UNDER THE PATRONAGE OF H.H. SHEIKH KHALIFA BIN ZAYED AL NAHYAN, PRESIDENT OF THE UNITED ARAB EMIRATES

WORLD ENERGY COUNCIL | 24th CONGRESS
ABU DHABI | 9 - 12 SEPTEMBER | 2019

ENERGY FOR PROSPERITY

24th World Energy Congress Programme

9-12 September 2019
Abu Dhabi National Exhibition Centre

www.wec24.org

Produced 27 August 2019

PROGRAMME OVERVIEW - MONDAY 9 SEPTEMBER

Theme: New visions of energy for prosperity

WORLD ENERGY COUNCIL | 24th CONGRESS ABU DHABI | 9-12 SEPTEMBER | 2019

ENERGY FOR PROSPERITY

08:00 - 09:15 ICC Fishbowl	World Energy Scenarios: Navigating disruptive innovation in the era of prosperity
09:15 - 09:45 ICC Fishbowl	Beyond Petroleum 2.0
10:00 - 12:00 ICC Plenary	Congress inauguration ceremony
10:00 - 10:10 ICC Plenary	Welcome address
10:10 - 10:20	Welcome address
10:20 - 10:40	Capturing opportunity through creative partnership
12:00 - 13:00	Break
13:00 - 14:00 ICC Plenary	The outlook for hydrocarbon economies
14:00 - 14:30 ICC Plenary	HRH Prince Abdulaziz Bin Salman Al Saud, Minister of Energy, Kingdom of Saudi Arabia
14:30 - 15:45 ICC Plenary	New visions of energy: Succeeding in a context of disruption
16:00 - 17:15 ICC Fishbowl Hall 4, Block 2 Hall 4, Block 3 Conference Room A, Block 5 ICC WELS Conference Room A, Block 6 Conference Room A, Block 4	Parallel sessions: • Deep decarbonisation: New strategies for net zero carbon emissions • The role of hydrogen in a sustainable and secure future • World energy scenarios: New energy narratives • Energising the circular economy • A new dawn for nuclear? • The energy consumer 4.0 • Megaprojects: Global impact, global implications
16:00 - 17:15 ICC Plenary	New regional perspectives: The role of gas in the transition to a lower carbon economy in the MENA region
17:15 - 17:30	Break
17:30 - 18:45 Hall 4, Block 1 Conference Room A, Block 5 Hall 4, Block 2 Hall 4, Block 3 Conference Room A, Block 6 ICC Fishbowl ICC WELS	Parallel sessions: • Scaling new heights: Global renewables outlook • The age of digitalisation: Reimagining energy systems • Beyond batteries: Reinventing energy storage • New technology frontiers • Refueling the talent pipeline: The energy professional of the future • Reshaping the future of mobility • New regional perspectives: Designing attractive energy markets for Latin America and the Caribbean

The programme is subject to change.
Please check back regularly for updates on sessions and the speakers.

DAY 1 - MONDAY 9 SEPTEMBER DETAILED PROGRAMME

08:00 - 09:15 ICC Fishbowl
Pre-congress session

World Energy Scenarios: Navigating disruptive innovation in the era of prosperity

The Grand Transition is underway and whilst it is not all about energy, new ways of producing, trading and using energy are emerging and transition pathways are increasingly being driven by developments from beyond the energy system. Here we present a refreshed set of the World Energy Council scenarios: What are their key implications for the energy sector and how can we leverage emerging growth opportunities in a fast shifting landscape of disruptive innovation?

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

Speakers
- Muqsit Ashraf, Global Management Committee, Accenture
- Ged Davis, Executive Chair Scenarios, World Energy Council - President & Chief Executive Officer, Forescene SA
- Dr. Leonhard Birnbaum, Member of the Management Board, E.ON SE - Chair of the Studies Committee, World Energy Council

09:15 - 09:45 ICC Fishbowl
Beyond Petroleum 2.0

Since the famous 'Beyond Petroleum' campaign by BP almost 20 years ago, global energy markets have witnessed profound shifts in geographies and technologies of supply, uncertain demand, changing consumer attitudes and a global push to reduce emissions. With these developments, the concept has gained new meaning and momentum. What lies ahead for an international oil company? A discussion with Lord Browne of Madingley, Executive Chairman, L1 Energy and former CEO, BP.

Interviewed by
- John Defterios, Emerging Markets Editor and Anchor, CNN

Speaker
- Edmund John Phillip Browne, Executive Chairman, L1 Energy

10:00 - 12:00 ICC Plenary
Congress inauguration ceremony

10:00 - 10:10 ICC Plenary
Welcome address

H.E. Suhail Al Mazrouei, Minister of Energy and Industry, United Arab Emirates

10:10 - 10:20
Welcome address

Younghoon David Kim, Chair, World Energy Council

10:20 - 10:40
Keynote Address

Capturing opportunity through creative partnership

Speaker
- H.E. Dr. Sultan Ahmed Al Jaber, Minister of State and Chief Executive Officer, ADNOC - Abu Dhabi National Oil Company

12:00 - 13:00
Break

DAY 1 - MONDAY 9 SEPTEMBER CONTINUED DETAILED PROGRAMME

13:00 - 14:00 ICC Plenary
Global Perspectives

The outlook for hydrocarbon economies

Hear from world energy leaders of hydrocarbon economies on the complex challenges and opportunities facing their energy futures, the future role of oil and gas in a changing global energy mix, and the global outlook for the hydrocarbon economy.

Moderator
- Dr. Dan Yergin, Vice Chairman, IHS Markit

Speakers
- H.E. Sh. Mohamed bin Khalifa bin Ahmed Al-Khalifa, Minister of Oil, Bahrain
- H.E. Suhail Mohamed Al Mazrouei, Minister of Energy and Industry, United Arab Emirates
- H.E. Dan Brouillette, Deputy Secretary, United States Department of Energy

14:00 - 14:30 ICC Plenary
Interview

HRH Prince Abdulaziz Bin Salman Al Saud, Minister of Energy, Kingdom of Saudi Arabia

Interviewer
- Helima Croft, Managing Director and Global Head of Commodity Strategy, RBC Capital Markets

14:30 - 15:45 ICC Plenary
New visions of energy: Succeeding in a context of disruption

Achieving a timely, managed energy transition presents an unprecedented challenge. No country, company, city or community can achieve the global energy transition alone or all at once, and connecting across countries, sectors, stakeholders and with more diverse policy shapers is essential. How can we make sense of the global and local developments that are reshaping the future outlook for energy systems everywhere?

Moderator
- John Defterios, Emerging Markets Editor and Anchor, CNN

Speakers
- H.E. Awaidha Al Marar, Chairman, Abu Dhabi Department of Energy
- Claudio Descalzi, Chief Executive Officer, ENI
- Dr. Fatih Birol, Executive Director, International Energy Agency (IEA)
- Francesco La Camera, Director General, IRENA - International Renewable Energy Agency
- Isabelle Kocher, Chief Executive Officer, ENGIE
- Patrick Pouyanne, Chief Executive Officer, TotalEnergies

16:00 - 17:15
Parallel sessions

16:00 - 17:15 ICC Fishbowl

Session 1

Deep decarbonisation: New strategies for net zero carbon emissions

The transition in the global economy to reach net zero emissions requires commitment and strong strategic leadership from across the political and business community. How are energy leaders developing and delivering long-term strategies to adapt? How can real deep decarbonisation be achieved without compromising inclusive energy prosperity?

Moderator
- Eithne Treanor, FOUNDER & CEO, E Treanor Media

Speakers
- Brad Page, Chief Executive Officer, Global CCS Institute
- Marianne Laigneau, Group Senior Executive Vice President, Electricité de France
- Dr. Rainer Seele, Chief Executive Director and Chairman of the Executive Board, OMV Vienna HQ
- Rodney John Allam, The 2012 laureate, the International Award Committee member, The Global Energy Prize - Former Partner, 8 Rivers Capital

DAY 1 - MONDAY 9 SEPTEMBER CONTINUED DETAILED PROGRAMME

16:00 - 17:15 Hall 4, Block 2

Session 2

The role of hydrogen in a sustainable and secure future

Hydrogen is a promising energy carrier for reducing carbon emissions in the heavy transport and industrial sectors and providing long-term storage capability to the electricity sector. As an increasing number of countries look towards the green opportunities presented by hydrogen, this session will explore the opportunities and challenges for both producers and consumers – from developing the most viable business models to overcoming technological barriers.

