GIF ADVISORY COUNCIL MEETING

Financing the Energy Transition through Private Sector Participation:

Innovations & Opportunities | May 25, 2022

EVENT SUMMARY

On May 25, 2022, the Global Infrastructure Facility (GIF) virtually held its 13th Advisory Council (AC) Meeting, "Financing the Energy Transition through Private Sector Participation: Innovations & Opportunities," with strong global participation, including private sector financiers and investors from the GIF's Advisory Partner network, representatives of multilateral development banks (MDBs), donor governments, and other observers. **Please find a high-level summary of the event below.**

Introductory Remarks on the Global Infrastructure Outlook Speakers

- Mari Pangestu, GIF Advisory Council Co-Chair; Managing Director of Development Policy and Partnerships, World Bank
- **Dan Zelikow,** GIF Advisory Council Co-Chair; Vice Chair, Public Sector; Global Co-Head of Infrastructure Finance and Advisory and Chair of the Governing Board of J.P. Morgan's Development Finance Institution

In her opening speech, **Mari Pangestu**, highlighted that energy priorities have shifted in line with the climate-related challenges being faced across global markets. She mentioned that while billions of people in emerging markets and developing economies (EMDEs) lack access to modern energy sources, there is still an opportunity to transition to a new energy ecosystem. She emphasized that facilities like the GIF play a significant role in connecting the energy transition agenda with private capital mobilization by promoting pipelines of bankable and sustainable infrastructure projects.

Daniel Zelikow affirmed J.P. Morgan's support to the GIF's work and highlighted that the real bottleneck in infrastructure investment is a lack of investment ready <u>projects</u>, and that "a shortage of capital" is a misdiagnosis of the problem. Zelikow noted that the GIF has proven its effectiveness in this area and should launch and fund country platforms that support pipelines of investible projects in partnership with other organizations. Zelikow reminded participants of <u>his call</u> for a more active Advisory Council to ensure stakeholder engagement and brainstorming, which can better support the GIF as it grows and takes on a more central and prominent role in the ecosystem.

GIF Progress Update

Jason Lu presented introductory remarks and the GIF progress update, highlighting the current portfolio, pipeline, and flagship partnerships. **Imad Fakhoury,** GIF Governing Council Co-Chair and Global Director, Infrastructure Finance, PPPs, & Guarantees Global Practice, Infrastructure Practice Group, World Bank, concluded the meeting by thanking the Advisory Council co-chairs, speakers, and participants for joining.

Keynote: Global Energy Outlook & Its Impact on the Energy Transition Speaker

 Ani Balabanyan, Practice Manager, Energy & Extractives Global Knowledge & Expertise Unit, Infrastructure Vice Presidency, World Bank

In her keynote, Ani Balabanyan, discussed the energy transition from the perspective of EMDEs, and how the World Bank sees it in light of recent upheavals.

She emphasized that **sustainability gaps need to be addressed** in the energy sector. This will require a **massive sector transformation** to reach key targets and alleviate critical challenges, including: bridging the investment gap (a **seven-fold increase in funding is needed to reach US\$1 trillion/year by 2030)** in developing countries, increasing installed capacity (17,000 GW is needed by 2040 over the 1,400 GW installed currently), expanding grid capacity two-fold, doubling the grid network **with more resilient, flexible, and distributed networks**, and retiring unabated coal power generation by 2040 through just energy transition policies and mechanisms.

Adding to this, **recent geopolitical instability and uncertainty has made energy security a top priority**. The invasion of Ukraine has triggered supply disruptions that have led to rising and **volatile energy prices**. Furthermore, European natural gas prices are expected to double in 2022 from 2021 levels, and **shifts in trading patterns** are causing shipment delays and product shortages. Finally, **widespread** government subsidies and other **efforts** to protect consumers have been implemented by at least 57 countries to offset rising energy prices, measures **that conversely pose sizeable fiscal risk to their wider economies.**

In the short-term, it is likely that the energy sector transformation will slow down due to the impacts of the current crises and its interrelated effects on the other sectors, including food security. As a result, a **three-pronged approach is needed to achieve Sustainable Development Goal (SDG)**7 (access to reliable, clean energy) and a just energy transition, including: political will and international cooperation, the alignment of policy and regulatory environments and institutions with development and climate goals, and addressing the large financing gap in EMDEs.

