

City Update

December 2013

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Why Loveland expands its all-electric fleet. How it will save the taxpayers' money.

First, set aside the ongoing debate over climate change. Global warming, and its causes, are open questions – or settled, one way or another, depending on who is asked.

With that issue out of the way, take a look at Loveland finances before and after the City's purchase of five Nissan Leaf plug-in electric vehicles, four-passenger subcompacts that replaced aging gas hogs in the municipal fleet.

Peering into the books shows why the City is poised to add three more Leafs, and retire several more junky light trucks and

conventional cars, bringing the all-electric fleet to eight by mid-2014.

Just over a year into the City's electric fleet expansion, the numbers add up to savings.

Operating costs are 29 cents per mile for each of two Nissan Leaf plug-in cars that Loveland put into service in September 2012 as part of the City's shared vehicle pool available to employees.

The older vehicles in the fleet that the Leafs replaced ran up operating costs of \$2.04 per mile.

With maintenance and operating costs less than a sixth of those for

some of the light trucks in the City's fleet, the decision to expand the allelectric inventory is simple to grasp.

In late October, three more Leafs joined the fleet, for exclusive use by Loveland utility meter readers who had been getting to and from their walking routes in some of the City's most decrepit vehicles.



Loveland added this Nissan Leaf EV, its first, to the City fleet in 2012.

"Historically, meter readers have been at the bottom of the food chain as far as vehicles go," City Fleet Manager Steve Kibler said. "One of their trucks is 21 years old, badly rusted, requires a lot of costly maintenance and gets very poor fuel mileage. It's time for these people to have better, smarter transportation."

And, cheaper.

The City launched its electric car program after analyzing costs of keeping the city's fleet of 600

The dashboard display tells Nissan Leaf drivers how much range they have, not how many gallons of fuel are in the tank.

vehicles, 100 of them passenger cars, on the road.

The cars averaged 6,000 miles annually, slurping up 500 gallons of gasoline each. The 12-mile-pergallon gas mileage is the result of cold starts and short trips, usually two miles or less, in stop-and-go city driving. Rarely did they travel more than 20 miles on a given day.

The ways the cars were used guided Kibler toward two options – battery-electric vehicles (BEVs) or plug-in hybrid electric vehicles (PHEVs), that supplement the battery with small internal combustion engines to extend their range.

Favorable terms from a Fort Collins Nissan dealer, Tynan Motors, on the all-electric Nissan Leaf helped settle the issue. So did the lower \$28,800 retail price.

While the city was not eligible for the \$7,500 federal tax credit available to private buyers, it could take advantage of a municipal lease program offered by Nissan that allowed the tax credit to apply to the federal tax liability of the auto maker's lending arm, Nissan Motor Acceptance Corporation.

The decision-making was also steered by a years-long period of wildly fluctuating, but always high, gasoline prices – and the widely

(See Plugging In, page 2)

Plugging In (continued from page 1)

accepted belief that "up" is the only direction they will go in the future.

A big segment of the automotive world, and a fair number of consumers, have heaped plenty of doubt on electric vehicles. But the technology has fought through the skepticism, especially among users.

The rate at which electric cars are being sold is outpacing the adoption of hybrid vehicles – the Toyota Prius is the most famous – during comparable marketing stages.

City employees who drive the cars are uniformly surprised at the ease of operation and quality of performance.

"This thing will knock you back in your seat," fleet manager Kibler said shortly after taking delivery of the first Leaf cars in 2012. The Leaf can accelerate from zero to 60 miles per hour in a sports-car-like 8 seconds.

That kind of performance comes with the torque – the instantly available power that flows from the Leaf's batteries to its drive train – that makes believers out of first-time PEV drivers.

All that power is also oh-so-silent. New plug-in electric vehicles emit so little sound that manufacturers and safety regulators are considering installing devices that beep softly when the cars are at rest at a stoplight or sign, to warn the visually impaired of their presence.

For as much financial sense as the PEV purchases make for the City, future acquisitions might be even more frugal.

Battery technology, for now the most expensive piece of a new electric car, is projected to improve in efficiency and fall in price over the next six years, until it reaches a price level about one-third what it was in 2008

Whatever their cost, the batteries will have to be recharged as the range of the car winds down. Options for replenishing the charge range from overnight plug-in to standard household current, taking about 16 hours and costing \$2, to faster charges at the City's charging stations (six hours, and \$6).

Electric vehicle owners can top off their batteries for free until Jan. 1 at the City's first two charging stations, located at the Civic Center at First and Washington Street and at the City Water & Power Department at Wilson Avenue and First Street.