Moderator

- Frank Wouters, Director, EU-GCC Clean Energy Technology Network

Speakers

- Dr. Alena Fargère, Future Energy Leader, World Energy Council - Economist, Markets & Strategy, Hydrogen Energy World Business Unit, Air Liquide
- Dr. Aqil Jamal, Chief Technologist, Carbon Management Research Center, Aramco
- Dr. Geert Tjarks, Head of International Cooperation , Nationale Organisation Wasserstoffund Brennstofzellentechnologie
- Dr. Linda Wright, Chief Executive, New Zealand Hydrogen Association
- Shigeru Muraki, Executive Adviser, Tokyo Gas Co., Ltd
- Willi Meixner, Chief Executive Officer, Siemens Power Generation Operations , Siemens

16:00 - 17:15 Hall 4, Block 3

Session 3

World energy scenarios: New energy narratives

Predicting the future global energy picture is increasingly difficult given the impact of various disruptions. This session will emphasize the importance of long-term scenarios and showcase the World Energy Council's refreshed global scenarios, which focuses on navigating growth opportunities for accelerating a successful energy transition in an era of disruptive innovation.

Moderator

- Dr. Leonhard Birnbaum, Member of the Management Board, E.ON SE - Chair of the Studies Committee, World Energy Council

Speakers

- H.E. Eng. Fatima Alfoora Alshamsi, Assistant Undersecretary for Electricity, Water and Future Energy, Ministry of Energy and Industry United Arab Emirates - CEO, World Energy Congress Organising Committee
- H.E. Subhash Chandra Garg, Ministry Of Power, India
- Ged Davis, Executive Chair Scenarios, World Energy Council - President & Chief Executive Officer, Forescene SA
- Jules Kortenhorst, Chief Executive Officer, Rocky Mountain Institute
- Muqsit Ashraf, Global Management Committee, Accenture
- Rafael Chaves Santos, Chief Strategy Officer, Petróleo Brasileiro S.a. - Petrobras

16:00 - 17:15 Conference Room A, Block 5

Session 4

Energising the circular economy

As linear consumption reaches its limits, our society must make a fundamental shift from the "take, make, dispose" model to one that "reduces, reuses, recycles" materials. Adopting a circular model is profitable for business and society alike, generating competitiveness and driving sustainable economic growth. The energy industry has a key role in leading this change.

Moderator

- Dr. Leila Benali , Chief Economist, Arab Petroleum Investments Corporation (APICORP)

Speakers

- H.E. Khaled Al Huraimel, Group Chief Executive Officer, Bee'ah
- Ahmed Hilal Al Blooshi, Executive Director of Industrial Development Bureau, Abu Dhabi Department of Economic Development
- Didier Holleaux, Executive Vice President, ENGIE
- Dr. Jason Bordoff, Founding Director - Center on Global Energy and Professor of Professional Practice in International and Public Affairs Policy, Columbia University
- Peter Godfrey, Managing Director Asia Pacific, Energy Institute
- Thomas Hirschi, Financial Services Regulatory Authority, Financial Services Regulatory Authority (FSRA)

DAY 1 - MONDAY 9 SEPTEMBER CONTINUED DETAILED PROGRAMME

16:00 - 17:15 ICC WELS

Session 5

A new dawn for nuclear?

Nuclear technologies remain one of the most divisive subjects in the energy market, with the challenges of capital cost and the perception of risk balanced against energy security, environmental concerns and an integral role in a better strategic energy future mix. This session explores changing perspectives towards nuclear energy's role in the energy transition and the key players and technological developments shaping its future.

Moderator

- Agneta Rising, Director General, World Nuclear Association

Speakers

- H.E. Eng. Mohamed Al Hammadi, Chief Executive Officer, Emirates Nuclear Energy Corporation (ENEC)
- Gu Jun, President, China National Nuclear Corporation
- Dr. Jong-kap Kim, President and Chief Executive Officer, KEPCO Korea Electric Power Corporation
- Kirill Komarov, First Deputy Chief Executive Officer , Rosatom
- Xavier Ursat, Executive Director, EDF Group

16:00 - 17:15 Conference Room A, Block 6

Session 6

The energy consumer 4.0

Artificial intelligence, augmented reality, dematerialisation and changing mobility needs, shifting demographics and urban/rural patterns, as well as evolving values are changing consumer behaviors and preferences, with potentially profound implications on resource and energy footprints. Energy providers will need to adapt to a new decentralised, decarbonised and digital world if they are to successfully engage the energy consumer 4.0.

Speakers

- H.E. Omar bin Sultan Al Olama , Minister of State for Artificial Intelligence, United Arab Emirates
- Dr. Michael Webber, Chief Science and Technology Officer, ENGIE

16:00 - 17:15 Conference Room A, Block 4

Session 7

Megaprojects: Global impact, global implications

Today's interconnected and energy-hungry world requires infrastructure projects on a scale never seen before, from transcontinental pipelines to global supply chain networks. From Belt and Road to the EDGE initiative, this session analyses the risk/reward balance of these grand scale megaprojects from a global energy market perspective sand looks to where this trend may lead us in the future.

Moderator

- Gulmira Rzayeva, Founder and Managing Director, Eurasia Analytics

Speakers

- Christer Viktorsson, Director General, Federal Authority for Nuclear Regulation (FANR)
- Maria Rita Galli, Executive Vice President Business Development, SNAM
- Nasser Al Nasseri, Chief Executive Officer, Barakah One Company
- Randy Bell, Director, Atlantic Council
- Thomas Leurent , Chief Executive Officer, Akselos

DAY 1 - MONDAY 9 SEPTEMBER CONTINUED DETAILED PROGRAMME

16:00 - 17:15 ICC Plenary

Special Session

New regional perspectives: The role of gas in the transition to a lower carbon economy in the MENA region

Demand for natural gas for power generation and desalination is rising rapidly, forcing several Middle Eastern countries to import LNG at high cost. The recent discovery of a giant gas field by Saudi Arabia, a rush of new gas projects in the UAE, and the emergence of Egypt as a major gas producer may lead to greater gas self-sufficiency. Regional infrastructure integration projects have the potential to dramatically improve energy security.

Moderator

- Helima Croft, Managing Director and Global Head of Commodity Strategy, RBC Capital Markets

Speakers

- H.E. Tarek El Molla, Minister of Petroleum and Mineral Resources, Arab Republic of Egypt
- H.E. Yury Sentyurin, Secretary General, Gas Exporting Countries Forum (GECF)
- Fatema M. Al Nuaimi, Chief Executive Officer, Abu Dhabi National Oil Company (ADNOC) LNG
- Gerald Schotman, EVP Joint Ventures, Shell
- Majid Jafar, Chief Executive Officer, Crescent Petroleum
- Olivier Le Peuch, Chief Executive Officer, SLB
- Saji Sam, Partner , Oliver Wyman Group

17:15 - 17:30

Break

17:30 - 18:45

Sessions

Parallel sessions

17:30 - 18:45 Hall 4, Block 1

Session 1

Scaling new heights: Global renewables outlook

With the support of digital disruption and technological advances, the role of renewables in the future energy mix is accelerating faster than ever. The pace at which renewable energy uptake is realised is dependent on several factors – from the environmental limitations and costs, to the diversification of investments, regulation and competing developments in fossil fuels.

Moderator

- Dr. William D'haeseleer, Director, Professor, University of Levin Energy Institute - Chair, Belgium Member Committee, World Energy Council

Speakers

- Daniel Schmerler Vainstein, Chair of the Board, Perù Regulatory Agency for Investment in Energy and Mining (OSINERGMIN)
- Doug Arent, Deputy Associate Laboratory Director, National Renewable Energy Laboratory (NREL)
- Paddy Padmanathan, President & Chief Executive Officer, ACWA Power
- Stefan Dohler, Chief Executive Officer, EWE AG

DAY 1 - MONDAY 9 SEPTEMBER CONTINUED DETAILED PROGRAMME

17:30 - 18:45 Conference Room A, Block 5

Session 2

The age of digitalisation: Reimagining energy systems

The energy system is undergoing a digital transformation. Artificial intelligence (AI), the Internet of Things, big data, blockchain and enabled solutions are revolutionising the way we produce and consume energy. These new technologies will lead to unprecedented levels of efficiency, disintermediation, improved supply chain management and capital allocation effectiveness and enhanced system resilience.

Moderator

- Ana Trbovich, Co-Founder, Grid Singularity; Energy Web Foundation

Speakers

- Alberto Araque, Vice President, Internet of Things and Digital Payments , Etisalat Digital
- Alexandre Perra, Group Senior Executive Vice-President, Innovation, Corporate Social Responsibility and Strategy, EDF Group
- Anya Nova, Crypto Economist, Power Ledger
- Charles Chibambo, Partner, Chief Executive Officer , S.I.T.E Engineering

17:30 - 18:45 Hall 4, Block 2

Session 3

Beyond batteries: Reinventing energy storage

Energy storage is a critical innovative tool for the energy transition, enabling deeper renewables integration and penetration, roll out of off-grid solutions, e-mobility and support system resilience. As technological advances push the boundaries of what's possible, how will these new solutions transform the system we know it? What are the risks and what scope of collaboration and investment is required to realise the potential?

