

Schedule 2 – Bidding Rules

Bidding Rules for the Pilot Auction Facility for Methane and Climate Change Mitigation

March 1, 2016

NERA
ECONOMIC CONSULTING



Contents

Contents..... 1

ARTICLE I. Introduction..... 1

I.1. Background..... 1

I.2. Documents and Sources of Information 1

I.3. General 2

ARTICLE II. Product, Bidding, Auction Parameters and Bid Deposit..... 3

II.1. Product 3

II.2. Bidding..... 3

II.3. Auction Parameters..... 4

II.4. Bid Deposit 5

ARTICLE III. Bidding Rules 6

III.1. Overview..... 6

III.2. Round 1 of the Auction 7

III.3. Round 2 and Subsequent Rounds 8

III.4. End of Auction 9

III.5. Increments..... 13

III.6. Miscellaneous Provisions 13

III.7. Bidding Procedures..... 14

ARTICLE IV. Glossary of Terms 16

Introduction

ARTICLE I. Introduction

I.1. Background

- I.1.1. The Pilot Auction Facility for Methane and Climate Change Mitigation was developed by the International Bank for Reconstruction and Development (or IBRD) as a pay-for-performance mechanism that allocates public funds and attracts private sector investment to projects that reduce methane emissions, taking advantage of the Clean Development Mechanism (or CDM), the Verified Carbon Standard (or VCS) and the Gold Standard infrastructures in place for implementation.
- I.1.2. The key objective of the PAF is to demonstrate a new, cost-effective climate finance mechanism that incentivizes private sector investment and action in climate change in developing countries by providing a guaranteed floor price on Emission Reductions (or ERs). A series of auctions will be used to determine the allocation and the level of the guaranteed price.
- I.1.3. The facility's resources will only be disbursed after the ERs have been independently verified, making the PAF a 'pay-for-performance' facility. The guaranteed floor price will be embedded in the PAFERs, issued by IBRD, the terms of which are set out in the Final Terms. IBRD's obligation under the PAFERs will be funded by the PAF. Under the terms of the PAFERs, the noteholders will have the right, but not the obligation, to deliver qualifying ERs achieved by the underlying projects to the Verification Agent and in return the noteholders will receive the specified redemption value of those PAFERs successfully submitted for redemption. In the first of these series of auctions held in 2015, the purchase price of the PAFERs was fixed and the redemption value was determined through the auction. In this second auction, the redemption value of the PAFERs is fixed and the purchase price of the PAFERs is determined through the auction.
- I.1.4. The auction format is a multiple-round clock auction that is conducted through an online electronic platform referred to as the "**Auction Software**".

I.2. Documents and Sources of Information

- I.2.1. The term "**Bidder**" is used in these Bidding Rules to refer to a legal entity or person that is qualified to participate in the auction.
- I.2.2. This document contains the Bidding Rules. These Bidding Rules describe the mechanics of the auction that will be used to allocate PAFERs to Bidders. An auction under these Bidding Rules shall constitute a PAF Auction as defined in the Participation Agreement.
- I.2.3. The main source of information is on the PAF website: <http://www.pilotauctionfacility.org>, where public documents are made available to Bidders and other stakeholders.

Introduction

I.2.4. Before submitting an application to participate in the auction, an interested party should also review the following documents so as to ensure that it understands the conditions under which the auction will be conducted:

- the document entitled “Pilot Auction Facility for Methane and Climate Change Mitigation Bidder Application Package (March 1, 2016)” (the “**Bidder Application Package**”);
- the IDD Questionnaire; and
- the Participation Agreement together with the schedules attached thereto, including these Bidding Rules, the Final Terms and the Auction Software Terms of Use.

I.2.5. To participate in the auction, an applicant must satisfy the conditions for qualification, which include submitting the IDD Questionnaire, submitting an executed Participation Agreement (with schedule 1 (Bidder Information) completed), providing a Bid Deposit and responding to requests for information from the Evaluation Team. Please refer to paragraph 2.4 of the Bidder Application Package for more information on the conditions for qualification. Further details of the application process are set out in the Bidder Application Package. Following review of the information submitted, the Evaluation Team, in its absolute discretion, may qualify an applicant as a Bidder that is eligible to participate in the auction.

I.3. General

I.3.1. Capitalized terms not defined in this document are defined in the Participation Agreement or in the Final Terms of the PAFERs.

I.3.2. The provisions set out in Article I.1 (Background), Article I.2 (Documents and Sources of Information), Article II.1 (Product) and Article III.1 (Overview) are provided for information purposes only and, save for the definitions included therein, shall not be legally binding on Bidders. The glossary of terms (the “**Glossary**”) in Article IV (Glossary of Terms) is a non-binding guide to the meaning of terms used in these Bidding Rules.

I.3.3. All other provisions of these Bidding Rules are legally binding on Bidders.

