

EPPSA Annual Report 2010



European Power Plant Suppliers Association

Content

EPPSA Introductory Statement	03
Foreword by Günther Oettinger, EU Commissioner for Energy	04
Message from the President	06
EPPSA Key Messages	08
Message from the Secretary General	10
EPPSA Activities	12
Organisational Chart	16
General Assembly Members	17
Technical Committee	18
Public Relations Committee	20
EPPSA Secretariat	22
EPPSA Members	24





EPPSA

Introductory Statement

■ The European Power Plant Suppliers Association (EPPSA) is the voice, at European level, of companies supplying power plants, components and services. EPPSA members, located throughout Europe, represent a leading sector of technology with more than 100 000 employees and annual revenue of over €20 billion.

EPPSA actively promotes technologies for highly efficient and sustainable power generation in a carbon constrained world.

EPPSA believes increased investment in Research, Development and Demonstration is a key factor in driving EU competitiveness as well as ensuring affordable near zero emission power supply.

Virtually all power plants in the EU are built by members of EPPSA, or equipped with their components.

Technology
is at the core
of our energy strategy.

Technology development
is fundamental
not only to our energy security
but also to our
competitiveness.

Günther Oettinger, EU Commissioner for Energy



While Europe has started to act on energy, it is also true that in order to effectively address the challenges of energy and climate change, we cannot do it alone. I therefore warmly invite you to join our efforts to make a consumer-friendly European policy for sustainable energy supplies a reality for the benefit of our citizens!"

■ Europe is playing an increasingly active role to ensure safe, secure and affordable energy supplies in the future – domestically as much as internationally. We are confronted with major challenges such as energy security, access and affordability, resource efficiency and sustainability, and industrial competitiveness. Only if we manage to tackle these challenges will Europe become a real community, delivering high levels of employment, productivity and social cohesion to its citizens, while strengthening its power on the global stage.

The European Commission therefore adopted an energy strategy for the next ten years. Our founding fathers had understood already the importance of energy for Europe. In many ways, we are experiencing the very origins of the European construction in a new context. Back in the 1950s, European integration was built on the pooling of coal resources [the European Coal and Steel Community Treaty] and the safe use of nuclear power [the Euratom Treaty]. Today, the Europe 2020 Strategy identifies energy as one of the great societal challenges to be met if we are to turn the EU into a smart, sustainable and inclusive economy. Europe can succeed if it acts collectively, as a Union.

While in the first decades of European construction, coal supplied the lion's share of our energy, Member States now have a wide choice of energy sources: from wind to nuclear, from solar to gas. I firmly believe that all of them have a role to play in meeting Europe's energy needs. We need a fully functioning and interconnected European

energy market in order to reap the full benefits of the variety of energy sources at our disposal.

The Europeanisation of energy policy has already started. We have clear energy policy goals in terms of competitiveness, security of supply and sustainability as laid down in Article 194 of the Lisbon Treaty. And we are investing EU money in energy policy: research and development (including ITER), infrastructure, energy funding, notably through the Structural Funds, and more. However, European cooperation in energy is not yet fully mature and we must go even further. In this context, the new energy strategy will take Europe's energy policy closer to my vision of a truly integrated European energy market.

First and foremost, I want to put in place a new Energy Efficiency Plan, energy savings being the quickest and most cost-effective way to reduce our energy consumption. Second, I want to improve conditions for investments in low-carbon energy and to promote clean and efficient energy technologies, for supply and consumption. We need to develop and install a new generation of technologies, from offshore wind and smart grids to carbon capture and storage and second generation biomass. All this should deliver the drastic reduction in greenhouse gas emissions to which we have committed, while ensuring Europe's competitiveness.

Technology is at the core of our energy strategy. Technology development is fundamental not only to our energy security but also to our competitiveness. But we cannot just

wait until technologies make their way from laboratories to the market. We must make sure they are deployed as quickly as possible so that Europe does not risk losing its top position in the development of new technologies to China and the USA.

