



Legislation Details (With Text)

**File #:** 09-1165      **Version:** 1      **Name:** 12/21/09 Two Hybrid Bucket Trucks  
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**Title:** Resolution to Amend Fleet and Facility FY10 Budget and Appropriate Funds to Purchase Two Plug In Electric Hybrid Aerial Trucks from DUECO, Inc. for \$432,117.00 (8 Votes Required)

**Sponsors:**

**Indexes:**

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**Attachments:**

Date	Ver.	Action By	Action	Result
12/21/2009	1	City Council	Approved	Pass

Resolution to Amend Fleet and Facility FY10 Budget and Appropriate Funds to Purchase Two Plug In Electric Hybrid Aerial Trucks from DUECO, Inc. for \$432,117.00 **(8 Votes Required)**

The attached resolution authorizes the purchase of one 2009 International model 4300 truck chassis equipped with Terex-Telelect model TL 50M aerial device and a Plug In Electric Hybrid System at \$229,900.00 and one 2010 Ford F-650 truck chassis equipped with Terex-Telelect model LT36 aerial device and a Plug In Electric Hybrid System at \$202,217.00 for a total of \$432,117.00, from DUECO, Inc. of Waukesha, WI. Funds are available for the truck purchase as follows, \$269,117.00 from the approved Fleet and Facility Unit FY10 budget and \$163,000.00 from the Major Streets Fund's fund balance.

Both of these trucks are plug-in electric vehicles (PHEV).The system consists of a large battery pack and an electric motor system which provides propulsion assist and regenerative braking fully integrated with the trucks conventional diesel engine and transmission. With a fully charged battery pack the PHEV will continually operate the aerial device, all safety lighting, and climate control in the cab for up to 4 hours without running the diesel engine. Driving to and from the job site will be the only time that the engine will need to be operated in most cases. When the unit is not plugged in and the battery pack falls below a 50% charge, the diesel engine will automatically start and run for approximately 10 minutes to bring the battery to an 80% charge. We estimate that this reduction in engine run time will reduce the vehicles fuel consumption by 8 to 12 gallons per day of operation.

These units will replace both truck #4602, a 1997 unit that has been in service 13 years with 8,900 hours of operation, and truck #4614, a 1998 unit in service for 11.5 years with 12,190 hours of operation.

Unit #4602 is currently used only as a tow vehicle for trailers, its aerial device is unsafe to operate do to a broken mounting bracket that connects its bucket to the boom. The mounting bracket is obsolete and no longer available. It would cost an estimated \$20,000.00 to upgrade the entire bucket and boom. DUECO, Inc. has supplied the City with their demo hybrid truck for use while we pursue a

replacement for #4602. We propose purchasing this demo truck which has a 50' aerial device, an 8' increase over the existing truck. This increase in reach will allow us to safely maintain Civil Defense sirens in addition to the tasks normally performed by our existing aerial unit.

DUECO, Inc. agreed to allow us use of their demo truck at no charge until January 1, 2010 under the condition that the City agrees to purchase it or return the unit by that date. If a purchase order is not issued by January 1, 2010, the City will be responsible, retroactively, for a rental fee of \$6,000.00 per month with a total not to exceed \$24,000.00 for its use.

Unit #4614 is experiencing increased downtime due to its age. For its service life, it has averaged 1.25 repairs per month with that number increasing to over 2 repairs per month for the last year. Each of these repairs takes the van out of service for a minimum of 2 hours. In the last year, approximately 50% of the repairs for this unit have caused it to be out of service for over 8 hours. This van is used for emergency repair to traffic signals. The reliability issues with this vehicle are affecting our ability to safely operate the City's traffic control systems. We are proposing to replace this truck with a 36' aerial device which will be a 7' increase over the existing truck. This will allow us to reach and maintain all current street lights in the City.

DUECO, Inc. is the sole supplier offering a plug in electric hybrid aerial truck in the United States. In addition, they are the sole supplier of the Terex-Telelect aerial device in the State of Michigan. All of the City of Ann Arbor's aerial trucks are Terex-Telelect brand with interchangeable parts, which allows a substantial reduction in parts inventory and allows for consistency in operator and repair technician training.

