

IEEE 802.3 Energy Efficient Ethernet Study Group

Agenda and General Information

Monterey, CA
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Agenda

- Welcome and Introductions
- Appoint/Volunteer Recording Secretary
- Confirmation of Chair
- New Sign-in Rules
- Goals for this Meeting
- Reflector and Web
- Ground Rules
- IEEE
 - Structure
 - Bylaws and Rules
 - Call for Patents
 - IEEE Standards Process
- Presentations
- Discussion and Motions
- Future Meetings

New sign-in rules

IEEE 802.3, January 2006, Monterey, California, USA

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Fill in Affiliation! *, Please check and correct/complete your name and contact information
Initial O.K. box **IF** all contact information is **correct**, else correct information (business card in the back is strongly preferred to handwriting)

Name:	Address:	All Info O.K.		
Employer:				
Affiliation:		Bus. Card in Back		
Email:				
Phone:				
Mobile:				
Mon	Tue	Wed	Thu	Fri

You are deemed "affiliated" with any person or organization (other than IEEE and its officers acting in that capacity) that has requested, paid for, or otherwise sponsored your participation in this meeting, whether that payment was made to you or your employer. Failure to disclose every affiliation will result in not receiving attendance credit for this meeting and may result in other penalties, including permanent loss of membership in this group. Please note that you are not excused from compliance with this policy by reason of any claim of a conflicting obligation (whether contractual or otherwise) that prohibits disclosure of affiliation. If you are under contract not to disclose your affiliation, you must either get a waiver of that requirement or lose 802.3 voting member privileges. Submitting a form without full disclosure would be considered false and misleading.

Goals for this Meeting

- Hear presentations related to 5 Criteria, Goals, and Objectives
- Start developing consensus on EEESG Objectives
- Lay the ground work for the next meeting

Reflector and Web

- To subscribe to the EEESG reflector, send your request to:

ListServ@ieee.org

with the following in the body of the message (do not include “<>”):

*subscribe stds-802-3-eesg <yourfirstname> <yourlastname>
end*

- Send EEESG reflector messages to:

stds-802-3-eesg@listserv.ieee.org

- For complete instructions on reflector usage, subscription, and unsubscription:

