

## AGENDA

Kick Off Meeting of the  
***IEA Annex 41 Cold Climate Heat Pumps***  
**Saturday, 23 June 2012 (1200-1500 local time)**  
**San Antonio, TX, USA**

Hyatt Hotel, Bonham A room, 3rd floor

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1200 – 1205	Welcome and self introduction of Participants	All
1205 – 1215	Introduction to Annex 41	(V. Baxter)
1215 – 1345	Country project plans <ul style="list-style-type: none"><li>- Canada</li><li>- Japan (Prof Katsuta)</li><li>- US (O. Abdelaziz, V. Baxter)</li><li>- others</li></ul>	
1345 – 1500	Annex organization discussion <ul style="list-style-type: none"><li>- legal text, file attachment</li><li>- task/deliverables schedule, Excel file attachment</li><li>- reporting format, Exhibit A</li><li>- reporting frequency, Exhibit B</li><li>- tentative future meetings schedule (to be finalized at meeting)<ul style="list-style-type: none"><li>* spring 2013, location Japan or US</li><li>* May 2014 Workshop &amp; meeting, Montreal (@ 11<sup>th</sup> IEA Heat Pump Conference)</li><li>* spring 2015, location Japan or US</li><li>* interim web meetings as needed</li></ul></li></ul>	(All)
1500	Adjourn	

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*Exhibit A to the Agenda for the Annex 41 Initial Meeting (23 June 2012; San Antonio, TX, USA)*

*Layout of Final Reports: Volume 1 (Executive Summary) and Volume 2 (Country Reports)*

**IEA Annex 41:  
Cold Climate Heat Pumps  
Final Report Volume 1 – Executive  
Summary**

Canada

Japan

Tbd, etc.

United States (Operating Agent)

Compiled by

Van D. Baxter Oak Ridge National Laboratory Oak Ridge, TN, USA

**List of Contributors**

This volume of the IEA Annex 41 final report contains a summary of the Annex activities including principal conclusions from each participant. The following persons provided the information for this report.

Canada - tbd

Japan – Prof. Masafumi Katsuta, Waseda University

Tbd

Tbd

tbd

United States – Omar Abdelaziz, Oak Ridge National Laboratory, One Bethel Valley Road, Box 2008, Bldg 3147, Mail Stop 6070, Oak Ridge, TN 37831-6070, USA, 1-865-574-2089, abdelazizoa@ornl.gov

Bo Shen

**Table of Contents**

List of Contributors .....	ii
Table of Contents.....	iv
List of Figures.....	vi
List of Tables .....	vi
Introduction to IEA Annex 41 .....	1
Background .....	2
Country report summaries.....	18
- Canada .....	18
- Japan .....	20
- tbd .....	20
- United States .....	20
Overall Summary.....	42
References.....	46
Acknowledgements .....	47

# **IEA Annex 41: Cold Climate Heat Pumps Final Report Volume 2 – Country Reports**

Canada

Japan

Tbd, etc.

United States (Operating Agent)

Compiled by

Van D. Baxter Oak Ridge National Laboratory Oak Ridge, TN, USA

This volume of the IEA Annex 41 final report contains the detailed project reports from each participating country. It is available in cd-rom format only. Each country report consists of a separate pdf file on the cd. Adobe Acrobat reader version 5.0 or higher is needed to view the reports.

The reports were prepared by the following persons:

Canada - tbd

Japan – Prof. Masafumi Katsuta, Waseda University

Tbd

Tbd

tbd

United States – Omar Abdelaziz, Oak Ridge National Laboratory, One Bethel Valley Road, Box 2008, Bldg 3147, Mail Stop 6070, Oak Ridge, TN 37831-6070, USA, 1-865-574-2089, [abdelazizoa@ornl.gov](mailto:abdelazizoa@ornl.gov)

