

EPPSA Annual Report 2006



Photo cover: Atomium, Brussels

EPPSA heartily thanks Commissioner Piebalgs, Mr. Wittke and all of the EPPSA members for their assistance and enthusiasm helping us make this report a reality.

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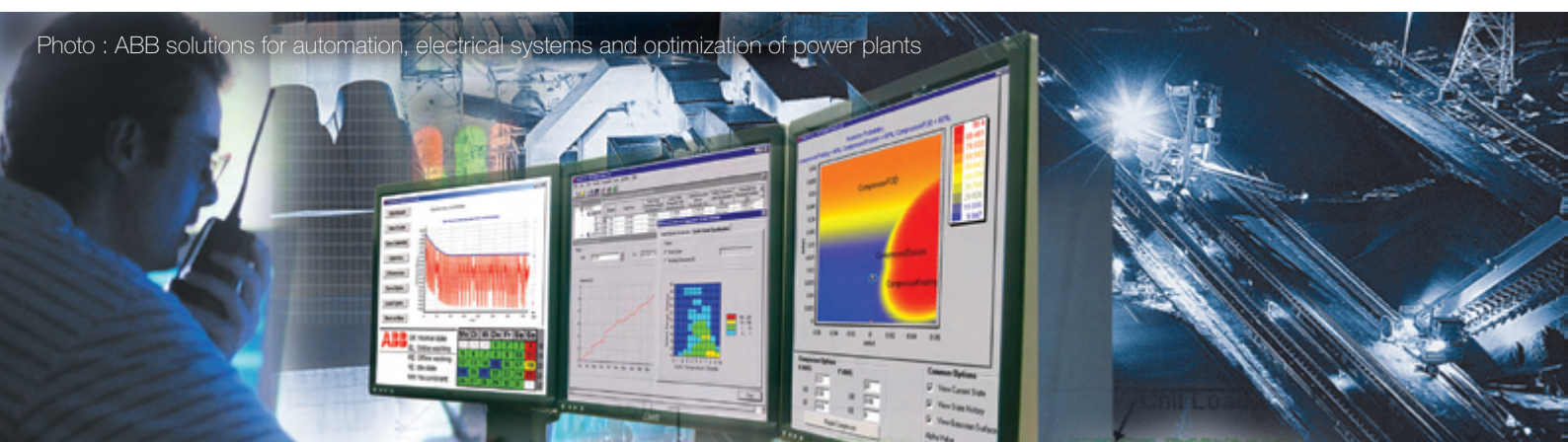


Photo : ABB solutions for automation, electrical systems and optimization of power plants



Photo : Foster Wheeler, Tehdas Lignite Plant in Bogatztzia, Poland



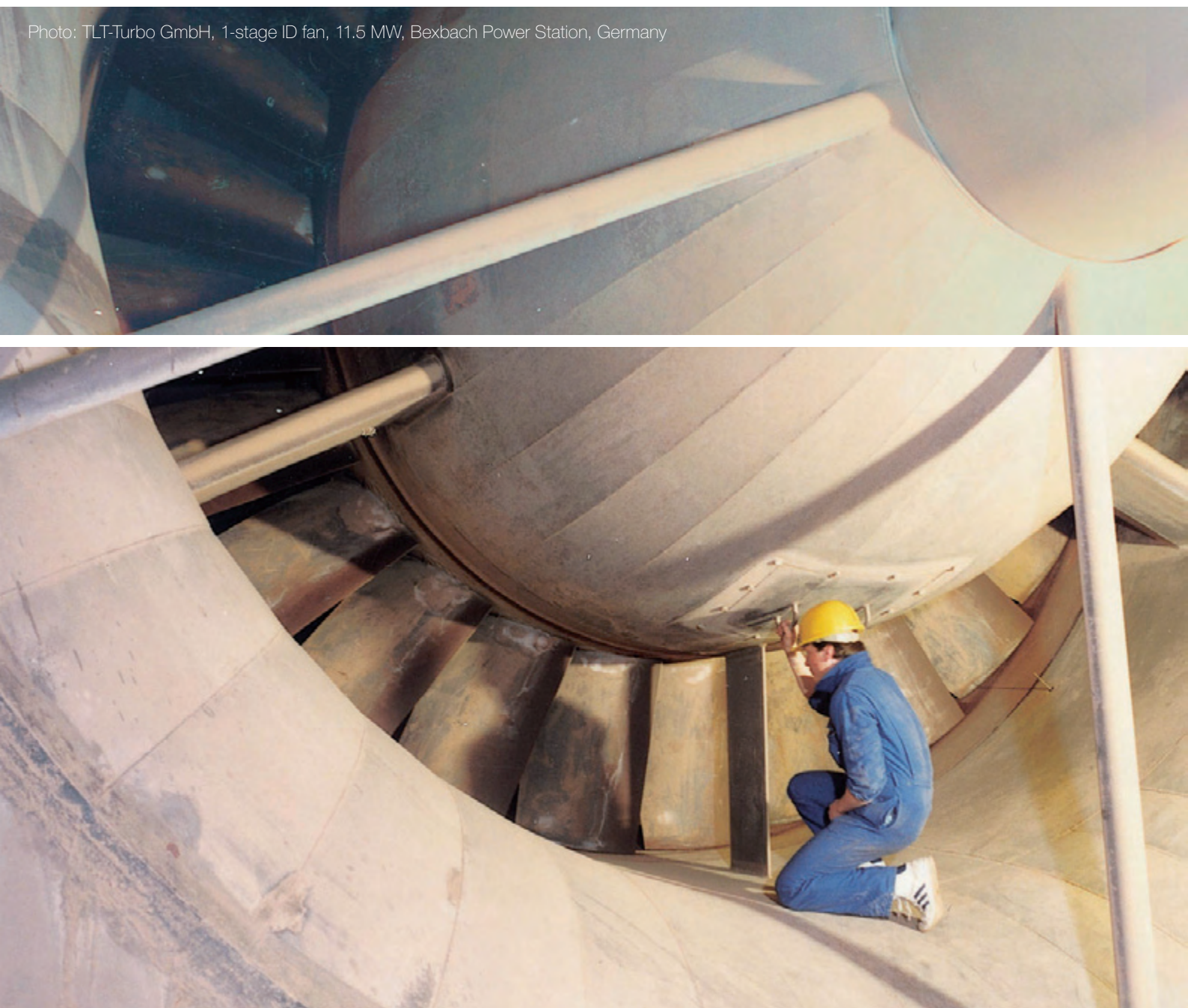
Photo : Doosan Babcock, Black Point gas fired power station in Hong Kong

