



Jodi Haasz

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To: adg@ieee.org
cc: rboutaba@bbcr.uwaterloo.ca, jim.mollenkopf@currenttechnologies.com,
jean-philippe_faure@fr.non.schneider-electric.com
Subject: P1901 - Conditional PAR Approval Letter

20 June 2005

Alexander D Gelman
Panasonic Technologies
2 Research Way
Princeton, NJ 08540

Re: P1901 - Standard for Broadband over Power Line Networks: Medium Access Control and Physical Layer Specifications

Dear Alex:

I am pleased to inform you that on 09 June 2005 the IEEE-SA Standards Board conditionally approved the above referenced project until 12 August 2005, pending the receipt by the IEEE-SA of a commitment to fund the project from the working group. If the funding commitment is received by this deadline, the PAR will be approved until 31 December 2009. A copy of the file can be found on our website at <http://standards.ieee.org/board/nes/projects/1901.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 no later than 07 September 2005.

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.

Sincerely,

Jodi Haasz
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Standards Activities
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PAR FORM

PAR Status: New PAR

PAR Approval Date: 2005-06-09

PAR Signature Page on File: Yes

1. Assigned Project Number: P1901

2. Sponsor Date of Request: 2005-02-01

3. Type of Document: Standard for

4. Title of Document:

Draft: Standard for Broadband over Power Line Networks: Medium Access Control and Physical Layer Specifications

5. Life Cycle: Full-Use

6. Type of Project:

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

6b. The Project is a: New Standard

7. Working Group Information:

Name of Working Group: BPL PHY/MAC Working Group

Approximate Number of Expected Working Group Members:30

8. Contact information for Working Group Chair:

Name of Working Group Chair: Jim Mollenkopf

Telephone: 301-515-7617 x212 **FAX:**

Email: jim.mollenkopf@currenttechnologies.com

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: Jean-Philippe Faure

Telephone: +33 (0) 4 76 60 59 5 **FAX:** +33 (0) 4 76 60 59 1

Email: jean-philippe_faure@fr.non.schneider-electric.com

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

Name of Sponsoring Society and Committee: Communications Society Standards Committee

Name of Sponsoring Committee Chair: Raouf Boutaba

Telephone: 519-888-4820 **FAX:** 519-885-1208

Email: rboutaba@bbcr.uwaterloo.ca

Name of Liaison Rep. (if different from the Sponsor Chair): Alexander D Gelman

Telephone: 609-734-7345 **FAX:** 609-987-8827

Email: adg@ieee.org

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:** Entity Sponsor Ballot**Expected Date of Submission for Initial Sponsor Ballot:** August 2006**12. Projected Completion Date for Submittal to RevCom:** February 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 project will develop a standard for high speed (>100 Mbps at the physical layer) communication devices via alternating current electric power lines, so called Broadband over Power Line (BPL) devices. The standard will use transmission frequencies below 100 MHz. This standard will be usable by all classes of BPL devices, including BPL devices used for the first-mile/last-mile connection (<1500m to the premise) to broadband services as well as BPL devices used in buildings for LANs and other data distribution (<100m between devices). This standard will focus on the balanced and efficient use of the power line communications channel by all classes of BPL devices, defining detailed mechanisms for coexistence and interoperability between different BPL devices, and ensuring that desired bandwidth and quality of service may be delivered. The standard will address the necessary security questions to ensure the privacy of communications between users and allow the use of BPL for security sensitive services. This standard is limited to the physical layer and the medium access sub-layer of the data link layer, as defined by the International Organization for Standardization (ISO) Open Systems Interconnection (OSI) Basic Reference Model. The effort will begin with an architecture investigation, and this will form the basis for detailed scope of task groups that will work within P1901 to develop the components of the final standard.

Is the completion of this document contingent upon the completion of another document?

No

14. Purpose of Proposed Project:

New modulation techniques offer the possibility to use the power lines for high speed communications. This new high speed media is open, and locally shared by several BPL devices. Without an independent, openly defined standard, BPL devices serving different applications will conflict with one another and provide unacceptable service to all parties. The standard will provide a minimum implementation subset which allows the fair coexistence of the BPL devices. The full implementation will provide the interoperability among the BPL devices, as well as interoperability with other networking protocols, such as bridging for seamless interconnection via 802.1. It is also the intent of this effort to quickly progress towards a robust standard so

powerline applications may begin to impact the marketplace. The standard will also comply with EMC limits set by national regulators, so as to ensure successful coexistence with wireless and telecommunications systems.

15. Reason for the Proposed Project:

Coexistence of the BPL devices on the same power lines is a basic need of the BPL market. Devices from different vendors should continue to operate properly while using the same power lines. Interoperability will support the growth of the emerging BPL market. It will benefit the consumer market, enabling consumers to use devices from different vendors and warranting the availability of lower cost equipment. Interoperability will also benefit the access market, allowing low cost extensions of the services in the houses. It also will benefit the electric utility industry, enabling power companies to improve the efficiency and reliability of electricity distribution by creating low-cost, real-time connections across the distribution system, a capability rarely deployed today.

16. Intellectual Property:

a. Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR? Yes 2005-01-28

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? Yes

There may be a need for registration of device identities by the IEEE Registration Authority. It is likely this will use existing services such as the OUI for unique manufacturer ID.

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)

Items 8 and 9. Faure and Mollenkopf will serve as interim co-chairs of this Working Group.

The group will establish liaison relationships with IEEE 802 in order to leverage the value created by the 802 group. The initial point of contact with the 802 groups will be one of the P1901 Co-Chairs.

It is also the intention of the group to establish liaison relationships with the IEEE BPL EMC Working Group.