

Under the auspices of

EXPO
2017
ASTANA



Bureau
International
des Expositions



29 June – 05 September

ASTANA EXPO-2017

FUTURE ENERGY FORUM

**Astana EXPO-2017
Future Energy Forum**
in Astana, Kazakhstan

FUTURE ENERGY

Energy is the central element of our modern global economy. It defines positive and negative trends, as well as the pace for individual, national and global developments.

Today, the most promising area in the world is "green energy", i.e. technologies for obtaining energy from renewable sources (RES). Their improvements are based on the need to eliminate energy shortages, to resolve environmental issues and to launch a new phase of technological development for the world economy.

Astana EXPO-2017 sets the task to gather the best improvements in these fields in order to investigate not only the future energy supply, but also the problems faced by developing countries. The world's leading experts meeting in Astana will discuss ways to generate and integrate "green energy", its availability, sustainability and economy.

FUTURE ENERGY FORUM 2017



MISSION AND OBJECTIVES OF THE FORUM

- ▶ Promote international exchange, discussion and innovation about the present and future of sustainable energy and development
- ▶ Promote clean energy economies and a green lifestyle
- ▶ Develop effective and innovative solutions that have a positive impact on climate change and energy poverty
- ▶ Develop international partnerships in economics, science, industry and technology
- ▶ Promote the exchange of best practices in the area of sustainable development and clean energy
- ▶ Create an innovation platform for the green industry in Kazakhstan
- ▶ Accelerate the transition to a green economy and attract investment for innovative projects

FUTURE ENERGY FORUM 2017

12 CONFERENCES

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The **Astana EXPO-2017 Future Energy Forum** is one of the central events of **Astana EXPO-2017** in Kazakhstan. This featured series of conferences takes place throughout the duration of the **Astana EXPO-2017**, and serves as a global platform for debate, discussion and innovation about the present and future of sustainable energy and development. Attendees include high-level government representatives, international agencies, leading scientists and academics, NGOs, visionaries and leaders, innovators in industry and engineering, and other key players and stakeholders in the energy sector.

Taking place at the EXPO EXHIBITION COMPLEX from 29 June – 5 September, visitors and participants embark on a journey through the challenging and

inspiring developments in the future of energy and sustainable development. 12 conferences facilitate prominent international input covering all aspects of the **Astana EXPO-2017** themes and subthemes. Envisioning and outlining future energy scenarios, the Future Energy Forum opens to a panoramic view of the world of future energy. The subsequent conferences focus on specific aspects of this future scenario. Formalizing the legacy and outlook of the **Astana EXPO-2017 Future Energy Forum**, the conference series concludes with the Future Energy Award Ceremony and preview presentation of the **Astana EXPO-2017 Manifesto of Values and Principles**.

FUTURE ENERGY FORUM AGENDA

12 CONFERENCES

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| 1 | 29 – 30 June | THE ENERGY REVOLUTION | In this first of a series of 12 conferences the Kazakh government ceremoniously opens the doors to the Astana EXPO-2017 Future Energy Forum, a platform for international collaboration and rigorous debate on the future of energy. | FOCUS
Energy in 2050 |
| 2 | 10 – 11 July | LOW CARBON TECHNOLOGIES AND RENEWABLE TECHNOLOGY SOLUTIONS | Sources of clean energy, sources of opportunity. Renewable technologies have made vast strides in commercial maturity and economic competitiveness. As new technologies open new markets, assessing specific strengths and limitations of renewable technologies in real-time scenarios is essential. | FOCUS
State-of-the-Art Solutions |
| 3 | 12 – 13 July | INTERNATIONAL SCIENTIFIC AND UNIVERSITY CONFERENCE | Joined by leading scientists and experts, the next generation of innovators forges new energy solutions through hands-on workshops and designed encounters, building networks and relationships essential to the future of energy. | FOCUS
Science & Research |
| 4 | 20 – 21 July | SOCIOECONOMICS OF A NEW ENERGY MODEL | How will the transition to a post-carbon future be managed? The socio-economic developments and impacts of transforming our complex energy systems are examined. | FOCUS
Economics of New Energy |
| 5 | 24 – 25 July | GENERAL ACCESS TO SUSTAINABLE ENERGY | International political frameworks and policies shape the nature of sustainable energy.
The EU European Energy Days looks at the key drivers and providers of energy access, sustainability in the building sector, and the facts and fictions of nuclear fusion. | FOCUS
Infrastructure & Future Grid |
| 6 | 31 July – 1 August | ENERGY EFFICIENCY IN THE CITY
Urban planning, construction and transport | In 2050 Mega-cities of more than 10 million inhabitants will have doubled. The development of sustainable integrated solutions in urban planning, architecture and mobility are crucial to the evolution of urban life. | FOCUS
City & Mobility |

FUTURE ENERGY FORUM AGENDA

7	8 – 9 August	ENERGY FOR ALL Challenges of the new time	Poverty and energy are unequivocally linked. Billions of people are living in acute energy poverty and are being left behind as energy solutions in urban areas rapidly advances. What are the energy solutions that will advance the UN 2030 Agenda of providing affordable, reliable and sustainable energy for all?	FOCUS Civil Society & NGOs
8	10 – 11 August	PROGRESS IN REDUCTION OF CO₂ EMISSION AND ACHIEVING THE ENERGY EFFICIENT LIFESTYLE	Industry is accountable for up to 40 % of total CO ₂ emissions worldwide. As carbon dioxide (CO ₂) levels escalate, the earth's atmosphere traps more heat — global temperatures rise. Low-carbon and energy efficient solutions are essential for the reduction of industrial emissions.	FOCUS Industry
9	14 – 15 August	RENEWABLE ENERGY AND QUALITY OF LIFE	Renewable and sustainable energy supplies are as crucial to the future of economic growth and development as they are to the promotion of human well-being. Maintaining the triangular social-economic-environmental relationship of sustainable development requires decentralize off-grid solutions.	FOCUS Solutions for Developing Countries
10	21 – 22 August	ENERGY SOLUTIONS FOR THE CLIMATE CHANGE PROBLEM	Rapidly advancing technologies both innovative and disruptive are changing today's energy markets and industries, stimulating and accelerating economic growth. What new energy products and business models could revolutionize international markets in the near future, and how will these new ideas help shape the future of renewable energy?	FOCUS Innovation & Disruption
11	28 – 29 August	INTERNATIONAL ECONOMY AND POLICY IN ENVIRONMENTAL PROTECTION	Meeting the global challenges of environmental protection and sustainable development is dependent upon robust political and economic frameworks.	FOCUS World Politics & Economics
12	4 – 5 September	CREATING OUR FUTURE	The world's energy community assembles to exemplify the cumulated knowledge and aims presented and developed throughout the forum's 12 conferences. The Future Energy Award and ceremony validates its principles, and a preview of the Astana EXPO-2017 Manifesto of Values and Principles sets forth its legacy.	FOCUS Energy Future & Legacy