The SET-Plan and the Industrial Initiatives have been created to address those challenges. We have already launched six initiatives in key growth sectors: wind, solar, bio-energy, electricity grids, carbon capture and storage and nuclear fission and we are in the process of developing a major new initiative on Smart Cities. The 2020 Initiative, together with last year's Renewables and Emissions Trading Directives, has created a push to renewable and low-carbon energy in all Member States. Beyond the implementation of the Strategic Energy Technology Plan, we should launch a few large-scale European projects such as storage, and smart grids. On the research front, we have created the European Energy Research Alliance encompassing over a 1000 professionals from 70 research organisations, including universities. Those initiatives should assist EPPSA members to carry out their commitment to research, development and demonstration in order to support the power generation technology of the future.

Further, citizens need to know what Europe is doing for them. This is particularly true concerning the energy challenge, which is one of the greatest tests Europe has to face. EPPSA can help here. While Europe has started to act on energy, it is also true that in order to effectively address the challenges of energy and climate change, we cannot do it alone. I therefore warmly invite you to join our efforts to make a consumer-friendly European policy for sustainable energy supplies a reality for the benefit of our citizens!

Flexible solutions
for rapid load-change
and
for adjusting load-fluctuations
are now **more important**
than ever!

Andreas Wittke, EPPSA President



Andreas Wittke, EPPSA President



Public opinion has become a major hurdle to projects in the field of infrastructure – be it new power plants or necessary grid extensions – a hurdle which can only be overcome by means of comprehensive information and continuous on-going communication.”

■ Drive and Flexibility – Basic Prerequisites for the Power Industry of Tomorrow

In contrast to the Climate Summit 2009 in Copenhagen, decisions were taken at the UN Climate Conference 2010 in Cancún which are aimed at promoting environmental protection and adjustment to climatic changes. For the first time, the participating States laid down in an official UN document the target of limiting global warming to two degrees. In addition to this, the Kyoto countries agreed to develop plans for the reduction of CO₂ emissions by at least 25 percent by the year 2020. The establishment of a climate fund is planned to assist poorer countries in adjusting to changes in the climate. In the same way, the developing and threshold countries are to be offered technologies which help to reduce greenhouse gas emissions.

This is good news for the EPPSA member companies. Technologies for reducing emissions of fossil energy sources and for increasing the energy efficiency of both renewable as well as fossil energies are in demand all over the world. As renewable energy sources

are not available without interruption, and suitable storage technologies are still not developed to a sufficient degree, power plants fired by fossil fuels are needed just as before in order to ensure a stable energy supply over the coming decades.

For the modern power plants of the future new concepts must be developed which will allow operators a greater degree of drive and flexibility to enable them to run their plants in an optimum way in an age when the energy-mix comprises fossil and renewable energy sources. Flexible solutions for rapid load-change and for adjusting load-fluctuations are now more important than ever!

CCS [Carbon Capture & Storage] continues to play a key role in reaching the climate protection targets: it is, above all, those nations who can least afford climate protection measures that are often dependent on domestic raw materials. They should be given the chance to transform their coal into power, and to do this in a climate-friendly way and at a fair price, whereby Europe is to play a major pioneering role in providing the CCS technology.

The sector has done its homework in recent years by optimising technologies aimed at increasing efficiency and by developing and testing CO₂ capture procedures. It now lays with the politicians to create reliable frame conditions in law which are, on the one hand, a basic prerequisite for new investments in the energy sector and which, on the other hand, constitute a clear sign to the public. Public opinion has become a major hurdle to projects in the field of infrastructure – be it new power plants or necessary grid extensions – a hurdle which can only be overcome by means of comprehensive information and continuous on-going communication. The adoption of an “Infrastructure Package 2020” by the EU Commission at the end of 2010, which among other things foresees the building of CO₂ pipelines in Europe, is the right step – and one of major importance – on the road to an integrated approach to energy politics.

EPPSA believes ...

... in a balanced energy mix. To meet the tremendous growth in demand for electricity and ensure the security of supply, all available sources are needed. There is no one, ideal energy source.

... in improved efficiency in power generation. Efficiency improvement in both new and existing plants is the decisive factor to preserve scarce natural resources and to achieve CO₂ reduction targets.

... that clean and efficient fossil fuel power plants need rapid implementation. Replacement of older, less efficient power plants by state-of-the-art ones enables large scale CO₂ avoidance.

