International Energy Agency

2013 Annual Report

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IEA member countries:
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Australia

Austria

Belgium

Canada

Czech Republic

Denmark

Finland

France

Germany

Ocimany

Greece

Hungary

Ireland

Italy

Japan

Korea (Republic of)

Luxembourg

Netherlands

New Zealand

Norway

Poland

Portugal

Slovak Republic

Spain

Sweden

Switzerland

Turkey

United Kingdom

United States

The European Commission also participates in the work of the IEA.



Secure • Sustainable • Together

About this review
The IEA Executive Director's 2013 Annual Report continues our annual practice of reporting on our operational and organisational achievements and goals.

Introduction

Security, sustainability, and economic prosperity – this is the classic "energy trilemma" that we face.

To achieve all three simultaneously has been a challenge that confronts policy makers, industry, and entire societies – and the concept was one that was often discussed in 2013. Yet that is precisely the mission of the IEA, and it highlights that our work must take place simultaneously, within a framework of mutually reinforcing values, and in a way that is co-operative. At the same time, as an organisation we can only spend our own energies, and our resources, once.

Therefore, 2013 saw an ongoing effort to refine the strategic direction of the Agency, with a view to keeping it not only relevant, but poised to lead changes in the global energy governance landscape over the coming years. In 2011 and 2012, IEA senior management engaged in a major exercise to define that strategic direction, culminating in an internal 2012 Strategy Paper that laid out specific action items that we have busily been accomplishing. The IEA underwent a period of restructuring as a result of that strategic assessment, and 2013 saw a smooth transition as new management responsibilities have been taken up – particularly by IEA Deputy Executive Director Kenneth Fairfax and the Head of Office Management and Administration Claire Bouteille.

As we think about our strategy going forward, and particularly our priorities over the coming years, we need to keep in mind our biggest assets. These are what make the IEA unique, and they are worth fighting to keep. We consider them to be

- independence, integrity, neutrality with an emphasis on fact-based advice, not advocacy;
- energy security and emergency response capabilities;
- global coverage of the energy mix;
- unrivalled comprehensive, timely and reliable data and related analysis;
- strong modelling and scenario building;
- strategic foresight on energy policy issues;
- flexibility in building co-operation/association with partner countries and others.

The IEA is the only intergovernmental energy organisation that works across the entire energy mix and draws on co-operation with more than over 130 countries. This adaptability has enabled the Agency to remain at the heart of global dialogue on energy, providing authoritative statistics, analysis and recommendations. Our challenge will be to maintain our position as a global energy authority, which means being flexible and open to changes and even wider engagement, all within the limits of our resources and budget.

2013 was an apt year to reflect on that progress, particularly as it kicked off the Agency's 40th year and included our 2013 Ministerial Meeting. These meetings necessarily help to chart a course for the IEA's priorities and activities for the coming two years, through outcomes and the Chair's Summary. Six partner countries issued a joint declaration to pursue a new multilateral approach to cooperation with our key partner countries, dubbed "Association". It was a landmark occasion in the IEA's ongoing efforts to expand its reach globally, as major emerging economies take their places among the leadership of global energy governance. That document will be the basis for our work going forward.

Participating representatives to the Ministerial included unprecedented involvement from high-level industry representatives as well as partner countries. Mexico participated as an observer country, and its presence was particularly welcome in light of a renewed push in 2013 and 2014 toward energy sector reform.

For the IEA as an institution, the meeting provided a venue for a host of accomplishments. Estonia announced its accession to the IEA, and the attending Minister offered a personal toast to our future engagement. IEA member countries released a landmark climate statement to encourage progress leading up to major climate discussions in Paris in 2015, accomplishing a one-of-a-kind joint statement on this important and controversial issue. Also, the *Energy Policy Highlights* report was released showcasing policy accomplishments across the energy sector from each of our member countries. Member countries provided their own inputs and shared insight, on very recent policy experience (within the last two years).

So while 2013 was a year of building on our strategic direction and taking the first steps toward major accomplishments, we look forward to 2014. This year will continue to be dedicated to our 40th anniversary, and will be an important one. Many of the challenges with regard to budget and workload will remain, but we expect to reap rewards in terms of efficiency and effectiveness from the internal restructuring and communication changes we continue to implement.

This report will be divided by IEA office, starting with the three functional directories:

Energy Markets and Security (EMS);

Sustainable Energy Policy and Technology (SPT);

Global Energy Economics (GEE).

It will then examine the major supporting offices and divisions:

Office of Global Energy Policy (GEP);

Energy Data Centre (EDC);

Communications and Information Office (CIO);

Office of the Legal Counsel (OLC);

Office of Management and Administration (OMA).

Each will discuss major accomplishments in 2013, external contacts and co-operation, and challenges ahead for 2014.

An additional annex will list 2013 publications.

Energy security (and markets)

The IEA was founded in 1974 with a principal mission to improve the oil security of its member countries. Since then our mission has widened, as has the definition of energy security to other fuels and concepts. But energy security still remains a main focus of the Agency, including market analysis of various fuels and management of emergency policy (including the co-ordination of responses to supply disruptions) and continuous monitoring of events affecting oil and gas security of supply, and also adapting to the changing nature of energy security. The bulk of this work takes place in the Energy Markets and Security Directorate (EMS). Market analysis products include short and medium-term outlooks, plus specific renewable energy products such as roadmaps and databases.

Energy security

The concept of energy security has been "deepening in terms of geographic spread, timeframes, energy sources and the need to link energy security more closely with sustainability policies", as stipulated in the Chair's Summary of the 2011 IEA Ministerial. This Ministerial mandated the Electricity Security Action Plan (ESAP), and EMS worked on this project intensively, including organisation of the workshop "Future Challenges for Electricity Security" in October 2013. The key findings of the ESAP were summarised in the official brochure Secure and Efficient Electricity Supply during the Transition to Low Carbon Power Systems, delivered to the 2013 IEA Ministerial.

While the deployment of renewable energy contributes to energy security through the diversification of resources, the penetration of very high shares of variable renewables such as wind and solar PV in the generation mix is a source of concern. Therefore priority has been given to the work on the 3rd phase of the GIVAR (Grid Integration of Variable Renewables) project, which investigates the economic impacts of integrating variable renewables into power systems. The study shows that any country can reach high shares of wind, solar power cost-effectively; a transformation of power systems is necessary to guarantee flexibility over the long term, but this will be more difficult in some markets than in others. These findings were published as a book, *The Power of Transformation: Wind, Sun and the Economics of Flexible Power Systems* in February 2014.

Another major part of the ESAP is emergency preparedness. The new cycle of the Emergency Response Review (ERR) programme, starting from 2013, commenced with the successful inclusion of electricity security elements. A special workshop on electricity security was held for the SEQ delegates in June using the new Electricity Security Assessment Guide.

In parallel to the new priorities above, the Agency's core remit of ensuring preparedness to confront oil and gas supply crises remains a high priority. The Agency continuously monitored events affecting oil and gas markets, keeping its member countries informed and alerted to potential disruption implications. Furthermore, in 2013, the Agency successfully concluded another cycle of Emergency Response Reviews (ERR) of our member countries. The reviews are designed to test our member countries' emergency preparedness and resilience. This cycle extended its scope beyond oil by incorporating the analysis of IEA member countries' readiness to address a natural gas supply disruption. An Energy Supply Security publication drawing together common themes from this cycle will be launched in 2014. Furthermore, an Insights paper *Cost, Benefits and Financing of Holding Emergency Oil Stocks* was published in June. The paper highlights the overall gains associated with emergency stocks and outlines important considerations for the establishment of stocks. A condensed Emergency Response Exercise (ERE) was presented to Ministers at the 2013 Ministerial, to showcase a key tool the Agency has to ensure it stands ready to respond to a major energy supply disruption.