Two additional two-cord chargers have been installed in parking lots at the Loveland Public Library and McKee Medical Center.

After Jan. 1, card readers on the

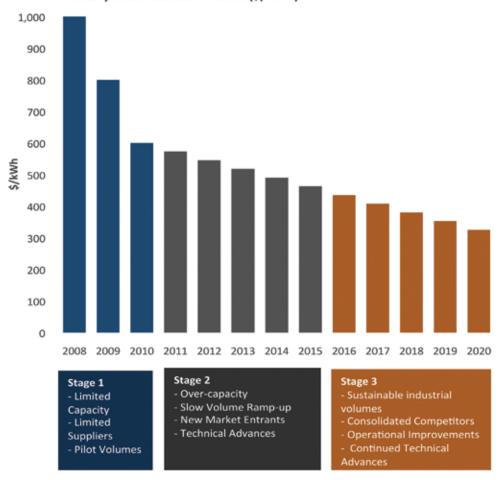


charging "pumps" will take payment from both private consumers and City departments.

By the end of January, the number of Loveland's charging stations will rise, with three new ones installed by the developers of Centerra, two each at the Marketplace and Promenade Loveland's fleet of five Nissan Leafs traveled to the Fort Collins Museum of Discovery, where a Level 1 fast charger is in place for public use, as part of a Drive Electric Northern Colorado event.

Shops retail centers and another in the vicinity of the Rangeview office buildings.

Battery Cost Reduction Profile (\$/kWh)



City's drive to electrify has partners

While Loveland takes a lead in building a fleet of zero-emission, plug-in electric vehicles, it doesn't travel that road alone.

The City of Fort Collins and Colorado State University have joined forces with Loveland, along with non-profit electric vehicle advocate

DRIVE electric

The Electrification Coalition, to form Drive Electric Northern Colorado.

The goal? Make the region a "living laboratory" that demonstrates the value of widespread deployment of electric vehicles.

The Electrification Coalition is a nonpartisan, non-profit group of business leaders committed to promoting policies and actions that reduce America's dependence on oil by facilitating the deployment of electric vehicles on a mass scale.

Learn more at www.electrificationcoalition.org.

Keep fats out of the drain

Fats, oil and grease (FOG) can cause big problems for homeowners, especially around the holidays when large meals are prepared that often include roasted or fried meats.

FOG can build up in a home's pipes, clogging interior sewer lines and resulting in big messes and even bigger repair bills. Clogged pipes in residences are the homeowners' financial responsibility.

It can do even more damage if it spreads to the sewer lines in the streets. The result can be a serious overflow leading to regulatory fines, or a backup of sewage which may pose a health hazard as well as potentially increasing citywide costs for sewer service due to greater cost for maintenance and repairs.

Oil and grease are incapable of dissolving in water. They will cling to the sewer pipe and then accumulate until they cause a sewer backup. The buildup clogs the pipes in the sewer system just like cholesterol clogs arteries.

How to avoid FOG buildup

The amount of fat, oil and grease going into the sewer can be greatly decreased by taking a few preventative measures:

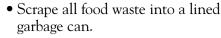
Fat, oil and grease are commonly found in:

Butter Mayonnaise
Cooking oil Salad dressing
Meats Sauces

Meats Sauces
Lard/shortening Table scraps



Above: Chunks of grease that arrived at the wastewater treatment plant. **Bottom right:** Pipe clogged with grease.

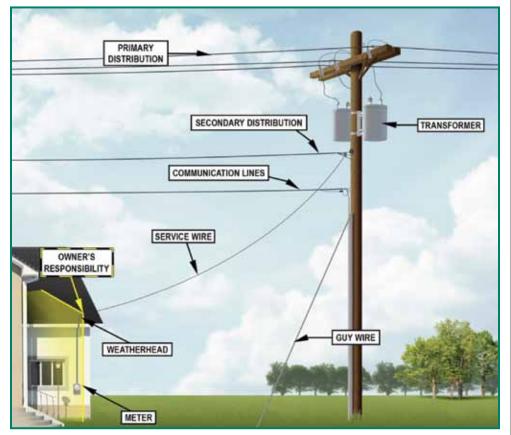


- Use paper towels to wipe oil and grease from pots and pans.
- Place waste oil and grease into a suitable container after it has cooled.
- Avoid using the garbage disposal
 keep a strainer near the sink to capture solids.
- Take liquid oil and grease (e.g. from turkey fryer) to be disposed of at the City's Recycling Center.

Homeowners and tenants should have a vested interest in the sewer line from their homes to the wastewater treatment plant. Keeping these unwanted pollutants out of the sewer benefits both residents and the City, economically and environmentally.