... in a
balanced
energy mix

... in improved
efficiency
in power generation

... that clean and efficient
fossil fuel power
plants need rapid implementation

EPPSA Key messages

... that increased investment in Research & Development is vital

... that continuous investment and scale-up of CCS technologies are required to make Europe a world leader

... that public support for fossil fuel technology and its infrastructure must be encouraged

... that increased investment in Research & Development is vital. Suppliers are investing heavily to develop more environmentally friendly technologies which meet the ambitious EU targets. Investment from authorities and political support are also necessary.

... that continuous investment and scale-up of CCS technologies are required to make Europe a world leader.

Immediate commercialisation of available technologies is necessary to accelerate deployment since time is of the essence. Funding, a comprehensive legal framework and public support are needed to make demonstration plants happen.

... that public support for fossil fuel technology and its infrastructure must be encouraged.

Consumers must be better informed that reliable and affordable electricity – a pre-requisite for a stable economic growth – requires a significant contribution from fossil fuel power generation.

The current **design** of
Intellectual Property
protection mechanisms in the EU and
other parts of the world is
not sufficient
to avoid infringements.

Patrick Clerens, EPPSA Secretary General

Patrick Clerens,
EPPSA Secretary General



The Communication “Energy infrastructure priorities for 2020 and beyond” will also be determinative in shaping the future of energy in Europe. EPPSA has called for a CO₂ pipeline infrastructure to link emitting sources and storage locations as a step to achieve massive roll-out of CCS for industrial as well as for power applications.”

■ 2010 was marked by an outstanding number of activities aiming at reducing the environmental impact of conventional power plants in areas such as carbon capture and storage (CCS), concentrated solar power (CSP) and efficiency increase. These activities are necessary to meet two main objectives: to continue delivering affordable electricity to European industry and consumers thus avoiding delocalisation or energy poverty, and to reduce the emission of greenhouse gases.

They are also necessary to build up European know-how on the newest energy technologies which will help the EU to keep its position as a global front-runner. By doing so, not only will Europe be able to create jobs but also to secure technology widespread to those markets where it is needed the most. Despite the tough Commission election, its work and services have never been affected. From January on EPPSA has supported the European Union in defining its various energy related strategies. EPPSA gave its input to the knowledge sharing requirements developed by the Commission that has later become mandatory criteria in the call for proposals for NER300 EU funding. EPPSA also coordinated efforts with the European Parliament to push for such requirements while keeping the incentive to innovate! In the discussion about the CO₂ stream purity EPPSA supported the Commission with technical data suitable for storage.

The EU energy activities in the next decade will be strongly influenced by the communications produced in 2010. The 2011-2020 Energy Strategy has set some priorities that take into consideration the European Industrial Initiatives (EII) defined in the Strategic Energy Technology Plan. EPPSA highly praised the launch of the EII on CCS as well as the EII on Solar Power during the Spanish Presidency of the European Union. These initiatives will deliver major support in addressing the energy and climate change challenges by pooling efforts from both the Industry and public authorities.

The Communication “Energy infrastructure priorities for 2020 and beyond” will also be determinative in shaping the future of energy in Europe. EPPSA has called for a CO₂ pipeline infrastructure to link emitting sources and storage locations as a step to achieve massive roll-out of CCS for industrial as well as for power applications. This communication also addressed the enormous societal cost resulting from slow permitting procedures that constantly delay or cancel a variety of infrastructure projects that are urgently needed. By defining projects of European interest and a specific permitting procedure related to them the Commission hopes to avoid this in future.

Ambiguous signals pose however significant threats to the conventional power generation industry. At EU level CCS has been approached in view of its legal framework, the funding for demonstration and a CO₂ infra-

structure. Unfortunately, this is not the case for all EU Member States. They have often defined a national energy strategy that does not mention the fundamental role of fossil fuel fuels and that gives very little support for CCS. This does not correspond to the future energy needs as predicted by the International Energy Agency. We need to prepare today to meet the challenges of the future! 2010 was however a year of success for EPPSA and brought to life new activities. EPPSA created a Working Group (WG) on Intellectual Property Rights (IPR). The current design of Intellectual Property protection mechanisms in the EU and other parts of the world is not sufficient to avoid infringements. EPPSA members are putting their efforts together to prevent third companies from stealing the EU know-how and importing the stolen technologies to Europe, as it is the case today.

2010 was indeed an extraordinary year for the Association: membership kept growing! I firmly believe that EPPSA will have a vital role to play in 2011 due to a unique level of expertise gathered over the past few years.

