



Toll Collection

1) Collection Status

There are 11 toll stations on Freeway No. 1 and 3 each and 1 toll station on Freeway No. 5. Each station employs a Main Line Barrier method. The tolls are uniform across all stations: 40 NTD for small vehicles, 50 NTD for buses and heavy trucks, and 65 NTD for tractor trailers. The total traffic volume for all toll stations in 2007 was 569,642,524, with an annual growth of -0.88%. Of which, small vehicles dropped by 1.06%, large vehicles dropped by 1.62% and an increase in tractor-trailers by 2.35%. Total toll collected in 2007 was 21,930,463,658 NTD with a reduction by 0.28%.

	Small Vehicles	Buses and Heavy Trucks	Tractor Trailers	Total (Car number)	Toll collected (NT dollars)
2006	480,594,647	55,241,451	38,877,139	574,713,237	21,992,280,874
2007	475,502,719	54,347,929	39,791,876	569,642,524	21,930,463,658
Annual Growth rate (%)	-1.06	-1.62	2.35	-0.88	-0.28

To shorten toll collection time, a station-based electronic toll collection (ETC) system has been operated from 2:00 PM on February 10th, 2006. All toll stations, except Freeway No.5 Toucheng, southbound Sihjih and southbound Cidu toll stations, have in place an ETC system for 1 small vehicle and 1 large vehicle lane for both north and south bound traffic.

The small vehicle toll coupon exclusive lanes continue. Cash is prohibited in above lanes to encourage users to buy toll coupons. Toll coupons are available for sale at all service areas, toll station offices as well as in post offices and petrol stations.

Statistics for Traffic Volume of Each Kind of Vehicle in 2007

	ETC	Manual collected Tolls			Total (Vehicle)
	Traffic Volume	Toll Coupon	Cash	Others	
Small Vehicles	53,153,192	330,858,643	67,612,164	10,028,089	461,652,088
Percentage	11.51%	71.67%	14.65%	2.17%	100%
Buses and Heavy Trucks	26,220,942	21,682,828	2,970,534	1,070,570	51,944,874
Percentage	50.48%	41.74%	5.72%	2.06%	100%

Tractor Trailers	21,191,982	15,156,759	801,875	274,998	37,425,614
Percentage	56.62%	40.50%	2.14%	0.73%	100%
Total	100,566,116	367,698,230	71,384,573	11,373,657	551,022,576
Percentage	18.25%	66.73%	12.95%	2.06%	100%

Note :

1. This table do not contain southbound Sijhih Station traffic volume (18,619,948) .
2. Other Manually collected tolls include suspended toll collection, governmental and military vehicles movements.



2) Private participation of the construction and operation of freeway electronic toll collection system

To enable Freeway Users to pay their toll more efficiently, safely without stopping or paying cash, the Bureau allowed the setup of “Private participation of the construction and operation of freeway electronic toll collection system” ; that is, the ETC system. The system will reach the target to reduce pollution, increase toll station capacity, reduce payment time and increase drivers' safety.

The Far Eastern Alliance was selected from candidates in February 26th, 2004. After the system function and performance test, the alliance was awarded the contract on April 27th, 2004 (Now Known as Far Eastern Electronic Toll Collection Co. Ltd., the FETC).

FETC soon began its installation of the ETC systems and the first system started operating at 14:00 on February 10th, 2006. The ETC system was then enter the test run phase.

With the No.01239 judgment of The Supreme Administrative Court on August 3rd, 2006, the Bureau followed the decision to actively manage the second phase of ETC contractor selection. On August 22nd, 2007, the Bureau signed Contract of ETC System Establishment and Operation on National Freeways with FETC.

From here the Bureau will follow the BOT spirit to supervise and counsel the adherence to contract of FETC, Checking their finances to ensure a just and honest running of business to create benefits for government, people, and businesses and creating a new era in Freeway management.

Currently the ETC is beginning to show its benefits, there was a reported 23.75 % (10.25 million uses) usage of ETC by December 2007. Vehicles with OBU installed in their vehicles have also reached 416,461 units, showing calculated benefits to both road users' time, fuel consumption as well as reduced CO2 emissions.

Benefit of ETC Usage Table:

	Small Vehicles	Large Vehicles	Total
Traffic Volume from Feb. 10th, 2006 to Dec. 31st, 2007	82,050,629	72,522,259	154,572,888

Saved time (minute)	41,025,315	36,261,130	77,286,444
Saved fuel (liter)	820,506	1,087,834	1,908,340
Reduced CO2 Emission (Metric ton)	1,641	2,901	4,542
Saved time value(NTD)	\$101,168,426	\$89,419,945	\$190,588,371
Saved fuel value(NTD)	\$22,153,670	\$25,020,179	\$47,173,849
Total Value	\$123,322,095	\$114,440,125	\$237,762,220

Note :

1. The benefits of each category is estimated using off peak travel time and the benefit of using ETC during this time.
2. Fuel value of each liter is counted as NT\$27 per liter for small vehicles and NT\$23 per liter for large vehicles.