ARTICLE II. Product, Bidding, Auction Parameters and Bid Deposit

II.1. Product

- II.1.1. A CER (Certified Emission Reduction) is issued by the Kyoto Protocol's CDM to projects that reduce emissions of greenhouse gases in developing countries. A VCU (Verified Carbon Unit) is similarly issued by the Verified Carbon Standard and a VER (Verified Emission Reduction) is issued by the Gold Standard. These three types of carbon credits are referred to as Emission Reductions (ER) in this document. The number of ERs achieved corresponds to the reduction in carbon emissions below a baseline that represents business as usual.
- II.1.2. Bidders participate in the auction to purchase PAFERNs at the Issue Price for each PAFERN. On their Maturity Date, the PAFERNs give holders the right, but not the obligation, to deliver Qualifying ERs to the PAF in return for receiving a specified redemption value for the PAFERN, called the Final Redemption Amount. The auction establishes the Issue Price while the Final Redemption Amount is pre-specified as set out in Article II.3 (*Auction Parameters*). The Final Redemption Amount locks in a floor price for ERs for holders of the PAFERN, but does not limit holders from selling their ERs on the open market if they can get a better price.
- II.1.3. The PAFERNs are tradable. The holder of each PAFERN may sell it to another entity at its own discretion.
- II.1.4. An ER Lot for the purposes of the PAFERNs consists of the number of ERs as set out in Article II.3 (*Auction Parameters*), in respect of which each ER is from the same Monitoring Period and CDM, VCS or GS Project or CDM POA. An ER Lot must be delivered by a given Maturity Date to redeem each PAFERN. A series of four PAFERNs with consecutive annual Maturity Dates constitutes a "**Bid Unit**".
- II.1.5. Each Successful Bidder will be required to pay the Issue Price for each PAFERN included in the Bid Units won at the auction. The auction determines the price for a Bid Unit, called the "**Bid Unit Price**" or "**Price**". The Issue Price is one quarter of the Bid Unit Price, as further specified below.

II.2. Bidding

- II.2.1. A "**Bid**" placed in any round is an offer by the Bidder to purchase an integer number of Bid Units at the Bid Unit Price. The integer number of Bid Units is the sum of the number of Bid Units Selected and any number of the Bid Units Withdrawn in that round, where, if the auction ends in that round, the Issue Price for each PAFERN subject to the Bid is equal to one fourth of the Auction-Clearing Price and where the Auction-Clearing Price is (i) no less than the Going Price of the prior round (provided that for round 1, this will be deemed to be the Going Price for round 1), (ii) no more than the Going Price announced by the Auction Manager for that round for each Bid Unit Selected by the Bidder; and (iii) (other than in round 1) no more than the Exit Price for that round specified in accordance with these Bidding Rules for each Bid Unit that the Bidder Withdraws and for which it is a provisionally successful Bidder pursuant to Section III.4.

Product, Bidding, Auction Parameters and Bid Deposit

- II.2.2. A Bidder **“Selects”** a number of Bid Units in a round of the auction if the Bid placed in the Auction Software by or on behalf of the Bidder specifies that number of Bid Units as the number of Bid Units that it is willing to purchase at the Going Price of that round and **“Selected”** shall be construed accordingly.
- II.2.3. A Bidder’s **“Eligibility”** in a round is the maximum number of Bid Units that a Bidder may Select in that round of the auction. There are three **“Eligibility Tiers”**: (i) **“Tier 1”**, which includes Eligibility between a lower bound of 20 and an upper bound of 49 Bid Units; (ii) **“Tier 2”**, which includes Eligibility between a lower bound of 50 and an upper bound of 99 Bid Units; and (iii) **“Tier 3”**, which includes Eligibility between a lower bound of 100 and an upper bound of 250 Bid Units. A Bidder with **“Eligibility in a Tier”** in a round is a Bidder with Eligibility in that round of no less than the lower bound of that Tier and no more than the upper bound of that Tier. The lower bound of Eligibility for each Tier is the **“Minimum Win”** for that Tier.
- II.2.4. A Bidder may not Select fewer Bid Units than the **“Minimum Bid”**, which is set out in Article II.3 (Auction Parameters), unless the Bidder makes a Zero Selection. A Bidder may not Select more Bid Units than the **“Maximum Bid”**, which is set out in Article II.3 (Auction Parameters). If IBRD considers, in its absolute discretion, that two or more Bidders are affiliated with each other, it may require one or more of those Bidders to bid less than the Maximum Bid in the first round of the auction.
- II.2.5. A Bidder **“Withdraws”** a number of Bid Units from the auction if the number of Bid Units it Selects in a round is less than the number of Bid Units it Selected in the prior round and an Exit Price for those Bid Units is specified in the Auction Software by or on behalf of the Bidder and **“Withdrawn”** shall be construed accordingly.
- II.2.6. A Bidder that has Eligibility in a Tier in the Final Round and that Selects zero (0) Bid Units in the Final Round, may not be a provisionally successful Bidder for less than the Minimum Win of that Tier, unless the Bidder is a provisionally successful Bidder for zero (0) Bid Units. The Final Round is defined in III.4.1.

II.3. Auction Parameters

- II.3.1. The following provides information regarding the parameters of the auction.

Table II-1. Auction Parameters.

Auction Date	May 12, 2016
Budget	U.S.\$20 million
Bid Unit	Four PAFERs with consecutive annual Maturity Dates (equivalent to 10,000 ERs).
Going Price in round 1	U.S.\$600 per Bid Unit
ER Lot size	2,500 ERs
Increment	The Increment will be larger at the start of the auction when Excess Demand is larger than at the end of the auction when Excess Demand is smaller

Product, Bidding, Auction Parameters and Bid Deposit

Final Redemption Amount	U.S.\$8,750 per PAFERN (equivalent to U.S.\$35,000 per Bid Unit or U.S.\$3.50 per ER)
Maximum Bid	250 Bid Units (equivalent to 2,500,000 ERs)
Maximum Bid Deposit	U.S.\$150,000
Minimum Bid	20 Bid Units (equivalent to 200,000 ERs)
Minimum Bid Deposit	U.S.\$12,000
Minimum Win	20 Bid Units for Tier 1 50 Bid Units for Tier 2 100 Bid Units for Tier 3
Number of Bid Units Available	571 Bid Units
Bid Deposit	Number of Bid Units times U.S.\$600

- II.3.2. In advance of the auction, IBRD may provide further non-binding guidance with respect to the process for determining the Increments. At least 24 hours prior to the auction, Bidders will be provided with a non-binding schedule setting out the proposed timing of (i) proxy bidding, and (ii) bidding rounds. IBRD may also provide non-binding guidance on the expected timing of offers in the event of an Undersell.

