# Bonus Allowances for Carbon Capture and Storage

The price per ton of CO<sub>2</sub> that would be needed to make carbon capture and sequestration economically attractive is said to be around \$35/ton

In order to limit the impacts to the economy that such a price could have, the Low Carbon Economy Act bridges the gap between the allowance price and this value with Bonus Allowances.

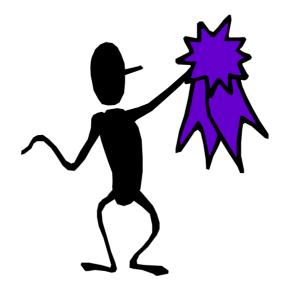
The bonus allowance set-aside can support the development of of up to 150 GW of advanced coal with carbon capture and storage by 2030

## Bonus Allowances for Sequestration

|      |                 |          |                                 |  |  |                         | <b>v</b>                       |                              |
|------|-----------------|----------|---------------------------------|--|--|-------------------------|--------------------------------|------------------------------|
| Year | Auction         |          |                                 | Allocation<br>to Indus-  | Set-Aside Programs                     |                         |                                |                              |
|      | Tech-<br>nology | Adaption | Low-In-<br>come As-<br>sistance | try Sec-<br>tors (Reg-<br>ulated<br>and Non-<br>regulated<br>Entities) | Agri-<br>culture<br>Seques-<br>tration | Early<br>Reduc-<br>tion | CCS<br>Bonus<br>Allow-<br>ance | Alloca-<br>tion to<br>States |
| 2012 | 12              | 8        | 4                               | 53   | 5                                      | 1                       | 8                              | 9                            |
| 2013 | 12              | 8        | 4                               | 53   | 5                                      | 1                       | 8                              | 9                            |
| 2014 | 12              | 8        | 4                               | 53   | 5                                      | 1                       | 8                              | 9                            |
| 2015 | 12              | 8        | 4                               | 53   | 5                                      | 1                       | 8                              | 9                            |
| 2016 | 12              | 8        | 4                               | 53   | 5                                      | 1                       | 8                              | 9                            |
| 2017 | 13              | 9        | 4                               | 51   | 5                                      | 1                       | 8                              | 9                            |

8% of the total annual allowances are available as bonus allowances for Geological Sequestration in Section 207

## Example



The cap in 2017 is approximately 6.4 billion metric tons of CO<sub>2</sub>

8% of that is equal to 510,000,000 metric tons

Those allowances are set aside for bonuses

#### **Bonus Allowance Rate**

| "Calendar Year | Bonus Al-<br>lowance<br>Rate |
|----------------|------------------------------|
| 2012           | 3.5                          |
| 2013           | 3.5                          |
| 2014           | 3.5                          |
| 2015           | 3.5                          |
| 2016           | 3.5                          |
| 2017           | 3.5                          |
| 2018           | 3.3                          |
| 2019           | 3.1                          |

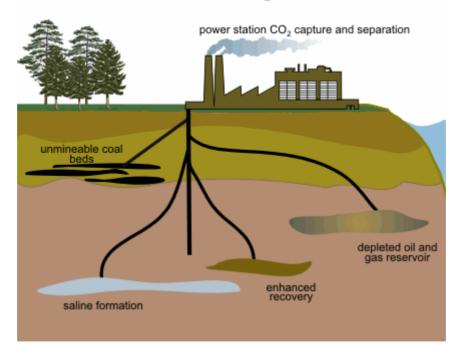
Facilities automatically receive 1 offset credit for every ton of CO<sub>2</sub> sequestered

In addition, facilities built by 2030 receive bonus allowances for each ton of  $CO_2$  sequestered during the first 10 years of operation. Bonus allowances are distributed by a set rate shown above. The number of bonus allowances received depends on the year in which the  $CO_2$  is sequestered (not the year in which the facility is built).

In 2017, the rate is 3.5

In 2017, every facility that sequesters CO<sub>2</sub> will receive 3.5 additional allowances for each ton of CO<sub>2</sub> sequestered

## Example



This power station sequesters 100 tons of CO<sub>2</sub> in 2017.

It automatically receives 100 offset credits

In addition, it receives 100 x 3.5 allowances, or 350 bonus allowances

The facility receives a total of 450 allowances (offset credits + bonus allowances)

If the price of CO<sub>2</sub> is \$10/ton in 2017, this facility receives \$45 worth of allowances for every ton it sequesters

## Insufficient Allowances or Surpluses

If the 8% pool is exceeded by sequestration projects, allowances are taken out of the auction to supplement the pool

If there are surplus allowances, those allowances are transferred to the auction