Minutes:
Sustainable Silicon Valley General Meeting
Friday, November 17, 2006
9:00 am – 10:30 am
SP Biopharma

Attending:

Steve Taffee	Castilleja School	John Pitcher	Sterling Planet
Zach Baumer	Malcolan Pirnie/ Presidio School of Mgmt.	Steve McDougal	3 Phases Energy
Eunice Barnett	Silicon Valley Environmental Partnership	John Tarlton	Tarlton Properties
Bill Henry	Energy Technology	Christine Kohl-Zaugg	EORM
Joe Rois	SSV and Sustainable San Mateo County	Robert Cormia	Foothill DeAnza College District
Dave Shroyer	Network Appliance	Steve Mello	SP Biopharma
Steve Attinger	Acterra	Ben Mehta	QuEST
Rich Hilt	Brightline energy	Lori Duvall	Sun
Chris Brey	CV Therapeutics	Adraine Gardner	PG&E
Lee French	SP Biopharma	Melinda Hamilton	City of Sunnyvale
Greg Chambers	Sterling Planet	Sally Tomlinson	SSV

We were welcomed by **Dr. John Curnutte**, M.D., Ph.D., President of Schering-Plough Biopharma.

Welcome to newest partners: 7 new partners bring our total to 50! Welcome to Applied Materials, eBay, Minerva Consulting, Network Appliance, Our City Forest, Seagate Technology, and Tarlton Properties!

3 Phases Energy and Renewable Energy Certificates – Steve McDougal.
(415) 370-6487 smcdougal@3phases.com

3 Phases has 5 programs

- Green Direct – providing green energy to direct access customers
- Green Onsite – commercial solar installations
- Renewable Energy Certificates
- Utility Partnerships – Palo Alto Green is #1 such program in the country; Silicon Valley Power program is in top ten
- Carbon offsets – dairy manure as fuel, others not necessarily power generation (trees)

Partners of 3 Phases include Wells Fargo, Starbucks, Earthbound Farms, Phillips, Liz Claiborne, Toyota, Adobe, and many more.

Renewable energy options

- Onsite
    - First, decrease consumption
    - Then look at onsite generation

- Offsite
    - Utility program – available now with Palo Alto and Silicon Valley Power; coming soon to PG&E
    - Renewable energy certificates – available to anyone; purchaser is investing in the generation of green energy (usually wind) that is fed into grid, reducing the need for "dirty" energy
    - Solar PVA – client hosts the system and gets discounted electricity rate, while 3rd party investment group puts up the money and owns the system

Green E is the independent organization that certifies green energy, just as organic foods are certified.

Discussion: If you reduce CO_2 through a green utility program or Renewable Energy Certificates or Carbon Offsets, does that count towards your CO_2 reduction goals?

- If you are making claims towards Kyoto goals, those reductions must be in usage, not through offsets.
- If you state your reduction claims in terms of being carbon neutral or other non-Kyoto-specific goals, the offsets may be included.
- Sally note: Since the US is not bound by Kyoto, US companies are not required to measure by Kyoto standards (or any other standards). SSV partners state their goals in many ways, and some include renewable energy certificates and utility-provided green power in their calculations.

Bill Henry – Chiller Plant Optimizer
(408) 629-9953 william.henry@sbcglobal.net

Bill has developed a device that provides Condenser Water Reset and Cooling Tower relief.

- Results in decrease of energy use by 10-25%.
- Is a coordination technology between cooling towers and condenser water pump and chiller
- Currently installed in two 400-ton chillers and showing significant decrease in kW/ton for the chiller plants
- Bill is looking for more beta installation sites.

Steve Mello – Schering Plough Biopharma CO_2 reduction goals, experience, and plans
(650) 496-1203 steven.mello@spcorp.com

Schering Plough globally energy use has gone up 10% but their energy bills have gone up 80%.
Goal: 5% decrease in CO_2 below 2002 by 2012.
Want to achieve this mostly with energy efficiency.

Problems identified:

- Decentralized purchasing of energy
- Decentralized evaluation of energy usage
- Decentralized evaluation of efficiency measures
- Have focused on optimizing supply rather than decreasing consumption
- As building owner, often cut costs that end up increasing energy use

- Utilities are only about 4% of the total expenses of the company, so it often doesn't get a lot of attention.

Solutions, in order of implementation
- Make energy use more visible – have installed monitors
- Establish baselines and benchmark
- Looking for opportunities to save
- Looking for funding for projects
- Will do low-cost and no-cost first – retro-and re-commissioning
- Then invest in capitol improvements

Discoveries – found one building in New Jersey that uses 10% of all their worldwide energy use
- Fume hoods were overproducing

Steps taken
- New Energy Director
- Joined US EPA Energy Star program
- Purchase 900 MWh/year of Palo Alto green electricity
- Conducted energy audits

Have saved 20% in CO_2 since 1999.

Ben Mehta – SVLG/SSV Energy Watch Partnership with PG&E
(408) 396-6240 bmehta@quest-world.com

$6.4 million set aside to be used over 2 years (with possibility of more funding if it is used up on successful projects before 2 years) for
- Energy efficiency retrofits
- Retro-commissioning

Partnership goals
- 25.5 million kWh savings
- 74,000 therms savings
- 4 MW peak demand reduction

Management team
- SVLG – contractual, financial management
- SSV – climate action plans, training and education
- QuEST – technical audits and monitoring-based commissioning measurements
- PG&E – application review, approval and contracts

Eligibility
- SSV partner or SVLG member
- PG&E customer
- Will sign contract with PG&E
- No double dipping with other PG&E incentive programs

- Customer must contribute 20% minimum
- Must be implemented no later than 2008
- Cap of $1million/customer

Incentives

- $1/therm = 25% better than PG&E regular incentive
- 10cents/kWh lighting = 100% better than PG&E regular incentive
- 17cents/kWh all other = 20-100% better than PG&E regular incentive
- Cover 80% of retrofit costs
- Cover 100% of monitoring-based retro-commissioning costs for projects meeting PG&E standards

Most buildings need regular tune ups, just like cars

- Gap between how EMS controls were designed and how the building use has changed over time
- Many buildings are heating and cooling at the same time

QuEST had 2004-2005 program with PG&E

- Saved 18.7 million kWh and 273,000 therms
- Most projects had payback within one year

Monitoring-based Commissioning MBCx

- Problem with making commissioning savings permanent
- MBCx designed to maintain efficient operation
    - Tells how use is changing
    - Tells what is going wrong
    - Maintains the comfort of the building
    - Demonstrated effective at UC Berkeley
- Subset of SVLG/SSV EWP set aside for MBCx

Next meeting Friday, December 15, location to be determined. Check SSV website for details and directions: www.SustainableSiliconValley.org

These minutes are submitted by Sally Tomlinson.