Market analysis and reports

The monthly *Oil Market Report (OMR)*, which celebrated its 30th anniversary in 2013, is well-established as the benchmark publication for industries and governments involved with the oil market. The *OMR* and its accompanying databases, the Monthly Oil Data Service (MODS), remained by far the largest contributors to IEA publication revenues in 2013. Annual sales revenues for the *OMR* totalled EUR 925 953 in 2013, while the MODS generated EUR 1 590 490. The *OMR* continues to generate significant media and public interest. In January 2014, the IEA webpage reached a page view peak of more than 38 000 on the day the report was published.

Its longer-term (five-year forecast) version, the *Medium-Term Oil Market Report (MTOMR*), has seen increasing market attention and media coverage. The *MTOMR 2013*, launched in London in May 2013, focused on assessing the full impact of the North American supply revolution, from the global upstream sector to global refining, transportation, storage and demand. It also showed foresight in downgrading the forecast of OPEC capacity growth, highlighting downside risks before they became apparent to the market.

The Oil Industry and Markets Division (OIMD) continues its work on price formation and the interlinkages between physical and financial markets for energy. The IEA co-organised with OPEC and the International Energy Forum (IEF) a third workshop on the subject in Vienna in March 2013. The event was part of a wider joint programme of work agreed by the three organisations and endorsed by Energy Ministers at the 12th International Energy Forum (Cancún 2010) as part of the Cancún declaration. In January 2013, the IEA co-organised a joint workshop with OPEC and the IEF in Riyadh, looking at the divergences in definitions and outlooks between the different organisations and other market observers. Both of these events are to be repeated in 2014.

Other joint work in 2013 between the IEA, OPEC the IEF and the International Organisation of Securities Commissions (IOSCO) concerned price reporting agencies (PRA). There is a shared interest among producers and consumers in transparent and efficient pricing and markets. G20 leaders called upon finance ministers to "monitor on a regular basis the proper implementation of the IOSCO principles for the regulation and supervision of commodity derivatives markets and encourage broader publishing and unrestricted access to aggregated open interest data". IOSCO will present a final report in 2014 on the implementation of its principles on PRAs. IOSCO sent an interim report to finance ministers and central bank governors in September 2013 and is expected to submit a final report to G20 finance ministers and central bank governors in the second half of 2014. OIMD provided significant input into both these reports.

The *Medium-Term Gas Market Report 2013* was launched in St Petersburg, and generated strong media coverage and positive feedback. The timely and high-quality analysis of gas in transport looked at an issue that is generating increasing industry and policy attention, especially in the United States and China.

With the regional gas price disparity expanding in the past few years, *Developing an LNG Trading Hub in Asia*, a study that was launched by the Executive Director in Tokyo at the end of February 2013, had a massive impact on the discussion in this area. The study led to the IEA's substantive contribution to the Tokyo LNG Producer-Consumer Conference in September 2013, and is now the foundation of an ambitious work plan on Asian gas market issues.

The Medium-Term Coal Market Report 2013 was launched in December 2013 and was well received, and followed by a series of media appearances. This report was also timely in that it showed the grim reality of energy in the context of ongoing climate change discussions, and in its focus on coal gasification in China, which is emerging as a major but less-noticed driver of that activity. In the area of coal, co-operation with the Coal Industry Advisory Board deepened in 2013.

The second *Medium-Term Renewable Energy Market Report 2013* (MTRMR 2013) was launched in June 2013 at the Renewable Energy Finance Forum in New York and received widespread and global press coverage. The report included detailed analyses and projections of renewable electricity markets for a broader range of countries and also included the renewable heat and transport sectors for the first time. The report features country case studies for the leading renewable markets. Each case study includes a medium-term forecast (2012-18) for renewable electricity capacity and generation with drivers and challenges and an enhanced case. In 2013 nine additional countries were added, bringing the total to 21. The case studies include emerging economies such as China, Brazil, India, South Africa, plus Thailand and Morocco.

Apart from these public reports, the IEA Committees were regularly provided with notes taking stock of most recent developments in renewable energy markets and policies. In particular, the deployment of decentralised solar photovoltaic based on cost parity with retail electricity prices and its implications for the transmission and distribution grids were detailed, together with options to strike the proper balance between solar deployment and maintaining the adequate management and funding of grids.

An important strand of the work on renewables involves monitoring and regularly updating the status and progress of technologies, and monitoring how costs of various technologies are evolving. This work is undertaken in close collaboration with the relevant IEA Implementing Agreements, the Renewable Energy Working Party, and the Renewable Industry Advisory Board. This work is an important element of the *MTRMR* report, and is also the basis for the renewables publications in the Low-Carbon Energy Technology Roadmaps series. In 2013, an updated version of the roadmap for wind was published and well received. Work on updates of the roadmaps for solar PV and CSP is in progress for publication in 2014. The technology assessment also provides a basis for analysis with the *World Energy Outlook* and also underpins a chapter in the forthcoming *Energy Technology Perspectives 2014* publication which is dedicated to solar electricity.

Global outreach

With non-OECD oil demand overtaking OECD demand, reaching out to the major non-member countries is one of the highest priorities in the area of energy security, and there were impressive developments on this front in 2013.

An Estonian Emergency Response Assessment (ERA) was conducted in March and presented at the June Standing Group on Emergency Questions (SEQ). This successful ERA was a major step to clearing the way to Estonian accession.

An ERA of India was conducted in June 2013, building upon the successful Indian ERE in 2012, and its outcome was reported at the October SEQ. A mid-term update of the ERA of Thailand was also presented to the October SEQ and described their 90-day stockpiling plan. The IEA also supported the APEC energy emergency exercises in Bangkok (September) and Jakarta (October), and the Jakarta exercise helped to prepare agreement for an Indonesian ERA in April 2014.

Following extensive discussion, the National Energy Administration of China agreed in principle to hold an ERE in China in early 2015. The agreement in principle demonstrates increasing confidence building between the IEA and China, and the 2015 ERE provides a practical basis for future co-operation.

In several key partner countries the regulation of the electricity and natural gas sectors are emerging as a major policy priority due to energy security concerns as well as the desire to establish functioning markets. In 2013, for example, a project dedicated to the reform and restructuring of the Russian electricity sector was completed in co-operation with the Energy Ministry of the Russian Federation. Joint EMS/GED projects on the electricity systems of Saudi Arabia and Indonesia are to be delivered in 2014.

Work on renewables is also increasingly focused and carried out in collaboration with partner countries. Co-operation in 2013 has been particularly fruitful with China and Brazil. Two Chinese experts visited the IEA and contributed to the China analysis in the *MTRMR 2013*, while *Power of Transformation* included a case study on Brazil.

During 2013 the Directorate also took part in the In-Depth Review of Morocco, which will be published in 2014, and helped the government of South Africa to elaborate the country's roadmap on solar technologies, also expected to come to fruition in 2014.

The Directorate also overviews collaboration activities with IRENA, with specific respect to the joint IEA-IRENA Policy Database on renewables, and the monitoring of technology costs and progress.

In 2013, EMS met its major objectives as proscribed by the 2013/14 PWB by continuing to enhance its emergency response capabilities, producing monthly *OMR*s; producing the Medium-Term Market Report series on oil, gas, coal, and renewable energy; delivering the outcome of the Electricity Security Action Plan; updating renewable technology roadmaps; undertaking further analysis on grid integration of variable renewable power sources; and enhancing co-operation with the CIAB, REWP, and various external partners.

Energy sustainability (and technology)

Another principal mission of the IEA is to provide policy analysis to assist governments of member states in making sustainable energy choices that cost-effectively mitigate the environmental footprint of the energy sector and support energy security. This work is led by the Sustainable Energy Policy and Technology Directorate (SPT).

The need to develop an efficient and sustainable energy sector, resilient to climate change, grows ever more urgent against the backdrop of persistently high energy prices. Energy Efficiency became even more of a priority for policymakers in 2013.