On August 26, 2009 the Clean Energy Coalition (CEC) announced it was awarded \$14.97 Million in grant funds from the US Department of Energy as part of the American Recovery & Reinvestment Act (ARRA). These funds are for the CEC's "Michigan Green Fleet" project to expand the use of alternative fueled and advanced technology vehicles and infrastructure across Michigan. The Fleet and Facility Unit of the Public Services Area partnered with CEC on its application for this grant for the purchase of compressed natural gas powered and hybrid vehicles for the City's fleet.

The CEC is in the process of completing its grantee agreement with the DOE for these funds, once completed it will enter into a sub grantee agreement with the City of Ann Arbor to refund 100% of the additional cost to purchase the hybrid system on these trucks. This cost is \$85,000.00 for the 36kW system and \$78,000.00 for the 10kW system for a total of \$163,000.00. To qualify for these funds, the DOE requires that the City have a signed sub grantee agreement with the CEC before a check is issued to the equipment supplier. The CEC expects to have their agreement with the DOE complete before January 1, 2010. Upon completion of their agreement, they will provide the City the required sub grantee agreement which we anticipate bringing to Council for approval by the second regular meeting in February 2010.

The City was anticipating having the sub grantee agreement available for Council action in December, but this was delayed because the CEC and DOE have not yet finalized their agreement. Delaying the approval to purchase these trucks until approval of the sub grantee agreement is made will result in the City having to pay the \$24,000.00 rental fee for the demo truck and further delay the delivery of the second truck. DUECO, Inc. has agreed to delay invoicing the City for the purchase of the demo truck until the sub grantee agreement is completed.

The Fleet and Facility Unit has adequate funds available in its FY10 budget for the purchase of

standard aerial trucks, the additional cost for the hybrid systems of \$163,000.00 will come from the Major Streets Fund's fund balance. When the grant funds from CEC are made available as anticipated, the \$163,000.00 will be returned to the Major Streets Fund.

DUECO, Inc. received Human Rights approval on November 23, 2009.

Prepared by: Thomas A Gibbons, Financial Analyst - Fleet and Facility Unit

Reviewed by: Matthew J. Kulhanek, Fleet & Facility Manager, Sue F. McCormick, Public Services Administrator

Approved by: Roger W. Fraser, City Administrator

Whereas, The Fleet and Facility Unit needs to purchase two replacement aerial trucks for the City's fleet;

Whereas, DUECO, Inc. is the sole supplier of Terex-Telelect aerial devices in the State of Michigan;

Whereas, Adequate funds for the purchase of standard aerial trucks are available in the Motor Equipment Fund FY10 budget;

Whereas, Adequate funds for the plug in electric hybrid system portion of this purchase are available in the Major Streets Fund's fund balance;

Whereas, The City anticipates entering into a sub grantee agreement with the Clean Energy Coalition which will refund \$163,000.00 into the Major Streets Fund; and

Whereas, DUECO, Inc. received Human Rights approval on November 23, 2009;

RESOLVED, That the City Council approves an amendment to the Fleet and Facility Unit budget by appropriating \$163,000.00 from the Major Streets Fund Balance;

RESOLVED, That City Council approve the issuance of a purchase order to DUECO, Inc. for the purchase of one 2009 International model 4300 truck chassis equipped with Terex-Telelect model TL 50M aerial device and Plug In Electric Hybrid System at \$229,900.00 and one 2010 Ford F-650 truck chassis equipped with Terex-Telelect model LT36 aerial device and Plug In Electric Hybrid System at \$202,217.00 for a total of \$432,117.00 from the FY 2010 Motor Equipment Fund budget with the funds to be available without regard to fiscal year;

RESOLVED, That the two vehicles being removed from service, #4602, and #4614, be sold at the next City vehicle auction; and

RESOLVED, That the City Administrator be authorized to take the necessary actions to implement this resolution.