PILOT AUCTION FACILITY

for Methane and Climate Change Mitigation

Washington, DC
Stephanie Rogers and Tanguy de Bienassis
March 28, 2016
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 FURTHER, IT IS CURRENT ONLY AS OF THE DATE OF POSTING TO THIS WEBSITE AND IS LIKELY TO BECOME OUTDATED AS THE PAFERNs LEGAL DOCUMENTATION IS DEVELOPED.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).
Agenda

1. Introduction to the PAF  
2. Second Auction Parameters and Eligibility Criteria  
3. How the Auction Will Work: Forward Auction  
4. Delivering the Put Option through a World Bank Bond  
5. Next Steps: How to Participate
PAF offers a price guarantee for methane emission reductions

- Carbon credit prices collapsed, stranding projects with no incentive to reduce emissions
- The PAF sells “put options” to guarantee projects a floor price for carbon credits (i.e. strike price)

- Auctioning ensures that the least-cost climate mitigation activities are selected
- Auction winners purchase the price guarantee by paying a premium
First auction result

Auction Clearing Price

$2.40 per tCO2e

Put option strike price

Volume of put options sold
8.7 million tCO2e

Put option premium
$0.30/CER

Number of auction rounds
11

28 Bidders
17 Countries

ABLY CARBON
AMSTERDAM CAPITAL TRADING
BATTRE BAHIA
BENG ENGENHARIA
BIOGÁS RIogradense
BP ENERGY ASIA

CARBON2020
ECOURBIS AMBIENTAL
ISCCP INVESTMENT PLATFORM
RELENOS SANITARIOS
S.P.M. FEED MILL
TIMARPUR OKHLA

12 Winners
Second Auction Parameters and Eligibility Criteria
Second Auction Parameters

- **Auction Format:** Forward
- **Fixed Strike Price:** $3.50/ton
- **Auction Budget:** $20m
- **Auction Total Supply** \(= \frac{\text{budget}}{\text{strike}}\): 5,714,285 tons
- **Premium Starting Price:** $0.06/ton
- **Refundable Deposit:** $0.06/ton
- **Minimum Bid:** 200,000 tons
- **Maximum Bid:** 2,500,000 tons
Eligibility Criteria for Second Auction (1 of 3)

- All eligibility criteria will stay fixed over the life of put options issued from the second auction
- Future PAF auctions may have different criteria

A. Eligible Emission Reductions
- All emission reductions must be Certified Emission Reductions (CERs), Verified Carbon Standard (VCS) Verified Carbon Unit (VCU), or a Gold Standard Verified Emission Reduction (VER)
- Emission reductions must be unencumbered (not subject to an existing purchase agreement contract with a third-party)

B. Eligible Methodologies
- The list of eligible methodologies is found on the PAF website, most methodologies that correspond to solid waste, waste water and agricultural waste are eligible
- If a project uses more than one methodology to account for emission reductions, just one needs to be on the eligible list

C. Eligible Countries
- The list of eligible countries is found on the PAF website
- For multi-country PoAs, all countries must be on the eligible list
Eligibility Criteria for Second Auction (2 of 3)

D. Environmental, Health & Safety and Social Criteria

- The EHS criteria for the second auction is found on the PAF website.
- Emission reductions must originate from a CDM, VCS or GS project or Program of Activities that has received a positive environmental, health & safety and social (EHS) report from a CDM accredited Designated Operational Entity (DOE).
- The EHS criteria is designed as a checklist to enable the DOE to provide a binary (positive / negative) result.
- The inspection report will incorporate input from the host site and project staff as well as representatives of nearby/affected communities and responsible local government agencies, as appropriate.
- The cost of the EHS inspection is to be borne by the option owner.
Eligibility Criteria for Second Auction (3 of 3)

Key

Accepted Issuance Dates

Accepted Monitoring Period (CER) or Vintage Period (VER) Start Date

Auction Date

Redemption Period Start

* Announcement of the PAF on September 15, 2014

Maturity 1 – November 29, 2017

- Issuance Dates: October 27, 2016
- Monitoring Period (CER) or Vintage Period (VER) Start Date: May 12, 2016
- Auction Date: March 31, 2017