A handwritten signature in dark ink, likely belonging to Patrick Clerens, EPPSA Secretary General.



The Albert Hall Complex



EPPSA President Andreas Wittke opens the 4th Annual Technology Evening



Iñigo Sabater presents on the Strategic Energy Technology Plan

■ EPPSA's Annual Technology Evening Brussels, 27 January

"More than ever we need to promote renewable energy and technologies for the reduction of CO₂ emissions. Setting an example is not good enough; we also need to provide others with the right technologies. Carbon Capture and Storage plays a major, perhaps even the key role here", EPPSA President Andreas Wittke said as he officially opened the 4th edition of EPPSA's Technology Evening. The event, dedicated to the theme "**CCS: Towards Early Implementation**", was held in the inviting atmosphere of the Albert Hall Complex in Brussels and brought together some 150 key players in policymaking and the power generation industry.

"The construction of new coal-fired power plants was inevitably met with strong opposition, regardless of their performance efficiency. This evening we want to draw your attention to the importance of efficiency by showing you the unnecessary amount of EU CO₂ emissions on account of inefficient power plants", he added when launching a CO₂ emission counter.

One month after the Copenhagen Accord it was a great privilege to have **Pernille Sørensen**, Government official of the Danish Ministry of Climate and Energy, present on "COP15 - The Copenhagen Accord: way forward". A first step, she said, towards a legally binding agreement sufficiently ambitious to limit global warming below 2°C compared to pre-industrial level by reducing global emissions by 50% by 2050. The significant financial contributions, both in the

short and long term, including the Copenhagen Green Climate Fund channeling support, represent the basis to unprecedented reduction commitments.

Iñigo Sabater, Deputy Head of Unit for Energy Technologies and Research Coordination at the European Commission Directorate General for Energy, provided an important presentation on the Strategic Energy Technology Plan [SET Plan] with a particular focus on the development of the necessary technologies to address climate change by 2020 as well as means to secure EU energy supply and ensure competitiveness.

Mike Farley, EPPSA's Vice President, followed Mr. Sabater. The presentation entitled "Challenges of CCS Full Implementation" gave examples that demonstrate the necessity of retaining know-how and resources in order to build power plants equipped with CO₂ capture in EU27 and meet the climate targets. "Commercialisation has to start following demonstration projects without any delay to maintain skills, obtain full benefit from Demos and accelerate deployment!".

Afterwards, guests were invited to a walking dinner and were encouraged to have a look at EPPSA's technical posters. The event provided the ideal platform for a constructive dialogue among all guests.

By the end of the evening the counter showed that more than 100 000 tonnes of preventable CO₂ had been emitted.

All presentations and technical posters are available on the EPPSA website:

www.eppsa.eu.



Dr. Mike Farley addresses the challenges of CCS full demonstration



CO₂ emission counter



Digital caricature

EPPSA

Activities



Pernille Sørensen presents the results of the COP15

■ EPPSA Workshop on “Power Plant Basics”

In order to promote awareness of the fundamentals of power generation among European policymakers, EPPSA launched a series of sector-specific group workshops back in 2007. These workshops are designed to clearly and simply explain the way in which power plants work and also the physical constraints under which they have to operate.

In 2010, EPPSA in cooperation with the European Energy Forum held a lunchtime briefing in the **European Parliament** in **Strasbourg**. The briefing offered the possibility to some 10 Members of the European Parliament to better understand technical parameters concerning fossil fired power plants – in particular those relating to thermodynamics – in an interactive way.

In collaboration with **Electrabel GDF Suez**, EPPSA went further and organised a Workshop on Power Plant Basics followed by a site visit to the Ruien power station. Participants included representatives from the European Commission Directorate General for Energy.

Workshop on Power Plant Basics followed by site visit to the Ruien power plant





■ Position Papers

EPPSA exists to represent the interests of its members to the European institutions, and thus the primary function of the association is to respond to the latest developments in policy. In 2010, EPPSA has produced the following position papers. The documents in full can be found at www.eppsa.eu.

EPPSA Response to EC's Inquiry on Effects of Power Plant Capacity Demand

In order to support the European Commission in the development of the EU Energy Roadmap 2050, EPPSA presented its viewpoint on the effects of significant EU power plant capacity expansion (nuclear, fossil, renewables) until 2020/2050. The paper addresses questions such as: expectations with regard to additional needs of raw materials, special manufacturing components and qualified workforce, and the main corresponding bottlenecks that can be expected.