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## Table of Contents

List of Contributors .....	ii
Table of Contents.....	iv
List of Figures.....	vi
List of Tables .....	vi
Introduction to IEA Annex 41 .....	1
Background.....	18
Country reports.....	18
Canada .....	
- Introduction/Scope of the study	
- Task 1 – Past R&D Review	
- Task 2 – System Design and Application Studies	
- Task 3 – Energy Savings Assessments	
- Conclusion and Recommendations	
- Nomenclature	
- References	
- Acknowledgements	
- Appendixes	
Japan .....	
- Introduction/Scope of the study	
- Task 1 – Past R&D Review	
- Task 2 – System Design and Application Studies	
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- Conclusion and Recommendations	
- Nomenclature	
- References	
- Acknowledgements	
- Appendixes	
Tbd .....	
- Introduction/Scope of the study	
- Task 1 – Past R&D Review	
- Task 2 – System Design and Application Studies	
- Task 3 – Energy Savings Assessments	
- Conclusion and Recommendations	
- Nomenclature	
- References	
- Acknowledgements	
- Appendixes	
United States .....	
- Introduction/Scope of the study	
- Task 1 – Past R&D Review	
- Task 2 – System Design and Application Studies	
- Task 3 – Energy Savings Assessments	
- Conclusion and Recommendations	
- Nomenclature	
- References	
- Acknowledgements	
- Appendixes	
Overall Summary.....	

**Recommended final report structure:**

- Title page; include authors' information
- Introduction/Scope of the study
- Task 1 – Past R&D Review
- Task 2 – System Design and Application Studies
- Task 3 – Energy Savings Assessments
- Conclusion and Recommendations
- Nomenclature
- References
- Acknowledgements
- Appendixes

**Submittal format and margin settings:** Please submit your report in A4 format using 2 cm margins (top, bottom, left, right).

Typeface: **Times New Roman font should be used throughout the manuscript.**

**Main-Section Titles:**

- Text: justified left; font: bold; all letters should be capital
- Font size: 12 points
- Number the main-section titles (i.e., 1, 2, 3, etc.)
- Place a blank line above and below the title.

**Sub-Section Titles:**

- Text: justified left; font: bold; only the first letters should be capital
- Font size: 11 points
- Number the sub-section titles (i.e., 1.1, 1.2, 1.3, etc.).
- Place a blank line above the sub-section title but not below it.

**Sub-sub-sections (avoided if possible):**

- Text: justified left; font: regular; only the first letters should be capital
- Font size: 11 points
- Number the sub-section titles (i.e., 1.1.1, 1.1.2, 1.1.3, etc.).
- Place a blank line above the sub-section title but not below it.

**Paragraphs:** All paragraphs must be single-spaced with a double space between each paragraph. Paragraphs are not to be indented. Use single-line spacing between lines where symbols require 1.5 line spaces. Use 11 points font size.

*Header: Please put report name, principal author, document date, and page number, shown in this document. Note: This information will be stripped out by the Operating Agent and replaced with new information.*

*Footer and Page Numbering: Please do not use them.*

**Units:** The SI system of units should be used. The SI practice of using space to separate groups of three digits in long numbers should be adopted, e.g., 45 987.6. For very large or very small numbers, use

standard form notation (i.e.,  $2.13 \cdot 10^{-4}$ ). Express units with denominators in the following form: ( $\text{m s}^{-1}$ ,  $\text{W m}^{-2}$ ) rather than ( $\text{m/s}$ ,  $\text{W/m}^2$ ). A secondary system of units can follow in parenthesis.

Equations: Use “Equation Editor” whenever possible. Equations should be centered, numbered in order (i.e., (1), (2), (3), etc.) down the right-hand side of the page and cited in the text with its number, e.g., “...as shown in Eq. (1)”. Equations should be separated from the text above and below by a blank line.

Symbols: Symbols used in equations should be explained directly within the paragraph they first appear or in a Nomenclature section at the end of the report. Symbols for physical quantities should be *italicized*. Exceptions are symbols for established dimensionless groups, which should not be italicized. Example: Reynolds Number  $\text{Re} = \rho wd/u$ .

