



NOVEMBER 2019



IMPACT CARBON

Ecoeye International
www.ecoeye-int.com



MARKET SITUATION

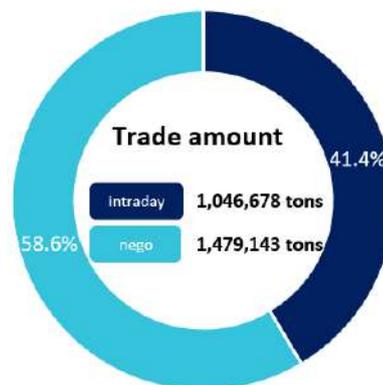
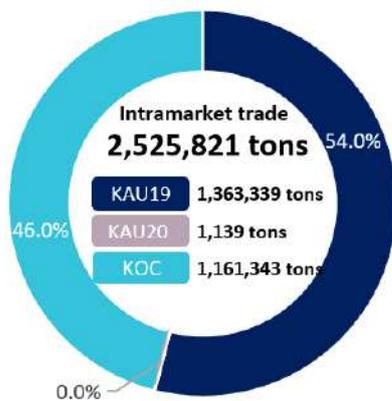
Comprehensive Trading Information (January 2019 – October 2019)

KAU19	
↑ 33,950 ▲2,100(+6.6%)	
Closing Price	33,950 Won
- 1 Month Average	33,093 Won
- 3 Month Average	31,160 Won
- Total Average	28,994 Won
Total Trading Amount	1,363,339 Ton
- Intraday	915,440 Ton
- Negotiated	447,899 Ton
Total Trading Value	39.5 B Won

KCU19	
↑ 31,850 ▲1,050(+3.4%)	
Closing Price	31,850 Won
- 1 Month Average	-
- 3 Month Average	-
- Total Average	-
Total Trading Amount	-
- Intraday	-
- Negotiated	-
Total Trading Value	-

KAU20	
↓ 32,100 ▼6,900(-17.7%)	
Closing Price	32,100 Won
- 1 Month Average	-
- 3 Month Average	31,300 Won
- Total Average	31,300 Won
Total Trading Amount	1,139 Ton
- Intraday	-
- Negotiated	1,139 Ton
Total Trading Value	36 M won

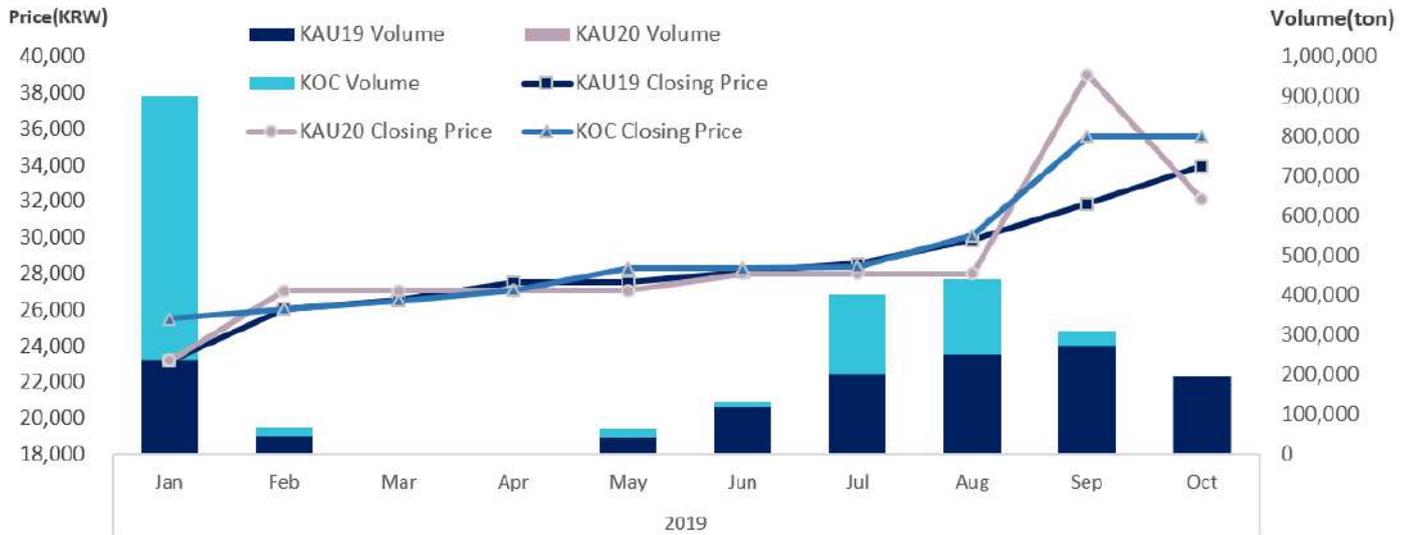
KOC	
→ 35,600 (0.0%)	
Closing Price	35,600 Won
- 1 Month Average	-
- 3 Month Average	30,230 Won
- Total Average	26,818 Won
Total Trading Amount	1,161,343 Ton
- Intraday	131,238 Ton
- Negotiated	1,030,105 Ton
Total Trading Value	31.1 B Won



