



Pilot Auction Facility

For Methane and Climate Change Mitigation

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About the Pilot Auction Facility

Objectives and Scope

- Pilot an innovative climate finance mechanism that pioneers the use of auctions to allocate scarce public resources for climate change mitigation
- Stimulate private sector investment in projects that reduce greenhouse gas emissions
- Initially target methane mitigation projects
- At \$100 million in target capitalization, the PAF is designed as a pilot and could be replicated for use with other pollutants or via other financial institutions, such as the Green Climate Fund, and has the potential for significant scale up

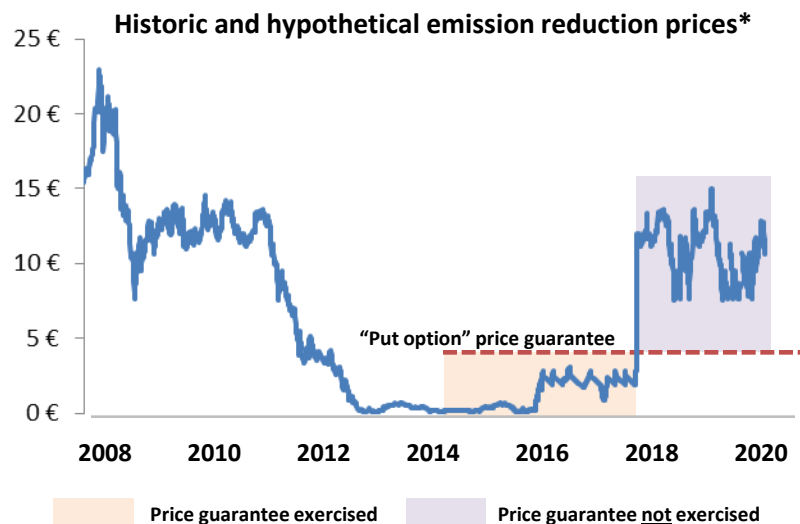
Innovative Mechanism

- By using the rules and procedures of existing carbon market standards, it will disburse its resources against independently verified emission reductions, making it a results-based payment mechanism
- The PAF will establish a price floor for future carbon credits in the form of a tradeable put option, which will be competitively allocated through an auction



The PAF will offer a price guarantee by using a put option

- Carbon market prices for emission reductions collapsed and currently are not providing incentive to reduce emissions
- The PAF will pilot using “put options” to guarantee a floor price on emission reductions
- Put options give the project owner the right, but not the obligation to sell at the guarantee price (a.k.a., strike price)



- The auction result sets the guarantee price level
- Auctioning ensures that the least-cost climate mitigation activities are selected to get the price guarantee
- Auction winners must purchase the price guarantee (a.k.a., pay put premium)

How it works: Step-by-step

1. Select and contract for emission reductions:



Publicize auctions



Execute auction to determine the winning bids



Sign put option contracts with the winning bidders

2. Achieve emission reductions:



Put option contract in hard currency helps implementer overcome financial and other barriers

3. Verify & pay-for-performance:



Monitor and verify emission reductions using established GHG accounting standards



Should the market price be below the put option strike price, contract holders exercise options and the PAF purchases the carbon credits



For more information

<http://www.worldbank.org/en/news/feature/2014/09/15/pioneering-new-financial-instrument>

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Annex

Initial target: Methane mitigation projects (1 of 2)