II.4. Bid Deposit

- II.4.1. The “**Minimum Bid Deposit**” is set out in Article II.3 (*Auction Parameters*). The “**Maximum Bid Deposit**” is set out in Article II.3 (*Auction Parameters*). Each applicant must pay a Bid Deposit that is no less than the Minimum Bid Deposit. An applicant that pays a Bid Deposit that exceeds the Maximum Bid Deposit will, if it qualifies to participate as a Bidder in the auction, be considered to have submitted a Bid Deposit equal to the Maximum Bid Deposit for purposes of calculating the Bidder’s Initial Eligibility.
- II.4.2. A Bidder’s “**Initial Eligibility**” is its Eligibility in round 1 of the auction. A Bidder’s Initial Eligibility is equal to the Bid Deposit paid by that Bidder divided by U.S.\$600, which is the Bid Deposit required per Bid Unit, rounded down to the nearest integer.

Bidding Rules

ARTICLE III. Bidding Rules

III.1. Overview

- III.1.1. As stated above, the auction format is a multiple-round clock auction that is conducted through an online electronic platform referred to as the Auction Software.
- III.1.2. The auction shall begin on the date which is set out in Article II.3 (*Auction Parameters*), or such later date as IBRD (in its absolute discretion) may notify to the Bidders (the “**Auction Date**”).
- III.1.3. For the purposes of the auction, a “**Price**” or “**Bid Unit Price**” is the amount a Bidder would pay for a Bid Unit. A Price is denominated in U.S.\$ and will be a multiple of U.S.\$100.
- III.1.4. A clock auction proceeds in a series of rounds. In a round, each Bidder states the number of Bid Units that it wants to purchase at the Price announced by the Auction Manager for that round (the “**Going Price**”). In so doing, each Bidder takes into account the “**Final Redemption Amount**” as set out in Article II.3 (*Auction Parameters*).
- III.1.5. If, in a round, the number of Bid Units that Bidders together Select exceeds the number of Bid Units Available, the Auction Manager announces a new increased Going Price for the next round and the Auction Manager communicates this new Going Price to Bidders before the next Bidding Phase opens. The auction continues and the Going Price increases round by round until the number of Bid Units that Bidders together Select equals to or falls short of the number of Bid Units Available. When this happens, the “**Auction-Clearing Price**” and the identity of provisionally successful Bidders will be established based on the Bids made by Bidders in this Final Round, as set out further in these Bidding Rules. If, in the Final Round, the difference between: (i) the number of Bid Units Available; and (ii) the sum of the Bids Units for which Bidders are provisionally successful; is strictly positive, such amount is called the “**Undersell**”. If there is an Undersell, IBRD may offer the Undersell to specific Bidders selected on the basis of their Bids in the Final Round, as set out further in these Bidding Rules.
- III.1.6. The PAFERs won by Successful Bidders have an Issue Price of one-fourth of the Auction-Clearing Price that is determined in accordance with these Bidding Rules.
- III.1.7. If the results of the auction are certified by IBRD in accordance with Article III.4.8, a binding obligation exists between IBRD and each Successful Bidder, for the sale and purchase of PAFERs in accordance with and subject to the conditions set out in the Participation Agreement.
- III.1.8. The number of Bid Units Available in the auction is the same in every round and is set out in Article II.3 (*Auction Parameters*).
- III.1.9. The “**Excess Demand**” is the difference between the number of Bid Units that Bidders together Select in a round and the number of Bid Units Available. If Excess Demand is strictly positive in a round, the auction proceeds to a further round.

Bidding Rules

- III.1.10. Each round of the auction is divided into three phases: a Bidding Phase, a Calculating Phase, and a Reporting Phase.
- III.1.11. In the “**Bidding Phase**” of a round, Bidders may place Bids. In the “**Calculating Phase**” of a round, Bidders may no longer place Bids and Bidders do not yet have access to information regarding the immediately preceding Bidding Phase. In the “**Reporting Phase**” of a round, Bidders have access to information regarding the immediately preceding Bidding Phase. Further, in the Reporting Phase if the auction continues to the next round, Bidders are informed of the Going Price for the next round; otherwise, Bidders are informed of the Auction-Clearing Price.