For more information on FOG or other waste to the sewer, contact Loveland Water and Power's Pretreatment Program at 962-3000 or Pretreatment@cityofloveland.org.

You can prevent a power outage: Here's how



Loveland Water and Power encourages customers to clear trees and tree branches from the electric service wire entering the home to prevent individual home outages. Keeping the service wire clear of tree branches is the responsibility of the utilities customer. To promote safety

during tree trimming service should be disconnected.

Call 962-3581 during normal business hours to request temporary disconnection of service at no charge. Call at least 24 hours in advance to schedule disconnection. New Year, New You!

Chilson Winter Break Passes

On sale until December 31, 2013

The Winter Break Pass is good for UNLIMITED USE of the

Chilson Recreation Center from Dec 21, 2013 -Jan 5, 2014

Youth: \$16 • Adult: \$21
College Students: \$32 (3 wks)
(with Student ID) \$42 (4 wks)

Call 970-962-2FUN for more information



700 E 4th Street, Loveland, CO 970-962-2FUN www.CityofLoveland.org

Showing at the Loveland Museum/Gallery

Authentic Form: Abstract Art Featuring Selections from the Polly and Mark Addison Collection, CU Art Museum

January 25 – April 20, 2014 Admission: \$5, free for Museum members

Guided tour at noon on Fridays, free with admission Members-only opening reception – 5:30-7:30 p.m., Friday, Jan. 24



Barbara Takenaga, Shaker Blue, 2004, Lithograph.

Gift of Polly and Mark Addison to the Polly and Mark Addison Collection, CU Art Museum, University of Colorado Boulder

Authentic Form features a wide variety of solutions to the challenges of abstraction and encompasses a broad array of artistic approaches and aesthetic tendencies. Included in the exhibition are works by many noted artists such as Josef Albers, Herbert

Bayer, Alexander Calder, Sonia Delaunay, Helen Frankenthaler, Ellsworth Kelly, Sol LeWitt, Elizabeth Murray, Louise Nevelson, Frank Stella, Barbara Takenaga and Dorothea Rockburne.

Strings in the Gallery 5-7 p.m. Thursday, Jan. 2



Joellyn Duesberry, Doudy Draw near Boulder, CO

Enjoy a performance by members of the Fort Collins Symphony Orchestra while you take in the art of Joellyn Duesberry featured in the Main Gallery. This is a free event.

The Written in Rock Project 6-7 p.m.

Thursday, Jan. 23

Local artist and rock art researcher Laurie White provides training for the Written in Rock Project on low impact rock art recording techniques. As new technologies for dating, recording and interpreting rock art evolve, researchers are able to piece together a more vivid picture of prehistoric life. White's presentation will look at local historical graffiti as a potential source of discovery and as an opportunity to connect to the past. This exhibit is in the Foote Auditorium.

Chinese New Year Celebration 5-7 p.m.

Thursday, Jan. 30

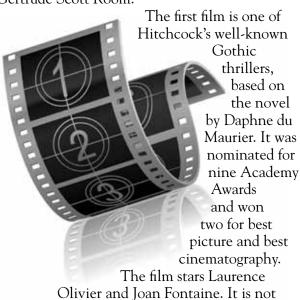


Jade Boat from the collection of Walter Huang

Celebrate the traditions and customs that accompany traditional Chinese New Year festivities. Visit the Collector's Spotlight: The Jade Boat Exhibit in the Green Room gallery and learn about the New Year red envelopes and the lantern festival. Refreshments provided.

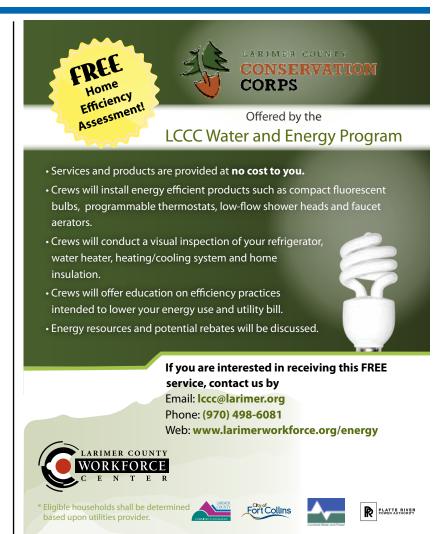
Library's Classic Movie Night series kicks off with Hitchcock classic

Beginning in January, the Loveland Public Library will present Classic Movie Nights every fourth Monday of the month in the library's Gertrude Scott Room.



Popcorn and water will be provided and all ages are welcome. For more information contact bobbi.benesh@cityofloveland.org, 962-2401.

rated and runs 130 minutes.



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