

World Energy Leaders' Summit

The Grand Transition and Future of Energy Business

18-19 October 2017

Lisbon, Portugal

Hosted by Government of Portugal and the World Energy Council

The World Energy Leaders' Summit is a high-level exclusive event, co-hosted by the Government of Portugal and the World Energy Council, for the global energy leaders' community to facilitate an on-going dialogue on critical issues affecting the energy sector. Participation to the World Energy Leaders' Summit is by invitation only to Ministers, the Council's Patron and Global Partner CEOs, officials and selected high-level guests.

The agenda will build upon insights gained from the World Energy Council's on-going studies, including the World Energy Scenarios and the World Energy Trilemma. Disruptive trends are emerging that will create a fundamentally new world for the energy sector, characterised by lower population growth, radical new technologies, greater environmental challenges, and a shift in economic and geopolitical power. The Council calls this uncertain journey into the new world of energy – The Grand Transition.

World Energy Leaders' Summits, build on the Council's unique ability to convene this powerful energy leaders' community, and provide an important milestone to address issues and challenges in a targeted regional context, most recently in Mexico City in September 2017, at the 23rd World Energy Congress in Istanbul, Turkey, in October 2016 and in Addis Ababa, Ethiopia, in October 2015.

Contact: Global Agenda Team, World Energy Council at
global.agenda@worldenergy.org

**TOP LEVEL
PUBLIC AND PRIVATE
SECTOR
PARTICIPANTS**

**SPECIAL ADDRESS BY
THE PRESIDENT OF
PORTUGAL**

**NEW DYNAMICS OF
NATURAL GAS AND
LNG MARKETS**

BLOCKCHAIN

**DIGITALISATION AND
THE ENERGY SECTOR**

**DECENTRALISED
SYSTEMS AND
REGIONAL
INTERCONNECTION**

Programme overview

Venue: Epic Sana Lisboa Hotel (Av. Eng. Duarte Pacheco 15, 1070-100 Lisboa)

Main Meeting Room: Morus

| Wednesday, 18 th October | |
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| <p>Welcoming Dinner (19.30 – 22.00) <i>Off-site location: Museu da Eletricidade (Electricity Museum).</i> <i>Transfer from Epic Sana Hotel at 19.30 (Meeting point: EPIC SANA Lisboa Hotel lobby)</i></p> | |
| Thursday, 19 th September | |
| <p>Registration (08.30 – 09.00)</p> | |
| <p>Opening Remarks (09.00 – 09.15) <i>Room: Morus I to IV</i></p> | |
| <p>New Dynamics of Natural Gas and LNG Markets (09.15 – 10.45) <i>Room: Morus I to IV</i></p> | |
| <p>Break (10.45 – 11.15)</p> | |
| <p>Blockchain: What is it and what is the potential for the energy sector? (11.15 – 12.30) <i>Room: Morus I to IV</i></p> | |
| World Energy Leaders' Summit | <p>Lunch and Special Address (12.30 – 14.00) <i>Room: Vitis IV</i></p> |
| | <p>Digitalisation and the Energy Sector (14.00 – 15.15) <i>Room: Morus IV</i></p> |
| | <p>Break (15.15 – 15.45)</p> |
| | <p>Decentralised Systems and Regional Interconnection (15.45 – 17.00) <i>Room: Morus IV</i></p> |
| <p>Break (17.00 – 17.30)</p> | |
| <p>Closing Plenary: Special Address by Special Address by His Excellency Marcelo Rebelo de Sousa, President of Portugal (17.30 – 18.30) <i>Room: Morus I to IV</i></p> | |

Energy Trilemma Summit*

* separate programme

Meeting topics

- New Dynamics of Natural Gas and LNG Markets
- Blockchain: What is it and what is the potential for the energy sector?
- Digitalisation and the Energy Sector
- Decentralised Systems and Regional Interconnection
- Special Address by the President of Portugal

Meeting and session format

The morning plenary sessions are joint Energy Trilemma Summit and World Energy Leaders' Summit sessions open to all participants. Energy Trilemma Summit and World Energy Leaders' Summit participants have separate lunches and afternoon programming and will come together for the closing session, which is a Special Address by the President of Portugal, His Excellency Marcelo Rebelo de Sousa.

