



## ASSOCIATION OF POWER EXCHANGES



### APEX Objective

To facilitate the development and communication of ideas and practices in the operation of global competitive electricity markets. One of its primary intentions is to provide a platform for the sharing of information between its members.

**APEX Annual Conference 2024**

**Sep 24-26, 2024**

**Venue: Santiago, Chile**

## In the Spotlight

**APEX (Association of Power Exchanges) in cooperation with Energy Exchange Istanbul (EXIST), successfully organized this year's APEX conference in Istanbul from September 20-22, 2023.**

### Derya Erbay

*Director of Strategy  
Development - EPIAŞ*



### Reflections on COP28 and the Future of Carbon Markets

It has been not long since we have had the privilege of meeting with some members in APEX 2023 Conference Istanbul which was a great pleasure. Taking the opportunity, I would like re-express my gratitude to everybody for electing and welcoming me in the Board.

The history of carbon trade within energy markets has been around three decades in a progressive trend. Although not necessarily dependent on COPs, the future perspectives on environmental markets can be traced in Climate Action Summits. While this letter is being written, COP28 started in Dubai with some assertive claims such as restoring faith on collective action and demonstrating a critical ability to work together in a polarized world to achieve our collective efforts and ambitions to deal with climate change. Among its themes, the question of how to finance energy transition and de-carbonization were highlighted, which is obviously an important issue to determine the future of emission trading and other means of decarbonization policies.

We all know the background of the story dates back to late 1970's initially for the claim of 'collective rights' and then the Rio Declaration on Environment and Development in 1992 and the introduction of UNFCCC as the most comprehensive intent on the issue. The Kyoto Protocol and the Paris Agreement have remarked additional steps and achievements, both of which have obviously produced controversies around, yet a long way has been walked in this journey. Every country and region have responded to the call for an action in one way or another.

In all these efforts, the key target was clear: minimization of carbon emissions in the short...



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## Continued Director's column

run and zero-emissions in the longer run, because the global warming shall be reduced to the pre-industrial level to tackle the climate change. It was a common target but with differentiated responsibilities. On global context, the developed and industrial countries were held more responsible to finance the reduction of emissions, as their contribution to global warming was higher. Eventually the process led to the commodification of emissions to be traded on energy markets. Since then, carbon pricing mechanism are in practice and in this context, carbon tax and ETS (Emissions Trading System) play crucial instruments in order to adapt a climate action plan at national and international levels.

In this context, the EU zone has emerged perhaps as the most dedicated region to adapt such policies accordingly and regulated the targets in a binding way such as Fit for 55, as a steady and comprehensive strategy for transition to climate-neutral economy by 2050. As part of it, very recently, the regulation on the Carbon Border Adjustment Mechanism was introduced and transitional period started in October 2023. It was a step to extend the scope of the action to a wider economic zone. Assigning the responsibility of carbon cost on importers, needless to say that, will bring broader impact on all stakeholders which make trade with EU. Moreover, the scope of EU ETS was extended beyond energy intense sectors, so as to cover sectors like maritime transport and create a new separate ETS 2 for building, road transport and fuels and additional sectors, as a new phase, with a rather progressive implementation rather than an immediate one. As such, we see new regulations and markets at national levels in various examples. As EXIST, we are in the process of designing carbon markets in Türkiye, for emission trading system and adaptive decarbonization policies. Given the interrelatedness of the global economies and sectors, all of which are somehow subjectivized to various market conditions and regulations, there is no doubt that such climate action plans bring the various questions on the agenda: how to go best about carbon pricing, i.e. whether we need to materialize for an international carbon market as indicated and framed by the Article 6 of Paris Agreement. As known, there has been no consensus on this in the previous summits and it is highly questionable if an agreement can be reached in Dubai as well. Or the suggestions such as an international carbon price floor remains on agenda. Apart from the system and mechanism debate, whether such system transformations can work better or worse for 'a just transition' at national levels without being disruptive. Therefore, COP28 highlights the question of how to go about financing such transition and how the support for the developing countries shall be mobilized and modelled.

As known, Global Stock take Technical Dialogue was released a couple of months ago, which quite clearly demonstrates that the world falls behind the targets set by the Paris Agreement, despite the increase in ambition to set goals but it states that much more ambition and collaboration is needed. The international approach to environmental issues was conventionally reductionist so far, so that the whole challenge was technically to establish mechanisms to reduce the carbon emissions. However, with this COP28, we see slightly a paradigm shift from reductionism to a more holistic approach, because we see first examples of its kind, such as suggesting that we shall take the issue as a 'a whole economy and a whole society approach'.

No doubt that beyond the theoretical controversies, perhaps the reductionist form of climate action targets and plans were considered more pragmatic and practical for common good of humanity, however where we are now in the world, raising hope for a collective action in a polarized world, it certainly needs more comprehensive, convincing and holistic approach in many senses, beyond energy policies. UN can leverage the climate issues for more coordinated efforts globally to restore faith and ambition for a sustainable future that we all need.



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Stu Bresler, APEx Chairman

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# Continued APEx Annual Conference 2023, Istanbul

The three-day APEx 2023 conference gathered around 90 high-level representatives of electricity exchanges, market operators and the industry from Austria, Bahrain, Belgium, Brazil, Chile, Columbia, Croatia, El Salvador, Finland, Georgia, Germany, Guatemala, India, Lithuania, Slovenia, New Zealand, Pakistan, Philippines, Saudi Arabia, Spain, Turkey, Ukraine, United Kingdom, United States of America and Zimbabwe.

Through five panels with the topics of Storage, Energy Transition, Regulation, Price Formation and Market Design, and Hydrogen, the program was led by APEx Members of the Board of Directors.



