



# Pilot Auction Facility for Methane and Climate Change Mitigation



**PILOT  
AUCTION  
FACILITY**

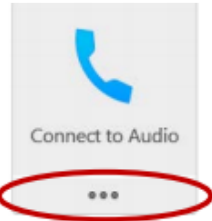
**Fourth Auction Briefing  
Webinar – December 10, 2019**

**Stephanie Rogers · Tanguy de Bienassis · Benjamin Chee**



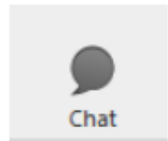
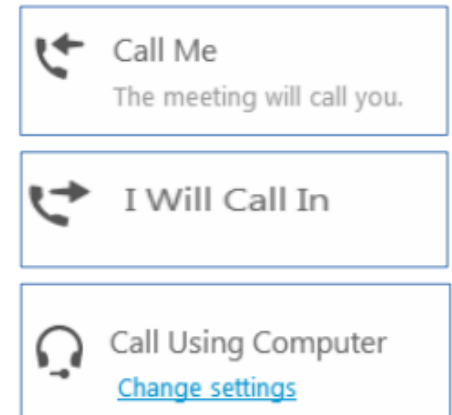
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# Disclaimer

THE FOLLOWING IS A SUMMARY OF THE WORLD BANK'S PROPOSED PLAN TO ISSUE PILOT AUCTION FACILITY EMISSION REDUCTIONS NOTES ("PAFERNS"). IT IS NOT AN OFFER TO SELL PAFERNS OR AN INVITATION TO OFFER TO BUY PAFERNS. THIS SUMMARY IS SEPARATE FROM, AND SHOULD NOT BE READ IN COMBINATION WITH, ANY FUTURE OFFER OR SALE OF PAFERNS, WHICH WILL BE MADE IN COMPLIANCE WITH APPLICABLE LAWS AND UNDER ENTIRELY SEPARATE LEGAL DOCUMENTATION AND OFFERING MATERIALS. THIS SUMMARY IS VERY HIGH LEVEL FOR SIMPLICITY AND LEAVES OUT MATERIAL INFORMATION AND THE LEGAL DOCUMENTATION THAT IS EXPECTED TO GOVERN THE PAFERNS. FURTHER, IT IS CURRENT ONLY AS OF THE DATE OF POSTING TO THIS WEBSITE AND IS LIKELY TO BECOME OUTDATED AS THE PAFERNS LEGAL DOCUMENTATION IS DEVELOPED. THE STRUCTURE, TIMING AND MECHANICS OF THE ACTUAL PAFERNS, IF AND WHEN THEY ARE ISSUED, ARE SUBJECT TO CHANGE. POTENTIAL INVESTORS MUST OBTAIN A COPY OF THE COMPLETE LEGAL DOCUMENTATION PURSUANT TO WHICH THE PAFERNS WILL BE ISSUED, INCLUDING THE WORLD BANK'S MAY 2008 PROSPECTUS RELATING TO ITS GLOBAL DEBT ISSUANCE FACILITY AND THE FINAL TERMS FOR ANY ISSUANCE OF PAFERNS. POTENTIAL INVESTORS SHOULD NOT RELY ON THIS SUMMARY. BEFORE MAKING ANY INVESTMENT DECISION, POTENTIAL INVESTORS MUST REVIEW THE COMPLETE LEGAL DOCUMENTATION (ONCE AVAILABLE).

# Overview of the Pilot Auction Facility

# Pilot Auction Facility

## Challenge:

- Carbon credit prices collapsed, stranding methane abatement projects

## Opportunity:

### Methane Finance Study Group:

- 1,200 new methane mitigation projects were initiated, but not implemented, under carbon offset standards in developing countries, representing at least 850 Mt of CO<sub>2</sub>e in emission reductions over the period 2013 – 2020
- Abatement possible at < \$10/tCO<sub>2</sub>e

