



Revised CPF Pricing Approach

1. The proposed revisions to the CPF Pricing Approach are intended to take into account the significant decline in carbon market prices since August 2011. The Revised CPF Pricing Approach, to be effective from June 2012 through May 2013, is proposed to include the following elements. The current CPF Pricing Approach is attached as Annex 1.

Benchmark Price

2. Given the increasing difficulty of obtaining market information regarding primary CER transactions, the use of a *benchmark price* will be suspended during the period from June 2012 to May 2013.

Fixed Pricing

3. ERs can be transacted at a pre-determined, negotiated *fixed price*. The *fixed price* would be determined by agreement of the Buyers and the Seller, based on a proposal from the Trustee.

Variable Pricing

4. ERs can be transacted at a *variable price*, with the following parameters.

- Under the *variable pricing* approach, ERs will be transacted at a 15 percent discount to the CER spot market price at the time of delivery, or at a percent discount as agreed by the Buyers and the Seller, based on a proposal from the Trustee.
- For the *variable pricing* approach, a *floor* and a *ceiling* in ER prices would be defined and included in the ERPA to limit price fluctuation in the contract and to limit the down or upside market risk to the Seller and the Buyer Participants, respectively. The floor and ceiling will be set by agreement of the Buyers and the Seller, based on a proposal from the Trustee.

Combination of Fixed and Variable Pricing

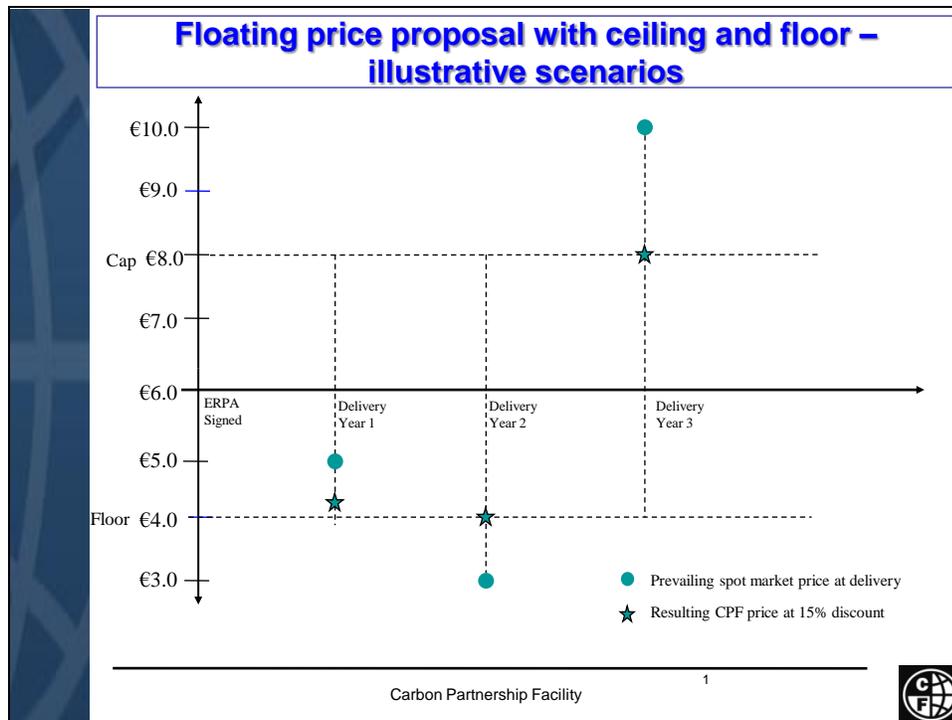
5. ERs can be transacted using a combination of *fixed* and *variable pricing*, with a percentage of the ERs delivered at a *fixed price* and the remainder at a *variable price*. In addition, *fixed pricing* may be utilized for part of the contract period and *variable pricing* for the remainder.

Illustration

6. The following chart illustrates the *variable pricing* approach, in a scenario where the *floor price* is €4.0 and there is a *ceiling price* of €8.0.

