

# P802.3at Task Force

DTE Power via the MDI Enhancements

## Agenda and General Information

Mike McCormack, P802.3at Chair  
Texas Instruments

November 14-18, 2005

IEEE 802.3 P802.3at  
Vancouver Plenary

# Agenda

- Appoint Recording Secretary
- Discussion of the order of the meeting
- Introductions
- Background stuff
- Presentations
- Review of Objective, timeline
- Approve Minutes / other motions

# Meeting Order

- Tuesday:  
8:30 – 17:00 P802.3at meeting
- Wednesday:  
8:30 – 12:00 P802.3au meeting  
13:00 – 17:00 P802.3at meeting
- Thursday:  
8:30 – 12:00 P802.3at meeting (no books)  
13:00 – 18:00 Working Group meeting

Move to accept the schedule      Y:      N:

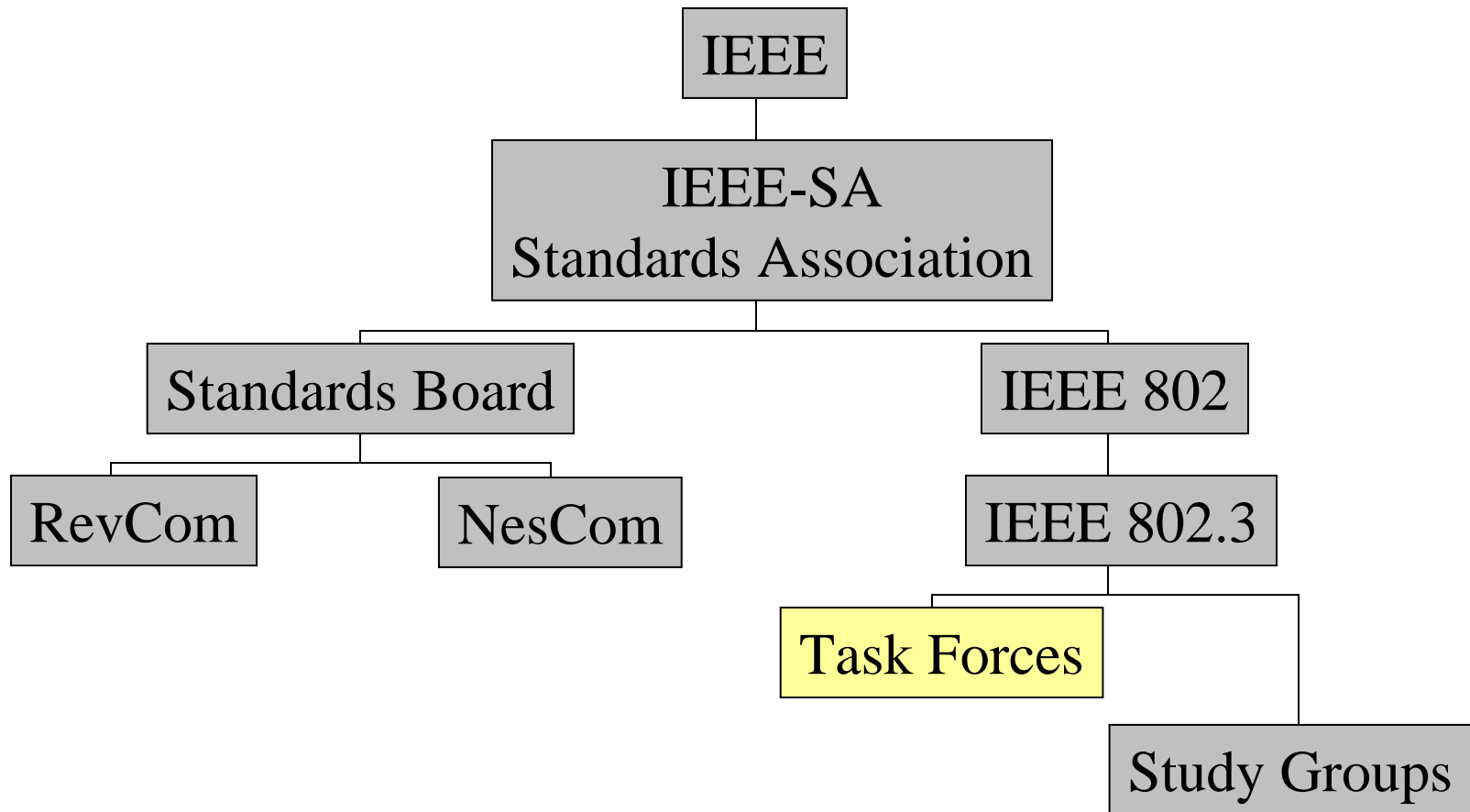
# Housekeeping

- Chairman:
  - Appointed by the 802.3 WG Chair (Bob Grow)
  - Approved by the Task Force
  - Serves at the leisure of the WG Chair
- Candidates
  - Mike McCormack
  - Others see Bob Grow
- Vote
  - Conducted by the secretary

# Ground Rules

- **Mutual Respect**
- All may speak
- All may vote
- No product pitches
- No corporate pitches
- No restrictions on presentations or materials
- No prices  
no cost in any currency, complexity is OK
- 802.3 rules apply

# IEEE Structure



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# Instructions for the WG Chair

- **At Each Meeting, the Working Group Chair shall:**
- **Show slides #1 and #2 of this presentation**
- **Advise the WG membership that:**
  - The IEEE's patent policy is consistent with the ANSI patent policy and is described in Clause 6 of the *IEEE-SA Standards Board Bylaws*;
  - Early disclosure of patents which may be essential for the use of standards under development is encouraged;
  - Disclosures made of such patents may not be exhaustive of all patents that may be essential for the use of standards under development, and that neither the IEEE, the WG, nor the WG Chairman ensure the accuracy or completeness of any disclosure or whether any disclosure is of a patent that, in fact, may be essential for the use of standards under development.
- **Instruct the WG Secretary to record in the minutes of the relevant WG meeting:**
  - That the foregoing advice was provided and the two slides were shown;
  - That an opportunity was provided for WG members to identify or disclose patents that the WG member believes may be essential for the use of that standard;
  - Any responses that were given, specifically the patents and patent applications that were identified (if any) and by whom.

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(Not necessary to be shown) Approved by IEEE-SA Standards Board – March 2003 (Revised March 2005)

# 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 and prior to approval of the standard (or reaffirmation when a patent or patent application becomes known after initial approval of the standard). This assurance shall be a letter that is in the form of 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 shall apply, at a minimum, from the date of the standard's approval to the date of the standard's withdrawal and is irrevocable during that period.

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**Slide #1**

Approved by IEEE-SA Standards Board – March 2003 (Revised March 2005)