Session Format

After a brief introduction by a moderator, discussion leaders present their perspectives and insights and engage in dialogue with all participants. Discussion leaders approach the topic in an informal, conversational style (no prepared presentations) and keep initial comments concise (5 minutes each). If firestarters are part of the session, they will be asked for their initial responses to the insights shared by the discussion leaders. Following the discussion leader insights and firestarter responses, the moderator will encourage a lively discussion between the discussion leaders and the participants.

Programme in detail

Venue: Epic Sana Lisboa Hotel (Av. Eng. Duarte Pacheco 15, 1070-100 Lisboa)

Main Meeting Room: Morus

Wednesday, 18th October

19.30 – 22.00 **Welcoming Dinner**

Off-site location Museu da Eletricidade (Electricity Museum).

Transfer from Epic Sana Hotel at 19.30. Meeting point: Epic Sana Lisboa Hotel lobby

Thursday, 19th October

08.30 – 09.00 **Registration**

Hotel lobby

09.00 – 09.15 **Opening Remarks**

Morus I to IV

- **Younghoon David Kim**, Chair, World Energy Council, Korea (Rep.)

09.15 – 10.45 **New Dynamics of Natural Gas and LNG Markets**

Morus I to IV

(Joint Energy Trilemma Summit and World Energy Leaders' Summit session)

Natural gas markets are set to undergo a significant transition over the next decade with new supply sources and technologies coming on stream. This session will share perspectives on future of natural gas and LNG markets and explore solutions to manage the relevant risks. It will also highlight the changing role of gas in the wider energy system.

What will the impact of these new dynamics be on existing player and where will the new opportunities emerge? How can infrastructure operators manage lower asset values in regions exposed to a decrease in demand? What is next for Asian LNG markets? What is the impact of increased competition in Asian markets and the new supply sources on price?

Discussion Leaders

- **Gerald Davis**, President & CEO, Forescene SA; Executive Chair, World Energy Scenarios, World Energy Council, UK
- **Carlos Gomes da Silva***, CEO, Galp Energia, Portugal
- **M. Mustapha Guitouni**, Minister of Energy, Algeria
- **Francisco Mendes Palma**, CEO, Aicep Global Parques, Portugal
- **Shigeru Muraki**, Executive Advisor, Tokyo Gas, Japan
- **Žygimantas Vaičiūnas**, Minister of Energy, Lithuania

Moderator

- **Roland Rechtsteiner**, Partner, Global Head of Oil & Gas Practice, Oliver Wyman, UK

10.45 – 11.15 **Networking Break**

11.15 – 12.30 **Blockchain: What is it and what is the potential for the energy sector?**
Morus I to IV *(Joint Energy Trilemma Summit and World Energy Leaders' Summit session)*

A new word is being talked about in boardrooms and ministries around the world, but do we really understand the potential of this disruptive technology? Beyond the digitalisation of the energy sector, the introduction of blockchain technologies has the potential to transform energy systems. This session will increase high-level recognition of the blockchain in the energy sector and identify potential solutions to address the issues.

What are blockchain's opportunities and risks in the energy sector? What are the latest updates on pilots, use cases and scalability? What are the regulatory obstacles associated with the implementation of blockchain applications and what are the issues to be addressed? How will blockchain impact company and state value chain infrastructure related to the energy sector?

Discussion Leaders

- **Gerhard Gamperl**, Director, Corporate Development and Innovation, Verbund AG, Austria
- **Karl Gruber**, General Manager, Wien Energie GmbH, Austria
- **Ewald Hesse**, Vice President, Energy Web Foundation, Austria
- **Urban Keussen**, CEO, TenneT TSO, Germany
- **António Mexia***, CEO, Energias de Portugal (EDP), Portugal

Firestarter

- **Alex von Perfall**, Senior Director, Digital Energy Advisory, PwC, Germany

Moderator

- **Folker Trepte**, Partner, PwC, Germany

12.30 – 14.00 **Lunch**
Vitis IV

14.00 – 15.15
Morus IV

Digitalisation and the Energy Sector

The energy system is at the beginning of a digital transformation. New technologies and systems are set to revolutionise the way we produce and consume energy. These new technologies will lead to unprecedented levels of efficiency and require new ways of thinking.

What is the potential for digitalisation to improve energy productivity and to create new energy business models? What are political, regulatory, market and technological barriers? What are the challenges associated with digitalisation, including cyber risk? This session will increase high-level recognition of the digitalisation of the energy sector and identify potential government-industry initiatives to address the issues.