- At the time of delivery in year one (D1), the CER spot market price is €5.0. With a 15% discount to the CER spot market price, the ER price would be €4.25.

- At the time of delivery in year two (D2), the CER spot market price is €3.0. With a floor price of €4.0, the ER price would be €4.0.
- At the time of delivery in year three (D3), the CER spot market price is €10.0. With a ceiling price of €8.0, the ER price would be €8.0.



Procedure for Reaching Agreement on Pricing for a Program

7. The Seller would provide the Carbon Finance Document to the Trustee, including a delivery plan and information on the status of the Program in the CDM regulatory process. The Seller would also indicate if it proposed to use a *fixed pricing* or a *variable pricing* approach, or a combination.

8. The Trustee would then prepare a risk analysis of the Program to be provided to the Buyers and the Seller, together with the CFD. This would provide the basis for Buyers' consent to the CFD and inclusion of the Program in the Tranche portfolio. Buyers would have minimum of 15 Business Days to register any objection to inclusion of the Program in the Tranche portfolio. Buyers and the Seller would have the opportunity at this time to comment on the Trustee's risk analysis of the Program.

9. The Trustee would then propose a *fixed price*, or in the case of *variable pricing*, the applicable *floor price and ceiling price*, to Buyers and the Seller, on a no objection basis, with a minimum of 15 Business Days to respond. If there is an objection, the Trustee would seek to find a solution through additional consultations with the Participants.

10. The ERPA contract will include minimum volume and maximum value terms. The contract can also include a maximum volume term.

11. As part of the pricing terms, the Trustee will propose a time period during which the terms agreed by the Buyers and the Seller will be effective. If the ERPA is not signed by the Seller by the end of this period, the Trustee will revert to the Buyers and Seller and seek a new mandate on the pricing terms.

12. Section 10 (3) (a) (iii) of the CPF Instrument provides that the Pricing Approach may be reviewed at the Annual Meeting at the request of two or more Participants. The Trustee proposes that the Revised Pricing Approach be reviewed at the 2013 Annual Meeting.

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Proposed CPF Pricing Approach

1. The CPF Pricing Approach is proposed to include the following elements:

Reference Price

2. A *reference price* will be set in the ERPA contract, based on a *benchmark price* for primary CERs to be provided by the Trustee and adjusted for the specific risk of the program.
3. The *benchmark price* will be based on available market information for primary CER transactions; the Trustee will provide information to Participants on the average and/or range. The Trustee will inform Participants of the *benchmark price* every four months¹, provided that existing (or equivalent) information sources remain available.²
 - For illustration purposes, based on the approach described in Appendix 1, as of September 30, 2010 the benchmark price for forward contracts delivering post-2012 CERs would be €8.0. The Trustee would use the benchmark price of €8.0 to define the reference price in the CPF ERPAs to be signed in October 2010.
4. From the *benchmark price*, appropriate *risk adjustments*, i.e., discounts or premia, reflecting the specifics of any given ER program would be applied to reach an appropriate *reference price* for that Program (or Project). The risk adjustment will take into account 1) program specific delivery risks and 2) regulatory risks.^{3 4} The Trustee will not establish prices unilaterally; *reference prices* shall be consistent with the prevailing market price practices for similar transactions.
 - For example, if at the time of ERPA signature the *benchmark price* is €7.0, and the *risk adjustment* is a premium of €0.20, the *reference price* would be €7.2. This price would apply to the CERs to be sold to the C/ME for the CPF from the first CPA, and from any other CPAs for which C/ME-CPA sub-ERPAs are signed during that four month period.
 - CPAs that sign sub-ERPAs with the C/ME subsequently will have the *benchmark price* for the CERs determined at the time of signature of the sub-ERPA. The *risk adjustment* to the *benchmark price* will not change. For example, if a CPA signs a sub-ERPA three months after ERPA signature, and the new *benchmark price* is €7.25, then the *reference price* for the CERs from this CPA would be €7.45.

¹ The initial period will run from January 1, 2011 through April 30, 2011.

² The Trustee obtains price information through publicly available notes and reports, as well as interviews and consultations with relevant market participants. See Appendix 1.