<http://www.ieee802.org/3/eesg/reflector.html>

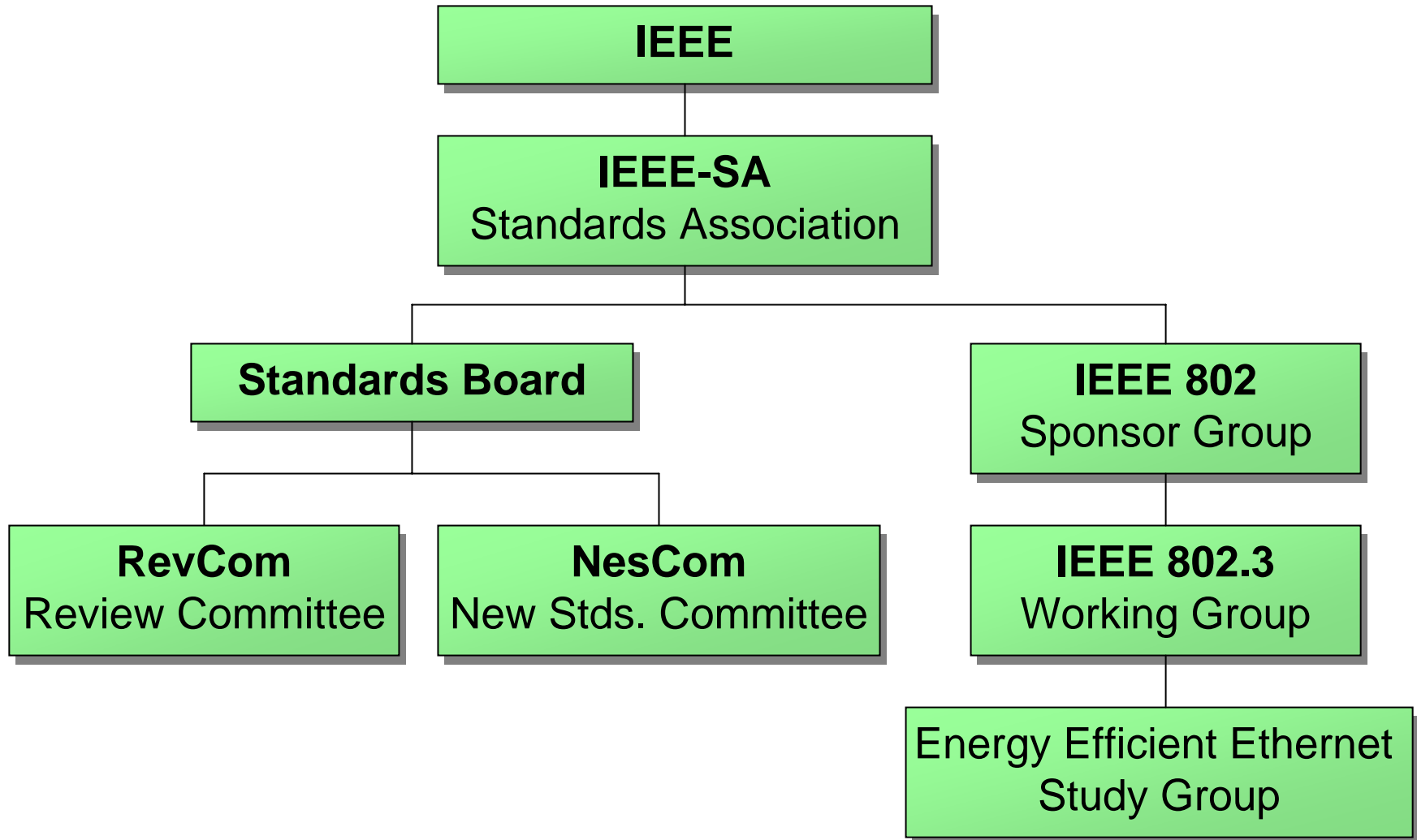
- EEESG web page URL:

<http://www.ieee802.org/3/eesg/>

Ground Rules

- Based upon IEEE 802.3 Rules
 - Foundation based upon Robert's Rules of Order
 - Anyone in the room may speak
 - Anyone in the room may vote
- **RESPECT**... give it, get it
- NO product pitches
- NO corporate pitches
- NO prices!!!
 - This includes costs, Average Sales Prices (ASP), etc. no matter what the currency
- NO restrictive notices

IEEE Structure



Bylaws and Rules

- IEEE-SA Standards Board Bylaws:
 - <http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf>

- IEEE-SA Standards Board Operations Manual:
 - <http://standards.ieee.org/guides/opman/sb-om.pdf>

- LAN/MAN Standards Committee (LMSC) Policies and Procedures:
 - <http://ieee802.org/policies-and-procedures.pdf>

- IEEE 802.3 Working Group Operating Rules:
 - http://ieee802.org/3/rules/P802_3_rules.pdf

IEEE-SA Standards Board Bylaws on Patents in Standards

6. Patents

IEEE standards may include the known use of essential patents and patent applications provided the IEEE receives assurance from the patent holder or applicant with respect to patents whose infringement is, or in the case of patent applications, potential future infringement the applicant asserts will be, unavoidable in a compliant implementation of either mandatory or optional portions of the standard [essential patents]. This assurance shall be provided without coercion. The patent holder or applicant should provide this assurance as soon as reasonably feasible in the standards development process. This assurance shall be provided no later than the approval of the standard (or reaffirmation when a patent or patent application becomes known after initial approval of the standard). This assurance shall be either:

- a) A general disclaimer to the effect that the patentee will not enforce any of its present or future patent(s) whose use would be required to implement either mandatory or optional portions of the proposed IEEE standard against any person or entity complying with the standard; or
- b) A statement that a license for such implementation will be made available without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination.

This assurance is irrevocable once submitted and accepted and shall apply, at a minimum, from the date of the standard's approval to the date of the standard's withdrawal.

