

58th EXECUTIVE COMMITTEE Meeting IEA Hydrogen Implementing Agreement

**June 19-20, 2008
Brisbane, Australia**

1.0 General Business

1.1 Chairman Welcome, Acknowledgment of Hosts and Overview of Meeting

Chair Nick Beck welcomed Executive Committee (ExCo) members, hosts and observers to the 58th Executive Committee (ExCo) Meeting of the Hydrogen Implementing Agreement (HIA) in Brisbane, Australia. He acknowledged Dr. John Wright of CSIRO for hosting the meeting. The Chair then outlined the meeting schedule and related activities.

1.2 Welcome Remarks by host Dr. John Wright of CSIRO

Dr. John Wright welcomed the group to Brisbane with brief opening remarks. He expressed enthusiasm for the opportunity to host the ExCo meeting immediately following the 17th World Hydrogen Energy Conference (WHEC). Dr. Wright noted the implementing agreement's substantial presence at WHEC, which included the first-ever IEA HIA conference track as well as an exhibit.

1.3 Introductions (Hosts, Newcomers and Observers)

After thanking the hosts and their organization, CSIRO, Chair Beck welcomed the following newcomers and observers:

- **Canada** Ms. Lynda Palumbo
- **France** Mr. François Le Naour
- **Japan** Mr. Yasushiro Kubota
- **Norway** Ms. Elisabet Fjermestad-Hagen
- **Switzerland** Dr. Stefan Oberholzer
- **Taiwan** Dr. S.H. Chan
- **US** Dr. Jay Keller
- **Task 26** Dr. Eric Miller

He also acknowledged the absence of Mr. Paul Lucchese, who was attending the IPHE Implementation Liaison Committee (ILC) meeting that took place 19-21 June in a coastal location nearby. The Chair introduced Mr. François Le Naour, who attended in place of Mr. Lucchese. He welcomed the new Japanese member, Mr. Yasushiro Kubota of NEDO. He also welcomed Ms. Elisabet Fjermestad-Hagen who was in attendance 19 June as the Norwegian Representative.

1.4 Agenda Approval

The agenda was approved without comment.

1.5 Approval of the Minutes of the 57th meeting in Montecatini, Italy

The minutes of the 57th meeting in Montecatini, Italy were approved without comment.

1.6 Brief Update by Members and Observers

1.6.1 Members

Dr. Wright remarked on the status of the CSIRO and the Department of Trade, Industry and Resources (DTIR) agreement to provide travel money for Australian experts. The one-year agreement will be renegotiated and expanded to include one expert for each task in which Australia participates. Further, the Australian Academy of Science and Engineering has recognized the potential for hydrogen in Australia. Finally, Australia's hydrogen roadmap is now in draft form.

For Japan, Mr. Kubota reported that METI's ¥29 Billion hydrogen and fuel cell budget had been reduced by 6% since 2007. He also announced that the 2006 Annual Report had been translated into Japanese and provided to the Secretariat in Brisbane for posting on the IEA HIA website. Chair Beck expressed thanks for this gift on behalf of the entire ExCo.

Dr. Yongsug Tak reported on two major hydrogen projects in Korea: the hydrogen energy program funded by the Minister of Science and Technology; and the \$80M effort (\$12M of which is allocated to R&D) funded by Commerce and Industry. To date, 22 SUV vehicles and one bus are on the road and have been tested.

Dr. Steven Pearce announced the much-anticipated news that New Zealand would join Task 18.

Dr. Stefan Oberholzer reported that Switzerland is now preparing a 2008-2011 Master Plan that will emphasize storage in complex hydrides and production of hydrogen from renewables, notably via photoelectrochemical (PEC) conversion. Swiss Re has expressed interest in safety aspects of hydrogen.

For France, Mr. Le Naour of CEA reported on the so-called "Grenelle de l'Environnement" government-organization consultation and the subsequent hydrogen and fuel cell meeting for which the IEA HIA provided a letter of support. While the French government has not included hydrogen as a short term French priority, hydrogen has received funding for the next three years.

In the Netherlands, Mr. Frank Denys of SenterNovem is actively researching hydrogen opportunities: Rotterdam seeks production opportunities while Amsterdam seeks transportation opportunities in buses and watercraft for canals. SenterNovem will report on options to the Prime Minister for consideration.

Mr. Jürgen Friedrich-Hake reported on Germany's ten (10) year Hydrogen and Fuel Cell Technology Innovation Programme, which will receive funding in excess of 1 Billion Euro. Initiated in April 2007, the German National Innovation Programme (NIP) - Hydrogen and Fuel Cell Technology is supported by the Federal Ministry of Transport, Building and Urban Affairs (BMVBS), the Federal Ministry of Economics and Technology (BMWt), the Federal Ministry of Education and Research (BMBWF) and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). The Federal Ministry of Education and Research has supplemented the funding. This Programme is part of the German effort to face the challenge of transition to a sustainable energy supply via innovation and technical progress. The Programme will include Research and Development as well as Demonstration

Lighthouse Projects in the areas of transport/mobility, stationary household applications, stationary industrial applications and early markets.

Mr. Agostino Iacobazzi announced three developments: Italy's official participation in the Joint Technology Initiative (JTI): the April opening of the pipeline project, intended as the first of future projects; and a service project with ENI as well as Fiat.

For Spain, Mr. Antonio García-Conde explained that the hydrogen document adopted by the Spanish Platform has been published but not yet adopted by the government. Thus, while there has been no change yet in energy policy, there has been an agreement to create a special hydrogen center, whose launch has been delayed a few months due to the election.

Mr. Jan Jensen reported that Denmark now has a Minister for Energy and Climate; "climate" is now officially part of the Minister's portfolio. Denmark has made a national energy policy agreement on CO₂ and energy consumption with the following key elements: 1) 20% of energy consumption based on renewable energy by 2020; 2) a 4% absolute reduction in total energy consumption (relative to reference year 2006) mandated for 2020; and 3) energy savings (i.e., increased efficiency) of 1.5% per year relative to reference year 2006.

Dr. Elli Varkaraki reported that in view of Greece's 2007 hydrogen roadmap, a new project call is planned. More information on this matter will be available shortly.

Ms. Fjermestad-Hagen, reporting for Norway, informed the ExCo that Norway would fund two new filling stations at 700 bar pressure. For the moment, Norway's focus is on hydrogen for transport. The HyNor project, the road stretching from Oslo to Stavanger, is aligned with Sweden and Denmark; it is hoped that the project will secure Lighthouse funding through the JTI.

Dr. Carole Read of the U.S. reported that the U.S. nears the end of President Bush's five year \$1.2 billion commitment to hydrogen R&D. The budget for Fiscal Year 2009 is now being reformulated but its adoption may be delayed beyond the October 1 start of the new fiscal year.

Chair Beck reported some reduction in Canadian funding. However, the fuel cell bus will be available for the Olympics in August.

1.6.2 Observers

Dr. S.H. Chan reported that Taiwan experienced a change in government a month prior to the Brisbane ExCo meeting. Taiwanese commitment to national CO₂ reduction to 2000 levels has already had an impact on industry; new energies are expected to benefit from this policy. A major manufacturer has signed an agreement with Dupont to produce nafion membrane for fuel cells. Finally, as reported in the South China Morning Post, high level representatives of the People's Republic of China and Taiwan shook hands in a public display of intent to move forward faster with cooperation. To that end, an agreement was signed for air connections in multiple cities in both China and Taiwan. Five thousand (5,000) Chinese visitors/day are now allowed to enter Taiwan. In the scientific arena, two major "cross-strait" energy conferences have taken place recently.