# 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](mailto: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>**

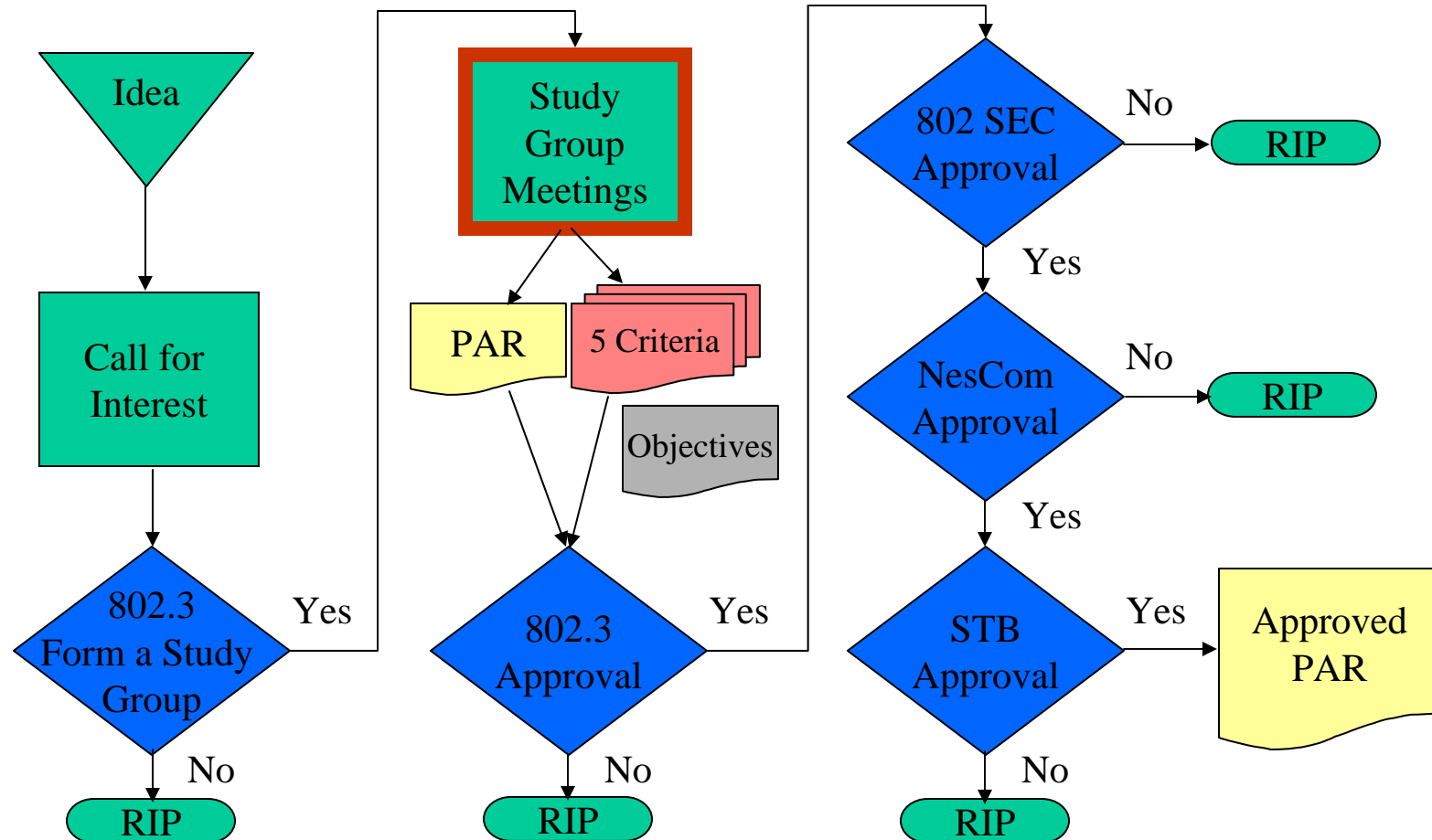
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**Slide #2** Approved by IEEE-SA Standards Board – March 2003 (Revised March 2005)