Discussion Leaders

- **Stuart Brown**, Head Origination Weather & Energy EMEA and APAC, Swiss Re, UK
- **Benoit Laclau**, Partner & Global Sector Leader, Power and Utilities, EY, UK
- **Klemen Potisek***, State Secretary of Energy, Slovenia
- **Hando Sutter**, Chairman, Eesti Energia, Estonia
- **Alex von Perfall**, Senior Director, Digital Energy Advisory, PwC Germany

Moderator

- **Angela Wilkinson**, Senior Director, Scenarios and Business Insights, World Energy Council, UK

15.15 – 15.45

Networking Break

15.45 – 17.00
Morus IV

Decentralised Systems and Regional Interconnection: How to improve a country's Energy Trilemma balance

The way we produce and consume energy is changing and the way we distribute and balance energy is changing too. Maintaining robust infrastructure while designing the resilient system of tomorrow requires new thinking to address the risks and to capitalise on the opportunities. This session will share the lessons learned from the success stories on balancing Energy Trilemma through the decentralised systems and regional interconnection. The session will identify solutions to address challenging issues.

What are the success stories of decentralised systems and regional interconnection? What are the barriers preventing the developments of decentralised systems and deployment of regional interconnection, and how can these barriers be overcome? What benefits can these approaches have on a countries' energy system?

Discussion Leaders

- **José da Costa Carvalho Neto***, Chair of the Programme Committee, World Energy Council, Brazil
- **Pierre Devillers**, Chief Customer Solutions Officer for Latin America Business Unit, Engie, Chile
- **Mario Guedes**, Director General, Energy and Geology, Portugal

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- **Robert Hanf**, Executive Vice President, Stakeholder Relations and Regulatory Affairs, Emera, Canada
 - **Kornelia Shilunga**, Deputy Minister of Mines and Energy, Government of Namibia, Namibia

Moderator

- **Philip Lowe**, Executive Chair of World Energy Trilemma, World Energy Council, Belgium

17.00 – 17.30 **Networking Break**

17.30 – 18.30 **Closing Plenary**

Morus I to IV

Special Address by His Excellency Marcelo Rebelo de Sousa, President of Portugal

Participants (as of 11 October 2017)

Government Representatives

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|----------------------------------|---|-------------------------|-----------|
| Rebello de Sousa, Marcelo | President | Government of Portugal | Portugal |
| Caldeira Cabral, Manuel* | Minister of Economy | Government of Portugal | Portugal |
| Guedes, Mario | Director General, Energy and Geology | Government of Portugal | Portugal |
| Guitouni, M. Mustapha | Minister of Energy | Government of Algeria | Algeria |
| Vaičiūnas, Žygimantas | Minister of Energy | Government of Lithuania | Lithuania |
| Hajroun, Mohamed | Director of Electricity, Ministry of Energy | Government of Morocco | Morocco |
| Shilunga, Kornelia | Deputy Minister of Energy | Government of Namibia | Namibia |
| Potisek, Klemen | State Secretary of Energy | Government of Slovenia | Slovenia |
| Al Neyadi, Matar Hamed | Undersecretary of the Ministry of Energy | Government of UAE | UAE |

(In alphabetical order by organisation and then by name)

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|-----------------------------------|-------------------------|---|----------|
| Mendes Palma, Francisco | Chief Executive Officer | Aicep Global Parques | Portugal |
| Sá da Costa, António | President | APREN - Associação Portuguesa das Energias Renováveis | Portugal |
| Bransfield-Garth, Simon | Chief Executive Officer | Azuri Technologies Ltd | UK |
| Cronenbold Harnes, Claudia | Chair of the Board | Bolivian Chamber of Hydrocarbons and Energy | Bolivia |

