As an amateur radio operator, I am very concerned that broadband power line data transmission will not adequately protect AM broadcast, HF and VHF amateur and short-wave listening spectrum.

Yet, BPL has not been dicussed in any form that guarantees no emission in sensitive spectrum. Instead, I must assume that BPL will employ techniques such as time domain multiple access with quick rise time pulses for modulation (such as M-ary phase shift keying, BPSK, QPSK, QAM). These techniques generate broadband Sinc (x)-like spectrums that will unavoidably generate significant noise spectrums, including amateur and shortwave bands.

Also, it is a gross simplification to assume that power lines will act as transmission lines with all energy confined in the near-field; obviously, the discontinuous nature of power distribution hardware violates good transmission line principles. Inevitably, far-field radiation will occur. Furthermore, some short-wave listeners and amateur radio operators will be in the near-field of power lines (< 10 wavelengths), such that an open transmission line structure will still cause interference. No powerline is currently routed to insure placement farther than 10 wavelengths in the HF spectrum.

The only form of BPL that is acceptable in my view is a frequency multiplexing technique that "guard-bands" AM broadcast, HF and VHF amateur and short-wave bands. But, there is no indication from the BPL industry that it will confine methods to frequency multiplexing that protects noise sensitive service.

It seems to me that the commission has a much larger obligation to protect existing service, than to accomodate a new industry with nebulous technology. Our consumer communication infrastructure should continue to make use of closed media such as dedicated twisted pair copper, hybrid-fiber coax, and dedicated wireless spectrum.