EPPSA Position Paper on European Energy Infrastructure - A necessary CO₂ infrastructure in Europe

EPPSA members made a clear commitment to further work on the deployment of carbon capture technologies and to channel the substantial investment still needed. EPPSA has called for a CO₂ pipeline infrastructure to link emitting sources to storage locations.

EPPSA Response to EC's Public Consultation - Towards a new Energy Strategy for Europe 2011-2020

EPPSA enthusiastically supports the new EU Energy Action Plan for 2011-2020, particularly for

continuously shaping an EU inclusive energy policy.

EPPSA Response to EC's Stakeholder Consultation - Guidance Documents under Directive 2009/31/EC on the Geological Storage of CO₂

EPPSA members welcomed the European Commission's initiative to consult relevant stakeholders on guidance documents that seek to enable a coherent implementation of the Directive 2009/31/EC on the Geological Storage of CO₂. While the development of a regulatory regime for storage was an essential complement to the development of CO₂ capture technologies, its consistent execution should give the public confidence that Carbon Capture and Storage is a safe and environmentally sound means of reducing CO₂ emissions.

EPPSA Response to EC's Stakeholder Consultation - Knowledge Sharing on CCS Demonstration: NER300

While European equipment manufacturers acknowledge the critical role of CCS in tackling the global challenges of climate change and energy security, they also insist that intellectual property rights are an important factor in hastening its deployment. EPPSA believes knowledge sharing practices therefore need to be carefully administrated. EPPSA commends the European Institutions for the work and progress achieved up to this point and welcomes the opportunity to provide feedback in a constructive dialogue with the institutions concerned.

■ Magnifying EPPSA's influence

ABB Schwetzing Energy Dialogue Schwetzing, 16-17 March

Founded in 2003 by ABB, the Schwetzing Energy Dialogue brings together representatives of industry, associations and politicians. In 2010, the 8th Energy Dialogue was dedicated to topics such as heat and electricity production and electricity distribution. EPPSA participated with a presentation held by the Secretary General Patrick Clerens. Among others, the presentation gave an overview on the key elements of the Copenhagen climate summit, the EU climate legislation along with its 20-20-20 targets and the consequences for power plants suppliers.

Hannover Messe Power Plant Technology User Forum Hanover, 19-23 April

"Efficiency - Innovation - Sustainability" was the motto of this year's Hannover Messe held on 19 - 23 April 2010 in Hanover, Germany. EPPSA participated at the Power Plant Technology and in addition to the traditional stand, Maria João Duarte, EPPSA Policy Officer, gave a presentation dedicated to **"The European regulation on the electrical power sector"** in the context of the Power Plant Technology User Forum.

New Build Europe 2010 Düsseldorf, 26-27 May

New Build Europe 2010, supported by EPPSA, provided a platform to discover upcoming technologies and effectively shape project development/management strategies. This conference focused on clarifying investment and lifespan issues particularly with coal plants and showed how to integrate fossil and renewable energy in the long-term.

Giles Dickson, Member of the temporary Task Force on Technology Transfer, spoke about the "International Scientific & Technological cooperation in the SET-Plan"

EPPSA Activities



Networking highlight at VGB Congress Power Plants

SET-Plan Conference

Madrid, 3-4 June

The SET-Plan Conference showed progress since the last conference held in Stockholm in October 2009 and highlighted the importance of the SET-Plan for the achievement of the EU ambitious energy and climate goals. The first four Industrial Initiatives of the SET-Plan were launched: Wind, Solar, Electricity Grids and Carbon Capture and Storage. EPPSA was present and Giles Dickson, Member of the temporary Task Force on Technology Transfer, spoke about "International Scientific & Technological cooperation in the SET-Plan".

Power-Gen Europe

Amsterdam, 8-10 June

The eighteenth Power-Gen Europe conference and exhibition took place in Amsterdam in June 2010.

EPPSA participated once again as a supporting organisation with an outstanding presence! Technical Committee Chairman Klaus-Dieter Tigges presented the "Uncertain future of power plant suppliers & CCS" and Patrick Clerens, Secretary General, gave a presentation entitled "Towards a European Energy Community - A Policy Proposal by Jacques Delors".