*Trade information used in this newsletter are official data from the Korea Exchange (KRX); based on 31 October 2019 (comparison with prev month)



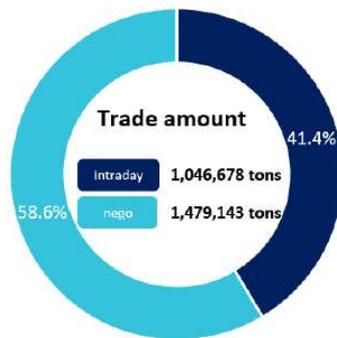
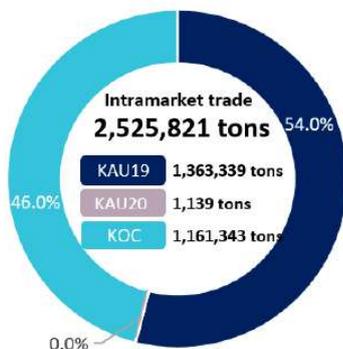
Emission Allowance Monthly Trading Information (January 2019 – October 2019)



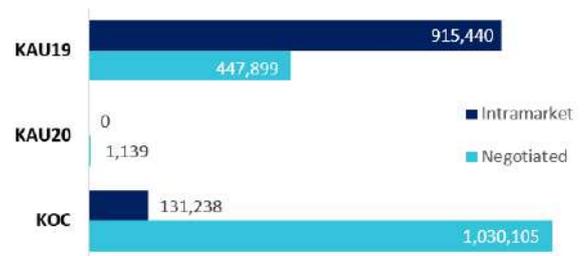
	KAU19			KAU20			KOC		
	Closing Price	Monthly Increase	Trade Volume	Closing Price	Monthly Increase	Trade Volume	Closing Price	Monthly Increase	Trade Volume
2019 Jan	23,200	-	237,000	23,200	-	-	25,500	▲1,000	664,754
Feb	26,050	▲150	45,000	27,050	▲3,850	-	26,050	▲550	23,163
Mar	26,550	▲500	-	27,050	-	-	26,500	▲450	4,229
Apr	27,500	▲500	-	27,050	-	-	27,100	▲600	-
May	27,500	-	40,500	27,050	-	-	28,300	▲1200	25,000
Jun	28,100	▲600	118,000	28,000	▲950	-	28,300	-	16,702
Jul	28,550	▲450	202,500	28,000	-	-	28,400	▲100	200,000
Aug	29,850	▲1,300	250,300	28,000	-	-	30,100	▲1,700	190,963
Sep	31,850	▲2,000	273,522	39,000	▲11,000	1,139	35,600	▲5,500	36,532
Oct	33,950	▲2,100	196,517	32,100	▼6,900	-	35,600	-	-
Total	-	-	1,363,339	-	-	1,139	-	-	1,161,343

*End-of-the-month closing price

*No intramarket trade for KCU19

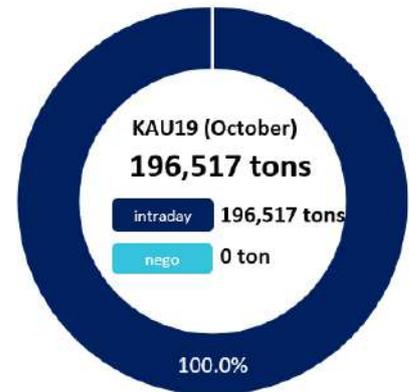
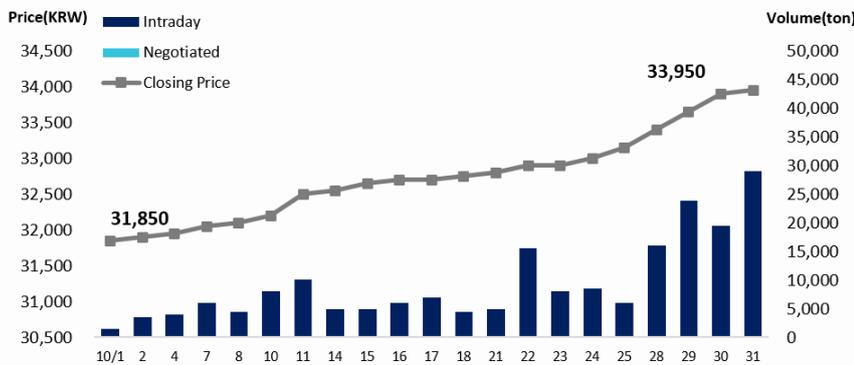


Intraday and Negotiated Trade Volume





KAU19 Trading Trends (October 2019)



Price (KRW)	Closing Price	33,950	Trade Volume	Intraday	196,517
	Average Price	33,093		Negotiated	-
	Monthly Highest	33,950		Total	196,517
	Monthly Lowest	31,850		Total Trade Value (B won)	

