From:	Timothy DenHerder-Thomas
To:	Storm, Bill (COMM);
cc:	Timothy DenHerder-Thomas;
Subject:	Background research on technology options for Hiawatha Project alternatives
Date:	Thursday, March 17, 2011 7:58:40 PM
Attachments:	SUST PHILLIPS FINAL PROJECT.doc How to do EE at scale.pdf

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Dear Bill Storm,

I met you at the afternoon public meeting yesterday at Plaza Verde and mentioned that I had mentored a group of students doing research on clean energy alternatives.

I have attached their final report first, which is 88 pages including the appendices and citations. I actually think that the appendices outlining various technology options and financing options (pages 17-83) will be the most useful resource for you in evaluating and identifying alternatives. The formatting and detail is not 100% consistent or complete (this was a project that took 4 undergraduates way over their head), but does contain many useful and viable technologies and practices with lots of examples of existing working models and citations for further information. It also includes an analysis of existing rebates and financing mechanisms. I think you will find it useful. If you are interested in discussing any of the contents further or in more detail, I am available to discuss (646-670-1682 or timothydht@gmail.com). I wanted to explicitly say that I consider this report extremely weak on energy efficiency options, which in my view are a central element of any solution - it focuses largely on demand management, energy storage, and energy generation options.

I've sometimes had large file attachments fail to state or local government emails, so if you have trouble opening the file, you can also access it through the following link (it may prompt you to sign up for a free box.net account):
http://www.box.net/shared/qdmt4313o7

I particularly wanted to draw your attention to the two efforts that I mentioned in California:

1. Where Southern California Public Power is using IceBear technology to reduce peak demand by 53 MW, almost the exact same size as this project. This link is direct to the producer's

website, but there are several third-party sources as well: http://www.ice-energy.com/content10256

2. To a pilot project by Southern California Edison that achieved 90% adoption by small business customers through an energy efficiency direct install program. This is described in pages 11-13 of the second attached document or at this link: http://www.box.net/shared/44zplufpgg

Again, please feel free to contact me with further questions on any of this information.

Thank you,

Timothy DenHerder-Thomas
S. Minneapolis Community Energy Planning Process facilitator