Session 1 | Enabling the Private Sector Role in the Energy Transition

Moderator

Daniel Zelikow, GIF Advisory Council Co-Chair; Vice Chair, Public Sector; Global Co-Head
of Infrastructure Finance and Advisory and Chair of the Governing Board of J.P. Morgan's
Development Finance Institution

Speakers

- Mamiko Yokoi-Arai, Deputy Head of Financial Markets Division, Head of Infrastructure and Alternative Financing, OECD
- Nuru Lama, Chief Investment Officer, Global Energy, IFC
- Fernando Cubillos, Lead Energy Specialist, IDB Invest
- Andrew Johnstone, Director and CEO, Climate Fund Managers

Key Takeaways

- Over US\$1 trillion is needed by 2030 to put the world on track to reach net-zero carbon
 emissions by 2050. As the need exceeds the capacity of the public financing, private actors
 are called on to play a key role in the financing of the energy transition. Hence, concessional
 finance provided by the public sector, and in particular via blended finance mechanisms, is
 critical to unlocking the necessary funds.
- Blended finance—as a vehicle that can de-risk infrastructure projects and crowd-in needed private investment—can help meet the energy transition's remaining challenges in EMDEs, such as the lack of private sector experience in renewables, the off-taker and other sectorial

- risks in distressed public utilities that discourage investors, the weakness of the grid networks, and the higher costs and regulatory uncertainties of new technologies.
- There is a big challenge to phasing out coal at a global scale. Existing and high-emitting technologies are stranded assets—in the case of EMDEs, they are usually recently built and have great financial performance, high economic value, and long-term contracts. The focus of blended finance, however, is on developing renewable energy, and generally does not have a transitionary angle.

The panel covered the three themes that remain critical to boosting the impact of blended finance: increasing the pool of bankable projects, attracting the private sector through more volume and flexibility, and strong institutional frameworks to support concessional finance flows.

Mamiko Yokoi-Arai explained that the support of donors and development agencies is critical to address the notable need for concessional finance, risk mitigation tools and guarantees. Therefore, by ensuring that investors do not experience an undesired risk-return equation, additional private financing may be crowded in, especially in Sub-Saharan Africa.

Nuru Lama highlighted the Uzbekistan Scaling Solar initiative, the first competitive IPP in the country, where IFC provided advisory and financing support to a 100 MW project that was awarded to a prestigious international energy firm. The project was a demonstration of successfully unlocking a market and bringing interest both from the government and the private sector by using blended finance. Today, Uzbekistan has seized the hugely catalytic role of this first-of-its-kind project in the country, that counted on blended finance and a World Bank credit enhancement mechanism to backstop the off-taker payment obligations, and there is around 7,000 MW of solar and wind projects under development attracting international investors. Clean, affordable energy is being added to the national grid and old and inefficient carbon emitting fossil-fuel plants are being displaced, driving the energy transition in that country.

Fernando Cubillos explained how IDB Invest is testing an instrument to incentivize the early retirement of the coal-fired power plants in Chile by monetizing carbon reductions, which occurs when a two-step process is followed: i) decommissioning the older plant ahead of the date agreed to with the government, and ii) constructing an effective and clean replacement with equivalent generation capacity. Without the second element of the approach, a rebound effect would most likely occur when other coal-fired power plants dispatch the difference. Blended finance is being used for this innovative design as there is no structured or regulated market. The blended tranche is structured as a bullet loan, and the carbon reduction monetization is embedded in the blended finance so that when the company demonstrates the CO2 reductions, the interest is reduced to the minimum possible on the blended tranche, as a way to convert the price of CO2 in interest rate reduction.

Andrew Johnstone Noted that, while blended finance attracts private sector capital without fully pricing the asset, it is not exclusively risk-absorbing money. From his experience managing blended finance vehicles, he learned that an efficient approach is to separate risks in terms of the project's lifecycle, thus, Climate Fund Managers have come up with a structure where they match donor and DFI capital in the early stages of projects (development and building) and institutional investors capital in the later stages (operation). Furthermore, they deal with the problem of unknown risk for new technologies and unproven markets by providing a first loss tranche of 10 to20 percent, which spreads out the repayment profile, extending the tenor of correctly priced money, and makes it more affordable.