VGB Congress Power Plants

Essen, 22-24 September

Renewables, Nuclear, Coal and Gas - Technologies for a Low Carbon Future: this year's motto underlined that it is important to use all sources of energy that are available without any pre-judgment and without considering individual sources as being incompatible

with each other. EPPSA travelled to Germany to support its members by having a stand on the exhibition floor.

3rd Seminar on Transfer of Technology to China

Brussels, 7 October

Organised by DG Trade, UEAPME, and BusinessEurope, the aim of the seminar was to enhance awareness among European companies, in particular SMEs, and business federations about the concerns and questions that European companies encounter with regards to technology transfer issues. During the seminar, China experts explained the state of play of this issue. Also some specific business cases were presented. EPPSA presented 5 case studies of particular problems related to IPR protection in China.

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

Having played an integral role in its creation in 2004, EPPSA continued its involvement with the Zero Emissions Fossil Fuel Power Plants Technology Platform in 2010. EPPSA and its members attended the ZEP General Assembly in Brussels and through its members retain an active role in the various Working Groups, the Coordination Group and the Advisory Council of the ZEP.

Berlin Fossil Fuel Forum

Like in previous years, EPPSA has been a dynamic member of the Berlin Forum's Working Group on Sustainable Fossil Fuels. The Forum is an important initiative that offers a valuable platform for dialogue on policy developments

and important technological developments. In 2010, EPPSA was present in the Forum's Sixth Plenary Session.

International Coal Dialogues

The European Commission has established bilateral working groups with several major coal producing/ using countries. The working groups bring together policy makers, industry and academia to discuss policies, best practices and technologies enabling the efficient use of coal and minimising its environmental impact. EPPSA participated in the following seminars:

1st EU-Kazakhstan workshop on clean coal and CCS

The 1st workshop on clean coal technologies and CCS took place in September in Astana. The workshop was followed by a site visit to a coal mine and coal-fired power plant. The organisation of this event was agreed in the framework of the memorandum of understanding on energy signed by the Kazakh authorities and the Commission in December 2006.

2nd EU-China coal value chain workshop

Following a successful workshop in 2008, the 2nd workshop on clean coal technologies was held in Beijing in the last week of October. The workshop was a joint initiative of the National Energy Administration (NEA) and the European Commission under the framework of the EU-China Energy Dialogue after both sides called for exploring a joint agenda in this field.

Vice President
Mike Farley



President
Andreas Wittke



Vice President
Rainer Redinger



Technical Chair
Klaus-Dieter Tigges



Public Relations Chair
Gerhard Brandt



Secretary General
Patrick Clerens



Treasurer
Pierre Melin

Organisational Chart

General Assembly

Members



Franz-Josef Mengede
ABB Group



Philippe Delage
Alstom Power Switzerland



Massimo Penati
Ansaldo Caldaie



Georg Gasteiger
AE&E Group



Carlo Trifone
BWE



Franz Bartels
Clyde Bergemann



Pierre Melin
CMI Energy



Mike Farley
Doosan Power Systems



Mervyn Sambles
Fluor



Tomas Harju-Jeanty
Foster Wheeler Energia



Raimund Witte
GEA Energietechnik



Klaus-Dieter Tigges
Hitachi Power Europe



Bob McCabe
Howden Group



Paolo Magaldi
Magaldi Power



Karel van Buuren
NEM



Giuliano Cavagnoli
Nooter/Eriksen



Gianni Casero
STF BWE



Stephan Bergmans
Stork Thermeq



Rainer Redinger
TLT-Turbo



Andreas Wittke
Alstom Power Germany



■ Chaired by Klaus-Dieter Tigges from Hitachi Power Europe, EPPSA's Technical Committee provides the expertise and content for the organisation's position papers and communication materials. Working in close cooperation with the Public Relations committee, the Technical committee – composed mostly of distinguished engineers from EPPSA's member companies – brings its experience to bear on the latest developments in European energy and environment policies including power generation. These specialists are skilled in Engineering, Environmental and Technology Policy as well as Business Development.

The Technical Committee focuses on priority issues related to power generation largely stemming from the European Union energy policies. Keeping Europe technologically at the forefront of the global industry is a challenge, albeit a feasible one, that needs to be addressed. By ensuring sustained investment opportunities in European power plants exist in the long run, Europe certainly can take the lead by providing innovation and maintaining its competitiveness. This crucial investment would also guarantee existing employment while boosting the creation of future jobs in the sector.