EPPSA Uniform statement

The European Power Plant Suppliers Association (EPPSA) is the voice, at a European level, of companies developing, manufacturing and continuously improving components for power plants as well as building turnkey power plants. EPPSA's members, throughout Europe, represent a leading branch of technology with more than 100 000 employees and an annual turnover of over EUR 20 billion.

EPPSA actively promotes projects aimed at improving efficiency and environmentally friendly processes in electricity generation, particularly the concept of zero or near zero emission power plants. EPPSA believes increased investment in Research, Development and Demonstration is a key factor in driving EU competitiveness as well as assuring a high-quality power supply to consumers across Europe.

Photo: TLT-Turbo GmbH, 1-stage ID fan, 11.5 MW, Bexbach Power Station, Germany



Message from the Commissioner

The year 2006 was a crucial year for European Energy Policy. Due to new challenges and changes in the energy world, Europe entered a new arena.

The global demand for energy increased within a framework of high and unstable energy prices. Emissions of greenhouse gases have risen, and still continue to rise. It is clear that the European Union and the rest of the world have not reacted quickly enough to increase the use of low-carbon energy technologies or to improve energy efficiency.

Since Europe's energy system must rapidly progress, this means for the conventional Power Plant sector, and therefore for the suppliers who develop the necessary technology, that more efficient conversion processes are needed. This is even more important, as low-carbon conversion technologies for electricity generation will be the key element to avoid emissions from this sector and to achieve extensive near-zero emission fossil fuel power plants.

In the 21st century technology has a vital role to play in breaking once and for all the link between economic development and environmental degradation, by ensuring sufficient clean, secure and affordable energy. Strong policies to enhance energy efficiency, promote renewable sources of energy and incentives for the introduction of low-carbon technologies, combined with a stable market for carbon emissions, can set the direction. But technology, allied to behavioural changes, will also have to deliver.

The Commission sees that it has to play a major role in setting the right legal framework, not only regarding the storage of the CO₂, in order to allow Carbon Capture and Storage Technologies to



spread all over the Power Plant sector. The industry, and therefore EPPSA's members are challenged to deliver the necessary technological research and development, thus "Developing the Future", in order to allow these Technologies to be demonstrated at a later stage.

These sustainable coal and gas technologies could lead to large-scale initiatives as the European Union, as a whole, needs to find a more powerful way of mobilising resources in ambitious result-oriented actions.

The Commission intends therefore to present during the year 2007 not only the first steps towards a necessary legal framework, but also to deliver the first Strategic Energy Tech-

nology Plan by the end of 2007 which will be the start of a dynamic process that will be regularly reviewed and adjusted to changing needs and priorities.

2007 will consequently be marked by a steep change in the European Energy Policy, where technology will play a major role.

Andris Piebalgs
Energy Commissioner



Photo: GEA Energietechnik, Fan assisted natural draught cooling tower, Ribatejo, Portugal



Message from the President

More and more energy is needed today to meet global demand.