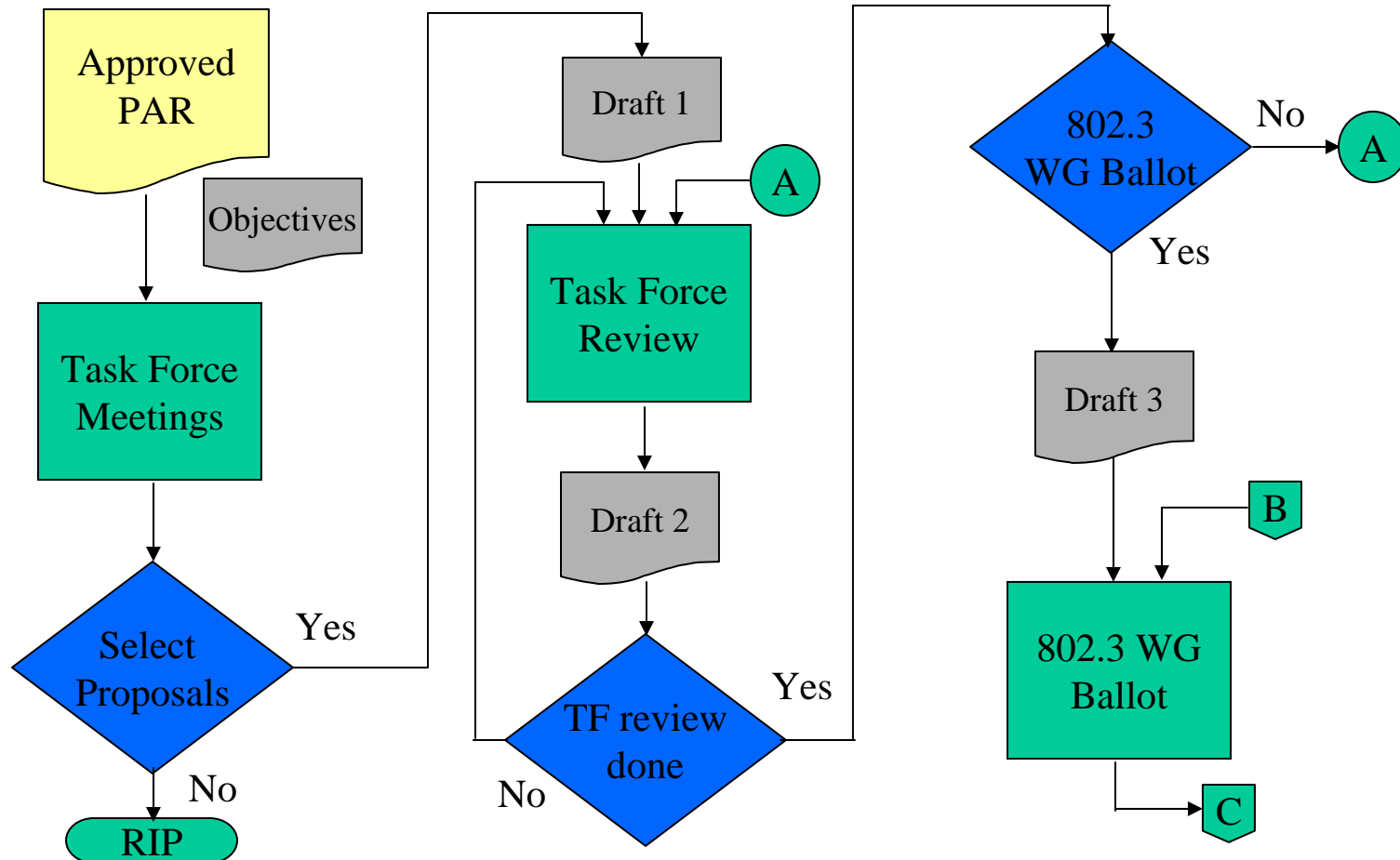
# IEEE Standards Process



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