2.0 Chairman/Secretariat Report

2.1 Membership Recruiting

2.1.1 Membership Pending (de Valladares)

Ms. de Valladares reported that the Russian Federation has sent a Letter of Intent (LOI) to participate in Task 22, the subject of the approved Annex I to the Memorandum of Understanding (MOU) between the IEA HIA and the IPHE. According to the terms of that Annex, execution of the LOI permits the non-IEA HIA member to participate in Task 22 with the understanding that official application for IEA HIA membership will be completed within the 18 month period that began in November, 2007. In addition, the Russian Federation also submitted an LOI to participate in Task 19, the subject of Annex II, which is scheduled for consideration later in this meeting. The Russian Federation was unable to attend the IEA HIA meeting because it had previously agreed to attend the IPHE ILC meeting, which was held concurrently.

2.1.2 Countries with Invitations (de Valladares)

The Secretariat reported on countries with invitations to join the IEA HIA.

China is expected to attend the next meeting in Greece as an observer. Mr. Kun Yuan had actually accepted the invitation to attend the Brisbane meeting. However, he had to change his plans when the earthquake disaster relief effort compelled his colleagues to remain in China and required him to attend the Australian IPHE meeting in their stead.

Ms. de Valladares met Dr. Jorge Huacuz-Villamar of Mexico, the Mexican official responsible for hydrogen and fuel cells, during the May NEET Rural Energisation workshop in Paris. In the past, explained Dr. Huacuz, budget constraints had prevented Mexico from joining both the hydrogen and the fuel cell implementing agreements, despite strong interest in hydrogen and the HIA. Mexico stands ready to consider joining the implementing agreement at such time as budgets permits.

There had been no substantive contact with Hungary or Singapore in the past six months.

2.1.3 Other Gleneagle 5 (China, India, South Africa, Mexico and Russia), IPHE countries and Taiwan (de Valladares)

Of the Gleneagle 5 countries not previously mentioned, there was progress with both South Africa and India. Dr. Cordelia Sita of the South African Department of Science & Technology had been invited and actually planned to attend the Brisbane meeting. However, she experienced visa complications that precluded her attendance. She is expected to attend our next meeting in Greece. Dr. Anil Bhardwaj and Ms. Nuzhath Thomas of the India Oil and Natural Gas Corporation Limited's (ONGC) were invited to attend the ExCo meeting subsequent to his participation in the last Task 25 meeting. Although they were unable to attend this ExCo meeting, the ONGC has expressed clear interest in Task 25. Dr. Bhardwaj and Ms. Thomas have advised the Secretariat that ONGC has begun to prepare the case for IEA HIA membership for presentation to the appropriate Indian authorities. The Secretariat is supporting preparation of the case for India's accession to the implementing agreement.

Brazil, the only not previously discussed IPHE country which is not an IEA HIA member, is well aware of the Annex on Task 22. Brazil has taken the matter of fast track participation to membership according to the terms of the Annex under advisement.

While Taiwan's interest in IEA HIA membership is appreciated, no membership invitation may be extended until China's prospective membership has been clarified.

2.1.4 Other Countries

It was anticipated that Portugal would attend this meeting but other obligations intervened. Portugal has had a keen, longtime interest in Task 21, BioHydrogen. Dr. Isabel Cabrita of the National Institute of Engineering Technology and Innovation (INETI), Portugal's representative to the IEA CERT, has promised to pursue implementing agreement membership for Portugal. She will be invited to the next meeting in Greece.

There had been no recent contact with Austria. However, the Secretariat was encouraged to renew contact with Austrian colleagues in view of the favorable situation of this nation's hydrogen and energy portfolios. Likewise, there had been no substantive contact with Israel. However, Dr. Luzzi suggested that a Haifa University researcher with a strong interest in the new Task 26 should be contacted. He also suggested that Poland might have an interest in Task 26 as well.

2.1.5 Other Potential Members

Ms. de Valladares reported that the United Nations Industrial Development Organization International Centre for Hydrogen Energy Technologies (UNIDO ICHET) has sent a letter to the IEA HIA expressing interest in membership. Dr. Nicholas Lymberopoulos, UNIDO-IHCET Projects Director, was invited to attend this meeting to discuss the matter but the timing did not permit him to participate. Although Turkey had been approached about the possibility of UNIDO-Ichet membership and its interest in Tasks 18 and 24, no Turkish representatives were present at this meeting so the matter was deferred. Dr. Lymberopoulos will be invited to make a presentation at the fall meeting in Greece. The Secretariat will advise Turkey of the pending presentation and research any related administrative issues that might arise.

The Chair noted the absence of several members. He asked the Secretariat to send a reminder to all members without official Alternates to kindly nominate an Alternate.

2.2 IEA Paris Secretariat (de Valladares)

2.2.1 New Desk Officer

Dr. Emi Mizuno, new IEA HIA Desk Officer, sent her greetings but was unable to attend due to other responsibilities. She is planning to attend the fourth quarter 2008 ExCo meeting.

2.2.2 NEET (Networks of Expertise in Energy Technology) - General

The IEA HIA participated virtually in the NEET Brazilian workshop through a virtual (audio-visual Skype) presentation delivered by Ms. de Valladares. In the ensuing discussion, the Brazilians expressed interest in most of the IEA HIA tasks. Final confirmation of dates (proposed are 25 and 26 September) is expected soon for a NEET workshop in Russia. Hydrogen was on the list of topics that the Russian Federation provided to NEET. The IEA HIA has consistently expressed interest in participating in the NEET Russian workshop.

2.2.3 NEET Workshop on Sustainable Rural Energisation in Major Emerging Economies

As a follow-on to its efforts in the so-called “Plus Five” countries (Brazil, China, India, Mexico, South Africa) NEET held a workshop in Paris for both Plus Five and “Plus Plus Five” (Pakistan, Chile, Morocco, Egypt, Bangladesh and Indonesia) focused on the topic of Rural Energisation. The workshop, co-sponsored by the Gesellschaft für Technische Zusammenarbeit (GTZ), featured presentations by both country groups as well as presentations from some nine implementing agreements. Ms. de Valladares made the presentation for the IEA HIA; she acknowledged Task 18 Operating Agent Dr. Susan Schoenung and her colleagues, Ms. Shannon Miles and Ms. Mary Gillie, as well as Task 24 Operating Agent Mr. Ismael Aso and his expert, Mr. Kevin Harrison, for providing background material for this presentation. While considerable progress has been made internationally in rural energisation, significant technical and institutional barriers still exist and innovation is welcome. As before, NEET paid workshop related travel expenses for IEA participants. In an internal post-workshop session, NEET organizers met with IEA implementing agreement participants to discuss next steps. It was tentatively decided to hold a follow up workshop on specific topics late next spring as this approach is not inconsistent with the implementing agreement business model. IEA participants would be determined pending feedback from the Plus Five and Plus Plus Five countries. Were the IEA HIA to be invited, interest would likely focus on Task 18, Task 23 and the new Infrastructure task.