Moderator

- David Victor, Professor and Director, University of California San Diego

Speakers

- Bruce Smith, Executive Director, Emirates Water and Electricity Company (EWEC)
- Dr. Daniel Gnoth, Senior Data Scientist, Powerco
- Hassen Bali, Co-Founder, Ion Ventures
- Mark Rothleder, Vice President, California ISO
- Martin Schichtel, Chief Executive Officer, Kraftblock
- Vivien Foster, Chief Economist, Infrastructure Vice-Presidency, World Bank

17:30 - 18:45 Hall 4, Block 3

Session 4

New technology frontiers

Technology is transforming the way we generate, use and store energy, presenting both opportunities and challenges for the grand transition. Pushing these new frontiers requires visionary thinking, crossing national and corporate borders, policy and regulatory environments, investment and ambition gaps. From electrons to molecules, graphene to nanotubes, AI to IoT to blockchain, how will these breakthrough technologies drive the energy transition?

Moderator

- David Rabley, Energy Transition and Sustainability Global Lead for Energy , Accenture

Speakers

- Charlotte Wang, Founder & Chief Executive Officer, EQUOTA
- Joanna Hubbard, Chief Executive Officer, Electron
- Jonathan Carling, Chief Executive, Tokamak Energy
- Omae Takayoshi, Chief Strategist, ITER
- Paul Ezekiel, Executive Chairman and CIO, Amp
- Robert Armstrong, Director of the MIT Energy Initiative, Massachusetts Institute Of Technology

DAY 1 - MONDAY 9 SEPTEMBER CONTINUED DETAILED PROGRAMME

17:30 - 18:45 Conference Room A, Block 6

Session 5

Refueling the talent pipeline: The energy professional of the future

As the energy industry evolves alongside the advent of AI, IoT and robotisation, new jobs are being created requiring specialist skill sets and existing jobs are being displaced, resulting in a risk of worker shortages for many job functions. What does the energy professional of the future look like? How can the industry attract and retain the right talent?

Moderator

- Ella Minty, Co-Chair Energy Leadership Platform, Chartered Institute Of Public Relations

Speakers

- Andrea Barber , Chief Executive Officer & Co-Founder, Rated Power
- Gulnara Bikkulova, Deputy Director General, Rosatom Corporate Academy
- Louise Kingham, Chief Executive, Energy Institute
- Meera Al Mheiri, Nuclear Safety Inspector, Federal Authority for Nuclear Regulation (FANR)
- Nuno Silva, Technology & Innovation Director, EFACEC Energy

17:30 - 18:45 ICC Fishbowl

Session 6

Reshaping the future of mobility

As the world enters the fourth industrial revolution, the transport and logistics industry is undergoing a major shift in the way it thinks and operates. This session explores the key trends driving this change that have the potential to be hugely disruptive to the industry - from new players and new technologies to user-focused end-to-end service and changing business models.

Moderator

- Eithne Treanor, FOUNDER & CEO, E Treanor Media

Speakers

- Dr. Ayed Al Qahtani, Director, Research Division , OPEC - Organization of the Petroleum Exporting Countries
- Benoit Laclau, Partner, Global Energy Leader, EY
- Dongwook Kim, Senior Vice President, Hyundai Motor Group
- Harj Dhaliwal, Managing Director, Middle East and India, Virgin Hyperloop One
- Jim Burkhard, Vice President, IHS Markit

17:30 - 18:45 ICC WELS

Session 7

New regional perspectives: Designing attractive energy markets for Latin America and the Caribbean

Latin America and the Caribbean are among the most richly endowed regions in terms of energy sources, but are also facing significant challenges in the energy transition. The design of strong and stable energy markets is critical and needs to address issues including an acceleration of renewable energy, reduction of climate change impacts, and a faster leveraging of innovation opportunities.

Speakers

- Antonio Henrique Silveira, Vice President of Infrastructure, Development Bank of Latin America, CAF
- Carlos Pascual, Senior Vice President, Global Energy & International Affairs, IHS Markit
- Jorge Leiton Quiroga, Former Vice Minister, Ministry of Energy and Industry United Arab Emirates
- Jose Medardo Cadena Mosquera, Director of Integration, Access and Energy Security, Organización Latinoamericana de Energía (OLADE)
- Luis Miguel Morelli, President and Chief Executive Officer, National Hydrocarbons Agency Of Colombia
- Marcos Bulgheroni, Group Chief Executive Officer, Pan American Energ
- Jorge Leiton Quiroga, Former Vice Minister, Ministry of Energy and Industry United Arab Emirates

PROGRAMME OVERVIEW - TUESDAY 10 SEPTEMBER

Theme: Business as (un)usual: Opportunity for change

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ENERGY FOR PROSPERITY

08:45 - 10:15	Keynote addresses
08:45 - 09:00	Keynote address
09:00 - 09:30	Keynote address
09:30 - 09:45 ICC Plenary	Keynote address
09:45 - 10:00 ICC Plenary	Keynote address
10:00 - 10:15 ICC Plenary	Keynote address
10:00 - 11:15 ICC Plenary	The new people power: Driving change for sustainable energy
11:30 - 12:00	Break
12:00 - 13:15	Parallel sessions: Hall 4, Block 2 • Global dynamics of gas and unconventionals Hall 4, Block 3 • Getting to grips with blockchain: Cutting through the hype Hall 4, Block 1 • New regional perspectives: Critical enablers to Africa's energy transition Conference Room A, Block 5 • Financing energy: Closing the clean energy investment gap ICC Plenary • The voice of cities: designing an energy smart future ICC Fishbowl • Cyber security: 3 clicks from collapse Conference Room A, Block 6 • The power of people diversity
13:00 - 14:15 Halls 2 & 3	Lunch break
14:30 - 15:45	Parallel sessions: ICC Plenary • Dynamic resilience: Preparing for extreme weather, water stress and cyber risk Hall 4, Block 1 • Rethinking hydro: Powering tomorrow's world Conference Room A, Block 6 • To invest or divest: New realities and responsibilities Hall 4, Block 3 • Promise of solar Conference Room A, Block 5 • Unlocking the potential of energy efficiency Conference Room A, Block 4 • New regional perspectives: Asian prospects for a low carbon society ICC Fishbowl • New models of leadership: profit with purpose Hall 4, Block 2 • The role of gas in the global energy transition
15:30 - 16:00	Break
16:15 - 17:00	Keynote addresses
16:15 - 16:30 ICC Plenary	U.S. Innovation and Global Energy Security
16:30 - 16:45 ICC Plenary	Keynote address
17:00 - 18:15 ICC Plenary	The business outlook for oil
19:30 - 21:30	Gala dinner

DAY 2 - TUESDAY 10 SEPTEMBER DETAILED PROGRAMME

08:45 - 10:15
Keynote addresses

08:45 - 09:00
Keynote address

Speaker
- H.E. Kersti Kaljulaid, President , Republic of Estonia

09:00 - 09:30
Keynote address

Speaker
- H.E. Awaidha Al Marar, Chairman, Abu Dhabi Department of Energy

Followed by an interview with

Moderator
- John Defterios, Emerging Markets Editor and Anchor, CNN

09:30 - 09:45 ICC Plenary
Keynote address

Speaker
- H.E. Saeed Mohammed Al Tayer, Managing Director and Chief Executive Officer, Dubai Electricity and Water Authority

09:45 - 10:00 ICC Plenary
Keynote address

Speaker
- Amin H. Nasser, President and Chief Executive Officer, Aramco

10:00 - 10:15 ICC Plenary
Keynote address

Speaker
- Jean-Bernard Levy, Chairman & Chief Executive Officer, Electricité de France

10:00 - 11:15 ICC Plenary
Opening plenary

The new people power: Driving change for sustainable energy

Consumer concerns on livelihood and affordability of energy have risen up the political and business agenda. Driven by new and disruptive technologies, consumers and communities are seeking added value, personal relevance and greater societal meaning in their energy choices. The 'new people power' is transforming the way consumers interact with energy systems across cities and communities.