2006 has witnessed a major change in global and EU energy policies having an impact on EPPSA member companies.

With indigenous production in Europe not able to meet the ever-growing demand for fossil fuels, the European Union must turn to imports. The demand for these fuels is increasing, as is competition amongst importers. As a result, geopolitics plays a massive role in today's global energy distribution, directly affecting the European power generation business, as well as the overall well-being of European citizens.

2006 saw key development in EU policies with officials and politicians giving vast importance to the areas of energy and the environment leading to the publication of the Energy Packages on 01 January 2007. In March 2006, the Commission launched its *Green Paper, a European Strategy for Sustainable, Competitive and Secure Energy* to deliver a common Energy Policy for the EU.

It is key for equipment suppliers, such as EPPSA's members, that long-term security of supply is attained, that energy prices remain stable, that any negative patterns associated with climate change are mitigated in order to ensure the competitiveness of the European economy. EPPSA wholeheartedly supports addressing what European Commission President Barroso described as the "Kyoto-Lisbon-Moscow triangle", in order to meet today's changing energy outlook.

EPPSA used the expertise drawn from its members to express its views in various position papers: *EPPSA Position Paper on Recommendations for the 7th Framework Programme for R&D*; *EPPSA's CO₂ Capture Ready Recommendations*, *EPPSA's Recommendations for the European Strategic Technology Plan (SET)*. These are aimed specifically at the Directorate Generals responsible in the Commission and at various committees in the European Parliament, but also to serve as a fundamental way to educate key stakeholders and raise awareness in the general public.

2006 saw an upturn in interest in new power plants, in coal, as well as gas, and the beginning of bottlenecks in supplies. EPPSA companies that previously had been faced with downsizing and closure of manufacturing plants are suddenly required to ramp up their capacity to deliver power plants in an incredibly short time span - a challenge that our industry has been able to meet. Certainly this upturn in orders helps the development and competition of our members, but they need to be sure that they can reliably deliver as



promised. Europe needs bright, young engineers in this field ready to face these hurdles and it is of ultimate importance that our university system adequately prepares them for these challenges. EPPSA's members have close ties with prestigious European universities and offer engineering students the opportunity to gain professional experience by performing an industrial related traineeship.

EPPSA is proud to demonstrate its commitment to a future with near zero emissions. And what could be a better way to demonstrate this dedication, but by acting as a third party sponsor to the European Technology Platform on Zero Emission Fossil Fuel Power Plants (ETP ZEP)? Even before the formal creation of the ETP ZEP, in 2005, EPPSA has been an active stakeholder.

A drastic reduction of CO₂ emissions is attainable by increasing the efficiencies of new Power Plants using the best available technologies and by installing downstream CO₂ capture technologies and through the implementation of Zero Emission Power Plants. EPPSA strongly pushes for 10 – 12 Demonstration plants by 2020 just as the ETP ZEP does in its Strategic Research Agenda and Strategic Deployment Document.

EPPSA is committed to bringing the concerns of its members to the attention of policy makers by actively voicing its beliefs. To achieve this, EPPSA coordinates with the European Institutions and other associations active in the energy field. This has enabled EPPSA to gain a noteworthy reputation among policy makers, stakeholders and the different bodies involved in the field of power generation.

In 2007, EPPSA will continue to pursue its overall mission: finding solutions to reach higher efficiency in power plants, striving towards zero emission power generation, while continually investing in R, D & D to contribute to our members' competitiveness on the worldwide market. I have confidence in EPPSA just as I have confidence in the future for our members, the equipment suppliers.

A stylized, handwritten signature in black ink, consisting of several loops and a long horizontal stroke.

Andreas Wittke
President of EPPSA

Photo: Hitachi Power Europe, Tube ball mill type RKD, Herne 4, Germany



Secretary General's message

EPPSA is a recognised player in the European environment.

2006 was certainly another fruitful year for EPPSA, strategically based in Brussels since January 2005 - with the constant buzz and flurry of activity that one finds in the heart of Europe.

EPPSA elected Andreas Wittke as its new president in 2006. He succeeds Didier Pflieger who held the post almost since EPPSA's inception. We wholeheartedly thank Mr. Pflieger for his dedication and support during the early years where he confidently led EPPSA through a structural reorganisation; relocation to Brussels and hand selected a new team. Without his support, EPPSA surely would not be as well established in Brussels as it is today. Mr. Wittke, already very familiar with EPPSA, has been an active member having served as a Member of the Board of Directors and as Treasurer. He brings expertise from many years in the European power generation business. With Mr. Wittke's support, we look forward to bringing EPPSA to the forefront of our European lobbying efforts.

EPPSA experienced growth in its membership with two new companies joining in 2006 and cordially welcomes both ABB and Austrian Energy & Environment Co.