The first Energy Efficiency Market Report (EEMR) was launched by the Executive Director in Korea in October. This report joins the IEA market reports for oil, gas, coal and renewable energy, highlighting the place of energy efficiency as a major fuel. The Energy Efficiency Unit also produced two new publications in its Policy Pathways series, aimed at helping countries implement specific energy efficiency policies. The Executive Director launched Tale of Renewed Cities, A policy guide on how to transform cities by improving energy efficiency in urban transport systems in July. This report has been downloaded over 2 000 times. In August, the IEA released Modernising Building Energy Codes to Secure our Global Energy Future, a Policy Pathway jointly prepared by the IEA and UNDP.

In 2013, the IEA in close collaboration with multilateral development banks (MDBs), networks of energy efficiency experts, and national governments, embarked on a two-year global effort to develop *Regional Energy Efficiency Policy Recommendations* (REEPR) that tailor the IEA 25 Energy Efficiency Policy Recommendations to the needs, barriers and opportunities of developing countries. As part of this effort, the IEA convened regional energy efficiency experts in Amman, Jordan in April and Jarkata, Indonesia in December to develop REEPR for the Middle East and North Africa and South East Asia, respectively.

Significant progress was made in 2013 on *Capturing the Multiple Benefits of Energy Efficiency*, a major work stream which seeks to broaden the discussion of energy efficiency policy to wider economic and socio-economic areas beyond energy savings and GHG emissions reductions. As part of the research phase, in 2013 the European Union held three Expert Roundtables on macroeconomic and health aspects, and issues for utilities.

The Environment and Climate Change Unit is investigating energy and climate policy interactions that can reduce the trade-offs and advance objectives of both. In 2013, it published an Insights paper, *Managing interactions between carbon pricing and existing energy policies*. The unit worked closely with several countries, introducing new carbon pricing measures, and released recommendation papers: *Integrating carbon pricing with existing energy policies: Issues for South Africa*, and *Issues for Chile*.

In 2013, the IEA continued developing a new work stream on the energy sector's resilience to the impacts of changing climate. It organised the 2nd and 3rd Forum on Climate Change and Energy

Security Nexus (Nexus Forum). The 2nd Nexus Forum, held in June, explored opportunities for city-level responses, and the role of insurance in building resilience to the impacts of climate change. The 3rd Nexus Forum, held in November, focused on resilience in the electricity sector specifically — an increasingly important subject as global electricity demand continues to grow rapidly.

The IEA Ministerial in 2013 was held in parallel to the UN Conference of the Parties (COP19) climate negotiations, and the IEA ministers released a *special statement on climate change* highlighting four policy measures that can reduce energy sector emissions quickly at no cost. This statement was widely distributed at the COP 19.

The IEA continued contributing to the UNFCCC negotiation process. In addition to providing a joint co-secretariat for the Climate Change Expert Group (CCXG) with the OECD Environment Directorate, the IEA formally submitted to the UNFCCC process a description of several relevant IEA publications.

The IEA organised an official side event during the November 2013 COP 19 in Warsaw, and IEA experts participated in numerous events during the COP, sharing IEA insights and recommendations.

Recognising the critical **role of China** in addressing global GHG emissions, the Energy Efficiency and Environment Division has been engaged in several important activities with the Chinese counterparts. The ECC jointly with China Electricity Council (CEC) and China Beijing Environmental Exchange (CBEEX) developed a simulation of a carbon emissions trading scheme for China's power sector. The CCS unit has developed a close dialogue with China's NDRC and ACCA 21 on CCS technology and policy development, with an emphasis on CCS in industrial applications, and the launch of analysis targeting the prospects for CCS-retrofits on coal-fired power stations.

The IEA brought important input to global policy dialogue on CCS. In July 2013, the IEA published an updated CCS Roadmap, issuing a renewed call to the world's governments and industries for more action. Also, IEA analysis and recommendations on CCS in industrial applications were presented at the 4th Clean Energy Ministerial meeting in April in New Delhi. The IEA Executive Director also participated in the Carbon Sequestration Leadership Forum (CSLF) ministerial meeting in November in Washington, D.C., stressing the need to speed up CCS development and boost tangible project-level collaboration between nations.

The CCS unit continued to work on knowledge-sharing in the area of CCS regulation and policy, by organising the 5th IEA CCS Regulatory Network meeting, and by finalising the 4th edition of the CCS Legal and Regulatory Review.

In 2013, the IEA also launched the improved PAMS Databases (policies and measures on Energy Efficiency, Renewable Energy and Climate Change). Representation of IEA partnership countries in PAMS continues to grow, supported by mutual commitments in all Joint Statements.

Since its creation, the IEA has recognised the importance of energy technologies to enable member countries to achieve their policy aims. The publication of the 2013 edition of *Energy Technology Initiatives* highlighted the most significant recent achievements of the IEA's 41 multilateral technology initiatives (Implementing Agreements).

The importance of bringing energy technology messages to the attention of policy makers was also demonstrated in 2013 through the development and endorsement of a new vision for the IEA's flagship technology publication, *Energy Technology Perspectives (ETP)*, which represents one of the most comprehensive and ambitious projects to assess the impact of developments in energy technologies on how to deliver a sustainable energy system by 2050. The new vision, aimed at making *ETP* messages clear, relevant and accessible to energy policy makers, sees the *ETP* project moving away from a single biennial publication to an ongoing programme with a yearly publication as one of its outcomes.

In 2013, the first publication to be released under the *ETP* series brand was *Nordic Energy Technology Perspectives* (*NETP*), which assessed how the Nordic region can achieve a carbon-neutral energy system by 2050. The analysis, completed in partnership with Nordic Energy Research, evaluated the region from an external perspective and pointed to the important role of the Nordic energy system in facilitating the decarbonisation of Europe. At a Nordic ministerial meeting in October 2013, a joint declaration explicitly welcomed the recommendations of *NETP* and stated that the Nordic governments would like to see a follow up of the project.

Another key outcome of the *ETP* project was the publication of the *Tracking Clean Energy Progress* (TCEP) report at the 4th Clean Energy Ministerial (CEM) meeting in New Delhi. The 2013 edition received widespread media coverage and very positive feedback following a scene setter presentation for energy ministers by the IEA Executive Director. This report was the third most downloaded publication in 2013.

Another *ETP* series publication published in 2013 was *Transition to Sustainable Buildings: Strategies and Opportunities to 2050,* demonstrating how to reach deep energy and emissions reduction through a combination of best available technologies and intelligent public policy.

The Low-Carbon Energy Technology Roadmaps programme continued on its success by publishing two new global roadmaps (Chemical Industry via Catalytic Processes and Energy-efficient Building The IEA also addressed issues of sustainability of fossil fuel for future generations. *Resources to Reserves 2013* – a comprehensive update to the 2005 edition – confirmed earlier findings that known hydrocarbon resources were sufficient to sustain likely growth for the foreseeable future. It further investigated how oil and gas resources can be produced at a reasonable cost and in a timely manner, while also protecting environmentally sensitive areas.

Envelopes) and one national roadmap (*Low-Carbon Technology for the Indian Cement Industry*) This brought the total number of global roadmaps to 19, with two national roadmaps. The IEA also published updates for its Carbon Capture and Storage and Wind Energy Roadmaps this year.

Finally, the IEA pursued its tradition of collaboration by leading a series of partnerships with multiple stakeholders from member and partner countries, industry and academia. The Mobility Modelling partnership, which maintains and develops the ETP transport database and model, celebrated ten years of sponsorship with its 16 partners from the automotive and oil industry, academia and IGOs.