Moderator
- Eithne Treanor, FOUNDER & CEO, E Treanor Media

Speakers
- H.E. Eng. Mohamed Al Hammadi, Chief Executive Officer, Emirates Nuclear Energy Corporation (ENEC)
- H.E. Wei Kou, Executive Chairman, State Grid Corporation of China
- Alexey Likhachev, Director General, The State Atomic Energy Corporation Rosatom
- Kim Yin Wong , Chief Executive Officer, Singapore Power Ltd
- Dr. Martin Brudermüller, CEO, BASF
- Rachel Kyte, Special Representative of the U.N. Secretary-General; Chief Executive Officer, Sustainable Energy For All; SEforALL
- Steve Berberich, President and Chief Executive Officer, California Independent System Operator

11:30 - 12:00
Break

DAY 2 - TUESDAY 10 SEPTEMBER CONTINUED DETAILED PROGRAMME

12:00 - 13:15
Parallel sessions

12:00 - 13:15 Hall 4, Block 2

Session 1

Global dynamics of gas and unconventionals

As global energy demand rises, the pressure to transition towards a lower CO2 energy supply, the market for natural gas and liquefied natural gas (LNG) continues to expand. Growing supplies of unconventional gas, led by US shale gas and Australian coal bed methane have transformed the market realities with dramatic price developments. What does the long-term future of unconventionals look like?

Moderator
- Sandro Melis, Partner, Energy Practice, Oliver Wyman Group

Speakers
- Dr. Bakheet Al Katheeri, Chief Executive Officer, Mubadala Energy
- Carlos Ormachea, President & Chief Executive Officer, Tecpetrol SA
- Elena Burmistrova, Deputy Chairman of the Management Committee, Pjsc Gazprom
- Hendrik Gordenker, Senior Corporate Vice President, Director, JERA
- Keith Martin, Chief Executive Officer, Uniper
- Patrick Allman-Ward, Chief Executive Officer, Dana gas
- Peter Coleman, Chief Executive Officer and Managing Director, Woodside Energy

12:00 - 13:15 Hall 4, Block 3

Session 2

Getting to grips with blockchain: Cutting through the hype

Blockchain technology has the potential to transform energy systems by lowering transaction costs among small players and devices and by enabling the Internet of Things in energy. This has profound scope for new business models and asset use optimisation. What are blockchain's opportunities and risks in the energy sector?

Moderator
- Jeroen van Hoof , Global Leader, Power & Utilities, PwC PricewaterhouseCoopers

Speakers
- H.E. Kersti Kaljulaid, President , Republic of Estonia
- Abdul Nasser Al Mughairbi, Senior Vice President, Digital, ADNOC - Abu Dhabi National Oil Company
- Ana Trbovich, Co-Founder, Grid Singularity; Energy Web Foundation
- Dr. Piyush Verma, Senior Energy Market Analyst, International Energy Research Centre
- Sandra Ro, Chief Executive Officer, Global Blockchain Business Council
- Veronica Garcia, Chief Executive Officer, Bitlumens

12:00 - 13:15 Hall 4, Block 1

Session 3

New regional perspectives: Critical enablers to Africa's energy transition

Africa's energy transition is on the move but needs to accelerate and gain greater traction with critical enablers such as energy integration, market design and renewable energy. This session explores the challenges and opportunities around critical transition enablers and reviews the current status of progress.

Moderator
- Sean Cleary, Chairman, Strategic Concepts

Speakers
- H.E. Gabriel Mbaga Obiang Lima, Minister of Mines, Industry and Energy, Ministry of Mines and Hydrocarbons (Republic of Equatorial Guinea)
- H.E. Timipre Sylva, Minister of State for Petroleum Resources, WEC Nigeria
- H.E. Kornelia Shilunga, Deputy Minister of Mines and Energy, Government Republic of Namibia
- Abubakar Sani Sambo , Chair, WEC Nigeria
- Dr. Elham Ibrahim, Vice Chair for Africa, World Energy Council
- Mansoor Hamayun, Chief Executive Officer & Co-Founder, Bboxx
- Rachid Hachichi, Chief Executive Officer, Sonatrach

DAY 2 - TUESDAY 10 SEPTEMBER CONTINUED DETAILED PROGRAMME

12:00 - 13:15 Conference Room A, Block 5

Session 4

Financing energy: Closing the clean energy investment gap

Despite flat investment in clean energy over the last five years there has been increasing capacity additions (due to cost declines). However, more is needed to achieve Paris' goals and climate neutrality. What role do policy ambition, power demand growth and the speed of retirement of fossil assets play? What does it take to further accelerate investment in developing and developed markets?

Moderator

- Jon Moore, Chief Executive Officer, Bloomberg NEF

Speakers

- Dr. Ahmed Ali Attiga, Chief Executive Officer, Arab Petroleum Investments Corporation (APICORP)
- Mohammad A. Abunayyan, Chairman of the Board, ACWA Power
- Mohamed Jameel Al Ramahi, Chief Executive Officer, Masdar
- Steve Bolze, Senior Managing Director, Blackstone
- Vijay Iyer, Vice President & Chief Operating Officer, Multilateral Investment Guarantee Agency

12:00 - 13:15 ICC Plenary

Session 5

The voice of cities: designing an energy smart future

The way cities are designed today is shaping the future of energy. Smart city planning and urban development have a significant impact on transport needs. Building design, smart appliances and smart grid have great potential in improving the energy and carbon footprint of our buildings. An integrated and smart design approach will determine the energy consumption of our cities years from now. Learn from leading cities, from old to new, big to small, that are driving solutions in energy, resource and resilience challenges.

Moderator

- H.E. Eng. Fatima Alfoora Alshamsi, Assistant Undersecretary for Electricity, Water and Future Energy, Ministry of Energy and Industry United Arab Emirates - CEO, World Energy Congress Organising Committee

Speakers

- Ahmed Aboutaleb, Mayor, City of Rotterdam
- Caspar Herzberg, CEO , AVEVA
- Elizabeth Monoian , Founding Co-Director, Land Art Generator Initiative (LAGI)
- Ian Gardner, Global Energy Leader, ARUP
- Karim El-Jisr, Executive Director, Dubai Sustainablety City
- Kim Yin Wong , Chief Executive Officer, Singapore Power Ltd

LAGI video presentation + LAGI awards

12:00 - 13:15 ICC Fishbowl

Session 6

Cyber security: 3 clicks from collapse

The increasing interconnection and digitisation of the energy sector, along with the sector's critical role in the functioning of a modern economy, makes it a highly attractive target for cyber-attacks. The advent of process control systems and next-generation communication networks brings a new scale of cyber risk, with a successful attack potentially impacting the power supply of an entire country. Greater resilience to cyber risk is critical to current and future energy security.

Moderator

- Kevin Richards, Managing Director & Global Head of Cyber Risk Consulting, Marsh Ltd

Speakers

- Kamran Ahsan, Senior Director, Security Solutions , Etisalat Digital
- Eric Eifert, Vice President , Dark Matter LLC
- Hashim Alzahrani, Operations Manager, Gulf Cooperation Council Interconnection Authority (GCCIA)
- Leo Simonovich, Global Vice President of Industrial Cyber and Digital Security , Siemens

DAY 2 - TUESDAY 10 SEPTEMBER CONTINUED DETAILED PROGRAMME

12:00 - 13:15 Conference Room A, Block 6

Session 7

The power of people diversity

When organisations commit themselves to a diverse workforce, research shows that enhanced performance and profitability follows. A diverse set of ideas and perspectives drawn from teams with different genders, ethnicities and ages improves decision-making, problem solving and customer understanding. In short, it brings a competitive advantage.

Moderator

- James Jeffeys, Owner; Human Resources, SIPHR Services ltd

Speakers

- Dr. Omar Al Nuaimi, Assistant Undersecretary for International Relations and Communications, Ministy of Human Resources and Emiratisation
- Charity Wanjiku, Chief Operating Officer , Strauss Energy Ltd.
- Joanna Hubbard, Chief Executive Officer, Electron
- Yana Popkostova, Founder and Managing Director, European Centre For Energy and Geopolitical Analysis

13:00 - 14:15 Halls 2 & 3

Lunch break

14:30 - 15:45

Parallel sessions

14:30 - 15:45 ICC Plenary

Session 1

Dynamic resilience: Preparing for extreme weather, water stress and cyber risk

In an increasingly interconnected energy era, infrastructure and system operators need to thrive in a context of fast emerging opportunities and new systemic risks – including extreme weather events and financial shocks. How are energy leaders and their organisations learning to manage emerging and systemic risks? What are the new capabilities and options in the search for dynamic resilience?

Moderator

- Jeanne NG, Director, CLP Holdings Limited

Speakers

- Andrew George, Chairman, Global Energy and Power Practice, Marsh Ltd
- José Antonio Vargas Lleras, President, Enel-Codensa - Chair of the Communications & Strategy Committee, World Energy Council
- Dr. Juerg Trueb, Managing Director, Swiss Re
- Sophie Voirin, Managing Director, Weathernews France SAS

14:30 - 15:45 Hall 4, Block 1

Session 2

Rethinking hydro: Powering tomorrow's world

Making up nearly 71% of the world's renewable electricity, hydropower is one of the most dependable forms of green energy and a vital means of electrification. However, concerns around system resilience together with the environmental and social impacts of large hydro means the potential of this resource remains largely untapped. Where do the next generation of opportunities lie and what role will multi-country collaboration play?