Within the European Union, EPPSA represents the thermal power generation suppliers particularly towards the EU institutions. EPPSA strives to promote the interests of its thirteen member companies at a political level as well as increasing public awareness toward our main areas of concern. EPPSA was pleased to see that Clean Coal Technology was included in the 7th Framework Programme as its own *activity*; one very much supported by our lobbying efforts.

EPPSA members continue to be active in the working groups of the European Technology Platform on Zero Emission Fossil Fuel Power Plants (ETP ZEP), as well as within the Advisory Council and the Coordination Group. The structure of the ETP ZEP is changing but the fundamentals remain the same and EPPSA has shown its commitment in its role as a third party sponsor of the ZEP.

EPPSA proudly hosted its first ever *EPPSA Technology Evening* in December. Commissioner Piebalgs agreed to give the keynote speech. This was delivered by his esteemed member of Cabinet, Mr. Garcia Porras, due to an unforeseen travel conflict in Mr. Piebalgs' schedule. Mr. Garcia Porras spoke of the European Commission's support of the development of competitive, innovative power generation technologies that deliver greater efficiency



and lower CO₂ emissions, which is in line with the Energy Package to be adopted early 2007. President Wittke, with support from Mr. Rennert, gave an account of the state-of-art technologies being developed by EPPSA member companies towards tackling CO₂ emissions. We were thoroughly pleased with the significant turnout and invite you to join us in 2007.

There are still hurdles that remain to be addressed. Due to imbalanced distribution of fossil fuel sources (only 5% of known fossil fuel reserves are effectively located in the EU25), the European Union faces growing dependence on outside sources. Predictions reveal that electricity consumption will double globally by 2030 and

electricity demand in the European Union will increase 35% by 2030. With these daunting figures before us, we need to find solutions in a reasonable way to secure a varied fuel mix, to improve efficiencies in power plant technologies, not only due to scarce resources, and to ward off negative effects of climate change where possible.

Let us not forget that at least 1/4 of the world population does not even have access to electricity. When access is made available, electricity consumption will undoubtedly skyrocket. We need to ensure that from the start, the way in which this power is generated is clean and efficient.

The EU further opened its doors in January 2007, this time south-easterly to Bulgaria and Romania. Changes on the current energy horizon are naturally anticipated. Romania is blessed with significant fossil fuel resources. Bulgaria is not as rich in natural resources but has a very well developed energy sector. As we welcome EU's newest member states, the importance of a EU-wide external energy policy is highlighted.

Finally, I would like to take this opportunity to warmly thank all of our members and partners, as well as all the EPPSA staff, who helped us achieve our goals during the past year and with whom we will be closely cooperating in the future.

A handwritten signature in dark ink, appearing to read 'P. Clerens'.

Patrick Clerens
EPPSA Secretary General

Photo: Transelektro cooling towers, Hungary



EPPSA's key messages

The European Power Plant Suppliers Association (EPPSA) is the voice, at a European level, of companies developing, manufacturing and continuously improving components for power plants as well as building turnkey power plants. EPPSA's members, throughout Europe, represent a leading branch of technology with more than 100 000 employees and an annual turnover of over EUR 20 billion.

It actively promotes projects aimed at improving efficiency and environmentally friendly processes in electricity generation, particularly the concept of zero or near zero emission power plants. EPPSA believes increased investment in Research, Development and Demonstration is a key factor in driving EU competitiveness as well as assuring a high-quality power supply to consumers across Europe.

1 Balanced energy mix

Energy demand is forecast to rise tremendously over the next decades. Each region has its own particular energy sources, often linked to geographical, historical or geopolitical reasons. In order to meet this demand and the needs of security of supply the answer is not found in a single, champion energy source. All available energy sources are needed to meet the challenges.

2 Improve efficiency in power generation

Efficiency needs to be improved in power generation in order to respect the sustainable use of our scarce resources and to effectively address the climate change problem. These efficiency improvements for new as well as existing plants are also crucial for our industry's competitiveness on a global level.

3 Clean, competitive, secure technology needs implementation of new fossil fuel technology

Modern fossil fuel technology meets the expectations and requirements of the environment, the industry and the consumers. In order to take advantage of these evolutions in the power sector, the implementation of new fossil fuel technologies must begin today.

4 Serving climate change needs new technologies implemented globally

New technologies must be implemented wherever emissions are produced. Therefore, it is essential to have a global approach to mitigate climate change and to ensure that new technologies are globally accepted for use in all countries primarily relying on fossil fuels. This is a particularly pressing issue when considering that these same countries have demonstrated a rapid surge in growth rates and a massive demand for electricity, thus escalating their output of CO₂ emissions.

5 New technology needs R & D

The answers to the environmental and competitiveness questions lie with technology. Challenging targets have been set. The only path to follow in order to address these targets is that of technological development. Therefore, it is critical that Research & Development attract more investment to be capable of delivering zero emission fossil fuel power plants ready to be deployed at commercial scale. The suppliers demonstrate their support by investing heavily; we need others to do the same.

