



**PRELIMINARY BRIEFING NOTE**

**CLIMATE-SMART MINING FACILITY LAUNCHING CONFERENCE**

**Minerals for Climate Action**

Preston Auditorium; Wednesday, 1 May 2019; 09:00 AM – 05:30 PM

**EVENT BRIEF**

Thank you for agreeing to participate in a panel discussion at the launching conference “**Minerals for Climate Action,**” hosted and organized by the World Bank’s Energy & Extractives Global Practice in Washington, DC. Please arrive at 08:00AM. A World Bank staff member will welcome you at the Visitor’s entrance and take you to the Green Room.

The Climate-Smart Mining Facility is the first-ever Facility dedicated to making mining climate-smart and sustainable, bringing together governments, industry, financial institutions and private investors. Should you wish to have a briefing call with the Climate-Smart Mining team, or to learn more about CSMF, please contact us on [esm@worldbank.org](mailto:esm@worldbank.org).

You are scheduled to participate in a panel titled ‘**Leveraging Innovation to Create Market Opportunities for Critical Minerals**’ from **11:30 AM – 12:45 PM** on **Wednesday, May 1, 2019**.

<b>Session:</b>	Leveraging Innovation to Create Market Opportunities for Critical Minerals
<b>Time:</b>	11:30 AM – 12:45 PM
<b>Date:</b>	Wednesday, May 1, 2019
<b>Location:</b>	Preston Auditorium, <a href="#">1818 H St NW, Washington, DC 20433</a> (World Bank MC)
<b>Key questions which the moderator will ask:</b>	<ul style="list-style-type: none"> <li>• How do we de-risk investments to ensure that resource-rich developing countries are benefiting from the growing demand for critical minerals?</li> <li>• What role can innovation and new partnerships play?</li> <li>• How can the public and private sectors work together to maximize the impacts for sustainable development?</li> <li>• How do we track improvements over time?</li> <li>• How do we share best practices?</li> </ul> <p><b>Please provide to us 3-4 bullet points with your response to the above questions, by April 26, 2019. Gillian Tett will then use your responses to formulate further questions and outline the overarching conversation.</b></p>
<b>Moderator:</b>	<b>Gillian Tett</b> , America Editor-at-Large, <i>Financial Times</i>
<b>Speakers:</b>	<ul style="list-style-type: none"> <li>• <b>Donald S. Bubar</b>, President &amp; CEO, Avalon Advanced Materials</li> <li>• <b>Elaine Dorward-King</b>, EVP, Sustainability &amp; External Relations, Newmont</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Rob Lydan</b>, CEO &amp; Managing Director, Phoventus</li> <li>• <b>Victoria Paz</b>, Director of Strategy &amp; Sustainability, CORFO</li> <li>• <b>Douglas A. Pierson</b>, Managing Director, Global Co-Head of Metals &amp; Mining Investment Banking and Capital Markets, Credit Suisse</li> </ul>
<b>Audience:</b>	<p>The event is expected to draw an audience of CEOs, NGOs, government, academia and private and public-sector representatives. A wide range of industries and governments stakeholders will be represented, including: automotive, battery manufacturers, financial institutions, government donors, energy companies, mining industry and World Bank clients.</p>
<b>Format and Objectives:</b>	<p>The session will be interactive debate and discussion between leading experts on what climate-smart mining should look like and how a range of actors can make mining as sustainable as possible.</p> <p>Objectives of the session include:</p> <ul style="list-style-type: none"> <li>• Discussing how to leverage innovation to reduce the carbon and material footprints of increased extractive and processing activity to supply the clean energy transition</li> <li>• Exploring the role of innovation to secure supply for strategic minerals as well as create new market opportunities for <i>mineral-rich developing countries</i>. Innovation may refer to: <ul style="list-style-type: none"> <li>○ Developing new technology in the mining sector to reduce environmental impacts;</li> <li>○ New partnerships between upstream and downstream companies to mobilize private capital for development;</li> </ul> </li> <li>• Determining how the public and private sectors can work together to drive innovation throughout the mineral supply chain of low-carbon technologies to maximize the impacts for development.</li> </ul>

## ANNEX – Background information

### Biographies

#### Moderator



**Gillian Tett, America Editor-at-Large and US Managing Editor**

Gillian Tett serves as US managing editor. She writes weekly columns for the Financial Times, covering a range of economic, financial, political and social issues. In 2014, she was named Columnist of the Year in the British Press Awards and was the first recipient of the Royal Anthropological Institute Marsh Award. In June 2009 her book Fool's Gold won Financial Book of the Year at the inaugural Spear's Book Awards.