## First Day of Conference

In the panel discussion titled "Integration and Application of Storage in Markets", experts from various backgrounds discussed the latest trends and developments in the storage sector. The panelists highlighted the growing importance of storage in various markets, including energy and transportation. They also discussed the challenges and opportunities for integrating storage into existing markets and developing new ones.

The key takeaways from the discussion were:

- Storage is playing an increasingly important role in enabling the transition to a clean energy economy.
- Storage can help to improve the efficiency and reliability of the electricity grid, integrate renewable energy sources, and reduce greenhouse gas emissions.
- Storage is also becoming increasingly important in the transportation sector, with the rise of electric vehicles and autonomous driving.
- New technologies and business models are emerging to accelerate the adoption of storage in various markets.
- Overall, the panel discussion provided a valuable overview of the latest trends and developments in the storage sector, as well as the challenges and opportunities for its integration and application in various markets.



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In the panel discussion titled "Markets and Exchanges facilitating the Energy Transition: Flexibility, Renewables and Technologies", experts discussed the role of markets and exchanges in enabling the transition to a clean energy economy. The panelists highlighted the importance of flexibility, renewables, and technologies in facilitating this transition. They also discussed the challenges and opportunities for markets and exchanges to support the energy transition.

The key takeaways from the discussion were:

- Markets and exchanges can play a critical role in enabling the energy transition by providing a platform for trading renewable energy, flexibility products, and new technologies.
- Flexibility is essential for integrating renewable energy into the electricity grid and ensuring reliable and affordable energy supply.
- Renewables are a key component of the clean energy transition, and markets and exchanges can help to scale up their deployment.
- New technologies, such as energy storage and demand response, are also essential for enabling the energy transition, and markets and exchanges can play a role in supporting their development and adoption.

Overall, the panel discussion provided a valuable overview of the role of markets and exchanges in facilitating the energy transition. The panelists highlighted the importance of flexibility, renewables, and technologies in enabling this transition, and discussed the challenges and opportunities for markets and exchanges to support the energy transition.



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Day 01 concluded with Topkapi Palace Museum Tour and Gala Dinner at Istanbul Archeological Museum.



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## Second Day of Conference

The second day of the conference featured sessions on “What is required to ramp up markets for (green) hydrogen? What role can energy exchanges play?”, “Price Formation and Market Design” and “Regulators’ Perspective”.

In the panel discussion titled "What is required to ramp up markets for (green) hydrogen? What role can energy exchanges play?", experts from industry, academia, and government discussed the challenges and opportunities for developing and growing markets for green hydrogen. The panelists also discussed the role that energy exchanges can play in facilitating this process.

The key takeaways from the discussion were:

- Reducing the cost of green hydrogen production and transportation is essential for making it competitive with other energy sources. This can be achieved through technological innovation, economies of scale, and government support.
- Developing a robust and transparent hydrogen market is also essential. This includes establishing clear standards and quality criteria for green hydrogen, as well as developing risk management tools and hedging mechanisms.
- Energy exchanges can play a key role in facilitating the development of a hydrogen market by providing a platform for trading hydrogen contracts. This can help to increase liquidity and price transparency and reduce the cost of capital for hydrogen projects.

Overall, the panel discussion provided a valuable overview of the challenges and opportunities for developing and growing markets for green hydrogen. The panelists highlighted the importance of reducing the cost of production and transportation, developing a robust and transparent market, and the role that energy exchanges can play in facilitating this process.

In the panel discussion titled "Price Formation and Market Design", experts from industry, academia, and government discussed the latest trends and developments in energy market design, as well as the challenges and opportunities for price formation in a changing energy landscape.

The key takeaways from the discussion were:

- Market design is a critical factor in determining the efficiency and competitiveness of energy markets.
- Price formation mechanisms should be designed to reflect the true costs of energy supply and demand, and to provide incentives for investment and innovation.
- The changing energy landscape, characterized by the increasing deployment of renewable energy and distributed energy resources, is posing new challenges for market design and price formation.

The panelists discussed a number of specific challenges and opportunities for market design and price formation in the context of the energy transition. These included:

- How to integrate renewable energy sources into the electricity grid in a cost-effective and reliable manner.
- How to design markets and price formation mechanisms to support the development and adoption of new technologies, such as energy storage and demand response.
- How to ensure that energy markets remain fair and equitable for all participants, including consumers and businesses.



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Overall, the panel discussion provided a valuable overview of the latest trends and developments in energy market design and price formation. The panelists highlighted the importance of market design in promoting efficiency, competitiveness, and innovation in energy markets. They also discussed the challenges and opportunities for market design and price formation in the context of the energy transition.



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Finally in the last panel discussion, it was discussed that Regulators have a critical role to play in enabling the energy transition. They can do this by:

- Setting clear and ambitious targets for renewable energy deployment and greenhouse gas emissions reductions.
- Designing and implementing market-based policies that support the development of new technologies and business models.
- Ensuring that energy markets are fair and equitable for all participants.
- Promoting innovation and investment in the energy sector.

Regulators also need to be flexible and adaptable in their approach, as the energy landscape is changing rapidly. They need to be willing to experiment with new policies and regulations, and to learn from their experiences.

The conference was concluded with the Annual General Meeting (AGM) and closing remarks of Mr. Stu Bresler, Chairman APEx BoD. He explicitly talked about the Electricity Markets Training Program (EMTP) which is being delivered by CPPA-G and appreciated the efforts of Head Market Operations and Development, Mr. Omer Haroon Malik and his team.

In the Bright Sparks program, multiple scholarship winners had an opportunity to present at the conference about their experiences and roles. This unique program allowed the candidates to also visit the EXIST National Dispatch Center and experience the cultural of Turkey.







To have your member company featured “In the  
Spotlight,” please send an email to:  
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