III.2. Round 1 of the Auction

- III.2.1. The Going Price for round 1 of the auction is set out in Article II.3 (*Auction Parameters*).
- III.2.2. During the Bidding Phase, Bidders may place Bids. A Bidder cannot Select a number of Bid Units greater than its Initial Eligibility, which is determined by its Bid Deposit. A Bidder may Select a number of Bid Units equal to or fewer than its Initial Eligibility, provided that:
- the Bidder must Select a number of Bid Units equal to or greater than the Minimum Bid (a “**Non-Zero Selection**”); or
 - the Bidder must Select zero Bid Units (a “**Zero Selection**”). If the Bidder makes a Zero Selection, it will not be able to place any further Bids in subsequent rounds and it cannot be a Successful Bidder.
- III.2.3. During the Calculating Phase, the Auction Manager will use the Auction Software to tabulate the results of the Bidding Phase and to determine whether the auction will proceed to round 2 on the following basis:
- If the number of Bid Units that all Bidders together Selected exceeds the number of Bid Units Available, the auction will proceed to round 2;
 - Otherwise, the auction ends. The Auction-Clearing Price is the Going Price for round 1 of the auction. Each Bidder that made a Non-Zero Selection will be a provisionally successful Bidder for the number of Bid Units Selected.
- III.2.4. During the Reporting Phase, the Auction Manager will inform all Bidders through the Auction Software of the results of the Bidding Phase.
- If the auction proceeds to round 2, the Auction Manager will announce to all Bidders the Going Price for round 2 and a range of Excess Demand for round 1. The Going Price for round 2 will be higher than the Going Price for round 1. The range of Excess Demand will include the actual Excess Demand in round 1. Furthermore, the Auction Manager will inform each Bidder individually of its Eligibility for round 2, which will be equal to the number of Bid Units that the Bidder Selected in round 1.
 - If the auction ends, the Auction Manager will announce this fact to all Bidders, together with the Auction-Clearing Price. Furthermore, the Auction Manager will inform each Bidder individually of the number of Bid Units for which it is a provisionally successful

Bidding Rules

Bidder. If there is an Undersell, the Auction Manager will inform individually each Bidder that Selected the Maximum Bid in round 1 that it has the option to purchase some or all of the Undersell. If IBRD certifies the auction results, IBRD communicates to each such Bidder whether it is awarded a portion or all of the Undersell.

III.3. Round 2 and Subsequent Rounds

- III.3.1. In accordance with Article III.2.4 (in respect of round 1) and Article III.3.5 (in respect of each subsequent round), the Going Price for round 2 and subsequent rounds shall be announced by the Auction Manager through the Auction Software in the Reporting Phase of the immediately preceding round.
- III.3.2. During the Bidding Phase, Bidders may place Bids. A Bidder cannot Select a number of Bid Units greater than its Eligibility. A Bidder may Select a number of Bid Units equal to or fewer than its Eligibility, provided that:
- the Bidder must make a Non-Zero Selection or a Zero Selection. If the Bidder makes a Zero Selection, it will not be able to place any further Bids in subsequent rounds and, unless the auction ends in the round in which it makes such a Selection, it cannot be a Successful Bidder; and
 - if the Bidder Selects fewer Bid Units than its Eligibility (including where it makes a Zero Selection), it shall be deemed to Withdraw Bid Units from the auction (where the number of Withdrawn Bid Units equals the difference between the number of Bid Units Selected in the prior round and the number of Bid Units Selected in the current round). A single Exit Price for the Bid Units that it is Withdrawing must be specified. An “**Exit Price**” is the highest Price at which the Bidder is willing to purchase the Withdrawn Bid Units. An Exit Price must be greater than or equal to the Going Price in the prior round and must be strictly less than the Going Price in the current round. An Exit Price specified must be a multiple of U.S.\$100 and any Exit Price specified that does not meet this requirement will be rounded up to the nearest U.S.\$100.
- III.3.3. The Eligibility of a Bidder in round 3 or in any subsequent round will be the Eligibility of the Bidder in the prior round less the number of Bid Units that the Bidder has Withdrawn in the prior round. Thus, a Bidder that Withdraws Bid Units from the auction loses the ability to place a Bid with respect to these Bid Units for the remainder of the auction.
- III.3.4. During the Calculating Phase, the Auction Manager will use the Auction Software to tabulate the results of the just concluded Bidding Phase and to determine whether the auction will proceed to the next round.
- If the number of Bid Units that all Bidders together Selected exceeds the number of Bid Units Available, the auction will proceed to the next round;
 - Otherwise, the auction ends. The Auction-Clearing Price and the provisionally successful Bidders are determined as set out further in these Bidding Rules.
- III.3.5. During the Reporting Phase, the Auction Manager will inform Bidders through the Auction Software of the results of the just concluded Bidding Phase.

Bidding Rules

- If the auction proceeds to the next round, the Auction Manager will announce to Bidders the Going Price for the next round and a range of Excess Demand for the immediately preceding Bidding Phase. The range of Excess Demand will include the actual Excess Demand in the immediately preceding Bidding Phase. Furthermore, the Auction Manager will inform each Bidder individually of its Eligibility for the next round.
- If the auction ends, the Auction Manager will announce this fact to Bidders, together with the Auction-Clearing Price. Furthermore, the Auction Manager will inform each Bidder individually of the number of Bid Units for which it is provisionally successful. If there is an Undersell, the Auction Manager will inform individually each Bidder that Selected the Maximum Bid in the Final Round and individually each Bidder that named the Auction-Clearing Price as its Exit Price but is provisionally successful for zero (0) Bid Units that it has the option to purchase some or all of the Undersell. If IBRD certifies the auction results, IBRD communicates to each such Bidder whether it is awarded a portion or all of the Undersell.

III.4. End of Auction

III.4.1. Determination of the Final Round. The auction ends in the Reporting Phase of the first round in which the number of Bid Units that Bidders together Select at the Going Price equals to or falls short of the number of Bid Units Available. This is the “**Final Round**”.

III.4.2. Determination of the Auction-Clearing Price.

III.4.2.1 If the number of Bid Units that Bidders together Select at the Going Price of the Final Round exactly equals the number of Bid Units Available, the Auction-Clearing Price will be the Going Price of the Final Round.