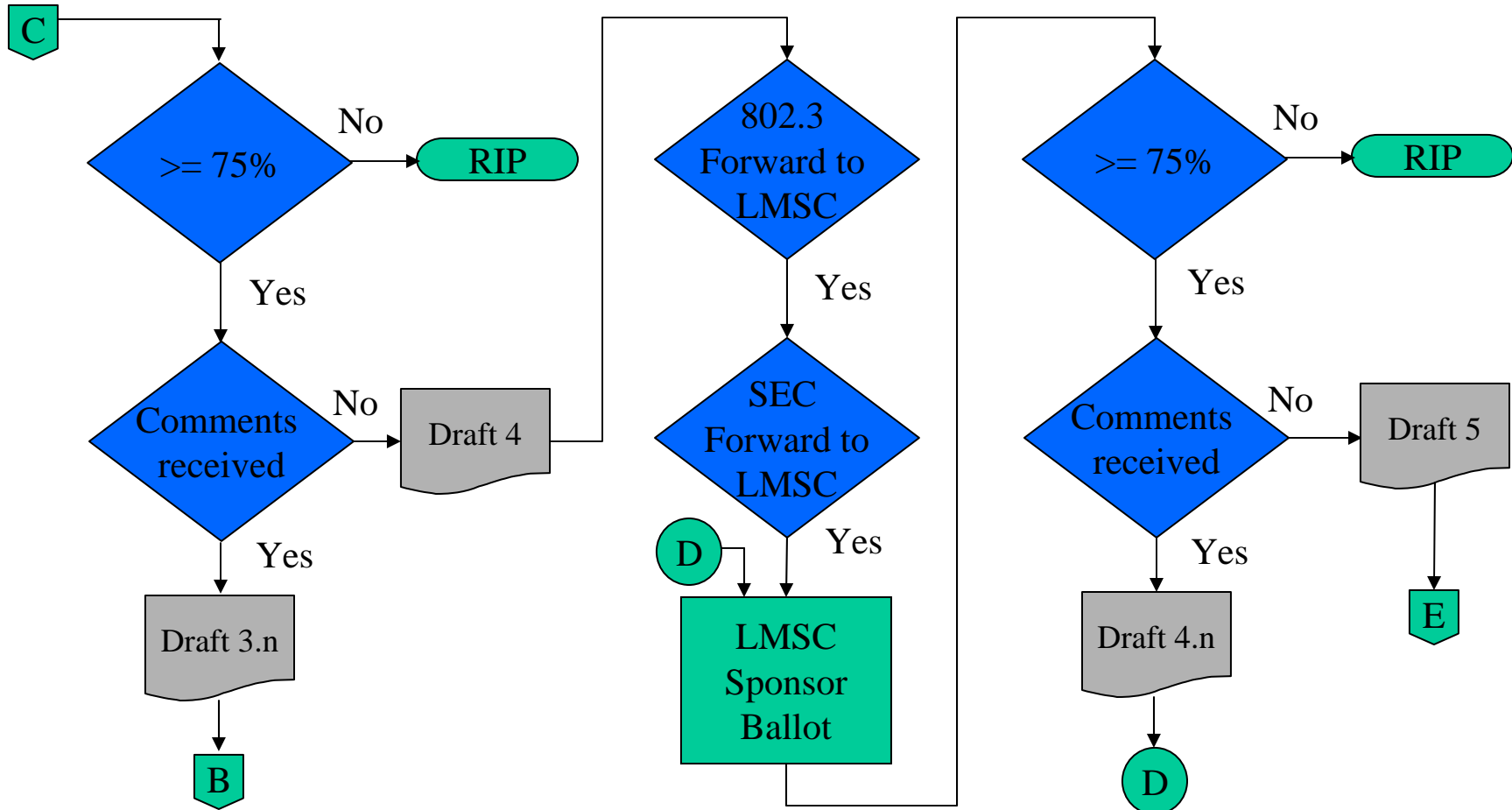
# IEEE Standards Process



