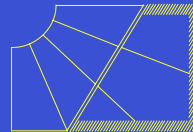




Status Report:  
**Sustainable Solar Housing**  
SHC / BCS 28 / 38:

Wellington NZ-  
17-21. Nov. 2003



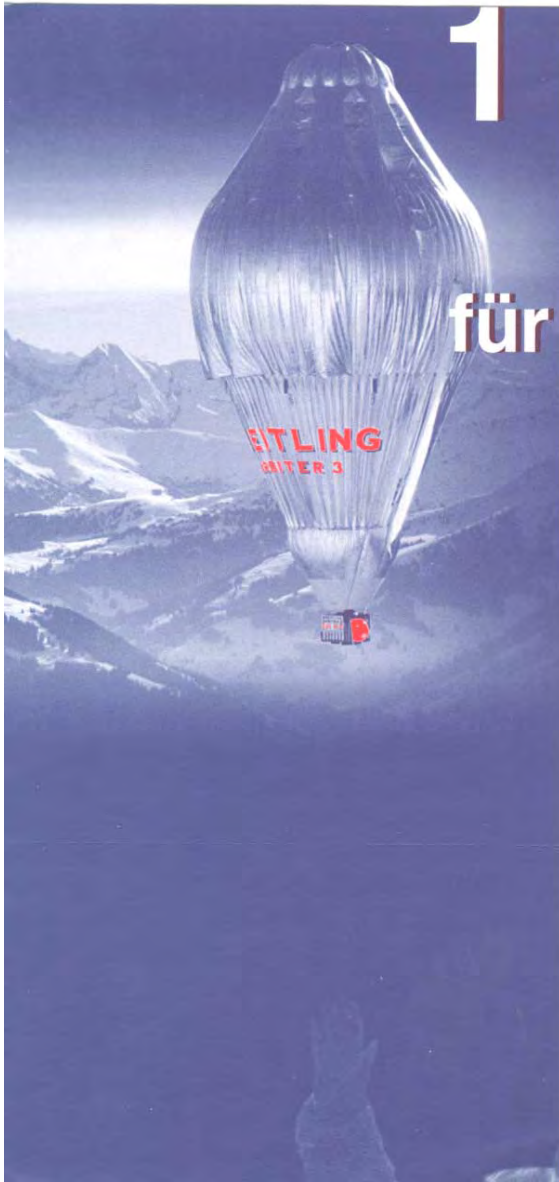
Swiss Federal Office of Energy  
represented by:  
R. Hastings, AEU GmbH





## Contents

1. Overview of Annex / Task
2. Progress last six months
3. Sample results
  - Analysis & optimiz.
  - LCA
  - Demonstration projects
4. Plans next six months
5. Issues for the ExCo



## 1. Overview

**Duration:** April 2000 – April 2005

**Objective:** Market penetration of sustainable solar housing

**Means:**

- Buildings Docu.
- Design Handbook
- Demonstration Projects
- Workshops at Task end

**Scope:**

- Energy
- Ecology
- Economy



## 2. Progress last six months

- **Sub A Market analysis/stories and analysis material assembled.**
- **12 redrafts of HB tech. chapters reviewed at Fraser Is. meeting.**
- **Analysis of 3 housing types in 3 climates as basis for the strategy chapters in HB in progress.**
- **Final report on analysis of 42 demo-projects in prog.**
- **Life Cycle Analyses of 3 case studies in progress.**

## Expert meeting<sup>1</sup> participants from:

Austria

Australia

Belgium

Brazil

Canada

Germany

Iran

Japan

Malasia

Norway

New Zealand

Sweden

Switzerland

## Meetings last 6 months:

- LCA Workshop  
22. Sep. 2003 (Zürich CH)
- Subtask B: Analysis  
6-7. Oct. 2003 (Wallisellen CH)
- Expert Meeting<sup>1</sup>  
4-7. Nov. 2003  
(Fraser Island AUS)

### 3. Sample results from Subtasks



## Market Assessment

Lead: NL and N

### Goal:

Market penetration of sustainable solar housing.

### Approach:

- learn from successes and adapt to national markets.
- Present "Solution Sets" to builders in a convincing manner.