III.4.2.2 If the number of Bid Units that Bidders together Select at the Going Price of the Final Round is less than the number of Bid Units Available, the Auction-Clearing Price will be lower than the Going Price of the Final Round. The Auction Manager will rank all Exit Prices from highest to lowest. For each Exit Price specified by or on behalf of a Bidder ranked from highest to lowest, the Auction Manager will use the Auction Software to calculate the “Final Demand” at that Exit Price. The Final Demand at a given Exit Price is the sum of: (i) the number of Bid Units that Bidders together Selected at the Going Price of the Final Round; (ii) the number of Bid Units Withdrawn by Bidders at that Exit Price; and (iii) the number of Bid Units Withdrawn by Bidders at any Exit Price higher than that Exit Price. The Auction-Clearing Price will be the highest specified Exit Price for which the Final Demand equals to or exceeds the number of Bid Units Available.

III.4.3. Definitions of Marginal Bidder and Remainder under III.4.2.2.

III.4.3.1 Under III.4.2.2 when the Auction-Clearing Price is the highest specified Exit Price for which the Final Demand equals to or exceeds the number of Bid Units Available, all Bidders that specified an Exit Price equal to the Auction-Clearing Price are “**Marginal Bidders**”.

Bidding Rules

III.4.3.2 Under III.4.2.2 when the Auction-Clearing Price is the highest specified Exit Price for which the Final Demand equals to or exceeds the number of Bid Units Available, then the “**Remainder**” is:

- The sum of (i) the number of Bid Units Withdrawn by Marginal Bidders at the Auction-Clearing Price and (ii) the number of Bid Units Available;
- less: the Final Demand at the Auction-Clearing Price.

III.4.4. Determination of the Amounts for which Bidders are Provisionally Successful.

III.4.4.1 If the Auction-Clearing Price is equal to the Going Price of the Final Round under III.4.2.1, a Bidder that has made a Non-Zero Selection in the Final Round is a provisionally successful Bidder for the number of Bid Units that it Selected in the Final Round. Other Bidders are not provisionally successful Bidders.

III.4.4.2 If: (i) the Auction-Clearing Price is lower than the Going Price of the Final Round under III.4.2.2; and (ii) the Final Demand at the Auction-Clearing Price is equal to the number of Bid Units Available; then: a Bidder is a provisionally successful Bidder for the number of Bid Units equal to the sum of: (a) the number of Bid Units it Selected at the Going Price of the Final Round; and: (b) the number of Bid Units that it Withdrew at an Exit Price equal to or greater than the Auction-Clearing Price.

III.4.4.3 If: (i) the Auction-Clearing Price is lower than the Going Price of the Final Round under III.4.2.2; and (ii) the Final Demand at the Auction-Clearing Price is greater than the number of Bid Units Available; then: the number of Bid Units for which a Bidder is provisionally successful is determined under III.4.5 or III.4.6.

III.4.5. Determination of the Amounts for which Bidders are Provisionally Successful under III.4.4.3 when there is one Marginal Bidder. If: (i) the Auction-Clearing Price is lower than the Going Price of the Final Round under III.4.2.2; and (ii) the Final Demand at the Auction-Clearing Price is greater than the number of Bid Units Available; and (iii) there is a single Marginal Bidder; then:

III.4.5.1 A Bidder other than the Marginal Bidder is a provisionally successful Bidder for a number of Bid Units equal to the sum of: (i) the number of Bid Units it Selected at the Going Price of the Final Round; and: (ii) the number of Bid Units that it Withdrew at an Exit Price greater than the Auction-Clearing Price. (Thus, a Bidder that made a Zero Selection in the Final Round and that Withdrew at an Exit Price lower than the Auction-Clearing Price is not a provisionally successful Bidder.)

III.4.5.2 A Marginal Bidder that made a Non-Zero Selection in the Final Round is a provisionally successful Bidder for a number of Bid Units equal to the sum of: (i) the number of Bid Units it Selected at the Going Price of the Final Round; and (ii) the number of Bid Units equal to the Remainder, which will represent a portion of the Bid Units that the Marginal Bidder Withdrew at the Auction-Clearing Price.

Bidding Rules

- III.4.5.3 A Marginal Bidder with Eligibility in a Tier in the Final Round that made a Zero Selection in the Final Round is a provisionally successful Bidder for: (i) a number of Bid Units equal to the Remainder if the Remainder is equal to or exceeds the Minimum Win for that Tier; or: (ii) zero (0) Bid Units otherwise.
- III.4.5.4 If the Marginal Bidder is a provisionally successful Bidder for a number of Bid Units less than the sum of the number of Bid Units it Selected at the Going Price in the Final Round and the number of Bid Units it Withdrew at the Auction-Clearing Price, the Marginal Bidder commits by its acceptance of these Bidding Rules to purchase the number of Bid Units for which it is a provisionally successful Bidder should IBRD certify the auction results.
- III.4.5.5 If the Marginal Bidder is a provisionally successful Bidder for zero (0) Bid Units pursuant to III.4.5.3, there is an Undersell equal to the Remainder. At the conclusion of the Reporting Phase of the Final Round, IBRD will give the Marginal Bidder the option to purchase some or all of the Bid Units of the Undersell at the Auction-Clearing Price. The same option will be given to any Bidder that Selected the Maximum Bid in the Final Round. A Bidder may agree to the option of purchasing some or all of the Undersell at the Auction-Clearing Price, but such Bidder may not in fact be a Successful Bidder in respect to these Bid Units in the IBRD's sole discretion.
- III.4.6. Determination of the Amounts for which Bidders are Provisionally Successful under III.4.4.3 when there is more than one Marginal Bidder. If: (i) the Auction-Clearing Price is lower than the Going Price of the Final Round under III.4.2.2; and (ii) the Final Demand at the Auction-Clearing Price is greater than the number of Bid Units Available; and (iii) there are more than one Marginal Bidder; then:
- III.4.6.1 A Bidder other than a Marginal Bidder is a provisionally successful Bidder for a number of Bid Units equal to the sum of: (i) the number of Bid Units it Selected at the Going Price of the Final Round; and: (ii) the number of Bid Units that it Withdrew at an Exit Price greater than the Auction-Clearing Price. (Thus, a Bidder that made a Zero Selection in the Final Round and that Withdrew at an Exit Price lower than the Auction-Clearing Price is not a provisionally successful Bidder.)
- III.4.6.2 A Marginal Bidder is a provisionally successful Bidder for the number of Bid Units it Selected at the Going Price of the Final Round, if any, and may be a provisionally successful Bidder for a number of the Bid Units that it Withdrew at the Auction-Clearing Price, provided, however, that such number of Withdrawn Bid Units does not exceed the Remainder and not exceed the number of Bid Units that the Marginal Bidder Withdrew at the Auction-Clearing Price. The Remainder will be allocated to Marginal Bidders, to be part of the number of Bid Units for which they are provisionally successful Bidders, strictly in the following order:
- (Step 1). The Remainder is allocated first, if possible, to Marginal Bidders with Eligibility in Tier 3 in the Final Round that made a Zero Selection in the Final Round. An allocation equal to the Minimum Win for that Tier will be made to as many such Marginal Bidders as possible. If some but not all Marginal