6 Securing European technology leadership requires urgent investment in 10-12 demonstration plants

Numerous calls have been voiced for these 10 – 12 demonstration plants and time is of the essence. As long as the industry scale feasibility of new technologies has not been demonstrated, no investment will take place. Considering all different emerging capture technologies and considering all different storage possibilities, the figure of 10 – 12 demonstration plants appears indeed quite low. Funds, and the legal framework, should be foreseen to support even more demonstration plants to cover all technological possibilities and all storage options.

Photo: Ansaldo Caldaie, Heat Recovery Steam Generator in Antwerp, Belgium



EPPSA activities

Photo: A view of the speaker's table during EPPSA's Technology Evening 2006

EPPSA Technology Evening 2006, Brussels, 07 December

EPPSA's Technology Evening triggered more than 220 registrations from key players in the field of power generation and proved to be an excellent networking opportunity for all present. The EU Commissioner for Energy, Mr. Piebalgs was foreseen as a speaker in the programme, but due to unexpected geopolitical developments, he had to travel to Moscow on this day. Mr. Garcia Porras, a Member of his Cabinet replaced Mr. Piebalgs and delivered political messages and priorities on his behalf. The first speaker, Mr. Clerens, the Secretary General of EPPSA extended a warm welcome to all of the guests and gave a brief history of EPPSA. Next to speak was Mr. Garcia Porras who highlighted the European Commission's support of the development of competitive, innovative power generation technologies that deliver greater efficiency and lower CO₂ emissions. The Commission's commitment to these objectives shall materialise in the Energy Package, due to be adopted in early January 2007. The Commission encourages and supports the ambitions of the Zero Emission Fossil Fuel Power Plants Platform (ZEP) for the construction of industrial-scale power plants in Europe, through earmarking part of the 7th Framework Programme for Research budget in order to support a risk sharing fund with the European Investment Bank.

EPPSA's President, Mr. Wittke then gave an account of the state-of-art technologies, which are being developed in view of tackling CO₂ emissions. EPPSA's Member Companies introduce primary measures to the markets, such as technologies that increase the efficiency of power plants, resulting in a lowering of CO₂ emissions as well as improvements in capturing technologies for the generated CO₂. Mr. Rennert, EPPSA Board Member from Hitachi Power Europe, then finalised the presentation. He stressed that EPPSA's Members heavily invest in R&D to deliver zero emissions fossil fuel power plants that are ready to be deployed at commercial scale. Mr. Rennert urged the European Commission and the other Institutions to establish a stable legal framework for a sector that is characterised by a long production process and thus slower reaction to the trends.

Afterwards, guests were invited to a walking dinner in the spacious balcony area. They were encouraged to visit the exhibit area where the 3-D model of a steam generator surrounded



by EPPSA's technical posters were on view. Experts from the member companies were on hand to answer questions and to explain the inner workings of Carbon Capture and Storage to all participants.

European Technology Platform - Zero Emissions Fossil Fuel Power Plants (ETP ZEP)

In order to guarantee that the next power plant generation will meet energy demands,

EPPSA felt it necessary to coordinate our efforts with other stakeholders in the energy production field and, therefore, laid the foundation for the Zero Emissions Fossil Fuel Power Plants (ZEP) Technology Platform, by initiating the first stakeholders' meeting in December 2004.

Meanwhile EPPSA has retained, via its members, an active role in the various Working Groups, the Coordination Group and the Advisory Council of the ETP ZEP and is proud to be a third party sponsor of the ETP ZEP.

In order to coordinate the actions and to facilitate informational exchanges, amongst key players in the energy industry, EPPSA co-organised several stakeholder meetings, where our members, including ones not directly participating in the ETP ZEP, had a chance to exchange their views with other companies on the topics related to the ETP ZEP.

The Second European Climate Change Programme (ECCP II)

EPPSA experts participated, by request of the European Commission, in working groups of the ECCP II Review Group, more specifically in the two topic groups concerning Energy Supply and Non-CO₂ Greenhouse Gases. Our representatives provided input directly to the Commission that has been taken into consideration

for defining the next needs for legislation in the emission regulations.

It has proven to be very useful to the whole process that EPPSA Members delivered expert knowledge to complete the information the Commission received from other stakeholders, such as NGOs. We would like to take this opportunity to thank Mr. Morin (Alstom) and Mr. Hiltunen (Foster Wheeler) for the time and effort they dedicated to this process and for the excellent coordination work accomplished with the other EPPSA members via our Technical Committee.



Photo: EPPSA's Technology Evening 2006 drew a large crowd.