Approved by IEEE-SA Standards Board – March 2003 (Revised February 2006)

Inappropriate Topics for IEEE WG Meetings

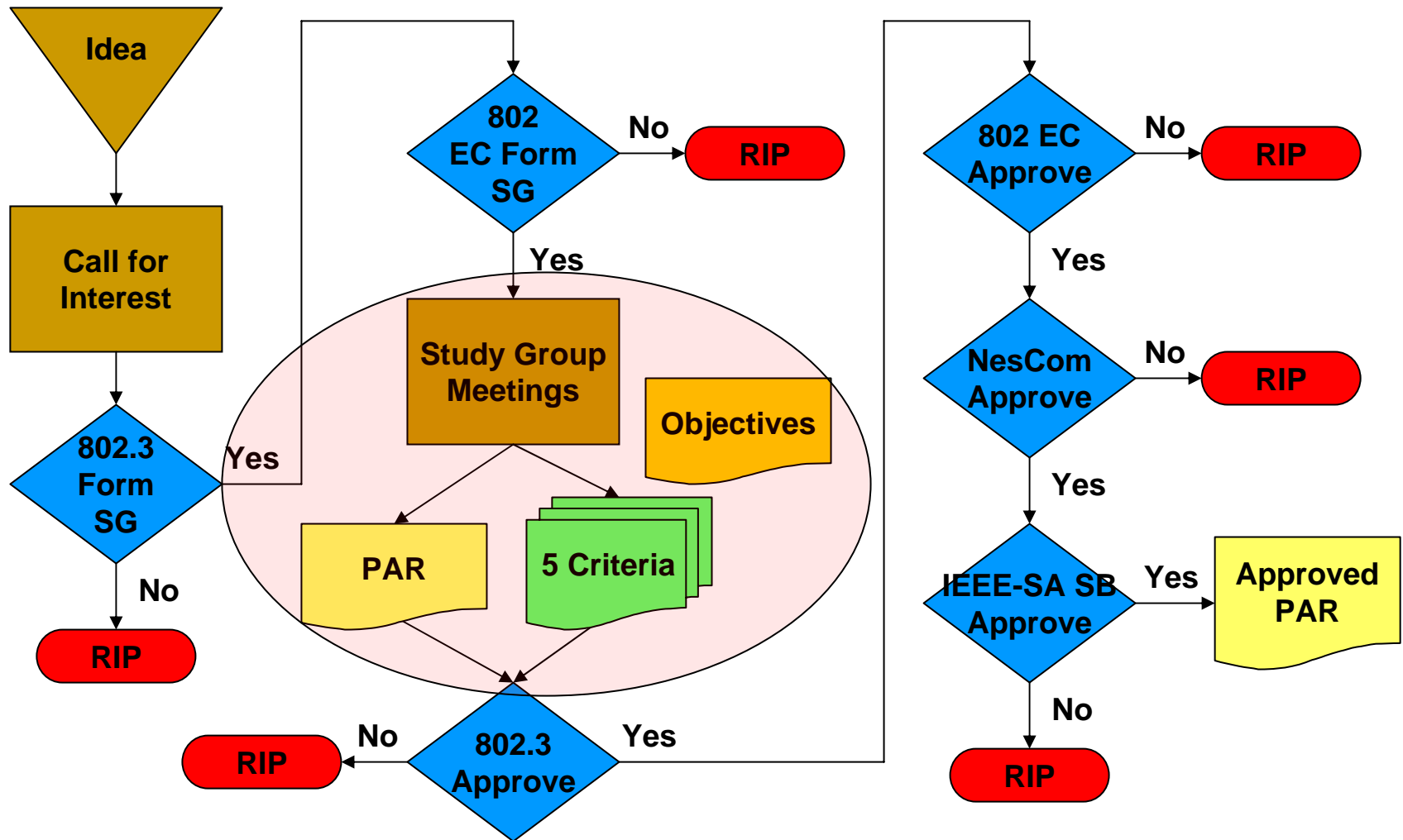
- Don't discuss the validity/essentiality of patents/patent claims
- Don't discuss the cost of specific patent use
- Don't discuss licensing terms or conditions
- Don't discuss product pricing, territorial restrictions, or market share
- Don't discuss ongoing litigation or threatened litigation
- Don't be silent if inappropriate topics are discussed... do formally object.

