



WORLD ENERGY COUNCIL  
CONSEIL MONDIAL DE L'ÉNERGIE  
*For sustainable energy.*

# World Energy Council

The energy leaders' network promoting  
the sustainable supply and use of energy  
for the greatest benefit of all



The World Energy Council (WEC) has been at the forefront of the energy debate for nearly a century, guiding thinking and driving action around the world to achieve sustainable and affordable energy for all. It is the UN-accredited energy body and principal impartial network, representing more than 3,000 organisations – public and private – in almost 100 countries.

The WEC informs global, national and regional energy strategies by hosting high-level events, publishing authoritative studies and working through its extensive member network to facilitate the dialogue that creates energy policy. Independent and inclusive, the WEC's work covers all nations and the complete energy spectrum – from fossil fuels to renewable energy sources.

In a world where many non-governmental organisations have clear partisan agendas, the World Energy Council stands out as a unique umbrella grouping of leaders dedicated to promoting the sustainable supply and use of energy for the greatest benefit of all.

Find out more at [www.worldenergy.org](http://www.worldenergy.org)  
and follow us on Twitter: [@WECouncil](https://twitter.com/WECouncil)

# Mapping the energy landscape

***The world's energy systems are at tipping point and the decisions we take today will affect our lives for decades to come. As a government policymaker or industry executive, which new opportunities, technologies, resources and infrastructure do you invest in to manage long-term demand? And how do you do this in a sustainable way?***

The WEC's mission is to promote the sustainable supply and use of energy for the greatest benefit of all. As the only truly global energy organisation for energy leaders and practitioners, the WEC provides a forum for thought leadership to answer today's urgent energy questions.



*WEC Secretary General Frei and UN Secretary General Ban meet to discuss joint activities*

As an international membership organisation, the WEC brings together knowledge from today's community of energy leaders – from governments, academics, non-governmental organisations, industry and energy experts. Impartial and independent, the WEC's work gathers a broad scope of views – from those on the ground working in finance and investment, to the people who produce, consume, manage and supply energy.

The WEC's strength is derived from its network of national member committees operating in over 90 countries. These committees represent both the private and public sector in each country and they can realistically understand the full range of technology options. Member committees translate national priorities in a regional and global context.

With national events, workshops and regional gatherings, the WEC community informs the global energy debate and actively seeks solutions to the urgent challenges facing the world. Globally the WEC holds regular summit meetings in countries where the challenges facing the world are at the forefront of the debate. And every three years the global energy community gathers at the World Energy Congress – the world's premier energy assembly.

*Pierre Gadonneix,  
WEC Honorary  
Chair, Yoon Sang-  
jick, Minister of  
Trade, Industry  
and Energy,  
Republic of  
Korea and Marie-  
José Nadeau,  
WEC Chair*



Sharing knowledge as a global network, WEC members promote the dialogue that puts policies into practice and makes a difference to the 7 billion people across the globe.

# Making sustainable energy a reality

***Today's business and energy leaders need access to robust research to help them navigate the shifting energy map. They need information and ideas to formulate their decisions and achieve a competitive advantage. The WEC's energy studies and events help to guide global thinking and instigate national action to make sustainable energy a reality.***

## Our history

Established in 1923, the WEC has been helping the world's leaders and thinkers understand the energy landscape for nearly a century. Its first meeting, as the World Power Conference, brought together representatives from 40 countries to help rebuild the electricity grid in the aftermath of the First World War.

This regular global event has evolved into the World Energy Congress, as we know it today, gathering many luminaries in world thinking – such as Albert Einstein and Max Planck – alongside industry and technology experts to share knowledge and get to the heart of the important energy issues of our times.



