Drew O'Bryan

Break out notes:

- What can iSEE do?
 - Spread awareness of how dire the situation is
 - Football cannon to sound
 - "moment of silence" weekly or monthly
 - Earth hour
 - <u>Community</u> awareness
- Incentives for conservation
 - Sustainability needs to be cost effective
 - Infrastructure needs to be modernized
 - Energy records for buildings need to be made public (ex: Chicag, New York)
- Community needs to be "seared" over their emissions, sustainability
 - Restaurants have to post health/sanitary records, why not energy?
 - But... we need to keep with reinforcement as well
- "what will CU look like in 2030" visioning
 - Energy focused visioning on energy infrastructure
 - Could be branded well on social media for awareness
- Optimistic approach to dire situation
 - o Community education on state of things and improvement options
- Community base to handle resources for simple fixes
- Energy records increase ome value after energy upgrades
- Awareness leads to people <u>caring</u> about energy concerns
 - Placing intanglible value on sustainability
 - Returns on investment are only part of a long term solution
- Sustainability and energy efficiency is an advertisement for a business if community is passionate
- iSEE is the face of the university's community engagement in sustainability

- o should be about education and pride
 - not "sport" mentality
- "community" not individual commitments
 - "a true illini"
- Carbon taxation
- Energy efficiency
 - Innovation, entrepreneurship
 - Not just 50 people in a room...
 - Requires community engagement
 - Requires new ideas
 - Result from responding to penalties

Nishant Makhijani

Community Conservation Energy Conservation

- Deb Jacobson
- Tina Associate planner city of champaign
- Susan Tulson Credit Union
- Morgan Johnston
- Prof. Erica Myers energy efficiency economics

Notes

- It would be great to have a list of resources matched with a list of who talk to because it seems intimidating to have a list of resources and not include information about contact info.
- Morgan mentioned that the campus doesn't want to duplicate efforts so it's important to have a cohesive message.
- Prof. Myers shared that there seems to be an understanding between the economist community that the projected savings from energy efficiency project might not match with what people are actually paying. This could be for the following reasons:
 - Market Failures
 - Low information
 - Engineering estimates are not really close to actual energy costs
 - Small businesses depend on their peers/bigger companies to take the first step and wait to see if/when the leaders will do it and they may follow 5-6 years later.
- Susan shared that she spent \$2,500 for the act on energy plan's recommendations to increase insulation, but it may not have given her the same cost savings as projected
- Consumer confidence is not very high
 - o Reasons:

- It's time consuming for businesses to figure out what needs to be done.
- The other reason might be the concept of Leaders vs. Laggards
 - We need to do more research about it
- We also had a short conversation about federal subsidies about energy efficient appliances
- Ameren will provide financing assistance
 - Ameren sends an evaluator to see how buildings are performing
- We need to build a connection between research and market place experience
- Economists find it hard to build that connection because Clean Energy Act focus on energy efficiency but the benefits are not so much
 - \circ $\:$ It may be better to focus on carbon emissions instead of payback period
- Electric companies are mandated to reduce their energy savings across the board and they are all based on estimates/projections and not actual results
 - They don't look at actual energy usage data but base it off of projections and they don't want to do know how they can improve because they know they are not meeting the standards and are happy with only meeting the standards based off of the projections and not the actual energy use
 - Energy companies don't want to engage economists because the projections they are using are wrong and don't want to spend more resources to make an actual difference
- What can U of I be doing?
 - Energy Star Challenge
- It takes time to do community engagement
- Usually a program should get three years to see if it is successful
 - First year you do outreach and some people will learn about the project, second year you reevaluate your procedures and some more people will learn about it, third year you will get more attention and participation because people know/have heard about the project.
 - You need to let a project takes its time even if you have high expectations.
 - Projects build on successes and to make a change you need to make a sustained and calculated effort.
 - Learning Competency Theory
 - Illinois Green Office Challenge Deb mentioned that it will be more beneficial to measure success of a program in terms of CO2 emissions reductions and estimated payback period instead of participation. But it's important to find out if the estimated payback period takes into account how much staff time it takes to run and execute a project.
 - Solution: Baseline and metrics of change. It is important to have an understanding of what the metrics mean, and normalizing metrics is also very important.
 - It's important to focus to have continuous improvement.
- University could adopt the program from City of Champaign's program Small Business Development Center. Contact person Dawn Elmor
 - **ISEE could hire a person who can connect the community members to existing resources** and act as a clearing house for business to get engaged in energy efficiency and larger picture sustainability initiative.
 - This person would be a one stop shop who has access to a network of people and resources and knows everything about energy efficiency.
- Green Impact Campaign
 - It would be successful because it's good PR for a business to have students working with them.
 - It's a good start to get the conversation started
 - Note: It is important to make sure the program is focused on the local cu community instead of the national resource focus
 - A great potential partner to recruit would be ambucs and other smaller organizations that meet at 6am meetings instead of chamber of commerce etc.

