

How the Quota Exchange Works

Offers to sell are ranked in ascending order of price. Bids to purchase are ranked in descending order of price. The point at which the difference between the cumulative number of kilograms offered and the cumulative number of kilograms bid is least (absolute value) is where the exchange clears. Those bidding at or above the clearing price are successful buyers. Those offering at or below the clearing price are successful sellers. The following example illustrates how the exchange works.

Price in \$\$\$	Sellers			Diff	Buyers						
	# of sellers	Kgs Offered	Total Kgs		Total Kgs	Kgs Wanted	# of buyers	Successful Purchase	% non-sale	Kgs non-sale	Kgs saleable
\$12,000	1	5	5	41	46	5	1		0		
\$14,000	1	5	10	31	41	5	1		5		
\$17,000	1	5	15	21	36	5	1		10		
\$21,000	1	5	20	11	31	5	1		15		
\$26,000	1	5	25	1	26	5	1	4.8	25	1.2	3.6
\$28,000	1	5	30	-9	21	5	1	4.8	40	1.9	2.9
\$30,000	1	5	35	-19	16	5	1	4.8	55	2.6	2.2
\$32,000	1	5	40	-29	11	6	1	5.8	75	4.3	1.4
\$33,500	1	5	45	-40	5	5	1	4.8	100	4.8	0.0
TOTALS	9	45				46	9	25.0		14.9	10.1

This exchange clears at \$26,000, because the point at which the difference between the cumulative number of kilograms offered and the cumulative number of kilograms bid is least occurs at \$26,000. Although 26 kilograms are bid for at this price, only 25 kilograms offered can satisfy buyers at that price, and therefore only 25 kilograms are successfully sold. When there is not sufficient quota offered for sale at the clearing price to satisfy all buyers at the clearing price, a prorating takes place. So each successful buyer receives 96.2% (25 / 26) of the quota for which he bid. For example, the buyer bidding for five kilograms at \$28,000 successfully purchases 4.8 kilograms. As a result, successful buyers, as a group, purchase 25 kilograms. (If the imbalance were to occur on the other side, meaning there is not sufficient quota bid for at the clearing price to satisfy all sellers at the clearing price, the 25 kilograms would be allocated to the sellers beginning with the lowest offer until all kilograms are allocated.)

Those who purchase quota on the exchange incur a portion of non-saleable quota. The higher the bid value, the greater the percentage of non-saleable quota the buyer incurs. In the example above, the producer who bids at \$30,000 and is successful in purchasing that quota would have 55% of that purchased quota flagged as non-saleable. So 2.6 kilograms of the 4.8 kilograms he successfully purchased is non-saleable quota; the remaining 2.2 kilograms is saleable quota. Successful buyers as a whole purchase 25 kilograms of quota, 14.9 of which is non-saleable and 10.1 of which is saleable.