**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | Power/Energy consumption paragraph for TG4r TGD | |
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| Re: | Power/Energy consumption paragraph for TG4r TGD | |
| Abstract | This is suggestion for the paragraph of the TG4r TDG dealing with power and energy consumption. | |
| Purpose | This document provides a discussion basis for the TG4r TGD paragraph. | |
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**Power and Energy consumption**

Proposals should discuss power and energy consumption. With most ranging systems being battery powered, these considerations may play an important role.

Power consumption is mainly dependent on PHY related parameters such as desired range, type of modulation and on implementation approaches.

While implementation is not part of the standard, different approaches might enable different implementations.

Energy consumption also takes into account higher layer behavior. This may include the rate at which frames have to be sent to achieve the desired ranging results. Overhead in headers and synchronization, as well as network management contribute to energy consumption amongst others.

Proposals are encouraged to show which of their mechanisms consume more or less power and energy than comparable approaches. If power and energy consumption scales with different possible settings within a proposal, rough estimates should be given of the expected influence on power and energy consumption.