Previously, Ms. Tett was US managing editor (2010-2012), assistant editor, capital markets editor, deputy editor of the Lex column, Tokyo bureau chief, and a reporter in Russia and Brussels.

#### Speakers



**Donald S. Bubar, President & CEO, Avalon Advanced Materials**

Don Bubar is a geologist with 40 years of experience in mineral exploration and development in Canada. Mr. Bubar is a graduate of McGill University (B.Sc., 1977) and Queen's University (M.Sc., 1981). From 1984 to 1994, he worked for Aur Resources Inc. as Exploration Manager and later VP, Exploration. Mr. Bubar has been President and CEO of Avalon Advanced Materials Inc. since 1995.

Mr. Bubar served as a Director of the Prospectors and Developers Association of Canada (PDAC) for nine years and Chair of its Aboriginal Affairs Committee from its creation in December, 2004 until retiring from the PDAC Board in March, 2013.



**Elaine Dorward-King, Executive Vice President, Sustainability & External Relations, Newmont**

Dr. Elaine Dorward-King was elected Executive Vice President, Sustainability and External Relations in March 2013. Prior to joining Newmont, Dr. Dorward-King served as Managing Director of Richards Bay Minerals in South Africa from December 2010 through February 2013. Dr. Dorward-King previously served as the Global Head of Health, Safety and Environment at Rio Tinto from 2002 through 2010 and also held leadership positions with Rio Tinto's copper and borates businesses.

Dr. Dorward-King brings 25 years of leadership experience in creating and implementing sustainable development, safety, health and environmental strategy. She holds a Bachelor of Science from Maryville College and a Ph.D. in Analytical Chemistry from Colorado State University.



**Rob Lydan**, CEO & Managing Director, Phoventus

Rob Lydan is the CEO of Phoventus, a global consulting and engineering firm with offices in Toronto and New York, Rob is the former Global Director of the Renewable Energy business practice of Hatch Associates. During his career, Rob spent more than 25 years building and leading diverse engineering teams. Rob is the recipient of multiple awards, patents and nominations for recognized innovation and engineering design. In addition, Rob is a graduate of mechanical engineering technology from George Brown.

Rob is a published author of a variety of thought leadership articles related to the implementation of renewable power systems in remote communities and the mining sector.



**Victoria Paz**, Director of Strategy & Sustainability, Production Development Corporation (CORFO)

Victoria Paz serves as Head of Strategy and Sustainability at CORFO, the Chilean development agency, where she is leading added-value initiatives for the country's natural resources sector as well as circular economy efforts in the country. She is an economist with a strong public policy background, including previous experience in international non-profits, such as "Techo", international organizations like the Inter-American Development Bank, as well as other strategic areas and mining.



**Douglas A. Pierson**, Managing Director, Global Co-Head of Metals & Mining Investment Banking and Capital Markets, Credit Suisse

Douglas Pierson is a Managing Director of Credit Suisse in the Investment Banking division and Global Co-Head of Metals & Mining, based in New York City. During his 14-year career at Credit Suisse, Doug has advised on a wide array of M&A transactions and equity/debt-related financings in the metals & mining sector. Prior to joining Credit Suisse, Doug was a corporate attorney for nearly five years at the New York-based law firm of Cravath,

Swaine & Moore where he similarly advised clients on M&A transactions and equity/debt-related financings. Doug holds a J.D. from Harvard Law School (cum laude) and a B.S. in Psychology from Duke University (summa cum laude).