Moderator

- Seetapathy Chander, Advisor, World Energy Council, India

Speakers

- H.E. Carlos Zaldivar, Vice Minister of Mines and Energy, WEC Paraguay
- H.E. Sileshi Bekele, Minister of Water, Irrigation & Electricity, Federal Democratic Republic of Ethiopia
- Alexandre Siciliano Esposito, Head of Department, Brazilian Development Bank
- James Ung, Chief Executive Officer, Sarawak Energy Bhd
- Karl Gruber, Managing Director, Wien Energie Gmbh

DAY 2 - TUESDAY 10 SEPTEMBER CONTINUED DETAILED PROGRAMME

14:30 - 15:45 Conference Room A, Block 6

Session 3

To invest or divest: New realities and responsibilities

As the energy sector moves toward greater electrification and decarbonisation, stranded assets and resources and increased regulatory requirements, investors are paying greater attention to the way carbon-based projects are chosen, executed and managed. An increasing number of development banks, sovereign wealth funds and institutional investors have started black-listing high-CO2 solutions in their investment portfolio and requiring companies to disclose carbon management and risk mitigation strategies.

Speakers

- Al Cook, Executive Vice President, Equinor
- Gurdeep Singh, Chairman and Managing Director, NHPC Limited
- Harry Boyd-Carpenter, Director, Head of Energy EMEA, Sustainable Infrastructure Group (EBRD)
- Hussein Matar, Director of Business Development , AMEA
- Michele Fiorentino, Chief Investment Officer, ADNOC - Abu Dhabi National Oil Company
- Wendy Green, Energy Advisor, Fusion Energy Holdings

14:30 - 15:45 Hall 4, Block 3

Session 4

Promise of solar

Solar is the world's fastest growing energy source. The industry has witnessed spectacular growth – globally there is now 305GW of solar power capacity, up from around 50GW in 2010 and virtually nothing at the turn of the millennium. However, progress has stalled in recent years. Despite the benefits that solar can bring in delivering fast and affordable low-carbon energy, intermittency and land use continue to be key challenges.

Moderator

- Pierre El Khoury, President of the Board & General Manager, Lebanese Center for Energy Conservation (LCEC) - Secretary, World Energy Council

Speakers

- Ahmed Nada, President, Middle East Solar Industry Association (MESIA)
- Andres Anijalg, Co-Founder & Chief Business Development Officer, Roofit Solar Energy
- Daniel Zwyietz , Founder and Chief Executive Officer, Enerwhere Sustainable Energy
- Dany Qian, Vice President, Jinko Solar Co., Ltd
- Nick Boyle, Group Chief Executive Officer, Lightsource BP
- Zhenguo LI, President , LONGi Green Energy Technology Co. Ltd.

14:30 - 15:45 Conference Room A, Block 5

Session 5

Unlocking the potential of energy efficiency

With increased power demands and concerns over climate change, everyone is looking to find the next best source of clean and sustainable energy. Yet one of the largest sources of energy may just be efficiency. It is estimated that the deployment of more energy efficient lighting, refrigeration and motors in industry could save as much as 10% of power generation; but could digitalisation bring even greater efficiency by reducing overall long-term demand?

Moderator

- Eithne Treanor, FOUNDER & CEO, E Treanor Media

Speakers

- H.E. Trần Tuấn Anh, Minister of Industry and Trade, Vietnam
- H.E. Naif M. Al Abbadi, Undersecretary, Ministry of Energy for Electricity Affairs
- Abel Didier Tella, Chief Executive Officer, Association of Power Utilities of Africa
- Benoit Lebot, Executive director, International Partnership for Energy Efficiency Cooperation (IPEEC)
- Chaher Boulakhras, Chief Executive Officer, Sonelgaz
- Joseph Anis, Chief Executive Officer, General Electric

DAY 2 - TUESDAY 10 SEPTEMBER CONTINUED DETAILED PROGRAMME

14:30 - 15:45 Conference Room A, Block 4

Session 6

New regional perspectives: Asian prospects for a low carbon society

Asia is the most rapidly growing energy market and the most populous and geographically diverse region in the world. The challenges of balancing increases in demand with climate action goals have a range of solutions, from alternative sources and better efficiency to energy storage and new technology. But how should these be prioritised when there is no "one size fits all" approach?

Moderator

- Shigeru Muraki, Executive Adviser, Tokyo Gas Co., Ltd

Speakers

- Dr. Kazutomo Irie, President , Asia Pacific Energy Research Center (APERC)
- Dr. Richard Lancaster, Group Executive Chair, Innovation, World Energy Council
- Dr. Yanbing Kang, Director, Energy Sustainability Center, Energy Research Institute
- Dr. Yongping Zhai, Chief of Energy Sector Group, Asian Development Bank

14:30 - 15:45 ICC Fishbowl

Session 7

New models of leadership: profit with purpose

Profit with purpose is set to become the new norm. Investors and consumers are increasingly buying into companies that deliver positive social change on issues such as climate change, energy access and diversity and inclusion, alongside financial returns. What are the implications of purpose over profit for delivering energy prosperity?

Moderator

- Jon Dee, Founder and Managing Director, DoSomething Foundation - RE100 - Coordinator of RE100 Australia,

Speakers

- Dr. Aabed Al-Saadoun, Chairman, Arab Petroleum Investments Corporation (APICORP)
- Frank Mastiaux, Chief Executive Officer, EnBW Energie Baden-Württemberg AG
- Gina Domang , Managing Partner & Chief Executive Officer, Emerald Technology Ventures - Co-Chair, Innovation & Issues Monitor, World Energy Council
- Karim Amin, Chief Executive Officer -Power Generation , Siemens
- Masashi Nagasawa, , Managing Executive Officer; Chief Spokesperson, , Tokyo Electric Power Corporation - TEPCO
- Omar Al Suwaidi, Director ,The Executive Office Directorate, ADNOC - Abu Dhabi National Oil Company

14:30 - 15:45 Hall 4, Block 2

Session 8

The role of gas in the global energy transition

According to the World Energy Council's Scenarios, gas is likely to play an important role as a 'bridging fuel' to a low-carbon economy. The substitution of coal to gas fired power plants, use of natural gas as a complement to renewable energy sources and power-to-gas technology all help to support climate change mitigation efforts. Do today's policy and market frameworks enable the shifting role of natural gas and what does this mean for our existing gas infrastructure?

Moderator

- Andy Brogan, Partner, Global Oil & Gas Leader, EY

Speakers

- H.E. Christyne Tremblay, Deputy Minister of Natural Resources , Canada
- Dr. Joe-Myung Kang, President, International Gas Union
- Lorenzo Simonelli, President & Chief Executive Officer, Baker Hughes
- Maria Moraeus Hanssen , Chief Operating Officer, Wintershall DEA GmbH - Deputy Chief Executive Officer,
- Pierre Chareyre, Group Executive Vice President, ENGIE
- René Bautz, Chief Executive Officer, Gaznat SA - Chairman, Global Gas Centre
- Takayuki Ueda, President & Chief Executive Officer, INPEX Corporation

DAY 2 - TUESDAY 10 SEPTEMBER CONTINUED DETAILED PROGRAMME

15:30 - 16:00
Break

16:15 - 17:00
Keynote addresses

16:15 - 16:30 ICC Plenary
Keynote Address
U.S. Innovation and Global Energy Security

Speaker
- H.E. Dan Brouillette, Deputy Secretary, United States Department of Energy

16:30 - 16:45 ICC Plenary
Keynote address

Speaker
- Lisa Davis, Chief Executive Officer Gas and Power, Member of the Managing Board, Siemens

17:00 - 18:15 ICC Plenary
Closing plenary
The business outlook for oil
OPEC-driven production cuts over recent years have re-balanced excess supply and prices, bolstering confidence that the "grand prize" of a balanced oil market is within reach. The price recovery contrasts with the efforts of oil-rich economies to diversify and mitigate the risk. From US output, to slowing Chinese demand, recent market volatility reflects new dynamics, including the limits of conventional producers and the impact of slowing global trade. Where can we expect oil to settle?