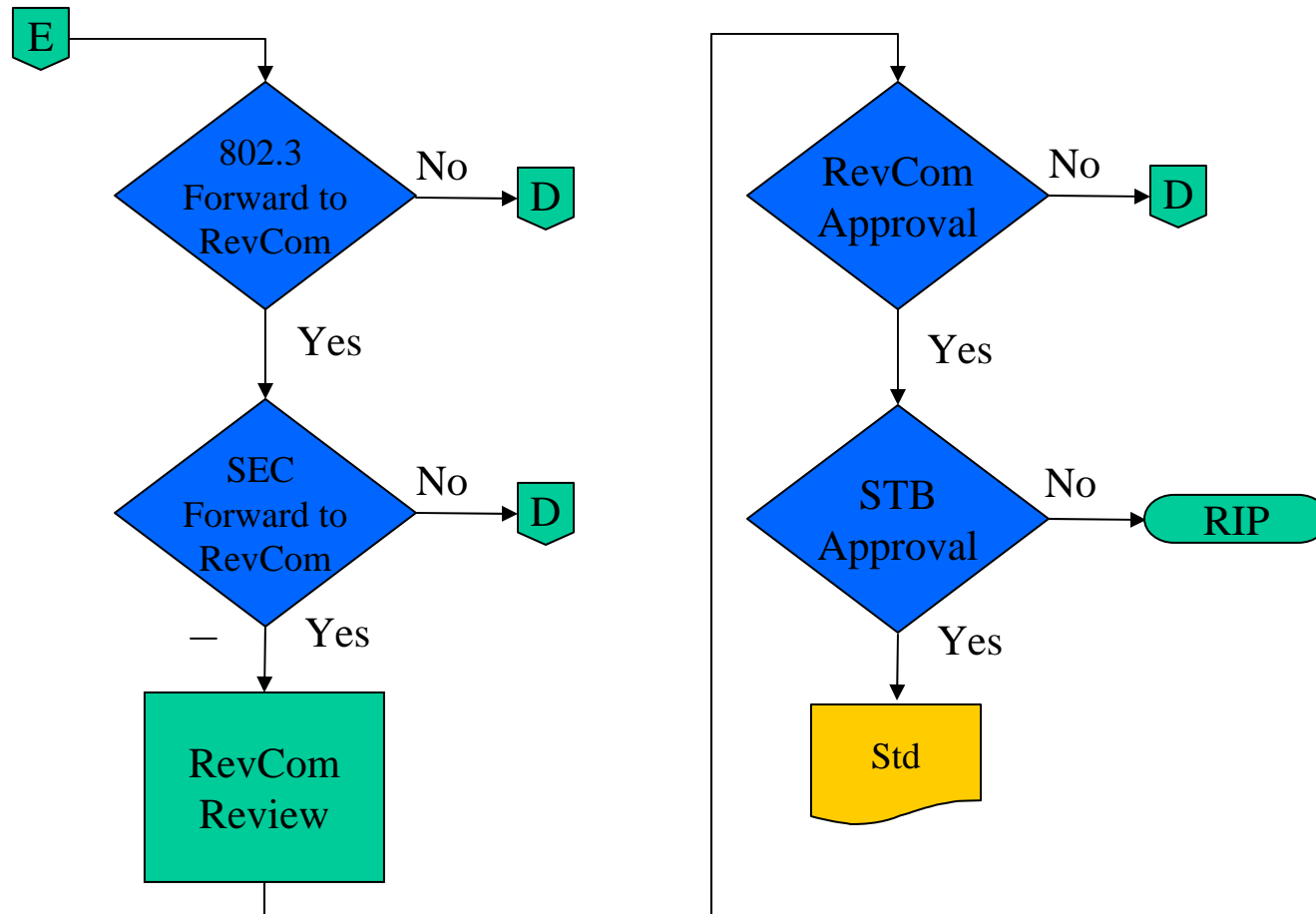
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# IEEE Standards Process