*Max Planck and Albert Einstein at the "World Power Conference" in Berlin on 17 June 1930 where Einstein presented his theory of relativity*

***The policy framework needed to support sustainable and affordable energy must be based on a real understanding of all aspects of the energy world. It must also be realistic, balanced and stable to attract investment.***

## Shaping the energy agenda

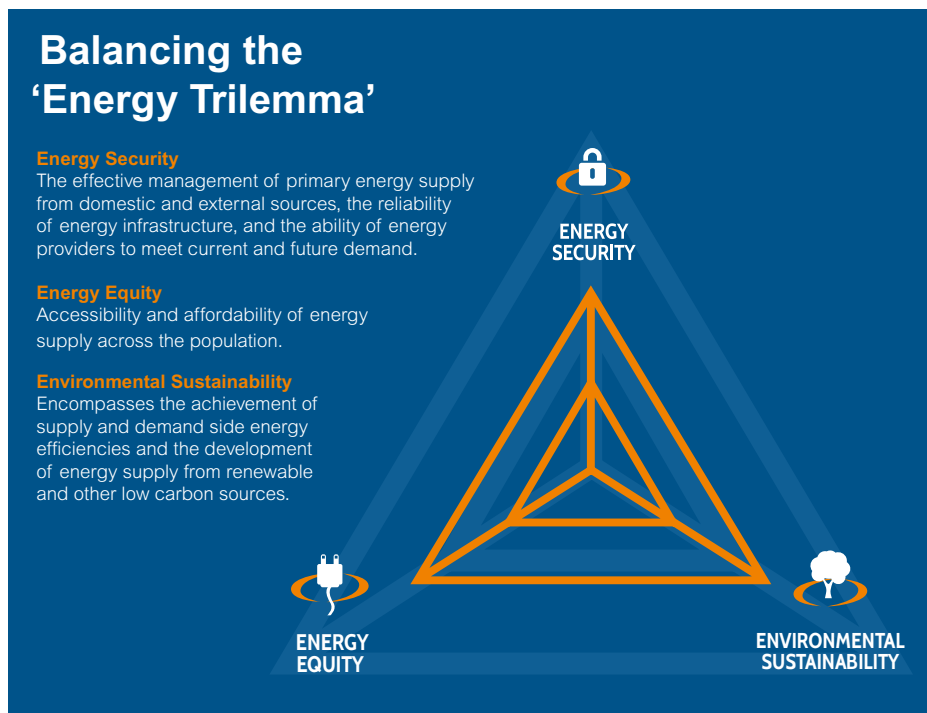
The WEC brings together the people and policies that shape the systems for energy production and supply. However, politics and commercial interests are excluded from our processes. Our independence means we can be a 'reality check' on the latest energy issues for key government, industry and investment decision makers.

The WEC has been producing authoritative reports for over 80 years which are used by policymakers and industry leaders to inform the critical decisions that they take. The WEC is uniquely placed to produce clear, unbiased and technology-neutral thinking which is grounded in the 'bottom-up' expertise provided by our members in over 90 countries.

## Our guiding philosophy

The WEC believes that we need all resources and that there are no 'bad technologies', just poor or uninformed technology choices and practices.

To guide policymakers and industry leaders to make the best choices, the WEC has developed the concept of the 'energy trilemma' – addressing today's triple energy challenge of supporting secure, affordable and environmentally sensitive energy. By finding ways to balance the energy trilemma, we help policymakers focus their actions to deliver predictable and stable policy frameworks. This in turn mitigates risks and helps to attract the necessary funding that brings sustainable energy projects to life.



## Informing the energy world

Our energy studies provide a trustworthy source of facts and impartial opinion about the latest energy developments.

Our website is a hub of freely available, on-the-ground research and analysis for energy stakeholders, covering all energy resources and technologies – from peat and geothermal to fossil fuels and renewables.

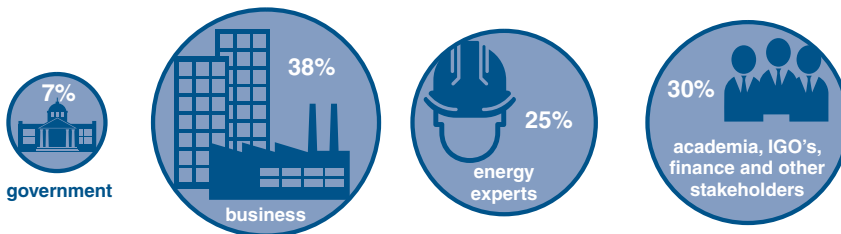
View at [www.worldenergy.org/data](http://www.worldenergy.org/data)