	Date	Closing Price	Gap	Rate	Trade Volume		
					Intraday	Negotiated	Total
KAU19	1-Oct-2019	31,850	-	-	1,500	-	1,500
	2-Oct-2019	31,900	▲ 50	0.16	3,501	-	3,501
	4-Oct-2019	31,950	▲ 50	0.16	4,000	-	4,000
	7-Oct-2019	32,050	▲ 100	0.31	6,000	-	6,000
	8-Oct-2019	32,100	▲ 50	0.16	4,500	-	4,500
	10-Oct-2019	32,200	▲ 100	0.31	8,000	-	8,000
	11-Oct-2019	32,500	▲ 300	0.93	10,107	-	10,107
	14-Oct-2019	32,550	▲ 50	0.15	5,000	-	5,000
	15-Oct-2019	32,650	▲ 100	0.31	5,000	-	5,000
	16-Oct-2019	32,700	▲ 50	0.15	6,000	-	6,000
	17-Oct-2019	32,700	-	-	7,000	-	7,000
	18-Oct-2019	32,750	▲ 50	0.15	4,500	-	4,500
	21-Oct-2019	32,800	▲ 50	0.15	5,000	-	5,000
	22-Oct-2019	32,900	▲ 100	0.30	15,500	-	15,500
	23-Oct-2019	32,900	-	-	8,000	-	8,000
	24-Oct-2019	33,000	▲ 100	0.30	8,500	-	8,500
	25-Oct-2019	33,150	▲ 150	0.45	6,000	-	6,000
	28-Oct-2019	33,400	▲ 250	0.75	16,000	-	16,000
	29-Oct-2019	33,650	▲ 250	0.75	23,900	-	23,900
	30-Oct-2019	33,900	▲ 250	0.74	19,509	-	19,509
	31-Oct-2019	33,950	▲ 50	0.15	29,000	-	29,000
	Total	-	-	-	196,517	-	196,517

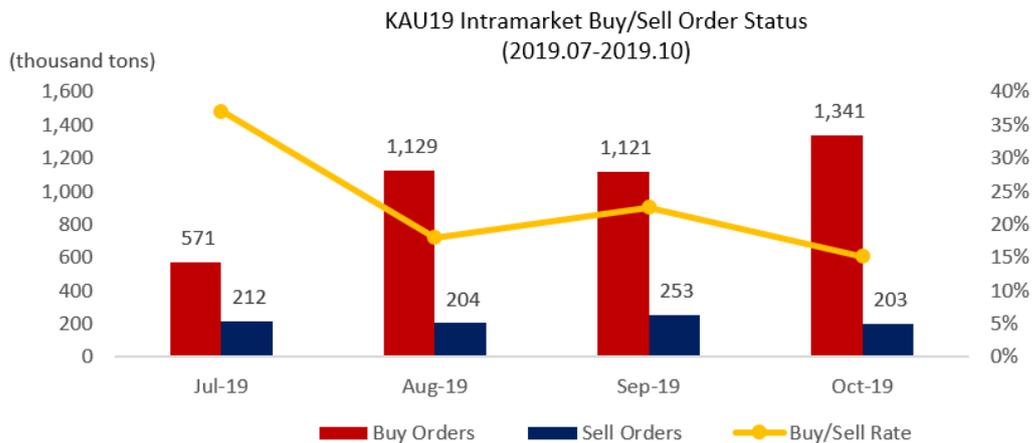


(Trade) October’s total intramarket trading volume of KAU19 was about 200,000 tons, all of which were traded through intraday trades, and majority of permits were estimated to be from the market makers (Industrial Bank of Korea, Korea Development Bank). All the sales volume quickly got traded and the price rose by KRW 2,100 compared to the beginning of the month.

(Buy/Sell Sectors) The cumulative KAU19 trading volume between January 2019 to September 2019 was 1.17 million tons, of which 719,000 tons (61.6%) were intraday transactions and 448,000 tons (38.4%) were negotiated deals.

Power generation and energy accounted for the largest share of KAU19 purchases at 962,000 tons (82.4%), followed by the petrochemical sector with 66,000 tons (5.7%), steel with 47,000 tons (4%), and 37,000 (3.2%) tons from the waste sector.

Market makers, classified under ‘others’, sold 603,000 tons (51.7%) of KAU19 followed by the collective energy industry with 17.1%, semiconductor industry with 8.1%, and the waste sector with 4.3%



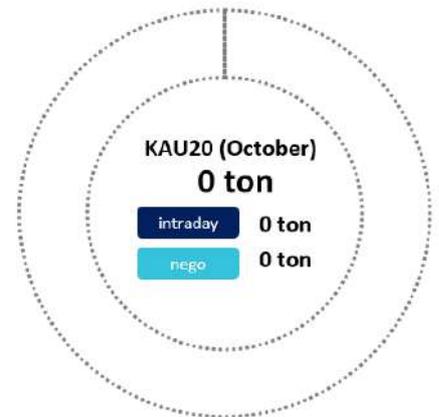
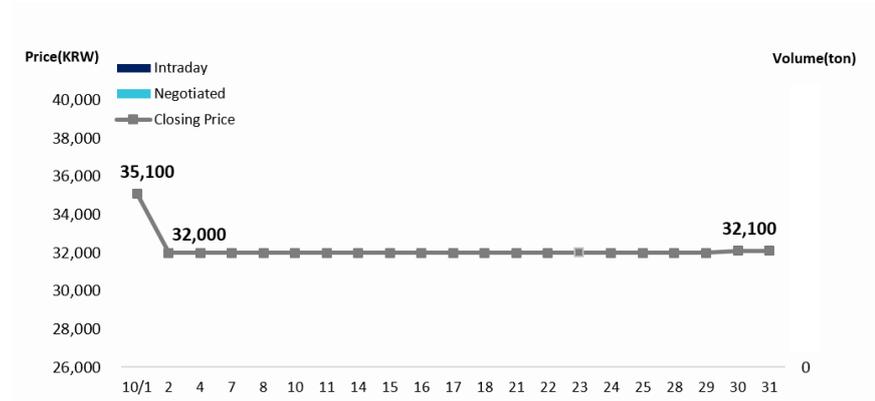
(Buy/Sell Spread) KAU19 buy orders gradually increased from 570,000 tons in July 2019 to 1.34 million tons in October. On the contrary, the average monthly sell orders from the same period was 218,000 rtons and most of them are from the market makers.