Moderator
- Helima Croft, Managing Director and Global Head of Commodity Strategy, RBC Capital Markets

Speakers
- H.E. Mohammad Sanusi Barkindo, Secretary General , OPEC - Organization of the Petroleum Exporting Countries
- Dr. Ahmed Ali Attiga, Chief Executive Officer, Arab Petroleum Investments Corporation (APICORP)
- Dr. Dan Yergin, Vice Chairman, IHS Markit
- William Lin, Executive Vice President, Regions, Corporates and Solutions , BP p.l.c

19:30 - 21:30
By invitation only
Gala dinner
By invitation only

PROGRAMME OVERVIEW - WEDNESDAY 11 SEPTEMBER

Theme: Inclusive prosperity: New policy imperatives

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ENERGY FOR PROSPERITY

10:00 - 11:15 Driving innovation: The role of governments in the future of energy

ICC Fishbowl

11:15 - 11:45 Break

11:45 - 13:00 Parallel sessions :

Hall 4, Block 1
- The new energy security agenda

Hall 4, Block 2
- Progressing the vision for regional integration

Hall 4, Block 3
- New regional perspectives: Forging new avenues for Europe's energy policy

Conference Room A, Block 5
- Communities and the social license to operate

Conference Room A, Block 6
- Energy, water, food: An ecosystem on the cusp

ICC Fishbowl
- Accelerating action on the SDGs and the carbon+agenda

Conference Room A, Block 4
- Market design: Enabling the energy transition

13:00 - 14:15 Lunch Break

Halls 2 & 3

14:15 - 15:30 Parallel sessions:

Hall 4, Block 1
- Enhancing energy security and electricity integration in the MENA region

Hall 4, Block 2
- Rethinking the energy trilemma: Synergies and co-benefits

ICC Fishbowl
- Navigating the future: What's on top of mind for energy professionals?

Hall 4, Block 3
- Stepping up on climate action

Conference Room A, Block 5
- New regional perspectives: What will fuel North America's future energy system?

15:30 - 16:00 Break

16:00 - 17:15 Power, policies and purpose: a new era of energy geopolitics

ICC Fishbowl

DAY 3 - WEDNESDAY 11 SEPTEMBER DETAILED PROGRAMME

10:00 - 11:15 ICC Fishbowl

Opening plenary

Driving innovation: The role of governments in the future of energy

The pressure to rethink energy continues, and with it the need for pioneering solutions. Innovation is one of the most powerful ways to drive agility and growth; it disrupts existing models and markets and opens up new opportunities for energy production, distribution and consumption. What is the role of government in creating an enabling environment for innovation? Are the right frameworks and policies in place to put governments at the forefront of the innovation challenge? Who is leading the way and what can we learn from their success stories?

Speakers

- H.E. Joao Galamba, Secretary of State for Energy, Portugal
- H.E. Diego Mesa Puyo , Viceminister of Energy, WEC Colombia
- Serge Colle , Partner, Global Power and Utilities Advisory Leader, EY

11:15 - 11:45

Break

11:45 - 13:00

Parallel sessions

11:45 - 13:00 Hall 4, Block 1

Session 1

The new energy security agenda

In an increasingly interconnected and uncertain world, energy security has moved to the forefront of the energy and economic agenda. Growing resource scarcity, more frequent natural disasters linked to climate change, volatile markets, and political instability in and around energy exporting countries are just a few of the many pressing points of concern for energy suppliers and consumers alike.

Moderator

- Sean Cleary, Chairman, Strategic Concepts

Speakers

- Jonathan Elkind, Senior Research Scholar, Center on Global Energy Policy, SIPA, University of Columbia
- Dr. Sara Vakhshouri , President, SVB Energy International
- Dr. Sun Xiansheng, Secretary General, International Energy Forum
- Dr. Tatiana Mitrova, Director, Moscow School Of Management Skolkovo
- Dr. Yongsung Cho, President, Korea Energy Economics Institute (KEEI)

11:45 - 13:00 Hall 4, Block 2

Session 2

Progressing the vision for regional integration

The world's vast wealth of energy resources and opportunities, from unconventional oil and gas reserves and renewable energy sources to naturally privileged energy transportation routes, storage or skills centres, are not evenly distributed. Regional collaboration and integration are the keys to unlocking enormous untapped potential. This session explores leading examples of global cooperation projects and how they are changing the realities of regional vs national collaboration.

Moderator

- H.E. Dr. Matar Al Neyadi, Undersecretary , Ministry of Energy and Industry United Arab Emirates - Chairman, World Energy Congress Organising Committee

Speakers

- Ahmed Al-Ebrahim, Chief Executive Officer, Gulf Cooperation Council Interconnection Authority (GCCIA)
- Bernardo Vargas Gibsone, Chief Executive Officer , Interconexión Eléctrica S.A. E.S.P
- Douka Sediko, Commissioner Energy & Mines, Economic Community of West African States (ECOWAS)
- Yana Popkostova, Founder and Managing Director, European Centre For Energy and Geopolitical Analysis
- Dr. Younkyoo Kim, Director, Hanyang University

DAY 3 - WEDNESDAY 11 SEPTEMBER CONTINUED DETAILED PROGRAMME

11:45 - 13:00 Hall 4, Block 3

Session 3

New regional perspectives: Forging new avenues for Europe's energy policy

European energy policy has been strongly pursuing decarbonisation in the energy sector. Although the European Union has developed a number of policy and regulatory initiatives, national regulations remain very different and often contradictory. How can Europe approach common regional and coherent sub-regional energy policies?

Moderator

- Dr. Norbert Schwieters, Global Energy Utilities and Resources leader, PwC PricewaterhouseCoopers

Speakers

- H.E. Alenka Bratusek, Deputy Prime Minister & Minister of Infrastructure, WEC Slovenia
- Bjarni Bjarnason, Chief Executive Officer, Reykjavik Energy
- Didier Houssin, Chairman and Chief Executive Officer, IFP Energies Nouvelles
- Hando Sutter, Chief Executive Officer and Chairman of the Management Board, Eesti Energia AS
- Dr. William D'haeseleer, Director, Professor, University of Levin Energy Institute - Chair, Belgium Member Committee, World Energy Council

11:45 - 13:00 Conference Room A, Block 5

Session 4

Communities and the social license to operate

The traditional perception of the community paradox - democratised access but with the heavy industry in someone else's backyard - is being overcome by a new approach to achieving a social license to operate. From Britain to Beijing, Cameroon to Canada, case studies are emerging of successful energy projects with community buy-in. What are the ingredients of success, the consequences of failure, and the 360 benefits of smart community project planning?

Moderator

- Alessandro Costa, Head of Sustainability, Falck Renewables S.P.A.

Speakers

- Abdullah Al Qadi, Executive Director, Exploration and Production, Crescent Petroleum
- Astrid Alvarez, Chief Executive Officer, Grupo Energía Bogotá
- Giles Dickson, Chief Executive Officer, Wind Europe
- Isabelle Rousseau, Director of the Energy Program, Center for International Studies, Mexico College
- José Da Costa Carvalho Neto, Programme Committee, World Energy Council
- Sergio Suchodolski, President , Development Bank of Mines Gerais

11:45 - 13:00 Conference Room A, Block 6

Session 5

Energy, water, food: An ecosystem on the cusp

98% of electricity supply directly depends on access to water. Water stress and competition for water resources are increasing and expose energy systems to new vulnerability. Technology choice, coordinated regional water planning, internal water pricing, and innovative insurance models are among the solutions implemented to adapt to a more water-constrained future

Moderator

- Dr. Leena Srivastava, Incoming Director General for Science , International Institute for Applied Systems Analysis (IIASA)

Speakers

- H.E. Mariam Hareb Al Mehairi, Minister of State for Food Security, United Arab Emirates
- H.E. Barsaman Pun, Minister of Energy, Water Resources and Irrigation, Nepal
- Ahmed Aboutaleb, Mayor, City of Rotterdam
- Philippe Joubert, Senior Adviser International Development, World Energy Council
- RaeKwon Chung, Chairman, Global Energy Prize International Award Committee - UN Secretary-General's High-level Expert and Leaders Panel (HELP) on water and disasters,

DAY 3 - WEDNESDAY 11 SEPTEMBER CONTINUED DETAILED PROGRAMME

11:45 - 13:00 ICC Fishbowl

Session 6

Accelerating action on the SDGs and the carbon+agenda

From ensuring universal access to affordable, reliable and modern energy to taking urgent climate action to keep the world below 2°C, the global community has set itself ambitious energy targets that will require unprecedented collaboration. Innovative approaches requiring public-private partnerships, investments and new business models will be needed to the complete fulfillment of the SDG7 objectives and successfully transform the world's energy systems.

Firestarter keynote

- Hanife Ymer, Mubadala

Speakers

- H.E. Sok Khavan, Secretary of State, Cambodia
- H.E. Abdullah Nasser Lootah, Director General , Federal Competitiveness and Statistics Authority
- Anaïs Amazit, Head of Africa Operations, Barefoot College
- Elana Laichena, Founder & Chief Executive Officer, Acacia Innovations Ltd.
- Paul Smith Lomas, Chief Executive Officer, Practical Action

11:45 - 13:00 Conference Room A, Block 4

Session 7

Market design: Enabling the energy transition

The abundance of cost-competitive renewable energy technologies is accelerating transition towards decarbonised, decentralised and digitalised energy systems. Market design regulation, from electricity trading to grid operation, will need to be updated to integrate a growing share of intermittent renewable energy supply. Maintaining investment in electrical supply security, grid reliability and resiliency is a strategic priority.