2.2.5 IEA Ad-hoc on Science Group and Energy Technology (AGSET)

CERT had established the Ad-hoc Group on Science and Energy Technology (AGSET) to consider basic research needs in development of low emission technologies. In its recent 6-7 May 2008 meeting, AGSET topics of discussion included advanced materials and energy storage and advanced modeling and mathematics. A new report is expected soon.

Presentations and reports are available at

http://www.iea.org/extbase/work/workshopdetail.asp?WS_ID-366.

2.2.6 IAEA Cooperation Possibility

Dr. Andrej Zeman at the International Atomic Energy Agency (IAEA) has approached the IEA about possible cooperation on a Coordinated Research Project (CRP) entitled “Application of nuclear methods to Studies for Fuel Cell and Hydrogen Cycle Technologies.” Since Dr. Hauback participated in the initial meeting for this project, Ms. de Valladares will follow up with him to discuss possibilities for cooperation.

2.3 Communication and Outreach – the IEA HIA Prize (de Valladares)

2.3.1 Individual Prize

Chair Beck awarded the inaugural IEA HIA Individual Prize to Dr. Gary Sandrock, former Task 17 Operating Agent, on June 10, 2008 in a ceremony at the annual U.S. Department of Energy (DOE) Hydrogen Program Review. The late Dr. Tapan Kumar Bose, former Director of the Hydrogen Research Institute at the Université du Québec à Trois-Rivières (UQTR) in Canada, was also honored as recipient of the IEA HIA Memorial Individual Prize for lifetime achievements in hydrogen R&D. Accepting the award on behalf of Dr. Bose and his family was Dr. Richard Chahine, Director of the UQTR. The winners received commemorative plaques and medals. Announcement of the awards will be made in press releases, the IEA Open Bulletin and the IEA HIA Newsletter.

These awards concluded the first cycle of the IEA HIA Individual Prize. Although the original plan was to make the awards at WHEC in Australia, Dr. Sandrock was unable to attend that event. By all accounts, however, it was agreed that the 1,000 person audience at

the U.S. DOE Hydrogen Program Review made that venue a superb choice for award of the inaugural IEA HIA Individual Prize.

2.3.2 Project Prize

The IEA HIA Prize Committee will now turn its attention to the first award of the IEA HIA Project Prize, building on the experience with the Individual Prize and the Project Prize decision-making process previously mandated by the ExCo. That process entailed the following steps: Operating Agents make recommendations to the Prize Committee; Prize Committee makes the selection; the selection is ratified by the ExCo; the Project Prize is awarded. The Prize Committee will meet in the third quarter to go forward. New ExCo Prize Committee members are welcome.

2.4 IEA HIA Analysis Committee (Ms. de Valladares)

2.4.1 Results of March Analysis Meeting

Under Mr. Hake's leadership, the Analysis Committee met 17 and 18 March at the IEA Secretariat in Paris. Present in person were: Mr. Jean-Marc Agator; Mr. Hake; Mr. Iacobazzi; Mr. Jochen Linssen; Dr. Schoenung; and Ms. de Valladares. IEA HIA Desk Officer Dr. Emi Mizuno made a presentation on the ETP 2008. Present intermittently by teleconference were: Dr. Andreas Luzzi and Dr. Varkaraki. The Analysis Committee systematically considered the following questions: 1) How do we want to position hydrogen?; 2) Whom do we need to influence?; 3) What questions do we need to answer?; 4) How do we frame the question(s) to accomplish our objectives?

The Committee's answers to these questions are summarized in the IEA HIA Analysis Report, which has been distributed to the ExCo. The Analysis Committee's message to the IEA HIA ExCo is that the IEA HIA needs an enhanced, concentrated, higher-level outreach effort that is informed by our analysis efforts and products. Cooperation with the IEA that influences its analytic and infrastructure efforts is key to success. To realize this objective, the IEA HIA Analysis Committee proposes the following actions: 1) the Analysis Committee will continue to gather relevant materials and intelligence via the IEA HIA Secretariat for assessment and incorporation in its IEA HIA analysis efforts and products; 2) the Analysis Committee Chair, Mr. Hake, will interact with his IEA contacts to further this cooperation; 3) relative to scope of work for the revised Hydrogen Resources Study, three components were suggested: i) Literature Review – Annotated bibliography; ii) Market Forecast/Demand Survey/Trend Analysis; and iii) Market Study for supply side; 4) the Analysis Committee asked Dr. Schoenung to seek her task's agreement to perform the Literature Review/Annotated Bibliography.

2.4.2 Path Forward

Dr. Schoenung reported that Task 18 has agreed to perform the Literature Review/Annotated Bibliography provided sufficient guidance. Task 18 members recommended a strong emphasis on meeting climate change and carbon reduction goals. In evaluating the request to undertake the Literature Review, Task 18 had also observed that development and/or coordination of the actual study exceeded its capacity, warranting consideration of a new task on analysis.

When the literature review is complete, the Secretariat and Dr. Schoenung will together develop a proposal for the demand and supply components. The proposal will be presented to the Executive Committee for review and approval. The Secretariat encouraged development of both a business case and a scientific case for hydrogen in conjunction with or

in support of the revised Hydrogen Resources Study. Ms. Fjermestad-Hagen emphasized the critical need to formulate a business case. Mr. García-Conde suggested that, given the resources, the implementing agreement may want to consider creation of an ongoing analysis function.

2.5 End of Term Report and Strategic Plan (Ms. de Valladares)

Ms. de Valladares reported that the current five year (2004-2009) term of the IEA HIA expires 30 June, 2009. The IEA's extension requirements include submission of an End of Term Report and a new Strategic Plan for the period 2010-2015. The IEA has provided templates for both documents. Key dates in the review and approval process are the REWP meeting, which will take place in the March-April 2009 timeframe and the CERT meeting, 9-10 June 2009. As part of the plan to plan, Ms. de Valladares indicated that preparation of the End of Term Report would begin as soon as possible, probably late summer or early fall. She recommended that the ExCo hold a strategic planning session in Athens in conjunction with the upcoming 5-7 November ExCo meeting. Dr. Read suggested that the ExCo should come to Athens with an outline of the Strategic Plan. Dr. Andreas Luzzi encouraged the Secretariat to begin work on these reports as soon as possible. A Strategic Planning Committee was created with Dr. Read as Chair. The other Strategic Planning Committee members are Mr. García-Conde and Mr. Hake. The Secretariat will support the Strategic Planning Committee and its efforts.

3.0 Special Topics (de Valladares)

3.1 Collaboration with IPHE- Status of Annex I on Task 22

Ms. de Valladares reported that the Russian Federation had submitted a Letter of Intent (LOI) to the Secretariat stating its interest in participating in Task 22 and its intent to seek IEA HIA membership within the eighteen month term set forth in Annex 1 to the MOU on Task 22. Ms. de Valladares thanked Dr. Andrei V. Tchouvelev of Tchouvelev & Associates for his assistance in clarifying the collaboration process with the Russian Federation. She also referred to her May 2008 Moscow discussion with Ms. Liudmila Orletskaya of Federation Office of Science and Innovation (FASI) about Annex I on Task 22 as helpful in differentiating IEA requirements for a pending MOU with Russia from the terms of the IEA HIA MOU and Annex I.