# A global energy network

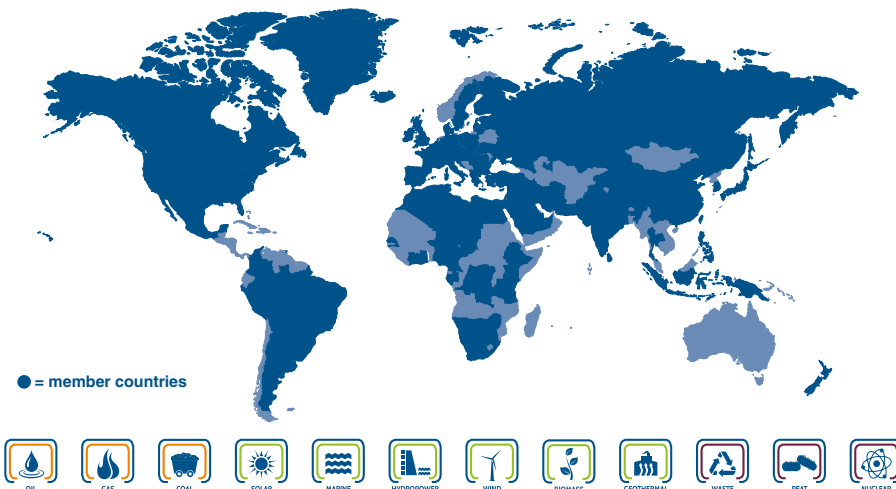
*The WEC encourages debate within countries and across borders. Our 90-plus national member committees support our work across the globe by providing expertise from every level of the energy community. In turn, the WEC provides members with the global insight to help inform their national energy decisions.*

## National member committees

Members join the WEC through their own country's member committee – a mix of key government and industry personnel from over 3,000 organisations globally, representing their range of national energy interests and all technologies. Individually, our member committees are important autonomous organisations in their own countries. Together they form the world's most influential network of energy practitioners dedicated to promoting sustainable energy.



## World Energy Council – a truly global network of member countries



Our members range from energy ministers and CEOs of multinational companies, often acting as Chairs of our national member committees, to experts and practitioners in leading areas of the energy sector.

## For more information on our network committees

[www.worldenergy.org/wec-network](http://www.worldenergy.org/wec-network)

# Partnering for success

***A select group of leading energy companies work closely with the WEC to help us promote the sustainable supply and use of energy.***

## Patrons and Global Partners

- ▶ **Patrons** are established global brands in energy. They benefit from and provide input into the work programme and participate in key events. Patrons benefit from enhanced exposure to the WEC's global thought leadership network.
- ▶ Innovative energy-related companies can join the WEC's **Global Partners** programme to support its community-building work. Global Partners are supported to gain access to new territories and understanding.

Getting involved in this way allows direct exposure to the WEC network to discover new energy thinking and directions in policy and strategy. Companies receive immediate global visibility in more than 3,000 member organisations and attend international events. These networks foster knowledge and opportunities in key markets and territories.

**Find out how to join our global network at**  
**[www.worldenergy.org/wec-network](http://www.worldenergy.org/wec-network)**

*Eduardo  
Paes, Mayor  
of Rio de  
Janeiro  
with Edison  
Lobão,  
Minister of  
Energy of  
Brazil, at our  
World Energy  
Leaders'  
Summit in  
2011*



## Future Energy Leaders

The WEC's Future Energy Leaders' Programme empowers the next generation of global leaders to help shape the energy future. Young professionals, nominated by their national committees, can engage with the broad range of energy issues across the WEC work programme, developing their energy knowledge and experience, while networking with peers in an international setting.

**Follow @WECFELs**

# Informing the energy debate

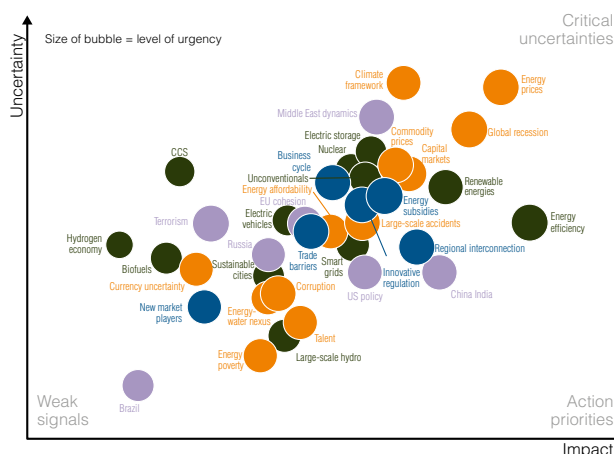
***The WEC is recognised for its authoritative research and studies that help policymakers and business leaders, corporations and consultancies understand the energy landscape. The WEC's considered views, impartial facts and realistic analysis inform the strategies that deliver more sustainable and efficient energy systems.***