## Messages

- The World Bank’s Climate-Smart Mining Facility is the first-ever Facility dedicated to making mining climate-smart and sustainable, bringing together governments, industry, financial institutions and private investors.
- Climate-Smart Mining supports the sustainable extraction and processing of minerals and metals in developing countries and emerging economies, while minimizing social, environmental, and climate footprints.
- The Facility will scale up technical assistance and investments in resource-rich countries and implement sustainable and responsible resource development strategies. This builds on the World Bank’s ongoing work to help resource-rich countries manage their natural resource wealth in a way that protects both people and the planet.
- The Facility will mobilize private capital to drive sustainable growth and innovation – assisting governments to build a robust policy, regulatory and legal framework that promotes climate-smart mining and creates an enabling environment for private capital. The Facility aims to ensure developing countries benefit from increasing demand for strategic minerals that are needed for the clean-energy future.
- Without Climate-Smart Mining practices, the negative impacts from mining activities on water, forest and land will increase, while affecting vulnerable communities and environments.
- The full life cycle of renewable energy technologies must be managed carefully to ensure a sustainable future and to combat the effects of climate change (SDG 13). The carbon footprint of mineral extraction and processing needs to be addressed: for example, through the following:
  - Supporting the integration of renewable energy into mining operations, given that the mining sector accounts for up to 11 percent of global energy use and that mining operations in remote areas often rely on diesel generators
  - Supporting the strategic use of geological data for a better understanding of “strategic mineral” endowments
  - Forest-smart mining: preventing deforestation and supporting sustainable land-use practices; repurposing mine sites
  - Recycling of minerals: supporting developing countries to reuse minerals in a way that respects the environment
- The Climate-Smart Mining approach has been developed in concert with the broader UN Sustainable Development Goals to ensure that the poorest and most vulnerable benefit from the transition to low-carbon technologies.

Key findings of ‘The Growing Role of Minerals and Metals for a Low-Carbon Future’

***Clean energy technologies such as wind, solar and batteries are MORE material intensive than current traditional fossil-fuel-based energy systems.***

- The study focuses on wind, solar, and energy storage batteries as they are commonly recognized as key elements in delivering future energy needs at zero- to low-GHG emission levels.
- The shift to low carbon energy will produce global opportunities with respect to the demand for a wide variety minerals, such as aluminum (including its key constituent, bauxite), cobalt, copper, iron ore, lead, lithium, nickel, manganese, rare earth metals including cadmium, molybdenum, neodymium, and indium—silver, steel, titanium and zinc.
- The research showed that significant gaps exist in current and robust geological data on strategic mineral/metal resources in many developing country regions, particularly Africa. The rate of uptake in relevant metals will be determined by stringent GHG mitigation actions globally, as well as intra-technology choices. Intra-technology choices determine the type of minerals and metals that will be used in clean energy technologies (e.g. what kind of energy batteries will be developed and what composition of minerals will they require)
- Increased extraction and processing activities could have adverse and significant impacts on local water systems, ecosystems and communities; this means that countries should have long-term strategies in place to help them make smart investment decisions.
- The press release on the report can be found [here](#).

*Other resources:*

- [The Renewable Power of the Mine](#), Columbia Center on Sustainable Investment, Columbia University (2018)
- [Resourcing Green Technologies through Smart Mineral Enterprise Development](#), Columbia Center on Sustainable Investment, Columbia University
- [Green Conflict Minerals](#), International Institute for Sustainable Development (IISD), Aug. 2018

## Q&A

### **1. What is Climate-Smart Mining?**

Climate-Smart Mining is the first-ever dedicated Facility that brings together governments, industry, financial institutions and private investors to support climate-smart mining. It is a new World Bank program helping resource-rich developing countries benefit from the increasing demand for minerals and metals that are critical to the low-carbon transition, while helping to minimize the environmental and climate footprint. The Facility will scale up research, technical assistance and investments in resource-rich developing countries and emerging economies.

### **2. What are strategic minerals and metals?**

They are minerals and metals which are essential for building renewable, low-carbon technologies such as wind, solar and batteries for electric vehicles. These include aluminum (including its key constituent, bauxite), cobalt, copper, iron ore, lead, lithium, nickel, manganese, rare earth metals including cadmium, molybdenum, neodymium, and indium—silver, steel, titanium and zinc.

### **3. Why is this important?**

Without Climate-Smart Mining practices, the clean-energy value chain will not be truly 'clean'. Significant challenges will emerge and the negative impacts from mining to build clean-energy technologies will increase, affecting vulnerable communities and environments and potentially endangering progress on climate change. The World Bank is committed to managing all resources responsibly and maximizing the life cycle of the resources we use. We are working with developing countries to ensure that the clean-energy value chain is low-carbon and sustainable, and metals and minerals are extracted in an environmentally-sensitive manner.

### **4. How much do you plan to raise?**

The World Bank is targeting a total investment of \$50 million because we believe this will position us strongly to help both private sector actors and governments conduct mining for low-carbon minerals in a sustainable manner. We believe that Climate-Smart Mining is urgently required to ensure that low-carbon technologies' value chains are as green as possible. We welcome additional investments.