Typical Solution Sets; Strategy 1  
**BASIC  
CONSERVATION**

IEA – SCH Task 28 / ECBCS Annex 38:  
Sustainable Solar Housing

**IEA**  
International Energy Agency

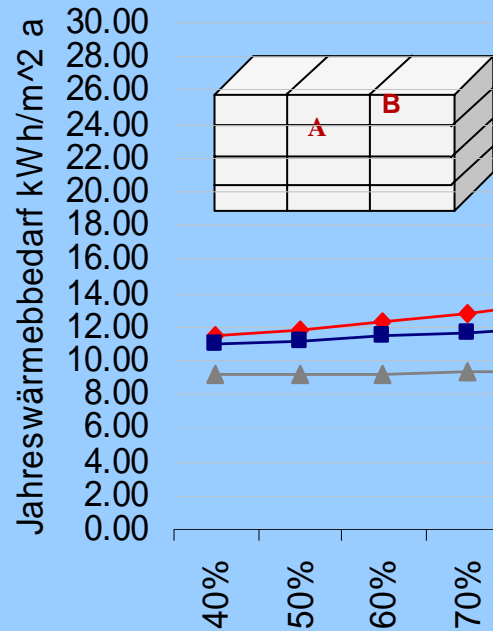
# Energy analysis

- ◆ U-Wert Verglasung 1.1
- U-Wert Verglasung 0.7
- ▲ U-Wert Verglasung 0.4

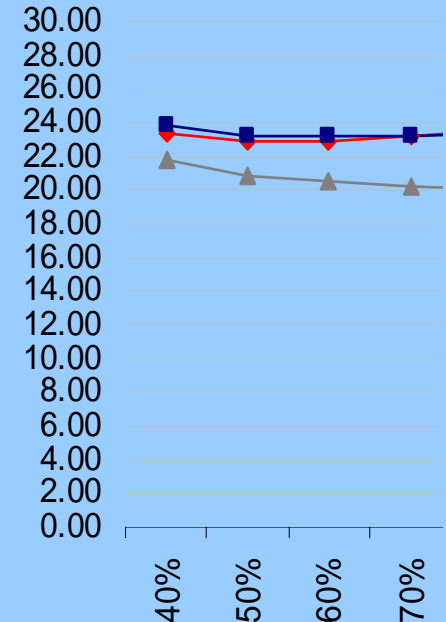


# Heating demand dep. on: apt. position, window size and glass

Mid Apt. A



Corner Apt. B



Climate: Zürich

(AEU GmbH, L. Junghans)







## Gray energy fraction of total:

- Conventional house (R): 27%
- Passivhaus: 52-61%

□ Betriebsenergie

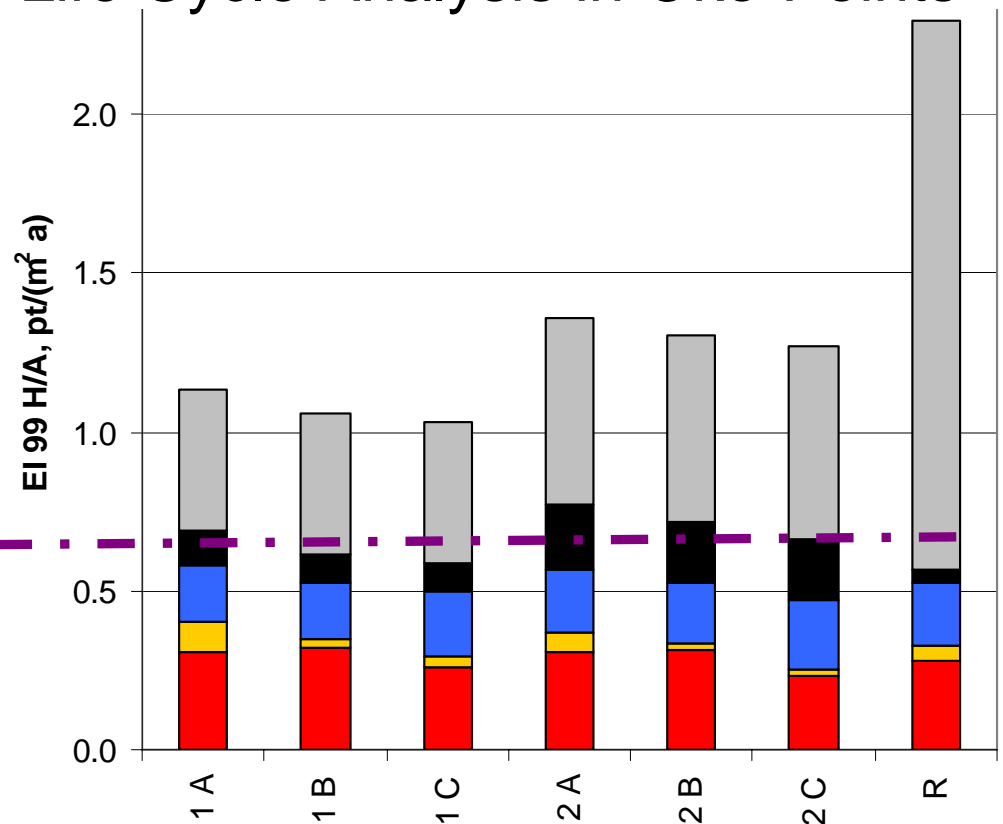
■ Heizung, WW, Lüftung, Solaranlage

■ übrige Baustoffe

■ Dämmung

■ Massive Baustoffe

## Life Cycle Analysis in Öko-Points



Construction: massive ( A & B), light (C)  
Strategies: conservation (1), solar (2)