The WEC's main work programme produces strategic insights in the form of regular reports. These studies form a greater understanding of what is actually happening in the energy sector and provide solutions for a more sustainable energy system. World Energy Perspectives are sector- or issue-specific and provide outcome-oriented analyses. The Global and Regional Agenda offer a platform for collaborative dialogue to bring stakeholders together in a constructive forum.

## Strategic studies

**World Energy Issues Monitor:** Featuring issues mapping based on the views of the energy leadership community and discussions at events such as the World Energy Congress, World Energy Leaders' Summits and Executive Assembly. This analysis provides an annual snapshot of the priorities energy leaders should be investigating for the future. It examines more than 30 key issues, including risks, energy policies, infrastructures and technologies, and political and regional issues for specific countries.

**RESULTS:** The WEC's latest *Issues Monitor* illustrates the three top issues for the leadership of the energy sector. These are: the continued uncertainty towards a future climate framework and future CO<sub>2</sub> prices; high energy price volatility and investment uncertainty; as well as the global recessionary context.

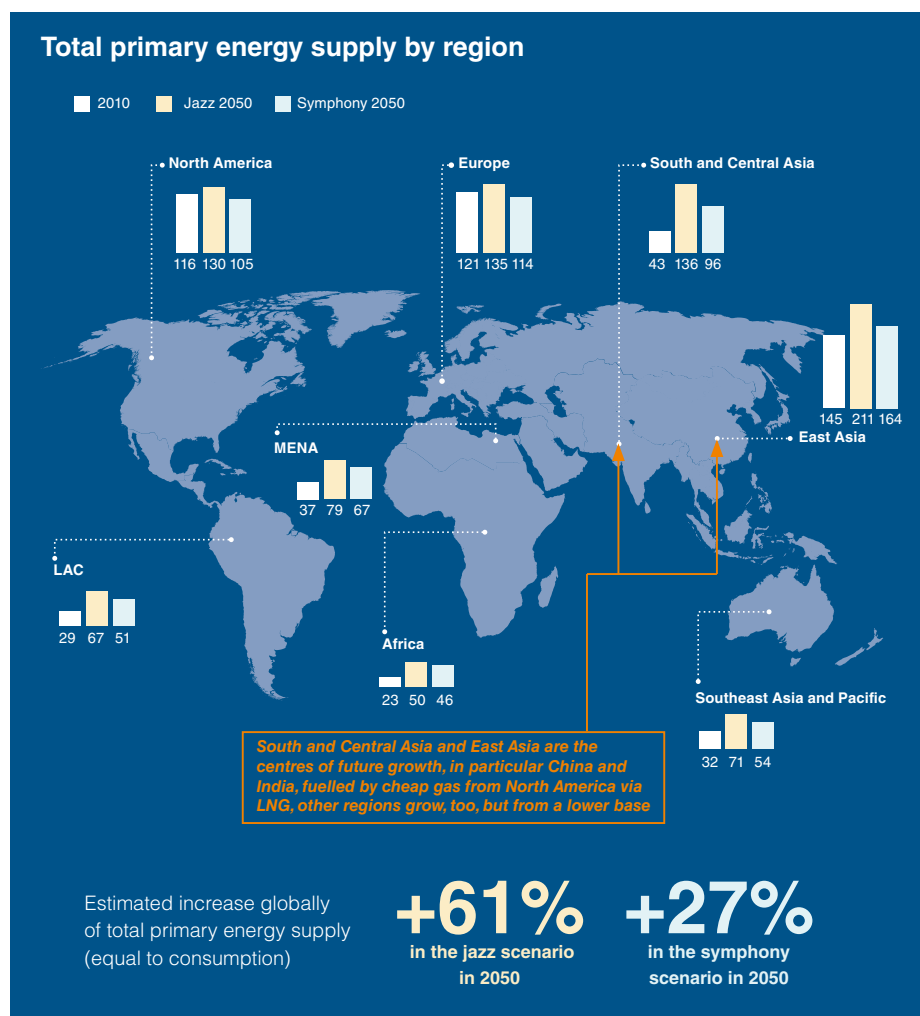


Making sense of the energy sector is fundamental to the wealth of nations and this report is one of the only tools available to decision makers to enable them to understand the global, regional and national trends affecting their decisions.