The supply rate fell from 37.1% in July to 15.2% in October as the sell orders failed to keep up with the buying increase and the monthly average trading price went up by 16.3% from KRW 28,466 in July to KRW 33,093 in October. This month’s transaction closing rate of buy and sell orders were 14.7% and 96.6%, respectively.

(Market Price) In the absence of additional supply other than those supplied by the market makers, KAU19 price of KRW 31,850 in early October rose by KRW 2,100 to KRW 33,950 in 21 days, an average increase of 100 won per day.

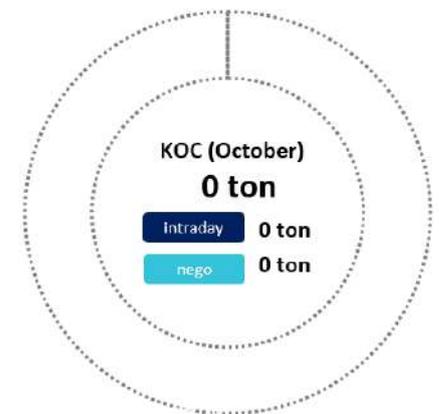
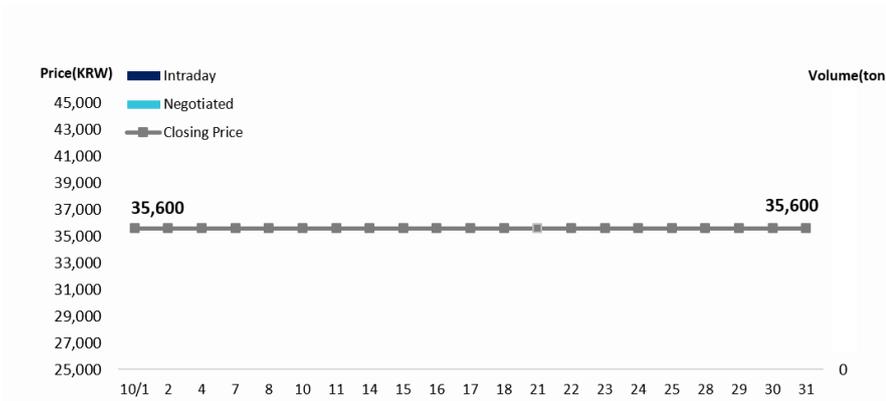


KAU20 Trading Trends (October 2019)



- There were no KAU20 transactions in October and the price was changed twice in accordance with the ETS regulations following the prices of KAU18 on September 30 and KAU19 on October 10.

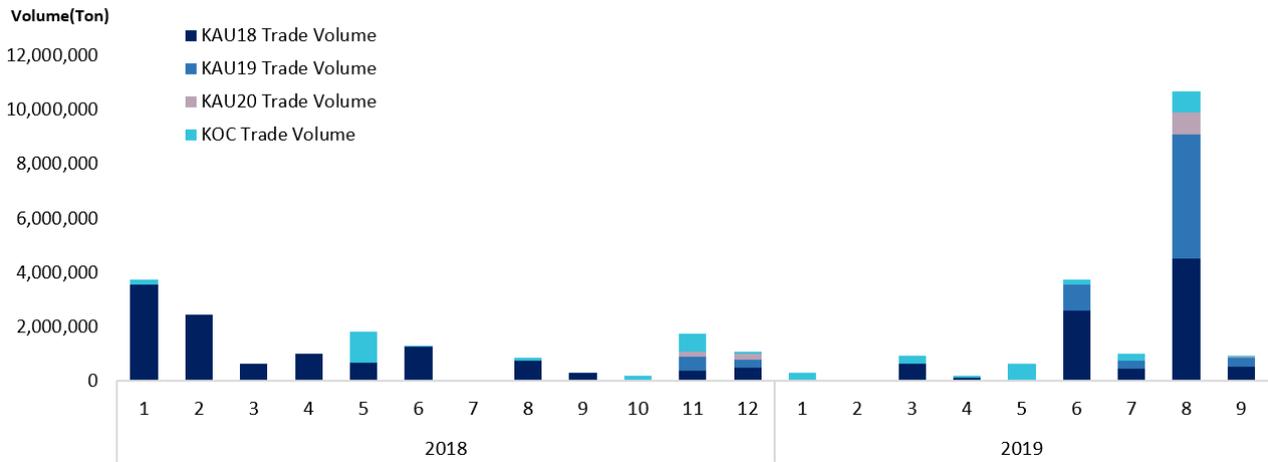
KOC Trading Trends (October 2019)



- There was no KOC trading in October, and the allowance price closed at KRW 35,600.