Basler & Hofmann (CH), Alex Primas

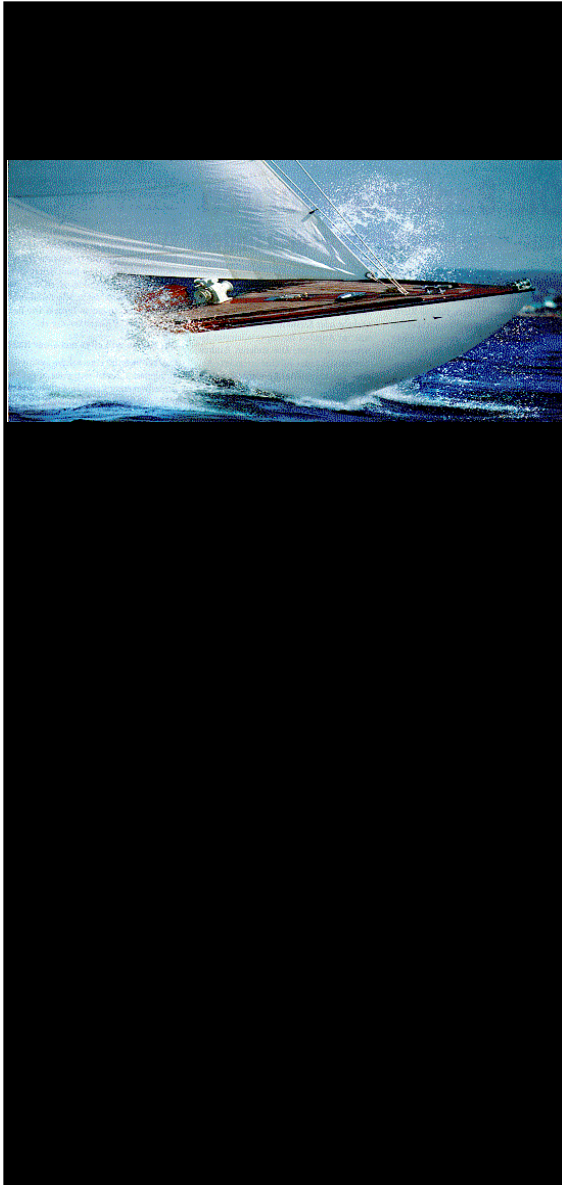
# Demonstration Projects

By Dec. 2003  
10 Demo Projects  
on the Website:

<http://www.iea-shc.org/>

The image shows the cover of a report titled "Passive Housing Konstanz Rothenburg". The cover features a photograph of a modern, multi-story residential building with a prominent balcony and a red facade. The text on the cover includes "Passive Housing" and "Konstanz Rothenburg". At the bottom, the IEA logo is visible, along with the text "International Energy Agency" and "IEA - SHC Task 28 / ECBCS Annex 38: Sustainable Solar Housing".





#### 4. Next six months:

- Full draft marketing Working Doc. done and ready for review.
- Modelling of TSS completed
- Handbk. Tech. chapters completed  
Strategy chapters drafted
- Working Doc. Life Cycle Analyses drafted
- Report on Sustainable Housing in Hot Climates drafted
- 5 additional brochures on internet
- Technical report of Subtask D Data Sets completed



## Meetings next 6 months)

- Jan. 2004 (Wallisellen, CH)  
Subt. B Analyses Group
- Jan. 2004 (Köln, D)  
LCA Group
- Apr. 2004 (Brussel)  
Expert Meeting
- Sep. 2004(UK oder N)  
Expert Meeting



## 5. Issues for the ExCo

- **Time and funding:**  
for Subtask leaders to compile material into reports
  - Subt. A: NL!
  - Subt. B: S & CH
  - Subt. C: N
  - Subt. D: D
  - LCA Group: D
  - Hot Climates Group: AUS
- for experts to complete and respond to requests
- Make use of the brochures from Subtask C: Demonstration Proj. [www.iea-shc.org](http://www.iea-shc.org) (T28 outcomes)



