

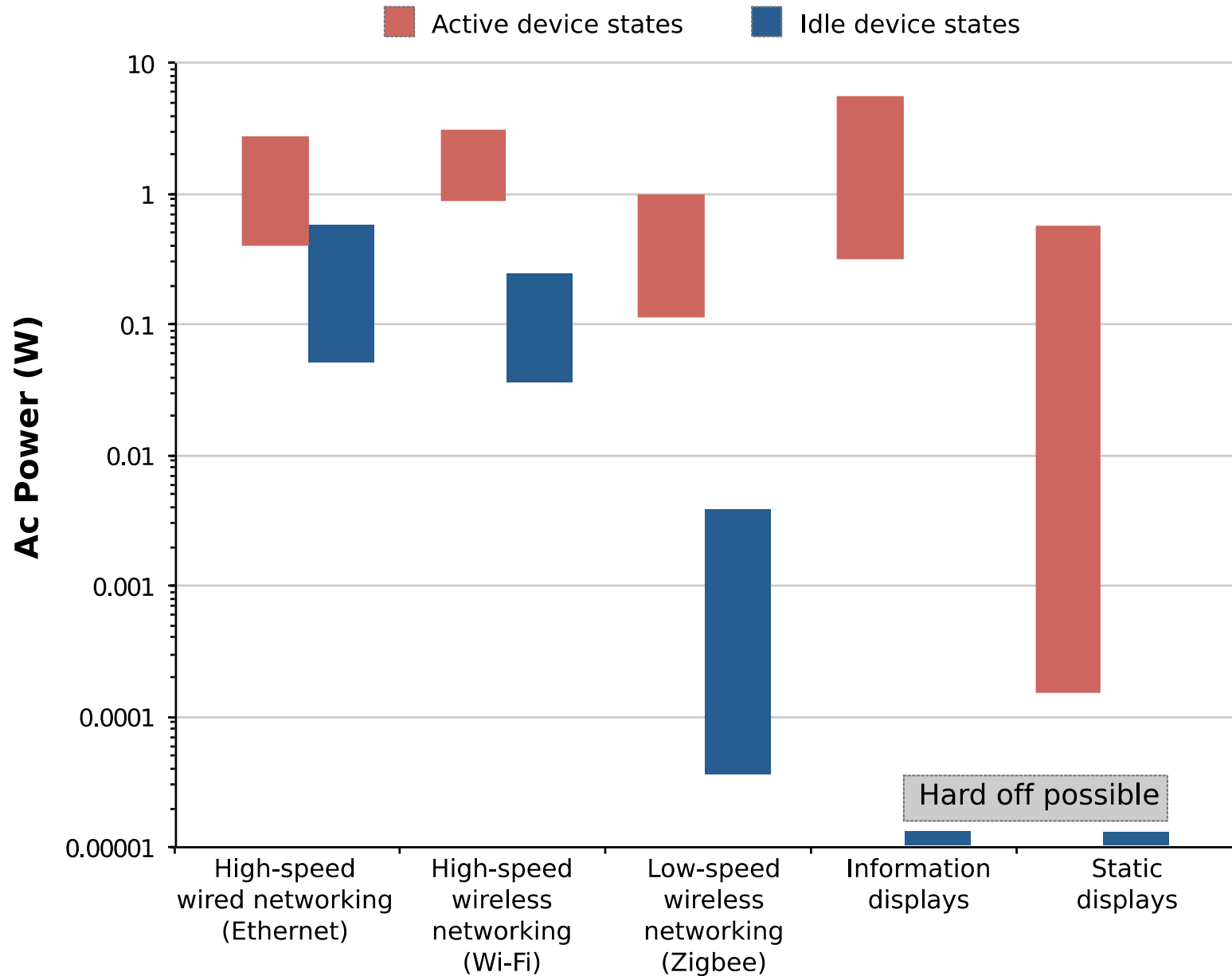
# POWER REQUIREMENTS FOR FUNCTIONS

**IEA/4E/SEAD Network Standby Workshop  
16 September 2013**

Suzanne Foster Porter  
Ecova

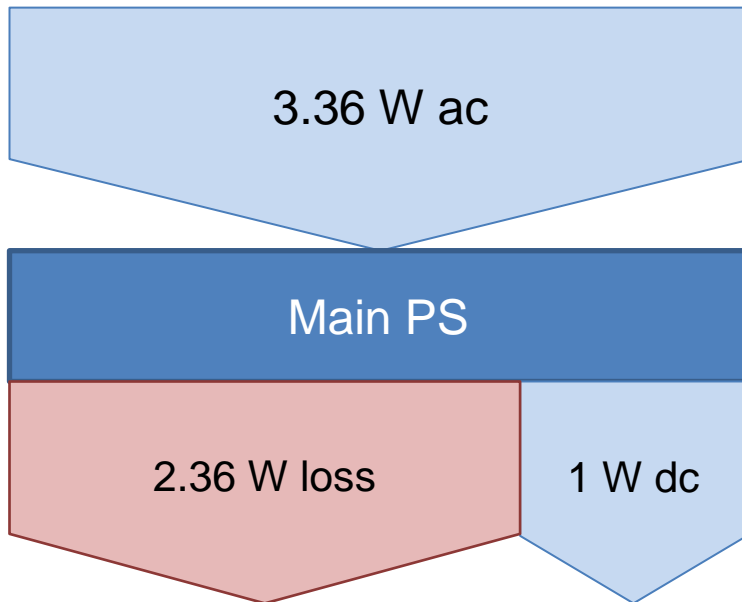


# Power Range for Secondary Functions in Active and Idle Device States



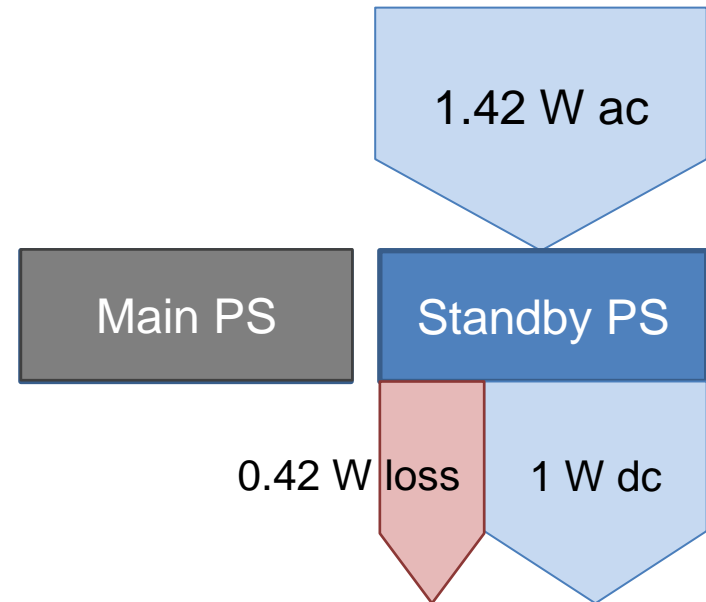
# Standby Power Supply Design Still Crucial

## Single Power Supply Design



Secondary functions

## Dedicated Standby Power Supply

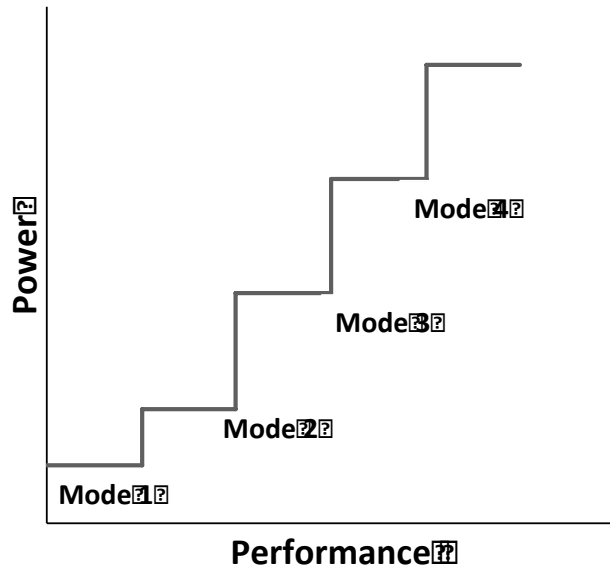


Secondary functions

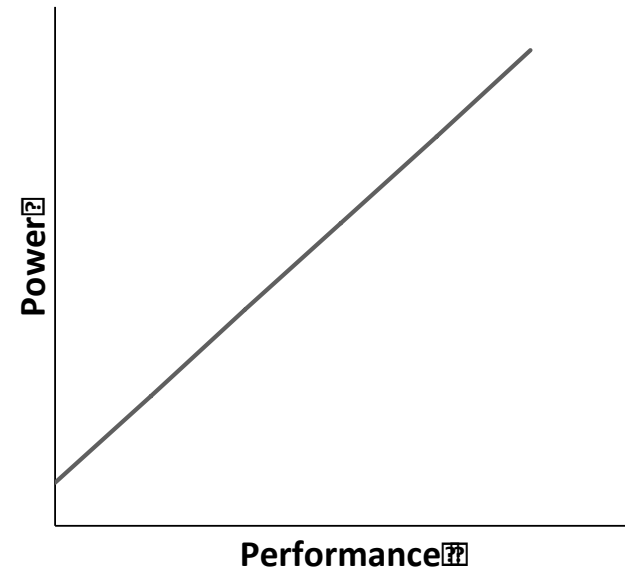
- PS design can have larger impact than all secondary functions *combined*
- Still the main “multiplier” on all standby power and secondary functions

# Advancing Power Management

## Power Management



## Power Scaling



Minutes

Milliseconds

# Horizontal Policy as a Foundation for Standby Targets

Refrigerator

Computer

Stereo

Vertical Policy

Primary Functions		
Cooling	Processing	Playing Music
Application-Specific Secondary Functions		
Processing & control	Processing & control	Processing & control
Horizontal Secondary Functions (e.g., Networking, Displays, Sensors)		

Horizontal Policy