Energy Efficiency Now

Plenary Talk

Purpose of a White Paper?

- Record collective recommendations for future reference
- Share statistical key findings of all 1200+ audits
- Compare audit results and perspectives
- Summarize common issues and recommendations
- Discuss lessons learned so mistakes are not repeated
- Illustrate issues with case studies
- Provide statistical basis for taking action

Potential Users of White Paper

- Building owners and operators
- Building designers
- AHFC
- Statewide policy makers

Building Statistics

- Candidate buildings from all areas of the state by ANCSA regions
- Only publically owned buildings were eligible for audits
- 1,200 buildings got energy benchmark studies performed
- 327 Investment Grade Audits (IGA) performed
- 13.7 million SF were audited
- Average building is 33 years old, schools are 35 years old
- Average building area is 41,864 SF

Audit Statistics

- $49 million/year spent on energy
- Energy Use Index (EUI) ranges 33,000 BTU/SF to 1.97 million BTU/SF
- EUI average is 149,372 BTU/SF
- Energy cost index (ECI) ranges $.68/SF to $32.96/SF: $4.45/SF Av
- Average project energy savings is $25k/year, $125 million in total
- Energy cost ranges from $.08/kWh to $.80/kWh
- Energy cost per student varies from $190/student/yr to 16k/student/yr

Auditor Statistics

- AHFC selected 4 Technical Service Providers (TSP) based on qualifications
- TSPs all had opportunity to provide fee proposals geographic areas of Ak
- Auditors must be Certified Energy Auditors (CEA) and/or Certified Energy Managers (CEM)
- TSPs met frequently in order to normalize the product and share findings

Cold Climate Housing Research Center

- Set up database repository for all benchmarking
- Performed statistical analysis on data
- Developed graphics to illustrate findings
- CCHRC continues to build on data provided

Top 5 Recommendations from RSA

- Upgrade lighting and lighting controls
- Install setback thermostats (WiFi if no DDC)
- Provide headbolt heater controls
- Demand control ventilation (CO2 sensors)
- Upgrade HVAC controls