Maturity 2 – November 29, 2018

- Issuance Dates: October 26, 2017
- Monitoring Period (CER) or Vintage Period (VER) Start Date: May 11, 2018
- Auction Date: March 30, 2018

Maturity 3 – November 27, 2019

- Issuance Dates: October 25, 2018
- Monitoring Period (CER) or Vintage Period (VER) Start Date: May 10, 2019
- Auction Date: April 2, 2019

Maturity 4 – November 30, 2020

- Issuance Dates: October 24, 2019
- Monitoring Period (CER) or Vintage Period (VER) Start Date: May 9, 2020

Auction Date

* Announcement of the PAF on September 15, 2014
Other Elements of Second Auction

• Each put option will require a minimum of 2,500 ERs and will be sold to winners for a premium determined by the auction

• Winners will be required to purchase a complete series of put options, redeemable annually for 4 years

• In the auction, participants will bid on bid units:
  
  1 Bid Unit = 2,500 x 4 Maturities = 10,000 ERs
  
  Minimum bid = 20 Bid Units = 200,000 ERs
  
  Maximum Bid = 250 Bid Units = 2,500,000 ERs

• To become qualified to bid, firms will undergo an Integrity Due Diligence screening and pay a refundable deposit

• The auction clearing premium price and the winners will be made public on the PAF webpage
How the Auction Will Work: Forward Auction
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Auction Budget: $20 million
Fixed Strike Price: $3.50/ton
How the auction will work: forward auction

PREMIUM PRICES FOR PURPOSES OF THIS EXAMPLE ONLY

- Auction Budget: $20 million
- Fixed Strike Price: $3.50/ton

<table>
<thead>
<tr>
<th>Premium Price (per ton)</th>
<th>Quantity (tons)</th>
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How the auction will work: forward auction

**PREMIUM PRICES FOR PURPOSES OF THIS EXAMPLE ONLY**

- **Auction Budget:** $20 million
- **Fixed Strike Price:** $3.50/ton
- **Fixed Supply:** 5.7 million tons (budget ÷ strike)

**Graph:**

- **Premium Price (per ton)**
- **Fixed Supply:** 5.7 million tons
- **Quantity (tons)**
How the auction will work: forward auction

PREMIUM PRICES FOR PURPOSES OF THIS EXAMPLE ONLY

Auction Budget: $20 million
Fixed Strike Price: $3.50/ton
Fixed Supply: 5.7 million tons (budget ÷ strike)
How the auction will work: forward auction

**PREMIUM PRICES FOR PURPOSES OF THIS EXAMPLE ONLY**

- **Auction Budget:** $20 million
- **Fixed Strike Price:** $3.50/ton
- **Fixed Supply:** 5.7 million tons (budget ÷ strike)

**Graph:**
- **Premium Price** (per ton) vs. **Quantity (tons)**
- **Demand**
- **Fixed Supply:** 5.7 million tons
- **Round 1:** $0.06
How the auction will work: forward auction

**Premium Prices for Purposes of This Example Only**

Auction Budget: $20 million
Fixed Strike Price: $3.50/ton
Fixed Supply: 5.7 million tons (budget ÷ strike)

**Diagram:**
- **Premium Price (per ton):**
  - $0.06
  - $0.16

- **Demand**
  - Round 1
  - Round 2

- **Fixed Supply:** 5.7 million tons

**Axes:**
- **Quantity (tons)**
- **Premium Price (per ton)**
How the auction will work: forward auction

PREMIUM PRICES FOR PURPOSES OF THIS EXAMPLE ONLY

Auction Budget: $20 million
Fixed Strike Price: $3.50/ton
Fixed Supply: 5.7 million tons (budget ÷ strike)

- Round 1: $0.06
- Round 2: $0.16
- Round 3: $0.26

Quantity (tons) - Fixed Supply: 5.7 million tons
Premium Price (per ton) - Demand
How the auction will work: forward auction

**PREMIUM PRICES FOR PURPOSES OF THIS EXAMPLE ONLY**

Auction Budget: $20 million  
Fixed Strike Price: $3.50/ton  
Fixed Supply: 5.7 million tons (budget ÷ strike)

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**Diagram:**
- **Y-axis:** Premium Price (per ton)  
- **X-axis:** Quantity (tons)  
- **Demand Line:**  
  - Round 1: $0.06  
  - Round 2: $0.16  
  - Round 3: $0.26  
  - Round 4: $0.36  

**Fixed Supply:** 5.7 million tons  

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**Notes:**
- Forward auction concept.
- Example premium prices used for illustrative purposes.
- Budget and supply calculations based on provided metrics.

