



Winnebago County, Illinois

At a Glance

Fuel Economy - Winnebago County Highway Department participated in the SAFS 90 day trial and had positive fuel economy results to report. Although individual vehicle fuel economy numbers were not provided to EES, they claim their gasoline vehicles enjoyed an **8.9% to 10.3% increase in fuel economy** and their diesel vehicles achieved an overall **29% increase in fuel economy**.

	CO ₂	HC	CO	NO _x	PM
1 Before	14.8	106	0.39	14	
1 After	10	10	0.01	25	
Change	-1.80%	-90.56%	-97.44%	78.57%	
2 Before	15	-0.1	0.04	0	
2 After	15	0.04	0.05	0.02	
Change	0.00%	0.04	20%	0.02	
3 Before	14.9	-0.1	0.05	4	
3 After	15	0.02	0.03	10	
Change	0.06%	0.02	-40.00%	150%	
Average	-0.58%	-90.51%	-39.15%	94.55%	
4 Before					6.43
4 After					1.87
Change					-70.92%
5 Before					6.43
5 After					4.32
Change					-32.81%
6 Before					6.43
6 After					2.88
Change					-55.21%
7 Before					18.1
7 After					15.9
Change					-12.15%
Average					-42.77%

Emissions - The 3 of the 4 gasoline and all 4 diesel vehicles used in the Fuel Economy section of this Report are used in the Emissions section. The 4th gasoline vehicle did not have emissions data.

It should be noted that the gasoline vehicles were tested using Extreme Energy Solution's Snap-On 5-Gas emissions analyzer. The fact that 2 of the entries showed a -0.01 ppm reading under the HC column offers reason for suspicion. Furthermore, the baseline reading on 3 of the 4 diesel engines was 6.43%, and seems coincidental. Nevertheless, overall average emissions reduction under the gasoline category showed a reduction in **CO₂ by 0.58%, HC by 90.56%, CO by 39.15%**, and NO_x actually increased by 94.55%. In the diesel category, **overall opacity (PM) reduction was 42.77%**.