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|---------------------------------|--|---|----------|
| Botelho da Ponte, Duarte | Chairman | EDA - Electricidade dos Açores | Portugal |
| Margheri, Marco | Executive Vice-President for Institutional Affairs | Edison SpA | Italy |
| Sutter, Hando | Chairman | Eesti Energia AS | Estonia |
| Ramalho, Ângelo | Chief Executive Officer | Efacec Power Solutions | Portugal |
| Hanf, Robert | Executive Vice President Vice Chair for North America | Emera World Energy Council | Canada |
| Ribeiro Da Silva, Nuno | President, Portugal | Endesa | Portugal |
| Andersen, Colin | Chairman | Energy Council of Canada | Canada |
| Hesse, Ewald | Vice President CEO & Cofounder | Energy Web Foundation Grid Singularity | Austria |
| Devillers, Pierre | Chief Customer Solutions Officer for Latin America Business Unit | Engie | Chile |
| Portugal, Cristina | President | ERSE - Entidade Reguladora dos Serviços Energéticos | Portugal |
| Laclau, Benoit | Global Power & Utilities Leader | EY | UK |
| Davis, Gerald | President & CEO Executive Chair, World Energy Scenarios | Forescene SA World Energy Council | UK |
| Mongrut, Jacqueline | Senior Executive Leader, Energy Sector | Hydro-Quebec | Canada |
| Masumoto, Teruaki | Chairman | Japan Energy Association | Japan |
| Ponce de Leão, Teresa | President | LNEG - Laboratório Nacional de Energia e Geologia | Portugal |
| Herring, Andrew | Energy Practice Leader, EMEA | Marsh & McLennan | UK |

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|------------------------------------|---|-------------------------------------|----------|
| Roy, Saptarshi | Director, HR | NTPC | India |
| Rechtsteiner, Roland | Partner, Global Head of Oil & Gas Practice | Oliver Wyman | UK |
| Costa Silva, António | Chief Executive Officer | Partex Oil and Gas | Portugal |
| Cruz Morais, Jorge | Chairman | Portuguese Energy Association (APE) | Portugal |
| Morais Sarmiento, Bento | Executive Secretary | Portuguese Energy Association (APE) | Portugal |
| Trepte, Folker | Partner | PwC | Germany |
| von Perfall, Alex | Senior Director, Digital Energy Advisory | PwC | Germany |
| Conceição, João Faria | COO | REN - Redes Energéticas Nacionais | Portugal |
| Oliveira, Armando | CEO, Portugal | Repsol | Portugal |
| Rieger, Thomas | Director, Strategic Business Development | SolarKiosk | Germany |
| Arbibey, Slimane | Managing Director | Sonatrach | Algeria |
| Brown, Stuart | Head Origination Weather and Energy EMEA and APAC | Swiss Re | UK |
| Keussen, Urban | Chief Executive Officer | TenneT TSO GmbH | Germany |
| Araújo Oliveira, João Paulo | Member of the Board | The Navigator Company | Portugal |
| Muraki, Shigeru | Executive Advisor Vice Chair for Asia Pacific / South Asia | Tokyo Gas World Energy Council | Japan |
| Gamperl, Gerhard | Director, Corporate Development and Innovation | Verbund AG | Austria |

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|-------------------------------------|--|---------------------------------------|--------------|
| Gruber, Karl | General Manager | Wien Energie GmbH | Austria |
| Baumann, Tania | Chief Operating Officer | World Energy Council | UK |
| Carvalho Neto, José da Costa | Chair of the Programme Committee | World Energy Council | Brazil |
| Dauger, Jean-Marie | Co-Chair & Chair of the Studies Committee | World Energy Council | France |
| Frei, Christoph | Secretary General & CEO | World Energy Council | UK |
| Ibrahim, Elham | Vice Chair for Africa | World Energy Council | Egypt |
| Kim, Younghoon David | Chair Chairman & CEO | World Energy Council Daesung Group | Korea (Rep.) |
| Lowe, Philip | Executive Chair, World Energy Trilemma | World Energy Council | Belgium |
| Wilkinson, Angela | Senior Director, Scenarios and Business Insights | World Energy Council | UK |

About the World Energy Council

The World Energy Council is the principal impartial network of leaders and practitioners promoting an affordable, stable and environmentally sensitive energy system for the greatest benefit of all.

Formed in 1923, the Council is the UN-accredited global energy body, representing the entire energy spectrum, with more than 3000 member organisations located in over 90 countries and drawn from governments, private and state corporations, academia, NGOs and energy-related stakeholders.

The World Energy Council informs global, regional and national energy strategies by hosting high-level events, publishing authoritative studies, and working through its extensive member network to facilitate the world's energy policy dialogue.

World Energy Council's Flagship Publications

(Please click on each report to follow the link)

- [World Energy Issues Monitor 2017](#)
- [World Energy Trilemma 2016](#)
- [World Energy Trilemma Index 2016](#)
- [World Energy Resources 2016](#)
- [World Energy Scenarios 2016](#)

For more information about our events, please visit <https://www.worldenergy.org/events/> or write to us at global.agenda@worldenergy.org.

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