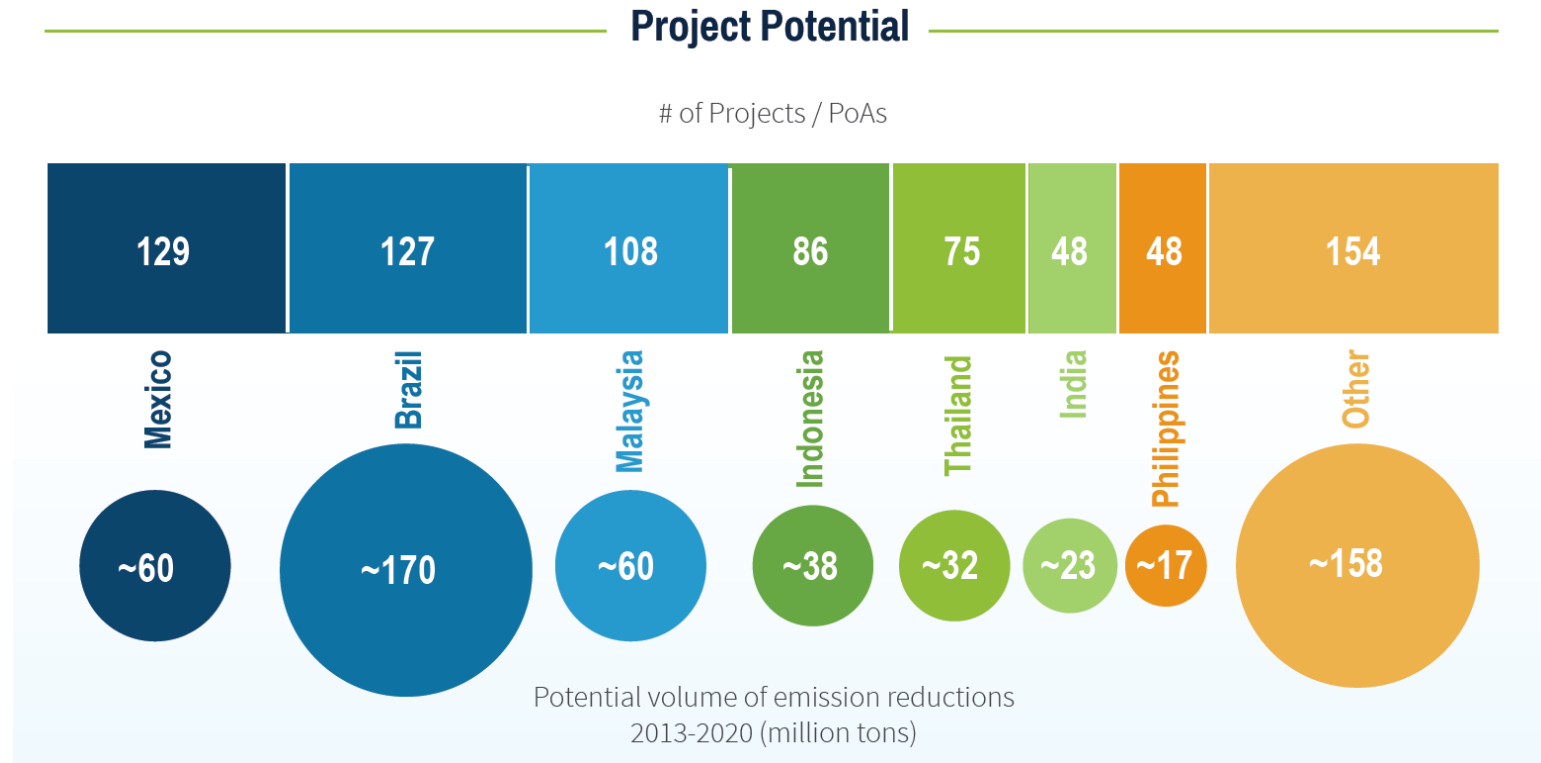
Sample Supported Projects



Why Methane

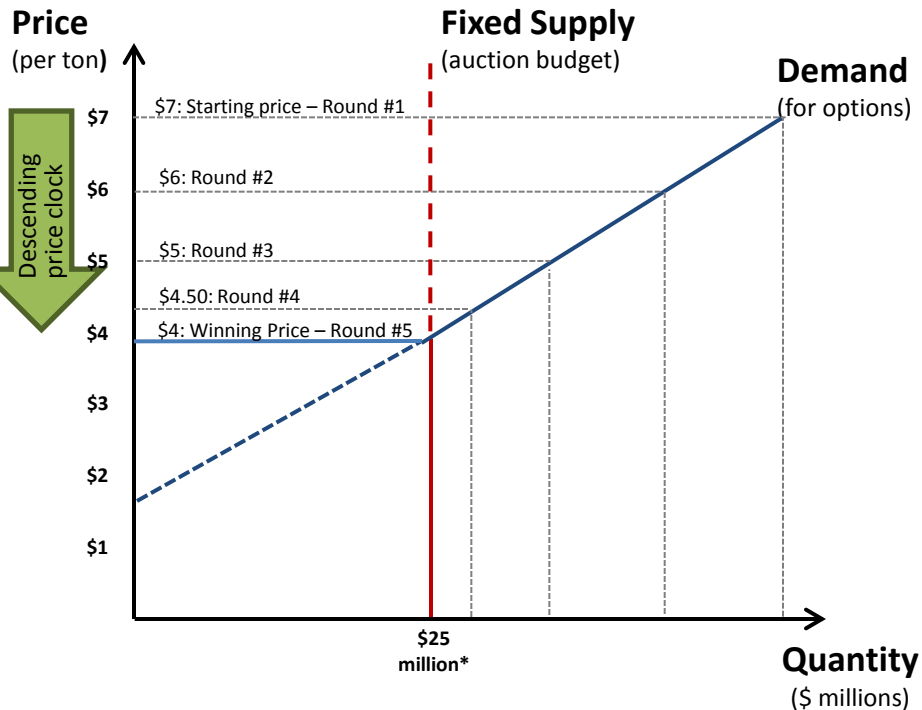
- Methane is a highly potent greenhouse gas, 25 times that of carbon dioxide (CO₂)
- Concerted action in methane sectors alone could lessen warming by 0.3°C by 2050
- Methane aids in the formation of urban "smog" that is toxic to plants and crops and damaging to lungs, causing asthma and even heart attacks
- Captured methane can be burned for cooking or electricity generation
- ~1,200 projects, capable of reducing ~850 Mt CO₂e until 2020, were identified as stranded – the initial target of the PAF

Initial target: Methane mitigation projects (2 of 2)