³ The final price should remain consistent with the prevailing market prices for similar transactions.

⁴ Such adjustments would include the risk profile in each program and the risk allocation in each contract, and include program/project risk and regulatory risk. In addition, the Trustee may deduct upfront payment for ERs, and recovery of costs and expenses, if any and applicable.

Fixed Pricing

5. ERs will be transacted at a pre-determined, negotiated *fixed price* (the *reference price*) that would not be adjusted during a minimum of the first five years of the ERPA term, following the principles defined in the previous section “Reference Price.”

Variable Pricing

6. ERs could be transacted at a *variable price* after the first five years of the ER contract, whereby, at every ER delivery and payment date, the Buyer and Seller Participants would share both the upside and downside in the prevailing market prices for the asset class to be delivered (e.g. spot CER).

- Under the *variable pricing* approach, the *reference price* in the contract (applicable to each CPA) and the *variable component* (CER spot market price at the time of delivery) would be weighted to determine the final price to be paid at the ER payment date. The *reference price* would have a minimum weighting of 50% in calculating the final price (CER spot market price would have a maximum weighting of 50%).
- For such a *variable pricing* approach, a floor and a ceiling in ER prices would be defined and included in the ERPA to limit price fluctuation in the contract and to limit the down or upside market risk to the Seller and the Buyer Participants, respectively. The floor and ceiling could vary symmetrically from the *reference price* up to 50%.

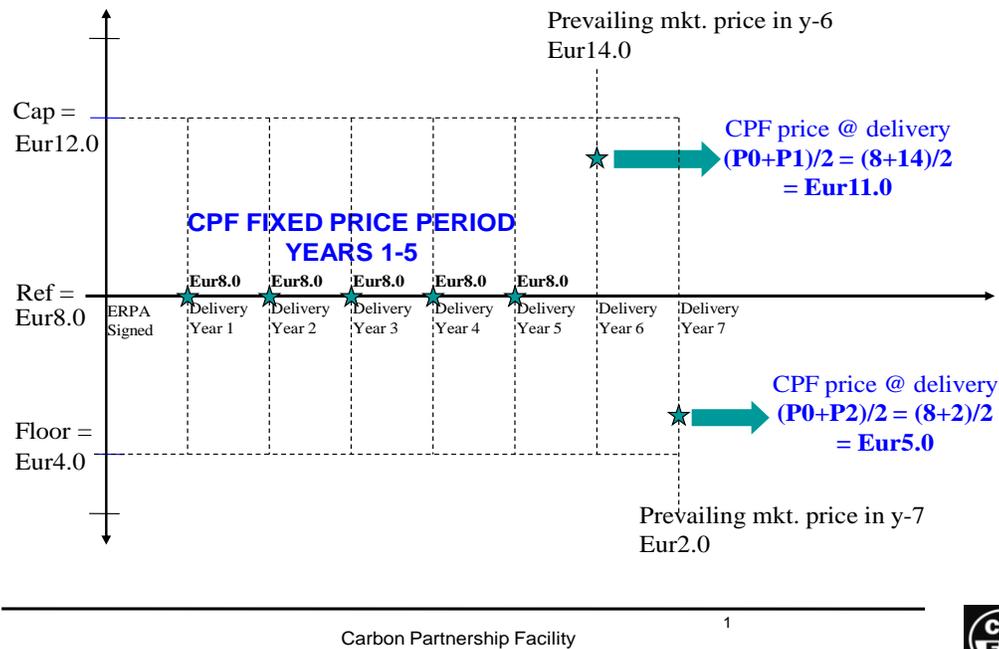
7. A program with multiple components (such as a city-wide program) could have different pricing structures for each component within the agreed pricing approach.

Illustration

8. The following chart illustrates the *variable pricing* approach, in a scenario where the *reference price* is € 8.0, the weighting of the *reference price* and *variable component* (CER spot market price) are each 50%, and there is a floor of € 4.0 and a ceiling of € 12.0 (50% variation from the *reference price*).

