Sony comments on Annex D Ballot:

1. In Sony's opinion, the proposed technology for robust modulation has not undergone proper test evaluation. Although a 6 dB gain in reception improvement compared to the incumbent modulation system was given for the robust modulation, the sample size of tested receivers is insufficient to support a 95% confidence level that is normally required to support the claims. A larger sample size is required to validate the proponent's claims of 6 dB reception improvements.

2. Consideration of the failure mechanisms and shortcomings of the proposed systems were not investigated. Furthermore, nothing was done to determine whether further improvements above and beyond the characteristics exhibited by the prototypes were explored. Lack of careful consideration of the test data resulted in a poorly defined set of criteria that was used to determine that one system performed better than another system were based more on speculation that real science.

3. The robust modulation system does not satisfactorily achieve the goals set by the T3/S9 committee, specifically as it relates to improved reception of the main 8-VSB signal. No statistical evidence was provided as to whether or not the robust modulation improves reception of the main 8-VSB signal. This is a grievous shortcoming and distinctly contradicts the original goals.

4. To achieve improved reception over the incumbent modulation system a large number of bits are re-purposed in a manner that reduces the effective payload. This means that inefficiency is introduced to the system and that less information will be conveyed to a receiver. The trade-offs required to gain a few dB in reception coverage over payload efficiency is unsatisfactory. In fact, the whole payload has to be utilized for robust modulation to obtain the advertised 6 dB gain.

5. Although some indication of how the robust modulation could be used as a "fallback service" has been provided, a viable end-to-end solution has not been provided. There are many uncertainties regarding transport layers, timing, and synchrony. Additionally, other possible applications for robust modulation have been mentioned and this situation creates uncertainty and therefore it is premature to adopt an alternate modulation scheme.

6. Any attempt to improve or change the current ATSC system will be viewed by consumers an indication that DTV is not a viable system and that not worth the investment. Adoption of the robust modulation system, therefore, will have a destabilizing effect upon the DTV transition.

7. If this hierarchical mode enhancement to the 8-VSB is included in the ATSC standard, including a further enhancement becomes much more difficult. This is because to use the second method requires backwards compatibility with both original legacy receivers and those supporting the first enhancement. It seems likely that new approaches to improved reception will be discovered and developed, and the deployment of the proposed EVSB enhancement would severely constrain further innovation in this area.