Example: Reverse Clock Auction to Sell Put Options

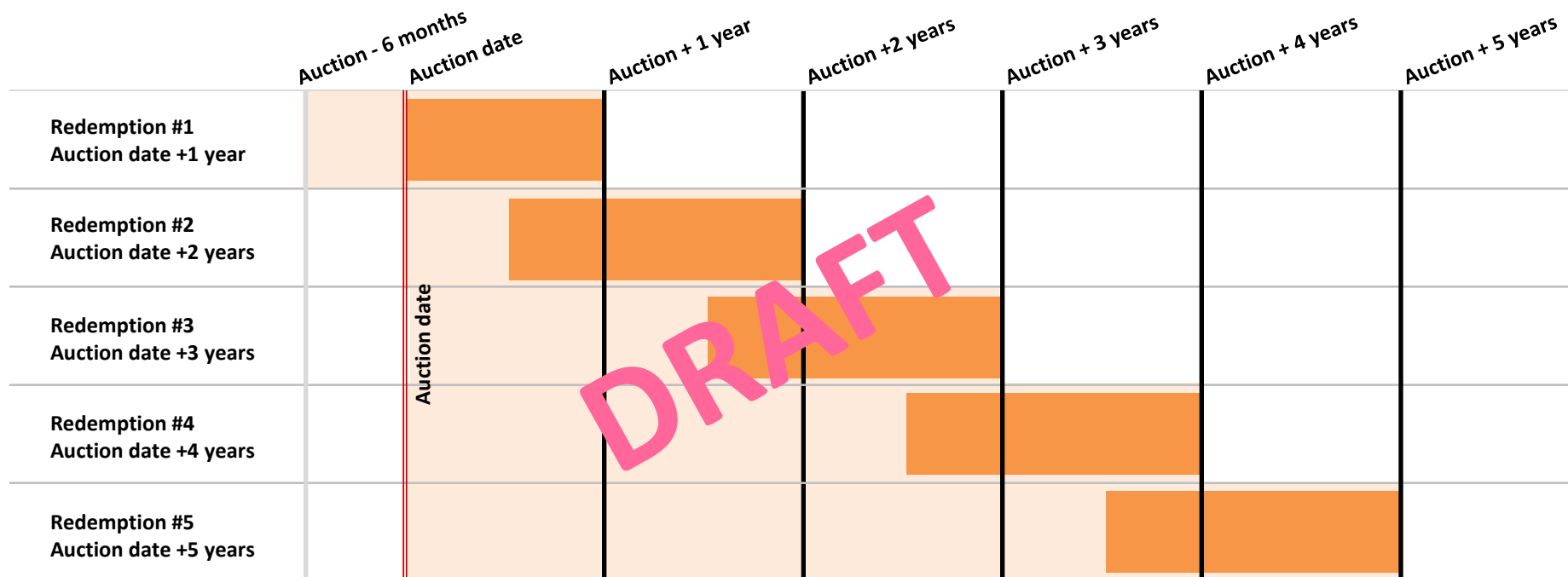
**FOR EXAMPLE ONLY
AUCTION RESULTS WILL VARY**



* Auction budget will actually increase as bid decrements tick lower (b/c more options get sold). In this example the initial \$25m budget will generate ~\$3.5m in premium back into the auction. The use of premiums to increase the size of the auction will happen in real time in the online platform.

1. PAF announces transparent and objective criteria for eligible CERs as well as the put option premium that will be required of all winning bidders
2. The reverse auction fixes the option premium for all put options (e.g., \$0.50 per ton) – this is the amount winners will need to pay up-front to purchase the option; losers owe nothing
3. PAF engages in global marketing campaign to ensure that a diverse set of firms are made aware
4. Bidders announce their intention to participate, place a fully refundable deposit in order to indicate the maximum [value/volume] they are willing to purchase in the auction (e.g., 5-10%)
5. Bidders undergo World Bank Integrity Due Diligence screening
6. Training for bidders on the auction rules and online platform
7. The PAF sets a reserve price which is the auction starting price
8. Bidders identify the quantity of put options they are willing to buy at the starting price; if the aggregate demand for put options is greater than the supply (the auction budget) then there is a new round with a lower price; if a participant is unwilling to buy at the new round's announced price they drop out of the auction completely
9. A second round starts and the PAF sets a lower price and bidders identify the quantity of put options they are willing to buy at that price; if aggregate demand is greater than supply than a new round is declared with a lower price
10. Auction rounds continue with additional bidders dropping out until a round where aggregate demand is less than or equal to supply – this becomes the clearing price and all bidders left standing; this is the uniform put option strike price

Draft generation and issuance rules for put options



Due Diligence: Environment, Health & Safety and Social Performance



- The PAF is developing a list of key environmental, health & safety and social (EHS) criteria, derived from the International Finance Corporation (IFC) Performance Standards
- To be eligible for payment for the PAF's put options, ERs will have to be provided from projects that have an independent inspection
- The option owner will submit an inspection report by an independent and appropriately accredited third-party auditor. Several audit firms registered as CDM DOEs have indicated their ability to complete this inspection report in combination with their verifications
- The EHS criteria have been worded so as to be readily answered, in order to achieve a pass or fail result. If a failure is recorded, the option owner would need to identify other sources of ERs prior to the option's redemption date, or trade the option to another entity
- The cost of the EHS inspection is to be borne by the option owner, and will be required with each put option redemption (i.e., annually)