High Level Group on Competitiveness, Energy and the Environment

EPPSA is active, via its members, in the High Level Group on Competitiveness, Energy and the Environment. This group is composed of high-level stakeholders, populating nine Ad hoc groups in 2006, and under the aegis of the Directorate General Enterprise & Industry, seeks to foster consistency between policy and legislative initiatives. The Ad hoc groups gather to undertake such issues as: a sustainable energy future, improving energy efficiency and the current emissions trading scheme to contribute to creating a more stable, predictable and competitive regulatory framework.

European Energy Forum

EPPSA co-sponsored Energy Mix Workshop & Dinner Debate Future Power Generation Options in the EU: A Sustainable, Competitive and Secure Energy Mix Brussels, 03 October

EPPSA, as a co-sponsor along with EREC, EUnited Turbines, EURELECTRIC and FORATOM, was pleased to attract more than 100 delegates to participate in this unique workshop addressing the issue of Energy Mix. Members of the European Parliament as well as representatives of the European Commission, EU Member States, industry, academia and NGOs were all on hand. EPPSA member, Dr. Farley, of Doosan Babcock, spoke on the role of fossil fuels have to play by presenting "Coal Power Generation – the Future". Coal, being a vital energy source, will continue to be used globally particularly as it is essential to meet the needs of developing countries. Clean Coal is a long term, secure investment being less expensive than renewable energy sources and can be much cleaner than in many power plants currently in use. Dr. Farley stressed that EPPSA and its member companies endorse the "Twin-Track" approach to CO₂ abatement from fossil fuels – that of increasing efficiency in power plants and involving Carbon Capture and Storage (CCS). He also encouraged the EU to include Clean Coal for power generation in order to meet its energy, environment and competitiveness objectives, to set an environmental example to global markets and to offer substantial manufacturing and employment opportunities for European industry. EUnited Turbines spoke of the importance of gas and steam turbine technology while British Energy covered the prospects of nuclear power in the energy mix and EREC, the European Renewable Energy Council, demonstrated the potential for



renewable energy sources. During the dinner, Mrs. Morgan, MEP and Rapporteur on the Green Paper addressed the attendees and gave an overview of her report on the Green Paper. It is always useful to meet and exchange views with other stakeholders. In this particular instance, a member of EREC, claimed that in 2040, 82% of electricity will be provided by Renewable Energy Sources, a point that EPPSA strongly questioned during the debate.

EPPSA is an Associate Member of the European Energy Forum (EEF) and thus has the opportunity to organise informative dinner debates as well as attend other debates and on-site technical visits on a frequent basis. Through the EEF, a crucial exchange of information is facilitated between members of the European Parliament, Commission, Council and other stakeholders involved in energy related issues. Oftentimes EPPSA uses this opportunity to disseminate its point of view and also uses the opportunities to participate in the excursions offered by the EEF to gain a better understanding for the different local energy topics and the specific situations existing in the European Member States.

SESEM-CFT

Securing Energy Supply and Enlarging Markets through Cleaner Fossil Technology

The SESEM-CFT project is one undertaken by a consortium of six organisations combining scientific technical excellence, commercial understanding and programme management expertise. The partners provided independent authoritative judgements based on direct experience with clean fossil technologies (CFTs) and industry. EPPSA, being one partner in the consortium, is particularly well placed for interaction between public authorities and the key players in the fossil fuel utilisation sector.

The SESEM-CFT project concluded in 2006 after successfully hosting various Industry Forums to co-ordinate the communication between EU CFT industries and the European Commission and a final report was produced by the consortium members. A major new activity resulted with the objective to provide the EU CFT industry and other EU decision makers with information on the development and evolution of the Clean Development Mechanism (CDM) and Joint Implementation (JI), and on the possible implications these could have for CFTs. This project will provide an important step forward in the development of knowledge and understanding on this issue and has never been undertaken before.

Photo: CMI Heat Recovery Systems boiler, Thessaloniki Project, Greece



therefore adapted to the existing framework.

EPPSA's presence is felt

During 2006, EPPSA participated in a large number of important stakeholder meetings and noticed a huge increase in energy-related events throughout the year. EPPSA was present at a variety of events of interest and importance, in order to better gauge its lobbying priorities and promote its views. Amongst others, EPPSA participated in:

New Build and Retrofit Challenge, London, United Kingdom 09-10 November, where EPPSA presented the state of the current energy scene in the European Union and proposed various ideas to better address the Technology Research, Development and Demonstration needs. This gave EPPSA the opportunity to get a better understanding for the specifics of the UK market.