The Facility will decarbonize and reduce the material footprint of these strategic minerals through two windows – an innovation hub that will bring cross-cutting research to enable our client countries and the private sector to adopt sustainable mining practices, and another window that will mobilize the financing that is critically needed in our client countries to operationalize 'Climate-Smart Mining' practices to green the entire value chain of clean energy technologies. The Facility will make sure that funding is allocated to both windows to bring support both the knowledge and technical support to help our client countries get there.

### **5. What is the timeframe for the Facility?**

The funding period is initially for a 5-year timeframe, but we hope to expand that, given we will move further towards a low-carbon future that is highly mineral intensive.

### **6. How will the money coming into the Facility be spent?**



We will work with developing countries – as our clients – to implement Climate-Smart Mining in a way that is best for their country context and unique needs. The Facility will focus on activities around four core themes (1) Climate Mitigation; (2) Climate Adaptation; (3) Reducing Material Impacts; and (4) Creating Market Opportunities – all contributing to the decarbonization and reduction of material impacts along the supply chain of critical minerals needed for clean energy technologies. Activities could include for example: supporting the integration of renewable energy into mining operations, forest-smart mining (supporting sustainable land-use practices in affected areas), supporting the strategic use of geological data, and the recycling of minerals.

The Facility will finance the research and support the innovation to help developing countries promote and facilitate Climate-Smart Mining practices. The Facility will also leverage private capital to enable developing countries to benefit from the clean energy transition by sustainably and responsibly developing their strategic minerals.

## Logistics

### Accommodation

The CSM has a limited number of rooms reserved at the State Plaza Hotel at a special reduced rate of US\$230 per night, available starting on April 31 – June 2, 2019. Please note the hotel is within a 10-15-minute walk to the World Bank building.

Booking your hotel room is easy and can be done directly through the following [World Bank Climate Smart Hotel Booking Web Link](#).

#### STATE PLAZA HOTEL

2117 E St., NW  
Washington, DC 20037  
T: +1 (202) 861-8200

Hotels have also been reserved at the Hyatt Place. To reserve a room there, please contact the hotel directly and mention you are coming for an event of the World Bank Group.

#### HYATT PLACE WASHINGTON DC/WHITE HOUSE

1522 K STREET NW, WASHINGTON D.C. 20005, USA  
T +1 202 830 1910

### Transportation

You will need to make your own arrangements for getting to/from the hotel. You can take one of the following methods listed below to reach your hotel.

**Metro & Buses** the nearest metro station on the Orange/Blue/Silver Line is Farragut West (about 5 minutes on foot). The nearest metro station on the Red Line is Farragut North (about 10 minutes on foot). The nearest station on the Yellow Line is Gallery Place (about 20 minutes on foot). For more information on trips and schedules visit Washington Metropolitan Area Transit Authority.

**Trains**, most buses and trains arrive at Union Station, located on the Red Line. Visit the Union Station website to find out more information.



**Reagan National Airport [DCA]** is located just across the Potomac River in Virginia and is the closest airport to DC. It is accessible via its own Metro stop on the Blue and Yellow Lines. A taxi or Uber ride into downtown DC will cost about \$15-\$20. *Visit the Reagan Airport transportation and parking page for more information.*

**Dulles Airport [IAD]** is located 26 miles from DC in suburban Virginia. It has a dedicated access road that makes getting into the city efficient via car, taxi or airport shuttle. Taxi stands are located outside the main terminal at Door 2 and Door 6. A ride into DC will cost about \$60-\$68. *Visit the Dulles Airport transportation and parking page for more information.*

**BWI Airport [BWI]** is located about 35 miles from DC in Baltimore, Maryland. BWI Airport is accessible via an Amtrak train route that drops off at DC's Union Station. Taxis may cost up to \$90 with a surcharge for rush hour or a piece of luggage. Shuttle buses are also available. Uber or Lift are now allowed to pick passengers up at BWI Airport. *Visit the BWI Airport ground transportation page for more information.*

### **Conference Venue**

The Climate Smart Mining Facility launch will take place at the Preston Auditorium at the **World Bank Headquarters**, located at 1818 H St., NW, in Washington, DC.

### **Registration & Access to the World Bank Headquarters**

Registration will take place at the Registration Hall at the World Bank Headquarters, located at 1818 H St., NW. Upon your arrival, you will pass through security, register and obtain your day-pass/badge and information package. Please bring a government issued ID to pick up your badge. ***Registration will open @ 07:30AM on May 1st.*** We recommend allowing yourself enough time for registration.

