. A copy of the file can be found on our website at <http://standards.ieee.org/board/nes/projects/C37-2.pdf>.

Now that your project has been approved, please forward a roster of participants involved in the development of this project. This request is in accordance with the IEEE-SA Operations Manual, Clause 5.1.2i under Duties of the Sponsor which states:

"Submit annually to the IEEE Standards Department an electronic roster of individuals participating on standards projects"

For your convenience, an Excel spreadsheet for your use has been posted on our website at <http://standards.ieee.org/guides/par/roster.xls>. Please forward this list to me via e-mail at [j.haasz@ieee.org](mailto:j.haasz@ieee.org) no later than 14 June 2006.

Please visit our website, IEEE Standards Development Online (<http://standards.ieee.org/resources/development/index.html>), for tools, forms and training to assist you in the standards development process. Also, we strongly recommend that a copy of your draft be sent to this office for review prior to the final vote by the working group to allow for a quick review by editorial staff before sponsor balloting begins.

If you should have any further questions, please contact me at 732-562-6367 or by email at [j.haasz@ieee.org](mailto:j.haasz@ieee.org).

Sincerely,

Jodi Haasz  
Program Manager  
International Stds Programs and Governance  
Standards Activities  
Phone +1 732 562 6367  
FAX +1 732 875 0695  
Email: [j.haasz@ieee.org](mailto:j.haasz@ieee.org)

CC: hannaessa.abdallah@aps.com, j.t.tengdin@ieee.org, stds-pes-scc@ieee.org

# PAR FORM

**PAR Status:** Revision PAR  
**PAR Approval Date:** 16 March 2006  
**PAR Signature Page on File:** Yes

**1. Assigned Project Number:** PC37.2

**2. Sponsor Date of Request:** 2006-01-25

**3. Type of Document:** Standard for

**4. Title of Document:**

**Draft:** Standard Electrical Power System Device Function Numbers and Contact Designations

**5. Life Cycle:** Full-Use

**6. Type of Project:**

**6a. Is this an update to an existing PAR?** No

**6b. The Project is a:** Revision of Std C37.2-1996

**7. Working Group Information:**

**Name of Working Group:** Committee 3, Task Force 5

**Approximate Number of Expected Working Group Members:**10

**8. Contact information for Working Group Chair:**

**Name of Working Group Chair:** John T Tengdin

**Telephone:** 949-361-9595 **FAX:** 949-361-9595

**Email:** j.t.tengdin@ieee.org

**9. Contact information for Co-Chair/Official Reporter, Project Editor or Document Custodian if different from the Working Group Chair:**

**Name of Co-Chair/Official Reporter, Project Editor or Document Custodian:**

**Telephone: FAX:**

**Email:**

**10. Contact information for Sponsoring Society or Standards Coordinating Committee:**

**Name of Sponsoring Society and Committee:** IEEE Power Engineering Society Substations

**Name of Sponsoring Committee Chair:** Hanna E Abdallah

**Telephone:** 602-371-6524 **FAX:** 602-371-6829

**Email:** hannaessa.abdallah@aps.com

**Name of Liaison Rep. (if different from the Sponsor Chair):** Anne-Marie Sahazizian

**Telephone:** 416-345-6657 **FAX:** 416-345-6965

**Email:** AM.Sahazizian@HydroOne.com

**Name of Co-Sponsoring Society and Committee:**

**Name of Co-Sponsoring Committee Chair:**

**Telephone: FAX:**

**Email:**

**Name of Liaison Rep. (if different from the Sponsor Chair):**

**Telephone: FAX:**

**Email:**

**11. The Type of ballot is:** Individual Sponsor Ballot

**Expected Date of Submission for Initial Sponsor Ballot:** September 2006

**12. Projected Completion Date for Submittal to RevCom:** September 2007

**Target Extension Request Information for a Modified PAR whose completion date is being extended past the original four-year life of the PAR:**

**13. Scope of Proposed Project:**

The present scope of C37.2-1996 is "This standard applies to the definitions and application of function numbers for devices used in electrical substations and generating plants and in installations of power utilization and conversion apparatus." The scope will remain unchanged

**Is the completion of this document contingent upon the completion of another document?** No

**14. Purpose of Proposed Project:**

Old Purpose: "A device function number, with an appropriate prefix and appended suffix, is used to identify the function (s) of each device installed in electrical equipment. This includes manual, partial-automatic, and automatic switchgear. These numbers are to be used in drawings, elementary and connection diagrams, instruction books, publications, and specifications. In addition, for automatic switchgear, the device number may be physically placed on, or adjacent to, each device on the assembled equipment. This will enable the device to be readily identified."

New Purpose: "A device function number, with an appropriate prefix and appended suffix, is used to identify the function (s) of each device installed in electrical equipment. These numbers are to be used in drawings, elementary and connection diagrams, instruction books, publications, and specifications."

**15. Reason for the Proposed Project:**

The function numbers in IEC 61850 are now cross referenced to C37.2 function numbers. The proposed table will cross reference C37.2 function numbers to the IEC logical nodes. The addition of the proposed table, cross-referencing IEC 61850 logical nodes to C37.2 function numbers, will provide information not now available in any standard. The stakeholders are the users of the existing C37.2 device function numbers who are now exploring substation automation using IEC 61850, and need a familiar way (these device function numbers) to label IEC logical nodes.

**16. Intellectual Property:**

- a. **Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR?** Yes 2005-04-13
- b. **Is the sponsor aware of copyright permissions needed for this project?** No
- c. **Is the sponsor aware of trademarks that apply to this project?** No
- d. **Is the sponsor aware of possible registration activity related to this project?** No

**17. Are there other documents or projects with a similar scope?** No

**Similar Scope Project Information:**

**18. Is there potential for this document (in part or in whole) to be adopted by another national , regional or international organization?** Do not know at this time

**If yes, the following questions must be answered:**

**Organization Name?**

**Technical  
Committee**

**International**

**Contact**

**Information?**

**19. Will this project result in any health, safety, or environmental guidance that affects or applies to human health or safety?** No

**If yes, please explain:**

**20. Sponsor Information**

**a. Is the scope of this project within the approved/scope/definition of the Sponsor's Charter? Yes**

**If no, please explain:**

**b. The Sponsor's procedures have been accepted by the IEEE-SA Standards Board Audit Committee? Yes**

**21. Additional Explanatory Notes: (Item Number and Explanation)**

Item 13 - A review of the document by the working group showed that the scope statement and body of the document are still valid, so there are no plans to change them. However, an addition to the document is warranted. That addition is proposed to be a table that cross references C37.2 device function numbers to the logical nodes defined in IEC 61850.

Item 14 - These device function designations have been developed as a result of usage over many years. They may define the actual function the device performs in equipment or they may refer to the electrical or other quantity to which the device is responsive. Hence, in some instances, there may be a choice of the function number to be used for a given device. The preferable choice to be made should be the function number that is recognized to have the narrowest interpretation in all cases. The choice should specifically identify a device in the minds of all individuals concerned with the design, operation and maintenance of the equipment."