## Goal:

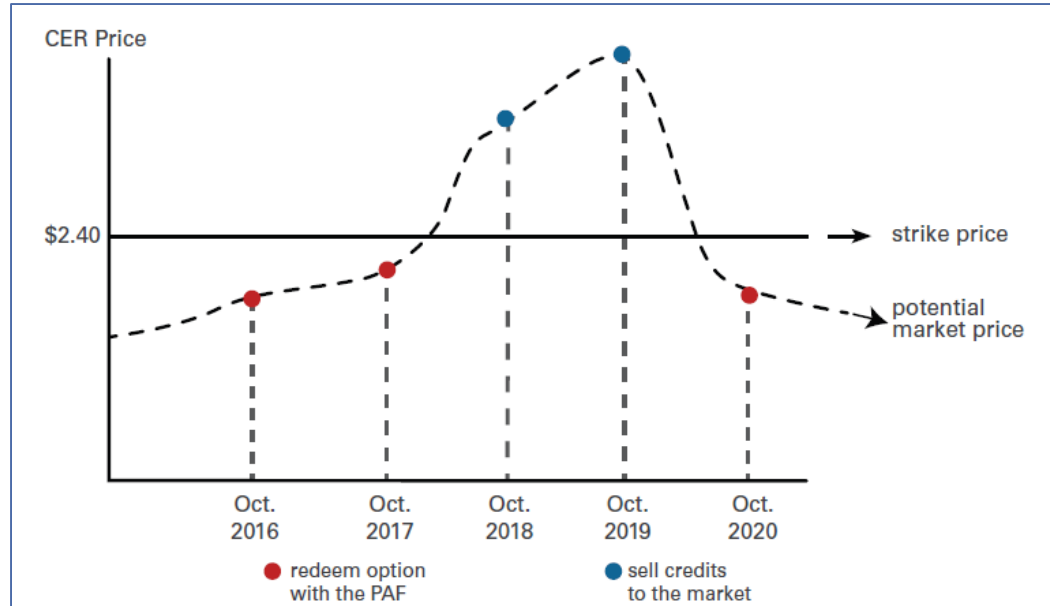
- Incentivize cost-effective private sector action to achieve methane abatement through a result-based finance mechanism

## PAF formation:

- Germany, Sweden, Switzerland, and the United States, contributed \$53 million in total resources to pilot climate auctions

# What does the PAF Sell?

- The PAF offers “put options” to guarantee a price floor for future climate results
- The options give the owner the right, but not the obligation, to deliver climate results to the facility at a guaranteed future price





# The PAF Uses Auctions to Sell Put Options

- The PAF holds auctions in which bidders compete to purchase put options
- Bidders compete on the price at which they are willing to deliver eligible results to the facility in the future. This is the “strike price” of the option.
- Auction winners will purchase the put options by paying an “option premium”
- The bidders that offer to deliver eligible results at the lowest cost win the auction



# How are companies paid for results?

- Option owners are only paid for independently verified results according to eligibility criteria established before the auction
- Auction winners purchase put options by paying an “option premium” price
- The options are tradable; if an option owner cannot deliver eligible results, it can sell its options to another person/company





# Pilot Auction Facility: Fourth Auction

# Auction Parameters

- **Auction Date**
  - March 3, 2020 (NEW)
- **Auction Format**
  - Reverse descending clock (Strike price ticking down)
- **Auction Budget**
  - At least U.S.\$6 million, will be announced before auction
- **Refundable bid deposit**
  - U.S.\$0.30/ton (Consider foreign currency exchange fluctuations)
- **Fixed premium price**
  - U.S.\$0.30/ton
- **Strike price at auction start**
  - U.S.\$5/ton (NEW)
- **Minimum and maximum bids (in tons)**
  - Min: 25,000 tons (NEW)
  - Max: 1,200,000 tons (NEW)

# Application Process Overview

- **Request bidder application package**
  - Send an email to [paf\\_secretariat@worldbank.org](mailto:paf_secretariat@worldbank.org), with a copy paste of the language found here: <https://cutit.org/PAF4APP> to receive:
    - Participation Agreement
    - Integrity due diligence questionnaire
    - PAFERNs draft final terms
    - Auction rules
- **Qualify to become a bidder in the auction**
  - Submit complete bidder application package | Deadline: **January 15, 2020**
  - Pay refundable deposit (\$0.30 per ER) | Deadline: **February 14, 2020**
  - Qualification Notice | Deadline: **February 19, 2020**
- **Auction day** | Expected: **March 3, 2020**
  - Prepare bidding strategy (including proxy bids)
  - At each round, bid on a quantity of Bid Units in response to the going payment