3.2 Collaboration with IPHE – Consideration of Approval of Annex II for Task 19

The Russian Federation's interest in Task 19 had led to formulation of Annex on Task 19, which appeared as an item on both the IEA HIA and the IPHE Implementation Liaison Committee (ILC) Australian meeting agendas. (The meetings were held in different locations during the same time period). Mr. William Hoagland, Task 19 Operating Agent, and the Secretariat described the collaboration, which would allow meeting participation to all signators and participation in particular subtasks by agreement of Task 19 members. The ExCo approved the Annex on Monday, 19 June. On 20 June Mr. Le Naour received notice from Mr. Lucchese, the IEA HIA member attending the IPHE ILC meeting in his capacity as IPHE ILC Co-Chair, that the ILC had approved the annex with some remarks. The Secretariat will follow-up to inquire about the remarks.

3.3 Collaboration with IPHE – Possibility of Annex III on Task 18

Given the common interests of the IEA HIA Task 18 portfolio and the IPHE Demonstration Working Group, a mutual interest in collaboration has evolved. Task 18 Operating Agent Dr. Susan Schoenung had in fact attended an IPHE Demonstration Working Group meeting that week by invitation. Initially, she had surmised that the Working Group might want to collaborate on analysis

of a discreet project. However, in recent interactions with Co-Chair Dr. Klaus Bonhoff, it appeared there was more interest in the Task 18 Information Bases. Dr. Schoenung and the Secretariat will follow up with the Co-Chairs of the IPHE Demonstration Working Group to further explore the potential for formalizing collaboration on a particular activity(ies).

4.0 Task Reports – Current

4.1 Near-Market Routes to Hydrogen by Co-Utilization of Biomass as a Renewable Energy Source With Fossil Fuel (Ms. Fjermestad Hagen)

Task Organizer Ms. Fjermestad-Hagen gave an update on the status of “Market Routes to Hydrogen by Co-Utilization of Biomass a Renewable Energy Source with Fossil Fuel” task. She began by reviewing the history of the task, which received ExCo approval in 2006 subject to confirmation of the Operating Agent. The effort is structured in four subtasks: A - Cogasification of biomass with fossil fuels; B - H₂ Market Facilitation Based on Distributed Processing of Biomass to New, Tradable Intermediates; C –Near-term Stand-alone Biomass Gasification; and D) Roadmap Development and Verification. The proposed Operating Agent is Dr. Jan-Erik Hanssen of 1-Tech, a well-qualified candidate for whom funding is needed. Industry experts are self-funding; several technology institutes have full or partial national finance. Ms. Fjermestad-Hagen recommended that the ExCo extend the Definition phase until November to allow her to secure an alternative solution(s) for Operating Agent funding. The ExCo agreed with this recommendation.

The Chair noted the non-member status of Portugal and Austria and asked the Task Organizer to encourage these nations to proceed with IEA HIA membership.

4.2 Large-Scale Hydrogen Infrastructure and Mass Storage – (Mr. Denys)

Mr. Denys reported that the task definition workshop anticipated for the February-March timeframe had been postponed till September due to his involvement in a tender. He will circulate a revised version of the scope to interested parties well in advance of the September meeting, conferring with the Secretariat on matters of interest and format of the meeting.

4.3 Task 20 – Hydrogen from Waterphotolysis (Dr. Luzzi) and Task 26 Advanced Materials for Waterphotolysis of Hydrogen (Dr. Miller)

Dr. Luzzi reported that he is in the final stages of completion activities for Task 20. These activities consist of: compilation of the Final Task Report and Management Report (expected in September); the staging of the final experts meetings in Europe (Lausanne, May 2008) and the US (Phoenix May 2008 and Washington, D.C. June 2008); and finalization of the three year work Program of Work for Task 26. He summarized the drivers for hydrogen over the past 50 years, discussed the “compellingly simple but scientifically challenging” PEC water-splitting options, and reviewed materials options and progress. He stressed the growing international interest in PEC R&D, as measured by the growth in HIA Task 14 (four countries), Task 20 (9 countries) and Task 26 (12+ countries), concluding with comments and guidance on further pursuit of innovative materials and 3D approaches (short distance to redox). Dr. Luzzi underscored the value of persistence in the search for the keys to effective PEC water-splitting with an anecdote about Muller and Bednorz’s tenacity in their ultimately successful hunt for the secret of supraconductivity.

Dr. Eric Miller, new Task 26 Operating Agent, then made his first presentation to the ExCo. Dr. Miller is with the Hawaii Natural Energy Institute at the University of Hawaii at Manoa; he is also Co-Chair of the U.S. DOE Photoelectrochemistry (PEC) Working Group (WG). Dr. Miller began

by recapping the IEA HIA PEC annexes, past international participation, and the materials challenges (absorber materials, interface design, integrated device development, system development and cost) that contribute to the “elusive” nature of effective material systems for PEC water-splitting. Research to date has shown that there is no single material that does everything. The PEC “tool-chest” must be expanded beyond the well studied Titanium dioxide (TiO₂) to meet the 10% goal. The U.S. DOE PEC Program targets for petrochemical hydrogen production exceed 10%, motivating a “new” three step approach to PEC materials R&D comprised of : 1) theory – materials and interface modeling; 2) synthesis – materials and discovery/development; and 3) analysis – materials and device development. Significant data-organization work and a world-class database will be requisite to success. Dr. Miller also relayed several guidelines or “key imperatives” for PEC research that have been adopted by the DOE-PEC WG and are expected to be championed by Task 26.

Dr. Miller characterized the four primary subtasks as:

- 1) Materials “Theory” Research & Development;
- 2) Material “Synthesis” Research & Development;
- 3) Material “Characterization” Research & Development;
- 4) “Information Coordination / Database” Development

He also elaborated on the human resource challenge associated with this R&D effort noting that teams will be created on standardized testing and characterization; materials/device theoretical models; and PEC database development. Other teams may also be created pending determination of needs. A September Experts Briefing will be held in Cancun, Mexico in conjunction with the International Materials Research Congress (IMRC). This event will be followed by the IEA HIA Experts October meeting in Honolulu, Hawaii, to be held in conjunction with the DOE PEC Working Group Meeting that will occur after the Pacific Rim Joint Electrochemical Society Conference.

4.4 Task 18 – Integrated Systems Evaluation (Dr. Schoenung)

Dr. Schoenung reported on Task 18 progress for the past six months and plans for coming six months. The ninth experts meeting took place 7-9 April, 2008 in Athens, Greece. The tenth meeting will take place in Denmark and Sweden; technical tours are planned for the Lolland Hydrogen Community in Denmark, and the Malmö bus and refueling station in Sweden. Task 18 now includes three subtasks. Ms. Emma Stewart of Sandia National Laboratories leads Subtask A; Ms. Maria Argumosa of INTA and Mr. Ismael Aso of Hidrogeno Aragon lead Subtask B; and Ms. Shannon Miles of NRCAN leads Subtask C, which was launched at the beginning of Phase II. To date there has been no participation from the European Commission (EC) in Phase II, which began January 1, 2007. Sweden and Norway have returned to the task. A National Participation Letter is needed from Switzerland. As New Zealand is expected to join the task soon, a National Participation Letter should also be forthcoming from this member. UNIDO-Ichet is searching for information on structuring tenders; the organization is interested in joining Task 18 and has conveyed this interest to the Secretariat as well.

