

# E-impact Interim meeting

Day 1 : Existing Drafts

# Note Well

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

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Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

- [BCP 9](#) (Internet Standards Process)
- [BCP 25](#) (Working Group processes)
- [BCP 25](#) (Anti-Harassment Procedures)
- [BCP 54](#) (Code of Conduct)
- [BCP 78](#) (Copyright)
- [BCP 79](#) (Patents, Participation)
- <https://www.ietf.org/privacy-policy/>(Privacy Policy)



# Agenda

- Administrivia (10 minutes)
- Map/survey of existing drafts (Alex) (30 minutes)
- Sustainability Insights & POWEFF (Jan/Marisol) (30 minutes)
- Power Management YANG (Ron/Tony) (20 minutes)
- Sustainability considerations (Ali/Carlos) (30 minutes)
- ICMP Environmental Impact extensions (Carlos) (10 minutes)
- Gap Analysis (Chairs/All) (30 minutes)
- Open Mic (20 minutes)

# IAB E-Impact Program

- Mainly a discussion and co-ordination forum
- Bring up and discuss work not immediately ready for engineering/research
- Identify topics ready for engineering/research and dispatch and potential venues
- Identifying gaps of work that needs to be done
- Possibility to publish IAB stream document(s) concerning high level architectural guidance

# Gap Analysis

- Are we collecting the right metrics
- What do we do with the collected metrics?
  - How do we influence routing, duty cycling, gear replacement etc.
- What are the hard problems that require further research?
- Is there work missing a proper venue?

# Some potential guidelines for further work

- **Idle, sleep, etc. are not binary concepts**
  - Real implementations come in very different variants, levels, dynamic adjustment, etc.
  - Shutting down a router vs. sleeping a CPU vs. fine-tuning clock frequency
  - Turning off a link vs. turning off wireless power amplifiers except when there's traffic vs. turning off redundant capacity (parallel link, pico-cell) when traffic is slower
  - Big difference between stopping traffic vs. impacting traffic vs. not impacting traffic
  - Big difference between things that are very slow (spinning up a fiber connection) and microsecond-level changes
  - Avoid hardcoding too rigid concepts into our protocols and metrics
- **Perfect is the enemy of the good**
  - Maybe address intra-domain first before tackling global issues (see below)
- **Information sharing across administrative boundaries is challenging**
  - Can you trust power, carbon intensity, etc. information? Why? How?
  - Needs work! (But don't let that delay things you can do today)