- At the time of delivery in year six (D6), the CER spot market price is € 14.0. With a 50% weighting of both the *reference price* and the CER spot market price, the ER price would be €11.0.
- At the time of delivery in year seven (D7) of the contract, the CER spot market price is €2.0. With a 50% weighting of both the *reference price* and the CER spot market price, the ER price would be € 5.0.

Illustration of Reference Price with Upside and Downside Sharing, plus ceiling and floor



Procedure for Reaching Agreement on Pricing for a Program

9. The Seller would provide the Carbon Finance Document to the Trustee, including a delivery plan and information on the status of the Program in the CDM regulatory process. The Seller would also indicate if it proposed to use the *variable pricing* approach after year five of the ERPA contract.

10. The Trustee would then prepare a risk analysis of the Program to be provided to the Buyers and the Seller, together with the CFD. This would provide the basis for Buyers' consent to the CFD and inclusion of the Program in the Tranche portfolio. Buyers would have minimum of 15 Business Days to register any objection to inclusion of the Program in the Tranche portfolio. Buyers and the Seller would have the opportunity at this time to comment on the Trustee's risk analysis of the Program.

- If the Seller has chosen variable pricing for the later years of the ERPA contract, both the Seller and Buyers could provide the Trustee at this time their preferences on the parameters (weighting of the *reference price* and the *variable component*, and the cap and floor (variation from the *reference price*), consistent with the agreed parameters of the Pricing Approach).

11. The Trustee would then propose a *risk adjustment* to the *benchmark price*, and in the case of *variable pricing*, the applicable parameters, to Buyers and the Seller, on a no objection basis, with a minimum of 15 Business Days to respond. If there is an objection, the Trustee would seek to find a solution through additional consultations with the Participants.

12. The ERPA contract will include volume and maximum value terms. The maximum value will be set at the time of ERPA signature as the product of the *reference price* times the volume.

13. Section 10 (3) (a) (iii) of the CPF Instrument provides that the Pricing Approach may be reviewed at the Annual Meeting at the request of two or more Participants.

Appendix 1: Data and information used by the World Bank Carbon Finance Unit (ENVCF) to substantiate its benchmark price proposals

ENVCF benchmark pricing proposals are based on information and data obtained from periodic reports, articles and market briefs issued by some among the most reliable carbon market players, including (but not limited to):

- Carbon Positive (<http://www.carbonpositive.net/default.aspx>);
- Carbon Finance online (ENVCF carries subscriptions to the paid website <http://www.carbon-financeonline.com/>);
- Tradition Financial Services - TFS (<http://www.tfsgreen.com/>);
- Point Carbon (ENVCF carries subscriptions to the Point Carbon Research <http://www.pointcarbon.com/> and Point Carbon Project Manager <http://www.pointcarbon.com/trading/cpm/> paid websites);
- Reuters, which provides and daily news and compiles reports from major market players such as Deutsche Bank, the MF Global (formerly Man Financial), among others <http://communities.thomsonreuters.com/carbon>);
- Société Générale / Orbeo (ENVCF receives the Orbeo's weekly Carbon Drivers Report by email); and
- IDEA Carbon (ENVCF receives the weekly issued pCER Index by email).

ENVCF also draws on informal and continuous consultations conducted with the carbon market participants in its networking group, e.g., private and public compliance buyers based in Europe and Japan (many of them are participants in the World Bank Carbon Funds), fund managers (compliance and investor funds), traders and brokers, intermediaries and aggregators, and sellers in developing countries.

The benchmark price will be based on analysis of market information (i.e., references in reports, notes in websites, informal interviews and consultations, etc), rather than on a quantitative formula. In practice it is not possible to use a mathematical formula (e.g., average of specific data points or indexes) to determine pCER prices. Since discrepancies among different sources are very common, information will only be taken into account for ENVCF analysis after cross-checking it with other sources. Using this analytical method over the last years, ENVCF has been able to monitor and swiftly identify every major price trend by following a wide spectrum of analysts in different sectors of the market, and we plan to utilize the same approach for the CPF.