

Hennepin County  
Central Mobile Equipment Division  
Reducing Energy Costs  
January 22, 2009

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# Central Mobile Equipment (CMED)

*Restore for today. Improve for tomorrow. Preserve forever.*

- Internal Service Fund
  
- Established in 1961 (MN Statute 383B.257)
  - Mobile equipment, maintenance and construction equipment owned by HC transferred to CMED
  - Rental charge: covers cost of maintenance, operation, repair, depreciation and replacement of equipment

# CMED – Fleet Composition

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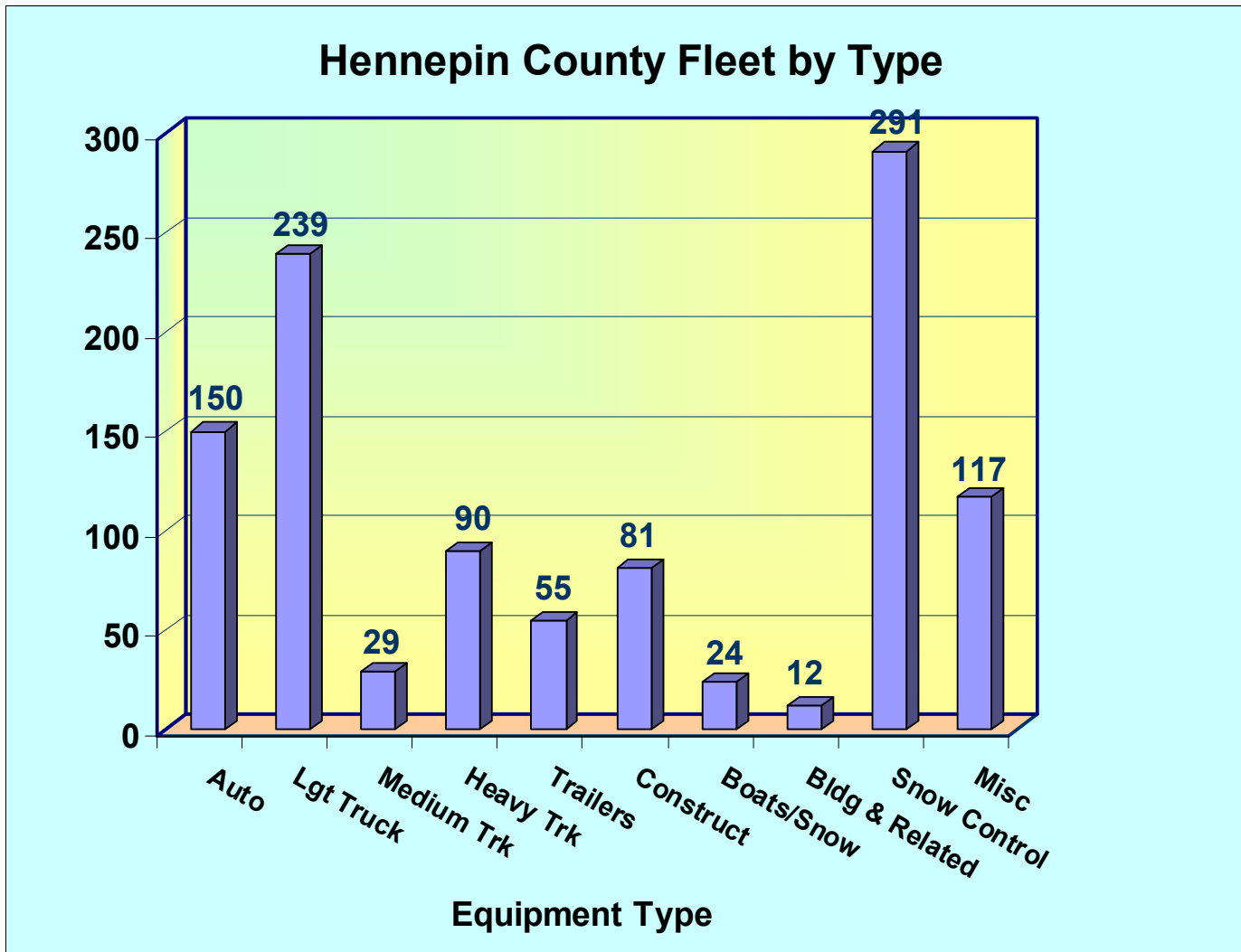
- 1,088 total units
- 655 rolling stock and 433 non-motorized
  - Replace 10-12% each year
  - 6,100,000 miles driven
  - 800,000 gallons of fuel