Dr. Schoenung participated in the March Analysis Committee meeting in Paris. Her task has agreed to the Committee’s request to perform a Literature Search/Annotated Bibliography as the first step in support of the revived Hydrogen Resources Study effort with one caveat: Task 18 now requests guidance in defining the Literature Search. It was agreed that the Secretariat and Dr. Schoenung would work together to develop such guidance, which would then be reviewed by the Analysis Committee. Relative to external collaboration, Dr. Schoenung explained that she had attended an IPHE Demonstration Working Group (WG) meeting in Brisbane by invitation. She again requested

clarification on the IPHE relationship, noting the possibility of creating an Annex on Task 18 with the IPHE Demonstration WG. While her initial thought had been to focus cooperation on analysis of a particular Task 18 project, the IPHE Demonstration WG instead expressed interest in Task 18's information bases. She will continue to dialogue with the IPHE WG.

Task 18 was represented by several papers at WHEC, including two on the IEA HIA Conference track. Task 18 members from the UK and Canada also provided valuable input to the Secretariat for use in the May Rural Electrification Workshop at the IEA in Paris. Dr. Varkaraki and possibly Ms. Mary Gillie will participate in the fourth quarter "Hydrogen In Islands" Conference in Croatia.

For Subtask A, Information Base Development, Dr. Schoenung reported that the transition to a new subtask leader was complete. She explained that because Task 18 Subtask A software is not compatible with the IEA HIA website software, it was not readily possible to migrate the Subtask A site to the IEA HIA website under Secretariat management. The Secretariat explained that the IEA HIA website was built in standard PHP programming software while the Task 18 Subtask A website was built in a Microsoft product. Hence, converting the site to PHP for purposes of inclusion on the IEA HIA website would have entailed increased cost and complexity. After exploring various possibilities for Subtask A website management, Ms. Emma Stewart of Sandia National Laboratories assumed the Subtask leader position. She is now responsible for the Subtask A website and the substantial Subtask A Information Base, which is now housed on a government server.

The website topic again sparked discussion of knowledge management and the IEA HIA archives. Chair Beck led the ExCo in stating that Common Fund resources should be used for archiving purposes. Noting the earlier comment that Task 18 Subtask A software was incompatible with the IEA HIA website software, Mr. Garcia-Conde suggested that, at a minimum, the issue of task website compatibility with the IEA HIA website should be explored up front (before task website development) to facilitate the archival process. Ms. de Valladares explained that the IEA HIA Content Management System (CMS) allows uploading and archiving of many file types. However, the transfer, duplication or mirroring of other websites requires greater software compatibility.

Dr. Schoenung noted that while the final report for Subtask B had been published, it had not been printed. The Task 18 members would like to have a small number of copies produced. She summarized various Subtask B activities, noting differences in approach from the first phase, including the formation of two end-use analysis teams on refueling stations and electric power systems. Among Task 18's other activities, Dr. Schoenung highlighted the soon to be completed survey on government support for early and specialized hydrogen markets prepared by Ms. Gillie.

4.5 Task 19 - Hydrogen Safety (Mr. Hoagland)

Operating Agent Mr. William Hoagland reported on progress and future plans for Task 19. There are eight active members as the EC is no longer participating. Germany and Greece would like to become involved and the Operating Agent would still like to engage Switzerland via Swiss RE. (On the insurance industry, he also noted the desire to engage the U.S. company, Factory Mutual. A productive joint Task 22/Task 19 Experts Meeting was held in Sacacomie, Canada March 2-5, 2008 with significant opportunity for collaboration on safety issues. The next meeting will be held September 9-11 in Oslo, Norway. The final report for the first three year period of Task 19 is in the last phase of production.

Subtask A, Risk Management, has completed the products slated for the first three years: 1) the Risk Assessment Methodologies Survey (published January 2008); 2) the Comparative Analysis of RA Studies (published January 2008); and 3) the Knowledge Gaps White Paper (published May 2007). For Subtask A, phase II encompasses modeling tools and physical effects models: Activity A1: Develop uniform risk acceptance criteria; Activity A2 – Develop a list of appropriate engineering models and modeling tools; Activity A3 - Develop a methodology for consistent site risk assessment; Activity A4 - Release Updates (to all original Subtask A products). In turn, each Subtask A Activity has several subactivities.

Subtask B – Testing and Experimental Program Analysis with existing data and Subtask A input was published in May 2007. In addition, the Subtask B work plan includes three activities. Activity B1 – Survey of Existing Experimental and Testing Data and Facilities includes the HyTEF database. The HyTEF database structure was developed in May 2007; the website launch has been rescheduled to 2008. This site will have unlimited database capability and greatly expanded disk storage capability. Activity B.2 – Survey of Ongoing or Planned Projects – includes the HyPRO database. Activity B.3 – Analysis of Existing Data will link to the results of Subtask A in the HyTEX database by comparing methodologies in Subtask A and reconciling results to available data. If data are not available, new testing projects would be recommended to validate the Subtask A models.

Subtask C will produce targeted information products in consultation with the Operating Agent and Subtask leaders A and B.

Mr. Hoagland cautioned that execution of this Phase II work plan would require labor resources of at least 10 person years/year. Otherwise, the work plan would require adjustment. The committed Task 19 experts welcome additional participation. Task 19 looks forward to welcoming Russian participation pending the necessary approvals. Meanwhile, all but one National Participation Letter remains outstanding.

Mr. Hoagland also relayed that the U.S. DOE had suggested a name change for Task 19 in order to draw attention away from the prospect of uncertainty and possible danger. The name suggested was “hydrogen use in consumer environments.” Finally, Mr. Hoagland brought the opportunity for IEA HIA sponsorship and branding of the Third International Conference on Hydrogen Safety (ICHS), scheduled for September 2009 in Corsica, to the ExCo’s attention. He explained that the current funding for this safety conference, which has an excellent reputation, will come to an end as HySafe draws to a conclusion. The enthusiastic ExCo response included the direction to investigate EC funding (possibly through the JRC). The ExCo asked Mr. Hoagland to look into possibilities of funding for the conference.

4.6 Task 21 – Biohydrogen (Dr. Miyake)

Dr. Jun Miyake first delivered an overview of Task 21 and the growing global interest in biohydrogen. He emphasized Asia’s pronounced interest in the subject, noting that a regional framework called Asia BioHyLinks, similar to COST which ended last year, had been created through cooperation of scientists from Taiwan, Korea, China, Singapore and Japan. Asia BioHyLinks now operates independent of its member governments. He then reported on activities and progress in the four sub-tasks. Dr. Miyake concluded the presentation with a request for a two year extension of Task 21, as foreseen in the original Work Plan and explained in his SAR for this period.

The Secretariat also requested that Dr. Miyake provide the names and contact information of non-IEA HIA member country experts interested in Task 21 for membership recruiting purposes.

Chair Beck thanked Dr. Miyake for his presentation, which portrayed activities and progress in Task 21. The Chair asked Dr. Miyake to please include this level of information in his future SARs. In order to extend Task 21 as foreseen from the inception of this annex, Operating Agent Dr. Miyake will provide a final report on Phase 1 of the task as well as a work plan for Phase II. The Secretariat will facilitate development of these reports as appropriate.

4.7 Task 22 – Storage (Dr. Hauback)

Dr. Hauback opened his presentation with a personal note of thanks from Dr. Gary Sandrock to the Chairman, the Secretariat and the ExCo for being named as the winner of the inaugural IEA HIA Individual Prize. In his written remarks, Dr. Sandrock stressed the caliber, commitment and collaboration of the Task 12 and 17 experts whom he called “scientifically and personally the best in the world.” Therefore, he said, “this honor really belongs to them.”