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit <http://standards.ieee.org/board/pat/index.html>

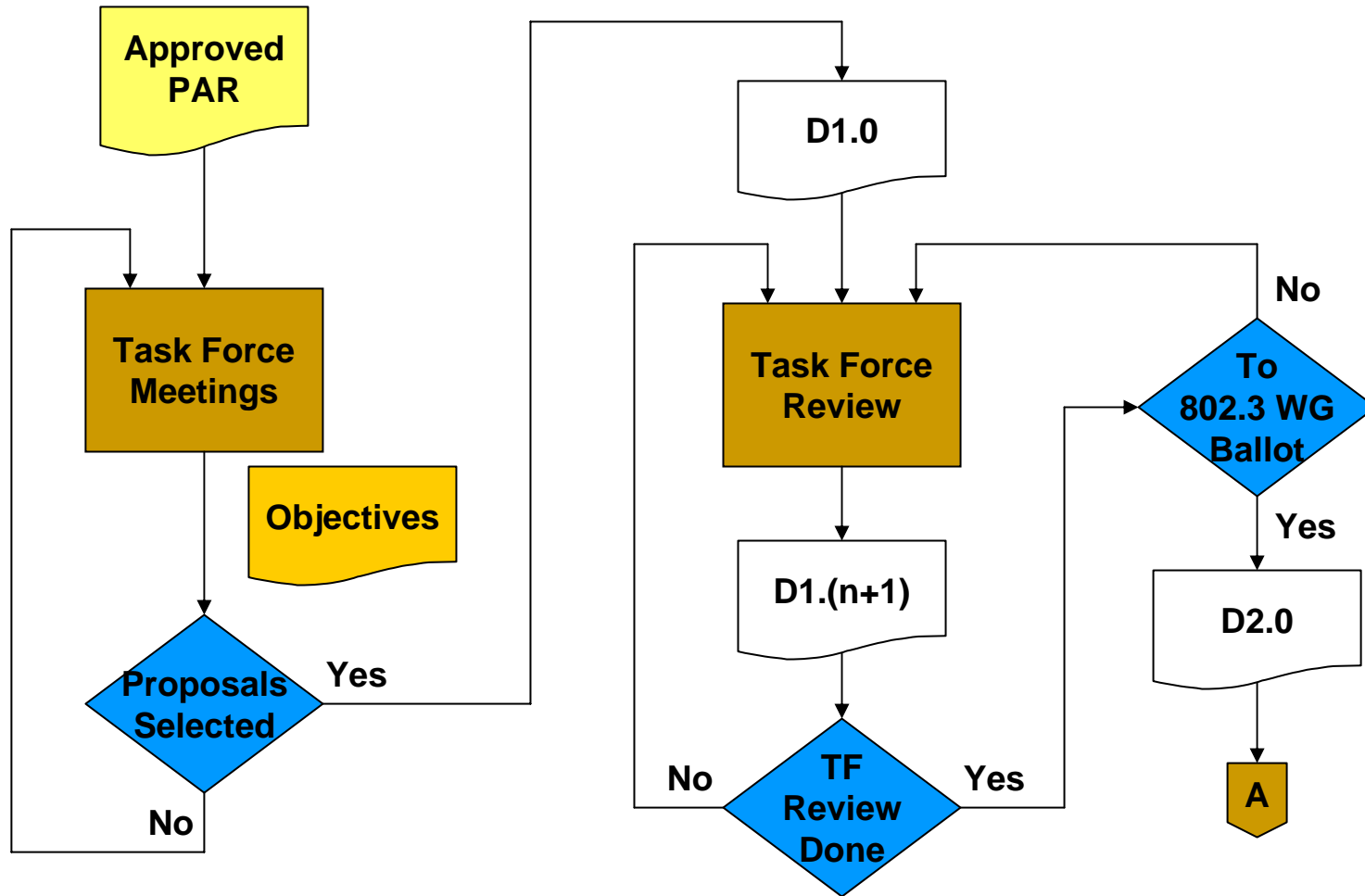
**This slide set is available at
<http://standards.ieee.org/board/pat/pat-slideset.ppt>**

