

# Session 1:

# ***Terminology and Calculation Methods***

Why standardization is important

- Even commonly used terms, such as energy efficiency, have multiple definitions depending on the point of view- NWIP for terminology a good idea- liaise with existing TCs and PCs
- Variability of metrics and testing is a global problem, lack of standardization can lead to a focus on the wrong metrics (example: focusing solely on the energy efficiency of a chilling process, without regard to the carbon footprint of the energy source)
- Aggregate indicators used for developing global scenarios and cross-country comparisons can be misleading if specific national circumstances aren't fully factored into results.
- Both horizontal and vertical alignment of terminology is needed
  - Horizontal core terms (primary energy, secondary energy, final energy, energy efficiency, energy management, energy performance, etc)
  - Vertical terms apply to all sectors (electricity, gas, heat & steam, renewables, oil, biofuels)
    - Goal: consistency between sectors, specifics within sectors, useable by all
- Best practices on M&V and evaluation methodologies need to be shared

# ***Industrial Systems***

- There is a significant opportunity for energy efficiency improvement in industrial systems
  - Lack of measurement = lack of awareness
  - Limited number of individuals with technical skills and training
- Benchmarking of energy intensive sectors impeded by limited data and lack of standardization in reporting
- However, if these sectors can be engaged in a manner that protects data, benchmarks can be established for these sectors
- Work on system assessment standards already underway in the US, initiated within ISO

# ***Energy Management***

- ISO 50001- energy management will require top management commitment
- There is a need for an industrial energy efficiency portfolio within ISO
  - At the supporting system level
  - At the process level
  - To define the technical assistance skill set
  - To deal with M&V issues
- There is already a great deal of activity taking place at the national and regional level in these areas, so coordination beyond ISO/IEC is needed

# ***Power Generation***

Work on product standards is useful, however,

- For both generation and T&D, the complexity of these systems create significant variations in the reporting and representation of operational efficiency based on local conditions (fuel type, ambient conditions, type of cleaning, type of cooling)
- Developing standards for future generation facilities based on integrated gasification combined cycle (IGCC) and carbon capture and storage (CCS) and transmission (distributed generation) will be even more complex
- Progress toward better standardization of reporting will require substantial further analysis and negotiation (example HHV vs LHV)