# Auction Overview

- **Focus**
  - Methane emissions from landfill, wastewater treatment, and animal waste
- **Eligibility Criteria**
  - Carbon credits will be generated under the Clean Development Mechanism, Gold Standard, or Verified Carbon Standard
  - Methodologies are listed on the PAF website
  - Eligible countries for host projects are listed on the PAF website
  - Emission reductions will be generated in 2020, between the time of the auction and December 31, 2020
  - Credits must originate from a project with a passing Environmental, Health, Safety & Social audit report
- **Auction Timeline**
  - Auction date: March 3, 2020
  - Payment in 2021
- **Auction Budget**
  - At least USD \$6 million

# Eligibility Criteria

## ■ 1. Certification Standards

- All carbon credits must be Clean Development Mechanism (CDM) Certified Emission Reductions (CERs), Gold Standard Verified Emission Reductions (VERs), or Verified Carbon Standard (VCS) Verified Carbon Unit (VCUs).
- Carbon credits must not be subject to purchase agreement contract with a third-party.

## ■ 2. Methodologies

- The list of eligible methodologies is available on the PAF website.
- If a project uses more than one methodology to account for carbon credits, at least one need to be on the eligible list.

## ■ 3. Eligible Countries

- The list of eligible countries is available on the PAF website

## ■ 4. Generation and Issuance period

- Carbon credits must be generated after the auction date and no later than December 31, 2020. Carbon credits must be issued after July 1, 2020 and before September 30, 2021.

## ■ 5. Environmental, Health, Safety & Social (EHS) Criteria

- Carbon credits must originate from a CDM, Gold Standard, or VCS project or PoA that has received a passing EHS report from a CDM-accredited Designated Operational Entity (DOE). EHS criteria are available on the PAF Website.

# Auction Product

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PAFERNs (i.e., PAF Emission Reduction Notes) gives holders the right (but not obligation) to exchange Emission Reductions for the redemption amount

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- Bidders bid to purchase a number of **Bid Units**
  - 1 Bid Unit = 1 PAFERN (which is associated with 2,500 ERs)
  - Bidders pay U.S.\$750 for each Bid Unit won (equivalent to \$0.30 per ER)
  - allows exchange of 2,500 ERs for payment of redemption amount
- Auction determines the “**Auction-Clearing Payment**”
  - which is the **Redemption Amount** of each CER Lot of 2,500 ERs
  - Payment per ER is  $1/2,500^{\text{th}}$  of the Auction-Clearing Payment (e.g., an Auction-Clearing Payment of \$12,500 per Bid Unit is equivalent to payment of \$5 per ER)



# Auction Format is a Clock Auction

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Successful Bidders purchase PAFERNs at the Bid Unit Price (i.e., U.S.\$750 per Bid Unit, or U.S.\$0.30 per ER) given the Auction-Clearing Payment

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- **Bidding proceeds in multiple rounds**
  - Auction Manager announces a **Going Payment**
  - Bidders select how many Bid Units they want to purchase at the Bid Unit Price given the Going Payment
  - If Bidders select more Bid Units than there are available, the Going Payment “ticks” down
- As the Going Payment ticks down, Bidders reduce the number of Bid Units that they are willing to purchase
- **Auction ends** when the number of Bid Units that Bidders are willing to purchase equals or falls short of the number of Bid Units available