Bidding Rules

Bidders with Eligibility in Tier 3 in the Final Round can be selected in this step, a selection will be made at random. (Thus, a Marginal Bidder with Eligibility in Tier 3 in the Final Round that is not allocated any Bid Units after this step is a provisionally successful Bidder for zero (0) Bid Units.)

- (Step 2). If the Remainder is not exhausted, Bid Units in the Remainder not allocated in the previous step are allocated next, if possible, to Marginal Bidders with Eligibility in Tier 2 in the Final Round that made a Zero Selection in the Final Round. An allocation equal to the Minimum Win for that Tier will be made to as many such Marginal Bidders as possible. If some but not all Marginal Bidders with Eligibility in Tier 2 in the Final Round can be selected in this step, a selection will be made at random. (Thus, a Marginal Bidder with Eligibility in Tier 2 in the Final Round that is not allocated any Bid Units after this step is a provisionally successful Bidder for zero (0) Bid Units.)
- (Step 3). If the Remainder is not exhausted, Bid Units in the Remainder not allocated in the previous two steps are allocated next, if possible, to Marginal Bidders with Eligibility in Tier 1 in the Final Round that made a Zero Selection in the Final Round. An allocation equal to the Minimum Win for that Tier will be made to as many such Marginal Bidders as possible. If some but not all Marginal Bidders with Eligibility in Tier 1 in the Final Round can be selected in this step, a selection will be made at random. (Thus, a Marginal Bidder with Eligibility in Tier 1 in the Final Round that is not allocated any Bid Units after this step is a provisionally successful Bidder for zero (0) Bid Units.)
- (Step 4). If the Remainder is not exhausted, any Bid Units in the Remainder not previously allocated in the previous three steps are allocated to: (i) Marginal Bidders that made a Non-Zero Selection in the Final Round; and (ii) Marginal Bidders that made a Zero Selection in the Final Round and that were allocated a portion of the Remainder under one of the first three steps in this procedure. The allocation to each Bidder is proportional to the number of Bid Units that the Bidder Withdrew in the Final Round and that are not allocated in the previous three steps of this procedure.
- If the Remainder is not exhausted at the conclusion of the four steps of this procedure, then the number of unallocated Bid Units in the Remainder at this stage is the Undersell.
- IBRD will give the option to purchase some or all of the Undersell at the Auction-Clearing Price to: (i) any Marginal Bidder that is a provisionally successful Bidder for zero (0) Bid Units at the end of the four steps of the procedure to allocate the Remainder above; and (ii) any Bidder that Selected the Maximum Bid in the Final Round. A Bidder may agree to the option of purchasing some or all of the Undersell at the Auction-Clearing Price but such Bidder may not in fact be a Successful Bidder in respect to these Bid Units in the IBRD's sole discretion.

Bidding Rules

- If the Marginal Bidder is a provisionally successful Bidder for a number of Bid Units less than the sum of the number of Bid Units it Selected at the Going Price in the Final Round and the number of Bid Units it Withdrew at the Auction-Clearing Price, the Marginal Bidder commits by its acceptance of these Bidding Rules to purchase the number of Bid Units for which it is a provisionally successful Bidder should IBRD certify the auction results.

III.4.7. The Final Redemption Amount for the PAFERs is pre-specified at the amount set out in Article II.3 (*Auction Parameters*).

III.4.8. IBRD will review the bidding, the auction results, and all materials submitted by Bidders to participate in the auction. IBRD may, in its absolute discretion:

- certify the auction results, in which case Bidders that were provisionally successful Bidders shall be Successful Bidders and a binding obligation shall exist between IBRD and each Successful Bidder for the sale and purchase of the PAFERs in accordance with and subject to the conditions set out in the Participation Agreement; or
- annul the auction results, in which case no PAFERs shall be issued.

III.5. Increments

III.5.1. The amount by which the Going Price increases from one round to the next is called an “**Increment**”. The Increment will be larger at the start of the auction when Excess Demand is larger than at the end of the auction when Excess Demand is smaller.

III.5.2. The Auction Manager may provide to Bidders further non-binding guidance regarding the Increments in the form of rules, formulas, or tables. Such rules, formulas, or tables will be provided as guidance only and the Increment in any round may be set at the discretion of the Auction Manager.

