# RE Thermal Energy

Metering Methods and Options
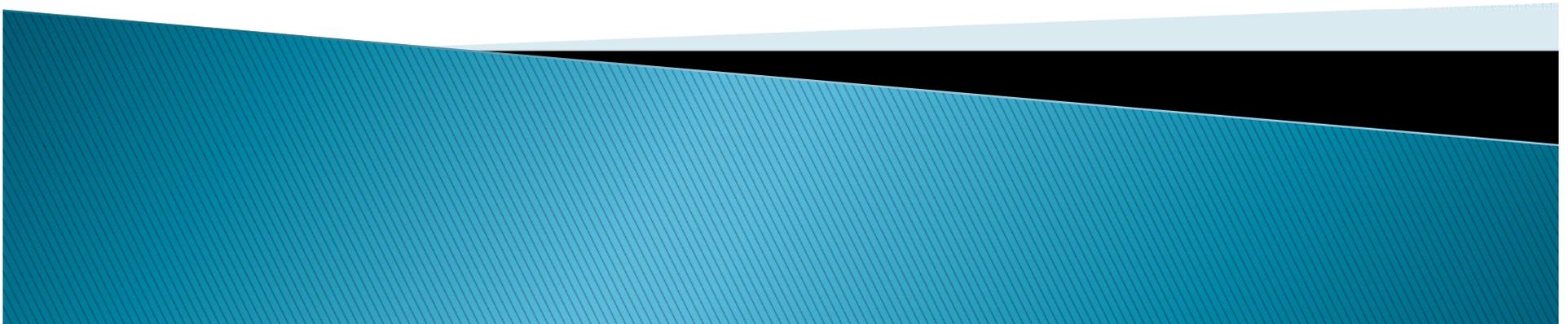
# Thermal Metering Protocol Design

- Eligible Technologies/Loads
  - Water Heating, Space Heating and Cooling, High Temperature Process HW & Steam
  - Solar Thermal, Geothermal Sources unrestricted
  - Biomass Thermal sources with air emission restrictions
- Applications not included in initial program (metering, measurement or resource issues)
  - Pool heating
  - Residential wood stoves
  - Passive solar
  - Transpired collectors
  - Geothermal steam plants

# Thermal Metering Design Principles

- Consistency in technology treatment: clear boundary for thermal energy measurement comparable to Electric RPS – delivery to distribution
- Accuracy: accurate continuous metering of the actual useful thermal energy
- Account for non-metered energy losses, and auxiliary energy use:
  - Analogous to the electric RPS standard for measurement of net useful energy production – deduct parasitic power used in production
  - Auxiliary non-renewable energy used to supplement the renewable thermal energy produced to meet the energy load should be excluded.
  - No double counting of RECs for thermal energy used to produce power that earns RECs in NH RPS.
- Simplicity: Transparent and straightforward to implement – onerous and expensive measurement protocols are not desired

# Implementation

- Solar Thermal
  - Continuous metering of collector loop
  - Deductions for collector loop pumping power and solar share of storage losses
- Geothermal Heat Pumps
  - Continuous metering of the ground "loop" (open of closed)
  - Deductions for ground loop pumping power and geo share of compressor motor energy losses
- Biomass Thermal
  - Continuous metering of boiler "loop" – feedwater in and steam out
  - Deductions for station energy use
  - Methods for cofiring also established