Moderator

- Tim Nelson, Executive General Manager, Strategy and Economic Analysis, Australian Energy Market Commission (AEMC)

Speakers

- H.E. Mohammed Bin Jarsh, Undersecretary, Abu Dhabi Department of Energy
- Daniel Schmerler Vainstein, Chair of the Board, Perù Regulatory Agency for Investment in Energy and Mining (OSINERGMIN)
- Eli Jidere Bala, Chief Executive Officer, Energy Commission of Nigeria
- Ewald Hesse, Chief Executive Officer, Energy Web Foundation & Grid Singularity
- Fedor Opadchiy, Vice Chairman of the Management Board, "SO UPS" JSC
- Dr. Massimo Ricci , Head of Energy Division, Italian Regulatory Authority for Energy, Networks and Environment

13:00 - 14:15 **Halls 2 & 3**

Lunch Break

14:15 - 15:30

Parallel sessions

DAY 3 - WEDNESDAY 11 SEPTEMBER CONTINUED DETAILED PROGRAMME

14:15 - 15:30 Hall 4, Block 1

Session 1

Enhancing energy security and electricity integration in the MENA region

Soaring demand for electricity in the growing economies of the Middle East and North Africa is set to drive the process of regional integration in the MENA region. APICORP forecasts that the MENA region needs to invest $260 billion over the period 2018-2023 to meet this demand. What does it take to enhance utilization of the GCC's existing interconnection and what is the potential for expanding the grid beyond the GCC region?

Moderator

- Adam Edward Sieminski, Chair , King Abdullah Petroleum Studies and Research Center (KAPSARC)

Speakers

- H.E. Luay Al-Khateeb, Minister of Electricity, Iraq
- H.E. Hala Zawati, Minister of Energy & Mineral Resources, Jordan
- H.E. Mohammad Boushehri, Undersecretary, Ministry of Electricity and Water
- Dr. Ibrahim Al-Muhanna, Vice Chair for the Gulf States and Middle East, Kingdom of Saudi Arabia - Advisor, Minister of Energy, Industry and Mineral Resources
- Jamila Matar, Director, Energy Department, League of Arab States
- Stephen Gitonga, Regional Sustainable Energy Advisor, United Nations Development Programme (UNDP)

14:15 - 15:30 Hall 4, Block 2

Session 2

Rethinking the energy trilemma: Synergies and co-benefits

Managing a robust energy transition is not straightforward. Success requires integrated policy approaches and frameworks, such as those encouraged by the Council's World Energy Trilemma to address the emerging synergies and co-benefits in a shifting 'glocal' energy landscape. How are policy makers navigating new threats and opportunities, whilst balancing with pressures to keep security high and costs

Moderator

- Francois Austin, Partner, Oliver Wyman Group

Speakers

- H.E. Jose Dominguez Abascal, Secretary of State for Energy, WEC Spain
- H.E. Tomasz Dąbrowski, Undersecretary of State, Poland
- John Pierce AO, Chairman, Australian Energy Market Commission
- Philip Lowe, Executive Chair, World Energy Trilemma, World Energy Council - Partner, Oxera Consulting
- Vivien Foster, Chief Economist, Infrastructure Vice-Presidency, World Bank

14:15 - 15:30 ICC Fishbowl

Session 3

Navigating the future: What's on top of mind for energy professionals?

By 2040, energy demand and consumption will have radically transformed. Citizens of the world could be using drone capsules for transporting to work, water desalination may become the main water source and hydrogen may be the new oil. What does this mean for energy systems? This session will discuss the results of a topic-based survey by Congress participants. Our forward thinking panelists will analyse and challenge the results, painting a picture of the future using today's reality.

Moderator

- Jon Dee, Founder and Managing Director, DoSomething Foundation - RE100 - Coordinator of RE100 Australia,

Speakers

- Dr. Adnan Shihab-Eldin, Director General, Kuwait Foundation For The Advancement Of Scienes
- Anya Nova, Crypto Economist, Power Ledger
- Filippo Gaddo , Director, ARUP
- Dr. Michael Webber, Chief Science and Technology Officer, ENGIE
- Dr. Tatiana Mitrova, Director, Moscow School Of Management Skolkovo

DAY 3 - WEDNESDAY 11 SEPTEMBER CONTINUED DETAILED PROGRAMME

14:15 - 15:30 Hall 4, Block 3

Session 4

Stepping up on climate action

The unprecedented global will for action on climate change is rightly recognised as a paragon of international cooperation. As students across the globe continue to take to the streets to call for climate action, the demand for stepping up change is clear. Collective action can make a difference, and a profound one, but are the international pledges to cut greenhouse gas emissions by 2030 bold enough to stop global warming?

Moderator

- David Victor, Professor and Director, University of California San Diego

Speakers

- H.E. Abbas A. Al-Naqi, Secretary General, OAPEC - Organization of Arab Petroleum Exporting Countries
- Dr. Leena Srivastava, Incoming Director General for Science , International Institute for Applied Systems Analysis (IIASA)
- Malin Strand, Future Energy Leader and Policy Strategist, Fossil Free Sweden
- Martin Frick, Senior Director, Policy and Programme Coordination, UNFCCC
- Dr. Ove Hoegh Guldberg , Professor and Director, University of Queensland

14:15 - 15:30 Conference Room A, Block 5

Session 5

New regional perspectives: What will fuel North America's future energy system?

The energy world is undergoing a grand transition, driven by a combination of factors including the fast-paced development of new technologies, an unstoppable digital revolution and global environmental challenges, combined with changing demographic patterns. As part of this new reality, greater electrification of the overall energy system is expected and the big question is the importance of gasoline versus electrons versus hydrogen in the future energy system.

Moderator

- Merribel Ayres, Principal, Lighthouse Consulting Group

Speakers

- Dr. Aldo Flores-Quiroga, Visitng Professor, LBJ School, University of Texas
- Dave Hardie, Director Liability Strategy, Alberta Energy Regulator
- Dr. Mike Howard, President and Chief Executive Officer, Electric Power Research Institute (EPRI)

15:30 - 16:00
Break

DAY 3 - WEDNESDAY 11 SEPTEMBER CONTINUED DETAILED PROGRAMME

16:00 - 17:15 ICC Fishbowl

Closing plenary

Power, policies and purpose: a new era of energy geopolitics

A successful energy transition requires a level of unprecedented international cooperation. As global alliances evolve and national policies shift, international organisations have a central role to play in promoting unity, collaboration and common energy interests. Hear from leading international organisations on how changing energy geopolitics are impacting global cooperation and their vision for the future energy landscape.

Moderator

- Carlos Pascual, Senior Vice President, Global Energy & International Affairs, IHS Markit

Speakers

- Christian Zinglersen, Head of Secretariat, Clean Energy Ministerial Secretariat
- Francesco La Camera, Director General, IRENA - International Renewable Energy Agency
- Frederick Kempe, President and Chief Executive Officer, Atlantic Council
- Jean-Marie Dauger, Co-Chair, World Energy Council

PROGRAMME OVERVIEW - THURSDAY 12 SEPTEMBER

Theme: Innovation: The pathway to prosperity

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ENERGY FOR PROSPERITY

09:00 - 10:00 Hall 4, Block 1	Keynote addresses
09:00 - 09:15 ICC Fishbowl	Keynote address: Leveraging 5G to drive sustainability and enable innovation in the energy sector
09:15 - 09:30 ICC Fishbowl	Keynote address
10:00 - 11:15 ICC Fishbowl	Start-up Energy Transition: The power of the bold
11:15 - 11:45	Break
11:45 - 13:00 ICC Fishbowl Conference Room A, Block 4 Hall 4, Block 3	Interactive Sessions: • Pitch perfect: Best of the Start-up Energy Transition (SET) • Faster, better, cheaper: Cross sector collaboration to deliver successful energy transitions • Be a CEO for the day: a live simulation game
11:45 - 13:00 Hall 4, Block 1 Conference Room A, Block 5	Parallel Sessions: • Innovation in grids: Future-proofing the power network • Rethinking innovation ecosystems beyond technology
13:00 - 14:15 Halls 2 & 3	Lunch break
14:30 - 15:20 ICC Plenary	Closing plenary
15:20 - 15:45 ICC Plenary	Closing ministerial reflections of the week: Energy for prosperity
15:45 - 16:25 ICC Plenary	Congress closing ceremony

DAY 4 - THURSDAY 12 SEPTEMBER DETAILED PROGRAMME

09:00 - 10:00 Hall 4, Block 1
Keynote addresses

09:00 - 09:15 ICC Fishbowl
Keynote Address

Keynote address: Leveraging 5G to drive sustainability and enable innovation in the energy sector

Speaker
- Khalifa Hassan Alforah Alshamsi , Group Chief Corporate Strategy & Governance Officer, Etisalat

09:15 - 09:30 ICC Fishbowl
Keynote address

Speaker
- Jesse Moore, Chief Executive Officer, M-Kopa Solar

10:00 - 11:15 ICC Fishbowl
Opening plenary

Start-up Energy Transition: The power of the bold
Bold entrepreneurs are tackling some of the world's most pressing energy challenges. The winners of this years' Start up Energy Transition Award illustrate the power of the bold and demonstrate a vision beyond conventions. What are the key characteristics, predictions, and insights of the world's top energy start-ups and entrepreneurs? What are the new business models, technologies and visions at the forefront of the energy transition?

