

Costly Gas Makes Utahns Creative

Alternative Fuel? Try Hay

By Lesley Mitchell
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Mellissa Evans thought she had found a new way to rein in her expenses as gasoline prices escalated.

The Tooele High School senior began hoofing it to school this week on her 11-year-old gelding, Nighthawk. Joined by junior Chapa Stevenson and her horse, Wink, the pair made the 30-mile trek between their homes in Rush Valley and school twice a day on horseback.

But school officials told them Thursday that horses on school grounds are against the rules.

"I guess we have to go back to carpooling," said Evans, who kept her horse in a stall inside the high school's animal laboratory while she was in class. "When you have a car that gets 10 miles per gallon, you have to do something."

In the weeks since gas prices reached record highs, people throughout Utah have taken creative steps to reduce their gas bills.

Some are taking big steps, such as trading in gas-guzzling vehicles or trying to find a job closer to home. Others are making smaller changes, telecommuting one or more days a week or trying to drive less on weekends.

The average cost of a gallon of unleaded gasoline rose to a high of \$2.91 per gallon on Sept. 10 after Hurricane Katrina took several Gulf oil refineries off line. In recent days, gas prices in Utah have fallen by five cents to \$2.86 per gallon.

More drops were expected. But with Hurricane Rita now bearing down on the nation's largest group of refineries, prices nationally and in Utah are set to rise again, said Rolayne Fairclough, spokeswoman for travel services company AAA Utah.

Ken Stern, managing director of FTI Consulting, which advises refineries on business strategy, predicted \$4 a gallon at the pump for gasoline within two weeks. In Utah, which has one of the lowest average gas prices nationwide, consumers easily could pay more than \$3 a gallon again. How much more, no one knows for sure.

"In an environment where capacity is constrained and demand continues pretty much unabated, that's a formula for significantly higher prices," Stern said.

More refineries, and oil and natural gas rigs along the Gulf Coast and potentially in Rita's path, were shut down Thursday in anticipation of the hurricane hitting shore early Saturday.

About 5 percent of the nation's oil-refining capacity is still off-line due to damage from Hurricane Katrina, which hit Louisiana and Mississippi. Refineries in the Houston area represent another 13 percent of the nation's capacity.

"It's potentially a bigger threat than Katrina because there is more refining capacity in the Houston area," said Bob Slaughter, president of the National Petroleum & Refining Association. "This is a double whammy for the industry - it's an amazing thing to contemplate."

In Rush Valley, Mellissa Evans' mother, Karren, is disappointed her daughter can't ride her horse to school anymore to help offset the expected price increases.

"It took hours for her to get to school," she said. "But hay is much cheaper than gas."

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--- The Associated Press contributed to this story.



Tooele High students Mellissa Evans, left, 17, and Chapa Stevenson, 16, ride their horses more than 30 miles home from school Thursday to protest rising gas prices. "When it takes \$40 to fill up your tank, it's a little ridiculous," said Stevenson. (Stephen Holt/The Salt Lake Tribune)

Principle Pollutants in the Clean Air Act

CARBON MONOXIDE (CO): Motor vehicles contribute more than 50 percent of carbon monoxide pollution in the United States. CO hampers the body's ability to transport oxygen to organs and tissues.

NITROGEN OXIDES (NO,NO₂): NO and NO₂ contribute to acid rain and smog (ozone formation). They can irritate the lungs, cause asthma and coughing, sting eyes, and harm plants.

SMOG (TROPSPHERIC OZONE): Ozone in the lower atmosphere is produced when NO reacts with volatile organic compounds (VOCs) in the sunlight. It can cause damage to tissues and cells, cause respiratory problems, and harm plants. You can't always see smog, but it's still damaging.

VOLATILE ORGANIC COMPOUNDS (VOC): Almost 30 percent of VOC emissions in the United States comes from motor vehicles. The rest comes from stationary air pollution sources (factories, dry cleaners, power plants, etc.). VOCs contribute to ozone formation. They are linked with cancer.

PARTICULATE MATTER (DUST, SOOT, AND SMOKE): This pollutant frequently enters the air as a result of road dust and gravel pulverized by traffic. It also can enter the air in wood smoke and when coal is burned in power plants. Larger particles reduce visibility and cause regional haze; the ones too small to see cause lung damage.

SULFUR DIOXIDE (SO₂): SO₂ is emitted from industrial sources, such as coal-fired power plants. It is a main contributor to acid rain. Sulfur dioxide gas becomes particulate matter when converted to sulfate in the atmosphere. Health effects include breathing problems and respiratory illness. People with asthma and chronic lung disease are most sensitive to SO₂.

LEAD: Lead is no longer found in gasoline in the United States. It can cause circulatory, nerve, and reproductive damage.

Buying a Car: Energy/Fuel Efficient Options?

Sun roof: Open sun roofs create airflow turbulence, which increases drag. Drag makes an engine work harder, resulting in increased fuel consumption.

Space saver spare tire: No impact.