Contract Signing Ceremony on August 22nd, 2008



Test run of ETC System



ETC Lane Locations

Statistics of Various Vehicles Passing Toll Stations in 2007

Station	Traffic Quantity (vehicle)				Annual Average Daily Traffic Volume
	Small vehicles	Buses and Trucks	Tractor Trailers	Total	
Sijhih	25,939,553	3,413,791	3,348,333	32,701,677	89,594
Taishan	75,073,914	5,937,746	2,505,526	83,517,186	228,814
	34,905,664	4,787,475	2,464,737	42,157,876	115,501

Yangmei					
Zaociao	22,667,875	4,546,058	1,620,586	28,834,519	78,999
Houli	23,311,510	4,476,477	1,543,785	29,331,772	80,361
Yuanlin	20,919,491	4,429,012	3,573,939	28,922,442	79,240
Dounan	14,521,327	3,582,633	3,364,595	21,468,555	58,818
Sinying	13,821,318	3,385,856	3,381,129	20,588,303	56,406
Sinshih	16,598,279	3,173,319	3,377,556	23,149,154	63,422
Gangshan	25,416,059	2,834,111	4,478,870	32,729,040	89,669
Cidu	6,929,792	223,097	718,758	7,871,647	21,566
Shulin	51,114,957	2,835,406	1,929,143	55,879,506	153,095
Longtan	26,527,158	2,047,434	1,244,076	29,818,668	81,695
Houlong	17,074,675	1,459,077	1,906,032	20,439,784	55,999
Dajia	17,614,523	1,619,970	2,070,855	21,305,348	58,371
Mingjian	16,626,870	991,859	285,737	17,904,466	49,053
Gukeng	11,395,637	867,078	346,618	12,609,333	34,546
Baihe	11,305,972	959,531	360,195	12,625,698	34,591
Shanhua	11,566,530	936,425	489,147	12,992,102	35,595
Tianliao	12,706,798	1,334,782	654,952	14,696,532	40,264
Yuemei	275,159	52,592	26,868	354,619	972
Zhutian	4,981,775	406,338	99,315	5,487,428	15,034
Toucheng	14,207,883	47,862	1,124	14,256,869	134,499
Total	475,502,719	54,347,929	39,791,876	569,642,524	1,560,664

Statistics of Various Vehicles Passing ETC lanes of Toll Stations in 2007

Station	Traffic Quantity (Vehicle)				Annual Average Daily Traffic Volume
	Small vehicles	Buses and Trucks	Tractor Trailers	Total	
Sijhih	1,196,865	631,289	404,072	2,232,226	6,116
Taishan	12,673,118	3,462,385	1,138,317	17,273,820	47,326
Yangmei	5,031,180	2,669,857	1,414,065	9,115,102	24,973
Zaociao	2,753,822	2,597,518	890,100	6,241,440	17,100
Houli	2,734,207	2,603,880	874,070	6,212,157	17,020
Yuanlin	2,088,564	2,041,020	2,028,613	6,158,197	16,872
Dounan	1,561,684	1,881,796	2,118,360	5,561,840	15,238
Sinying	1,490,585	1,756,059	2,107,799	5,354,443	14,670
Sinshih	1,586,477	1,549,823	2,089,628	5,225,928	14,318
Gangshan	2,392,803	1,196,474	2,492,534	6,081,811	16,662
Cidu	688,264	77,244	296,162	1,061,670	2,909
Shulin	6,218,455	1,399,008	882,525	8,499,988	23,288
	3,200,215	997,872	658,001	4,856,088	13,304

Longtan					
Houlong	2,005,719	591,056	1,214,556	3,811,331	10,442
Dajia	1,952,538	597,115	1,278,072	3,827,725	10,487
Mingjian	1,322,024	413,810	146,259	1,882,093	5,156
Gukeng	1,004,355	385,029	226,615	1,615,999	4,427
Baihe	984,710	380,887	204,844	1,570,441	4,303
Shanhua	989,783	356,164	306,833	1,652,780	4,528
Tianliao	960,569	469,799	364,589	1,794,957	4,918
Yuemei	34,862	31,077	13,512	79,451	218
Zhutian	282,393	131,780	42,456	456,629	1,251
Toucheng				-	-
Total	53,153,192	26,220,942	21,191,982	100,566,116	275,524

Note : Freeway No. 5's Toucheng Toll Station began collecting tolls on September 18th, 2006 and currently has no ETC system installed.


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National Freeway Bureau, Ministry of Transportation