Dr. Hauback then reviewed the Task 22 organization, reporting on activities as well as the last Task 22 meeting 2-5 March, 2008 in Sacacomie, Canada. The task now numbers 19 countries, 55 official experts (some National Participation Letters remain outstanding) and 50 projects. In Sacacomie, two new projects were approved, one from Y. Kojima at Hiroshima University in Japan and S.-I. Orimo at Tohoku University in Japan. The Greek expert, R. Stubos, will present a project at the next Task 22 meeting 6-10 October in Rome.

Dr. Hauback also updated the ExCo on interaction with the IPHE. One expert each from Russia and Brazil gave presentations at the Sacacomie Task 22 meeting. The Russian Federation wishes to participate in Task 22. The Russian Federation has formally conveyed its desire to participate by executing a Letter of Intent which stipulates that it will join the IEA HIA within 18 months of the November 2008 signing of the Memorandum of Understanding (MOU) between the IEA HIA and the IPHE. The Brazilian expert who attended the meeting as an observer was informed about the procedure for future participation, which requires execution of the previously mentioned Letter of Intent by the Brazilian government.

The Chair also thanked Dr. Hauback for making the feature presentation on the IEA HIA track at WHEC. The presentation, entitled Novel Materials for Hydrogen Storage – Status and Challenges, was co-authored by Dr. Hauback and IEA HIA Individual Prize Winner Dr. Gary Sandrock. Storage was distinguished as the “plenary type” presentation on IEA HIA track at WHEC in honor of Dr. Sandrock and the inaugural IEA HIA Individual Prize.

4.8 Task 23 - Small-scale Reformers for On-Site Hydrogen Supply (Dr. Schjøberg)

Operating Agent Dr. Schjøberg reviewed Task 23 objectives and membership. Among the nine members, mostly from the industrial sector, are major world reformer suppliers Mahler and Haldor Tøpsoe. Twenty-three (23) experts status participate in the three Task subtasks. Citing the Secretariat’s successful recruiting effort, Dr. Schjøberg was pleased that Task 23 has a new (and self-funding) U.S. member, Dr. Andrew T. Hsu of the Richard G. Lugar Center for Renewable Energy. However, she reminded the ExCo that Shell had withdrawn and she would very much like to reengage this key energy company.

Task 23 held its first quarter 2008 meeting in Tokyo. Dr. Schjøberg reviewed progress for each of the three subtasks. Subtask 1, Industrialized Harmonisation, will be completed in 2008. A list of reformer technology and components suppliers is in development. State-of-the-art reformer technology will be assessed according to a set of parameters. The availability and reliability of JHFC stations will be compared with results presented in CUTE.

For Subtask 2, Sustainability and Renewable Sources, no conclusions have yet been drawn regarding selection of feedstocks for reformation. Nine feedstocks are under consideration. CO₂ emission cost and fuel availability are key issues for multifuel reformers. Small scale Carbon Capture and Sequestration (CCS) is currently in the research phase; Small scale CCS is an alternative if there is CO₂ demand nearby. The choice of capture technology depends on the reformer technology. The Subtask 2 work plan includes: the best use of biofuels, reforming possibilities and availability; a presentation of the CCS research at ECN; and a presentation on state of the art use of biomass in Japan.

Dr. Schjøberg reported encouraging progress on Subtask 3 – Market Studies, comparison of Japanese/North American and Northern-European markets, particularly as regards the Japanese study. She suggested that this effort could benefit the IEA HIA's analysis objectives noting that Subtask 3 might cooperate with the Analysis Committee to the extent of providing the outputs of the market studies. In 2008 Subtask 3 will collect data on the U.S. and North European markets.

The ExCo discussion on Task 23 focused on technical details related to reformer performance but also addressed the ambitious breadth and depth of the task work plan and objectives. In particular, Mr. García-Conde observed that three years was a short period in which to effectively accomplish the goal of developing recommendations for harmonized capacities.

4.9 Task 24 - Wind Energy and Hydrogen Integration (Mr. Aso)

Before reporting on activities and progress in Task 24 Operating Agent Mr. Ismael Aso summarized the objectives and evolution of the task, which now includes nine (9) members and 20 experts as well as two (2) contributors (unofficial experts from task member countries.) The semi-annual experts meeting took place in 11-13 April in Athens in a joint meeting with Task 18 that was intended to identify cooperation opportunities and avoid duplication of efforts.

During the last six months, the new web page for Task 24 has been created with public access. For information sharing by task participants, a private site has likewise been created. Mr. Aso displayed examples of Task 24 "Homework" intended to elaborate a preliminary report on the state of the art in wind turbines, electrolyzers and intermediate equipment, as well as a survey of market and electrical system regulation, for Subtask A.

The draft of Subtask A's report on Analysis of System Equipment is slated for completion 15/7/08 as is the methodology for Subtask C. Also scheduled for mid-July delivery are Gamesa's Wind Turbine Technology and a draft questionnaire to be sent to Electrolyzer Manufacturers.

The first scientific communications from Task 24 were delivered at WHEC. Further communication is expected during the Fuel Cell National Congress, which will be held in Zaragoza in September in the context of EXPO 2008.

Mr. Aso concluded with the message that as Task 24 emerges from “start-up” mode, the team of experts is coalescing well. Expert participation is effective and most National Participation Letters have been received; Mr. Aso encouraged members to submit the outstanding letters as soon as possible. Document drafting is underway. Serious progress on Work Plan milestones is expected in the near term.

4.10 Task 25 – High Temperature Production of Hydrogen (Mr. Rodriguez)

Task 25 Operating Agent Mr. Gilles Rodriguez gave a brief overview of Task 25 and its three major solar and nuclear high temperature (500°C) hydrogen production process families: thermochemical cycles (pure and hybrid processes); steam electrolysis; and innovative direct water splitting. He announced there were some twenty (20) Task 25 related papers given at WHEC in Brisbane; Mr. Rodriguez himself gave a Task 25 presentation during the IEA HIA track. Task 25 held its first official meeting this March in San Diego, CA; nine members attended. Two countries, South Africa and India, were invited as observers. Attending for South Africa was Mr. Thomas Roos. Attending for India were Dr. Bhadwaj and Ms. Nuzhath Thomas of ONGC; they have expressed serious interest in Task 25 participation. The majority of National Participation Letters have been received from task members. The next Task 25 meeting will be at ENEA at the beginning of October in Roma.

The Operating Agent then reported on activities and progress over the past six months. For Subtask A, the final communication sheets summarizing each process will be available at the next meeting. Subtask A is utilizing INNOHYP project data to develop some 15 communication sheets. Pages one and four of each communication sheet present the basics of each process, while pages two and three supplement this information with a more in-depth view.

Subtask B, Benchmarking of Calculation and Methodology, is still in search of a Ph.D. student to perform the techno-economic analysis of high temperature production. The Ph.D. position is 100% funded by CEA; the successful applicant would be located south of Paris. Figures of merit for this subtask remain to be defined.