III.6. Miscellaneous Provisions

III.6.1. A Bidder can modify its Bid as long as the Bidding Phase of the round is open, including by increasing or decreasing the number of Bid Units that it Selects or by making a Zero Selection, subject to these Bidding Rules. The Bid that will be treated as binding upon the Bidder by the Auction Manager is the last Bid that is submitted and verified by or on behalf of the Bidder during the Bidding Phase and processed by the Auction Software. This Bid cannot be rescinded.

III.6.2. A range of Excess Demand provided to Bidders in the Reporting Phase of a round will include the actual Excess Demand for that round. The range of Excess Demand will include several integers and the actual Excess Demand may be any one of the integers within that range.

III.6.3. A Bidder may request an extension to the Bidding Phase of a round during that Bidding Phase with the effect that the Bidding Phase of the round is extended by 10 minutes for all Bidders.

- Each Bidder may request up to two extensions during the auction.

Bidding Rules

- The Bidding Phase of a round can be extended only once by 10 minutes.
 - When a request is received from more than one Bidder, all such requests are deemed granted but all extensions run concurrently. All Bidders that requested an extension see their available number of extensions reduced.
- III.6.4. A Bidder with positive Eligibility in any round is automatically deemed to have requested an extension when, by the scheduled ending time of the Bidding Phase, the Bidder has not placed a Bid and the Bidder has not already used the two allowable extensions.
- III.6.5. If, notwithstanding any extension of the Bidding Phase pursuant to Article III.6.4, a Bidder fails to place a Bid, a “**Default Bid**” will be placed on behalf of the Bidder by the Auction Software, which shall be (i) a Zero Selection; and (ii) (other than in round 1), an Exit Price which is the Going Price from the prior round. If the Bidder is a Marginal Bidder and if random selection is used in the allocation of the Remainder, the Marginal Bidder with a Default Bid placed on behalf of the Bidder is disadvantaged and is selected last in such otherwise random selection.
- III.6.6. The Auction Manager can call a time-out to the auction at any time during a round. It is intended that a time-out will suspend activity in the auction for a period of no more than one hour; however, the Auction Manager retains the discretion to suspend activity for a longer period if necessary. When the Auction Manager calls a time-out, it shall inform Bidders of the expected duration of the suspension.
- III.6.7. A Bidder with zero Eligibility will lose access to the Auction Software within three rounds.

III.7. Bidding Procedures

- III.7.1. The primary bidding method for the auction is the electronic submission of Bids through the Auction Software.
- III.7.2. The secondary bidding method for the auction is by phone. If a Bidder is experiencing technical difficulty and cannot place a Bid using the Auction Software, the Bidder may call a technical assistant who places the Bidder’s Bid using the Auction Software on the Bidder’s behalf.
- III.7.3. Proxy bidding, an option by which the Auction Software can place Bids on behalf of a Bidder on the basis of a pre-determined maximum Price called the “Proxy Price” above which the Bidder would cease to agree to place Bids for Bid Units, will be allowed. A Bidder will be considered to Select a pre-specified number of Bid Units in each round in which the Going Price is at or below the Proxy Price determined by the Bidder prior to the start of the Bidding Phase for round 1. In the first round in which the Going Price is above the Proxy Price, the Bidder is deemed to have Withdrawn all Bid Units and is deemed to have specified an Exit Price equal to the Proxy Price, and this is the final Bid by that Bidder. If the Bidder elects proxy bidding, a Bidder will not be able to subsequently use either the primary or the secondary bidding method to place Bids. The Bidder’s election of proxy bidding and the Bidder’s submission of the Proxy Price and the number of Bid Units will be made in advance of the bidding rounds.

Bidding Rules

- III.7.4. It is the Bidder's sole and entire responsibility to place a Bid on time whether using the primary or secondary bidding method.

Glossary of Terms

ARTICLE IV. Glossary of Terms

This Glossary is a non-binding guide to the meaning of terms used in these Bidding Rules

Term	Article	Explanation
Auction Date	III.1.2	The Auction Date is the date on which the auction shall begin, which unless deferred by IBRD, shall be May 12, 2016.
Auction Software	I.1.4	The Auction Software is the online electronic platform used to conduct the auction.
Auction-Clearing Price	III.4.2	The Auction-Clearing Price is the Price that will be used for the purposes of determining the Issue Price of the PAFERs that are to be issued to Successful Bidders and is determined in accordance with the Bidding Rules.
Bid	II.2.1	A Bid is an offer by the Bidder to purchase an integer number of Bid Units at the Bid Unit Price, being the sum of the number of Bid Units Selected and Withdrawn in that round, where, if the Auction ends in that round, the Issue Price for each PAFERN subject to the Bid is equal to one fourth of the Auction-Clearing Price.
Bid Unit	II.1.4	A Bid Unit is a series of four PAFERs with consecutive annual Maturity Dates (equivalent to 10,000 ERs).
Bidder	I.2.1	A Bidder is a legal entity or person that is qualified to participate in the auction.
Bidder Application Package	I.2.4	Bidder Application Package refers to the document entitled "Pilot Auction Facility for Methane and Climate Change Mitigation Bidder Application Package (March 1, 2016)".
Bidding Phase	III.1.11	The Bidding Phase is the phase of a round during which Bidders place Bids.
Budget	II.3.1	The Budget is pre-specified as set out in Article II.3 (<i>Auction Parameters</i>).
Calculating Phase	III.1.11	The Calculating Phase is the phase of a round during which Bidders may no longer place Bids and Bidders do not yet have access to information regarding the immediately preceding Bidding Phase.
Default Bid	III.6.5	A Default Bid will be placed on behalf of the Bidder by the Auction Software where a Bidder fails to place a Bid and is (i) a Zero Selection; and (ii) (other than in round 1), an Exit Price which is the Going Price from the prior round.
Eligibility	II.2.3	A Bidder's Eligibility in a round is the maximum number of Bid Units which a Bidder may Select in that round of the auction. A Bidder's Eligibility in round 1 is the Bidder's Initial Eligibility. A Bidder's Eligibility in round 2 is the total number of Bid Units Selected at the Going Price in round 1. For any subsequent round, a Bidder's Eligibility in a round is the Bidder's Eligibility in the prior round minus the number of Bid Units that the Bidder Withdrew in the Bidding Phase of the prior round.