# Basics of Bidding

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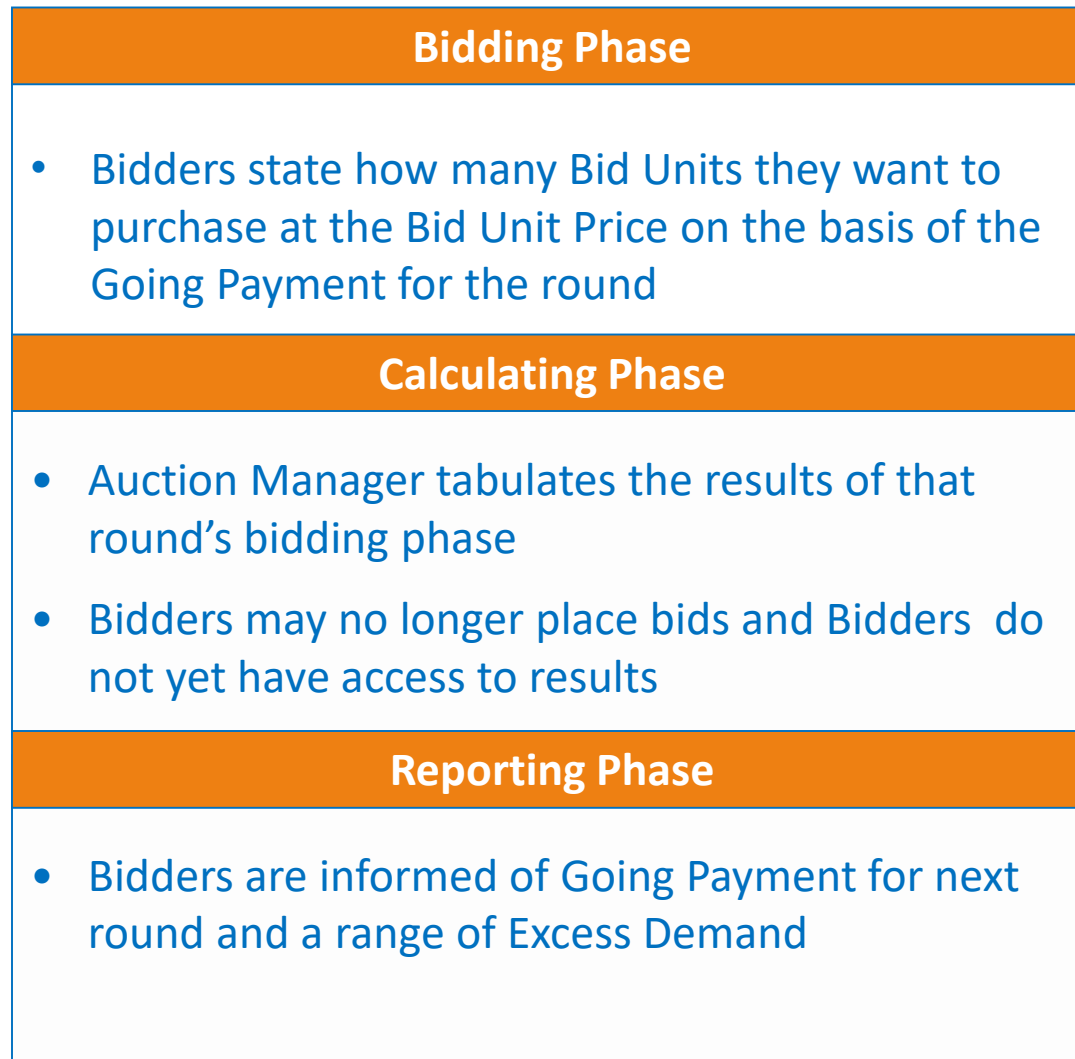
A bid is a **binding offer** made by the bidder to purchase the number of Bid Units at the Bid Unit Price given the round's Going Payment

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- From one round to the next, Bidders can **never increase** the number of Bid Units selected
- Bid deposit determines the maximum number of Bid Units that a bidder can bid in round 1 of the auction (i.e., “**initial eligibility**”)
  - Bid deposit is the amount of \$750 per Bid Unit
  - Minimum: \$7,500 (for 10 Bid Units)
  - Maximum: \$360,000 (for 480 Bid Units)
- In round 2 and subsequent rounds, bidder can either:
  - **Maintain** the number of Bid Units selected
  - **Reduce** the number of Bid Units selected (i.e., “withdraw” Bid Units)