Another important event was the **ABB Energy Dialogue, Schwetzingen, Germany 15 March**, where EPPSA met directly with different EPC contractors via its member company, ABB. It was an opportune moment for EPPSA to illustrate the latest evolutions occurring in the Brussels Energy scene, as demonstrated in its presentation as well as gauging reactions from clients of the EPPSA member companies. EPPSA acts as coordinator and provides support for its members via a network of various partnerships highlighted its readiness to meet the challenging requirements from the EU Energy policy. Since input from the Member States is crucial to the whole EU decision-making process, during the **Second Annual Berlin Forum, October**, EPPSA was on hand to meet with representatives of the EU Member States administrations on an informal basis. Also known as the Fossil Fuels Forum, the Berlin Forum is a structure initiated by the DG TREN to provide a platform for structured dialogue between the Commission services and the large community of stakeholders coming from the European energy sector, including businesses, industry associations, Member State administrations and European civil society. Three working parties have been set up in 2006 (coal, gas and oil) and meet numerous times in between the annual plenary conventions.

The Brussels Energy Round Table (B.E.R.T.) represents a constructive way for EPPSA to exchange deeper knowledge on EU energy related issues as well as to network among the key players in this field. Thus, EPPSA participated in several lunch events during the year.

Position Papers

In order to voice the interests of EPPSA members on energy and environment policy issues at the European level, in 2006 EPPSA has produced the following position papers:

EPPSA's CO₂ Capture Ready Recommendations

EPPSA found it appropriate to use its technical expertise in order to support a possible future definition of the term "Capture Ready" as it is increasingly being used without formal definition. EPPSA wants to contribute by highlighting some of the different challenges linked to the issue as seen by the suppliers of this technology. This document focuses on technical aspects. It will not look into costs of operation or any other financial impact that CO₂ capture preparation may bring.

EPPSA's Position Paper on Recommendations for 7th Framework Programme for R&D (updated)

EPPSA provided the European Institutions with detailed recommendations concerning 7th Framework Programme. Enthusiastic support was given to the priorities, particularly CO₂ Capture and Storage Technologies for Zero Emission Power Generation and Clean Coal Technologies under the theme of Energy. As always, EPPSA welcomes the opportunity to provide industry feedback as well as to offer their expertise in a constructive dialogue with the institutions concerned. This update focused on the input for the 2007 Work Programme and the document was



Photo: Howden Group, Machining of Variax axial fan hub, Belfast

Organisation Chart



Georg Gasteiger
EPPSA Vice-President, Technical Committee
Vice President Industrial Segment, Alstom Power



Andreas Wittke
EPPSA President
Widespread Global Power Sales
Germany & Eastern Europe,
Alstom Power



Gerhard Brandt
Chairman Public Relations Committee
Head of Marketing Communication, ABB



Pierre Melin
EPPSA Treasurer
President, CMI Energy



Patrick Clerens
EPPSA Secretary General

General Assembly Members



Hartmut Brandau
TLT-Turbo



Philippe Delage
Alstom Switzerland



Gerard van Dijk
NEM



Michael Herbermann
GEA Energietechnik



Michael Hirth
ABB



Robert McCabe
Howden Group



Pierre Melin
CMI Energy



Iain Miller
Doosan Babcock



Attila Németh
Transelektro Power and Environment



Massimo Penati
Ansaldo Caldaie



K.D. Rennert
Hitachi Power Europe



James Stone
Foster Wheeler



Andreas Wittke
Alstom Power



Klaus Zink
Austrian Energy & Environment

Photo: Alstom, BoA Niederaussem, Germany



Technical Committee

EPPSA's Technical Committee focuses on priority issues related to power generation largely initiated by the European Union energy policy agenda. Keeping Europe's industry at the global forefront is possible with the state-of-the-art technologies that our member companies develop. Europe shall take the lead by providing innovation and maintaining its competitiveness but in order to achieve this continuous investment opportunities need to be in place for European power plants in the long term.

2006 was a very productive year for the members of EPPSA's Technical Committee. Throughout the year, EPPSA has been active in many ways. Often it was linked the European Technology Platform, officially named Zero Emission Fossil Fuel Power Plants (ZEP) and became an official third party sponsor.

Our members participate in the various bodies of the ETP ZEP such as the working groups, the Coordination Group and the Advisory Council. EPPSA has given valuable input that was considered for use in the ETP ZEP Vision, the Strategic Research Agenda (SRA) and the Strategic Deployment Document (SDD), through EPPSA's internal coordination efforts, also the EPPSA member companies not being part of the different bodies of the ETP ZEP, need the chance to contribute and defend their priorities. These documents were discussed and officially approved during the ETP ZEP General Assembly meeting.

EPPSA and its experts have been consulted regularly for their expertise in power generation, produced several position papers

and responded to various consultations launched by the European Commission, more specifically, the Green Paper –Towards a European Strategy for Sustainable, Competitive and Secure Energy and the European Commission Green Paper on Energy Efficiency.