Manual transmission: Although the efficiency gap is closing between manual and automatic transmissions, manual transmissions are usually more fuel-efficient. But check the models you're considering in the *Fuel Consumption Guide* to find out which is most fuel-efficient.

Fuel injection: Injectors do a much better job of mixing the gasoline with the air because they allow more precise control of the quantities. The use of electronically controlled fuel injection is one of the main reasons why cars emit 96% fewer hydrocarbons and less carbon monoxide than 25 years ago.

Small engine: A vehicle with a 2.2 L engine will likely have a lower fuel consumption rate than one with a 5.0 L engine simply because the smaller engine uses less fuel.

Cruise control: Lets you set the speed of the car so that it remains constant – no more speeding up and slowing down. A steady speed means less fuel consumption.

Block heater with time: Block heaters can make your life easier, save you money and cut down on harmful emissions. The heater warms the engine block, the oil and the coolant. This warmth allows the oil to flow easier, reducing the internal friction. The preheated coolant warms the mass of the engine block, allowing easier combustion and better heat transfer. In addition, the heat can get to your heater/defroster sooner.

Tinted glass: No impact.

Four-wheel drive: If you choose to buy a four-wheel drive vehicle, you may want to consider one that enables you to disengage the four-wheel drive option when you don't need the extra traction. Four-wheel drives are not the most fuel-efficient option because they have more parts and, therefore, weigh more than front-wheel drive vehicles.

Overdrive gears: Overdrive gear ratios are available in both manual and automatic transmissions. They allow your car to travel at higher speeds while reducing engine r.p.m. The less your engine has to work the easier it is on fuel.

Exterior trim: No impact.

Radial tires: Radials are recommended for top fuel-efficiency.

Air Conditioning: Air conditioning in stop-and-go traffic can burn up to 10% more fuel. At highway speeds, a/c can burn up to 4% more fuel.

Power seats/Hot seats/Power window: Adds weight to the vehicle and requires power to generate the electricity.

Aerodynamic design: Means less wind resistance, which means less fuel consumption. Vehicles with tapered ends are more aerodynamic than one with blunt front ends.

Tachometer: Lets you know how fast the engine is revving so you know when you've reached optimum speed. This in turn, tells you when to shift.

Taking Care of Your Car The Twice-a-Year Payoff

- **Oil and air filters** – check and replace if dirty.
- **Leaks** – have your mechanic repair them.
- **Cracked, oil-soaked or spongy hoses** – replace.
- **Battery terminals** – clean with a wire battery brush to remove corrosion.
- **Wires and cables** – have your mechanic replace them.
- **Drive belts for fans, air pumps, air conditioners** – should be checked by your mechanic because fans can come on even with the ignition off.
- **Oil** – have it changed regularly or change it yourself.
- **Tires** – keep inflated to vehicle manufacturers' specifications.
- **Wheel alignment** – test drive on a flat, traffic-free area. While maintaining an even speed, slowly release your grip on the steering wheel to see if the car veers to one side. If it does, check the tire pressure to be sure the pressure is equal on both sides. If the car still veers, take it to a mechanic.
- **Brakes** – test drive on a flat, traffic-free area; with hands lightly on the wheel, apply the brake. If the car veers to one side, take it in for a checkup.
- **Emission control system** – have your mechanic check it.
- **Tune-ups** – twice a year (at least).

ENERGY EFFICIENT DRIVING

What You Can Do.

Reduce Trips: Cutting down on vehicle miles driven reduces air pollution so form car pools and use the bus.

Combine Errands: If you must drive, do several errands on the same trip. Utah has a mandatory trip reduction program for state employees to cut the drive-alone rate by 20 percent.

Avoid Excessive Idling: When a vehicle is idling, it gets zero miles per gallon of gasoline and adds to the pollution in the air. Stop and restart a warm engine rather than let it idle for more than 30 seconds. Utah law permits drivers to turn right on red lights except where otherwise posted. Turning right on red lights (after coming to a complete stop) saves time and energy by avoiding unnecessary idling.

Warming Up: An automobile warms up faster when it is moving. Although some older cars required slightly longer warm up periods, generally 30 seconds is all the time needed. Check the owner's manual if in doubt.

Watch Speed: The optimal speed for fuel economy is about 55 mph. Most vehicles get 21 percent better mileage at 55 mph than at 70 mph. Using cruise control to maintain a constant speed is also energy efficient.

Accelerate Smoothly: A car uses more fuel while accelerating than while cruising. Reach a cruising speed as quickly as traffic conditions allow and try to avoid rapid acceleration and deceleration as well as stop and go driving.

Avoid Topping Off Gas Tanks: This wastes fuel by evaporation and pollutes the air. The problem is worse in summer.

Car Pool: If each commuter car carries one more passenger, 600,000 gallons of gasoline will be saved and 12 million pounds of carbon dioxide will be kept out of the air. Car pools and mass transit also save money, energy, and reduce traffic congestion.