# CMED – Fleet by Type

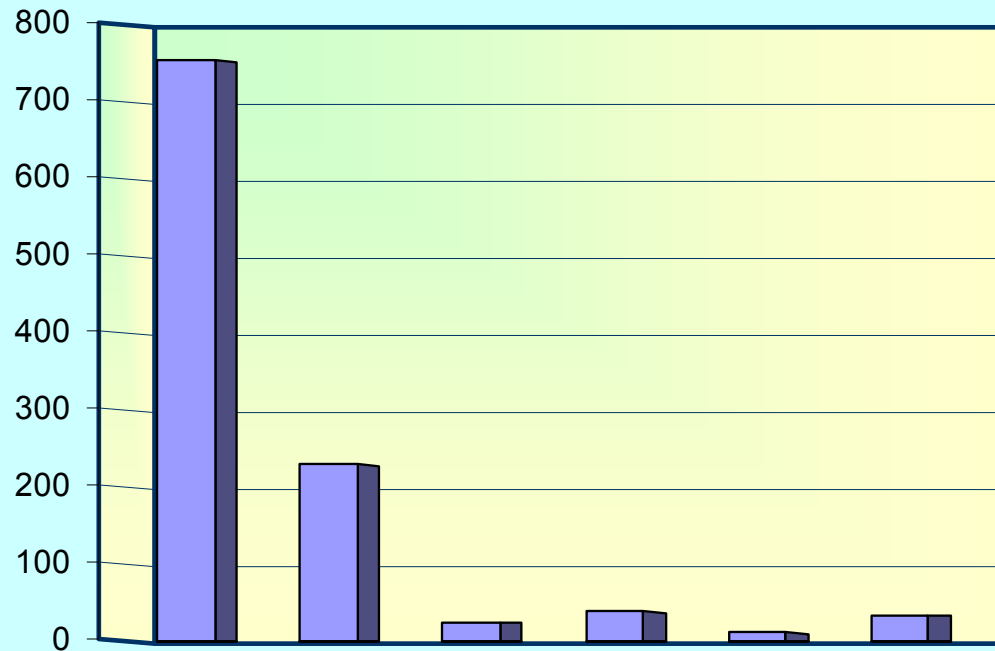
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# CMED – Fleet by Business Line

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### Hennepin County Fleet by Business Line



	Public Works	Justice	HSPHD	Health	Library	General Gov't
Series1	754	230	24	37	10	33



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## **Hennepin County Hybrid Experience:**

- Toyota Prius – 5
- Ford Escape – 1
- Honda Civic – 2
- Prius/Honda average – 40+ mpg
- Escape average – 30 mpg





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## **Hennepin County E85 Experience:**

- Utilizing E85 units since 1997
- 186 vehicles E85 capable
  - 119 sedans
  - 12 mini-vans
  - 33 light trucks
  - 22 SUVs
- E85 Available at 3 of 6 County locations



## **B5-B20 Biodiesel Fuel:**

- B5 or higher purchased since Oct 2003
- 175 vehicles using diesel
  - 110 medium and heavy duty trucks
  - 46 construction equipment units
  - 19 ambulances (Ford E450)
- 386,000 total gallons – 52,000 gallons of B100 (average of 13.5% bio in 2007)
- 2.2 million miles, 14,000 hours



# CMED – Fuel Budget

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	<u>Fuel Budget</u>	<u>Actual Fuel</u>	<u>Over Budget</u>
<b>2009</b>	\$2,960,000	???	
<b>2008</b>	\$2,225,000	\$2,487,000	\$262,000
<b>2007</b>	\$1,775,000	\$2,126,084	\$351,084
<b>2006</b>	\$1,400,000	\$1,840,375	\$440,375
<b>2005</b>	\$1,100,000	\$1,387,395	\$287,395
<b>2004</b>	\$ 900,000	\$ 999,935	\$ 99,935
			<hr/>
<b>Total Over Budget</b>			<b>\$1,440,789</b>



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## **Current Rate Setting Model:**

- Rates are adjusted each year to cover the change in operating expenses
- Rate adjustment excludes changes in depreciation
- Changes in fuel cost are allocated based on historical use (since 2007 budget)
- Billing is issued monthly to Departments



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## **New Rate Setting Model:**

- Base rates will be adjusted each year to cover the change in operating expenses (excluding fuel and depreciation)
- Fuel will be billed to departments by unit each month
- Detailed billing will be emailed to departments monthly showing:
  - Vehicle
  - Mileage
  - Gallons used and miles per gallon
  - Fuel Cost



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## **Incentives to Conserve Fuel/Purchase more Fuel Efficient Vehicles:**

- Fuel savings are realized by departments
- Options for replacement will include hybrids and other alternatives
- Idle reduction technologies will be employed where feasible
- Monitoring of fuel use and utilization may lead to a reduction in the fleet

# Options for Controlling Fuel Prices:

- Fixed price contracts
  - State
  - Local
- Hedging with Fuel Supplier
  - 42,000 gallon per month minimum
- Participate in Consortium to execute financial hedges on fuel
  - Approximately 2,000,000 gallon annual minimum



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## Emerging Vehicle Technologies:

- Expanded availability of Hybrids
  - Passenger vehicles (State Contract)
  - Light Trucks
  - Heavy Trucks
- Plug-in Hybrids
  - NiCad vs. Lithium Ion batteries
- Idle Reduction Technologies
  - Heavy Equipment configuration
  - Auxiliary equipment running on alternative power

## **User Education / Communication:**

- Idle Reduction policies
  - State laws
  - City Laws
- Energy Fairs
  - Drive more efficiently (7)
  - Maintain your vehicle (4)
- Reporting / Billing for fuel use
  - Improve decisions on replacement vehicles
  - Improve utilization