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# Rules

- Bylaws of the IEEE Standards Association:  
<http://standards.ieee.org/sa/>
- Bylaws of the IEEE Standards Association:  
<http://standards.ieee.org/board/index.html>
- IEEE 802 operating rules  
<http://www.ieee802.org/>
- IEEE 802.3 operating rules  
<http://www.ieee802.org/3/>
- Roberts rules of order

# Rules (Condensed)

- Behave

# Electronic Information

- Web address

<http://www.ieee802.org/3/at/index.html>

- E-mail reflector

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

after subscribing above

[stds-802-3-poep@ieee.org](mailto:stds-802-3-poep@ieee.org)

- Next meeting – watch:

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



# Presentations

- Extended Classification – Yair Darshan\*
- Extended Classification – Martin Patoka\*
- Fair and “Balanced” – Clay Stanford\*
- 2 Pair Revisited – Dave Dwelley\*
- Power Feeding – Yair Darshan\*
- Bob Smith Terminations – Steve Robbins\*
- Applications – Yair Darshan\*
- New PoE Application – Steve Robbins\*
- System Decisions – Yair Darshan\*
- Standardizing Terms – Clay Stanford\*
- Test Procedures – Chris DiMinico\*
- PSE Test proposal – Steve Robbins\*
- Output voltage range – Arkadiy Peker\*

# Objective 1

- PoePlus will enhance 802.3af and work within its framework – there will be no new clause.

# Objective 2

- The target infrastructure for PoEPlus will be ISO/IEC 11801-1995 Class D or higher systems. Further we will not cause a safety issue for a legacy installation conformant to ISO/IEC 60950.

# Objective 3

- IEEE STD 802.3 will continue to comply to the limited power source and SELV requirements as defined in ISO/IEC 60950.

# Objective 4

- The PoE Plus PSE shall operate in modes compatible with the existing requirements of IEEE STD 802.3af as well as enhanced modes.

# Objective 5

- The enhanced standard will provide the maximum power to the PD as allowed within practical limits.

# Objective 6

- PoEPlus shall support a minimum of 30 Watts of power at the PD PI.

# Objective 7

- PoEPlus PDs, which require a PoEPlus PSE, shall provide the user an active indication when connected to a legacy 802.3af PSE. This indication is in addition to any optional management indication that may be provided.



# Objective 8

- The standard shall not preclude the ability to meet FCC / CISPR / EN Class A, Class B, Performance Criteria A and Performance Criteria B with data for all supported PHYs.