Tables and Figures: Each table should be numbered (Table 1, Table 2, Table 3, etc.), with the caption being placed above the table. Each figure should be numbered (Figure 1, Figure 2, Figure 3, etc.), with the caption being placed below the figure. Figures and tables should not run into the margins and should to the extent possible appear in their entirety on one page.

In the text, figures and tables should be named as follows: Fig. 1, Fig. 2, Fig. 3, etc., and Table 1, Table 2, Table 3, etc. Fonts used within figures should be large enough to be legible.

References: Bibliographical sources should be cited by giving the last name(s) of the author(s) and the year of publication. The year should always be in parentheses, whether or not the name of the author(s) is.

The two possibilities are illustrated below:

Albert (1957) showed that the blend was azeotropic.

or: It was shown that the blend was azeotropic (Albert, 1957).

**When there are two authors, the names of both should be cited, e.g.:**

Albert and Klaus (1981) observed that the blend was azeotropic.

or: It was observed recently that the blend was azeotropic (Albert and Klaus, 1981).

When there are three or more authors, only the first author of the source should be cited. The names of the other authors should be designated by “et al.”, e.g.:

Lee et al. (1982) developed a new blend.

or: A new blend was developed (Lee et al., 1982).

When the same author and the same year of publication are cited from more than one source, the sources should be distinguished in the text by adding the lower-case letter "a" to the year of publication of the first source cited, "b" for the second source, and so on, as shown hereafter:

Klaus (1980a) discovered...

and further on in the text:

*Klaus also pointed out (1980b) that...*

The sources cited in the text should be listed in the References section in alphabetic order of the author's name or of the first author's name, if there are several authors.

Examples:

1 - Article from a periodical

Minner, B.L., Braun, J.E., Mongeau, L. 1997. Theoretical evaluation of the optimal performance of a thermoacoustic refrigerator. ASHRAE Transactions 103(1): 873-887.

2 - Paper published in conference proceedings

Hirano, N, Nagaya, S, Okamura, T, Kawanami, T, Wada, H. 2010. Development of Room Temperature Magnetic Refrigerator - Overall Plan 2010. Int. Symp. Next-generation Air Cond. Refrig. Tech., Tokyo, Japan.

3 - Book

Janna S.W., 1986. Engineering Heat Transfer, PWS Publishers, Boston, USA, 769.

**No Commercialism is Permitted:** Commercialism is not permitted.

Commercialism includes visual, written or verbal references; i.e., trademarks, logos, university sponsors, consulting firms, manufacturers, vendors, contracting agencies or identification of other commercial interests. Generic names should be used.

Grants, other financial aid or special assistance may be cited in the “Acknowledgements” section. Pictures of products are permitted if the trade name or manufacturer’s logo or slogan is not visible, and when inclusion of the picture aids in comprehension and readership.

*Exhibit B to the Agenda for the Annex 41 Initial Meeting (23 June 2012; San Antonio, TX, USA)*

**Reporting Frequency**

Annex 41 is obligated to supply the IEA HP Centre with four types of reports:

i. Quarterly progress reports for publication in the **Newsletter**: To satisfy this requirement the Operating Agent (OA) will need from each Primary Contact an update summary on your country activities by the following dates for each of the three years of the Annex:

- 15 September;
- 15 December;
- 15 March; and
- 15 June.

The OA will need to hear from you by these dates even if you might have nothing new to report for a given period.

ii. Semiannual report to the **HPP Executive Committee**: The OA anticipates being able to fulfill this requirement by using the quarterly Participant progress reports submitted in (i) above. However, we will also welcome additional information that you might want included in the summaries to the Executive Committee.

iii. Annual summary report for inclusion in the **HPP Annual Report**: The OA anticipates preparing these reports based on your quarterly reports but might have to ask you for additional information.

iv. Annex **Final Report**: It is envisioned that your final reports covering your research and contributed efforts will constitute individual sections of the Annex Final Report.