Through this partnership, the IEA evaluated projected road and rail travel through 2050 and published *Global Land Transport Infrastructure Requirements* to identify potential savings associated with sustainable transport options. The MoMo model was also used in an engineering "bottom-up" approach to estimate the effect of the input cost of oil and of various technological assumptions on the finished price of transport fuels in the *Production Costs of Alternative Transportation Fuels* paper. And MoMo modelling of global urban passenger mobility supported the

In 2007, the IEA created the CHP/District Heating and Cooling (DHC) Collaborative to promote the deployment of cost-effective, clean and efficient CHP and District Energy technologies and assess related global markets and policies. The Collaborative initiated its 3rd phase in 2013 and published three updated CHP/DHC Country Scorecards, covering Finland, Japan and Korea and continued its joint work with the CEM Combined Heat and Power and Efficient District Heating and Cooling Working Group.

findings of the Tale of Renewed Cities Urban Mobility Policy Pathway.

The IEA also collaborated with the International Union of Railways to publish the 2nd edition of the Railways Handbook *Energy Consumption and CO_2 Emissions of the World Railway Sector*. And as part of its role as secretariat for the CEM Electric Vehicle Initiative (EVI), the IEA published the *Global EV Outlook*, offering an understanding of the electric vehicle landscape to 2020.

Pursuing its mission on multilateral energy technology collaboration, The IEA's Energy Technology Network welcomed a new Implementing Agreement in 2013. The Implementing Agreement for a Cooperative Programme on Gas and Oil Technologies (GOT IA) was approved by the IEA Governing Board on 22 March 2013. The aims of the GOT IA are to enhance safety and environmental aspects

of oil and gas supply ("social licence-to-operate"); reduce the carbon footprint of oil and gas supply; improve the security of conventional and unconventional oil and gas supply; and examine the role of technology innovation in determining the future of gas in the energy mix.

And the IEA also continued its efforts to link energy technology and energy policy decision making. June saw the first SLT-CERT joint workshop discuss technology and market aspects of the Future Power System. Delegates from both committees confirmed its usefulness to enhance collaboration. Meetings were also organised between the Working Party on Energy End-Use Technologies (EUWP), the Working Party on Energy Efficiency (EEWP) and the International Partnership for Energy Efficiency Cooperation (IPEEC), to create more links between energy efficiency technologies and policies.

2013 PWB key objectives have been met with the publication of the first *Energy Efficiency Market Report*, the launch of a new project on Energy Efficiency in Emerging Countries (E4), the establishment a new vision and format for ETP, and deepening co-operation between CERT, SLT and the GB.

Economic development (and forecasting)

As economies grow, they typically require more energy to fuel factories and trucks, to heat and cool buildings, and to meet growing personal demand for mobility, equipment and electrical appliances. But just how quickly and in what way those needs are met is far from certain: experience in many countries over the past four decades shows that the link between GDP and energy use can be loosened, if not entirely broken, through a combination of government action and technological advances. This highlights the importance of robust analysis of the medium to longer-term outlook for energy demand and supply. A major pillar of the IEA response to this need is the *World Energy Outlook (WEO)* series of reports, which provides the public and private sector with a framework on which they can base their policy-making, planning and investment decisions and identify what needs to be done to arrive at a supportable and sustainable energy future.

The WEO series, which is prepared by the Directorate of Global Energy Economics (GEE), is based around the annual publication, which sets out various policy-driven scenarios projecting energy demand, production, trade, investment and carbon-dioxide emissions to 2035, as well as insights into what they mean for energy security, environmental protection and economic development. In addition to the annual report, GEE also maintains ongoing programmes of work aimed at helping to overcome some of the major challenges facing the energy sector, including fossil fuel subsidies and energy access.

GEE founded the IEA Energy Business Council (EBC) in 2009 and has since served as its Secretariat. In 2013 the EBC consolidated its status as the overarching body through which the IEA interacts with industry. It served as an integral part of the 2013 IEA Ministerial meeting, and two separate EBC meetings were held — in June, including a joint session with the IEA Governing Board, and in November, as part of the IEA Ministerial meeting with the participation of 35 leading executives. GEE also manages the IEA Unconventional Gas Forum, established in 2012. The inaugural meeting of the UGF took place on the 22 March 2013 and gathered over 100 representatives from IEA member countries and non-member countries such as Algeria, Brazil, China, Estonia, India, Indonesia, Lithuania, Mexico, Romania, Russia and South Africa. Participants shared best practices for unconventional gas production (including input from international organisations and associations, industry, NGOs and investors), and discussed plans for future meetings of the UGF. The 2014 UGF will take place in Calgary on 26 March and will focus on best practices for minimising water use and for protecting water resources from the risk of contamination during unconventional gas production.

Since its release in November 2013, the *World Energy Outlook 2013* (*WEO 2013*) has been presented by senior IEA officials at over 50 events in some 30 countries. This has resulted in unprecedented public attention, which has had the effect of significantly increasing the exposure, visibility and prestige of the IEA and its mission. The book included updates on three key areas of critical importance to energy and climate trends: achieving universal energy access; developments in subsidies to fossil fuels and renewables; and the impact of energy use on climate change. The key findings have been widely cited by ministers and opinion leaders from industry and NGOs, indicating that it is being actively utilised as an input to the process of developing government policies and business strategies. In terms of media coverage, it has been the focus of front-page stories in many of the world's leading newspapers and featured extensively on television, internet and radio. It received extensive coverage in partner countries, where it is serving as a "concrete" vehicle for enhancing IEA engagement. Articles on key findings of the report have been published in more than 80 countries across all continents. As of mid-February 2014, sales of *WEO 2013* exceeded 12 600 copies, marking an all-time record for an IEA publication.

WEO Special Report: Southeast Asia Energy Outlook

Following a request made during the 6th East Asia Summit Energy Ministers' Meeting in Cambodia in September 2012, the Directorate of Global Energy Economics (GEE) prepared the WEO Special Report: Southeast Asia Energy Outlook. The report sets out how energy security promises to become an elevated priority across Southeast Asia as reliance on oil imports rises across the region. So too does the need to ensure that energy supplies are affordable, in order to support continued economic growth and development. And removing barriers to energy efficiency and cleaner sources of energy also looks set to become a major imperative, especially in the context of the region's fast-rising energy demand, the expanding role of coal in its energy mix and its growing urban population. Throughout the process of preparing this analysis, the IEA received valuable input from experts across Southeast Asia, building on the productive relationship that the IEA already has with countries in the region, as well as from our partners in the Economic Research Institute for ASEAN and East Asia (ERIA). The Ministry of Energy of Thailand provided a voluntary contribution to support the analysis and hosted a workshop in May 2013 in Bangkok to gather essential input. The report was released by the Executive Director during the 7th East Asia Summit Energy Ministers Meeting in September 2013 in Bali, Indonesia. It was warmly welcomed in the ministerial communiqué with calls for the IEA to build on the momentum it created through follow-up work. It attracted considerable press coverage in each of the ten ASEAN member states, as well as major international titles and has been described as a successful model for the IEA to contribute to the Asian regional energy agenda.

The "fuel" of focus in WEO 2013 was oil, providing the opportunity for an in-depth look at the fuel that meets the largest share of global energy needs. The analysis covered the entire oil supply chain, from an assessment of resources and reserves to the evolving needs and choices of consumers. A workshop was held in Paris in April 2013, addressing a particularly topical aspect of the oil outlook, the future of the tight oil revolution. Participants shared their views on the prospects for the remarkable rise in tight oil production that has been seen in the United States to be maintained, and the extent to which the US experience might be replicated in other countries around the world with resource potential, such as Russia, China and Argentina. This provided important material for the final WEO chapters, with the conclusion being that tight oil does not remain an engine of global supply growth throughout the WEO outlook period to 2035, with the world reverting to greater reliance on the traditional, large conventional resource holders in the Middle East during the period after 2025. The WEO chapters also covered the technologies and costs involved in the global upstream, including a focus on the prospects for enhanced oil recovery, and an updated analysis of the speed at which output from existing oil fields is expected to decline. On the demand side, there was a focus on oil consumption in the Middle East, a region that is fast becoming a major centre of oil use, as well as an examination of the alternatives to oil in the transport sector. Finally, there was – for the first time in such detail in the WEO – an examination of two sectors that make the connection between oil extraction and its final consumers: oil refining and trade.