Approved by IEEE-SA Standards Board – March 2003 (Revised February 2006)

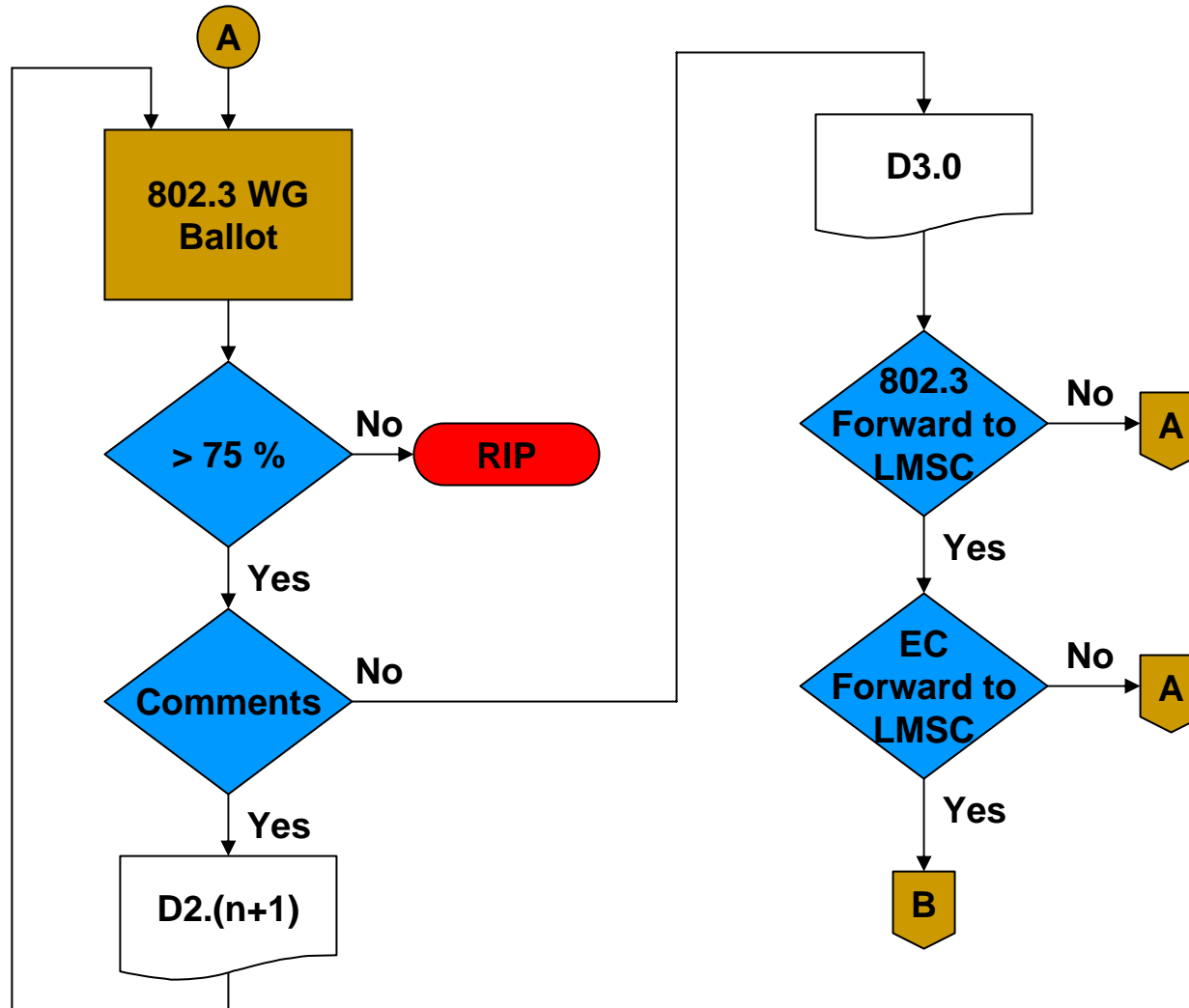
IEEE Standards Process (1/4)