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**Source:** WORLD BANK GROUP  
**Event:** PAF Second Auction Side Event
How the auction will work: forward auction

PREMIUM PRICES FOR PURPOSES OF THIS EXAMPLE ONLY

Auction Budget: $20 million
Fixed Strike Price: $3.50/ton
Fixed Supply: 5.7 million tons (budget ÷ strike)

- Premium Price (per ton)
- Demand
- Fixed Supply: 5.7 million tons
- Quantity (tons)
- Round 1
- Round 2
- Round 3
- Round 4
- Round 5

- $0.40
- $0.36
- $0.26
- $0.16
- $0.06
How the auction will work: forward auction

**PREMIUM PRICES FOR PURPOSES OF THIS EXAMPLE ONLY**

- **Auction Budget:** $20 million
- **Fixed Strike Price:** $3.50/ton
- **Fixed Supply:** 5.7 million tons (budget ÷ strike)

In this example, winning bidders pay **$0.40/ton** for put options redeemable for a fixed strike price of **$3.50/ton**.

![Graph showing the auction process with premium prices and demand levels.](image-url)
Delivering the Put Option Through a World Bank Bond
## Delivering the put option through a World Bank bond

### Key Terms of the Putable Bond

- **Pilot Auction Facility Emission Reductions Notes:** PAFERNs
- **Zero Coupon Bond**
- **Bond Final Redemption Amount:** fixed prior to the auction at $3.50 per ton
- **Bond Issue Price (Premium):** determined by the auction
- **Bond holder receives payment of strike price ($3.50/ton) for eligible emission reductions at the point of redemption**
- **Maturities of the Bond correspond to the put option redemption dates**

### Process Steps

- **Auction winners will purchase bonds via World Bank’s Global Agent – Citi**
- **Bonds will be delivered in the form of Definitive Registered Certificates by Citi**
- **Citi will keep a registry of the Noteholders**
- **Winners will not be required to open a custodian account**
- **The Preliminary Draft Final Terms of the PAFERNs have been released and can be obtained with the Bidder Application Package**
- **The World Bank will hold a specific webinar to answer questions about the PAFERNs**
Next Steps and How to Participate
Second Auction Timeline

• **Bidder Application Released**: March 1, 2016

• **Bidder Application Deadline**: April 8, 2016

• **Bid Deposits Due**: April 29, 2016

• **Mock Auction**: date to be confirmed

• **Auction Date**: May 12, 2016
I am interested; what should I do now to prepare?

• Request the bidder application package by sending an email to paf_secretariat@worldbank.org that includes the disclaimer copy-pasted from this webpage

• Review eligibility criteria and parameters posted on PAF website

• Identify source of ERs to be issued after auction date in methane sectors of waste, wastewater and agricultural waste and decide on bidding strategy (e.g., number of put options desired, highest acceptable price)

• Prepare to pay refundable bid deposit

• Look for emails from PAF Secretariat and check the PAF website for deadlines – www.pilotauctionfacility.org
PAF Events and Webinars

The PAF will host a series of events ahead of the second auction. The PAF website events page provides links to register for the following events:

- **London** (UK), March 7, 2016
- **Zurich** (CH), March 9, 2016
- **New Delhi** (IN), March 17, 2016
- **Bogota** (CO), March 18, 2016
- **Sao Paulo** (BR), March 21, 2016
- **Webinar 1**, March 23, 2016, 9:00 – 11:00 EST
- **Webinar 2**, March 23, 2016, 20:00 – 22:00 EST
- **Washington** (US), March 28, 2016
Additional Resources

• Second Auction Videos - [Link]

• Request for Bidder Application Package – [Link]

• Second Auction Parameters - [Link]

• Second Eligibility Criteria – [Link]

• Second auction EHS criteria – [Link]

• Second Auction Bidders’ Q&A - [Link]
Thank you

For more information visit: www.pilotauctionfacility.org

Contributors

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PAF Vendors / Agents / Partners

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