Each year, the WEO selects a particular country or region for in-depth analysis. The 2013 edition focused on Brazil, following on from the work done on Iraq and Russia in previous years. The analysis of Brazil benefitted from a range of contacts and discussions across the Brazilian energy sector, and from close co-operation and support from the Ministry of Energy and Mines and from Petrobras. A workshop was held in Rio de Janeiro in April 2013. The analysis covered all areas of the Brazilian energy system,

with a particular accent on the domestic power sector, in which hydropower plays a predominant role but where new projects have been slowed by concerns over social and environmental impacts, and on the prospects for developing Brazil's huge offshore oil and gas potential. In the WEO analysis, Brazil is set to maintain a high share of renewables in its domestic energy mix, even as the share of hydropower in power generation declines, and complex and capital-intensive deepwater projects also push Brazil into the top ranks of global oil producers and exporters. The analysis was presented by the Executive Director in Brazil in December 2013 at a meeting hosted by Deputy Minister of Mines and Energy, Marcio Zimmermann, and has been welcomed by the Brazilian side as a serious and highly professional analytical contribution to the Brazilian energy debate.

In addition to the annual WEO and the Southeast Asia Energy Outlook, GEE published another special report. Redrawing the Energy-Climate Map proposes four measures to reduce greenhouse gas emissions from the energy sector in the short term without a net cost for the economy. The report analysed and quantified to the extent possible the impact of climate change on the energy sector, a new area of analysis for the IEA. The report looked also in depth at the issue of stranded assets, quantifying the impact in monetary terms for fossil fuel assets if the energy sector was to pursue a strong decarbonisation scenario. The report benefitted from a workshop held in Paris gathering over 80 experts from industry, international organisation, energy companies, finance community and insurance companies. The report was launched in June in London. It received wide press coverage, including an editorial in the Washington Post. The report constituted the backbone of a Ministerial Statement on Climate that was endorsed by IEA Ministers during the 2013 IEA Ministerial meeting. It remains among the top downloads on the IEA website. The measure regarding methane has been taken up at Davos with an endorsement for action of key oil and gas global companies.

Energy and competitiveness

Large, persistent differences in natural gas and electricity prices across regions, coupled with a sustained period of high oil prices that is without parallel in market history, have made energy costs a hot political issue. Lower natural gas prices in the United States, supported by the shale-gas revolution, have raised hopes of a sustained economic recovery on the back of the manufacturing sector. Conversely, higher energy prices in Europe and parts of Asia, particularly Japan, are setting alarm bells ringing, with calls for urgent action to prevent the demise of their industrial heartlands. Are these hopes and fears justified? The WEO 2013 dedicated a chapter to this theme, analysing and quantifying in detail the role of energy prices in competitiveness of energy intensive industries. The WEO concluded that what we see today in terms of price differentials between regions reflects a structural issue, not a one-off. It also identified opportunities to improve energy competitiveness, or at least mitigate part of the impact of energy price disparities, while at the same time addressing energy security and environmental concerns. The media covered extensively this part of the WEO analysis. The chapter also received significant attention from policymakers, particularly in Japan and Europe (as its release coincided with the finalisation of the EU 2030 package).

In 2013, GEE fully achieved to high standard each of the outcomes assigned to it under the first year of the 2013/14 PWB, including (amongst other activities): the production and dissemination of several reports (WEO 2013; WEO Special Report: Redrawing the Energy-Climate Map; and WEO Special Report: Southeast Asia Energy Outlook); ongoing analysis of prospects for achieving universal energy access and developments in energy subsidies; and development of the IEA High Level Forum for Unconventional Natural Gas Best Practices.

Engagement globally

Today no individual country or international organisation, including the IEA, can fully respond on its own to the challenges thrown up by the rapidly changing global energy landscape. To help achieve the IEA's core objectives, the so-called "3Es", the IEA actively engages with partner countries and other international organisations and fora, a fourth "E". This work is coordinated by the Office of Global Energy Policy (GEP).

The IEA's global engagement was broadened and deepened in 2013, highlighted by the participation of all seven key partner countries as well as Estonia and Chile – two candidate countries for accession – and also Mexico as an observer, at the IEA Ministerial Meeting in November. During this meeting, every partner country as well as Chile renewed its bilateral Joint Statement or Joint Work Programme with the IEA, in which a series of concrete projects and activities have been mutually agreed to take place bilaterally with the IEA over the next two years. This provides a comprehensive framework for bilateral co-operation between the IEA and partner countries in various energy areas including energy security, energy data and statistics, market analysis, energy technology and capacity building.

In November 2013, on the occasion of the 2013 IEA Ministerial Meeting, the IEA and six key partner countries – Brazil, China, India, Indonesia, Russia and South Africa – endorsed the Joint **Declaration on Association**. It was the first time that the IEA and its partner countries had jointly and publicly expressed their mutual interest in pursuing a stronger, more enhanced form of multilateral co-operation. This historic achievement was a result of bilateral and multilateral discussions between the IEA and partner countries throughout 2013, building on a shared understanding towards enhancing global energy governance. Moving forward, the IEA is currently exploring the possible perimeters of association in close consultation with partner and member countries.

With China, frequent high-level visits between the IEA and the Chinese government have showcased significant progress that has been made in increasing engagement between the countries. The co-operation on energy security with India moved forward with the first **Emergency Response Assessment of India** in 2013; kick-off and closing meetings for the ERA visit were both chaired by a highlevel Indian policy maker. A highlight of co-operation with Russia was the commencement of work on Russian In-Depth energy policy Review (IDR) with strong support from the Russian government throughout the process. Relations with Brazil further intensified, mainly driven by the special regional chapter on Brazil in the World Energy Outlook 2013, launched

by the Executive Director in December 2013. Co-operation with **Mexico** in 2013 focused on policy dialogue and inputs to its landmark energy sector reform by the Peña Nieto administration. With **Indonesia**, the first secondment of an expert from the Indonesian government to the IEA further strengthened relations, supporting the IEA's work on the *WEO Special Report: Southeast Asia Energy Outlook*. The joint project with **South Africa**, *Solar Energy Technology Roadmap*, was well on track including two technical workshops which international experts and national stakeholders attended.

The IEA completed Estonia's IDR and the country's accession was approved by the Governing Board in October. The country was formally invited to join the IEA on the occasion of Estonia's attendance at the Ministerial. The ratification of the Estonian accession to the IEP Agreement is in progress and Estonia is expected to become the 29th member of the IEA in 2014.

2013 also saw important steps taken on co-operation with other important partner countries. One key achievement is the completion of the first round of energy policy reviews of 11 countries in the **Caspian and Black Sea** region under the INOGATE programme funded by the European Commission.

Thailand, a strong supporter of the IEA in Southeast Asia, undertook a mid-term review of its Emergency Response Assessment and presented it in October to the Standing Group on Emergency Questions at the IEA. **Singapore** and the IEA jointly organised a workshop around the *Developing a Natural Gas Trading Hub in Asia* report. Meanwhile, co-operation with Middle Eastern countries was broadened: an MOU was signed with Saudi Arabia's King Abdullah Petroleum Studies and Research Centre; a Statement of Co-operation was signed with Iraq. The IDR of **Morocco**, the first with a MENA country, was started in 2013 followed by the IEA team visit and a workshop attended by senior staff from the Moroccan government. The third annual IEA-IEF-OPEC Symposium on energy outlooks was held in Riyadh, while the third in the series of IEA-IEF-OPEC workshop on the oil market and regulation was hosted by OPEC in Vienna.