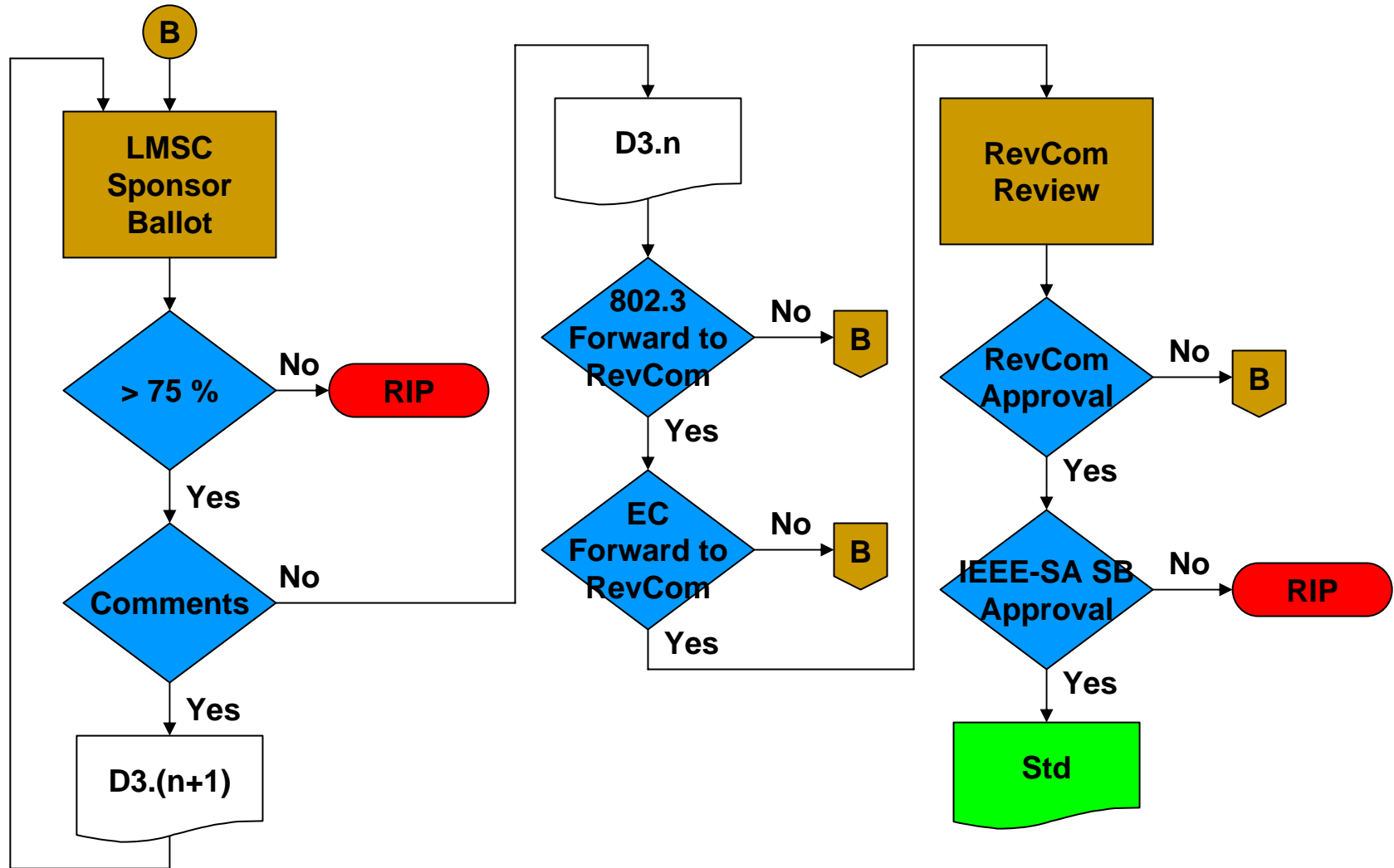
IEEE Standards Process (2/4)