Moderator
- Gina Domang , Managing Partner & Chief Executive Officer, Emerald Technology Ventures - Co-Chair, Innovation & Issues Monitor, World Energy Council

Speakers
- Andreas Kuhlmann, Chief Executive , German Energy Agency (DENA)
- Divine Nabaweesi, Founder and Chief Executive Officer, Divine Bamboo
- Jakob Hornbach, Chief Executive Officer & Co-Founder, Bodawerk International Ltd.
- Marwan Bin Haidar , Executive Vice President of Innovation & The Future, DEWA - Dubai Electricity and Water Authority
- Richard Romanowski, Executive director, Planet Ark Power
- Thomas Chrometzka, Chief Strategy Officer, Enapter

11:15 - 11:45
Break

11:45 - 13:00
Interactive Sessions

DAY 4 - THURSDAY 12 SEPTEMBER CONTINUED DETAILED PROGRAMME

11:45 - 13:00 ICC Fishbowl

Session 1

Pitch perfect: Best of the Start-up Energy Transition (SET)

SET finalists from across the world will pitch their innovative solutions to a jury who will decide whether their idea is a global game-changer for the energy transition.

Moderator

- Jon Dee, Founder and Managing Director, DoSomething Foundation - RE100 - Coordinator of RE100 Australia,

Jurors

- Charles Vaslet, Partner , Emerald Technology Ventures
- Christopher Smith, Managing Director, Energy Innovation Capital
- Jose Medardo Cadena Mosquera, Director of Integration, Access and Energy Security, Organización Latinoamericana de Energía (OLADE)
- Julia Padberg, Investment Manager, SET Ventures
- Michele Fiorentino, Chief Investment Officer, ADNOC - Abu Dhabi National Oil Company
- Dr. Mike Howard, President and Chief Executive Officer, Electric Power Research Institute (EPRI)
- Rob Genieser, Partner , Etf Partners
- Rodney John Allam, The 2012 laureate, the International Award Committee member, The Global Energy Prize - Former Partner, 8 Rivers Capital
- Rokas Peciulaitis, Managing Partner, Contrarian Ventures
- Stephane Villecroze, Managing Partner, Demeter

11:45 - 13:00 Conference Room A, Block 4

Session 2

Faster, better, cheaper: Cross sector collaboration to deliver successful energy transitions

Digitalisation and other developments are blurring sector boundaries. This creates new and unprecedented collaborative opportunities in securing clean, reliable and affordable energy for prosperity. Who is leading and how can new opportunities be realised?

Facilitators

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

Speakers

- Aida Sitdikova, Director, European Bank for Reconstruction and Development (EBRD)
- Jeanne NG, Director, CLP Holdings Limited
- Jeroen van Hoof , Global Leader, Power & Utilities, PwC PricewaterhouseCoopers
- Tim Nelson, Executive General Manager, Strategy and Economic Analysis, Australian Energy Market Commission (AEMC)

11:45 - 13:00 Hall 4, Block 3

Session 3

Be a CEO for the day: a live simulation game

You are the new CEO of an energy company that needs to improve its financial and operational performance. You are faced with several opportunities and challenges regarding digital and innovation. The choices you make will determine if your company is a winner or loser in the market. What are the right investments to make? Which technologies will have the biggest impact? How can you make sure your people have the necessary skills? How will you fast-track the best opportunities? Join us for this interactive EY simulation game.

Speakers

- Benoit Laclau, Partner, Global Energy Leader, EY
- Fay Shong, Oil and Gas Digital Strategy Leader, Americas, EY
- Thierry Mortier, Partner, Global P&U Innovation Leader, EY

DAY 4 - THURSDAY 12 SEPTEMBER CONTINUED DETAILED PROGRAMME

11:45 - 13:00
Parallel Sessions

11:45 - 13:00 Hall 4, Block 1

Session 1

Innovation in grids: Future-proofing the power network

Grid operators face an uncertain future and greater complexities from multiple disruptive forces, including digital technologies, distributed generation and storage, changing customer demands and new market opportunities. In parallel, regulators are changing requirements, away from reliable, affordable and safe, towards clean, efficient and open access. The speed of disruption and regulatory change varies among markets, creating risk and uncertainty for companies.

Speakers
- Carlo Crea, Head of Institutional Affairs, TERNA
- Dr. Dirk Biermann, Managing Director , 50hertz Transmission Gmbh
- Jonathan Robert Michael Palmer , Partner, PwC PricewaterhouseCoopers
- Dr. Ken Budka, Senior Partner, Verticals , Bell Labs Consulting
- Dr. Kenji Yamaji, Director-General, Research Institute of Innovative Technology for the Earth
- Pavel Livinskiy , Chief Executive Officer & Director General , ROSSETI
- Shen Weichun, Deputy Secretary General, CEC - China Electricity Council
- Tobias Falke, Head of Business Development , Envelio

11:45 - 13:00 Conference Room A, Block 5

Session 2

Rethinking innovation ecosystems beyond technology

Innovation comes in many forms: from policy and business models to financing and collaboration. What are the different drivers and catalysts that create the conditions for innovation in energy?

Moderator
- Randolph Brazier, Head of Innovation & Development, Energy Networks Association

Speakers
- Alexandre Siciliano Esposito, Head of Department, Brazilian Development Bank
- Dr. Atul Arya , Chief Energy Strategist, S&P Global
- Jesse Moore, Chief Executive Officer, M-Kopa Solar
- Laurence Pikkety, Deputy Chief Executive Officer, French Alternative Energies and Atomic Energy Commission (CEA))
- Dr. Leila Benali , Chief Economist, Arab Petroleum Investments Corporation (APICORP)

13:00 - 14:15 Halls 2 & 3
Lunch break

14:30 - 15:20 ICC Plenary
Closing plenary

Moderator
- Dr. Christoph Frei, Secretary General & Chief Executive Officer, World Energy Council

Speakers
- Angela Wilkinson, Senior Director, Scenarios and Business Insights, World Energy Council
- Gina Domang , Managing Partner & Chief Executive Officer, Emerald Technology Ventures - Co-Chair, Innovation & Issues Monitor, World Energy Council
- Helima Croft, Managing Director and Global Head of Commodity Strategy, RBC Capital Markets
- Dr. Mike Howard, President and Chief Executive Officer, Electric Power Research Institute (EPRI)
- Thomas Chrometzka, Chief Strategy Officer, Enapter

DAY 4 - THURSDAY 12 SEPTEMBER CONTINUED DETAILED PROGRAMME

15:20 - 15:45 ICC Plenary

Closing plenary

Closing ministerial reflections of the week: Energy for prosperity

Moderator
- Dr. Christoph Frei, Secretary General & Chief Executive Officer, World Energy Council

Speakers
- H.E. Suhail Mohamed Al Mazrouei, Minister of Energy and Industry, United Arab Emirates
- H.E. Alexander Novak, Minister of Energy, Russian Federation

15:45 - 16:25 ICC Plenary

Congress closing ceremony

Closing Remarks - 15:45 - 15:50

Speaker
- H.E. Dr. Matar Al Neyadi, Undersecretary , Ministry of Energy and Industry United Arab Emirates - Chairman, World Energy Congress Organising Committee

Future Energy Leaders' Declaration - 15:50 - 15:55

Farewell Speech - 15:55 - 16:00

Speaker
- Younghoon David Kim, Chair, World Energy Council

Inaugural Speech - 16:00 - 16:05

Speaker
- Jean-Marie Dauger, Co-Chair, World Energy Council

Invitation to the 25th World Energy Congress - 16:05 - 16:15 H.E. Dmitry Kozak, Deputy Prime Minister of the Russian Federation

Presentation and Invitation to the 25th World Energy Congress 2022 in St. Petersburg, Russian Federation - 16:15 - 16:20

Farewell Speech - 16:20 - 16:25

Speaker
- H.E. Suhail Mohamed Al Mazrouei, Minister of Energy and Industry, United Arab Emirates

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Students	$350	$350

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