

2008 02 28

Comment on 2008 02 22 **Preliminary DRAFT Climate Protection Action Plan v1.2**

succeeding taped, verbal comments presented at CSTCC 2008 02 25 – 18:30.

1.

Regarding **Advocacy**, recommendation: a fundamental theme guiding education and communication is: **connectedness**.

That is, the user must be perceptually connected to the energy one uses.

For example, while i love light and require some combination of light and magnification and reading glasses to see small things, i now look at light and i see, and smell: stinky, smoking, burning coal. We must connect the benefit of light to the perception of its source. In the darkest cold of winter, I have learned to be quite satisfied with only a single, 14w CFL. Smells better.

2.

Recommend: a new Section under **Emission Reduction Measures**, indexed on page 14:

Unified Network Communications

Briefly, the old, reliable Public Switched Telephone Network PSTN, is obsolete, both technically and economically. It is only optimum for voice; and depends on analog information transmission. The new technology depends entirely on transmission / communication of digital data (ones and zeros) in sets of standard packets by standard protocols based on the common Internet Protocol **IP** via copper, fiber and wireless methods.

Five primary senses comprise human perception: sight, sound, touch, taste, and smell.

While the latter three are important and subject to current limitations, not entirely insurmountable, we are currently fully accustomed to methods of communication conveying only sight and sound, commonly in the form of **video/audio**, embodied, for example in television communication.

Television, however is generally limited to uni-directional, broadcast communication.

The internet is increasingly reliable transmitting the same **video/audio** content bi-directionally, via **IP**, enabling two-way and multi-way communication. Further, this communication can be real-time, live communication. We refer to this latter as **telepresence**. Holographic (3D) real-time, transcontinental telepresence was recently demonstrated. It is possible to also convey even touch, taste, and smell.

Practically speaking, in 2008, **IP** video/audio communication is more affordable than PSTN communication. Thus, the business case for savings in operating expenses, including amortization of capital expenditures, dictates immediate adoption of unified communications **UC**. **Additional benefits include increased productivity by way of richer personal communication integrated with information communication (e.g. eMail, files, apps...) and management. VoiceMail is a line-item in the InBox.**

With regard to climate protection, conversion to **UC** increasingly obviates driving, for example to meetings. GHG emission reduction can be quantified based on gallons of fuel not burned, in addition to corresponding freer flow of fewer vehicles on the roads. Decreased congestion is commensurate with decreased emissions. Unlimited additional benefits become apparent.

For example, my attendance enjoyed at the Public Forum presenting this Draft at CSTCC required approximately 1 gallon of gas and 30 wasted minutes clogging the roads. While there, i was limited and committed to that singular focus, constrained from social interaction until the event adjourns. While i might have brought my notebook with wireless network, and might have found guest access to internet and investigate some of the marvelous ideas presented in this meeting, or automate my note-taking; that would have added minutes to my preparation and return to office and i would have felt more geeky and less sociable at the meeting. I enjoy live humans there at the meeting. Meetings are good! but at a cost!

On the other hand, with **UC**, the meeting could have been presented to an unlimited number of persons, expanding the group of common interests, the creative pool, including those unable or unwilling to pollute the air and climb the steps from Ludlow. Each telepresent attendee can be represented as a person and communicate on a parallel track with one another or with the group, without disrupting the presentation. Each attendee could process eMail or sit with child in the background, not disturbing the presentation. The presentation could be enriched with file-sharing and/or application-sharing, so that the interested attendee could be reading the draft pdf and investigating new ideas presented or triggered during the tele-meeting. Every opportunity for verbal communication is enabled, and the entire event is a storable result, facilitating subsequent learning and communication. So telepresence is also good, without subsidizing terrorism and destroying our Mother Earth. Actual cost is trivial in comparison.

3.

Recommend comprehensive study and report, under Energy Related Actions:

GeoThermal Energy

Cincinnati topography and climate is not broadly supportive of wind energy. It is somewhat supportive of solar energy, though limited to some extent by conflict with **trees**, which provide cooling shade in summer, saving the burning of coal, and also consume CO2.

In contrast, in the Cincinnati area, geothermal energy is universally abundant. To obtain geothermal energy, piping must be inserted, as deeply as practical, into the ground enabling a circuit of flow warming colder surface efflux by obtaining calories from the natural warmth of the earth interior. The barrier to implementation of geothermal energy is the expense of disruptive drilling required by heavy equipment to place the pipe loop into the earth.

One strategy that could be facilitated by government is defining or providing a utility or service, centralizing the drilling function, based on prudent industrial investments in conjunction with geotechnical data acquisition and permitting, achieving economies of scale and workflow, enabling per-site lower cost drilling in conjunction with installation of piping; followed by connections with geothermal HVAC equipment by appropriate professional contractors.

For example, a single deep well at a community location may provide a common resource serving multiple, proximal building units. The obvious analogy is a utility providing water mains connecting building units with laterals. Unlike the remote source of water, the geothermal source is in the vicinity. This is especially applicable to new building units, but also to retrofits.

4. **Recapture of Heat**

Another possible source of heat is industrial waste. Opportunities may be discovered to recapture wasted heat for use in winter heating buildings near the otherwise wasted, thermally elevated efflux. For example, one large, generally undesirable by-product of nuclear energy is extraordinary heat. Nuclear engineering should look for use of that heat as a part of site development. This is a variation of "co-generation".

With regard to LEED Green Construction and Plumbing:

The primary use of heated water in winter is showering. The conventional tub, when plugged, is an excellent container of the warmer rinse water, that captures the heat otherwise lost down the drain, and contributes to heating the residential unit, in addition to adding water vapor contributing to latent heat which then lowers the temperature necessary for comfort. Of course, in the summer, the drain is open, the heat is wasted, and exhaust of water vapor from the unit lowers the cost of cooling the interior.

Thank you for the opportunity to serve the community i love.

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