Throughout 2013, the IEA actively engaged in the **G20** process. The IEA participated in two meetings of the Energy Sustainability Working Group, initiated under the Russian G20 Presidency to bring together the varying energy workstreams in existence under the G20 rubric. The IEA also delivered a joint report with the IEF and OPEC on gas and coal market transparency to a meeting of G20 Deputy Finance Ministers in June. Notably, the G20 St Petersburg Leaders' Declaration recognised and welcomed the IEA's outreach efforts.

Through 2013, the International Low-Carbon Energy Technology Platform developed a rich programme of activities to support the dissemination of IEA technology analyses and IEA engagement with partner countries. This included the successful organisation of workshops in South Africa and Mexico, the completion of the first in a series of roadmap development manuals, the *How2Guide for Wind Energy* (forthcoming March 2013), and the foundations for a range of activities to be carried out in 2014.

The year 2013 saw 26 new participants in the IEA Implementing Agreements, seven of which were from partner countries. As of the end of 2013, there were 22 partner countries participating in the IEA Implementing Agreements, comprising 14.8% of all participants, both government and the private sector, arguably making the Implementing Agreements a "quiet success story" within the IEA's diverse engagement portfolio. Moreover, the Implementing Agreements continued providing valuable input to

IEA analyses throughout 2013, providing expertise to a wide range of IEA workshops and publications. The *Energy Technology Initiatives*, updated and published in December, features the most significant recent achievements of the IEA Implementing Agreements.

A principal responsibility of the IEA, as required by its founding treaty, is to conduct regular IDRs of its member countries. This work is undertaken by the Country Studies Division (CSD). Three such reviews were launched in 2013: Germany, Sweden and Finland. The launch of the Germany IDR attracted substantial media coverage and raised the profile of the Agency in the host country, as the report was published in the midst of a major political discussion on the future direction of the Germany energy transformation or *Energiewende*.

In order to prepare for the coming IDRs, CSD also conducted four IDR team visits

The **IEA Training and Capacity Building** programme continued its mission of enhancing institutional capacity in partner countries on energy data, analysis and policy formulation, and is increasingly recognised as an important instrument for engaging key and other partner countries. The annual Energy Training Week and regular Energy Statistics Courses have continued to promote the IEA's work and have facilitated knowledge exchange between partner and member countries. In 2013, over 500 government officials and energy experts from the public and private sectors, international organisations and NGOs from nearly 100 countries participated in IEA training events. Besides training activities in Paris, the programme initiated or supported seven regional capacity building events (Asia, Latin America, the Mediterranean, and four Africa sub-regions) and several in-country bilateral training sessions (India, Indonesia, Sudan).

to Austria, the Netherlands, Luxembourg and the United States in 2013. These visits formed the basis for books to be published in 2014. CSD also supported all stages of non-member country IDRs: Indonesia, Morocco, Russia and Estonia. CSD's experience in country reviews was a valuable contribution to the development of INOGATE programme, including participation in team visits to 11 countries.

In addition to the regular IDR publications, the IEA successfully launched at the 2013 Ministerial event, a new publication, *Energy Policy Highlights 2013*, which showcased best energy policy practices from member countries. The publication provided IEA member countries with an opportunity to share a range of innovative policy practices with a wide audience of policy makers.

In 2013, GEP met its major objectives as prescribed by the 2013/14 PWB by continuing to strengthen its international co-operation with a range of international fora, including the IEF, OPEC, the G20, CEM and IRENA, as well as by effective implementation of the Joint Statements with China, India and Russia and the bilateral Work Programmes with Brazil, Indonesia, Mexico and South Africa, and by solidifying engagement with other partner countries in line with the IEA 2012 Global Engagement Strategy. A key milestone was the endorsement of a Joint Declaration on Association with six key partner countries at the IEA Ministerial Meeting in November. Alongside this, GEP delivered on its programme of In-Depth Reviews of member countries, as well as undertaking work for several partner country In-Depth Reviews.

Supporting the "4E" missions

In order to carry out our work in achieving our 4E missions — energy security, economic development, environmental sustainability, and engagement — the IEA conducts a variety of support activities that are vital to its success. These essential tasks include energy data management and communication, as well as IEA specific legal and management functions.

Energy statistics

The mission of the IEA Energy Data Centre (EDC) is to provide IEA analysts, member countries and the broader energy community with the most comprehensive source of high-quality data to assess the energy situation among OECD member and non-member countries on a factual basis. Over the years, the IEA has established itself as the most authoritative reference in terms of OECD and global energy statistics, and the objective of the Energy Data Centre is to further strengthen this position and the role of the IEA in increasing data transparency globally. Every year, EDC publishes a series of ten annual publications, two quarterly publications and numerous electronic data services, including the Monthly Oil Data Service. The IEA also plays a key role in the development of the **Joint Organisations Data Initiative (JODI)**, **InterEnerStat** and other international initiatives to raise the profile and the quality of statistics worldwide.

Based on preliminary information on the direct sales of electronic services, IEA statistical publications set a new sales record in 2013, and EDC accounts for over half of overall IEA publications revenues. Those sales, as well as numerous requests regarding the authorisation to use or quote IEA statistics, confirm the strategic importance of IEA statistics in supporting work both in-house and among analysts globally.

In line with the growing importance of energy efficiency as the first fuel for the future, EDC has been extremely active in strengthening its work on energy efficiency. In 2013, EDC conducted its third round of data collection on energy efficiency; it provided training on energy efficiency statistics; and completed the *Energy Efficiency Indicators: Fundamentals on Statistics* — a manual to serve as a reference document for countries seeking to build energy efficiency indicators, the necessary basis for any sound energy efficiency policy.

Once again, JODI has been high on the agenda in 2013 – not only for consolidating JODI Oil and its associated database, but also for boosting the development of JODI Gas. This took place through the dissemination of a JODI Gas Manual; during various training sessions; and at the 3rd World JODI Gas Conference in Indonesia. The aim of all JODI Partner Organisations (UNSD, APEC, Eurostat, IEA, IEF, OLADE, OPEC) is to launch the JODI Gas database in May 2014 at the IEF ministerial meeting in Russia.

In 2013, the IEA was also very active in terms of statistics training around the world. On top of its two regular training sessions in March and in October at the IEA – which attract a growing number of participants – the IEA conducted a series

Easing the access to IEA energy statistics was a major aim in 2013. The IEA made great progress by entirely redesigning its statistics web page and by further improving its Key World Energy Statistics application for phones. Not only is the statistics page much more user-friendly, it also includes more new data with over 20 years of data instead of one, as well as new features such as the Sankey Flow diagram representation of its energy balances for 140 countries and 40 years. The new site has led to a new record in terms of number of visitors to IEA statistics on the website which is by far the most accessed page of the whole IEA web site. In terms of its mobile app, the IEA is developing an Android application to increase access to this product.

of training sessions in Africa, Latin America, Asia, Middle East and in East Europe. As in 2012, special efforts were made to work with the African Energy Commission (AFREC) in the development of energy statistics for Africa. Training statisticians in non-OECD countries is a necessary investment due to the growing share of non-OECD countries in both energy supply and production. That investment also sees returns – with an overall improvement of statistical data quality in many countries.

Significant progress was made on the 2013/14 PWB. Besides the successful monthly, quarterly and annual statistics cycles, the more user friendly web page led to new records in data sales and access to web-based statistics.

Communication

Effective communication of the analysis, trends and recommendations highlighted in IEA work is essential for supporting governments of member states and other stakeholders in achieving a sustainable energy future. The Communications and Information Office (CIO) advises the Executive Director on communication strategy and priorities, co-ordinating across the Agency to raise the profile of the IEA and its work with policy makers and other key target audiences, and to ensure that consistent messages are conveyed with maximum impact. Its aim is to promote the broadest dissemination of IEA work, while finding ways to cut costs and increase efficiency.

