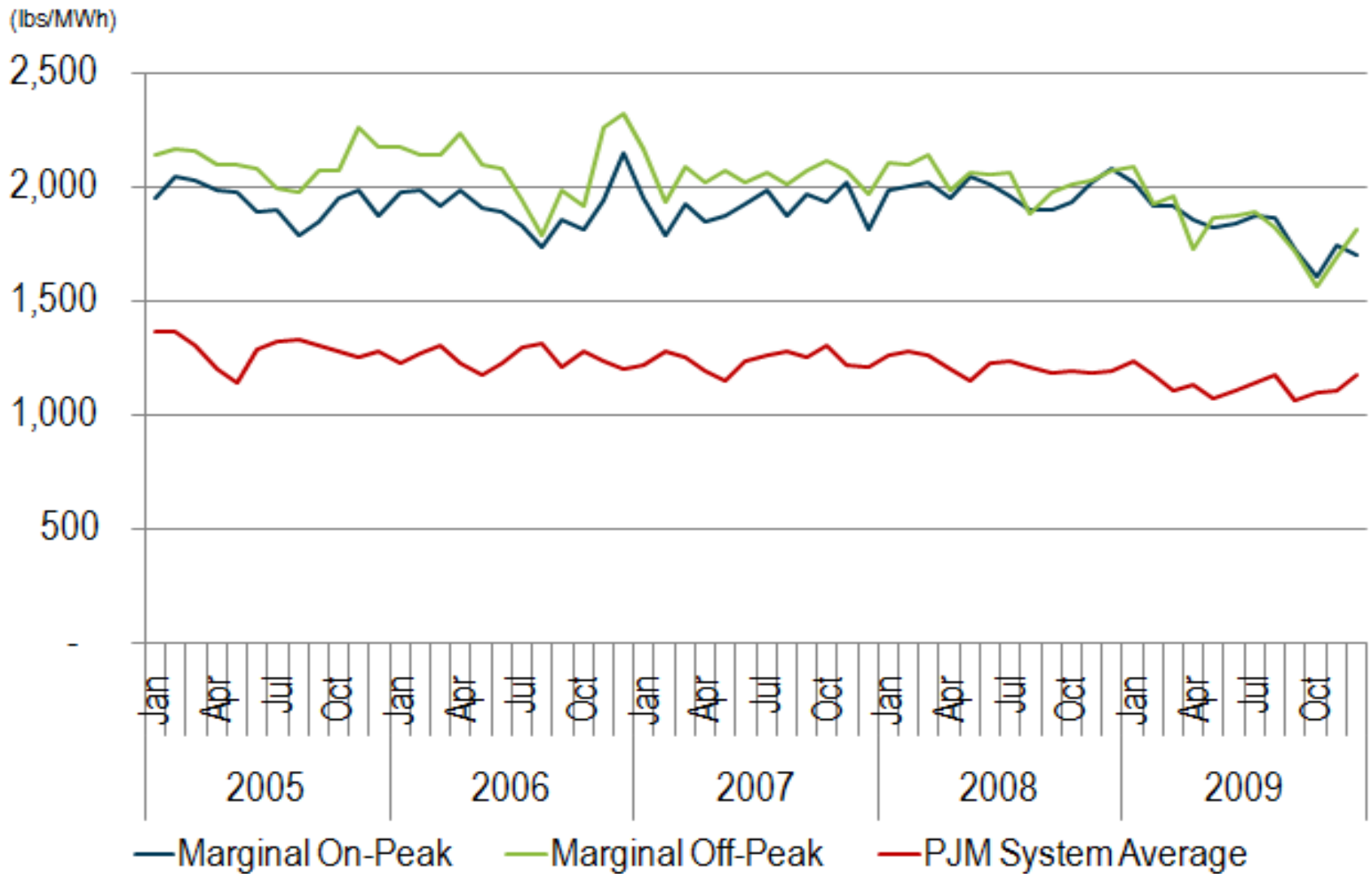


- **CO<sub>2</sub> Emissions Rates of Marginal Units** - PJM has analyzed the CO<sub>2</sub> emissions rate information from the Generation Attribute Tracking System (GATS), which is administered by PJM Environmental Information Services (PJM EIS), for the specific marginal units for each five minute interval from January 2005 through December 2009. The five-minute marginal data was aggregated into hourly blocks and then sorted into on-peak and off-peak time periods and ultimately averaged for each month. The on-peak period is all non-holiday weekdays from 7 a.m. until 11 pm and the off-peak is comprised of all other hours. The annual numbers are also provided.
- **Average CO<sub>2</sub> Emissions Rates** - The average CO<sub>2</sub> emissions rate is calculated with the CO<sub>2</sub> emissions rate information from GATS. Each unit's monthly generation numbers are coupled with the CO<sub>2</sub> rate to determine the total monthly emissions. The total CO<sub>2</sub> emissions values for all units are summed across the PJM region and divided by the total generation in the region to determine the average CO<sub>2</sub> emission rate in PJM for that month. The annual numbers are also provided.

# CO<sub>2</sub> Emissions Rates of Marginal Units Average CO<sub>2</sub> Emissions Rates





# CO<sub>2</sub> Emissions Rates of Marginal Units

## Average CO<sub>2</sub> Emissions Rates

(lbs/MWh)		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2005	Marginal On-Peak	1,952	2,047	2,026	1,986	1,979	1,892	1,897	1,783	1,842	1,948	1,988	1,875	1,934
	Marginal Off-Peak	2,140	2,164	2,155	2,102	2,094	2,077	1,999	1,974	2,074	2,071	2,263	2,177	2,107
	PJM System Average	1,368	1,366	1,311	1,205	1,141	1,290	1,325	1,334	1,306	1,278	1,254	1,285	1,292
2006	Marginal On-Peak	1,976	1,987	1,914	1,987	1,906	1,889	1,831	1,737	1,856	1,808	1,939	2,148	1,912
	Marginal Off-Peak	2,175	2,141	2,140	2,233	2,099	2,081	1,940	1,792	1,987	1,917	2,257	2,321	2,091
	PJM System Average	1,227	1,274	1,306	1,227	1,181	1,226	1,296	1,315	1,213	1,281	1,241	1,205	1,252
2007	Marginal On-Peak	1,946	1,787	1,927	1,843	1,874	1,925	1,988	1,873	1,963	1,932	2,017	1,810	1,908
	Marginal Off-Peak	2,165	1,939	2,086	2,023	2,071	2,023	2,065	2,013	2,071	2,114	2,069	1,969	2,051
	PJM System Average	1,218	1,285	1,256	1,192	1,149	1,240	1,265	1,279	1,259	1,304	1,222	1,212	1,242
2008	Marginal On-Peak	1,982	2,001	2,016	1,946	2,046	2,009	1,961	1,898	1,894	1,933	2,015	2,080	1,981
	Marginal Off-Peak	2,107	2,097	2,138	1,987	2,061	2,052	2,065	1,885	1,976	2,011	2,026	2,070	2,039
	PJM System Average	1,260	1,283	1,266	1,204	1,150	1,231	1,242	1,209	1,188	1,193	1,189	1,197	1,220
2009	Marginal On-Peak	2,015	1,919	1,917	1,853	1,817	1,838	1,875	1,864	1,727	1,604	1,743	1,703	1,823
	Marginal Off-Peak	2,092	1,926	1,964	1,731	1,867	1,876	1,893	1,824	1,721	1,566	1,698	1,817	1,831
	PJM System Average	1,234	1,174	1,105	1,137	1,076	1,112	1,139	1,175	1,065	1,097	1,111	1,179	1,137

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