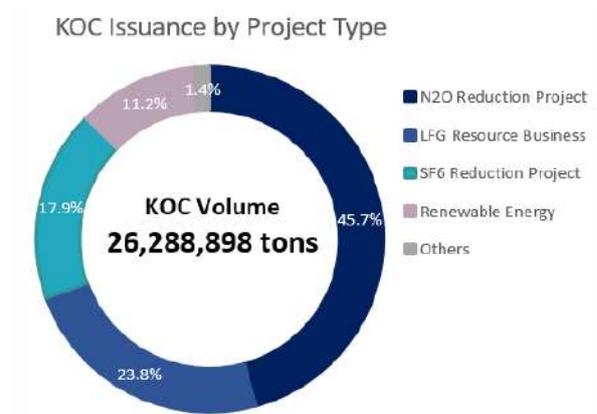
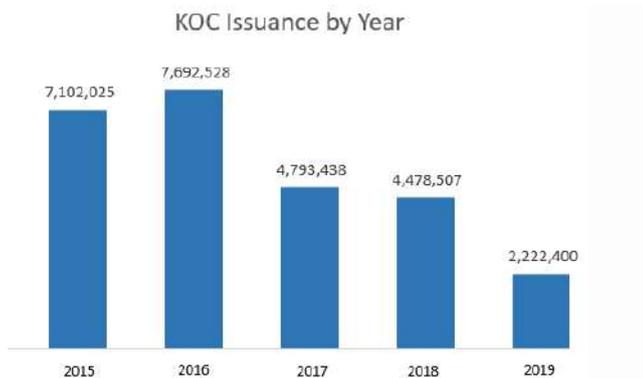


Over-the-Counter Transactions (January 2018 – October 2019)



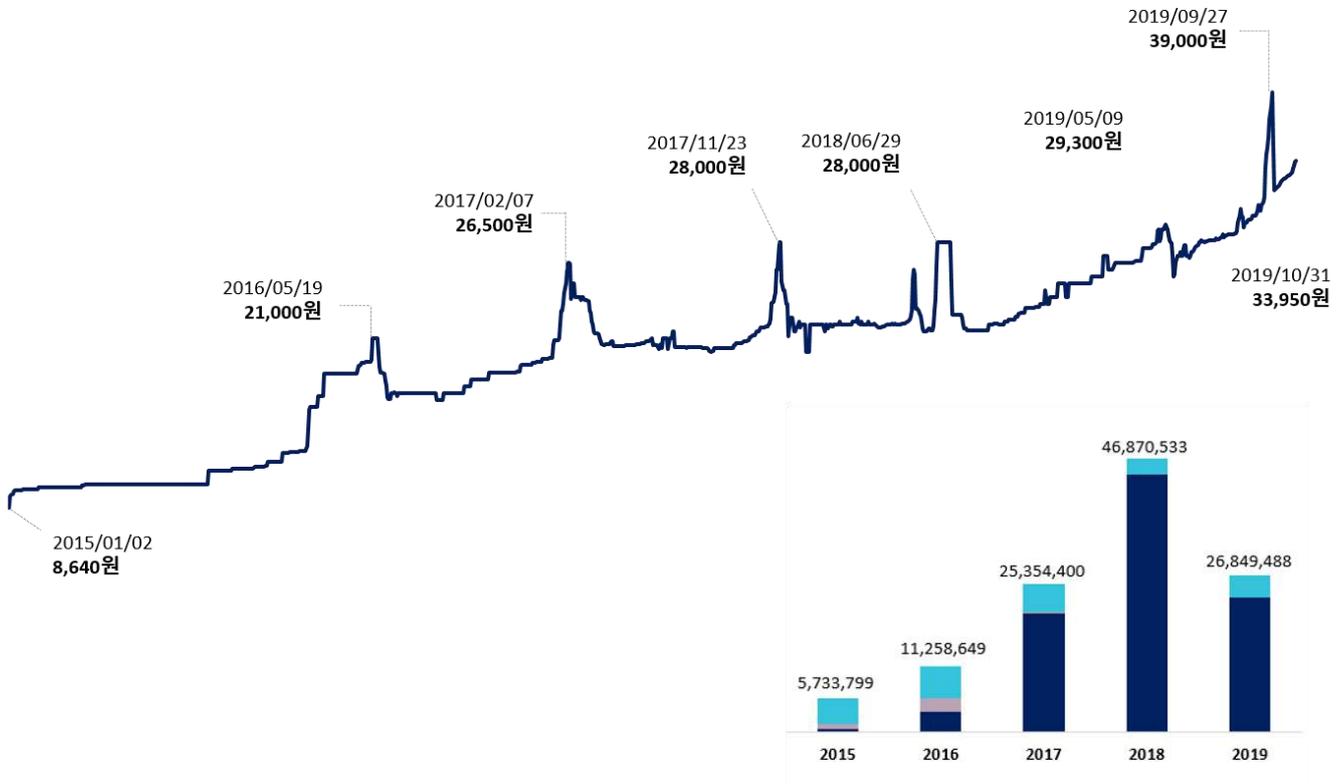
Year	Month	KAU18 Trade Volume	KAU19 Trade Volume	KAU20 Trade Volume	KOC Trade Volume
2018	Jan	3,542,517	-	-	191,484
	Feb	2,440,000	-	-	-
	Mar	630,000	-	-	-
	Apr	1,000,000	-	-	-
	May	684,163	-	-	1,143,590
	Jun	1,264,652	-	-	8,084
	Jul	-	-	-	1,000
	Aug	770,000	-	-	102,409
	Sep	300,000	-	-	-
	Oct	-	-	-	208,025
	Nov	400,000	500,000	200,000	648,372
	Dec	500,000	300,000	200,000	67,041
2019	Jan	-	-	-	300,000
	Feb	-	-	-	64,116
	Mar	630,000	-	-	300,000
	Apr	112,500	-	-	96,369
	May	-	3,000	-	632,253
	Jun	2,610,164	955,000	-	179,085
	Jul	450,000	300,000	-	246,484
	Aug	4,523,000	4,580,000	800,000	784,422
	Sep	528,022	336,099	50,000	39,388
Total		20,385,018	6,974,099	1,250,000	5,012,122