Subtask C, Review of Requirements for a Deployment Approach, seeks to engage more industrial participation. The Secretariat had introduced Dr. Anil Bhadwaj of the India Oil and Natural Gas Company (ONGC) to Mr. Rodriguez at the October 2007 World Hydrogen Technology Conference (WHTC) in Montecatini. Dr. Bhadwaj made a presentation at Task 25’s spring meeting in San Diego, CA, expressing deep interest in this subtask C. Mr. Rodriguez emphasized that ONGC would be a well-qualified and valuable participant for this subtask, reminding the ExCo that the IEA HIA Secretariat is working with ONGC facilitate India’s accession to the implementing agreement.

Subtask D, Communications, has begun with creation of a common document base located at www-prodh2-task25.cea.fr. Access to the site is provided on execution of the National Participation Letter. Further, Subtask D will also include preparation of papers that describe high temperature hydrogen production processes. This will be part of the homework process.

Stimulated by the richness of the Operating Agent’s summary of presentations at the first official meeting, the ensuing ExCo discussion touched on multiple aspects -- thermochemical watersplitting, high temperature electrolysis and solar hydrogen processes -- of high temperature hydrogen production. Dr. Bob Perret’s presentation on his complete overview of thermochemical cycles for solar hydrogen production sparked particular interest. As a result of this effort, five cycles compatible with solar are under active study by the Solar Hydrogen Generation Research (SHGR).

Mr. Rodriguez also reported on the HycycleS project, a three year European project initiated under the 7th Research Framework Programme. This projects aims to bring thermochemical water splitting closer to industrial deployment through qualification and enhancement of materials and components of the decomposition of sulphuric acid for the Hybrid Sulphur Cycle and the Sulphur-Iodine cycle.

5.0 Election

Chair Beck began the election process for a new implementing agreement Chair and Co-Chairs by thanking the Executive Committee for his rewarding experience over the past three years as IEA HIA Chair. He then explained the process used to develop the candidate slate, which called for Executive Committee members to send their nominations for Chairman and Co-Vice Chairmen to the Secretariat. Mr. Beck nominated Mr. García-Conde for the position of Chair and Ms. de Valladares confirmed that he was willing to serve. Mr. Jan Jensen was nominated for the position of Co Vice-Chair and Ms. de Valladares confirmed his willingness to serve. Mr. Beck then opened for floor for other nominations. Dr. Steven Pearce was nominated for the position of Co Vice-Chair; the nomination was seconded from the floor. Nominations were closed and the elected proceeded. Mr. García-Conde was elected Chair while Mr. Jensen and Dr. Pearce were elected Co Vice-Chairs, all by acclamation.

Mr. García-Conde thanked for Executive Committee for its confidence in him and emphasized his commitment to the mission and tradition of the IEA HIA.

6.0 Finance and Accounting (de Valladares)

Ms. de Valladares gave the financial report, beginning with the Statement of Cash Flows. Operating and Investment activities for the period January 2 to June 11, 2008 resulted in a cash position of \$74,922.37 at the end of the period. The Balance Sheet dated June 11, 2008 showed \$74,922.37 in the cash (checking account) portion of Current Assets; other Current Assets consisted of \$96,182.41 in Accounts Receivable for Common Fund dues. There was \$6,451.13 in Fixed Assets. There was \$177,555.91 in Total Assets as well as \$177,555.91 in the combination of all Liabilities and Equity. Relative to Profit and Loss, total expenses from January 1 through June 11 were \$134,006.22 against scheduled revenues of \$215,000 in Common Fund dues. The scheduled revenues have been supplemented by \$1,415.42 that was reimbursed in connection with expenses for the Brazil NEET workshop.

7.0 Communication and Outreach (de Valladares)

Ms. de Valladares reported on progress in communication and outreach.

7.1 Annual Report

As promised, the redesign process was completed for the 2007 Annual Report. This is a major step in creating a consistent corporate identity for the implementing agreement. The Annual Report was distributed at WHEC, where it was well received. All Brisbane meeting participants received a copy at the ExCo meeting; they were also invited to take the appropriate number of copies with them on departure. Otherwise, the ExCo and Operating Agents should expect the usual shipment of additional reports this summer. Expert copies will likely be shipped to task meeting locations pending task interest and Annual Report availability.

Also as promised, Mr. Kubota graciously gifted the ExCo with a Japanese translation of the 2006 Annual Report. The Japanese version will be posted on the IEA HIA website. The Chair again thanked the Japanese delegation for this valuable contribution.

7.2 Newsletter

The spring issue of the IEA HIA News, published in May, featured Task 22 Fundamental and Applied Hydrogen Storage Materials. The Technology Spotlight section in the two earlier issues had featured Task 18, Integrated Systems Evaluation and Task 20, Hydrogen from Waterphotolysis. The current issue also highlighted Task 18's Phase I final reports: the Subtask A report is entitled "Information Base Development"; and the Subtask B report is entitled "Demonstration Project Evaluations." Both reports are available on the IEA HIA website as are all newsletters. The newsletter will also be sent out via e-mail to qualified prospects. The May 2008 IEA HIA News was also produced in hard copy for WHEC where its consumption was brisk. The next issue will be published in the fall of 2008.

Mr. García-Conde suggested that we set up a place on the website to facilitate public registration for the Newsletter.

7.3 IEA HIA Website

Content remains a priority for the IEA HIA website. A new feature, a "What's New" button on the home page, will be ready soon. The IEA HIA website was designed to be archive capable from the outset. Thus, a centralized approach to the archival component of IEA HIA knowledge management is already in place. The ExCo is in agreement that the archival function should be maintained using Common Funds. IEA HIA Secretariat hosting of new tasks is possible but will require architecture modification to expand the IEA HIA site.

To increase newsletter readership, Mr. García-Conde suggested adding a newsletter registration feature to the website. Chair Beck raised the possibility of asking website visitors to disclose contact information in order to access some (or all) of the IEA HIA reports on our website. This elicited an ExCo discussion on privacy issues and the web. The Secretariat will ask the Legal Counsel for guidance on this matter.

The IEA HIA website space requested by Task 21 is now populated with some Task 21 documents and remains ready for continued use by this task. Task 18 Operating Agent Dr. Schoenung selected a commercial server to host Subtask A after the current Subtask A leader completed his tenure. The website will be maintained with support from Sandia National Laboratories. Ms. de Valladares will survey Operating Agents on the software and architecture of their task websites to facilitate knowledge and website management.

To drive increased traffic to the website, Mr. Hoagland suggested purchasing a Google ad, which costs ~\$50. Ms. de Valladares will follow up.

7.4 Conference Schedule 2007 and 2008

Since 2005, the Secretariat has kept a scorecard for implementing agreement conference participation, whether presentations or exhibits or a combination thereof, by audience/event type. The relevant list of audience/event categories spans markets that the IEA HIA may want to influence

now or in the future. It begins with the IEA and the hydrogen. Planned conference events for 2008 (and late 2007) appear below:

Audience/Event Categories	Number
• Internal IEA	1 NEET Rural Energisation Workshop - May [de Valladares]
• External IEA	2 Possible NEET presentations - Russia and India [TBD]
• Hydrogen	7 - UNIDO-Ichet Oct. 2007 mtg during ISLENET [de Valladares]) -NHA - March [Beck]; -IPHE Steering Committee Meeting – April [deValladares]; and Hydrogen for Developing Countries (HFDC) – April; - WHEC - IEA HIA track (featured storage “plenary” plus 7 other presentations) and exhibit - HyForum in China – August [no speaker identified] -Fuel Cell Seminar – October [TBD] -UNIDO-Ichet Oct. 2008 ISLENET Conference [Varkaraki]
• Renewable/Sustainable	0
• Environmental	1 Supported French Hydrogen Day
• Conventional Energy	1 World Energy Conference (poster)
• Transportation	TBD
• Utilities/Infrastructure	TBD

Ms. de Valladares explained the significance of each event and the activities (e.g., presentation, exhibit). Although the IEA HIA received approval for its HyForum abstract (the conference will be held in China during the month of August), no ExCo member was as yet available to deliver the presentation so our participation is uncertain.