# Rounds Have Three Phases



## Round 1: Bidding Phase

- The Going Payment is U.S.\$12,500 per Bid Unit (which is equivalent to U.S.\$5 per ER)
- A Bid is an offer by the Bidder to purchase a number of Bid Units at U.S.\$750 per Bid Unit given the Going Payment for round 1
- A Bidder cannot bid more than its **initial eligibility** determined by the Bidder's Bid Deposit

# Round 1: Reporting Phase

Bidder has no information about others' Bids, identities or eligibilities

If in round 1 the number of Bid Units selected by Bidders exceeds the number of Bid Units available, the auction proceeds to round 2

## Bidder sees:

- Range of Excess Demand
- The next round Going Payment

## Bidder also sees:

- Its **Eligibility** for the next round (the maximum number of Bid Units that it may select)

Report: Round 1	
Excess Demand	1,001 to 1,100
Round 2 Going Payment	U.S.\$11,900

# Bidding in Round 2 and Subsequent Rounds

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Going Payment decreases from one round to the next  
if demand for Bid Units exceeds number of Bid Units available

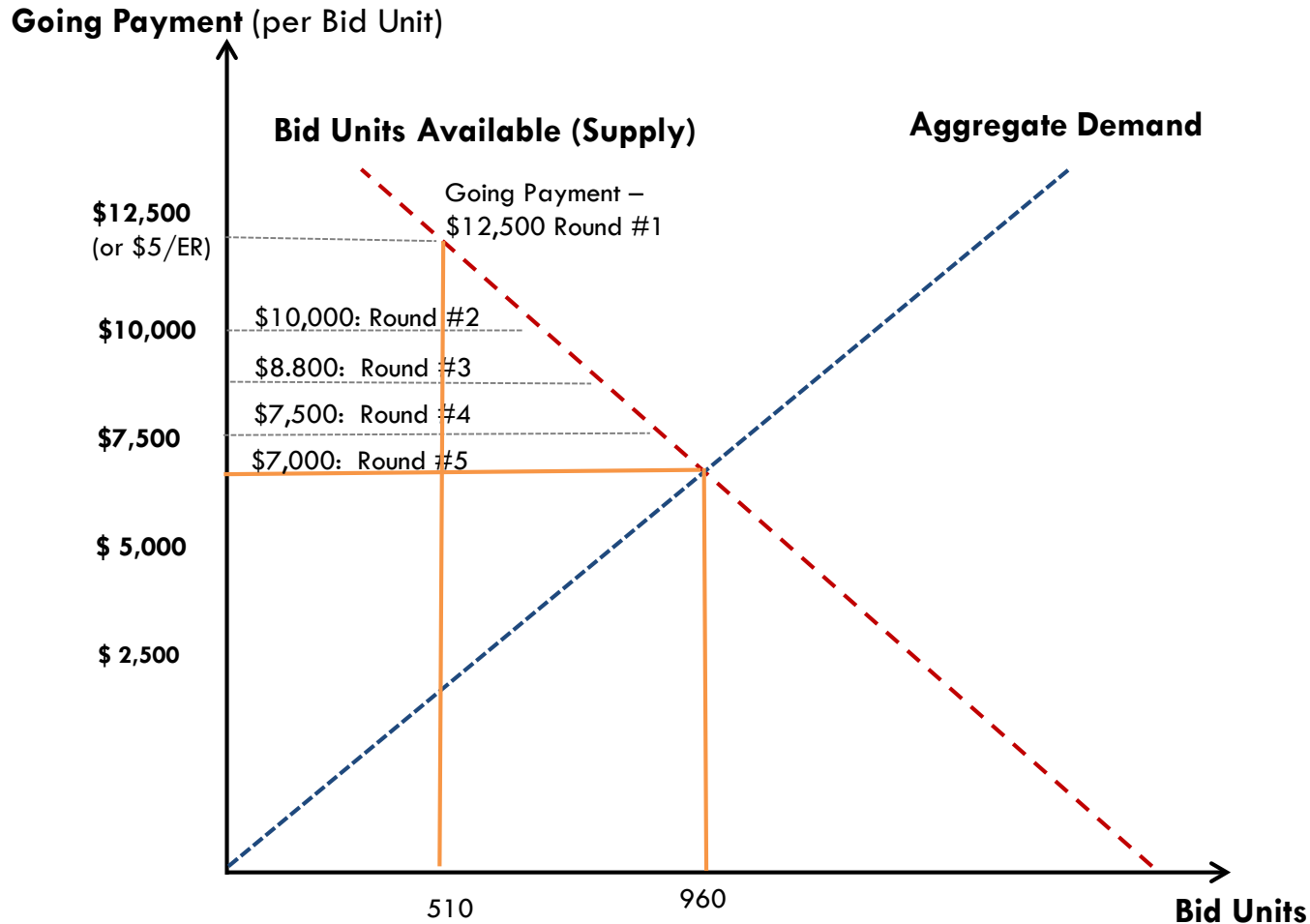
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- Each Bidder may:
  - Leave Bid unchanged
  - Select fewer Bid Units than in the prior round
- If fewer Bid Units are selected
  - the Bidder is deemed to **withdraw** Bid Units
  - the Bidder either selects at least 10 Bid Units (the Minimum Bid) or the Bidder selects 0 Bid Units (in which case it will not be able to place any further Bids)