Monica Chhatwani <u>Community Conversation on Energy Conservation Meeting, Oct 20, 2015</u>

Members on the Table: Madhu Khanna (iSEE), Marya Ryan (OneEarth Consulting), Kathleen Moreno (representing Kelly Jo Lamb), Jenny Kokini (iSEE), Arlene Vespa (Unit 4 Schools)

Kathleen Moreno (representing Kelly Jo Lamb):

Owns a small catering business - Food court within Lincoln mall

- Reason to attend this is to find ways to enhance sustainability of the small business & know about incentives. Kelly is active in sustainability efforts purchasing from organic farmer
- Had heard about Illinois Business Ventures: Business major consulting services to the community
- Aims to make the contacts and find financial assistance
- Marya mentioned IGBA Illinois Green Business Association
- Assistance with evaluating different areas of implementing sustainability

Arlene Vespa (Unit 4 Schools)

- SEDAC did assessments for their existing buildings.
- Grant funding for installation of solar panels
- Incentives with geo-thermal
- Renovation projects identify sustainable initiatives –bid alternates
- Booker T Washington installing solar hot water system one of the first
- BID process (question by Marya) RFP highlight the life cycle cost to justify the cost
- Example: Renovations using recycled content tile as the material, marmoleum floors
- Perception of 'cleanliness' users perceived only waxed shiny floors as clean, so education is required for perception adjustment
- University building vs elementary building looking at material choices

Madhu – tradeoffs between operational costs and fixed capital costs to make sustainable choices more viable

- Grants for projects DCEO, Ameren, Illinois Clean energy community foundation (for LEED certified)
- They have a Grant writer for funding purposes
- Rebates for energy conservation
- Recently hired a company for reducing energy use making adjustments to current systems
- Boiler to geo-thermal setback of temperature geothermal doesn't adjust that well takes more time to catch up. Learning curve with usage of these systems
- Schools with geo-thermal: 7/20 schools 100% geothermal, did window replacement and geothermal simultaneously

Jenny - comparison of progress between districts for sustainability related work?

Arlene: Learning curve with maintenance of these systems for annual maintenance & efficient

- Shortage of staff for maintenance & updates
- Trees & plantations school courtyards Maintaining plants is something they have had issues with, also native plantings are not always the most aesthetically pleasing for lot of people (perception)

Future action items for schools:

- Adding LEDs
- They have occupancy sensors for daylighting, low flow fixtures in new buildings
- Designers must consider endOusers functions besides energy efficiency

Madhu: Tracking carbon credits for possibility of financial benefits

- The investments can be used as incentives
- Deploy Software to track emissions

Arlene: Maintenance tracking - work order systems - challenges for data tracking in school systems

Madhu: Sustainability minor – launching next year at the university

- Working with local organizations and helping with such projects in the community
- Business case for sustainability

Stephanie Lage

Comm. Conversation Notes

Disseminate information

Educate people – people aren't aware of incentives even small steps count – even just lighting changes

Challenge is time and staff; one person can come here and then share it back with rest of employees

Freezers, refridgerators, and computers - take much more electricity

Staff culture – turn things off

Motion sensors automation take away personal responsibility

There are incentive programs for compressors

Maintenance of equipment – proactively to keep them running efficiently

Time and staff for workflow, habit expectations

Energy conservation – a little more abstract

in Common Ground – composting; recycling more tangible

different parts of the country require different actions...

each region has strengths and weaknesses

people understand the dollar impact

MTD – challenge to include Drivers in initiatives

Sustainability Committee and Core Team that works on ISO

Encourage work habits

Not many orgs have staff dedicated to the issues

Publicity for accomplishments

Orientation is important for new employees / new studentsCustomer expectation - is really importantFood prep and retail make it more complicatedU-C Energy Star ChallengeGreen Impact Champaign - would you feel like this would be a good idea would people be comfortableIt's good PRTown Gown relationship is important for the communityAMBUCS, Rotary, KiwanisOther business groups...Ministerial associationDenominational groupsRealtors

Notes from Community Conversation for Energy Conservation

October 20, 2015

Generally miscommunication on programs offered to small business owners.

