

# COMMODITY EXCHANGE BRATISLAVA

## Methodology for issuing and trading CEB Voluntary emission reductions – Solar power support (CEB VER Solar)

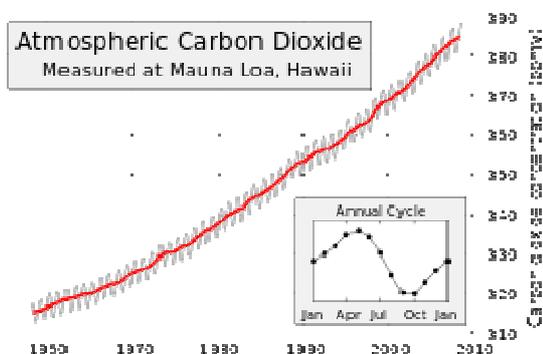
### About this document

This document explains the basis of emission reductions with support for solar energy generation. Also describes exact methodology who, which projects, and how many VERs is possible to issue.

### Carbon Neutral

Carbon neutrality means the combining the extensive CO<sub>2</sub> production of one person with the project of reductions CO<sub>2</sub>.

Humans produce CO<sub>2</sub> in factories, in agriculture, by traveling and other sources in such extensive way, that the composition of the Earth's atmosphere is changing. Total human production in 2011 was approximately 33 mil tons of CO<sub>2</sub><sup>1</sup>. Atmospheric composition of CO<sub>2</sub> has changed from 320 ppm in 1960 to over 380 ppm in 2010 and has the increasing direction<sup>2</sup>.



Certain projects reduce CO<sub>2</sub> in atmosphere. For example reforestation, with growing one tree, the CO<sub>2</sub> is converted back to O<sub>2</sub> with photosynthesis. Other project types for example reduce the use of coal power plants and produce green energy. If the energy will not be produced in coal plants, but rather in solar plants, CO<sub>2</sub> will not be produced, thus will be reduced. This methodology is dedicated to use the solar plants instead of dirt power plants, and is base for sustainability market with these certificates.



100 t CO<sub>2</sub> produced + 100 t CO<sub>2</sub> reduced = 0 CO<sub>2</sub> = Carbon Neutral Company

<sup>1</sup> [http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_carbon\\_dioxide\\_emissions](http://en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions)

<sup>2</sup> [http://en.wikipedia.org/wiki/Carbon\\_dioxide](http://en.wikipedia.org/wiki/Carbon_dioxide)



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## Definitions of terms

<i>Carbon Intensity</i>	Amount of CO <sub>2</sub> produced by producing 1 MWh of energy.
<i>Emitter</i>	Natural person or legal entity that produces CO <sub>2</sub> .
<i>Issuer</i>	Commodity Exchange Bratislava issues carbon credits for project developer.
<i>Project developer</i>	Natural person or legal entity that produces energy in solar collectors.
<i>VER CEB Solar</i>	Types of carbon credits issued with the methodology described in this document.

## Issuing the VER CEB Solar credits

This section explains who, what projects, what the process for issuance is, and how many credits can be issued.

### Who is allowed to receive VER CEB Solar credits?

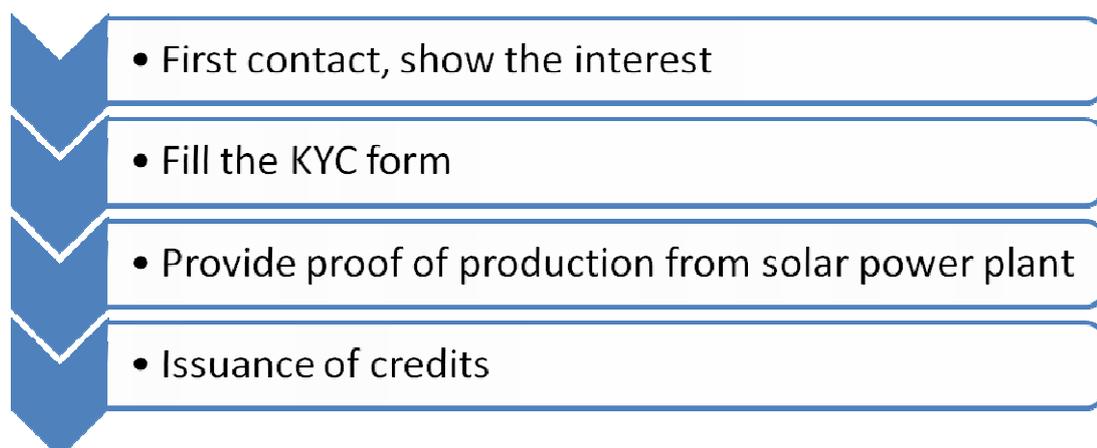
Anyone that produces at least one MW per year can start the process of issuance carbon credits. The receiver can be a natural person or legal entity.

### What projects can receive VER CEB Solar credits?

It is possible to issue credits only for projects that are not bind yet with another type of carbon credit. Any project not bind with other emission reduction project certification, that produced at least 1 MW energy, can be used to issue VER CEB Solar credits.

### What is the process of issuance VER CEB Solar credits?

CEB will issue VER CEB Solar credits after providing the Know Your Client form, and providing proof of production exact quantity of solar power in certain year.



### How many credits can be issued?

CEB will calculate dirt electricity production – Carbon intensity. The formula to calculate total carbon intensity is average of the carbon intensity in major European power companies. Exact calculation shall be published on CEB website for every



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year. Because of delay of the data in official annual reports, the Carbon Intensity from these report should be taken for the following year<sup>3</sup>.

The amount of issued certificates is calculated with formula

$$\text{Issued} = \text{Carbon Intensity}_Y * \text{Produced energy}$$

where Issued is amount of issued VER CEB Solar credits, Carbon Intensity<sub>Y</sub> is carbon intensity calculated for the year Y and published on CEB website, Produced energy is amount of energy produced by project developer in year Y.

## **Trading CEB VER Solar credits**

CEB will provide market with CEB VER Solar credits, and registry for managing them. Project developers can sell the credits to traders or Carbon Neutral Companies.

Traders or other CEB members can surrender the VERs, and become Carbon Neutral Companies. It is also possible to surrender VERs for third party.

CEB will issue certificate for Carbon Neutral Companies or Carbon Neutral Persons after the certification process.

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<sup>3</sup> For example, from annual reports 2011 will be calculated carbon intensity for year 2012.