



Meeting Minutes

5 May 2016

Boulder Valley Schools

6500 Arapahoe, Boulder CO 80303

Attendees: Ghita Carroll (BVSD), Celeste Cizik and Matt Cooper (Group 14), Hal Corin (Jeffco), Kathy Croasdale (Renew Our Schools), Brett Dowgin (Thompson R2-J), Jim Faes (DPS), Derel Leedy (DPS), Ron Lee (District 49), Brad Leitner (Littleton), Jeff Medwetz (BVSD), Dana Neidhardt (District 49), Shannon Oliver (Adams 12), Brad Queen (Cube Resources), Matthew Robinson (Colorado Energy Office), Phil Saieg (McKinstry), Ben Teeples (Regis Jesuit High School), Trudy Trimbath (Poudre), Dara Ward (St. Vrain Valley) LeeAnn Westfall & Alma (DCSD), Craig Wright (Aurora), Romas Zableckas (Weld County)

10:10 – 11:10 Improving School Performance with Monitoring Based Commissioning - Celeste Cizik and Matt Cooper (Group 14 Engineering)

Notes:

- In most cases, implementation is eligible for Xcel rebate covering up to 30% installed cost.
- Variety of suggested trending applications from simple to advanced monitoring:
 - Trending pulse output from utility meter. (Xcel install free if service > 500kW, otherwise \$875.)
 - Bot Stick, small adhesive stick on instruments for monitoring individual circuits.
 - Various Software as a Service (SAAS) cloud based offerings available

- Skyspark – Licensed on a per point basis. Group 14 subleases points to monitor.
- Data Pump from Ink Spring – For each building, a centrally located data aggregation console, which compiles data for ease of operator interpretation. (Much less threatening to IT when IP enabled devices push data out to cloud versus pull from external sourced command.)

11:20 – 12:30 CASDEM Business

Notes:

- Cold weather practices.
 - Dara Ward willing to head up collaboration to put a CASDEM worthy statement in place, to give more validity to adopting more efficient district practices.
 - Collectively agreed that using DPS tech spec would likely be best approach with supporting language explaining the CASDEM brain-trust and philosophy behind the effort.
- DPS Report
 - Will be comparing consumption on two boilers serving nearly identical buildings to compare efficiency of new condensing boiler vs conventional
 - May 5th: Issuing RFP for transport gas
 - Provisions: full requirements, firm, daily, balancing out, CIG, summer/winter breakdown.
 - May 26: Proposals due
 - Selection likely in June
- Transport Gas Discussion:
 - Follow up to Jim’s mention of RFP, several voiced opinions of their need for training that focused less on gas trends and fluctuations, and more on terminology.
 - Quick Tips:
 - Beware of supply costs and verify that provisions cover:
 - Delivery to city gate

- “No additional supply costs”
 - “no daily balancing”
- Transport Gas Discussion:
 - Follow up to Jim’s mention of RFP, several voiced opinions of their need for training that focused less on gas trends and fluctuations, and more on actual terms and conditions, terminology, and perhaps using the DPS RFP as an example.
- Open Discussion – Introducing new energy managers to the group:
 - Mentoring
 - Shadowing experienced energy managers
 - Outreach (Ghita Carroll recommended making phone calls welcoming new members)
 - Summer retreat (During which, LeeAnn suggested each district could give a 5 minute presentation.)
 - Distribute phone list
- Upcoming CASDEM Meeting Dates
 - Sep 1, 2016 – Douglas County
 - Nov 3, 2016 – Thompson R2-J
 - Jan 5, 2017 – St. Vrain
 - Mar 2, 2017 – Jeffco
 - May 6, 2017 – Poudre Valley

12:30 – 1:45 BVSD Developments – Jeff Medwetz (BVSD) & Phil Saieg (McKinstry)

Notes:

- ONE District/one goal:
 - 2050 – Zero net energy capable
 - Defined as all buildings ≤ 30 kBtu/ft² EUI, at which point all energy consumption can reasonably be supplied via renewables
 - Per Phil Saieg, focus first on energy efficiency, then renewables.
 - As an aside, Brad Queen indicated referencing a study out of CU that it’s also important to consider utilization efficiency alongside EUI.

- 3 Types of Energy Projects
 - New schools – Zero net energy capable
 - Existing schools – Deep retrofits
 - Existing schools – Renovation & Recommissioning
- 5 Energy consultants (among them....)
 - Iconergy
 - McKinstry
 - PCD Engineering
- Integrated design selection criteria for project scope dependent on several factors (among them....), with primary emphasis on future proofing schools
 - Lowest first costs (tie breaker should one arise)
 - Constructability
 - Architectural impact
 - EUI
 - Maintainability
 - Operating costs
 - Indoor environmental quality
- General concept behind integrated design, is to eliminate as many surprises as possible as well as the potential of redesign and/or change orders
 - Per Phil Saieg, although integrative design and developing modeled energy use following such approach may not be easy, eventually the actual energy consumption typically more closely reflect models than traditional approach.

12:30 – 1:45 CASDEM Elections

- **Craig Wright – Chairperson, elected to second term**
 - Duties include:
 - Setting agendas for each meeting
 - Selecting (with input from others) and inviting guest speakers
 - Leading meetings
 - Organizing meal/catering logistics

- **LeeAnn Westfall – Vice Chair, elected via ballot vote between Brett Dowgin and Hal Corin**
 - Duties include:
 - General member outreach
 - Colorado Energy Office – Energy Savings for Schools Leadership Council collaboration
 - Oversee communications on ESS Forum blog, and capture trending subjects for discussion at future meetings
 - Leading meetings in Chairperson’s absence
- **Brett Dowgin – Elected as Secretary**
 - Duties include:
 - Taking attendance
 - Capturing and distributing meeting minutes
- **Duties needing assignment**
 - Maintain CASDEM website:
 - Post meeting and content updates
 - Collaborate with tech support (RL Martin) to make programming changes.
 - Conceptualize overall programming/formatting changes and capture in scope guidance
 - Outreach to Xcel for potential funding.