**Full report available at [www.worldenergy.org/publications](http://www.worldenergy.org/publications)**

**World Energy Scenarios:** The WEC has a long and proven history of producing scenarios that have influenced our energy understanding. While most widely known scenarios are normative, which drive the world towards a specific objective such as a particular atmospheric CO<sub>2</sub> level, the WEC has adopted, with project partner the Paul Scherrer Institute, a different exploratory approach. This provides a more realistic assessment of the potential energy landscape between two extreme scenarios: the more decentralised **Jazz** scenario and the more orchestrated **Symphony** scenario. These two scenarios give decision makers a neutral, fact-based tool that enables them to measure the potential impact of their choices in the future.

**RESULTS:** *The 2013 World Energy Scenarios: Composing energy futures to 2050, assesses the future direction of the entire energy sector. Amongst its findings the report envisages the potential role for renewables and fossil fuels in the primary energy mix, the infrastructure investments required to meet future electricity demand and the regional differences of the new energy landscape.*



Full report available at [www.worldenergy.org/publications](http://www.worldenergy.org/publications)

**World Energy Resources:** This highly regarded study presents statistics for reserves and production of all major resources at the global, regional and national level. Country notes examine the evolving nature of the energy mix within countries and expert analyses highlight emerging energy sources and technologies.

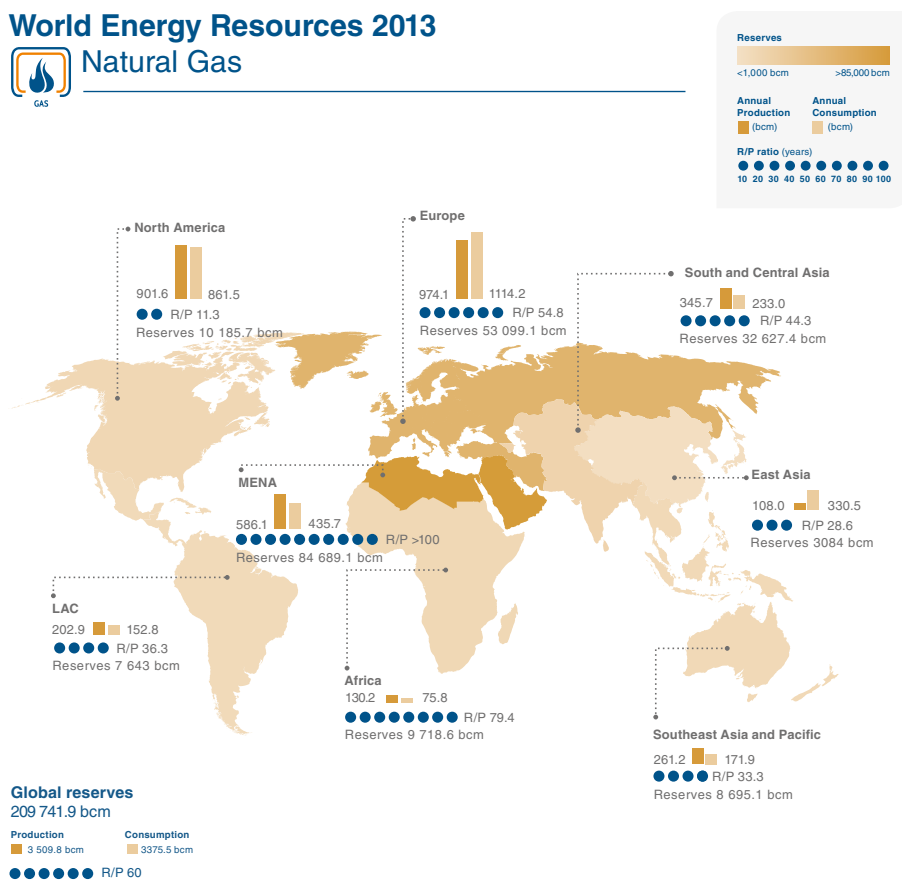
**RESULTS:** The study provides updated information and data for some of the energy sector's most pressing questions, such as: When will the world run out of oil? What are the drivers for further development of fossil fuels and renewable energy resources?