KOC Issuance Status (as of October 31, 2019)





Total ETS Performance (January 2015 – October 2019)



	KAU		KCU		KOC		Total	
	Intramarket	OTC	Intramarket	OTC	Intramarket	OTC	Intramarket	OTC
2015	321,380	78,315	920,717	-	-	4,413,387	1,242,097	4,491,702
2016	2,562,068	920,954	1,883,767	296,149	661,822	4,933,889	5,107,657	6,150,992
2017	13,707,828	6,594,468	323,276	-	703,032	4,025,796	14,734,136	10,620,264
2018	17,530,386	26,670,560	-	-	299,582	2,370,005	17,829,968	29,040,565
2019	7,131,711	15,877,785	-	-	1,161,343	2,642,117	8,293,054	18,519,902
Total	41,253,373	50,142,082	3,127,760	296,149	2,825,779	18,385,194	47,206,912	68,823,425
	91,395,455		3,423,909		21,210,973		116,030,337	



MARKET ANALYSIS

(Compliance) The first compliance year of Phase 2 ended on September 30 and it was confirmed that 1,428 tons of permits were not submitted. As a result, a penalty of KRW 66,712 per ton will be imposed on one emitter for failing to submit the remaining allowances.

(Banking/Borrowing) For the 2018 compliance year, 406 companies carried over allowances amounting to 35.5 million tons with the power generation and energy taking the bulk share at 36.1%, followed by steel at 21.9%, oil refinery at 10.3%, 4.8% for petrochemicals, 4.3% for cement, and waste with 4.1%.

Meanwhile, 125 companies borrowed allowances totaling 5.15 million tons with steel having 35.3% of the share, followed by cement, industrial complexes, non-ferrous metals, petrochemicals, and power generation.

(Surplus/Deficit) Based on banking and borrowing data, it seemed that 23 industries have remaining allowances to surrender for compliance. However, without the 37 million tons carried from Phase 1, the 2018 compliance year would have lacked a total of 6.6 million tons.

(Market Reserves) 18.1% of the total market reserves had been used to supply the market in the 2018 compliance year. As of current, the remaining amount of reserves for Phase 2 stands at 125.43 million tons.

(Market Price) Allowances prices have surpassed the psychological level of KRW 30,000 and show little sign of slowing down. Unlike the price patterns observed in Phase 1, the allowance prices continued to grow steadily after the compliance deadline as supply from market makers keep the transactions going.

(Market Outlook)

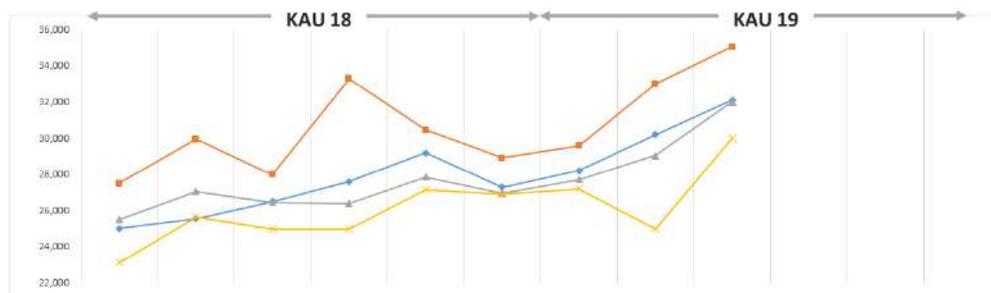
(Long-term) Phase 2 is expected to have shortage of allowances. In the long run, if allowance prices continue its current upward trend and break the resistance level of KRW 35,000 in 2019, prices can be expected to enter KRW 40,000 in 2020 with a forecast going as high as KRW 52,000 in the third implementation year (2020-2021).