The IEA Ministerial meeting in November 2013 provided an excellent opportunity to reach important audiences in member and partner countries as well as industry. CIO provided extensive support during preparations, ranging from helping to draft the agenda and background papers to setting up the Ministerial web site to finalising décor, formatting and printing all documents and organising the closing press conference. CIO also designed the 40th anniversary logo that helped kick off the celebration of the IEA's 40th year.

In 2013, CIO continued implementation of the IEA communications strategy, seeking to highlight key messages from IEA work and identify opportunities to maximise their impact. For example, the first *Energy Efficiency Market Report* was launched at the World Energy Congress in Daegu, Korea. At the same time, the publications programme was streamlined, to avoid duplication and highlight fewer messages with more impetus, and the IEA social media presence increased. The results of this more strategic approach speak for themselves.

Revenue from sales of IEA publications and data broke another record in 2013, surpassing EUR 6 million. This outcome reflects the efforts of colleagues across the IEA and is especially impressive after a number of years of reduced resources and increased efficiency. CIO worked with DEXD, EMS, OMA and EDC to prepare a proposal to the Governing Board to enhance IEA e-commerce. The proposal was approved, providing funding from the publications revenue surplus fund, to invest in new, improved e-commerce systems to integrate, sell and track the sale of IEA products. This project will start in 2014.

In 2013, the News and Public Affairs Unit (NPA) supported the Executive Director by preparing presentations and speeches over the course of 2013. In addition, numerous articles were written in the name of the Executive Director, a 20% increase from 2012. The Press Office also succeeded in drafting and placing opinion pieces by the Executive Director in key global publications, including the *Huffington Post* and *Financial Times*. The Executive Director also gave over 100 interviews. The two 2013 issues of the *IEA Energy* journal highlighted energy efficiency, global outreach and objectives of the fall Ministerial meeting. They featured commentaries from the European Commissioner on Energy, Günther Oettinger, Turkish Energy Minister Taner Yıldız, GDF SUEZ CEO Gérard Mestrallet and Schneider Electric President Jean-Pascal Tricoire, while interviewees included Mexican Energy Secretary Pedro Joaquín Coldwell and Indonesian Energy Minister Jero Wacik.

The Publications and Printing Unit (PPU) produced 52 publications and supported the preparation of 12 Insights papers and workshop reports. Working with an external provider, PPU is developing new Word templates for internal layout of five publication series. The templates will be ready in 2014 and will reduce both time and cost, further improving efficiency. PPU also developed new Excel figure templates, introduced a new correction software, created new Sharepoint sites to track production and also printing requests, and worked with the OECD on a new international call for tender for prepress and printing.

The On-line and Multimedia (OMM) unit worked with EDC to make IEA data more visible and accessible, launching a new statistics site in September that has received rave reviews. A new technology initiatives web site was developed with GEP to help raise the profile of Implementing Agreements. OMM also worked closely with the Renewable Energy Division on enhancements to the Policies and Measures database. A new Research and Reference Centre catalogue was completed, enabling easier access to information and other materials for IEA analysts in support of their research. The Agency's social media profile continued to grow, especially on Twitter and LinkedIn. In 2012, OMM initiated a monthly impact report (see box) to track how IEA work and activities was being received externally. This report continued in 2013 and is creating a useful tool to measure and compare communications efforts.

For the second year, CIO measured and tracked of on-line communication efforts through a **monthly impact report** circulated across the Agency. The 2013 results showed strong progress across the board.

IEA website:

- 8 552 608 page views: 141% increase on 2012;
- 2 716 033 visits: 137% increase on 2012, of which 1 698 636 were unique: 135% increase on 2012.

Social media:

- Twitter followers doubled: 196% increase (32 257 followers end December 2013 compared to 16 375 in December 2012);
- IEA Facebook page "likes" nearly doubled: 182% increase (14 689 end December compared to 8 040 in December 2012);
- LinkedIn followers of the IEA: 279% increase (6 871 followers end December 2013 compared to 2 462 in December 2012).

With OMA, CIO organised the second annual IEA Excellence Awards which culminated with a ceremony in November where the Executive Director honoured two colleagues — based on nominations by their peers — for their work and co-operation with others across the Agency.

CIO successfully completed all of its major 2013 objectives, as stipulated by the 2013/14 PWB.

Legal and support work

In terms of internal institutional support, the Office of the Legal Counsel (OLC) served its traditional role in 2013 during four Governing Board meetings, providing organisation and secretariat services – including the oversight of an election process for a new Chair. It provided similar support for the 2013 meeting at Ministerial level, including the selection process for the Chair of that event.

With regard to office space, OLC assisted in the management of the IEA lease, including supporting BOU on lease-related issues and dialogue with the IEA landlord.

OLC also supports the institution in external relations. It is facilitating Estonia's accession by overseeing the legal aspects of that process, and in 2013 provided legal and drafting support in relation to co-operative arrangements.

OLC also supports IEA revenue generation and financial agreements. A principal responsibility is providing legal support in relation to the negotiation and approval of VC/grant agreements. It also provided legal support in relation to key procurement contracts and in order to obtain approvals from the OECD Procurement Board. In particular, OLC, in tandem with the OECD's Central Purchasing Group (CPG) and OECD Legal (LEG), assisted to mutualise contracts between the IEA and OECD (print and pre-press, security and reception/conference service contracts and two major subscription agreements).

All items listed in the PWB 2013 for OLC were successfully completed. In addition, many instructions outside of the PWB 2013 were taken on and processed.

Office of Management and Administration

In mid-2013, the new Chief Management Officer (CMO) joined the IEA to oversee and consolidate support work which has been grouped into a single Office of Management and Administration (OMA) with separate units for finance, buildings, IT, and HR issues.

In terms of budget, in 2013 the Committee of Budget and expenditure and the secretariat addressed two important items, amongst others, IEA e-commerce and our PWB process.

E-commerce and the issue of investing in a modern sales platform was put forward to the Governing Board and financing was approved for an e-commerce modernisation and enhancement project from our Publications Reserve. Work began on the implementation of the e-commerce project Q4 2013.

In addition to e-commerce, the Budget Committee carried out a process called Reflections on a Strategic Management Process to Aid in the Programme of Work and Budget Discussions. The new PWB procedure includes more focused discussions by the Governing Board that steer away from direct budgetary questions and focus rather on long-term visions from member countries on where they see the Agency in the future.

The proposed strategic approach defines two new outputs that the GB, with the aid of the Secretariat, must provide for the PWB process, a Strategic Orientation paper and a PWB Guidance paper. As with the prioritisation, these will be revised each biennium. This new process will be used to develop the 2015/16 PWB and it includes a simplified prioritisation exercise which was launched in December 2013.

2014 is the second year of the 2013/14 biennium, and the budget remains a ZNG budget, as since 2009. As our budget envelope is ZNG, we continue to be extremely vigilant with respect to expenditure and create efficiencies wherever possible and appropriate.

The level of VCs increased in 2013 due to several high value VCs which were received for multi-year projects.

OMA and the Buildings and Operations Unit progressed the Accommodation Strategy defining the strategic project with timelines and milestones.

For IEA office accommodation post-May 2017, two principal options are open to the IEA:

- move from the current offices and re-establish the organisation and facilities in a new location;
- renovate the IEA offices at 9 rue de la Fédération, renegotiating a lease with the landlord;
 continue the lease in Carré Suffren.

The first phase of the project, the option feasibility study for IEA future office accommodation, was started in 2013 with the help of external sector expertise.

The Ministerial Meeting in November was also a key item in the 2013 work plan for all OMA teams and was successfully managed with budget. The meeting welcomed over 300 guests from governments and top-level executives from the Energy Business Council.

From a ISU perspective, following the security audit carried out jointly across all OECD entities, 2013 saw increase in co-operation in the area of computer security across the various entities, with the creation of the Information Security Governance Group (ISGG).