The Secretariat noted that cooperation with WHEC organizers in Australia had resulted in the first-ever IEA HIA track at WHEC event. Mr. Hake emphasized that the IEA HIA track was a conference highlight.

There was a short discussion about the conference strategy and a broader discussion about audiences the IEA HIA should target in its outreach activities.

7.5 Public Relations/Other

The IEA HIA continues to receive very favorable coverage for various task related activities in the IEA Open Bulletin. The one-page IEA HIA flyer, which has always been a very effective marketing piece for a broad range of audiences, will undergo a regular update in the near future.

At the IEA HIA Networking Dinner, “Ange HIA” awards were given to Ms. Kim Phillips of CSIRO for her excellent support of the Brisbane ExCo meeting and Mr. Darius Carpenter for hosting the IEA HIA website at no charge.

At the concluding ceremony of WHEC, the IEA HIA bestowed its “Ange HIA” award on WHEC Conference Organizers Dr. Andrew Dicks and Dr. David Rand. Their cooperation with the IEA HIA Secretariat enabled creation of the IEA HIA track at WHEC, featuring a “plenary-length” presentation on storage in honor of the inaugural IEA HIA Individual Prize winner, Dr. Gary Sandrock.

8.0 Closing and Adjournment

8.1 Unfinished Business

Mr. Frank Denys made an unscheduled presentation on his life and environment in the Netherlands. He expressed hope that others would follow suit in future meetings as a team-building technique that would familiarize ExCo colleagues with non-IEAHIA work related aspects of their lives.

8.2 Executive Committee Meeting Schedule

The ExCo meeting schedule was agreed as follows:

8.2.1 4th quarter 2008 59th ExCo Meeting – Athens, Greece, 5-7 November (Wednesday-Friday) with a Friday afternoon departure; the meeting would be preceded by a tour Wednesday morning, 4 November, followed by an afternoon Strategic Planning Session; the Operating Agents' meeting would be held Wednesday evening, 4 November.

8.2.2 2nd quarter 2009 60th ExCo Meeting – USA, location TBD, 27-29 May. Dr. Carole Read mentioned some location options for a U.S. meeting: the leading candidates are California and Oregon. The 2009 Hydrogen Program Review will be held 18-23 May in conjunction with the Office of FreedomCAR and Vehicle Technologies Review before the ExCo meeting. The Canadian Hydrogen Conference will be held in Vancouver following the ExCo meeting.

8.2.3 4th quarter 2009 61st ExCo Meeting

In view of the fact that the Conference of the Parties (COP) 15 will be held in Copenhagen, Denmark, during 2009 weeks 49 and 50, the Secretariat had asked Mr. Jan Jensen to consider the possibility of holding the ExCo meeting during that period. He graciously gave a presentation about Copenhagen, suggesting week 48 as a tentative target but also explaining the short days and weather conditions prevalent at that time of year. The ExCo expressed thanks for Mr. Jensen's presentation and his offer to host a meet in connection with the important COP conference. However, the ExCo was not enthusiastic about the daylight and weather conditions. In light of this reaction, the new Chairman Antonio García-Conde suggested Spain as a tentative location for the 61st meeting. The ExCo was receptive to this proposal so the Chairman will elaborate it for further consideration.

8.2.4 2nd quarter 2010 – Essen, Germany, June 2010

Proposed by Mr. Hake for the second quarter 2010 meeting is Essen, Germany, site of WHEC 18. In view of the possibility to schedule the ExCo in conjunction with WHEC 18, Mr. Hake will investigate this opportunity and report back to the ExCo.

Acknowledging that the IEA HIA had made a sincere but unsuccessful effort to avoid a complete overlap between the ExCo meeting and the IPHE meeting in Brisbane, Chair Beck instructed the ExCo and Secretariat to please ensure that ExCo meeting dates do not conflict with IPHE meeting dates in the future.

8.3 Closing Comments

On behalf of the entire ExCo, Chair Beck thanked Dr. Wright and his Assistant, Ms. Kim Phillips, for their kind hospitality and organization during the meeting and related events. He noted the spectacular location for the hosted dinner, featuring a view of the Southern Cross; CSIRO's efficient support for the Networking Dinner, complete with cashier service; and the comfortable and convenient meeting facilities located adjacent to the conference facility. He then thanked the members, Operating Agents and observers for their contributions to the 58th ExCo meeting.

8.4 Adjournment

Before adjourning Chair Beck addressed the group one final time in his capacity as Chair. He thanked the ExCo for the opportunity to serve as IEA HIA Chair, calling his tenure an enriching professional experience. He cited the effective participation of members and Operating Agents together, with the Secretariat's competent support as factors contributing to the productivity of his Chairmanship. Finally, he encouraged the ExCo to vigorously continue its pursuit of the IEA HIA mission and vision, assuring the group that he will continue to play an active part as Canadian Representative to the implementing agreement.

List of Presentations
58th EXECUTIVE COMMITTEE Meeting
Brisbane, 19-20 June 2007
IEA Hydrogen Implementing Agreement

IEA Hydrogen Annex XVIII - Task 18 Integrated Systems Evaluation

Dr. Susan M. Schoenung

International Energy Agency Hydrogen Implementing Agreement - Executive Committee Meeting
Montecatini, November 7-9, 2007 Task 19 –Hydrogen Safety

Mr. William Hoagland

Annex 20 - Hydrogen Production from Water Photolysis

Dr. Andreas Luzzi

Task 21 BioHydrogen – 58th Executive Committee Meeting, 19-20 June, 2008 Brisbane, Australia

Dr. Jun Miyake

Semi-Annual Progress Report Task 22: Fundamental and Applied Hydrogen Storage Materials
Development, 58th Executive Committee Meeting, 19-20 June, 2008 Brisbane, Australia

Dr. Bjørn C. Hauback

IEA HIA Task 23 Small-scale Reformers for Onsite Hydrogen Supply, ExCo Meeting 19-20 June,
2008

Dr. Ingrid Schjøllberg

IEA HIA Task 24 Wind Energy and Hydrogen Integration-TASK REPORT – 58th Executive
Committee Meeting, Brisbane

Dr. Luis Correas and Mr. Ismael Aso

Task n° 25 High Temperature Processes (HTP) for Hydrogen Production, 58th Executive Committee
Meeting

Mr. Gilles Rodriguez

Advanced Materials for Hydrogen from Water-Photolysis IEA-HIA Annex 26, 20 June 2008

Dr. Eric Miller

Chairman/Secretariat Report – 19 June, 2008

Chair Nick Beck and Ms. Mary-Rose de Valladares, IEA HIA

Communication and Outreach – 20 June, 2008

Ms. Mary-Rose de Valladares, IEA HIA

List of Participants
58th EXECUTIVE COMMITTEE Meeting
Brisbane, 19-20 June 2007
IEA Hydrogen Implementing Agreement

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