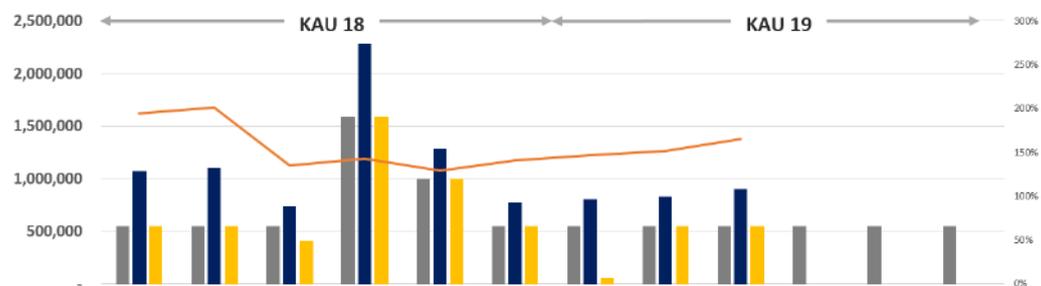
MONTHLY AUCTION

	October 2019
Auctioned Permits	550,000 tons
Total number of received bids	905,000 tons
Bid Rate	165%
Participating companies	9
Winning companies	7
Lowest Bid Price	KRW 30,000
Highest Bid Price	KRW 35,050
Market Closing Price	KRW 32,100
Winning Bid Price	KRW 32,000
Total amount of bids won	550,000 tons
Total value of bids won	KRW 17,600,000,000

Seven companies successfully bid for 550,000 tons of KAU19 at the clearing price of KRW 32,000, marking its eight consecutive months of having lower prices than the secondary market prices. However, clearing prices are also rising due to the gradual increase of allowance prices in the exchange. The clearing price has risen by 25.5% in comparison with the January auction price of KRW 25,500, increasing monthly at a rate of 4.4% since June.



	01/23	02/13	03/13	04/10	05/08	06/12	07/10	08/14	09/11	10/08	11/13	12/11
— Closing Price	25,000	25,550	26,500	27,600	29,200	27,300	28,200	30,200	32,100			
— Winning Price	25,500	27,050	26,450	26,400	27,850	26,950	27,700	29,050	32,000			
— Lowest Bid Price	23,100	25,650	25,000	25,000	27,150	26,900	27,200	25,000	30,000			
— Highest Bid Price	27,500	29,950	28,000	33,300	30,450	28,900	29,600	33,000	35,050			



	01/23	02/13	03/13	04/10	05/08	06/12	07/10	08/14	09/11	10/08	11/13	12/11
■ Auction Supply	550,000	550,000	550,000	1,590,000	1,000,000	550,000	550,000	550,000	550,000	550,000	550,000	550,000
■ Bids Received	1,070,000	1,105,600	740,200	2,279,800	1,285,300	777,500	807,500	834,000	905,000			
■ Bids Won	550,000	550,000	409,500	1,590,000	1,000,000	550,000	55,000	550,000	550,000			
— Bid Rate	195%	201%	135%	143%	129%	141%	147%	152%	165%			



POLICY UPDATES

Second Basic Plan for Climate Change Response

The Second Basic Plan for Climate Change Response (2020-2040) has been confirmed on October 2019. The plan sets the direction and goals of the nation's GHG reduction and climate adaptation through three core strategies and ten major initiatives, including the emission trading system as a key strategy to the transition to a low-carbon society.

1. Establishment of an effective reduction base
 - a. Strengthen the emission allowance reduction rate in accordance to the roadmap, from 663 million tons in Phase 3 (-4% compared to Phase 2) to 617 million tons in Phase 4 (-7 compared to Phase 3)
 - b. Adjust the ceiling price for non-compliance penalty
2. Strengthen corporate accountability of GHG emitters
 - a. Expand the current 3% paid allocation (auction) to 10% in Phase 3 and further in Phase 4
 - b. Disclosure of emission quotas, emission amounts, annual reduction rate, and GHG reduction information of emitters starting from Phase 3
3. Promotion of investment in GHG reduction
 - a. Extend Phase 3 to cover five years (2021-2026) and a comprehensive review shall be made after Phase 4
 - b. Expand the BM allocation method to cover 70% of total covered facilities from the current 40%
 - c. Reorganize the allocation of units to cover more business establishments
4. Increase liquidity in the ETS
 - a. Implement carryover restrictions to prevent hoarding
 - b. Promote fair price by providing liquidity and inducing transactions through the market maker system
 - c. Introduce market derivatives such as futures
5. Improvement of emission inspection and certification system
6. Improvement of criteria for external projects
 - a. Strengthen the criteria for the approval and certification of external projects
 - b. Establish a system to recognize overseas reduction performance

Establishment of overseas reduction projects approval criteria and process in accordance with the Paris Agreement

1. Emission reduction outcome from overseas projects that can be used for Korean NDC compliance under the UN Agreement will be eligible for Korean Credit Unit (KCU) conversion in the Korea



ETS from 2021 onwards.

★ If an overseas Clean Development Mechanism (CDM) project is approved as an offset project in the KETS, the project's offset credits can be converted to KCU and traded in the KETS until Phase 3(2021~2025).