IEEE Standards Process (3/4)



IEEE Standards Process (4/4)



The Study Group

- Normal function is to draft a complete PAR and Five Criteria
- Provide a plenary week tutorial to the LMSC.
- Gain approval at the WG 802.3, 802 SEC, IEEE NesCom and IEEE-SA Standards Board.
- SG only exists for 6 months
 - Extensions can be requested, voted on by 802.3, ratified by SEC
- Development of Objectives helps set the goals for the Task Force
- Consensus (>75%) required to move forward

- Not a goal – choosing a solution.

Request for Formation of EEESG (as per November '06 Plenary Motion)

Move that the IEEE 802.3 working group request formation of an *Energy Efficient Ethernet* IEEE 802.3 study group to evaluate methods to reduce energy use by reduction of link speed during periods of low link utilization

- Our job is to:
 - Determine the objectives
 - Based on the 5 criteria
 - Produce a Project Authorization Request (PAR)

Example - IEEE 802.3as

- **Preserve the IEEE 802.3 MAC data service interface**
- **Preserve the basic frame format**
- **Maintain the maximum data field length (1500 octets)**
- **Increase the maximum frame size exclusively for optional prefix and suffix fields in envelope frames**
- **Redefine the Tagged frame format as an envelope frame format**
- **At a minimum, support:**
 - a) IEEE 802.1Q Virtual Bridged LANs
 - b) IEEE 802.1ad Provider Bridges
 - c) IEEE 802.1AE MACSec
 - d) ITU-T SG15 Ethernet transport encapsulations
- **Investigate and define the largest maximum frame size with minimal impact to existing networks and standards**

Example - IEEE 802.3ar

- Specify a mechanism to support the communication of congestion information
- Specify a mechanism to limit the rate of transmitted data on an Ethernet link
- Preserve the MAC/PLS service interfaces
- Minimize throughput reduction in non-congested flows

PAR

- Title

- What are we calling this

- Scope

- The Focus – Energy Efficient Ethernet

- Purpose

- Why do we want to do this

5 Criteria (IEEE 802)

■ Broad Market Potential

- ❑ Broad sets of applicability.
- ❑ Multiple vendors, numerous users
- ❑ Balanced cost (LAN vs. attached stations)

■ Compatibility

- ❑ Conformance with 802 Overview and Architecture,
- ❑ Conformance with 802.1D, 802.1Q, 802.1f
- ❑ Managed objects shall be defined and compatible with systems management standards