# Available Bid Units increase as Payment decreases

$$\text{Bid Units Available} = \frac{\text{Budget}}{(\text{Going Payment} - \text{Bid Unit Price})}$$



# Exit Payment

- When withdrawing Bid Units in a round
  - A Bidder's Eligibility is reduced for the next round
  - A Bidder must provide an **Exit Payment**
- Exit Payment is the **lowest payment** for which the Bidder is willing to purchase the withdrawn Bid Units at the Bid Unit Price

Going Payment Round 1	U.S.\$12,500
Bid Units Selected in Round 1	100
Going Payment Round 2	U.S.\$11,900
Bid Units Selected in Round 2	90
<b>Exit Payment</b>	U.S.\$12,000

## Must be:

- above Going Payment
- below or equal to prior Going Payment

# Auction Close

- **Auction ends** when the number of Bid Units selected by Bidders equals or falls short of the number of Bid Units available
- The auction closes at a uniform payment called the **Auction-Clearing Payment**
- Auction-Clearing Payment is
  - either: the **Going Payment in final round**
  - or: an **Exit Payment** submitted by a Bidder in the final round
  - or: the **Going Payment** of the prior round

# Options are Delivered as World Bank Bonds

## ■ Key terms of the puttable bond

- Pilot Auction Facility Emission Reductions Notes: PAFERNs
- Zero Coupon Bond
- Bond Final Redemption Amount: determined by auction
- Bond Issue Price (Premium): \$0.30 per ton
- Bond holder receives payment of strike price for eligible carbon credits at the point of redemption
- Maturity of the Bond corresponds to final put option redemption date

## ■ Process to purchase bonds

- Auction winners will purchase bonds via World Bank's Global Agent – Citigroup
- Bonds will be delivered in the form of Definitive Registered Certificates by Citigroup
- Citigroup will keep a registry of the Noteholders
- Winners will not be required to open a custodian account
- The World Bank will hold a specific webinar to answer questions about the PAFERNs, after the application package has been made public

# How to Participate: Next Steps

- **Request bidder application package**
  - Send an email to [paf\\_secretariat@worldbank.org](mailto:paf_secretariat@worldbank.org), with a copy paste of the language found here: <https://cutit.org/PAFAPPLICATION>
- **Identify source of carbon credits to be generated after the auction date and decide on bidding strategy**
  - Number of options desired
  - Lowest acceptable price
- **Review Updates on PAF Website**
  - Eligibility criteria
  - Auction parameters
- **Prepare to pay refundable bid deposit**
- **Project owners might be contacted by carbon aggregators and consultants interested in participating in PAF auctions**

# Contact Information

## ■ Contacts

- PAF\_Secretariat@worldbank.org
- Stephanie Rogers
- Tanguy de Bienassis

## ■ Acknowledgements



Germany



Sweden



Switzerland



United States



Linklaters







# **PILOT AUCTION FACILITY**

**for Methane and Climate Change Mitigation**

**Thank you for attending!**

**We are happy to answer your questions:**

**[PAF\\_Secretariat@worldbank.org](mailto:PAF_Secretariat@worldbank.org)**