Session Two | The Green Hydrogen Investment Opportunity

Moderator

Michael Kane, Senior Infrastructure Finance Specialist, GIF

Speakers

- Michael Masterman, Chief Financial Officer, Fortescue Future Industries
- Karim Badr, Chief Executive Officer, Infrastructure Sub-fund, The Sovereign Fund of Egypt
- Pablo Wallach, VP of Innovation & Marketing, Enaex
- Stephanie Gil, Practice Manager, Energy and Extractives Global Practice, World Bank

Key Takeaways

- Innovation and creativity will be important factors for getting to net-zero, and green hydrogen will be a key part of reaching that goal. For example, recent industry trends have included using new technologies to remove carbon fuels and replacing them with green elements such as hydrogen and ammonia.
- Supporting sponsors/commercial banks as a co-investor provides access to additional capital such as donor funding, concessional financing, and grants. The focus should be on mobilizing donor funding to build an ecosystem with pilots and projects that allow the industry to take off. Evaluating industry risks, mitigation mechanisms, equipment performance, and concessional financing roadblocks should be a priority for continuing to develop that ecosystem.
- There is an evolution in the pricing framework of green hydrogen and how it would look in the future. With the establishment of a formal definition of what green hydrogen is in May 2022, such guidance provides more certainty to the market and will rapidly underpin the pricing structures—a critical input on financing.

The panel presented examples of successful green hydrogen deals, as well as ongoing opportunities and the lessons learned on possible transaction structures. They also presented their views on the potential of green hydrogen and its relevance in different national energy contexts.

Michael Masterman reflected on the global commitment to produce zero-carbon green hydrogen from 100 percent renewable sources by 2030. He also commented on how his firm is developing technology solutions for hard-to-decarbonize industries, while building a global portfolio of renewable green hydrogen and green ammonia projects to produce 15 million tons of green hydrogen per year by 2030. The firm is actively working on such projects around the world, with 40 percent of its portfolio in developing countries.

Karim Badr highlighted that they are leading different initiatives in the power, renewable, water, transport, logistics, and digital infrastructure sectors. The SFE has actively participated in the development of green hydrogen by working as a catalyst and coordinator to bring together upstream and downstream activities, and as a co-Investor, confirming Egypt's position as a green energy export hub. For example, SFE is co-developing the first phase (20 MW) of a project for building 100 MW of electrolyzers. The project has secured funds and the first phase will be completed by end of this year while it's expected to be fully operational by 2025. Additionally, Egypt, with SFE's support, has been working on ways to position green hydrogen as a priority to position itself as a key player in exporting it to Europe. Other countries in the region such as Morocco, Oman and Saudi Arabia are also taking concrete steps towards the exportation of green hydrogen. For the SFE, bankability is still a big issue. However, many stakeholders are working together to provide certainty to the market, for instance, by connecting the supply chain, localizing

as many industries as possible that will serve the green hydrogen development. Lastly, the fund interacts constantly with different suppliers and invites them to work in Egypt to support the development of the industry.

Pablo Wallach explained that Enaex Group is a global player in delivering services for the mining industry and shares the goal to develop green ammonia projects. The firm is looking for ways to replace imports of gray ammonia by locally producing green ammonia that comes from renewables. He shared that the demand is already in place, and Chile has all the prerequisites for development, such as permits and the capacity for creating a new industry in the country.

Stephanie Gil discussed how the Bank has supported the energy transition by attracting private capital with innovative financing solutions. For example, tin Latin America and the Caribbean (LAC), a region the World Bank Group lends US\$10 billion annually to, many of the countries are well-positioned to contribute to the global need for green hydrogen development. The LAC region currently has one of the cleanest energy mix globally, due to an abundance of green resources such as hydropower, wind/offshore wind, solar, competitive pricing, and government capacity. This means that cutting-edge technology, such as green hydrogen, could soon be a key component of the energy transition in LAC for two reasons: there is a substantial established infrastructure, such as ports and among oil and gas producers, and a track record of private sector participation, robust regulatory frameworks and relatively strong governance that could benefit the industry.

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