Glossary of Terms

Term	Article	Explanation
Eligibility in a Tier	II.2.3	A Bidder with Eligibility in a Tier in a round is a Bidder with Eligibility in that round of no less than the lower bound of that Tier and no more than the upper bound of that Tier.
Eligibility Tier	II.2.3	There are three Eligibility Tiers. Tier 1 includes Eligibility between 20 and 49 Bid Units. Tier 2 includes Eligibility between 50 and 99 Bid Units. Tier 3 includes Eligibility between 100 and 250 Bid Units.
Excess Demand	III.1.9	The Excess Demand is the difference between the number of Bid Units that Bidders together Select in a round and the number of Bid Units Available.
Exit Price	III.3.2	An Exit Price is the highest Bid Unit Price that the Bidder is willing to purchase the Withdrawn Bid Units.
Final Redemption Amount	III.4.7	The total payment a Bidder would receive for delivering an ER Lot on the Maturity Date of each PAFERN with that Bid Unit. A Payment is denominated in U.S.\$ and will be a multiple of U.S.\$100.
Final Round	III.4.1	The Final Round is the first round in which the number of Bid Units that Bidders together Select equals to or falls short of the number of Bid Units Available.
Going Price	III.1.4	The Going Price for a round is the Bid Unit Price announced by the Auction Manager for that round.
Increment	III.5.1	The increment is the amount by which the Going Price increases from one round to the next.
Initial Eligibility	II.4.2	A Bidder's Initial Eligibility is its Eligibility in round 1 of the auction. A Bidder's Initial Eligibility is equal to the Bid Deposit paid by that Bidder divided by U.S.\$600, which is the Bid Deposit required per Bid Unit, rounded down to the nearest integer.
Issue Price	II.1.5	The Issue Price of a PAFERN is one-fourth of the value of the Auction-Clearing Price.
Marginal Bidder	III.4.3.1	A Marginal Bidder is a Bidder that specified an Exit Price equal to the Auction-Clearing Price (when the Auction-Clearing Price is the highest specified Exit Price for which the Final Demand equals to or exceeds the number of Bid Units Available).
Maximum Bid	II.2.4	The Maximum Bid is set out in Article II.3 (<i>Auction Parameters</i>). A Bidder may not Select more Bid Units than the Maximum Bid.
Maximum Bid Deposit	II.4.1	The Maximum Bid Deposit is U.S.\$150,000. An applicant that pays a Bid Deposit that exceeds the Maximum Bid Deposit will, if it qualifies to participate as a Bidder in the auction, be considered to have submitted a Bid Deposit equal to the Maximum Bid Deposit for purposes of calculating the Bidder's Initial Eligibility.
Minimum Bid	II.2.4	The Minimum Bid is set out in Article II.3 (<i>Auction Parameters</i>). A Bidder may not Select fewer Bid Units than the Minimum Bid unless it makes a Zero Selection.

Glossary of Terms

Term	Article	Explanation
Minimum Bid Deposit	II.4.1	Each applicant must pay a Bid Deposit that is no less than the Minimum Bid Deposit of U.S.\$12,000.
Minimum Win	II.2.3	The lower bound of Eligibility for each Tier (20 for Tier 1, 50 for Tier 2, and 100 for Tier 3) is the Minimum Win for that Tier.
Non-Zero Selection	III.2.2	A Non-Zero Selection is a Selection of a number of Bid Units equal to or greater than the Minimum Bid.
Proxy Price	III.7.3	Proxy bidding is an option by which the Auction Software can place Bids on behalf of a Bidder on the basis of the Proxy Price. The Proxy Price is a maximum Bid Unit Price pre-determined by the Bidder prior to the Bidding Phase of round 1 of the auction and above which the Bidder would cease to agree to place Bids for Bid Units.
Remainder	III.4.3	The Remainder is the sum of (i) the number of Bid Units Withdrawn by Marginal Bidders at the Auction-Clearing Price and (ii) the number of Bid Units Available less the Final Demand at the Auction-Clearing Price
Reporting Phase	III.1.11	In the Reporting Phase of a round, Bidders have access to information regarding the immediately preceding Bidding Phase.
Select	II.2.2	A Bidder Selects a number of Bid Units in a round of the auction if the Bid placed in the Auction Software by or on behalf of the Bidder specifies that number of Bid Units as the number of Bid Units that it is willing to purchase at the Going Price of that round.
Undersell	III.1.5	The difference between the Number of Bid Units Available and the sum of the Bids Units for which Bidders are provisionally successful.
Withdraw	II.2.5	A Bidder Withdraws a number of Bid Units from the auction if the number of Bid Units it Selects in a round is less than the number of Bid Units it Selected in the prior round.
Zero Selection	III.2.2	A Zero Selection is a Selection of zero (0) Bid Units.

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