**Please note that you will be able to pre-register the day before the event on Tuesday, April 30th, between 2-5pm at the Visitor's Entry of the World Bank (MC – East; see the map on the last page).**

### **Internet Access**

**Wi-Fi** (Wireless Internet access) will be available throughout the event to all conference attendees. Secure password information will be posted on site the day of the event.

### **EVENT ATTIRE**

Business or national attire is recommended.

### **CONTACT INFORMATION**

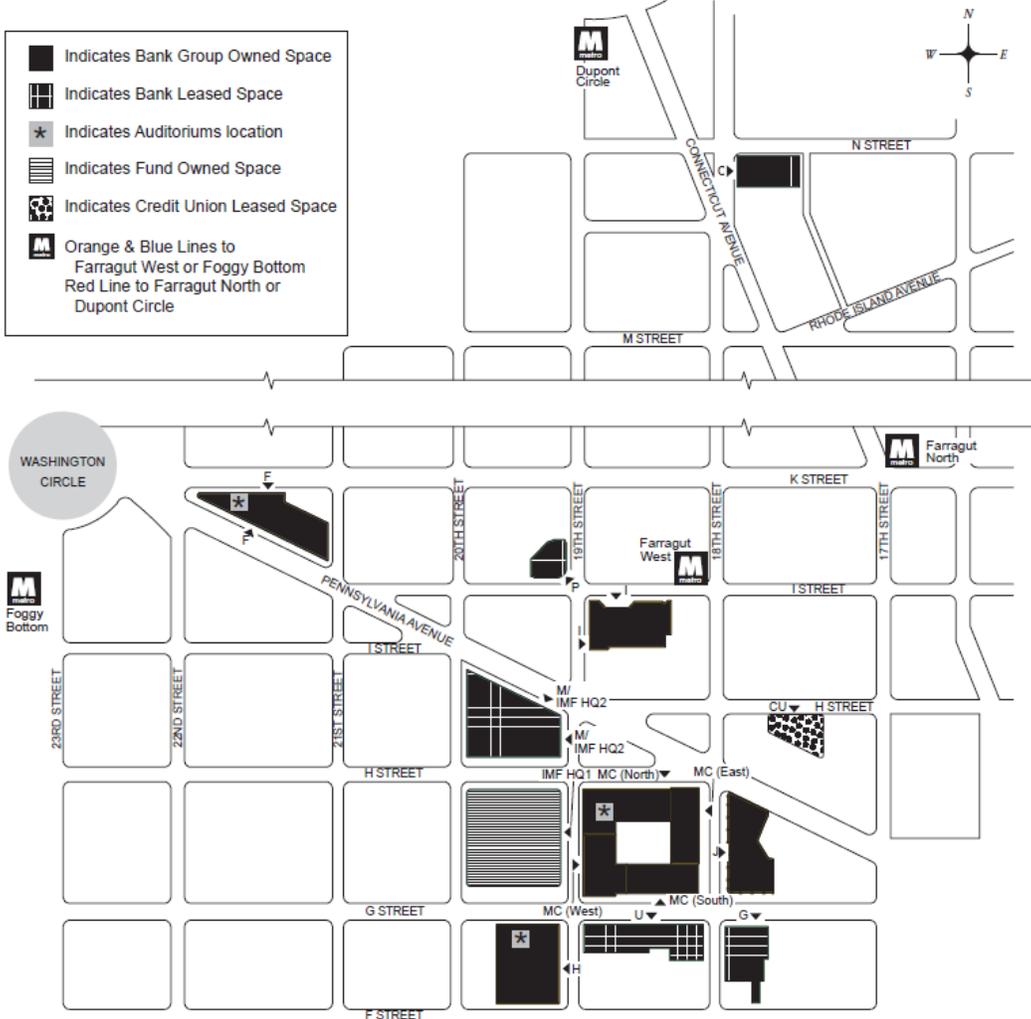
If you have any questions regarding logistics and/or details about the event, please send an email to: [csm@worldbank.org](mailto:csm@worldbank.org).

Contacting the Climate-Smart Mining team

Please find the contact details of the CSM team below on May 1<sup>st</sup>.

<p><b>Kirsten Hund</b>, Senior Mining Specialist</p> 	<p>Email: <a href="mailto:khund@worldbank.org">khund@worldbank.org</a></p> <p>Phone: +1-202-458-0904</p>
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## WORLD BANK GROUP BUILDINGS AND AUDITORIUMS



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