Among all the resources we survey, gas is being seen by many as a key transition fuel. The 2013 report reveals that reserves of natural gas have grown by 36% over the past two decades.

## World Energy Resources 2013



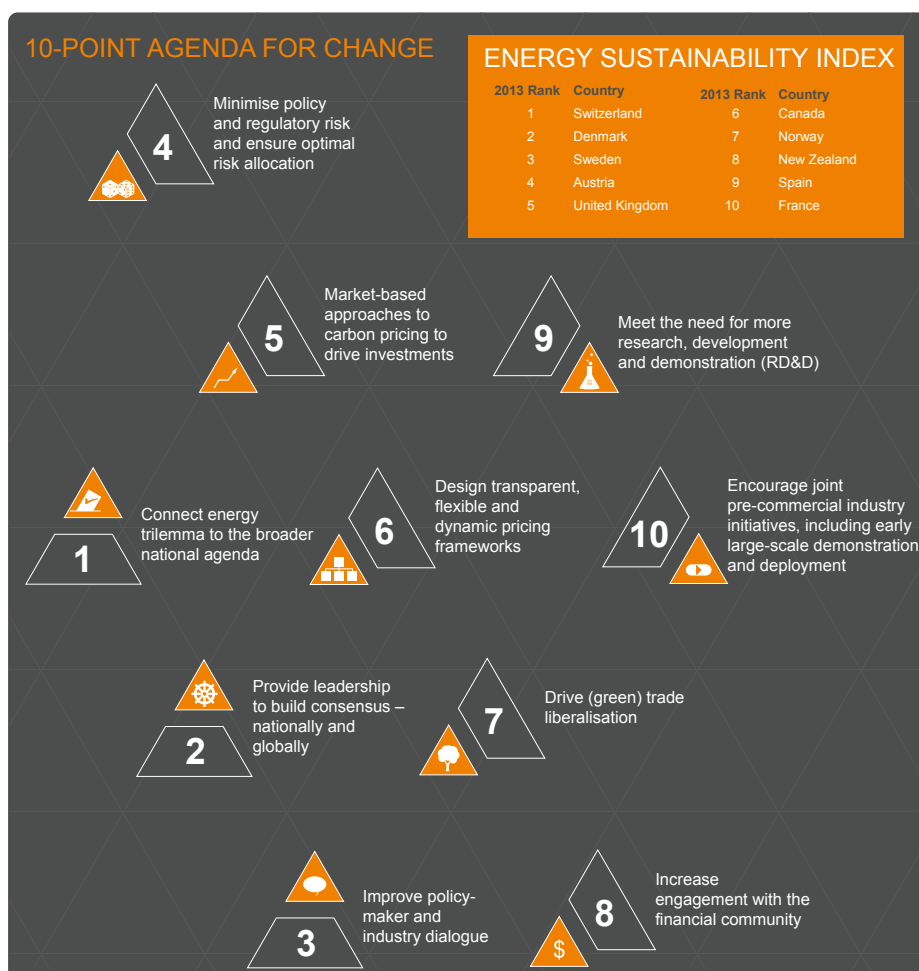
### Natural Gas



Full report available at [www.worldenergy.org/publications](http://www.worldenergy.org/publications)

**World Energy Trilemma:** This annual assessment investigates how well countries are addressing the energy trilemma – the triple challenge of finding solutions to support secure, affordable and environmentally sensitive energy. The Energy Sustainability Index within the report is the world's most comprehensive ranking of countries' energy policies, showing where there is success and room for improvement. It provides the platform for our ongoing dialogue with industry and policymakers.