2. If necessary, the Government will support transition from CDM project(s)* into the Paris Agreement's Sustainable Development Mechanism (SDM, Article 6.4), through inter-country negotiations and relevant administrative procedures.

*only overseas CDM project(s) that is approved by the Korean government as an offset reduction program

Table 1. K-ETS Phase 2 (2018-2020) Schedule

	1Q	2Q	3Q	4Q			
2018 (1st Year)	Jan	2: KAU 18 Listing ~31: MP submitted by new entities of 2nd year	May	30: 2017 notification of certified emissions/additional quota			
	Mar	~31: 2017 MP submission application for additional allocation	Jun	~11: 2017 banking application (borrowing X, 5/31~) 22: KCU 18 Listing ~29: notification/application for appeals			
			Jul	~02: 2017 Emission certificate submission (5/31~) Aug	~02: Application for ETS Voluntary Participation 31: designation and notification of new entrants ~09: 2017 Submission of emission allowance 10: Delisting of KAU17/KCU17 31: Phase 2 Allocation		
				Oct	31: Phase 2 Quota Notification Nov	8: KAU19/KAU20 Listing Dec	~31: 2018 request for MP review
2019 (2nd Year)	Jan	23: First auction of allowances	Apr	10 Fourth auction of allowances			
	Feb	13: Second auction of allowances	May	8: Fifth auction of allowances 31: 2018 notification of certified emissions/ allocation addition or cancellation			
	Mar	13: Third auction of allowances ~31: 2018 emissions certification and MP submission (est) 2018 additional allocation application	Jun	10: (est) Operation of market maker system 12: (est) Sixth auction of allowances			
			Jul	1: deadline of notification of complaints/objections 10: Seventh auction of allowances ~29: notification of results (carry-over) ~31: designation and notification of new entrants			
			Aug	2: 2018 additional quota/cancellation amount notification of results 14: Eight auction of allowances Sep	11: carry-over/borrowing 11: Ninth auction of allowances ~30: surrender of allowances		
				Oct	1: Delisting of KAU18/KCU18 8: Tenth auction of allowances Nov	13: Eleventh auction of allowances Dec	11: (est) Twelfth auction of allowances
2020 (3rd Year)	Jan	~15: (est) 2019 request for MP review	May	31: (est) 2019 notification of certified emissions/additional allocation			
	Mar	~31: (est) 2019 emissions certification and MP submission (est) 2019 application for additional allocation	Jun	~10: (est) 2019 allowance banking and borrowing ~30: (est) 2019 surrender of allowances (est) 2019 notification/application for appeals			
			Jul	31: (est) notification of results (complaints/objection) ~31: (est) Phase 3 Allocation Plan (est) Phase 3 Assignment of compliance entities (est) designation and notification of new entrants			
			Aug	~10: (est) 2019 surrender of allowances (for companies with objection) ~31: (est) Phase 3 application for allowances allocation			
				Oct	31: (est) notification of Phase 3 allocation quota		
2021	Jan	~15: (est) 2020 request for MP review	May	31: (est) 2020 notification of certified emissions/additional allocation			
	Mar	~31: (est) 2020 emissions certification and MP submission (est) application for additional allocation	Jun	~10: (est) 2020 banking of allowances (borrowing X) ~30: (est) surrender of allowances (est) 2020 notification of appeals			
			July	31: (est) notification of results (complaints/objections)			
			Aug	~9: (est) 2020 surrender of allowances (for companies with objections)			

Ecoeye, Your Carbon Desk (October – November Activities)



October 16-22, 2019
Myanmar

Cookstove program site visit

October 21-25, 2019
Bangladesh

Project partners site visit
(photo credit: BBF)



November 4-5, 2019
London, UK

Aviation Carbon 2019

November 5-7, 2019
Nairobi, Kenya

Clean Cooking Forum 2019
(photo credit: SSM)



November 7, 2019
London, UK

IETA COP25 Preview Events



[Disclaimer]

This newsletter is intended solely for information purposes and is published once a month by Ecoeye International.

It may contain forward-looking statements, uncertainties and assumptions which reflect our view with respect to the current and future performance of the market. Although we try to provide quality information, actual results may differ due to other factors; therefore, we do not guarantee the accuracy, completeness, reliability and suitability of the contents of this newsletter. Any decision made or action taken in reliance on the information is strictly at your own risk. In no event will we be liable for any loss or damage including without limitation, indirect or consequential loss or damage, or any loss or damage arising out of, or in connection with, the use of this newsletter

[About Us]

Ecoeye is a carbon specialist firm with a strong track record on emission reduction project development and a leading offset provider in Korea. We provide carbon trading services, ETS advisory and domestic market analysis and forecasting

[Contact Us]

Carbon Market Research Team

Hyunshin Park
Team Leader
phs0321@ecoeye.com

Maureen Lee
Publisher/Market Analyst
mlee@ecoeye.com

For offset project partnership, offset trading and other inquiries, you may reach us at info@ecoeye.com



ecoeye-int.com



[company/ecoeye](https://www.linkedin.com/company/ecoeye)



[@EcoeyeInt](https://twitter.com/EcoeyeInt)