

Summit Blue E-mail Exchange – DMEA

-----Original Message-----

From: Tom Blanford [mailto:tom.blanford@paonia.com]
Sent: Wednesday, November 14, 2007 11:52 AM
To: Dan Violette; Jane Pater
Cc: avuong@denverpost.com; steve.metheny@dmea.com
Subject: REA Board Member Guide

Reference -http://www.summitblue.com/dyn_downloads/irp_white_paper_final.pdf

Reference -http://www.denverpost.com/search/ci_7445178

Your names were given to me by Melissa McGuire as the authors of the recently published REA Board Member Guide. I have both comments and a question regarding statements on pages 19 and 20 of the guide. On page 20 you imply that electric powered geo-exchange systems save customers energy. A 25% value was mentioned. In my view and in the case of Tri-State and DMEA, these systems are powered by old technology coal based power plants with efficiencies in the 33% range. Transmission line losses in the range of 4 - 8% must be added to this in most cases. These rather large losses, in my view, completely or nearly completely offset any gains of an electric powered earth source heat pump. If Summitblue supports this approach, it seems to me that natural gas and propane energy usage, which DMEA heavily attacks, is being transferred to coal fired power plants on nearly a one-to-one energy unit basis. The argument that these electric powered systems are all renewable energy powered doesn't seem reasonable either. It's widely held that renewables don't currently meet area energy requirements nor will they scale fast enough to meet projected energy growth requirements any time soon.

Combined cycle gas, which Tri-State doesn't have, improves things but still, over all, can't match the efficiencies of local gas powered heat pumps or some CHP systems. I don't feel any of this is rocket science. These are all easily understood concepts and the necessary information is available from multiple sources on the Internet. Would your group comment on the record, regarding the above points? Given the large amount of planned generation that has been canceled including the Xcel super clean IGCC plant, it seems to me that electric powered geo-exchange systems are exactly the wrong way to go.

Thank You -

Tom Blanford - trb@wsrl.org - <http://wsrl.org/purpa.htm>

Summit Blue Reply -

Tom:

Thanks for the comment. It sounds like a gas versus electric geothermal advocacy question which we tried to avoid. You focus on two sentences neither of which mention electric geothermal heat pumps, but they do mention that one utility claims to be benefiting its customers with geothermal heat pump technology (and that is all that is said). You also say that the technology assessment you discuss in your e-mail is your view - we don't take a position on the issues you raise in this report. We have no problem with anyone advocating a specific technology out of the hundreds that are available for curbing energy use in buildings and residences. In this example, we are reporting on the fact that one utility believes it is helping customers achieve savings.

I also think that your comments may be a little out of context (by my reading anyway) in that we say that geothermal technology (and we don't specify a type) "is helping Delta-Montrose make progress towards its goal of reducing customers' energy use by 25%." Helping is the key word -- we don't say that this one technology is achieving the entire 25% reduction. We were looking for examples of options that can be considered in resource plans to round out the general point for the need to broaden

the IRP perspective, and this was one example that was from this region. It was not meant to be a technology-specific endorsement for a specific customer end-use, only an example out of hundreds of technologies that can help commercial and residential customers save energy.

Overall, our guide wasn't meant to be an engineering technology guide nor was it meant to select or advocate a specific resource/technology (e.g., gas versus electric heat pumps) within a category (e.g., EE, DR or distributed resources). We need to make good, cost-effective resource choices and that seems to be the point in your e-mail. We have technology engineers in the firm that focus on these decisions, but that was not what this white paper effort was meant to address.

I am glad you took the time to read the paper so carefully, but I don't think we were trying to make a point about one specific space conditioning technology being better than another.

Thanks -- Dan Violette

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