**RESULTS:** *World Energy Trilemma: Time to get real reports, conducted with project partner Oliver Wyman, identifies the areas that must be prioritised to deliver sustainable energy systems. Showcasing the success of national energy policies helps others to address their own challenges in a constructive process.*



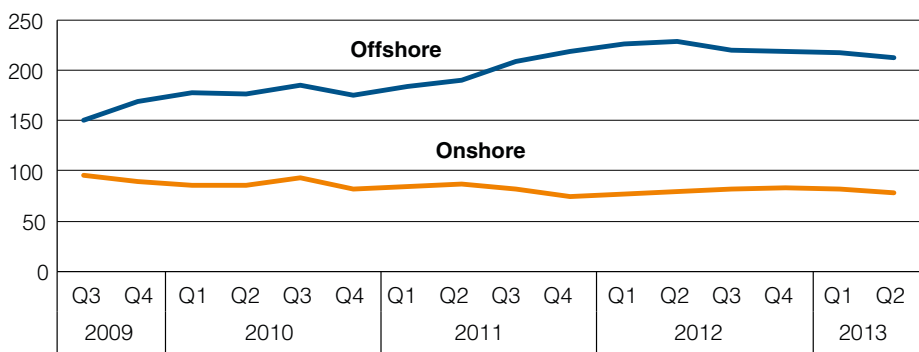
Full report available at [www.worldenergy.org/publications](http://www.worldenergy.org/publications)

# Perspective studies

**Cost of Energy Technologies:** The World Energy Council (WEC) and Bloomberg New Energy Finance (BNEF) have partnered to produce a comprehensive comparative study of the costs of producing electricity from a wide range of conventional and non-conventional sources. The aim and the unique value proposition of the study is to provide reference costs based on real project data, focusing on the leading renewables and conventional technologies across a range of regions worldwide.

The report considers all technologies and assesses the different costs associated in their application such as variation between the cost of onshore and offshore wind.

*Levelised cost of wind electricity over time, developed market average (USD/MWh)*



**Rules of Trade:** Global trade is a significant factor affecting all aspects of society.

To ensure that there is a fair and equitable development of technologies to meet expected demand, especially in the area of green goods and services, the WEC undertakes work to support the development of rules of trade.



By working with other international organisations such as the WTO, the WEC aims to influence regional and global debates to improve market access and overcome international trade barriers for energy goods and services.

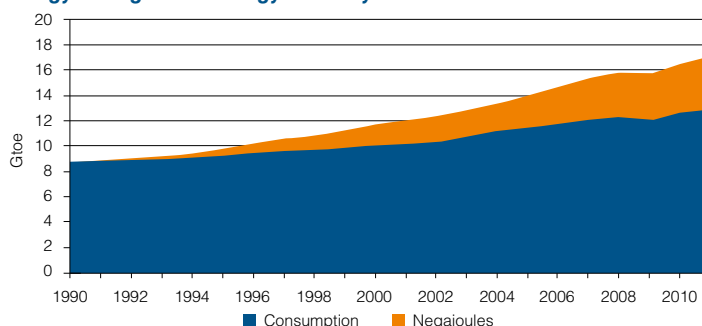
The recommendations of the Rules of Trade work have already informed the members of APEC who have agreed to cap tariff rates at 5% on 54 types of 'green' goods by 2015.

**Full Perspective reports available at [www.worldenergy.org/publications](http://www.worldenergy.org/publications)**

**Energy Efficiency Policies and Technologies:** Why isn't energy efficiency improving at the rates predicted by some? To answer this question, the WEC's network of experts, including ADEME and Enerdata, conduct ongoing research in two areas:

- ▶ Indicators – a global review of energy efficiency trends; monitoring energy use and CO<sub>2</sub> emissions to assess the impact of policy measures on various sectors.
- ▶ Policies and measures – a survey of energy efficiency policy measures in 90 countries worldwide, providing data on energy efficiency by sector and end-use.

**Energy savings from energy intensity decrease at world level**



This work gives a unique insight into the potential impact of energy efficiency technologies which form the basis of policy recommendations. Detailed information and data, organised in two databases, can be accessed through the WEC website.

**Performance of Generating Plant:** This internationally recognised committee is focused on the collection and analysis of power plant performance indicators, and their use for power plant benchmarking.

The project's unique global database lists more than 40,000 unit key performance indicators. The team has also developed a computer based tool to evaluate commercial availability indicators.