A separate information security audit was subsequently carried out to focus on IEA specific risk areas with the aim of implementing standard best practices in the area of information security.

A focus on business continuity was also pursued with the implementation of resilient and replicated data storage technology as well as the definition of an action plan to enhance IT system protection and disaster recovery. In parallel IT network security was enhanced with the integration of advanced threat protection detection and prevention.

One main project has been enhancing collaborative work within the Agency with the ongoing deployment of the Sharepoint platform. Other key project initiated during 2013 is the enhancement of data sales and e-commerce operation as mentioned above, as well as enhancements to the central statistics data management systems.

In terms of personnel, 2013 saw the arrival of 58 new staff members across the IEA, 21 of which were A grades. Didier Houssin took up his new role of Director of SPT, Claire Bouteille took up the role of Chief Management Officer and Kenneth Fairfax took up the role of Deputy Executive Director, as well as taking responsibility for the Office of Global Energy Policy.

The total staff number remained well within the staff cap at 234 for a reference of 230 \pm 10%. In 2013 the staff positions were composed of 118 A grades and 116 B grades.

Work across all output areas listed in the 2013/14 PWB for OMA was successfully carried out. Work continues in 2014, including key areas of work such as the Office Accommodation Strategy, a review of recruitment procedures and supporting policy, the continuous improvement of information systems and the long-term financial health of the Agency.

Annex I: 2013 publications

Title	Launch
Oil Market Report	Monthly
Featured Insight: Global Land Transport Infrastructure Requirements and the subheading is: "Estimating road and railway infrastructure capacity and costs to 2050"	January-13
Workshop report: CCS in industrial applications	January-13
Nordic Energy Technology Perspectives 2013 (ETP series)	February-13
Insights paper: Energy provider delivery of energy efficiency: Global policies and trends (PEPDEE report)	February-13
Energy Policies of Sweden	February-13
Electricity & a Climate-Constrained World: Data and Analyses	February-13
Technology Roadmap: Cement in India	February-13
IEA Energy journal: Issue 4	March-13
Insights paper: 21st Century Coal	March-13
Oil, Gas, Coal and Electricity Q4- 2012	April-13
Energy Prices & Taxes Q1 2013	April-13
Insights paper: Gas-to-Coal Competition in the US Power Sector	April-13
Electric Vehicles Initiative (EVI) report	April-13
Medium-Term Oil Market Report 2013	May-13
Energy Policies of Finland	May-13
WEO Special Report: Redrawing the Energy-Climate Map	June-13
Medium-Term Renewable Energy Market Report 2013	June-13
Oil, Gas, Coal and Electricity Q1 2013	July-13
Energy Statistics of OECD Countries S1	July-13
Energy Balances of OECD Countries S2	July-13
Energy Prices & Taxes Q2 2013	July-13
Oil Information	July-13
Technology Roadmap: CCS Update	July-13
Policy Pathway: Improving urban transport system efficiency	July-13
Renewables Information	August-13
Coal Information	August-13
Electricity Information	August-13
Natural Gas Information	August-13
Energy Statistics of Non-OECD Countries S1	August-13
Energy Balances of Non-OECD Countries S2	August-13

Insights paper: Russian Electricity Reform: 2013 Update	August-13
Partner country series: Chinese Investments in the Brazilian Energy Sector: Tapping the Potential of Technology Transfer?	September-13
Key World Energy Statistics	September-13
Insights paper: Energy Country Specific Reports "Country Scorecards": Japan	September-13
Insights paper: Energy Country Specific Reports "Country Scorecards": Finland	September-13
Workshop report: Methods to assess geologic CO ₂ storage capacity: status and best practice	September-13
Energy Policies of Estonia	September-13
Energy Technology Initiatives	October-13
Electricity security during the transition to a low carbon system (Brochure)	October-13
Technology Roadmap: building envelope	October-13
Oil, Gas, Coal and Electricity Q2 2013	October-13
Energy Prices & Taxes Q3 2013	October-13
Insights paper: Energy Country Specific Reports "Country Scorecards": Korea	October-13
Insights paper: Electricity Networks: Infrastructure and Operations	October-13
Insights paper: Focus on Energy Security	October-13
Insights paper: Managing interactions between carbon pricing and existing energy policies	October-13
WEO Special Report: Southeast Asia Energy Outlook	October-13
CO ₂ Emissions from Fuel Combustion	November-13
CO ₂ Emissions from Fuel Combustion Highlights	November-13
Featured Insight: Production Costs of Alternative Transportation Fuels	November-13
World Energy Outlook 2013	November-13
IEA Energy journal	November-13
Energy Policy Highlights	November-13
Medium-Term Coal Market Report 2013	December-13
Partner country series: Developing a natural gas trading hub is Asia	February-14
Tracking Clean Energy Progress 2013: CEM Input	April-14
CCS Annex: Global action to advance carbon capture and storage	April-14
Resources to Reserves	May-14
Energy Policies of Germany	May-14
Technology Roadmap: Chemical Catalysis	June-14
Medium-Term Gas Market Report	June-14
Technology Transition for Buildings: Strategies and Opportunities to 2050 (ETP series)	June-14
Policy Pathway: Building Energy Codes	August-14
Medium-Term Energy Efficiency Market Report 2013	October-14
Technology Roadmap: Wind Update (original in 2008)	October-14

Annex II: Acronyms

2DS Two-Degree Scenario
AFREC African Energy Commission

AMM Administrative and Management Meeting

APEC Asia-Pacific Economic Cooperation
BEEP Buildings Energy Efficiency Policy

BLD Building Services Division
CCS carbon capture and storage
CEM Clean Energy Ministerial

CERT Committee on Energy Research and Technology

CIO Communication and Information Office

CMO Chief Management Officer

CO₂ carbon dioxide

CSD Country Studies Division EBC Energy Business Council

ECC Energy and Climate Change Unit

EDC Energy Data Centre
EEU Energy Efficiency Unit

EMS Energy Markets and Security Directorate

ERA Emergency Response Assessment
ERE Emergency Response Exercise
ERR Emergency Response Review
ETP Energy Technology Perspectives

EVI Electric Vehicle Initiative

EVX Global Electric Vehicle Insight Exchange FIA Fédération internationale de l'automobile

G20 Group of 20 Major Economies

GB Governing Board

GCP Gas Coal and Power Division

GEE Global Energy Economics Directorate
GEP Global Economic Policy Division
GFEI Global Fuel Economy Initiative

GIVAR Grid Integration and Variability Project

IA Implementing Agreement
IAB Industry Advisory Board

IDR In-Depth Review

IEA International Energy Agency
IEF International Energy Forum

IPI International Partnerships and Initiatives Unit IRENA International Renewable Energy Agency

ISD Information Systems Division
IT information technology

ITER international thermonuclear experimental reactor

ITF International Transport Forum

JODI Joint Organisations Data Initiative

KWES Key World Energy Statistics

Lol Letter of Intent

MoU Memorandum of Understanding

OECD Organisation for Economic Co-operation and Development

OIMD Oil Information and Markets Division
OLADE Latin American Energy Organization

OLC Office of the Legal Counsel
OMA Office of Management Affairs

OPEC Organisation of Petroleum Exporting Countries

PoW Programme of Work

PV Photovoltaics

RED Renewable Energy Division SE4All Sustainable Energy for All

SEQ Standing Group on Emergency Questions
SLT Standing Group on Long-Term Co-operation

SPT Sustainable Energy Policy and Technology Directorate

TCEP Tracking Clean Energy Progress Report
UIC Union internationale des chemins de fer
UNEP United Nations Environment Programme

UNFCCC United Nations Framework Convention on Climate Change

UNSD United Nations Statistics Division

VC voluntary contribution

WBCSD World Business Council for Sustainable Development

WEO World Energy Outlook

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