

Jean Pierre Finet2

De : "Alfred Brunger" <Alfred.Brunger@Exova.com>
Date : 9 février 2014 17:33
À : "Jean Pierre Finet2" <jfinet2@sympatico.ca>
Objet : RE: Wind Factor Interpretation in Retscreen V4
Dear Mr. Finet,

I have now had a chance to review Exova test report number 08-08-0277-3 Rev1 in relation to your inquiry. I have also reviewed the web site you pointed me to, which contains the relevant parts of the technical manual for the Lubi air-heating solar collector.

Your inquiry has three parts:

1. Does the statement made by Enerconcept about the insensitivity to wind of the Lubi product reflect the reality?
2. Did Exova actually give its authorization to make such a statement [that the Lubi is "insensitive to winds"]?
3. Could [I] send [you] the report number 08-08-0277-3 Rev1 pertaining to the LUBI product of Enerconcept?

I can respond to these points as follows:

1. The statement that the collector thermal efficiency is "insensitive to wind speeds" is a partial quote from Exova report number 08-08-0277-3 Rev1. The full quote is, "The test results show that the efficiency is insensitive to wind speeds up to the maximum test wind speed of 3 m/s. The test results also show that the efficiency is higher a low irradiance."
Those statements are supported by the test data provided in the mentioned Exova report, and I can fully support those statements on the technical grounds that we were not able to conclude that wind speed had a significant effect on solar collector efficiency. In this context, "significant" is relative to the measurement uncertainty. In fact, the raw data measured at the highest air suction rate (approximately 10 SCFM/square foot of collector area) indicate a higher efficiency at 3.0 m/s wind speed than at the lower test wind speeds of 1.4 and 1.0 m/s.
Notwithstanding the above statements, a blanket statement that the collector would be insensitive to wind at all wind speeds is beyond the scope of both the testing that was done by Exova and the interpretation of the statements in the Exova report.
I do see that the Enerconcept Lubi Technical Manual is faithful to the technical content of the Exova test report. In so far as the plot of collector thermal efficiency versus air flow rate through the collector appears to be a correct curve fit to the discrete test points measured by Exova at air suction flow rates near 4, 7 and 10 SCFM/square foot of collector area.
2. I do not have a record of explicit authorization from Exova to Enerconcept to make such a statement.
3. I cannot send a copy of the report to you without first obtaining permission from Enerconcept. You may request that Enerconcept provide you with a copy, or you could ask Enerconcept to request Exova send a copy to you directly from Exova.

I hope this response is of help to you. I apologize that it has taken me so long to get time to answer your questions. As you can see, I'm writing this on Sunday.

Sincerely,
Alfred

Alfred Brunger, Ph.D., P.Eng.
Technical Manager – Energy Systems
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2014-02-13



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From: Jean Pierre Finet2 [mailto:jfinet2@sympatico.ca]
Sent: Friday, February 07, 2014 11:34 PM
To: Alfred Brunger
Subject: Fw: Wind Factor Interpretation in Retscreen V4
Importance: High

Dear Mr. Brunger,

I am resending the message I sent you a few weeks ago in case you did not receive it. I would appreciate a reply from you as soon as possible as I have to give my report to the Quebec Energy Board by Feb. 13. Also, could you send me the report number 08-08-0277-3 Rev1 pertaining to the LUBI product of Enerconcept please?

Thank you.

J.-P. Finet

From: [Jean Pierre Finet2](mailto:Jean.Pierre.Finet2@sympatico.ca)
Sent: Monday, January 13, 2014 11:16 AM
To: [Brunger Alfred](mailto:Alfred.Brunger@exova.com)
Subject: Wind Factor Interpretation in Retscreen V4

Dear Mr. Brunger,

My name is Jean-Pierre Finet and I am a consultant for a group of environmental organizations intervening at the Quebec Energy Board as part of Gaz Métro's rate case.

An evaluation report of the Solar Pre-Heating Program filed by Gaz Métro established that the wind factor has been ignored completely for 9 of the projects and not considered properly for 3 other projects. This resulted in over evaluating savings by more than 100 000 cubic meters of natural gas and more than 300 000\$ in financial incentives.

The decision to allow this situation would have been based on the manufacturer of the Lubi product,

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Enerconcept, who mentions in page 6 of the product technical specifications that: "*The Lubi collector, tested and certified, does not incur any loss of efficiency caused by surface lateral winds. As mentioned in the report 08-08-0277-3 Rev 1, published by Exova, a certified testing laboratory, on March 2nd 2011, the Lubi is "insensitive to winds". Therefore, the developers of RETScreen have suggested to change the speed of winds to 0 before making a simulation in order to obtain realistic results.*" (My translation)

I would like to know if the statement made by Enerconcept about the insensitivity to wind of the Lubi product reflects the reality and that Exova actually gave its authorization to make such a statement with what appears to be a quote from someone at Exova.

Please find attached the evaluation report of Gaz Metro's program. You can access the Lubi product specifications at the following address. http://www.enerconcept.com/wp-content/uploads/2012/03/Lubi-V1.3_FR_F%C3%87vriier-2013_FINAL.pdf

Please let me know if you have any questions. You can reach me on my cell at 514 983-7559.

Regards,

J.-P. Finet

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