2010 was a very intense and active year for the members of EPPSA's Technical Committee. Throughout the year, EPPSA and its experts have been consulted on a regular

basis for their expertise in power generation. The association and its members successfully produced its formal position paper on **knowledge sharing requirements** that became mandatory in the call for proposals for **NER300 EU funding**.

Our experts also gave their input when requested to assess impact on additional needs of raw materials, special manufacturing components and qualified workforce it would have provided that the EU power plant capacity would be expanded significantly. The quality of the Technical Committee's input ensures that it will continue to be an active and informative voice in the sector.

Additionally, the Committee worked on topics like the **implementation guidelines of the Directive 2009/31/EC** on the Geological Storage of CO₂, the **European Industrial Initiative on Carbon Capture and Storage**, the **Energy Strategy for Europe 2011-2020** and **Industrial Emission Directive**.

The Technical Committee has also played a crucial role in the content development of presentations such as the **"Uncertain future for power plant suppliers and CCS"** and the technical posters displayed at the **Technology Evening 2010**.

■ Working Groups

In 2010, one more company became a member of EPPSA. While CCS is still EPPSA's focal

point, this enlargement was also accompanied by a broadening of interests. In order to cope with different expectations, EPPSA took the very important step by creating one additional Working Group coordinated by the Technical Committee. We will certainly face new challenges in 2011 and similar initiatives will help EPPSA to deal with issues in a more specific and accurate way. These Working Groups will each have a lifespan matching their needs, meaning that some Working Groups will stay active for several years, while others may be discontinued after several months provided that identified aims have been achieved.

Working Group on Concentrated Solar Power

Concentrated Solar Power (CSP) will undoubtedly help, not only to meet the EU 20% target for renewable energies but also to broaden its energy goals. It is a technology which has the advantage of being a renewable energy source, while avoiding the intermittence when combined with traditional electricity sources such as gas. In 2010, the Working Group focused on the **European Industrial Initiative on CSP** that brings together the efforts at the EU level from Member States and industry. Its strategic objective is to demonstrate competitiveness and readiness for mass deployment of advanced CSP plants. The European Commission expects to achieve commercial CSP in the next 10 years, by 2020. In parallel, experts analyzed docu-

The Technical Committee



Kick-off meeting of the Working Group on Intellectual Property Rights in Brussels, June 2010

ments such as **IEA Technology Roadmap on CSP** and **National Renewable Energy Actions Plans**. Funding possibilities were also addressed, namely the **NER300 EU funding** and the **EU RTD Seventh Framework (FP7)**.

Working Group on Power Plant Efficiency Improvements

EPPSA members clearly acknowledge that it is not feasible to reach the EU 2020 targets on CO₂ emissions reduction without efficiency enhancement. Power plants that are both at the end of their lifecycle and running below a certain level of efficiency represent a danger to the efforts made so far in CO₂ prevention. Furthermore, EU CCS demonstration projects are to prove that CCS technology works without taking into consideration the efficiency penalty that such a technology brings to a power plant. EPPSA estimates that this penalty will reach 12 to 14 percentage points for the first demos. Efficiency enhancement is therefore absolutely necessary to integrate this technology into existing and new build power plants with the lowest possible efficiency penalties. In order to achieve this, all components of power plants must be scrutinised, since the fruit that was the easiest to pick, has already been picked. The concrete result of the commitment of EPPSA members was the **successful attribution of FP7 funds** to an EPPSA project proposal **Optimising CCS integration into power plants**.

Working Group on Flue Gas Cleaning

Addressed under the Industrial Emissions Directive, flue gas cleaning is a fundamental topic for the power generation industry, as it sets the emission limit values for polluting substances. With the advent of CCS, some of the requirements for power plant components that have been valid up until now will significantly change. This is particularly true for the flue gas cleaning systems. The employment of a certain CO₂ technology will determine what adjustments and upgrades have to be made in order to meet the requirements defined by both the EU regulations and the emerging technology. EPPSA fears that the EU legal framework may create a gap between policymakers' ambitions and what is technically feasible. The creation of this working group has been, so far, a successful start to handle these potential risks.