## Other perspectives work

The WEC, together with the World Business Council for Sustainable Development and the Global Sustainable Electricity Partnership, is taking forward the work of the **Global Electricity Initiative** following its successful launch in Durban during COP 17. The strengthened initiative will identify, collect and analyse the early actions taken worldwide by electricity utilities to enhance climate change mitigation and adaptation.

The WEC's expertise in the area of **energy access**, based on the insights of its extensive network of member committees in developing countries, helps to guide support for the UN's Sustainable Energy for All initiative. Working with organisations such as the UN and the World Bank, the WEC strives to reduce the numbers of people without access to modern forms of energy.

# World-renowned events

*WEC hosted events provide a forum for the world's community of energy leaders. They allow us to engage with collaborators to coordinate solutions for addressing the world's energy challenges.*

**World Energy Congress:** Recognised as the world's premier energy assembly, the Congress, which was first held in 1924, takes place every three years and has been staged in 20 cities across the world. It is a unique global forum, bringing together the leading international players from governments, multilateral institutions, civil society, and representing all sections and technologies from the private sector. The Congress is a time to devise fresh visions, renew leadership, encourage creative thinking, deliver new partnerships and explore business opportunities.

## World Energy Congress – a truly global event



**World Energy Leaders' Summit:** Organised twice a year by the WEC for its global energy leaders' community to facilitate ongoing high-level dialogue on critical issues affecting the energy world. These community gatherings are held in countries of interest to the global energy transition and participation is by invitation only. Attendance is limited to the WEC's Patron and Global Partner CEOs, the WEC's Officers as well as selected guests, experts and ministers, who together share their vision and help to ensure that the deliberations inform decisions and actions.

The WEC is also in a position to convene this powerful energy leaders' community to address more specific issues and challenges in a targeted regional context.

**Regional events:** A range of annual events bring together energy stakeholders to collaborate closely with national member committees to explore regional priorities and solutions. These are just some examples:

#### **Africa Energy Indaba**

Africa's energy sector is opening up to greater investment and creating more jobs and opportunities. If its rich, natural resources are managed properly, they could help to meet the continent's demand for energy. The Africa Energy Indaba conference is the leading African energy event. It has been strategic in facilitating critical decisions and brokering deals between governments, business and energy stakeholders.

#### **WEC North America and Latin America & Caribbean Bi-Regional Forum**

Representatives in this Forum come together to discuss important issues for their region, including water for energy, energy efficiency, conservation and transport, alternative energies and fossil fuels. Multilateral organisations and regional associations also attend, broadening the influence of debate and discussion.

#### **FOREN – the Central and Eastern Europe Energy Forum**

With the right energy policies, Central and Eastern Europe has the potential to provide the economic growth and the right conditions to secure a sustainable energy future. The WEC supports the FOREN regional meeting, attended by around 800 energy experts from government, academia, and industry, as the ideal platform for addressing the region's energy issues.



**National forums:** Each of the WEC member committees arrange their own extensive series of national energy events, panel discussions, lectures, workshops and exhibitions to inform and steer their national energy strategies. The wide range of energy topics explored includes: wind power, oil and gas reserves, energy access, green industries, carbon capture and storage, markets and trade, economics and investment.

**Full list of events available at [www.worldenergy.org/events/future](http://www.worldenergy.org/events/future)**

# Be a part of the energy solution

***Join the debate and help influence the energy agenda to promote affordable, stable and environmentally sensitive energy for all.***

As the world's most influential energy network, the WEC offers you and your organisation the opportunity to participate in the global energy leaders' dialogue. Being part of the WEC network will empower your organisation, enhance your voice at all levels, and offer unprecedented access to industry peers and leading insights to help you navigate the shifting energy landscape.

## **Join our network:**

- ▶ Join a Member Committee
- ▶ Become a Project Partner, Patron or Global Partner
- ▶ Take part in annual industry surveys, study groups and knowledge networks

## **Find a wealth of information on our website:**

- ▶ Download WEC research and study group publications
- ▶ Examine visual displays of the latest data on world energy resources
- ▶ Explore the events map
- ▶ Follow the World Energy Congress blog and news
- ▶ Read interviews with members and partners to see how the WEC work is changing the sustainable energy landscape

Get a truly global understanding of today's and tomorrow's energy challenges and opportunities.

## **Contact the team:**

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