- Lightbulb rebate show to apply to this, where to find this on websites
- energy efficiency scores
- financial aid who qualifies, differences in applying when nonprofit or forprofit business
- auditing
- Differences in energy savings for walk in coolers

Lighting issues

- Temperature
- Strength/harshness of lighting
- wattage
- Price of bulbs
- Biggest issue was lighting, it accounts for about 20 percent of a the Iron Post's budget.

He was glad to see that there are programs that he can use to lower the cost, given how important lighting can be in a bar setting.

Another issue was that the language in some programs were text heavy and made it difficult for some owners to understand whether or not they qualified for these programs.

A lot of the programs offered are often unused because no one is applying for them.

If students were allowed to help in sustainability or energy audits, this could negatively impact the job industry for this type of work. Also, concerns over how trained and knowledgeable the students are in the field.

Kathleen Moreno - guest

This was so beneficial!!! Several speakers (City of Urbana--Scott Tess; MTD--grant manager, Jane Sullivan; John O'Brien--AMeren IL; OneEarth Consulting, INC.--Marya Ryan; and Rod Rhoads--Energy Advisor over C-U (Ameren IL))

I wanted to jot my notes down in some semblance of order so it would be helpful to you.

Your first step should be to contact and apply to SEDAC (Illinois Smart Energy Design Assistance Center) http://smartenergy.arch.uiuc.edu/

As you can see from the website they cover all aspects of assitance (financial incentives; design assessments; energy efficiency/sustainability)

Secondly, contact Ameren IL (there is a "State Rate Relief Bill"--savings through efficienct products (STEP) --try to "go beyond code" tends to have a longer payback period and longer life cycle and often times higher financial incentives.http://www.actonenergy.com/for-my-home/explore-incentives they have on-line applications; store on-line; how to videos; case studies and a listing of qualified contractors with 1-10 year paybacks--custom incentives. Rod Rhoads is an Energy Advisor e-mail rod rhoads@gdsassociates.com (217) 649-8897

http://www.actonenergy.com/for-my-business/explore-incentives

http://www.actonenergy.com/for-my-business/explore-incentives/retro-commissioning

Third--contact Scott Tess (City of Urbana http://www.urbanaillinois.us/sustainability) to sign up for the Certified Commercial Building Energy Star Challenge http://ucenergychallenge.com/

It is a program designed to drive continuous improvement (Benchmark; Track;Improve;Certify). He also mentioned Federal and State Tax credits.

Fourth--contact the U/I's Illinois Sustainability Technology Center-- http://www.istc.illinois.edu/

they talked primarily about Indoor Air Quality once you've replaced windows and added insulation for energy efficiency--check out their list of seminars! http://www.istc.illinois.edu/about/sustainability_seminars.cfm

contact is Deb Jacobson. They also mentioned a Building Automation System?

Reoccuring themes seemed to be:

Solar--rooftop mainly

Wind

LED lighting retrofitting

Geothermal heating and cooling (Unit 4 Champaign Schools were used as an example)--they also mentioned maintenance education for the heat pump units that go along with Geothermal.

Suggestions are that you do both geothermal and window conversion at the same time; install ceiling windows in hallways to reduce the need for lighting; MTD uses their bus waste oil to heat their buildings via Waste Oil Heaters--can you imagine??; when considering flooring options, make sure you consider the "high usage areas" (e.g. Unit 4 Champaign schools purchased energy efficient/sustainable flooring (cushioned surface--matte finish) however they didn't realize that the continuously moving tables and chairs would take their toll on the "shine" of the floor--kind of like peoples perception of recycled paper looking "dirty")---square footage flooring--usage paths---lifecycle for buyback.

The University just started a Minor in Sustainability so they would be willing to train their undergrads with software and tools to gauge the "Life Cycle Analysis" and the "Cost Benefit Analysis" that would then be used to determine your savings--I got the feeling that SEDAC might do the same thing (Unit 4 schools mentioned that SEDAC would come and gauge the usage/savings after they would complete the implementation of each assessment/improvement/conversion that was initially recommended at SEDAC's initial design suggestion.

Reporting out Notes from Stephanie

Metrics, need to track the benefits Small business development center One stop shop Building awareness Provide incentives – pubilc energy records Visioning and engaging Quality vs. quantity, i.e., lighting colors of different bulbs Perceptions – new flooring doesn't need waxing (at a school) Subject matters sometimes complicated Streamline communication process Customer expectations