Working Group on Smart Grids

Smart power and the efficient functioning of the electricity grid are of the utmost importance for the decarbonisation of the power sector and more broadly for a secure energy supply across the EU.

Considering the future regulatory landscape surrounding smart grids, EPPSA believes that changes at that level will have consequences on energy management across the whole electricity chain, starting with the production.

We see therefore a great opportunity to bring our knowledge in this field to the fore and

assist in the integration of new and cleaner technologies into the network. Therefore, EPPSA welcomes the **Communication "Energy infrastructure priorities for 2020 and beyond"**.

Working Group on Intellectual Property Rights

Created in June 2010, it seeks to improve protection of Intellectual Property Rights through a close collaboration with European stakeholders and EU Institutions. Its first task was to define the association's position and concrete actions needed to achieve its goals. In October, EPPSA gave a presentation at the 3rd Seminar on Technology Transfer to China, relating five case studies from member companies which have recently been confronted with IPR infringements. Additionally, our experts also gave their input in to the Survey on IPR protection and enforcement in third countries launched by the European Commission.



Meeting of the Public Relations Committee
at CMI Energy in Liège, December 2010

■ Chaired by Gerhardt Brandt from ABB, the PR Committee formulates EPPSA's public approach regarding all matters, including EPPSA events, publicity materials and participation in other events. With a useful blend of backgrounds including marketing and sales, public relations and also engineering, the Committee members are ideally qualified to shape EPPSA's goals and strategies.

The PR Committee plays a vital role in the organisation of EPPSA's Annual Technology Evening. Designed to educate policymakers and industry alike, the event combines informative presentations with a relaxed networking atmosphere. The event allows the association to display innovative technologies currently under development by equipment suppliers and what EPPSA member companies have to offer.

Since EPPSA's move to Brussels in 2005, the association has successfully built on existing contacts and developed new ones in the European energy arena. The PR Committee has played an important role in bringing members together to provide guidance and address concerns such as finding the best ways to convey EPPSA's messages to the European Institutions, key stakeholders and the general public.

The Committee has also developed and continues to revise EPPSA's communications plan and the association's key messages. The members tackle the important issues for EPPSA, such as clean fossil fuel technology and ultimately near zero emission power plants.

This work is of great significance as EPPSA is regularly consulted for its know-how in power generation therefore it is crucial that the association reacts in a competent, timely and professional manner. EPPSA seizes opportunities wherever possible to continuously promote the interests of its member companies.



Technical posters developed by the PR Committee in 2010

Public Relations Committee

Working in synergy with their colleagues of the Technical Committee, the PR team works not only on the style and presentation of EPPSA's display materials for the Technology Evening and external events, but also on deciding on the content that would have the greatest impact on the audience. The content is important, but often the packaging is at least as important. This should be interpreted in the light of the targeted audience. The same topic will have to be prepared in a completely different way for communications to engineers, to the staff of the Commission or to the members of the European Parliament or of the Council.

At last, it is the PR Committee that is ultimately responsible in deciding which events EPPSA should take part in, and in choosing the final design of EPPSA's promotional materials. Events like the Hannover Messe, Power-Gen Europe and Coal-Gen Europe proved to be invaluable means to reach a wider audience and promote the Association's message of clean, secure energy from fossil-fuel power generation.



The EPPSA Secretariat: Inga Šilerytė,
Patrick Clerens and Maria João Duarte
Not pictured: Josef Edelmann

■ **Maria João Duarte** is Policy Officer for EPPSA and responsible for all facets of the association's public relations and interaction with the members. She joined EPPSA following experiences with international organisations in the humanitarian and security field and holds a degree in International Relations.



EPPSA Secretariat



■ **Patrick Clerens** has been EPPSA's Secretary General since the association's move to Brussels in January 2005. Building upon his prior experience as EPPSA's Brussels Representative, he liaises between member companies and the EU institutions on issues related to energy and clean fossil fuel technology. Mr. Clerens studied law at the Universities of Saarbrücken and Mainz.



■ **Josef Edelmann** joined EPPSA as Technical Advisor in June 2006. An expert engineer with more than thirty years experience in the power generation industry, Dr. Edelmann monitors EU legislation concerning energy and funding opportunities, including the 7th Framework Programme. He also works closely with EPPSA's Technical Committee and leads the formulation of the organisation's position papers in response to EU initiatives.



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