The association with its members help has successfully produced EPPSA's *CO₂ Capture Ready Recommendations*. This paper intends to shed some light on this complex subject, which is used ever increasingly in official Commission documents. Recently updated is EPPSA's position paper entitled *EPPSA's Recommendations for the FP7*, in order to provide concrete input to the 2007 work programme. Additionally, since December, EPPSA has been keeping busy preparing for the Commission's Energy Package - due to be released early January 2007.

EPPSA's Technical Committee also oversaw the development and creation of technical posters that explain the basics of power plant functioning to more complicated issues such as *CO₂ Capture Ready*. These were first consulted during EPPSA's Technology Evening to show the public the importance of the work achieved by the equipment suppliers.

The Technical Committee gathers an ambitious group of committed individuals coming from EPPSA's member companies. They manage key issues and provide technical expertise where needed. These specialists are skilled in Engineering, Environmental and Technology Policy as well as Business Development.



From left to right (back): Nick Otter (Alstom), Christian Bergins (Hitachi Power Europe), Thomas Neff (TLT-Turbo), Patrick Clerens (EPPSA), Raimund Witte (GEA Energietechnik), Josef Edelmann (EPPSA), Michel vanDycke (Alstom), Jean-Xavier Morin (Alstom), Ton van Manen (NEM) front: Mike Farley (Doosan Babcock), Amy Knoten (EPPSA), Martin Pogoreutz (Austrian Energy & Environment)

Photo: Austrian Energy & Environment, Fluidised bed boiler Sicet in Italy



Public Relations Committee

2006 was acknowledged to be the year to gain visibility for EPPSA. The office being fully and comfortably established in Brussels since early 2005, has successfully built upon and developed further contacts in the European energy arena. Increasing public awareness by promoting the views of European equipment suppliers is much more manageable with the continuous help flowing from our representatives.

The Public Relations Committee gathers dedicated individuals from EPPSA's 13 member companies to tackle issues EPPSA sees as important, such as but not limited to the need to develop Zero Emission Power Plants. These specialists have remarkable backgrounds in Marketing, Communications, Business Development, Sales and Engineering. They bring their skills to the table to proactively address such concerns as how to better convey EPPSA's messages to the European Institutions, key stakeholders and to the general public.

As EPPSA is regularly consulted for its know-how in power generation, it is crucial that the association react in a competent, timely and professional manner. EPPSA seizes opportunities wherever possible to continuously promote the interests of its member companies. One major project undertaken during 2006 was the organisation of

EPPSA's first annual Technology Evening. The aim was to educate stakeholders on the innovative technologies currently under development by equipment suppliers. Over 220 guests registered, all interested to learn what EPPSA's member companies have to offer. It was particularly an opportune moment to convey to the European Institutions that more investment in R&D is needed as well as a stable legal framework. PR Committee members were on hand to explain EPPSA's technical posters to the jovial crowd. EPPSA looks forward to another successful Technology Evening in 2007.

More and more numerous are the visitors to EPPSA's website, which could not have been so well developed without the constructive feedback from the Public Relations Committee. It is essential to improve the ability of the power generation industry and reaching out to the public, via the website, is one effective approach.

This committee worked diligently throughout 2006 and successfully developed EPPSA's Communication Plan, updated EPPSA's key messages (listed on page ..), modernised the logo, adding the slogan "Developing the Future" as well as producing various promotional items essential for dissemination when EPPSA is represented externally at key conferences in the field of power generation.



From left to right: Amy Knoten (EPPSA), Mike Farley (Doosan Babcock), Doris Reiter (Austrian Energy & Environment), Pascal Fontaine (CMI Energy), Gerhard Brandt (ABB), Josef Edelmann (EPPSA), Wim van Lenthe (NEM), Michele Budetta (Ansaldo Caldaie), Elina Karastathi (EPPSA), Patrick Clerens (EPPSA), Heinz Kallenberg (GEA Energietechnik)

Photo: NEM, Combined Cycle Power Plant, Son Reus II, Mallorca, Spain



EPPSA Secretariat

Patrick Clerens has been the Secretary General of EPPSA since its establishment in Brussels in January 2005 and previously was EPPSA's Brussels Representative since 2003 and active in the Brussels lobbying scene since 2000. He liaises between member companies, the EU institutions and the key players involved in issues related to energy and clean fuel technology. Being very familiar with the energy scene, he frequently travels to conferences and seminars across Europe promoting EPPSA's views.

Josef Edelmann is EPPSA's Technical Adviser. With a background of more than 30 years experience in the power generation industry, he puts his expertise to use by monitoring EU legislation concerning energy, funding opportunities, the 7th Framework Programme and is a major contributor to EPPSA's position papers.

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Elina Karastathi handles European Parliament Relations by maintaining and developing relations between EPPSA and the European Parliament, particularly the Industry, Research and Energy and ENVI Committees, and promoting EPPSA's interests therein.



From left to right: Josef Edelmann, Elina Karastathi, Patrick Clerens, Amy Knoten

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