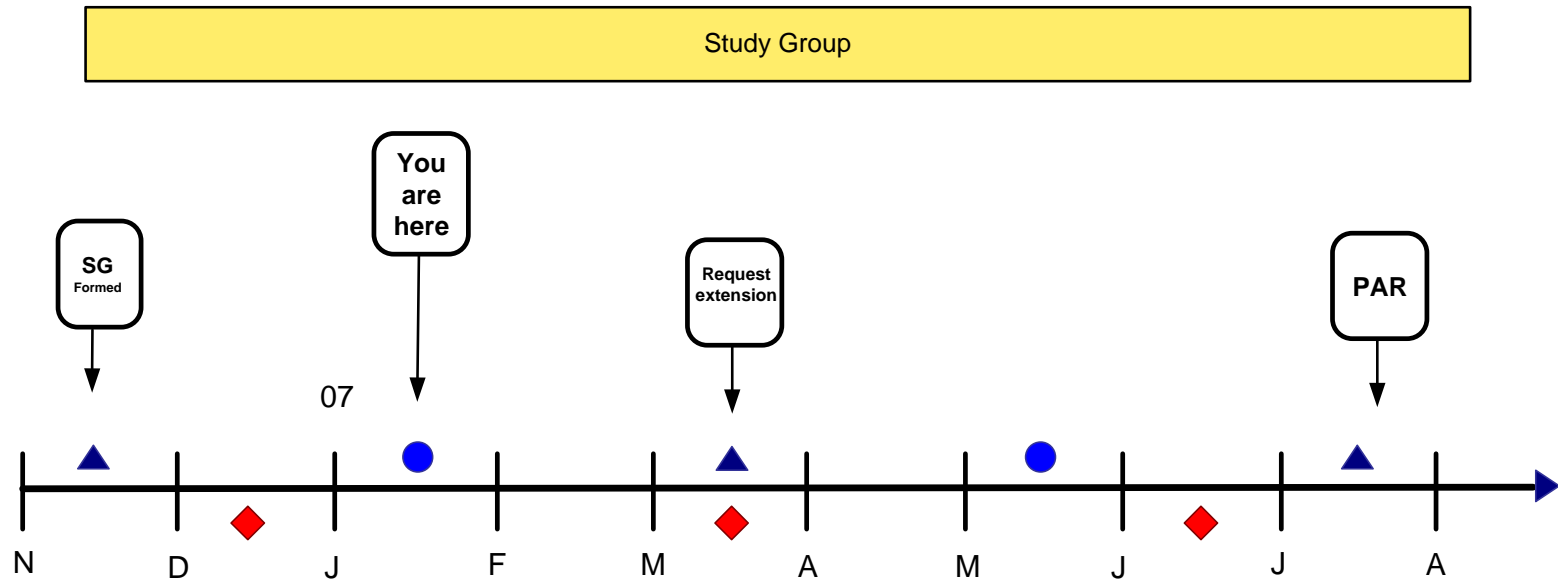
5 Criteria (IEEE 802)

- Distinct Identity
 - ❑ Substantially different from other 802 standards
 - ❑ One unique solution per problem (not two solutions to a problem)
 - ❑ Easy for document reader to select relevant spec

- Technical Feasibility
 - ❑ Demonstrated system feasibility
 - ❑ Proven technology, reasonable testing
 - ❑ Confidence in reliability

- Economic Feasibility
 - ❑ Known cost factors, reliable data
 - ❑ Reasonable cost for performance
 - ❑ Consideration of installation costs

One Possible Timeline to PAR



- Legend
- ▲ IEEE 802 Plenary
 - IEEE 802 Interim
 - ◆ IEEE-SA Standards Board

Presentations and Discussion

Monday

Time	Title	File name	Presenter	Affiliation	Duration
9:00 AM	Agenda and General Information	agenda_01_0107.pdf	Mike Bennett	LBNL	0:35
9:35 AM	802.3 Standards Development Lessons Learned	booth_01_0107.pdf	Brad Booth	AMCC	0:30
10:05 AM	Review of the Five Criteria	frazier_01_0107.pdf	Howard Frazier	Broadcom	0:30
10:35 AM	Break				0:25
11:00 AM	Objectives and 5 Criteria - a strawman to spur discussion	barrass_01_0107.pdf	Hugh Barrass	Cisco	0:45
11:45 AM	Lunch				1:30
1:15 PM	Rapid PHY Selection (RPS) A Performance Evaluation of Control Policies	christensen_01_0107.pdf	Ken Christensen	USF	0:45
2:00 PM	Energy Efficient Ethernet: Outstanding Questions	nordman_01_0107.pdf	Bruce Nordman	LBNL	0:20
2:20 PM	Break				0:30
2:50 PM	Discussion and straw polls		All		2:10
5:00 PM	Adjourn				

Tuesday

Time	Title	File name	Presenter	Affiliation	Duration
9:30 AM	Discussion and straw polls		All		1:00
10:30 AM	Break				0:30
11:00 AM	Discussion and straw polls		All		1:00
12:00 PM	Lunch				1:30
1:30 PM	Discussion and Motions		All		0:30
2:00 PM	Break				0:15
2:15 PM	Discussion and Motions (Continued)		All		2:30
4:45 PM	Adjourn				

Future Meetings

- March 2007 Plenary

- Week of March 11
- Caribe Royale
- Orlando, FL

- May 2007 Interim

- Week of May 28
- ITU
- Geneva, Switzerland

- Future meeting information at:

- <http://www.ieee802.org/meeting/index.html>

Thank You!