# Objective 9

- Research potential extension of power classification to support PoEPlus modes.

# Objective 10

- PoE Plus will vigorously pursue supporting the operation of midspan PSEs for 1000BASE-T.

# Objective 11

- Research the operations of midspan and endpoint PSEs for 10GBASE-T including providing cable heating data for evaluation by IEEE P802.3an.

# Objective 12

- That IEEE 802.3af power over the MDI isolation requirements be revisited as part of the PoE Plus work.

P802.3at Task Force will consider and respond to all maintenance requests concerning Clause 33 that are forwarded by the maintenance Task Force

# Objective 13

- PoE Plus PDs within the power range of 802.3af will work properly with 802.3af PSEs.

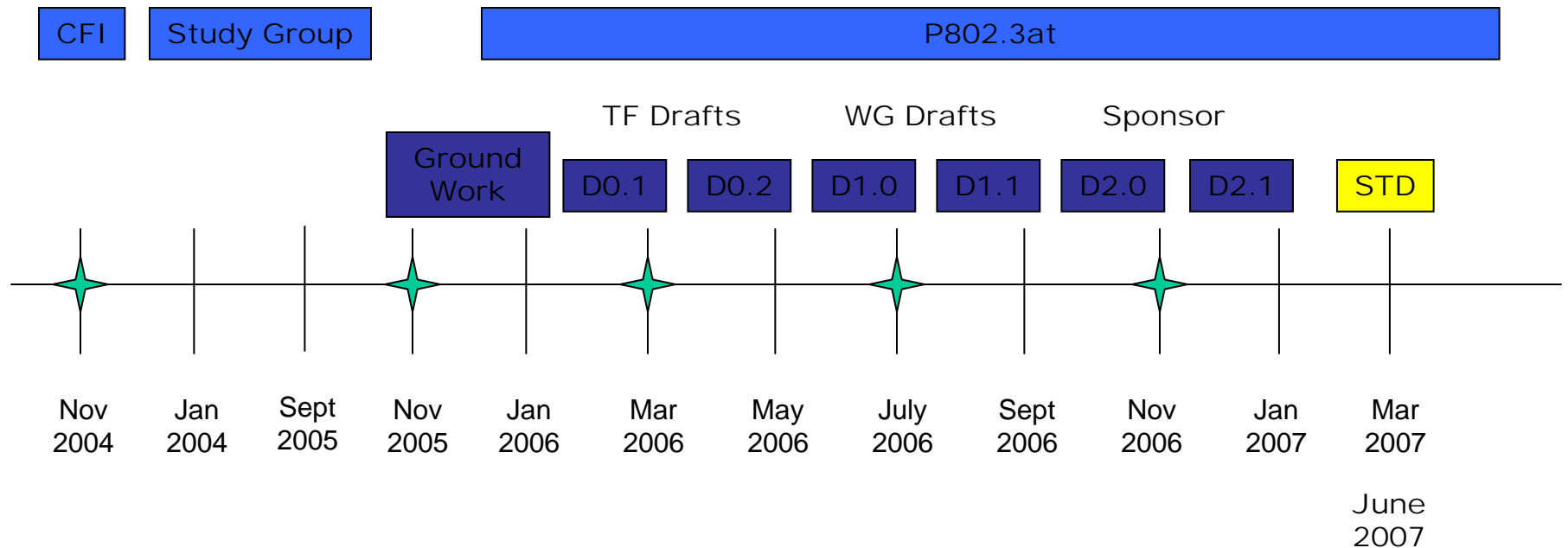
# Objective 14

## PD Operation based on PSE

|                     | IEEE Std 802.3af<br>PSE                    | PoEP<br>PSE                |
|---------------------|--|----------------------------|
| IEEE Std 802.3af PD | Operates                                   | Operates                   |
| PoEP PD < 12.95W    | Operates                                   | Operates <sup>Note 1</sup> |
| PoEP PD > 12.95W    | PD shall provide user<br>active indication | Operates <sup>Note 1</sup> |

Note 1: Operates with extended power classification

# Schedule



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# Editor

- Big commitment (whole week and more)
- Thick skin
- Impartial recorder and translator
- Framemaker compatible
- Contact Bob Grow, Mike McCormack