

Brief Case: Accounting for Emissions Allowances

Beginning January 1, 2011, Rainer Electric (the “Company”) is subject to the regulation of its carbon dioxide (CO₂) emissions through a mandatory cap-and-trade program. On that date, the Company was allocated, free of charge, 200,000 CO₂ allowances from the regulator. Each allowance has a vintage year designation of 2011 and can be used to offset the emission of one ton of CO₂.¹

Under the terms of the program, the Company can freely trade the allowances. However, the Company must provide the necessary number of allowances to offset its yearly CO₂ emissions to the regulator by February 15th of the subsequent year.

The following table displays Rainer Electric’s actual emissions, forecasted emissions, and the spot price of one vintage 2011 emission allowance at the end of each quarter:

Period	Actual year-to-date CO ₂ emissions (in tons)	Estimated CO ₂ emissions for the year (in tons)	Allowance Spot Price
Beginning of quarter 1	N/A	180,000	\$15.00
End of quarter 1	40,000	190,000	\$11.00
End of quarter 2	120,000	205,000	\$14.00
End of quarter 3	210,000	260,000	\$16.00
End of quarter 4	260,000	260,000	\$17.00

Other information:

- On 1/15/2012, the Company purchased 60,000 vintage 2011 allowances for \$870,000, and settled with the regulator on 2/15/2012.

Questions:

1. On 1/1/2011, should the Company recognize an asset for the allowances received from the regulator? If so, how should the Company initially and subsequently measure the asset?
2. When should the Company begin recognizing a liability related to the cap-and-trade program? How should the Company initially and subsequently measure the liability?
3. Assuming an asset and liability were recorded in the prior questions, should the Company be permitted to offset the asset account with the liability account for the purpose of balance sheet presentation?

¹ The vintage year designation refers to the first year the allowance may be used.